No. 122798

IN THE
SUPREME COURT OF ILLINOIS

THE PEOPLE OF THE STATE OF ILLINOIS, Petitioner-Appellant, v. ILLINOIS POLLUTION CONTROL BOARD, Respondent-Appellee.	)	On Appeal from the Appellate Court of Illinois, Third Judicial District, Nos. 3-15-0637 & 3-16-0058 (cons.) There Heard on Direct Administrative Review from an Order of the Illinois Pollution Control Board, No. R2012-009(B).

[Full Caption on Next Page]

BRIEF AND APPENDIX OF PETITIONER-APPELLANT THE PEOPLE OF THE STATE OF ILLINOIS

LISA MADIGAN
Attorney General
State of Illinois

DAVID L. FRANKLIN
Solicitor General

100 West Randolph Street
12th Floor
Chicago, Illinois 60601
(312) 814-3312

Attorneys for Petitioner-Appellant
the People of the State of Illinois

CARL J. ELITZ
Assistant Attorney General
100 West Randolph Street
12th Floor
Chicago, Illinois 60601
(312) 814-2109
Primary e-service:
CivilAppeals@atg.state.il.us
Secondary e-service:
celitz@atg.state.il.us

ORAL ARGUMENT REQUESTED

E-FILED
8/2/2018 12:10 PM
Carolyn Taft Grosboll
SUPREME COURT CLERK

No. 122798

IN THE
SUPREME COURT OF ILLINOIS

THE PEOPLE OF THE STATE OF ILLINOIS, Petitioner-Appellant, v. ILLINOIS POLLUTION CONTROL BOARD, Respondent-Appellee (No. 3-16-0058).	On Appeal from the Appellate Court of Illinois, Third Judicial District, Nos. 3-15-0637 & 3-16-0058 (cons.) There Heard on Direct Administrative Review from an Order of the Illinois Pollution Control Board, No. R2012-009(B).
COUNTY OF WILL and WILL COUNTY LAND USE DEPARTMENT, Petitioners-Appellants, v. ILLINOIS POLLUTION CONTROL BOARD, Respondent-Appellee (No. 3-15-0637).	

POINTS AND AUTHORITIES

Page(s)

NATURE OF THE CASE

Construction and demolition activities generate large amounts of discarded material and soil. Approximately 60 commercial operations in 18 Illinois counties accept this material for deposit below grade in quarries, mines, and other excavations when it is characterized under the Illinois Environmental Protection Act (Act) as either "clean construction or demolition debris" (CCDD) or "uncontaminated soil fill" (USF).

In 2011, pursuant to amendments to the Act requiring the adoption of regulations to "protect groundwater" from contamination by CCDD and USF, the Illinois Environmental Protection Agency (IEPA or Agency) proposed rules to the Illinois Pollution Control Board (Board), and the Board held public hearings. A part of the proposed rules, designated "Subpart G," required groundwater at CCDD and USF operations to be tested annually, and that any contamination discovered and caused by fill be remediated by the facility's operator. Over objections from members of the public, local officials, IEPA, and the People, the Board modified IEPA's proposal to eliminate Subpart G, adopting final rules after making changes that more tightly regulate the soil allowed to be deposited at these facilities.

On direct review the appellate court, with one justice dissenting, determined that the Board's decision to strike Subpart G was not arbitrary, capricious, or unreasonable. The rule as amended was upheld. This Court granted the People's and Will County's petitions for leave to appeal.

ISSUE PRESENTED FOR REVIEW

Whether, on the administrative record presented, the Board's rulemaking order rejecting the Subpart G proposal should be reversed as arbitrary, capricious, or unreasonable because the final rule contains no standards or procedures for groundwater monitoring at regulated CCDD and USF facilities, and so fails the statutory requirement of "protect[ing] groundwater" from the threat of contamination.

STATUTES INVOLVED

Section 22.51(f)(1) of the Act provides, in relevant part, as follows:

[T]he Board shall adopt . . . rules for the use of [CCDD] and [USF] at [CCDD] fill operations. The rules must include standards and procedures necessary to protect groundwater, which may include, but shall not be limited to, the following: requirements regarding testing and certification of soil used as fill material, surface water runoff, liners or other protective barriers, monitoring (including, but not limited to, groundwater monitoring), corrective action, recordkeeping, reporting, closure and post-closure care, financial assurance, post-closure land use controls, location standards, and the modification of existing permits to conform to the requirements of this Act and Board rules . . . .

415 ILCS 5/22.51(f)(1) (2016).

Section 22.51a(d)(1) of the Act provides, in relevant, part as follows:

[T]he Board shall adopt . . . rules for the use of [USF] at [USF] operations. The rules must include standards and procedures necessary to protect groundwater, which shall include, but shall not be limited to, testing and certification of soil used as fill material and requirements for recordkeeping.

415 ILCS 5/22.51a(d)(1) (2016).

STATEMENT OF FACTS

Procedural History

In 2011, and pursuant to sections 22.51 and 22.51a of the Act, 415 ILCS 5/22.51, 22.51a (2010), IEPA proposed amending the Board's rules regarding CCDD and USF[1] when used as fill at quarries, mines, and other excavations, 35 Ill. Admin. Code § 1100. R. 51-69. The Board held public hearings on the proposal, during which IEPA provided testimony. Tr. 9/26/11; Tr. 10/25/11, pp. 1-270; Tr. 10/26/11, pp. 1-116. The Agency explained that the proposal included, among other things, two testing components that would limit the amount of contaminated soil entering fill sites: (1) "front-end" procedures that required those generating fill materials to ensure that each load is within certain prescribed limits, and screening of each load upon arrival at a CCDD or USF site by operators for any evidence of contamination; and (2) regular "back-end" monitoring of the groundwater at fill sites by operators to confirm that the CCDD and USF deposited into the ground is not contaminating groundwater. R. 553-87. If groundwater contamination were discovered during this monitoring, the site owner was required to give written notice to the Agency within 60 days, and thereafter undertake "corrective action" to

---

[1] CCDD refers to "uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed or other asphalt pavement, or soil generated from construction or demolition activities." 415 ILCS 5/3.160(b) (2016). USF means "soil that does not contain contaminants in concentrations that pose a threat to human health and safety and the environment." 415 ILCS 5/3.160(c) (2016).

remediate the risk. *See* R. 639. The Board also sent a request to the Illinois Department of Commerce and Economic Opportunity (DCEO) to prepare an economic impact study on IEPA's proposal, R. 644-45, but DCEO declined to prepare one, R. 765.

In February 2012, on "first notice," the Board amended the proposed rules to eliminate Subpart G that had required the back-end groundwater monitoring proposed by the Agency. R. 1011-1126. It held an additional hearing in March 2012, seeking comment particularly on DCEO's decision not to conduct an economic impact study. Tr. 3/13/12, pp. 1-134; Tr. 3/14/12, pp. 1-82. With regard to its decision to strike Subpart G, the Board reasoned that there was no existing evidence showing that CCDD or USF was a source of groundwater contamination, and "considering the potentially sizeable costs for groundwater monitoring," determined that the record did not support including monitoring in the final rules. R. 1011.

On "second notice," in a subsequent Order and Opinion issued in June 2012, the Board changed the proposed rule requiring pH testing of soil from all source sites, and established maximum allowable concentrations (MACs) for contaminants based on a soil pH range from 6.25 to 9.0 for pH-dependent chemical contaminants. R. 1678. The proposed rule prohibited site owners and operators from accepting soils with a pH outside those parameters, regardless of the applicable MACs. *Id.* The Board stated that it remained

"unconvinced" of the need for operators to monitor the groundwater beneath their sites. R. 1679.

In August 2012, the Joint Committee on Administrative Rules (JCAR), a bipartisan, bicameral legislative support services agency composed of members of the Illinois General Assembly, 5 ILCS 100/5-90 (2016), approved the rules as modified by the Board, but also recommended that the Board give additional consideration to whether groundwater monitoring should be required. R. 1813. The Board responded by adopting the final rule, effective September 7, 2012, accepting changes recommended by JCAR. R. 1816-59; R. 1864. The Board opened a special docket designated "subdocket B." *See* R. 1160-61. A hearing officer then sought comment from any interested person on whether the Board should also require groundwater monitoring at CCDD and USF facilities as part of the rules. R. 47-48.

The "Subdocket B" Hearing

After receiving initial comments, the Board held a public hearing in 2013, Tr. 5/20/13, pp. 1-227, after which its hearing officer set forth additional questions and received further comments, R. 472-75. Public officials from areas accepting fill materials generally supported IEPA's groundwater monitoring proposals, believing them to be economical, beneficial, and consistent with the Act's 2010 amendments, and so they urged that Subpart G should be included in the final rules. PC49, 54, 55, 57, 61. They contended

that requiring CCDD sites to install groundwater monitoring systems would provide the essential checks and balances necessary to ensure local community water supplies are protected from contamination. *E.g.*, PC52. One official noted that, despite the pH limits imposed by the Board on soil fill, acidic precipitation could still mobilize contaminants. PC49. Another observed that only catching contamination early after fill is received would allow for the possibility of remediation. PC61.

The People observed that Illinois groundwater faced a risk of contamination at many existing sites not just from new fill, but also from fill placed into the ground between 1997 and 2010, before operators had any obligation to comply with the front-end protections. PC63, pp. 12-13. This meant that, without Subpart G, the rules would do nothing to protect water from contamination from non-compliant materials placed into the ground before 2010. *Id*.

The Land Reclamation and Recycling Association, an association representing fill operators, argued that groundwater monitoring was unnecessary because there was no existing data showing a need for it. PC58. It pointed to information from one of its members, Reliable Lyons. PC58, pp. 5-8. Water pumped from the bottom of its 54-acre permitted CCDD site into the Des Plaines River (*i.e.*, not from groundwater monitoring wells) showed no contamination when tested against Class I drinking water standards. *Id.*

James Huff, of Huff & Huff, Inc., testified on behalf of the Illinois Transportation Coalition. PC59. He contended that the effective protection of groundwater could be achieved by the rules through "regulating the quality of CCDD," and noted that there are two costs associated with groundwater monitoring of concern. PC59, p. 2. The first is the "capital and operating costs" of obtaining and testing the water, and the second is the costs that result if contaminants above regulatory limits are discovered, requiring operator remediation. *Id.* Huff suggested that the first cost is a "known" cost that owners can calculate and then accommodate through the price mechanism. *Id.* But the second cost he characterized as "totally unknown and uncontrollable and clearly the largest concern to the industry." *Id.* He pointed out that, to the extent that quarries have been receiving CCDD and USF for years without screening, implementing groundwater monitoring now would detect contamination from past practices. *Id.* Without some way to address environmental impacts from these past practices, operations accepting fill under the new rules would risk discovering older CCDD and USF contamination. *Id.* And this risk, he opined, would be a "major disincentive" for fill operators to continue in business, suggesting many would choose to close down rather than test the water under their sites. *Id.* at p. 4.

An environmental organization, Citizens Against Ruining the Environment (CARE), offered comments on behalf of its members, most of whom live in Will County, where there are many CCDD and USF facilities.

PC60. CARE is concerned that contamination from fill will affect groundwater because it can aggregate over time, and because these sites do not have liners like landfills have to prevent migration. PC60, pp. 1-2. CARE believed that the legislature had mandated a "preventative approach" to groundwater contamination by requiring administrative regulations that protect groundwater, and that fill operators could never achieve perfect compliance, even with the front-end screening standards. *Id.* at p. 2. This means that monitoring is necessary to discover the contamination that will inevitably appear in groundwater. *Id.* To make the point that operators do not always comply with the rules governing CCDD and USF, CARE cited several recent enforcement actions brought against fill operators. *See id.* at Exh. 2.

The IEPA noted that the legislature had concluded that there is potential for groundwater contamination from facilities accepting large quantities of soil from "nearly unlimited sources and locations that may contain concentrations of contaminants." PC62, p. 2. It characterized the monitoring provisions of its proposed rule as "*the single most important measure for achieving groundwater protection.*" *Id.* (emphasis in original). It explained that it had included monitoring in the proposed rules as part of a "multi-barrier approach," with monitoring being the "final check" on the front-end control practices that it believed, by themselves, would be of only "limited effectiveness." *Id.* at pp. 2-5.

The Agency also raised concerns about imperfect certification procedures and limitations on the available tools used to detect contaminants in soil, the large quantities of soil being accepted at many operations, the frequent placement of soil directly into the saturation zone, the absence of design controls such as liners at these facilities, and the impracticality of installing retrofitting design controls in former quarries. PC62, p. 8. It believed that fill operators would not find complying with the front-end procedures to be a "simple task," nor would front-end compliance even be in their direct financial interests given the latency of discovering water pollution absent a rule that included regular groundwater monitoring. *Id.* at p. 10.

The Agency believed the main reason there is no data showing groundwater contamination in Illinois from fill at permitted sites is because operators are not required to monitor groundwater. Exh. 63, p. 24. With regard to the Reliable Lyons site, where water pumped into the Des Plaines River showed no exceedances above the Class I groundwater standards, the Agency viewed the tests to be unrepresentative because large amounts of surface water diluted the samples, so most of the tested water had never come into contact with the CCDD materials. *Id.* at 15. This likely masked any contamination. *Id.*

The need for a second layer of protection was specifically discussed by one of IEPA's witnesses, Richard P. Cobb, a licensed professional geologist and

the Deputy Manager of the Division of Public Water Supplies of IEPA's Bureau of Water ("BOW"). Exh. 26. He explained that "although important, the certification and screening procedures have their limitations and cannot be expected to carry the entire weight of protecting against groundwater contamination." *Id.* at p. 3. Cobb believed that groundwater monitoring would act as a check on the effectiveness of the certification and screening procedures, provide incentive for fill site owner/operators to maintain and improve their load checking practices, and serve as a protective measure by identifying groundwater contamination from fill operations and triggering corrective action before contamination reached costly proportions. *Id.* at p. 4.

In public comments, many officials emphasized the importance of clean groundwater to the public's health. State Senator McGuire characterized monitoring as "absolutely essential" because of the need to protect community drinking water supplies, particularly in Will County where he noted that 71% of residents rely on a shallow aquifer for their potable water. Tr. 5/20/13, p. 12; *see* PC50. House Representative Tom Cross stated that groundwater monitoring provided the "necessary checks and balances" required to ensure that local community water supplies are protected from contamination. PC51.

Stuart Cravens, a licensed professional geologist, stated that contaminants can migrate "tens of feet per day" through an aquifer towards waterways or areas of groundwater withdrawal. Exh. 55, pp. 1-2. This means

that the existence of contamination from CCDD or USF can manifest far from a fill site, well after these materials were initially deposited into the ground. *See id.*

Huff, in providing additional testimony, stated that the CCDD industry had been lightly regulated for years and complained that requiring groundwater monitoring at existing facilities would serve only to expose it to the "historic impacts" of these deposits. Exh. 58, p. 4. He believed that a fairer procedure than the one proposed by Subpart G would be to develop a "baseline" for monitoring that would "grandfather" any pre-existing contamination. *Id.*

The People presented testimony from Assistant Attorney General Stephen Sylvester of the Illinois Attorney General Office's Environmental Bureau. Exh. 59; Tr. 5/20/13, pp. 82-98. Sylvester was involved with the initial drafting of the proposed rule on behalf of the Attorney General's Office. *Id.* He explained that, before it had been modified by the Board, the rule presented a "dual approach" to the groundwater protection problem, with the front-end screening working to keep contamination out of the fill sites, and the back-end monitoring serving as a check on the effectiveness of the practices of originators, haulers, and site operators by checking groundwater under the fill once placed into the ground. Exh. 59 at p. 4. He believed this dual approach was particularly important where groundwater near fill sites was being used as

drinking water. *Id.* Sylvester added that without including some type of monitoring in the rules, any contamination from CCDD or USF would be discovered first in drinking water, and that any scenario involving contaminated drinking water would be "at odds with the General Assembly's requirement that the Board promulgate standards and procedures necessary to protect groundwater." *Id.*

Sylvester pointed out that, from 1997 to 2005, no regulations existed for CCDD, and so no permits were required for operators during that time. *Id.* at p. 6. It was only in 2005 that the Act was amended to include a requirement that loads of CCDD be checked with a PID or an equivalent device to screen fill material for dangerous volatile organic compounds (VOCs).[2] *Id.* Sylvester commented on the People's experience with a CCDD site in Lynwood, Illinois, that accepted fill from 1997 to 2003 where an operator at that time filled a pit past its capacity, in violation of the Act, *People v. J.T. Einoder, Inc.* (Cook County Circuit Court No. 00 CH 10635). *Id.* at p. 8. Groundwater monitoring there showed widespread exceedances for arsenic, iron, lead and manganese, as well as eight VOCs. *Id.* at pp. 8-10.

---

[2] Volatile organic compounds in water present a serious environmental concern because they can cause cancer and other serious health effects. *See* 415 ILCS 5/17.10 (2016); USGS Circular No. 1292, "The Quality of Our Nation's Waters: Volatile Organic Compounds in the Nation's Ground Water and Drinking-Water Supply Wells," (2006) (https://on.doi.gov/2zqZuWP (last visited July 30, 2018)).

John Henriksen testified for the Illinois Association of Aggregate Producers (IAAP). *See* PC34; PC69; Tr. 5/20/13, pp. 187-91. He stated that the more the industry is regulated, the more likely operators will be driven out of business, and then fill materials will be deposited at unregulated sites, or at costly solid-waste landfills. *Id.* at p. 189.

In post-hearing comments, Richard Olsen from VCNA Prairie, Inc., stated that he would have to reassess his company's operations if groundwater monitoring were required. PC67, p. 1. He believed unregulated sites posed a greater risk to groundwater, and estimated that landfilling CCDD and USF is more than three times as expensive as using it as fill in quarries, mines, or other such excavations. *See id.* Todd Daniels of Sexton Properties, R.P., LLC, stated that his company, which runs a CCDD facility in Richton Park, Illinois, would consider closing if groundwater monitoring were implemented. PC68, p. 1. He contended that data submitted to the Board suggested only that contamination at CCDD operations had occurred before implementation of the more stringent front-end screening requirements. *Id.* at p. 2. And Huff again suggested that Illinois sites would close their operations rather than face the prospect of annual groundwater monitoring. PC71, pp. 3-4.

In its post-hearing comments, CARE asserted that there had been 175 enforcement actions by the Agency since 2002 involving CCDD, and 11 since the Part 1100 regulations governing CCDD and USF went into effect. PC73,

pp. 1-2. These showed that rule violations involving these materials are "quite common." *Id.* at p. 5. Second, CARE argued that groundwater would not be "protected" as required by the Act if the first indication of groundwater contamination is a discovery that public or private drinking water supplies have been fouled. *Id.* at p. 6. Third, it argued that the cost of groundwater monitoring is "reasonable, particularly when balanced against the detrimental impact of undetected, contaminated groundwater resources." *Id.* at p. 8. Fourth, CARE believed that groundwater monitoring should not be self-implementing, but that recorded data should be submitted to the Agency even where there are no indications of contamination. *Id.* at p. 9. Given what it viewed as the high level of industry non-compliance, CARE argued that "a self-reporting system is essentially the same as having no groundwater monitoring at all." *Id.* And fifth, CARE urged that groundwater monitoring remain "in combination with front-end screening," providing "the best opportunity to protect citizens who use groundwater as their main source of drinking water." *Id.* at p. 10.

In its post-hearing comments, IEPA asserted that the intent of the General Assembly was to protect the State's groundwater by "the *prevention* of groundwater contamination." PC74 at p. 2 (emphasis in original). It further argued that only groundwater monitoring under CCDD and USF operations "can provide the information necessary to fully understand and evaluate the

threat," and that without monitoring there is no mechanism to identify contamination to allow preventative action. *Id.* at p. 3.

With regard to the potential failures of front-end screening, the Agency pointed to sampling conducted in 2012, when it took measurements at various sites exceeding the MACs and/or pH limits in soil at 10 of 12 CCDD facilities. *Id.* at p. 5 (referring to Exh. 63 at p. 9). It also noted the information submitted by the IAAP that showed seven incidents of compounds above the proposed MACs in 44 samples taken from 44 borings at three sites. PC74, p. 5 (*see* Exh. 12, pp. 3-5). There were 36 samples with metals above their respective MACs. *Id.* The Agency also reviewed 417 load rejection sheets from fill operations between September 2012 and June 2013, and determined that 65% were due to high PID readings, suggesting many loads contained VOCs that had been missed by the originators of the material. *Id.* at p. 6.

The Agency stated that once soil has been accepted at fill sites, any contamination will "very likely" migrate to groundwater. PC74, p. 8. This was a concern because fill operations prior to 2006 had none of the mandatory front-end screenings later implemented to detect contamination, and originators had no obligation to certify materials. *Id.* Contamination risk at CCDD and USF sites is exacerbated by the large volumes of soil being collected at these sites over many years, infiltration of acidic precipitation, the placement of these materials into the saturation zone, and the complete lack of technological controls such as liners. *Id.* at pp. 8-9. The Agency contended

that site owners could allocate the costs of monitoring through the "tipping fees" charged to customers: "the increased cost for groundwater monitoring . . . is just a fraction of the current tipping fees per cubic yard." *Id.* at p. 9.

The Board's Opinion

In its order closing subdocket B, in 2015, the Board, with two of its members abstaining, remained "unconvinced that groundwater monitoring for permitted CCDD and [USF] sites is required for the protection of groundwater." R. 538 (A63). It observed that CCDD and USF are not defined by the Act to be "waste" when properly handled, and pointed to the statutory exception that has allowed the Illinois Department of Transportation (IDOT) and county and municipal road construction projects to dispose of materials at "borrow pits" without groundwater monitoring. *Id.* The Board believed that because borrow pits also use front-end methods for determining what materials can be placed into the ground, there was no need for groundwater monitoring under the regulations at quarries and other large facilities because the front-end screening imposed on fill sites were actually governed by "more stringent requirements." *Id.*

And the Board stated that it remained unconvinced that the front-end safeguards in the adopted regulations will fail. *Id.* at 540 (A65). Although it acknowledged that the Lynwood site showed contamination, it noted that Reliable Lyons showed no contamination in its dewatering operation. *Id.* The

Board reasoned that although "evidence of enforcement actions and evidence regarding sites not regulated under Part 1100 were offered, the record still does not provide indications of groundwater contamination at sites that are permitted under Part 1100." *Id.*

In separate petitions for review, the People and Will County (along with its Land Use Department), sought review in the appellate court pursuant to Illinois Supreme Court Rule 335 (eff. Feb. 1, 1994) and sections 29(a) and 41(a) of the Act, 415 ILCS 5/29(a), 5/41(a) (2016).

The Appellate Court's Decision and the Dissent

In affirming the Board's decision on administrative review, the appellate court observed that the final rules adopted by the Board must stand unless shown to be arbitrary, capricious, or unreasonable. *Cty. of Will v. Ill. Pollution Control Bd.*, 2017 IL App (3d) 150637-U, ¶ 52 (A82). The court rejected the People's contention that the Board had given unwarranted consideration to the fact that compliant CCDD and USF were exempted from the definition of "waste" under the Act. *Id.* at ¶ 63 (A85). The court also rejected the People's arguments that the Board had overlooked the risk posed to groundwater from materials deposited before any front-end regulations had been implemented. *Id.* at ¶ 66 (A86). Instead, the court held that the existence of older unscreened fill at CCDD and USF sites was merely evidence that the Board had determined not to give as much weight in deciding to strike Subpart G as the People and Will County would have liked. *Id*. The court determined that

the Board had relied upon sufficient evidence to support its decision to strike Subpart G, given that IEPA did not identify any groundwater contamination caused by CCDD and USF. *Id.* at ¶ 77 (A89).

The dissent in the appellate court said the Board's decision was "counter to the evidence," and so implausible "that the Board's reasoning cannot be ascribed to a difference of viewpoints or the product of the Board's superior expertise." *Id.* at ¶ 82 (A89). The dissent noted that there were "serious gaps at every stage of the front-end screening process," gaps that logically mandated some sort of back-end check to confirm that groundwater had not been contaminated. *Id.* at ¶ 88 (A91). This included that most of the material delivered to CCDD and USF operations under the new rules would never be professionally tested, instead being "self-certified" by the source site originator. *Id.* at ¶ 90 (A92). The "Board's conclusion that front-end regulations are sufficient turns a blind eye to reality," *id.* at ¶ 102 (A95), the dissent concluded, pointing out the tendency of contaminants in soil to aggregate over time, *id.* at ¶ 106 (A95).

The dissent was most critical of the Board's determination that since contamination of Illinois groundwater has yet to be documented at a permitted site, there is no need for back-end groundwater monitoring: "[T]his is the weakest, most irrational, and arbitrarily flawed reasoning the Board provided to support a result-oriented decision to strike Subpart G as desired by the industry." *Id.* at ¶ 110 (A96-97). The dissent observed that industry

representatives had offered no groundwater testing results from the 60 Illinois sites that currently accept fill, concluding that the "absence of proof concerning the current well-being of groundwater at current fill sites is telling." *Id.* at ¶ 112 (A97). The dissent concluded that the proceedings should be remanded to the Board with directions that it incorporate some form of groundwater monitoring procedures and corrective action, where warranted, into the Part 1100 regulations. *Id.* at ¶ 127 (A102).

ARGUMENT

I. Standard of Review

The Board gets its authority to promulgate rules pursuant to section 27 of the Act, 415 ILCS 5/27 (2016), and the Illinois Administrative Procedures Act, 5 ILCS 100/5-5 *et seq*. (2016). The latter provides the procedures for agency rulemaking, which require public notice and comment, as well as approval by JCAR. *See* 5 ILCS 100/5-40, 5-45, 5-50 (2016). Quasi-legislative decisions by agencies are not always subject to judicial review, *see E. St. Louis Sch. Dist. No. 189 Bd. of Educ. v. E. St. Louis Sch. Dist. No. 189 Financial Oversight Panel*, 349 Ill. App. 3d 445, 449-50 (5th Dist. 2004), but sections 29(a) and 41(a) of the Act allow any person adversely affected or threatened by any rule or regulation of the Board to obtain direct review in the appellate court. 415 ILCS 5/29(a), 41(a) (2016).

A reviewing court will not reverse a Board's order involving rulemaking unless it is shown to be arbitrary, capricious or unreasonable. *Id.* at 162; *Celotex Corp. v. Pollution Control Bd.*, 94 Ill. 2d 107, 125 (1983). That standard is met where the Board's decision: (1) relies on factors which the legislature did not intend for the Board to consider; (2) entirely fails to consider an important aspect of the problem; or (3) offers an explanation for its decision which runs counter to the evidence before it, or which is so implausible that it could not be ascribed to a difference in view or the product of its expertise. *Greer v. Ill. Hous. Dev. Auth.*, 122 Ill. 2d 462, 505-06 (1988);

cf. People v. Pollution Control Bd., 103 Ill. 2d 441, 450 (1984) (reversing and remanding Board order on finding rule adopted represented "an arbitrary and capricious use" of regulatory power).

II. The Board's Final Rule Fails to Protect Groundwater at CCDD and USF Facilities from Older Contamination, Negligent Oversight, Accident, and Malicious Dumping.

Despite its legislative mandate to promulgate administrative rules that include standards and procedures that "protect groundwater" at CCDD and USF sites, 415 ILCS 5/22.51(f)(1), 22.51a(d)(1) (2016), the Board's final rule does nothing to detect or remedy older fill contamination, or contamination caused by lax oversight, accident, or scofflaws. Such regulatory lapses make the Board's final rule arbitrary, capricious, and unreasonable, particularly where the record establishes that many of the State's residents rely on clean groundwater as their primary source of potable water. *E.g.*, Tr. 5/20/13, p. 12; *see* PC50. It is these residents who will either be poisoned or will bear the high costs and inconvenience of living without direct access to drinkable water if contaminants from non-compliant fill migrates into local wells. Moreover, as explained below, the contamination hazard from CCDD and USF has grown over time along with the CCDD and USF industry.

A. 1997: CCDD Is Exempted from the Act's "Waste" Definition and Allowed to Be Deposited into Open Pits.

The risk posed to groundwater from CCDD and USF began in 1997, when CCDD was first allowed to be used as fill in Illinois, avoiding the need to

send these materials to landfills. That year, the General Assembly passed Public Act 90-475 (eff. Aug. 17, 1997), adopting new statutory definitions and relaxing the requirements for disposing of construction and demolition waste. At that time, construction and demolition debris materials were divided into two categories, "general" and "clean." *Id.*; *see* 415 ILCS 5/3.160(a) & 5/160(b) (1998). CCDD was defined as "uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement," including "dirt or sand," whenever generated from construction or demolition activities. *See id.* The amendment provided that CCDD would not be considered "waste" if used as fill material below grade outside of a setback zone if covered by sufficient uncontaminated soil to support vegetation within 30 days of the completion of filling—or if covered by a road or structure. *Id.*

In contrast, general construction or demolition debris (GCDD), such as non-hazardous painted, treated, and coated wood and wood products, wall coverings, plaster, drywall, plumbing fixtures, non-asbestos insulation and roofing shingles, remained subject to higher scrutiny. These were required to be disposed at solid waste landfills that were subject to groundwater monitoring, or sent to a recycling facility required to "control, manage, and dispose of any . . . leachate[3] generated at the facility." *See* 415 ILCS 5/22.38(b)(8) (1998).

---

[3] "Leachate means liquid that has been or is in direct contact with a solid waste." 35 Ill. Admin. Code § 810.103.

The amendment creating the new CCDD category meant that, to the extent allowed by federal law, CCDD could be disposed by operators without the need even to document a load's source, and without any screening or load checking before operators could accept fill for deposit into the ground. This was true even though GCDD and CCDD would often come from the same originating sites. *See* R. 113. Because it was much cheaper to dispose of CCDD than GCDD, the statutory change created an economic incentive for unscrupulous operators to classify GCDD as CCDD, increasing profits.

B. 1998: "Rogue Operators" and the Act's Recordkeeping Amendments

The Act was amended in 1998, after the General Assembly recognized that there were no effective controls preventing the commingling of GCDD with CCDD. *See* Public Act 90-344 (eff. Jan. 1, 1998). These amendments required sites accepting either GCDD or CCDD, as well as haulers and generators of such materials, to maintain records, by date, showing the volumes and sources of the materials generated and received. *See* 415 ILCS 5/21(w) (2000). The 1998 amendment grew out of concerns that "rogue operators" were knowingly accepting waste materials instead of clean fill. PC69, p. 2 (IAPP post-hearing comments). Operators still had no statutory obligation to assess the quality of materials deposited at their sites beyond maintaining the fill records.

C. 2005: Agency Permits and Load Screenings Required at Fill Operations

The General Assembly again passed legislation increasing oversight over CCDD sites in 2005, in Public Act 94-272 (eff. July 19, 2005). PC69, p. 3; *see* 415 ILCS 5/22.51(c) (2006). Around that time, testing of water at a site in Lynwood, Illinois, showed high levels of arsenic, iron, lead, and manganese, as well as eight potentially cancer-causing VOCs. Exh. 59, pp. 8-10. For the first time, Illinois law governing CCDD disposal required the Agency to issue permits to CCDD fill sites, and the Board adopted formal rules in 2006 for the disposal of CCDD, codified at Part 1100, 35 Ill. Admin. Code § 1100. *Id.* Site operators were required to conduct visual inspections and use a PID or equivalent device to detect the presence of VOCs and to reject loads containing them. *Id.* But there remained no similar method to the PID for identifying other types of contaminants such as "semi-volatile organic compounds, poly-nuclear aromatic hydrocarbons, metals, or other non-volatile contaminants." PC74, p. 6. Once materials were accepted, no further testing on site was required, including no provisions for testing a site's groundwater.

D. 2010: Adoption of Soil MACs and the Legislative Mandate that the Board Pass Rules Designed to "Protect Groundwater" at CCDD and USF Facilities

The Act was amended again in 2010 by Public Act 96-1416 (eff. July 30, 2010). Owners and operators of fill sites were required, initially by the Act and then under interim Board rules, to confirm, by certifications from originators,

that materials accepted had not been removed from a site as part of a pollution cleanup or removal. Operators had to additionally obtain for all soil received at a facility (1) a certification from the owner or operator of the site of origin that the site had never been used for commercial or industrial purposes and that the soil was presumed to be uncontaminated, or (2) a certification from a licensed professional engineer or licensed professional geologist that the soil sent to a fill facility was uncontaminated. R. 555. These rules meant that a majority of soil could be received at a site without ever having been professionally tested, PC74, p. 6, and no obligations were imposed at all with regard to materials accepted prior to 2010. The changes were made prospective only.

Statutory changes required the Board to adopt MACs, *i.e.*, "rules specifying the maximum concentrations of contaminants that may be present in uncontaminated soil." *See* 415 ILCS 5/3.160(c) (2016). The amendment also directed, for the first time, that the Agency propose final rules to the Board that "protect groundwater" at CCDD and USF facilities. 415 ILCS 5/22.51(f)(1), 22.51a(d)(1) (2016).

In response to the new statutory directives, and because of a perceived contamination hazard posed to groundwater from the growing CCDD and USF industry, the Agency proposed amendments to the Board's rules requiring groundwater monitoring as a "back-end" (after deposit) requirement. For the first time, operators would be required to collect information on the status of

groundwater quality beneath their facilities. The Agency characterized this monitoring as "*the single most important measure for achieving groundwater protection.*" PC62, p. 2 (emphasis in original). Indeed, it believed that the only way to assure groundwater protection was by incorporating some form of groundwater monitoring into the rules. PC74, p. 3.

The Agency noted that without monitoring, the front-end screening of debris and soil would be of "limited effectiveness" in protecting groundwater due to imperfect certification procedures, limitations on the available tools used to detect contaminants, the large quantities of soil being accepted at many facilities, the frequent placement of soil into the saturation zone, the absence of design controls such as liners at these facilities, and the impracticality of installing retrofitting design controls in former quarries. PC62, pp. 5, 8. Because operators are paid by the accepted load, the Agency noted that fill operators would also not find it in their economic interest to comply with the front-end Part 1100 rules without the potential of discovering groundwater contamination from the back-end monitoring requirement. *Id.* at 10. Yet, despite these concerns, the Board stripped the Subpart G protections from its final rule.

III. The Board's Decision to Not Adopt Any Groundwater Monitoring Requirement as Part of Its Final Rule Was Arbitrary, Capricious and Unreasonable.

The Board's rulemaking should be reversed as arbitrary, capricious, or unreasonable because it (1) relies on factors that the General Assembly did not

intend for the Board to consider, (2) fails to consider important aspects of the groundwater problem at CCDD and USF sites, and (3) offers explanations for its decision that run counter to the evidence and are so implausible that they could not be ascribed to a difference in view or the product of the Board's expertise. *See Greer*, 122 Ill. 2d at 505-06.

A. The Board Misapprehended Its Role in Regulating Groundwater "Contamination."

In reaching its decision not to require groundwater monitoring at CCDD and USF facilities, the Board focused on the point that CCDD and USF are not defined as "waste" under the Act when these materials are properly handled. This led the Board to conclude that CCDD and USF should not be regulated like waste by requiring groundwater monitoring. R. 538 (A63). The Board's focus on the status of CCDD and USF as "non-waste" relied on a factor that the General Assembly did not intend for it to consider in deciding how best to protect the State's groundwater from CCDD and USF.

Under the Act, the Board has both the authority and obligation to protect groundwater from *all* pollution, not just from "waste," because the Act's definition of "water pollution" defines that term very broadly based on the presence of any water "contaminants." 415 ILCS 5/3.545 (2016). A "contaminant" is any solid, liquid, or gaseous matter, any odor, or any form of energy, from whatever source. 415 ILCS 5/3.165 (2016).

Section 11(b) of the Act states the policy of preservation and contamination prevention plainly. 415 ILCS 5/11(b) (2016). It provides that the purpose of the State's water pollution statute is to "assure that no contaminants are discharged into the waters of the State." *Id.* The protection of groundwater through prevention is echoed with respect to groundwater in the Groundwater Protection Act that makes preventing degradation of underground water resources the State's official policy. 415 ILCS 55/2(b) (2016). Groundwater protection benefits all persons who have a need to use it, now or in the future. That is why "any person" may take legal action to prevent groundwater contamination. 415 ILCS 5/31(d) (2016); s*ee* 415 ILCS 5/12(a), (d) (2016).

In enacting sections 22.51(f)(1) and 22.51a(d)(1) of the Act, 415 ILCS 5/22.51(f)(1), 22.51a(d)(1) (2016), the General Assembly explicitly expressed a policy concern about the risks posed to groundwater from CCDD and USF and directed the Board to address potential contamination in whatever form that contamination might take. That compliant CCDD and USF may not fall within the definition of "waste" under the Act is not a basis for declining to adopt an administrative rule necessary to protect groundwater. The Board's focus on the point that CCDD and USF should not be treated as "waste" injected into the rulemaking decision an irrelevant and inappropriate consideration, and one that resulted in a final rulemaking order that is arbitrary and capricious. The Board's decision should thus be reversed.

B. The Board Failed to Consider Important Aspects of the Groundwater Problem.

The Board's decision not to implement groundwater monitoring rules is also arbitrary and capricious because it "entirely fail[ed] to consider . . . important aspect[s] of the problem." *Greer*, 122 Ill. 2d at 505-06; *Waste Mgmt. of Ill., Inc. v. Pollution Control Bd.*, 231 Ill. App. 3d 278, 285 (1st Dist. 1992). For this reason, too, the Board's order should be reversed.

(i) The Cost of Implementing Groundwater Monitoring Was Not a Basis of the Board's Final Decision Because It Was Not Supported by the Final Agency Record.

Initially it should be pointed out that, though the Board's initial 2012 decision declining to implement groundwater monitoring relied upon concerns that there could be "potentially sizeable costs that may have adverse impacts" to the CCDD and USF industry, R. 1067, that consideration was not offered by the Board as a reason supporting its decision in the subdocket B proceedings, R. 538-42. Presumably the Board abandoned its reliance on the earlier finding regarding the costs of implementing groundwater monitoring because of the lack of comment and testimony supporting that conclusion in the later proceedings. By then, participants were generally agreed that the costs of monitoring could be efficiently and economically borne by fill originators if assessed charges were made on a cost-per-cubic-yard or cost-per-ton tipping fee. *See e.g.*, PC49-54; PC55, pp. 1-2; PC57; PC62, p. 22 & Exh. 63, p. 9; Exh. 55, p. 1; *see also* R. 1520.

Even industry representatives acknowledged that the costs of establishing a monitoring program were manageable if considered on a cost-per-unit basis. On this point, James Huff's public comment and testimony regarding industry costs were germane. He said that while the capital costs of establishing a monitoring program were "significant," they are "known and fill operations can make a business decision as to whether the costs incurred would justify continuing in the fill business." PC59, p. 2. Brett Hall from Hanson Material Service echoed Huff's testimony when saying that the "much greater concern" for his industry was not the direct cost associated with groundwater monitoring, but the cost associated with what would follow if groundwater contamination were detected. Tr. 5/20/13, p. 176. Similarly, Josh Quinn from Vulcan Materials complained about the high costs a facility could face if remediation obligations were imposed following the discovery of contaminants in groundwater under a CCDD facility. *Id.* at 179-80.

Given this testimony, and perhaps also because of the lack of any economic impact report from DCEO on the issue, *see* R. 644-45; R. 765; PC48, p. 2 (comments of Pat Metz), the Board's Subdocket B decision did not point to monitoring costs as a reason for rejecting the Agency's proposal, *see* R. 538-42. The appellate court similarly declined to affirm the Board's decision on industry "cost" considerations: "We also need not rely upon cost analysis to affirm the Board's determination." A87, ¶ 69. The appellate court majority instead said that there was other sufficient "evidentiary support," *id.* ¶ 70, to

uphold the Board's conclusion that "compliant CCDD and USF" were not likely to contaminate groundwater, A89, ¶ 77.

(ii) The Board Failed to Fully Address the Use of Older Fill at These Sites, the Industry's History of Failing to Comply with the Board's Rules, and the Soil Contamination Discovered in Recent Fill.

Having decided not to rely on "cost" as a reason for rejecting the Agency's Subpart G proposal, the Board turned to the other evidentiary considerations. In this regard, the Board stated that it was left "unconvinced that groundwater monitoring for permitted CCDD and uncontaminated soil fill sites is required for the protection of groundwater," R. 538 (A63), or that the recent front-end provisions adopted to protect groundwater in Part 1100 "will fail," R. 540 (A65).

But in reaching those conclusions, the Board did not give proper consideration to the primary concerns raised by the People and many others who testified in support, and even against, Subpart G. Industry officials all but admitted that the use of materials placed at these sites prior to the implementation of the Board's front-end screening regulations, between 1997 and 2010, presents a current hazard to groundwater because compliance with the statutory definitions that distinguished between GCDD and CCDD was often lax during that time. PC59, p. 2 (Huff expressing concern about the "historic impacts" of past practices). Other witnesses indicated their expectation that the more stringent certification procedures, first adopted in

2010, will end the risk of groundwater contamination. *See* PC68, pp. 1-2 (Sexton Properties's witness, contending Agency's contamination data could have resulted from materials placed before certification requirements were implemented).

But the possibility that fill materials may have gotten cleaner over time is beside the point. The Board's statutory obligation is to promulgate rules that "protect groundwater" from contamination at CCDD and USF sites, 415 ILCS 5/22.51(f)(1) (2016); 415 ILCS 5/22.51a(d)(1) (2016), and this obligation exists even when contamination is from older fill. The Board's final rules do nothing to protect groundwater from this hazard, and the Board's order failed to adequately address this concern in its discussion. *See* R. 538-542 (A63-66).

Moreover, any suggestion that fill materials have gotten cleaner over time is contradicted by the record. The People, the Agency, and participants from Will County had no difficulty pointing to the many recent enforcement actions that have been brought against members of the fill industry, as well as the growing numbers of load rejections recorded at some of the sites. These show that there remain both negligent and scoff-law originators and haulers willing to direct non-compliant CCDD and USF to these facilities despite the certification requirements. CARE identified 175 enforcement actions brought since 2002 involving CCDD disposal sites, and 11 against fill operators since the Part 1100 rules have gone into effect. PC73, pp. 1-2. It noted three then-recent actions that had to be brought before the Board. PC60, pp. 3-5 (citing

People v. 87th & Greenwood, LLC, PCB 10-71 (June 9, 2011); *People v. Reliable Materials Lyons, LLC*, PCB 12-52 (Aug. 19, 2010); *People v. Western Sand & Gravel Co., LLC*, PCB 10-22 (Mar. 18, 2010)).

The Agency, in its comments, identified 417 load rejection sheets from fill operations in less than a year, from September 2012 to June 2013 (after the soil certification requirements were in effect, 415 ILCS 5/22.51(f)(2) (2012)), and observed that 65% of these were due to high PID readings. PC74, pp. 5-6. This suggests that, despite the certification procedures, many loads of fill sent to the sites continue to contain volatiles linked to cancer. Also left unaddressed by the Board's decision were concerns raised by the People about the discovery of cancer-causing poly-nuclear aromatic hydrocarbons (PNAs) in some uncontaminated soil fill and CCDD. The IAAP's own testing showed that there were PNAs above the applicable MACs present in seven soil samples it tested, and these tests showed the presence of PNAs in "most" of the 44 samples it had collected. Exh. 12, pp. 3-5. PNAs pose a serious concern because they are not subject to detection from PID screening. Exh. 55, p. 1.

Nor are metals detected by PIDs. Thus, soil certification procedures and screening (the front-end protections) are not sufficient, in themselves, to "protect groundwater" since improperly certified fill contaminated with PNAs and metals are unlikely to be identified. And as the Agency also explained, once these facilities receive contaminated fill, it is "very likely" the contaminants contained within them will migrate into the groundwater.

PC74, p. 8.

The Board's mandate is to "protect" groundwater from contamination at CCDD and USF sites, without regard to the date when contaminated materials were dumped — either before or after the 2010 amendments. 415 ILCS 5/22.51(f)(1) (2016); 415 ILCS 5/22.51a(d)(1) (2016). The Board has decided to employ soil certifications as its means for protecting groundwater. But in the absence of groundwater monitoring, which is the only way to determine if the groundwater remains uncontaminated, there is no way to confirm that the Board's rules actually advance the General Assembly's mandate. This is particularly so with regard to the hazards posed by older fill and the soil contamination that continues to be discovered at CCDD and USF sites, as discussed more fully below. Such a result is not consistent with the legislature's intent, particularly given the critical importance of the groundwater resources at issue. *See, e.g.,* 415 ILCS 55/2(b) (2016) (stating Illinois policy "that groundwater resources of the State be utilized for beneficial and legitimate purposes; that waste and degradation of the resources be prevented; and that the underground water resource be managed to allow for maximum benefit of the people of the State of Illinois."). Accordingly, the Board rulemaking order has failed to consider an important aspect of the problem. *Greer*, 122 Ill. 2d at 505-06; *Waste Mgmt. of Ill., Inc. v. Pollution Control Bd.*, 231 Ill. App. 3d 278, 285 (1st Dist. 1992).

Thus, in addition to the Board misapprehending its role in protecting groundwater from contamination from all source, including materials purporting to be CCDD and USF, the administrative record shows that the Board failed to account for material aspects of the problem of groundwater contamination at CCDD and USF facilities. Important concerns raised by the People went unaddressed by the Board's discussion. *See* R. 538-542 (A63-66). For that reason, too, the Board's final rulemaking order declining to adopt groundwater monitoring should be reversed and the case remanded to the Board for further proceedings.

C. The Board's Decision Runs Counter to the Evidence, and Is So Implausible that It Cannot Be Ascribed to a Difference in View or the Product of Administrative Expertise.

The Board's decision was also arbitrary, capricious or unreasonable because its determination that there is no cause for groundwater monitoring runs counter to nearly all of the evidence presented. Even putting aside the problem of historic contamination discussed above, participants at the proceedings pointed to newer data that overwhelmingly supports the need for groundwater monitoring at CCDD and USF facilities.

The Board received comment from the Agency regarding testing it had done in 2012 on random soil samples. PC74, p. 2. That testing showed, without question, that contaminants continue to be placed at these sites. *Id.*; *see* Exh. 63, p. 9. Indeed, the Agency found exceedances of the applicable MACs and/or pH limits at all but two of 12 sites it tested. *Id.* Exceedances of

cadmium, iron, aluminum, chromium, lead, magnesium, manganese, and benzo(a)pyrene were all detected. Exh. 63, p. 9. Many of these produce serious illness or disease when ingested by people. *See* USGS "Water Science School," https://on.doi.gov/2LflOr5 (last visited July 30, 2018).

Even soil testing done by industry participants showed objective evidence of exceedances. The IAAP's engineer, John E. Hock, offered a report showing he had collected samples for analysis at three CCDD fill operations and reviewed data at one additional site. Exh. 12, pp. 3-5. He identified contaminants in the form of PNAs in seven of the 44 samples he tested, and metals above the applicable MACs in 36 of 44 of the samples. *Id.*

The Board's decision emphasized that there is still no indication of "groundwater contamination at sites that are permitted under Rule 1100." R. 540. This conclusion improperly discounted the People's evidence of extensive groundwater contamination at the Lynwood site because that site had been operated prior to the Part 1100 rules. *Id.* Exceedances were discovered there for arsenic, iron, lead, manganese, boron, benzene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, benzo(k)fluoranthene, ideno(1,2,3-cd)pyrene, and bis(2-ethylhexl)phthalate. Exh. 59, pp. 8-10. But the presence of these in the ground at even an older CCDD facility like Lynwood illustrates, at the very least, that groundwater hazards still exist for fill materials placed at the sites before 2010. The Board's rules leave groundwater exposed to hazards from this older fill to be dealt with only after

they have been discovered due to some emergent problem, such as contamination of a municipality's well. *See id.* at p. 4; PC73, p. 6. Surely this cannot be what the General Assembly intended when it required that the Board promulgate a rule that "protect[s] groundwater" at these sites. 415 ILCS 5/22.51, 22.51a (2016).

In declining to adopt groundwater monitoring in the Part 1100 rules, the Board suggested that there was support for its decision in the existence of so-called borrow pits that are seasonally used by the road-construction industry for its CCDD. R. 539. These sites purport to be exempt from the Part 1100 rules pursuant to section 22.51(b)(4)(B) of the Act. 415 ILCS 5/22.51(b)(4)(B) (2016). But the Board's analogizing of CCDD and USF sites to borrow pits is inapt.

First, borrow pits relate to government projects that are typically much smaller than the sites subject to groundwater monitoring under the Part 1100 rules. CCDD sites in mines and quarries are generally larger facilities because those operators are filling long-running industrial excavations. The Reliable Lyons site, for example, is at the bottom of a 275-foot limestone excavation that accepts more than 700,000 cubic yards of fill each year. Exh. 57, pp. 1-2. It has accepted more than 6 million cubic yards of material since 2006. *Id.* at pp. 3-4. Sites operating under authority of Part 1100 also operate for years (or longer) before their fill is covered. The Lynwood site was operated between 1997 and 2003 before being forced to close. *See* Exh. 59, p. 8. Reliable Lyons

started operating in 2005 or 2006. Tr. 5/20/13, p. 94. It is the enormous size, depth and longevity of these sites that exacerbate their risk to groundwater. See PC49-54; PC55, pp. 1-2; PC57; PC62, p. 22 & Exh. 63, p. 9; Exh. 55, p. 1. In contrast, borrow pits tend to be seasonal operations related to the construction of a single project. They are also managed by government operators that have less incentive to obtain a profit by misdirecting waste into CCDD or USF sites.

As the General Assembly recognized, the risk from regulated sites is due to the large volumes of fill being accepted at them, the tendency of acidic precipitation to cause this fill to migrate, and the placement of materials at quarry and mine excavations "into the saturated zone." PC74, pp. 8-9. In this regard, CARE also noted that contaminants tend to aggregate as time passes. PC60, p. 1. Unlike the testimony received by the Board on many CCDD and USF facilities, there was no suggestion that borrow pits had ever threatened groundwater by accepting inappropriate fill. This is in strong contrast to the number of violations identified by the Agency with regard to permitted CCDD facilities. PC73, pp. 1-2.

Here, the Board received comment and testimony from the Agency, the entity responsible for enforcing the State's environmental laws, that groundwater monitoring at permitted CCDD fill sites and at USF operations was "*the single most important measure for achieving groundwater protection.*" PC62, p. 2 (emphasis in original). Indeed, the Agency stated that it believed

the only way to assure groundwater protection was by incorporating groundwater monitoring into the rules. PC74, p. 3. Without monitoring, the front-end screening of debris and soil would be of "limited effectiveness" in protecting groundwater due to imperfect certification procedures, limitations on the available tools used to detect contaminants, the large quantities of soil being accepted at many facilities, the frequent placement of soil into the saturation zone, the absence of design controls such as liners at these facilities, and the impracticality of installing retrofitting design controls in former quarries. PC62, pp. 5, 8. The Agency also noted that fill operators would not find it in their economic interest to comply with the front-end Part 1100 rules without the potential of discovering groundwater contamination from the back-end monitoring requirement. *Id.* at 10.

Thus, despite the Agency's attempt at a balanced proposal with both front-end and back-end protections for groundwater, the Board issued a rulemaking order that, on the record presented, was arbitrary, capricious and unreasonable. As the dissenting justice in the appellate court explained, the Board's decision runs counter to the evidence before it and cannot be ascribed to a mere difference in view or the product of its superior expertise. A89, ¶ 82 (J. Wright, dissenting). Thus, in addition to the arguments made in Parts III.A and III.B above, the People urge this Court to remand the matter to the Board for further action consistent with the Court's opinion.

CONCLUSION

For the above reasons Petitioner-Appellant, the People of the State of Illinois, requests that this Court reverse the Board's rulemaking and remand the matter to the Board for further action consistent with this Court's opinion.

August 2, 2018

Respectfully submitted,

LISA MADIGAN
Attorney General
State of Illinois

DAVID L. FRANKLIN
Solicitor General

100 West Randolph St.
12th Floor
Chicago, Illinois 60601
(312) 814-3312

Attorneys for Petitioner-Appellant
the People of the State of Illinois

CARL J. ELITZ
Assistant Attorney General
100 West Randolph St.
12th Floor
Chicago, Illinois 60601
(312) 814-2109
Primary e-service:
CivilAppeals@atg.state.il.us
Secondary e-service:
celitz@atg.state.il.us

CERTIFICATE OF COMPLIANCE

I certify that this brief conforms to the requirements of Rules 341(a) and (b). The length of this brief, excluding the pages contained in the Rule 341(d) cover, the Rule 341(h)(1) statement of points and authorities, the Rule 341(c) certificate of compliance, the certificate of service, and those matters to be appended to the brief under Rule 342(a), is 41 pages.

/s/ *Carl J. Elitz*
CARL J. ELITZ
Assistant Attorney General
100 West Randolph St.
12th Floor
Chicago, Illinois 60601
(312) 814-2109
Primary e-service:
CivilAppeals@atg.state.il.us
Secondary e-service:
celitz@atg.state.il.us

APPENDIX

TABLE OF CONTENTS

ILLINOIS POLLUTION CONTROL BOARD
August 6, 2015

IN THE MATTER OF:	)	
	)	
PROPOSED AMENDMENTS TO CLEAN	)	R12-9 (B)
CONSTRUCTION OR DEMOLITION	)	(Rulemaking - Land)
DEBRIS FILL OPERATIONS (CCDD):	)	
PROPOSED AMENDMENTS TO 35 Ill.	)	
Adm. Code 1100	)	

OPINION AND ORDER OF THE BOARD (by D. Glosser):

On July 29, 2011, the Illinois Environmental Protection Agency (IEPA) filed a proposal pursuant to Sections 22.51 and 22.51a of the Environmental Protection Act (Act) (415 ILCS 5/22.51 and 22.51a (2014)). The proposal amended the Board's rules for Clean Construction or Demolition Debris Fill Operations to allow for use of uncontaminated clean construction or demolition debris (CCDD) and uncontaminated soil to be used as fill at quarries, mines and other excavations. On August 23, 2012, the Board adopted the final rule, making changes recommended by the Joint Committee on Administrative Rules (JCAR) and opened Subdocket B at JCAR's recommendation to further examine the issue of groundwater monitoring at CCDD facilities and uncontaminated soil fill sites.

Today, after reviewing the entire record and considering the additional comments and testimony, the Board remains unconvinced that groundwater monitoring for permitted CCDD and uncontaminated soil fill sites is required for the protection of groundwater. Therefore, the Board closes this docket.

The Board's opinion begins with a discussion of the procedural history followed by the statutory background (page 4). The Board then summarizes the Board's decisions at first and second notice (page 4) and follows with the procedural history of Subdocket B (page 7). The Board summarizes the prehearing public comments (page 7) and then the testimony from hearing (page 24). The Board summarizes post-hearing comments (page 44) before discussing the Board's decision not to proceed with groundwater monitoring requirements (page 62).

PROCEDURAL HISTORY

IEPA filed a proposal on July 29, 2011, including a statement of reasons (SR) and a motion to waive filing requirements. IEPA was required by Section 22.51 of the Act to propose rules to the Board by July 30, 2011. 415 ILCS 4/22.51 (2014). The Act required the Board to adopt the rules no later than one year after receipt of IEPA's proposal

On September 26, 2011, a hearing was held in Springfield at which IEPA provided testimony. An additional hearing was held on October 25 and 26, 2011, during which several interested parties as well as IEPA offered testimony. The October 25, 2011 hearing also fulfilled the statutory obligation under Section 27(b) of the Environmental Protection Act (Act) (415

ILCS 5/27(b) (2014)). Section 27(b) of the Act requires the Board to request the Department of Commerce and Economic Opportunity (DCEO) to conduct an economic impact study (EcIS) on certain proposed rules prior to adoption of those rules. If DCEO chooses to conduct the EcIS, DCEO has 30 to 45 days after such request to produce a study of the economic impact of the proposed rules. The Board must then make the EcIS, or DCEO's explanation for not conducting the study, available to the public at least 20 days before a public hearing on the economic impact of the proposed rules. The Board sent DCEO the request on August 4, 2011. On September 28, 2011, DCEO declined to perform an EcIS. The hearing officer sought comment on DCEO's decision not to perform an EcIS.

On February 2, 2012, the Board adopted a first-notice proposal. During the first notice period the Board held an additional two days of hearings on March 13 and 14, 2012. The hearing officer again sought comment on DCEO's decision not to perform an EcIS.

On June 7, 2012, the Board proceeded to second notice and filed the rule with JCAR. JCAR considered the rule at its July 10, 2012 JCAR meeting. At the July 10, 2012 meeting, JCAR requested, and the Board agreed, to extend the second notice period for an additional 45 days. The rule was again considered by JCAR at its August 14, 2012 meeting. At that meeting JCAR issued a recommendation and a certificate of no objection.

At second notice, JCAR recommended that the Board:

> give further consideration to whether groundwater monitoring should be required for these facilities. This would give the Board the opportunity to receive further comment from parties who may not have submitted their supportive views when groundwater monitoring was an element of this proposal and who may have opinions and information to offer in light of the Board's decision to remove the requirement before going to 1st Notice on this rulemaking.

On September 21, 2012, a hearing officer order sought comment from any interested person on whether or not the Board should require groundwater monitoring at CCDD and uncontaminated soil fill facilities. The hearing officer allowed for comments to be filed until December 1, 2012. The Board received the following comments:

> Pat Metz, Industrial Health Specialist, Office of Public Utilities, City of Springfield, Illinois (PC 48)
> Illinois Nature Preserves Commission (PC 49)
> Senator Pat McGuire (PC 50)
> Representative Tom Cross (PC 51)
> Representative Lawrence "Larry" M. Walsh, Jr. (PC 52)
> Representative Emily McAsey (PC 53, 64[1])
> Representative Renee Kosel (PC 54)
> Lawrence M. Walsh, Will County Executive and James G. Moustis, Will County Board Chairman (PC 55)

[1] PC 53 and PC 64 are identical, but were received separately and both were docketed.

Senator Christine Radogno (PC 56)
Marcella M. DeMauro, Executive Director, Forest Preserve District of Will County (PC 57)
Land Reclamation & Recycling Association (PC 58)
James E. Huff, Huff & Huff, Inc. (PC 59)
Citizens Against Ruining the Environment (PC 60)
James W. Glasgow, State's Attorney of Will County (PC 61)
IEPA (PC 62)
People of the State of Illinois (PC 63)
Dorothy Hynous (PC 65)
Mark J. Krumenacher, PG, of GZA GeoEnvironmental, Inc. (PC 66)

The Board reviewed those comments and found that additional hearings were necessary on the issue of groundwater monitoring. The People of the State of Illinois (People) (Exh. 54), Illinois Association of Aggregate Producers (IAAP) (Exh. 53), and the Board (Exh. 52) prefiled questions for the hearing.

On May 20, 2013, the Board held a hearing in Springfield, Sangamon County. At that hearing the following people testified:

Representative Larry Walsh, Jr.
Senator Pat McGuire
Will County Executive Larry Walsh, Sr.
Stuart Cravens on behalf of Will County (Exh. 55)
Martin Hamper a board member for the American Institute of Professional Geologists (Exh. 56)
Brian Lansu & Gregory Wilcox on behalf of Land Reclamation & Recycling Association (Exh. 57)
James Huff with Huff & Huff, Inc. (Exh. 58)
Stephen Sylvester on behalf of the People of the State of Illinois (Exh. 59)
Marvin Traylor Illinois Asphalt Pavement Association
Bret Hall on behalf of the Illinois Association of Aggregate Producers
John Quinn on behalf of the Illinois Association of Aggregate Producers
John Henriksen on behalf of the Illinois Association of Aggregate Producers
Les Morrow on behalf of IEPA (Exh. 63)
Doug Clay on behalf of IEPA (Exh. 63)
Chris Liebman on behalf of IEPA (Exh. 63)
Richard Cobb on behalf of IEPA (Exh. 63)
Terri Blake Myers on behalf of IEPA (Exh. 63)
Steve Nightingale on behalf of IEPA (Exh. 63)
Thomas Hornshaw on behalf of IEPA (Exh. 63)

On June 12, 2013, the hearing officer entered an order setting forth questions that remained after the hearing and invited comment on those questions. *See* Hearing Officer Order (June 12, 2013). The hearing officer allowed for comments to be filed until August 1, 2013. The Board received the following comments.

VCNA Prairie Inc. by Richard Olsen, President and Michael Pratt General Manager, Aggregate Division (PC 67)
Sexton Properties R.P., LLC by Todd Daniels, Director of Operations (PC 68)
Illinois Association of Aggregate Producers (PC 69)
Land Reclamation & Recycling Association (PC 70)
James E. Huff, Huff & Huff, Inc. (PC 71)
Will County Land Use Department, Resource Recovery & Energy Division (PC 72)
Citizens Against Ruining the Environment (PC 73)
IEPA (PC 74)
Illinois Department of Transportation (PC 75)
Waste Management of Illinois, Inc. (PC 76)
People of the State of Illinois (PC 77)

STATUTORY BACKGROUND

Section 22.51(f)(1) provides:

> No later than one year after the effective date of this amendatory Act of the 96th General Assembly, the Agency shall propose to the Board, and, no later than one year after the Board's receipt of the Agency's proposal, the Board shall adopt, rules for the use of clean construction or demolition debris and uncontaminated soil as fill material at clean construction or demolition debris fill operations. The rules must include standards and procedures necessary to protect groundwater, which may include, but shall not be limited to, the following: requirements regarding testing and certification of soil used as fill material, surface water runoff, liners or other protective barriers, monitoring (including, but not limited to, groundwater monitoring), corrective action, recordkeeping, reporting, closure and post-closure care, financial assurance, post-closure land use controls, location standards, and the modification of existing permits to conform to the requirements of this Act and Board rules. The rules may also include limits on the use of recyclable concrete and asphalt as fill material at clean construction or demolition debris fill operations, taking into account factors such as technical feasibility, economic reasonableness, and the availability of markets for such materials. 415 ILCS 5/22.51(f)(1) (2014).

Section 22.51a(d)(1) further provides:

> No later than one year after the effective date of this amendatory Act of the 96th General Assembly, the Agency shall propose to the Board, and, no later than one year after the Board's receipt of the Agency's proposal, the Board shall adopt, rules for the use of uncontaminated soil as fill material at uncontaminated soil fill operations. The rules must include standards and procedures necessary to protect groundwater, which shall include, but shall not be limited to, testing and certification of soil used as fill material and requirements for recordkeeping. 415 ILCS 5/22.51a(d)(1) (2014).

SUMMARY OF BOARD'S DECISION NOT TO REQUIRE GROUNDWATER MONITORING

First Notice

The Board expressed that its first concern is that CCDD and uncontaminated soils that will be deposited into quarries, mines, and other excavations, be clean and uncontaminated as those terms are defined by the rules and the statute. The Board noted that if the regulations provide assurances that the materials being deposited are indeed clean and uncontaminated and the regulations are adhered to, protection will be provided to public health and the environment, including groundwater. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 54 (Feb. 2, 2012).

The Board noted that the record did not include evidence to demonstrate that CCDD or uncontaminated soil sites are a source of groundwater contamination. Further, the record indicated that requiring groundwater monitoring would impose potentially sizeable costs that may have adverse impacts on fill operations. CCDD and uncontaminated soils are not classified as wastes, so do not require the stringent rules that exist for nonhazardous waste landfills. Therefore, the Board found that this record does not support groundwater monitoring. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 57 (Feb. 2, 2012).

The Board further noted that P.A. 96-1416[2] (eff. July 30, 2010) requires the Board to adopt rules to include "standards and procedures necessary to protect groundwater, which may include, but shall not be limited to" a list of twelve possible procedures or tools. One of these is "monitoring (including, but not limited to groundwater monitoring)". The Board found that, while groundwater protection is a legislative priority, this protection can be achieved without requiring groundwater monitoring. The Board's first-notice proposal strengthened the front-end screening process for soils and other provisions to help ensure that the soils legally deposited in quarries, mines, and other excavations are uncontaminated. Therefore, the Board found that its proposal will protect groundwater. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 57 (Feb. 2, 2012).

As a result of these concerns and other provisions included to protect groundwater, the Board deleted Subpart G of IEPA's proposal, standards for groundwater monitoring. The Board also deleted several definitions pertaining to groundwater monitoring, and references to Subpart G in other parts of the proposed rules. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 57 (Feb. 2, 2012).

---

[2] P.A. 96-1416 added Sections 22.51 and 22.51a to the Act (415 ILCS 5/22.51 and 22.51a (2014))

Second Notice

During first notice, several participants questioned the Board's decision not to proceed with groundwater monitoring and expressed concerns that not including groundwater monitoring is contrary to legislative intent, and will result in groundwater not being protected. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 82 (June 7, 2012). Further, IEPA and the People argued that evidence of groundwater contamination is not required for the Board to include groundwater monitoring. In addition, participants provided information on the cost of groundwater monitoring. *Id.*

The Board examined the legislative intent and noted:

> The Board has reviewed the statutory language and the arguments presented by the participants. The Board remains convinced that the statutory language of Section 22.51, while requiring the Board to adopt rules to protect groundwater, does not require groundwater monitoring. Thus, the Board will continue to proceed with a rule that protects groundwater, but does not require the monitoring.
>
> Furthermore, the language of the statute provides options for groundwater protection only one of which is groundwater monitoring and that was only for CCDD operations. Those options include testing and certification of soil used as fill material, surface water runoff, liners or other protective barriers, monitoring (including, but not limited to, groundwater monitoring), corrective action, recordkeeping, reporting, closure and post-closure care, financial assurance, post-closure land use controls, and location standards. In the case of uncontaminated soil fill operations, the statute specifically lists the options of testing and certification of soil used as fill material and requirements for recordkeeping. The Board's rules address several options highlighted in the statutes, including, testing and certification of soils to be deposited in CCDD and uncontaminated soil fill operations, surface water control, recordkeeping and reporting, and closure and postclosure care. Also, the rules define uncontaminated soil such that [maximum allowable concentrations] (MACs) will not be exceeded in soils. Clearly, the rule will protect groundwater. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 84 (June 7, 2012).

The Board also found that groundwater will be protected given requirements for soil certification and load inspection. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 84-88 (June 7, 2012).

In summary, the Board found that the statutory directive to protect groundwater does not equate to requiring groundwater monitoring. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100,

R12-9, slip op. at 89 (June 7, 2012). The Board continued that "[w]ith strengthened soil certification and testing and recordkeeping, groundwater will be protected from contamination under the Board's rules." *Id.* Based on the record, the Board found that groundwater monitoring is not required and the Board did not restore Subpart G, groundwater monitoring, to the rule. *Id.*

SUBDOCKET B PROCEDURES

The Board accepted JCAR's recommendation to give groundwater monitoring further consideration, and directed the Clerk to open a Subdocket B in this proceeding. The subdocket includes all the comments, testimony, and filings in the docket. On September 20, 2012, the Board issued an order in Subdocket B, detailing the Board's procedures in that subdocket. The Board sought input from participants on several areas, including additional information that could convince the Board that its decision was in error. Of particular concern was the lack of evidence in this record demonstrating that either CCDD or uncontaminated soil fill operations, when properly run, will impact groundwater.

The Board asked for commenters to address what parameters groundwater should be tested for as well as the impact of nondegradation requirements. The Board sought comment on the design and implementation of groundwater monitoring and whether IEPA can require groundwater monitoring at uncontaminated soil fill sites. Finally, the Board asked for information on issues of self-implementation, financial assurance, and whether pre-screening is required along with groundwater monitoring.

PREHEARING PUBLIC COMMENTS

In response to the Board's September 20, 2012 order the Board received several comments. The Board will summarize each of those comments below.

Pat Metz, City Water, Light and Power (PC 48)

Pat Metz, an employee of City Water, Light and Power (CWLP) for the City of Springfield, expressed his agreement with the Board's decision to remove the groundwater monitoring requirements from the IEPA's proposal. PC 48 at 1. Mr. Metz opposed further impositions to the Part 1100 rules and contended that groundwater monitoring is not necessary. *Id.* Mr. Metz argued that while groundwater monitoring wells can provide a warning of potential contamination, the advantage of this information does not outweigh the cost of such system at each of the permitted fill sites. *Id.* He further reasoned that the implementation of the groundwater monitoring system could potentially force operators out of business, require them to increase cost to their customers, or oblige them to take their non-contaminated excavated material to a landfill. *Id.* He believes that such restrictive regulatory pressure would also result in CCDD material being disposed illegally, thus negating the purpose of the rule. *Id.*

Mr. Metz also expressed his concern with the amendments to Part 1100, effective on August 27, 2012, and adopted in Proposed Amendments to Clean Construction or Demolition Debris (CCDD) Fill Operations: Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9 (Aug. 23, 2012). *Id.* at 2. He argued that the DCEO should have estimated the economic impact of the

proposed regulations. *Id.* He hopes that the Board will evaluate the cost of installing, maintaining, and sampling groundwater monitoring wells as it considers additional revisions to the CCDD rules. *Id.*

Jenny Skufca, Illinois Nature Preserves Commission (PC 49)

Jenny Skufca, a Natural Areas Defense Specialist, commented on behalf of the Illinois Nature Preserves Commission (INPC), which is charged with the protection of the State's highest quality natural areas under the Illinois Natural Areas Preservation Act (525 ILCS 30/1 *et. seq.* (2014)). PC 49 at 1. The Illinois Groundwater Protection Act (415 ILCS 55/1 *et.seq.* (2014)) (GPAct) affords areas designated as Illinois Nature Preserves additional protection to their groundwater contribution areas through a request for Class III: Special Resource Groundwater Delineation pursuant to 35 Ill. Adm. Code 620.23 0(b). *Id.*

Ms. Skufca expressed INPC's concern with CCDDs that lie within the delineated Class III groundwater contribution areas of a Nature Preserve, or areas that qualify but have not yet completed the delineation process. *Id.* at 2. She urged the Board to enforce a groundwater monitoring requirement in instances where CCDD will be used as fill within the boundary of a Class III area and within one-mile radius of a Nature Preserve with no Class III delineation. *Id.* Ms. Skufca also recommended than an evaluation of groundwater flow direction be required to discern whether any potential contamination could impact a vulnerable groundwater contribution area. *Id.* She concluded by asking the Board to consider the hydrologic vulnerability and hydraulic connectivity to Illinois Nature Preserves when deliberating whether additional CCDD groundwater monitoring impositions should be implemented. *Id.*

Senator Pat McGuire (PC 50)

Senator Pat McGuire requested that the Board amend Part 1100 adopted by the Board in R12-9 on August 23, 2012 to include groundwater monitoring at CCDD sites. PC 50 at 1. He argued that the installation of groundwater monitoring systems would provide the necessary checks and balances to ensure that local community water supplies are protected from contamination. *Id.* Senator McGuire referenced Public Act 96-1416 (eff. July 30, 2010), which provides statutory language that governs how CCDD sites are regulated and monitored in Illinois. *Id.* In addition, the Act specifically states that CCDD rules must include standards and procedures necessary to protect groundwater. *Id.* The Senator contended that the exclusion of groundwater monitoring requirements in rules adopted by the Board on August 23rd is contrary to what the legislature had intended when drafting the bill. *Id.* He urged the Board to amend the existing CCDD rules to include groundwater protections. *Id.*

Representative Tom Cross (PC 51)

Representative Tom Cross requested that the Board amend Part 1100 adopted by the Board in R12-9 on August 23, 2012 to include groundwater monitoring at CCDD sites. PC 51 at 1. He argued that the installation of groundwater monitoring systems would provide the necessary checks and balances to ensure that local community water supplies are protected from contamination. *Id.* Representative Cross referenced Public Act 96-1416, which provides

statutory language that governs how CCDD sites are regulated and monitored in Illinois. *Id.* In addition, the Act specifically states that CCDD rules must include standards and procedures necessary to protect groundwater. *Id.* Representative Cross contended that the exclusion of groundwater monitoring requirements in rules adopted by the Board on August 23rd is contrary to what the legislature had intended when drafting the bill. *Id.* Thus, he urged the Board to amend the existing CCDD rules to include groundwater protections. *Id.*

Representative Lawrence M. Walsh Jr. (PC 52)

Representative Lawrence M. Walsh Jr., a state representative for the 86th district, requested that the Board amend Part 1100 adopted by the Board in R12-9 on August 23, 2012 to include groundwater monitoring at CCDD sites. PC 52 at 1. He argued that the installation of groundwater monitoring systems would provide the necessary checks and balances to ensure that local community water supplies are protected from contamination. *Id.* Representative Walsh referenced Public Act 96-1416, which provides statutory language that governs how CCDD sites are regulated and monitored in Illinois. *Id.* In addition, the Act specifically states that CCDD rules must include standards and procedures necessary to protect groundwater. *Id.* Representative Walsh contended that the exclusion of groundwater monitoring requirements in rules adopted by the Board on August 23rd is contrary to what the legislature had intended when drafting the bill. *Id.* He also believes that ample data and evidence has been presented by the IEPA, Will County, and other respondents to demonstrate that groundwater monitoring costs are reasonable and not excessive. *Id.* Thus, Representative Walsh urged the Board to amend the existing CCDD rules to include groundwater protections. *Id.*

Representative Emily McAsey (PC 53 and 64)

Representative Emily McAsey, a state representative for the 85th district, requested that the Board amend Part 1100 adopted by the Board in R12-9 on August 23, 2012 to include groundwater monitoring at CCDD sites. PC 53 at 1. She argued that the installation of groundwater monitoring systems would provide the necessary checks and balances to ensure that local community water supplies are protected from contamination. *Id.* Representative McAsey referenced Public Act 96-1416, which provides statutory language that governs how CCDD sites are regulated and monitored in Illinois. *Id.* In addition, the Act specifically states that CCDD rules must include standards and procedures necessary to protect groundwater. *Id.* Representative McAsey contended that the exclusion of groundwater monitoring requirements in rules adopted by the Board on August 23rd is contrary to what the legislature had intended when drafting the bill. *Id.* Thus, she urged the Board to amend the existing CCDD rules to include groundwater protections. *Id.*

Representative Renee Kosel (PC 54)

Representative Renee Kosel, an Illinois State Representative, requested the Board amend the CCDD rules adopted by the Board on August 23, 2012 to include groundwater monitoring at CCDD sites. PC 54 at 1. She argued that the installation of groundwater monitoring systems would provide the necessary checks and balances to ensure that local community water supplies are protected from contamination. *Id.* Representative Kosel referenced Public Act 96-1416,

which provides statutory language that governs how CCDD sites are regulated and monitored in Illinois. *Id.* In addition, the Act specifically states that CCDD rules must include standards and procedures necessary to protect groundwater. *Id.* Representative Kosel contended that the exclusion of groundwater monitoring requirements in rules adopted by the Board on August 23rd is contrary to what the legislature had intended when drafting the bill. *Id.* Thus, she urged the Board to amend the existing CCDD rules to include groundwater protections. *Id.*

James G. Moustis, Will County Board Chairman / Lawrence M. Walsh, Will County Executive (PC 55)

Lawrence M. Walsh, Will County Executive, and James G. Moustis, the Will County Board Chairman, commented on behalf of Will County. PC 55 at 1. They expressed the apprehension that the county has regarding contamination that might affect their groundwater supply. *Id.* Specifically, they raised the concern that there are not adequate testing requirements that protect the water supplies from the contamination of material disposed at CCDD and uncontaminated soil fill sites. *Id.* Mr. Walsh and Mr. Moustis contended that groundwater monitoring would ensure that facility operators are following regulations and accepting the right materials. *Id.* They also believe that such monitoring would curtail future liability. *Id.*

Mr. Walsh and Mr. Moustis also discussed Will County's effort to assist the Board and JCAR in their evaluation of the costs associated with the implementation of groundwater monitoring program. *Id.* They discussed the findings of Michael Crutcher, an engineer and hydrogeologist, who was hired by Will County to perform a study to determine the costs of groundwater monitoring at CCDD sites. *Id.* Mr. Crutcher's evaluation revealed that the total estimated cost to create and install an overall groundwater monitoring network and program of five wells would be $156,300. *Id.* The annual operation cost of the wells in current years for sampling, including analyzing and filing a report for the groundwater data, is $18,700 for five wells. *Id.*

When calculating this cost analysis, the amount was increased by 3% (average Consumer Price Index) per year. *Id.* The number of years of operation and the estimated capacity were then used to provide a breakdown per cubic yard. *Id.* The cost of the work as outlined above was applied to four CCDD sites in Will County using information the subject sites provided to the IEPA as part of their permit. *Id.* at 2. The cost for these sites with a site capacity ranging in age from 3 years (1,363,786 cubic yards) is $0.16 per cubic yard to 33 years (23,000,000 cubic yards) is $0.06 per cubic yard. *Id.* The CCDD sites generally charge between $4.50 and $5.00 per cubic yard for materials brought to the site. *Id.* Mr. Walsh and Mr. Moustis concluded by stating that it appears that once broken down to the cubic yard, as opposed to looking at the entire cost of implementing a groundwater program for the site's life, the cost of a groundwater program is a fraction of what the site charges per cubic yard. *Id.*

Mr. Walsh and Mr. Moustis asked the Board to consider adding groundwater monitoring requirements at CCDD sites given the additional information provided by Will County's expert. *Id.* They contended that for a low cost of $0.06 to $0.16 per cubic yard of CCDD materials deposited, groundwater monitoring can be implemented, which would ensure that Will County and other residents throughout the State have a clean water source. *Id.*

Senator Christine Radogno (PC 56)

Senator Christine Radogno requested that the Board amend Part 1100 adopted by the Board in R12-9 on August 23, 2012 to include groundwater monitoring at CCDD sites. PC 56 at 1. Senator Radogno referenced Public Act 96-1416, which provides statutory language that governs how CCDD sites are regulated and monitored in Illinois. *Id.* The Act specifically states that CCDD rules must include standards and procedures necessary to protect groundwater. *Id.* Senator Radogno contended that the exclusion of groundwater monitoring requirements in rules adopted by the Board on August 23rd is contrary to what the legislature had intended when drafting the bill. *Id.*

Marcella M. DeMauro, Executive Director of the Forest Preserve District of Will County (PC 57)

Ms. DeMauro commented on behalf of the Forest Preserve District of Will County, Forest Preserve Board of Commissioners (Commissioners). PC at 57. Ms. DeMauro stated that the Commissioners believe that sufficient safeguards are needed to protect groundwater resources. *Id.* She pointed out that most Will County communities rely on groundwater as a potable water source and many abandoned quarries or other potentially suitable fill sites are near forest preserves that protect environmentally sensitive wildlife and habitats. *Id.* Ms. De Mauro argued that without adequate testing, there is no way to insure that facility operators are following the new regulations in accepting suitable materials for disposal at CCDD and uncontaminated soil fill sites. *Id.* Thus, a risk of groundwater contamination can develop, which can pose a health risk to Will County residents. *Id.*

Ms. DeMauro also discussed the analysis conducted by Will County that demonstrated the cost would be between $0.06 to $0.16 per cubic yard to implement the groundwater monitoring program. *Id.* at 2. She contends that this is a small cost relative to the benefit of ensuring clean and safe drinking water supply for Will County residents. *Id.* Ms. DeMauro concluded by urging the Board to implement groundwater monitoring requirements at CCDD and uncontaminated soil fill sites. *Id.*

Land Reclamation & Recycling Association (PC 58)

Land Reclamation & Recycling Association (LRRA) noted that it had provided testimony (Exh. 15) regarding costs associated with developing groundwater monitoring models and installing groundwater monitoring wells at the Reliable Materials Lyons, LLC CCDD site (Reliable Lyons). PC 58 at 1. LRRA concurred with IAAP and other interested parties that groundwater monitoring is unnecessary for CCDD facilities to ensure protection of the environment. *Id.*

LRRA provided additional information on monitoring of groundwater at Reliable Lyons. LRRA explained that in 2008 the Village of Lyons entered the Site Remediation Program (SRP) with property that is directly east of the Reliable Lyons site. PC 58 at 1. Both prior to and during construction on the Lyons' property, stormwater runoff flowed into the CCDD site at

Reliable Lyons. *Id.* Reliable Lyons installed a groundwater collection system at the bottom of the 275-foot deep limestone quarry that included an inward gradient and a pump. The collected groundwater is pumped and discharged to the Des Plaines River under a National Pollutant Discharge Elimination System (NPDES) permit. *Id.*

Beginning in 2007, Reliable Lyons randomly tested the water discharged for Resource Conservation Recovery Act (RCRA) metals, polycyclic aromatic hydrocarbons (PAH), semi-volatile organic compounds (SVOC), pesticides, and herbicides. PC 58 at 1. LRRA stated that this testing was performed because of concerns that the Lyons' property could leach contaminants into Reliable Lyons. *Id.* LRRA indicated that in the first year of testing Reliable Lyons accepted approximately 1,300,000 cubic yards of CCDD, and that was during a time when the amendments to Part 1100 had not been adopted. PC 58 at 2. The results of the first year of testing detected only barium and that was at a level well within the standard for potable groundwater. *Id.*

Reliable Lyons conducted testing in 2007, 2008, 2009, and 2010, collecting five samples during a period of unrestricted drainage from the Lyons' property. PC 58 at 2. The results of this testing demonstrated that barium continues to be within the normal range for Illinois soils, and the levels of lead, chromium, selenium, and naphthalene were well below Class I groundwater standards. *Id.* at 3. LRRA noted that other than selenium, all of the constituents were found as a part of testing from the Lyons' property. *Id.* Since 2010, Reliable Lyons collected seven additional samples and only barium was detected. *Id.*

LRRA concluded:

> The Reliable [Lyons] CCDD site, which is one of the largest permitted CCDD facilities in the state of Illinois, has accepted over 6,000,000 [cubic yards] of CCDD since 2006. The vast majority of this material has come from highly developed urban environments. Yet, the data from groundwater well samples indicates that there is no evidence of contamination of local groundwater as a result of the fill operation. This information supports the Board's initial determination that there is no justification for imposing groundwater well installation and monitoring as an environmental safeguard against contamination at CCDD sites within the state of Illinois. PC 58 at 3-4.

James E. Huff, Huff & Huff, Inc. (PC 59)

James E. Huff submitted comments to address the issue of what requirements should be imposed at CCDD fill operations if the Board determined it necessary to require groundwater monitoring. Mr. Huff also addressed two issues that he requested be re-visited in this subdocket: the maximum soil pH and the decision not to incorporate MACs under the Board's regulations. PC 59 at 1.

Mr. Huff asserted that "protecting groundwater is important to all stakeholders", although he suggested that this can be done by regulating the quality of CCDD materials as well as requiring groundwater monitoring. PC 59 at 2. Mr. Huff suggested that a key issue to examine

in this subdocket is the "economic implications of requiring monitoring wells", which includes the cost of monitoring but also whether "fill operations will even proceed with putting in the monitoring wells". He expressed concern that many fill operations will exit the CCDD and uncontaminated soil markets, which will force these clean materials to be deposited in landfills "at a huge economic burden on the citizens of Illinois". *Id.*

According to Mr. Huff, there are two costs associated with groundwater monitoring. PC 59 at 2. The first is the capital and operating costs, and the second is the unknown costs should a contaminant above regulatory limits be found. He suggested that while the first cost can be significant, it is a known cost, and fill owners can make a business decision based on these costs. The second cost is "totally unknown and uncontrollable and clearly the largest concern to the industry". *Id.* The concern, Mr. Huff argued, is that the groundwater monitoring would detect not only the impacts of fill operations but also historic impacts. If impacts were found, he stated, the remediation approaches would be to either begin a pump and treat system that could go on indefinitely, or to attempt to secure a groundwater management zone for the area. *Id.*

Mr. Huff opined that IEPA has interpreted Section 620.301, a part of the Board's nondegradation rules, to mean "achieving background concentrations, as opposed to creating *an existing or potential use* impairment, which is what Section 620.301(a)(2) states." PC 59 at 3 (emphasis in the original). He argued that the CCDD industry would be subject to "a more stringent remedial standard than LUST, RCRA, and voluntary (Site Remediation) programs". Mr. Huff contended that all of these programs "manage chemicals with the same or greater potential hazards than the CCDD material under consideration". *Id.*

Mr. Huff provided two recommendations for the Board to consider <u>if</u> the Board elects to require groundwater monitoring. PC 59 at 3(emphasis in the original). First, he recommended limiting groundwater monitoring to volatile organic compounds and dissolved RCRA metals. Mr. Huff opined that this would eliminate much of the monitoring cost burden and focus on the contaminants of the most concern. Dissolved metals rather than total metals are important to avoid false readings. Also, Mr. Huff offered that volatile organics are the most mobile contaminants and the most commonly found in groundwater. *Id.* Second, Mr. Huff recommended eliminating "any reference to non-degradation requirements and specifically allow the use of groundwater use restrictions as provided for in 35 Ill Adm. Code 742". *Id.* at 4. Mr. Huff noted that the proposed CCDD regulations have "borrowed heavily from the TACO regulations", so there "is no reason that the fill operations could not be afforded the same ability to secure a groundwater use restriction". *Id.*

Mr. Huff raised an issue with the Board adopting a maximum pH of 9.0, which he claims has created a number of problems, and recommended that the restriction on uncontaminated soil with a pH of greater than 9.0 be eliminated. PC 59 at 4 and 5. Aggregate limestone that is used underneath highways and buildings can have a pH of as high as 12.45. Mr. Huff argues that the "soil pH limit does not apply to the CCDD material, although where CCDD material and uncontaminated soil are co-mingled, then the pH limit would apply. *Id.* at 4. He stated that he had seen loads of aggregate material with minimal uncontaminated soil rejected where the pH values were greater than 9.0. *Id.* Mr. Huff continued by noting "much of the native soil in northeastern Illinois is derived from glacial deposits", which are derived from limestone and

dolomitic bedrock". *Id.* at 5. He stated that it is "not uncommon to have naturally occurring soils derived from these parent materials to exceed a pH of 9.0". As a result, Mr. Huff opined that there "is really no technical basis for the upper pH limit for uncontaminated soil, as metal mobility is not affected by higher pH levels". *Id.*

Mr. Huff raised a second issue to be revisited in this subdocket. He asked the Board to codify the "maximum allowable concentrations in the regulations". PC 59 at 5. Mr. Huff expressed concern that only the minimum pH was vetted, while IEPA was relied on to establish the MACs based on TACO. He noted that IEPA "has set MAC limits for iron and manganese at the median concentration in the state of Illinois", which he identifies as a problem. *Id.* Mr. Huff presented a second example of how IEPA, without any discussion outside of IEPA, established a total chromium MAC based on the hexavalent chromium. *Id.* at 6. Mr. Huff argued that he did not recall ever detecting hexavalent chromium in uncontaminated soils in Illinois. Mr. Huff concluded by noting that due to this MAC, "somewhere less than half of all soil in the metropolitan areas of Illinois will fail the total chromium MAC based on these results". As a result of these concerns, Mr. Huff recommended that the "current docket be expanded to vet the MACs and bring these limits under Part 1100 regulations". *Id.* at 7.

Citizens Against Ruining the Environment (PC 60)

Citizens Against Ruining the Environment (CARE), most of whose members live in Will County, observed that most Will County residents rely on groundwaters as their source of public and private water supplies. As a result, CARE urged the Board to "mandate groundwater monitoring at CCDD sites to ensure that aggregated fill material does not affect vital groundwater resources now or in the future". PC 60 at 1. This is consistent with CARE's position that "proactive groundwater monitoring is appropriate". *Id.*

CARE offered three reasons to require groundwater monitoring. PC 60 at 1. First, there could be an "aggregation of material that cumulatively affects groundwater quality over time", even for sites that are in compliance. CARE claims this is particularly true because these sites are not required to have liners. *Id.* at 2. Second, "it is the unconditional mandate of the Illinois Legislature that groundwater must be protected". CARE noted that the Illinois Groundwater Protection Act, "mandates a preventive approach" to protecting groundwater. *Id.*

The third reason CARE asserted that groundwater monitoring should be required is that "there is ample evidence in Illinois that 'perfect compliance' will not be achieved by CCDD generators and the sites that accept this material for disposal". PC 60 at 2. CARE demonstrated this point by conducting a ten-year survey of completed enforcement cases against CCDD generators and disposal sites, where it identified "more than 150 administrative and judicial enforcement cases". *Id.* CARE contended that this compliance survey provides evidence that demonstrates it is naïve to believe that "only 'properly run' facilities will operate" in the future. Given these documented violations, CARE questioned the Board as to why it believes "that establishing new regulations will magically transform the actors in this industry into perfectly compliant operators". CARE requested that the Board pay particular attention to three cases that were decided by the Board either immediately before or during this rulemaking. PC 60 at 3. These cases are People v. Western Sand & Gravel Co., LLC, PCB 10-22 (Mar. 18, 2010), People

v. Reliable Materials LLC, PCB 12-52 (Aug. 21, 2014), and the People v. 87th & Greenwood, LLC, PCB 10-71 (June 9, 2011). *Id.* at 3, 4, 5, 6.

CARE concluded by asserting the Board is not framing the question of whether groundwater monitoring should be required correctly. PC 60 at 6. It is not appropriate to ask for evidence as to whether groundwater contamination has occurred from "properly run facilities". CARE cited testimony by IEPA's Rick Cobb who articulated the "larger point is because of imperfect certification and screening procedures". *Id.* CARE reiterated its position that the Board should "accept the [I]EPA's prudent, preventative approach, an approach which is endorsed by the Illinois Attorney General and Will County government officials". *Id.* CARE argues further that IEPA's "concern is not merely speculative, but is justified by a well-documented history of non-compliance and enforcement". *Id.* at 7.

James W. Glasgow, State's Attorney of Will County (PC 61)

James W. Glasgow, the State's Attorney of Will County, submitted comments to the Board on the issue of groundwater monitoring. PC 61 at 1. Mr. Glasgow noted that the Board failed to include a groundwater monitoring requirement in Part 1100, citing three principle reasons: the costs of such monitoring, the lack of evidence in the record to support this requirement, and that CCDD and uncontaminated soils are not classified as wastes. *Id.*

Mr. Glasgow presented evidence to suggest the cost of groundwater monitoring is "incidental in comparison to the savings of dumping CCDD waste in an unlined quarry". PC 61 at 1. He elaborated by citing figures from the record to support his argument, including testimony by Mr. John Hock, P.E. who stated that the cost of sampling groundwater monitoring wells for the entire Class I list "is a mere $2,996 per sample", and that testimony from Mr. Ken Liss (Exh. 49) who reported the total cost of sampling is less than $12,000 per year. *Id.* at 2. Mr. Glasgow opines that in comparison to the cost of groundwater monitoring, the "cost of contamination is devastating". *Id.*

Regarding the second reason the Board failed to require groundwater monitoring, Mr. Glasgow noted that while the record lacks evidence that CCDD or uncontaminated soils are a source of contamination, this is only true because data from these facilities are "virtually nonexistent". PC 61 at 2. However, Mr. Glasgow noted testimony by the People (Exh. 35) that cited eleven cases being filed against CCDD facilities for not following CCDD regulations. He also argued that "we know that for every violator caught hundreds escape detection". *Id.* Further, Mr. Glasgow opined that evidence of contamination is not a pre-requisite for taking steps to protect groundwater; in fact, it is a mandate in the Illinois Constitution, as well as being identified as essential by the Illinois legislature with passage of the Act and Groundwater Protection Act. *Id.* at 3 and 4. Mr. Glasgow stated that by failing to include a groundwater monitoring requirement, the Board has failed to give IEPA "the tools necessary to detect contamination early enough to prevent catastrophic damage and to establish the causation of the contamination". *Id.* at 4.

Mr. Glasgow concluded by arguing that Part 1100, as adopted by the Board, "assume[s] that all testing procedures are perfect, that all operators and employees of sites are well-trained,

that all owners/operators and users of CCDD sites have the best intentions". PC 61 at 5. He opined that this view is "dangerously naïve and places the citizens and the groundwater supply in peril". *Id.*

Illinois Environmental Protection Agency (PC 62)

IEPA submitted comments to the Board in support of groundwater monitoring as included in Subpart G of its initial proposal. PC 62 at 2. Influencing IEPA's decision to propose groundwater monitoring is the "statutory command to propose and adopt standards and procedures necessary to protect groundwater", which indicates the legislature has "concluded that there is potential for groundwater contamination from facilities accepting large quantities of soil from nearly unlimited sources and locations". *Id.* IEPA argued that the question is not whether there is evidence of such contamination as the Board suggested, but "rather how groundwater protection will be accomplished considering the potential for such contamination". IEPA stated that it does agree with the Board that "groundwater monitoring is not specifically required by statute". Groundwater monitoring is, however, "the single most important measure for achieving groundwater protection", according to IEPA. *Id.*

Multi-Barrier Approach

IEPA explained that its initial proposal used a multi-barrier approach for fill operations accepting soil, which included setting numeric standards for MACs, requiring soil certification and screening, and groundwater monitoring for fill operations. PC 62 at 2 and 3. IEPA stated that it proposed groundwater monitoring "as a final check on control practices, and in part because the [IEPA] did not believe time-consuming and costly regulatory burdens should be placed on construction and demolition activities". IEPA believed the costs should be the responsibility of fill operations as the regulated entities, with the costs being allocated proportionately among all source site owners and operators through adjusted tipping fees. *Id.* at 4.

IEPA opined that groundwater monitoring is the "single most important protective barrier" in its initial proposal because "certification and screen procedures were of limited effectiveness". PC 62 at 5. Groundwater monitoring would serve as an "early warning of any groundwater contamination that might result from the quantities of soil deposited in unlined quarries, mines or other excavations". *Id.*

Evidence of Contamination

IEPA asserted that the absence of evidence of groundwater contamination does not support a decision that groundwater monitoring is unnecessary. PC 62 at 7. First, the lack of evidence of such contamination from fill operations is not proof that these facilities cannot or have not caused groundwater contamination, and second, there is no evidence because "no one is looking for it". There is no current groundwater monitoring requirement so there is no systematic approach to answer the question. IEPA further stated that "the question is not whether such contamination is "likely" but whether the potential for groundwater contamination exists at fill operations". *Id.* Requiring evidence of such contamination before groundwater

monitoring is implemented "establishes a threshold for groundwater monitoring that cannot be met" unless groundwater contamination is widespread and serious. *Id.* IEPA opined that "the potential for fill operations to cause groundwater contamination is a sufficient basis for the Board to require groundwater monitoring". *Id.* at 8.

According to IEPA there are five secondary factors to support groundwater monitoring:

1) Imperfect certification procedures and limitations of the tools available to site owners/ operators;

2) The large quantities of soil accepted at many facilities;

3) The frequent placement of soil in the saturated zone;

4) The absence of design controls such as liners; and

5) The impracticality of installing or retrofitting design controls in former quarry operations. PC 62 at 8.

In addition are the possible consequences if groundwater contamination is not prevented, which are potentially severe and costly. *Id.* at 8 and 9. IEPA asserted, however, that it is not suggesting that specific fill operations are now or will become sources of groundwater contamination. *Id.* at 9. IEPA pointed out that CCDD and uncontaminated soil should be considered to have the potential to cause such contamination and because the State's policy is to prevent groundwater contamination, groundwater monitoring should be required at fill operations. *Id.*

IEPA reminded that the Board acknowledged that policy considerations such as the protection of groundwater may be sufficient authority for adopting a rule, but it declined to do so in this proceeding. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 87-8 (June 7, 2012). IEPA makes clear that its argument has been that the potential for groundwater contamination from fill operations exists even if the rules are followed. PC 62 at 10. However, IEPA argued that the likelihood that the rules will not be followed in all cases and at all times supports a requirement for groundwater monitoring. *Id.* IEPA maintained that the due diligence procedures and assessing impacts based on the guidance documents referenced in Part 1100 "is not a simple task nor will it further the source site owner/operators' direct interests." *Id.* IEPA argues:

> For all source site owner/operators to achieve a high level of accuracy using the Board's procedures will require familiarity with complex legal, environmental and technical concepts, knowledge of legal, real estate and environmental databases and the proficiency with computers to search them, diligence in the performance of the assessment (e.g., willingness to invest the time and money necessary to track down and resolve uncertain details), and motivation to reach a complete and

accurate result (e.g., appreciation for the possible consequences of inaccuracy). *Id.* at 10-11.

IEPA stated it assumes most source site owner/operators will make a good faith effort to comply, but IEPA does not assume that the evaluations required by the Board will be perfectly performed or that soils contaminated above the MACs will never enter fill operations. *Id.* at 11.

IEPA argued that the Board rejected an approach in Groundwater Protection: Regulations of Existing and New Activities Within Setback Zones and Regulated Recharge Areas; Groundwater Technical Standards: 35 Ill. Adm. Code 601, 615, 616, and 617, R89-5 (Dec. 6, 1991)) that was similar to what the Board now adopted in Part 1100. PC 62 at 14. In the R89-5 final opinion, IEPA noted, the Board "repeatedly mentioned the potential for contamination from the regulated sources and the preventive nature of the rules it was promulgating". *Id.* IEPA further noted that the Board did adopt groundwater monitoring for most of the potential sources, including pesticides and fertilizers. *Id.*

Costs of Groundwater Monitoring

IEPA next addressed the issue of the costs associated with groundwater monitoring. IEPA identified two perspectives from which to consider such costs, first, the actual monitoring costs, and second, the potential costs of not monitoring. PC 62 at 17. IEPA prepared estimated costs for groundwater monitoring that include these basic elements: investigation, site monitoring well placement, groundwater sampling program design, and monitoring data evaluation. *Id.* at 21. IEPA also obtained cost estimates for the development of a groundwater monitoring system plan for CCDD fill operations. Costs for such plans ranged from $5,000 to $18,000. IEPA did not include cost estimates for groundwater monitoring at uncontaminated soil fill operations because it has no data on the quantity of soil accepted at these facilities. *Id.* at 22.

According to IEPA, the combined costs of a monitoring well system design and well installation at CCDD fill operations would be less than $0.12 per cubic yard over a ten year life of the permit for 96% of the CCDD disposed of at CCDD facilities in 2011. PC 62 at 22. IEPA presented additional figures to show that the same combined costs would be less than $0.52 per cubic yard over the same ten-year period for approximately 99% of the CCDD disposed of at fill sites in 2011. *Id.*

IEPA examined the second perspective from which to consider costs, and that is the cost of not requiring groundwater monitoring, which it stated is difficult to quantify. PC 62 at 23. IEPA argued that among the factors to consider are the "costs avoided and resources preserved for current and future uses". IEPA observed that once a small water system is contaminated, the corrective action may be to connect users to a treated community water supply (CWS). *Id.* at 24. These costs can be expensive. *Id.* at 25. IEPA reported that the cost to "merely run a service line from the water main to a typical house (based on 2002-2005 data) ranges from $1,000 to $1,500 per home, although this price range increases to $4,000 to $5,000 per home when other associated costs are included." *Id.* at 25 and 26. Other examples were provided by IEPA,

including one from the City of McHenry that reported estimates for the homeowner's portion of the costs of connecting to a CWS as being $8,600 to $10,400 per home. *Id.* at 28.

IEPA stated that groundwater contamination sites "are some of the most expensive sites to remediate", and that it is "nearly impossible to totally clean up the groundwater once it is contaminated". PC 62 at 28. This leaves governments with few options, including treating the groundwater as it is withdrawn or connecting affected homeowners to a CWS; however, IEPA warned that "current knowledge of the threat of vapor intrusion, even providing CWS connections, may not be the final remedy".

Self-Implementation

IEPA addressed the issue as to whether groundwater monitoring should be self-implementing. PC 62 at 29. IEPA argued that the Board has adopted rules in the past with similar self-reporting monitoring requirements, with no adverse impact to the environment. *Id.* One example is for certain types of existing facilities wholly or partially within groundwater setback zones or regulated recharge areas and landfills exempt from permits. *Id.* at 29 and 30. While the Board had expressed concern with the self-implementation of monitoring requirements, its response was to strengthen record-keeping and reporting requirements, both of which can be done in Part 1100.

IEPA acknowledged that many of its programs that require groundwater monitoring also require prior approval by IEPA of the groundwater monitoring system plans and IEPA oversight of construction activities. PC 62 at 30. IEPA admitted this would provide "greater certainty of compliance, but it also is resource intensive". IEPA noted that an important reason for self-implementation of monitoring requirements is due to IEPA's resource limitations. However, IEPA provided three reasons to support its view that the absence of IEPA's review and approval of monitoring plans and reports does not mean the self-implementing approach is "defective and cannot work". *Id.*

First, IEPA noted that while it does not agree that the required certification and screening procedures will be as effective as needed, it has acknowledged that these tools and MACS "are two of the barriers on which it is relying to provide protection from contaminated soil in a self-implementing program". PC 62 at 30. IEPA opined that threats to groundwater at fill operations are more likely to come from loads of soil rather than CCDD materials, which is why the latter has been designated as "clean". *Id.* at 31.

Second, IEPA indicated it will rely on licensed professional engineers to supervise the design and construction of the groundwater monitoring systems and preparation of related plans and reports. PC 62 at 31. Third, IEPA noted it will rely on field inspections to verify compliance with groundwater monitoring requirements, with IEPA estimating it will conduct no less than two inspections at each facility per year. *Id.*

Monitoring for Class I Groundwater Standards

IEPA had recommended groundwater monitoring for all parameters where there are Class I groundwater standards. PC 62 at 33. IEPA argued that this is necessary because soil that is accepted at fill operations "could originate in voluminous amounts anywhere construction or demolition activities might take place". Because of this, IEPA is "reluctant to reduce the parameters for monitoring" and considers the use of Part 620 parameters as a form of indicator contaminant monitoring. *Id.* IEPA did, however, exclude four radionuclides and eight explosives from the monitoring requirements, which would result in significant cost savings for the annual groundwater analysis requirement. *Id.* at 33 and 34. IEPA estimated the cost for the analysis of the Part 620 parameters to be approximately $2,000 per sample, with one sample per monitoring well being required annually. *Id.* at 34.

IEPA addressed the recommendation posed by Mr. Hock that groundwater monitoring should not be required at CCDD facilities, or that if it was required, to base the monitoring on what is in the source material. PC 62 at 34. He suggested other parameters could be added if supported by the site's historic records. *Id.* at 35. IEPA raised the question of how other site-specific parameters would be identified and incorporated into the site's monitoring requirements in order to protect the public. IEPA argued that this approach "would require considerably more discussion and development". Mr. Hock's approach would, IEPA argued, rule out specific contaminants unless they are known to exist at the facility. *Id.* IEPA opined that ruling out entire categories of contaminants at fill operations would not be acceptable. *Id.* at 36.

IEPA also addressed Mr. Hock's suggestion of monitoring only for contaminants based on site records and enforcement history. PC 62 at 36. IEPA argues that this approach is retrospective only, and that because the chances for soil contaminants exceeding the MACs will never be eliminated, groundwater monitoring must be both retrospective and prospective. This would allow for the detection of contaminants from materials already deposited in the fill operations and to anticipate those that might be deposited in the future. *Id.* Yet another problem with Mr. Hock's recommendation is that some type of administrative mechanism would be needed for "periodic in-depth evaluations of facility records" to determine what monitoring parameters would be required. *Id.* at 37.

IEPA opined that its proposed Subpart G: Groundwater Monitoring provisions addresses all of these concerns. PC 62 at 37. IEPA argued that its proposal is substantially more comprehensive because its "Part 620 parameters include the major categories of contaminants such as metals and other inorganics, VOCs, SVOCs, [polynuclear aromatics] PNA, and pesticides. IEPA also noted that its proposed Part 620 parameters list is both retrospective and prospective in its reach. As a result, IEPA argued that its Part 620 Class I parameters should be adopted if groundwater monitoring requirements will be included. *Id.*

pH Levels

IEPA addressed the issue of whether the rules should allow source owners/operators to amend soils with a low pH with limestone to increase soil pH as recommended by Mr. Huff and Dr. Roy. PC 62 at 38. IEPA noted that the Board agreed with this proposal, saying "there is nothing in the proposed rules that would prohibit an owner/operator to amend the soil with limestone to increase the soil pH prior to sending the soil to a fill site". IEPA argued that this

practice is prohibited by subsection 1100.600(d)(2), which "prohibits this practice by excluding from Subpart F applicability "soil that has at any time been treated or diluted to reduce contaminant concentrations or mobility". *Id.* IEPA further argued that this practice "can affect the legal requirements for managing the soil without actually reducing the concentrations in the soil".

IEPA reported that the Board suggested the practice of adding limestone to reduce soil pH would only be allowed after the soil had been determined to meet the applicable MACs. *Id.* IEPA argued that it "does not accept this type of manipulation in the Board's waste management and remediation programs". *Id.* at 39. IEPA noted that requiring the MACs to be met before applying limestone to increase the soil pH would "probably be meaningless in the source-site owner/operator context where sampling and analysis are not required" because there would be no way to police this restriction. IEPA contended that "it is obligated to enforce Section 1100.600(d)(2) as written" and requested that the Board "revisit this issue and revise its opinion for consistency with Section 1100.600(d)(2) as written, or in the alternative, eliminate the conflict by creating a specific exception in this section for the practice of adding lime after confirmation of compliance. *Id.*

The Office of the Attorney General (PC 63)

The People consistently advocated for the Board to adopt a comprehensive approach to protect the State's groundwater that would include groundwater monitoring. PC 63 at 2. The People addressed: 1) the costs of groundwater monitoring, 2) the parameters to be monitored, 3) the design of groundwater monitoring systems, 4) self-implementation, and 5) evidence of contamination from a properly run facility. The Board summarizes the comments on each issue below.

Costs of Groundwater Monitoring

The People commented that a challenge in estimating the cost of groundwater monitoring is that each site is unique and several factors can impact the costs. PC 63 at 2. The factors that affect the cost of groundwater monitoring include the volume of the site to be filled, depth of groundwater, and the geology of the site. *Id.* At the filing of PC 63, cost information had been received from the IAAP (PC 34), Waste Management of Illinois, Inc. (Waste Management) (PC 33a), and IEPA (PC 39, 47). *Id.* at 3.

The People pointed out that the information from IAAP concerned a very large site, over 1,000 acres, known as Bluff City Materials (Bluff City). PC 63 at 3. The People took issue with the costs cited by IAAP because the "information is lacking supporting detail that would establish the basis for the significantly high estimates espoused by IAAP in its comments for both the initial installation costs and the annual sampling costs." *Id.* Waste Management offered that the costs per ton would be "insignificant", while IEPA estimated the costs for installation of groundwater monitoring at 99% of sites would be less than $0.50 per cubic yard. *Id.* at 4. The People concurred with IEPA's analysis. *Id.*

Given the proximity of both public and private water wells to CCDD sites, the People argued that the costs are not "exorbitant" and the cost should not preclude groundwater monitoring. PC 63 at 4. The People noted that the General Assembly made findings that groundwater should be protected in Section 11 of the Act (415 ILCS 5/11 (2014)), Section 2 of the Groundwater Protection Act (415 ILCS 55/2 (2014)) and the prohibitions in Sections 12 and 22.51(f)(1) of the Act (415 ILCS 5/12, 1251(f)(1) (2014)). *Id.* Section 2(b) of the Groundwater Protection Act states that "it is the policy of the State of Illinois to restore, protect, and enhance the groundwaters of the State, as a natural and public resource" (415 ILCS 55/2(b) (2014)). The People argued that given that public and private drinking wells are located near CCDD sites, the policy of the State is significant. *Id.*

The People argued that the dewatering of CCDD facilities will also offset the cost of groundwater monitoring. PC 63 at 5. Dewatering of the fill area is accomplished through the issuance of an NPDES permit, and the IEPA's proposal would allow sites that have an NPDES permit for dewatering to delay installation of groundwater monitoring. *Id.* at 5-6. The People opined that as a result CCDD and uncontaminated soil fill sites that "could demonstrate that a cone of depression was being maintained at their sites would not have to incur the costs associated with groundwater monitoring well design and groundwater monitoring for potentially several years." *Id* at 6. The People pointed out that Waste Management opined that a company could continue to dewater for years as long as the site did not go through closure. *Id.*

Parameters to be Monitored

The People urged the Board to follow IEPA's recommendation and require monitoring for all Class I groundwater standards. PC 63 at 6.

Design of Groundwater Monitoring System

The People concurred with IEPA's recommendation to require that a professional engineer supervise and design the groundwater monitoring system. PC 63 at 6-7.

Self-Implementation

The People opposed self-implementation of groundwater monitoring and argued that CCDD and uncontaminated soil fill operations should be required to file monitoring plans and results with IEPA. PC 63 at 7. The People opined that reporting to IEPA would allow IEPA to ensure that contamination has not occurred and would allow public access to the information. *Id.* The People requested the Board to include a requirement that groundwater monitoring plans and reports be submitted to IEPA. *Id.* at 6.

Evidence of Contamination from Properly Run Facilities

The People maintained that the record contains evidence that CCDD fill operations pose a threat to groundwater as well as actual contamination of groundwater. PC 63 at 8. The People pointed to testimony by IEPA regarding a "poorly run CCDD facility" that showed levels of contamination. PC 63 at 9. The People argued that based on this testimony "prudence dictates

the inclusion of groundwater monitoring at CCDD facilities to protect groundwater, as required by Section 22.51(f)(1) of the Act. 415 ILCS 5/22.51(f)(1) [2014.]" *Id.*

The People maintained that the lack of monitoring means that data collection regarding impacts to groundwater has not occurred. PC 63 at 9. The People opined that while the Board noted the lack of evidence regarding contamination, "the evidence that these facilities have not impacted the groundwater was even scarcer". *Id.* (emphasis in original). The People argued that:

> The Board's premise based on the purported lack of data does not support its conclusion that there are no groundwater impacts from CCDD. Essentially, the Board has indicated that the record is incomplete, therefore no groundwater monitoring should be required, especially because the "discarded" CCDD is not "waste" and there are adequate soil screening procedures in place. However, clean construction or demolition debris is not actually "clean," as CCDD by its very definition may lawfully contain cancer causing chemicals in the form of PNAs (*i.e.* reclaimed or other asphalt) without reference to any regulatory levels. *See* 415 ILCS 5/3.160(b) (2014). Therefore, the specter of groundwater contamination will always exist at CCDD facilities, particularly because there is no requirement in the Part 1100 Regulations to employ any protective liners at these facilities. *Id.* at 10.

The People also took issue with the Board's "assumption" that facilities are and will be "properly run". PC 63 at 10. The People claimed that this assumption is incorrect as demonstrated by the People's testimony (Exh. 35). *Id.* The People noted that since the regulations were originally adopted, the People have brought enforcement actions for violations at CCDD facilities that "clearly call into question the ability to determine the nature of materials accepted by these facilities." *Id.* at 11. Since the amendments to Part 1100 adopted by the Board on August 12, 2012 in R12-9, the People filed two additional actions alleging violations of the Act and CCDD regulations. *Id.* Because of these actions, the People lack confidence that soil certifications and load checking procedures are adequate to protect groundwater. *Id.*

The People noted that in 1997 the General Assembly adopted a new definition for CCDD, "which essentially provided that to the extent provided by federal law, CCDD could be disposed of at a CCDD fill site, without the need for any soil certification, load checking and/or screening." PC 63 at 12. From 1997 to 2005 there were no regulations in place and no requirement for IEPA permitting. *Id.* The People noted that in 2005, the General Assembly enacted Section 22.51 of the Act (415 ILCS 5/22.51 (2014)) that included a requirement that loads be checked with a photo ionization detector or equivalent device. *Id.* The People asked:

> In sum, the lack of effective procedures to identify contaminated soil from 1997 to 2010 at "properly run" facilities, let alone the improperly run facilities, begs the question how the Board's newly promulgated soil certifications can ensure that there will be no groundwater contamination at any CCDD facility in the State, where dumping occurred before 2010 and continues today? *Id.* at 13.

The People also expressed concern that the responsibility for demonstrating that soil is uncontaminated is left to soil generators. PC 63 at 13. The People argued that unless the soil certification procedures are 100% effective, regulators cannot be sure groundwater is protected. *Id* at 14. Because of this, the People opined that the regulations are under-inclusive as there is no mechanism to determine impacts to groundwater or procedures for corrective action. *Id.* The People agreed with IEPA that groundwater monitoring is the most reliable protection for groundwater and requested the Board to include groundwater monitoring in the rules. *Id.* at 14-15.

Dorothy Hynous (PC 65)

On May 20, 2013, Dorothy Hynous filed a comment with the Board in response to an editorial in the *Chicago Tribune* that supported groundwater monitoring requirements at "dump sites". PC 65 at 1. Ms. Hynous agreed with the Tribune and argued that the "standards should be raised to protect Will County residents who live near quarries and rely on public water. She argued that the Board "should make a decision that protects the residents of Illinois". *Id.*

Mark J. Krumenacher, PG, of GZA GeoEnvironmental, Inc. (PC 66)

Mr. Krumenacher asked that the Board accept his previous testimony (Exh. 11) for consideration in this subdocket. PC 66. He also indicated support for the testimony of Martin Hamper (Exh. 56). Mr. Krumenacher's previous testimony sought inclusion of licensed professional geologists in in Sections 1100.205, 1100.212, 1100.412, 1100.525, 1100.530 and 1100.710. Exh. 11 at 3.[3]

SUMMARY OF TESTIMONY

As discussed above, after reviewing the public comments, the Board determined that an additional hearing was necessary. The following summarizes the testimony heard by the Board at the May 20, 2013 hearing.

Representative Lawrence M. Walsh Jr.

Representative Walsh was asked to testify on behalf of his constituents to reaffirm the District's stance on the importance of groundwater monitoring for CCDD sites in the Joliet area. Tr. at 9. Specifically, he stated that Will County has nine active permitted CCDD facilities within the county, which are all located adjacent to the principal waterway systems of northwestern Will County including the DuPage River and the Des Plaines River. Tr. at 9. Further, Representative Walsh stated that 71% of Will County's residents rely on groundwater for their drinking water. Tr. at 9. He reiterated that for a small cost of $0.06 to $0.16 "per cubic foot", the groundwater can be monitored. Tr. at 10. Representative Walsh concluded by stating

[3] The Board included licensed professional geologists in Sections 1100.205, 1100.212, 1100.412, 1100.525, and 1100.530. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9 (Aug. 23, 2012).

that his constituents are concerned about the safety of Will County's groundwater, especially within the Joliet area, and asked the Board to consider amending the rules to require groundwater monitoring at CCDD sites. Tr. at 10.

Senator Pat McGuire

Senator Pat McGuire testified on behalf of the constituents of the 43rd District and expressed his strong support for the implementation of groundwater monitoring at CCDD sites. Tr. at 11. He stated that "the 43rd District is the populous of west central Will County" and includes the townships of Jackson, Channahon, Joliet, Lockport and DuPage. Tr. at 11. He stated that there are nine permitted CCDD facilities within the District and four of them are directly beside the Des Plaines River. Tr. at 11-12. Senator McGuire noted that 71% of Will County residents rely on a shallow aquifer system for their potable water supply, and contaminants near or below the ground surface can rapidly infiltrate into this aquifer and move through the aquifer and towards waterways or areas of groundwater withdrawal. Tr. at 12. To protect the community from contamination, Senator McGuire urged the Board to implement three things. First, he requested groundwater monitoring at all CCDD facilities. Second, he asked that the reporting of non-compliant CCDD facilities be in line with conditions established for solid waste landfills. And finally, he requested that collective action in cases of non-compliance with groundwater quality standards also be in line with conditions established for solid waste landfills. Tr. at 13. Senator McGuire concluded by stating that groundwater monitoring systems at CCDD sites are absolutely essential because they would ensure that community water supplies are protected and safe from contamination. Tr. at 12.

Will County Executive Larry Walsh, Sr.

Will County Executive and former State Senator of the 43rd District, Larry Walsh, Sr., urged the Board to require groundwater monitoring at CCDD and uncontaminated soil fill operations. Tr. at 15. To support his argument, Mr. Walsh presented several reasons why such monitoring would be important. He stated that Will County is the fourth largest county in the State of Illinois. Tr. at 14. The majority of Will County's residents and businesses rely on groundwater and not Lake Michigan water, as their primary drinking and domestic water source. Tr. at 15. Many of the CCDD and uncontaminated soil fill operations are located near Will County's residential and businesses and have their debris within close proximity to the water source that they will consume or use. Tr. at 15-16. Mr. Walsh further stated that until recently, CCDD and uncontaminated soil operations were not required to thoroughly screen or verify the loads that they were receiving. Tr. at 16. The screening methods were done with just visual check or using a device that would only detect a portion of the load received. Tr. at 16. Mr. Walsh contended that such lax screening methods made it possible that contaminated material has been accepted at the facilities for many years. Tr. at 16. He argued that groundwater monitoring is crucial for this reason. Tr. at 16.

Additionally, Mr. Walsh argued that the protection of groundwater should not be based on cost, since drinking water is vital to human lives. Tr. at 16. He reiterated the determination made by Will County experts, as well as the IEPA and others, that the cost to perform groundwater monitoring is $0.06 to $0.16 per cubic yard. Tr. at 17. He concluded his testimony

by expressing how passionate and sincere the 700,000 residents of Will County are about this issue and stated that the county is projected to become the second most populated county in the State of Illinois reaching a peak of 1.2 million residents in the next 25-30 years. Tr. at 17. He reminded the Board that the vast majority of those 1.2 million residents will expect their groundwater to be safe and secure. Tr. at 17.

County of Will, Represented by Stuart J. Cravens

Mr. Cravens submitted testimony on behalf of Will County, first offering a general statement and then responding to the Board's questions.

Groundwater Resources in Will County

Mr. Cravens testified that Will County "strongly supports" groundwater monitoring for CCDD facilities based on years of experience with these facilities. Exh. 55 at 1. Mr. Cravens expressed concern that there is not enough testing or oversight by IEPA. *Id.* Will County has nine of 10 permitted sites in Illinois and those facilities are "at or near" the DuPage River and the Des Plaines River. *Id.* Also 71% of Will County residents rely on groundwater as their potable water supply. Will County retained Mr. Cravens who is a licensed professional geologist and has been involved in groundwater investigations and hydrogeological studies for over 30 years. *Id.* at 1-2.

Will County's shallow aquifer system exists within both the glacial sand and gravel deposits and the Silurian Dolomite bedrock and serves as vital resource in the community. Exh. 55 at 2. Communities throughout Will County rely on groundwater from that bedrock for drinking water and general household use water. *Id.* Even those Will County residents who are not on a community water supply, however, get most of their drinking water from groundwater pumped from either sand and gravel deposits or the Silurian Dolomite Aquifer. *Id.*

The top 100-150 feet of Silurian Dolomite Aquifer contain the most frequent and large water-bearing openings. Exh. 55 at 2. The aquifer is an excellence source of drinking water, in part, because its structure allows groundwater to flow large distances over a short period of time. *Id.* However, the aquifer's unique structure makes it susceptible to contamination from surface and near surface sources. *Id.* When a contaminant enters the aquifer it can move tens of feet per day through the aquifer towards waterways or areas of groundwater withdrawal. Mr. Cravens conceded that he is unaware of groundwater contamination resulting from a CCDD or uncontaminated soil fill operation. Tr. at 36-37

Costs of Groundwater Monitoring

In its comment (PC 55), Will County submitted cost estimates for development and installation of groundwater monitoring programs at four of Will County's existing CCDD and uncontaminated soil fill facilities. Mr. Cravens indicated that Will County estimated that it would cost $156,300 to implement a groundwater monitoring program consisting of five monitoring wells under the supervision of a hydrogeologist. Exh. 55 at 3. In addition, Will County estimated that the annual costs to sample, analyze, and produce a report for the modified

groundwater quality parameters in Part 620 would be $18,700. *Id.* Will County also concluded that the costs to implement and maintain groundwater monitoring and reporting programs at four CCDD facilities in Will County were between $0.06 to $0.16 per cubic yard. *Id.* Furthermore, IEPA's estimates for implementing groundwater monitoring programs "are generally in line with" Will County's calculations. Mr. Cravens stated that "the discussion of costs to implement groundwater monitoring at CCDD and uncontaminated soil fill facilities is somewhat facile" because they would only amount to a fraction of the costs potentially incurred by an owner whose facility's groundwater source is contaminated. *Id.*

Parameters to be Monitored

Aside from the parameters contained in Section 1100, Appendix A, Mr. Cravens stated that Will County objected to any limitation on the monitoring parameters for which there is a Class I groundwater quality standard as listed in 35 Ill. Adm. Code 620.410. Exh. 55 at 3. Mr. Cravens listed four considerations. First, Mr. Cravens stated that "VOCs are not a reliable indicator of the presence of PAHs or other semi-volatile organic contaminants, such as those present in asphalt, roofing materials, and some other building materials." *Id.* Second, Mr. Cravens stated that "RCRA metals are not an indicator parameter for other inorganic constituents that may be associated with CCDD [and uncontaminated soil fill]." *Id.* Third, Mr. Cravens testified that "other inorganic constituents that are not RCRA metals may be present in groundwater at elevated concentrations at CCDD sites." *Id.* Finally, Mr. Cravens testified that "the selection of parameters for groundwater monitoring should in no way be based on the cost of monitoring as it has been shown by the IEPA, [Waste Management of Illinois], and Will County's own cost estimates that the costs of groundwater monitoring will not be economically burdensome to CCDD [and uncontaminated soil fill] owners/operators." *Id.* Mr. Cravens included the analyses of two IEPA-certified laboratories for the modified Part 620 list versus VOCs and RCRA metals. The analysis for the modified 620 list yielded an estimated cost of $750 to $1,300 per sample. *Id.* To analyze for VOCs and RCRA metals, the laboratory cost is $136 to $161 per sample. *Id.* Mr. Cravens noted that despite the disparity between the price per sample, "the overall costs savings when incorporated into the cost per ton for disposal of material is minimal." *Id.* Mr. Cravens added that comparing dissolved metal concentrations to the applicable groundwater standards is acceptable. *Id.*

Changes to Proposal if Groundwater Monitoring is Added

Mr. Cravens recommended three changes that should be made in consideration of adding groundwater monitoring. Exh. 55 at 4. Mr. Cravens first suggested that a definition be included for "background groundwater monitoring frequency to establish a baseline groundwater quality for statistical analysis." *Id.* According to Mr. Cravens, the change would benefit CCDD and uncontaminated soil fill owners and operators "because it would establish the variability in background groundwater quality over the course of a year, potentially allowing for a higher upper concentration limit for some parameters." *Id.* Second, Mr. Cravens requested that a more specific definition be provided for "statistical analysis procedures acceptable for comparing upgradient (background) to downgradient (compliance well) groundwater quality." *Id.* Finally, Mr. Cravens recommended initial groundwater sampling be required quarterly or semi-annually, rather than just annually. *Id.* More specifically, Mr. Cravens recommended quarterly or semi-

annual analyses of a smaller subset of Part 620 parameters and an annual analysis of the full set of 620 parameters (excluding Part 1100, Appendix A parameters). *Id.* Any increased costs as result of more frequent testing "will be partially off-set by fewer parameters analyzed." *Id.* Mr. Cravens emphasized that most importantly, "the increased frequency will allow for detection monitoring that takes into account seasonal changes in groundwater flow directions, groundwater gradients, groundwater chemistry, and other factors." *Id.*

Front-end Screening

Mr. Cravens responded that the front-end screening requirements, which are designed to insure contaminated materials are not disposed of at CCDD and uncontaminated soil fill facilities, have only recently been required. Exh. 55 at 4. According to Mr. Cravens, if there are no front-end screening requirements, then the only way to know if contaminated materials have entered a CCDD facility is by conducting groundwater monitoring. If groundwater monitoring was the sole mechanism for determining if contaminants entered the facility, "there might be a lag time of months to years before impacts are detected and identified within the groundwater unit." *Id.*

Self Implementing

Mr. Cravens stated that "a self-reporting system for groundwater monitoring will weaken the intent of the proposed new groundwater regulations to provide notification of releases to the environment." Exh. 55 at 4. Mr. Cravens further stated that a self-implementing system would "create an immediate lack of trust by the public towards both the process and the CCDD [uncontaminated soil fill] site owners/operators." *Id.*

Evidence of Groundwater Impacts at Properly Run Facilities

Mr. Cravens contended that the lack of reliable data "does not constitute proof that impacts to groundwater are not occurring or will not occur in the future." Exh. 55 at 5. In fact, Mr. Cravens maintains that there is a potential threat to groundwater from contaminants associated with CCDD [uncontaminated soil fill] associated from the materials themselves, "even those screened and accepted within permit requirements." *Id.*

Mr. Cravens further asserted that evidence provided for the Lyons CCDD site and one site in Kane County was atypical and does not warrant receiving consideration in the decision-making process for implementation of groundwater monitoring at CCDD and uncontaminated soil fill facilities. Exh. 55 at 5. Mr. Cravens explained that the Lyons and Kane County sites "are only two sites and the monitoring was not done under a permitted system with IEPA scrutiny." *Id.*

Remediation Objectives

For those cases where baseline groundwater monitoring data from existing CCDD and uncontaminated soil fill facilities show exceedances of groundwater quality standards from past practices related to disposal of CCDD and uncontaminated soil fill, Will County's position is that

"those facilities must either achieve compliance via the Corrective Action Program detailed in Section 1100.755 of the proposed regulations in order to continue operating or discontinue operations." Exh. 55 at 5 (emphasis in original). Mr. Cravens also explained its approval of a regime that allows, in cases of noncompliance with groundwater quality standards, application for a Groundwater Management Zone (GMZ). *Id.* As a result, a remedial alternative through an IEPA-approved Corrective Action Program would be implemented to help ensure compliance. Mr. Cravens further proposed that if compliance cannot be demonstrated, then the permit for the continued operation of the facility would be revoked. *Id.*

Applicable Groundwater Quality Standards

It is Will County's position that "Class I (potable resources) groundwater quality standards are appropriate for all hydrogeologic units at a CCDD [and uncontaminated soil fill] facility unless a demonstration can be made to IEPA that the groundwater within any individual hydrogeologic unit potentially impacted by the facility can meet the definition of Class II (general resource) groundwater." Exh. 55 at 5.

Location Restriction

Mr. Cravens testified that Will County shares the position of INPC that the Class III (Special Resource) groundwater contribution areas to dedicated Nature Preserves should be protected from potential groundwater impacts from CCDD and uncontaminated soil fill facilities. Exh. 55 at 6. In addition, Mr. Cravens supports the requirement of a minimum setback distance of CCDD and uncontaminated soil fill facilities from dedicated Nature Preserves. *Id.*

Martin J. Hamper, PG

On behalf of the Illinois-Indiana Section of the American Institute of Professional Geologists (AIPG), Mr. Hamper provided pre-filed testimony to support the inclusion of Illinois Professional Geologists as a designated professional that may prepare or supervise the design and preparation of groundwater monitoring systems, plans, notifications, and reports under the proposed 35 Ill. Adm. Code Section 1100.710. Exh. 56 at 1. Mr. Hamper's testimony explains that the licensure process already in place in Illinois assures that Professional Geologists are qualified to be on the list of "delegated professionals" in Section 1100.710. *Id.*

According to Mr. Hamper the Professional Geologist Licensing Act [225 ILCS 745] expressly states that "the planning, review, and supervision of data gathering activities and interpretation of data on regional or site specific geological characteristics affecting groundwater are examples of the practice of professional geology in Illinois."

Mr. Hamper's second reason for the revision is that the educational curriculum required for entry into the profession as Professional Geologists warrants their inclusion as another designated professional that may prepare or supervise the activities described in Section 1100.710. Exh. 56 at 2.

Mr. Hamper points out that the National Association of State Boards of Geology (ASBOG) examination readies Professional Geologists "to prepare or supervise the design and preparation of groundwater monitoring systems, plans, notifications, and reports under the proposed Section 1100.710." Exh. 56 at 4. Also included in the ASBOG examination is a list of topics in which the examinees must demonstrate their proficiency. *Id.*

Mr. Hamper also points out that the General Assembly has already recognized that Illinois Professional Geologists "have the education, training, experience and licensure to conduct and certify soil and groundwater investigations." Exh. 56 at 4, referring to 415 ILCS 5/58.6 and 58.7(f) (2014). Additionally, the Act provides that Professional Geologists may certify and submit plans and investigation reports under the Leaking Underground Storage Tank (LUST) program. *Id.* at 5.

Land Reclamation & Recycling Association

Brian Lansu of LRRA prefiled testimony (Exh. 57) responding to the Board's questions (Exh. 52). In addition, at hearing Gregory Wilcox testified on behalf of LRRA.

Costs for Monitoring

Responding to the Board's request that the groundwater monitoring costs in the record for Bluff City be broken down for cost comparison purposes (Question 1, Exh. 52), Mr. Lansu provided information regarding the costs associated with developing groundwater modeling to determine groundwater flow and the rate of flow into the Bluff spring. Exh. 57 at 1. Mr. Lansu explained that the modeling was developed to protect the Bluff City spring and prevent degradation as a result of nearby mining, industrial park development, and CCDD site filling. *Id.* Eight permanent monitoring wells were installed from 20 to 80 feet deep at a cost of $106,985; in total, the out-of-pocket costs of developing the groundwater model was $364,547. *Id.* Mr. Wilcox clarified that the costs provided were over 10 years old. Tr. at 62-63. He also explained that in doing groundwater monitoring, it is not a two-dimensional system, but a three-dimensional system because modeling of groundwater flow is necessary. Tr. at 63. So costs for monitoring are not just the costs of drilling wells, but also include costs for defining groundwater flow. *Id.*

Water Quality at Reliable Lyons

In response to the Board's question regarding data provided by Mr. Lansu in comment (PC 58) (Question 8, Exh. 52), Mr. Lansu provided additional water quality data concerning the Reliable Lyons site. Exh. 57 at 1. Reliable Lyons accepts more than 700,000 cubic yards of fill annually from primarily urban and industrial construction projects. *Id.* Mr. Wilcox explained that Reliable Lyons is one of the largest CCDD facilities and takes soil from the Chicagoland area primarily. Tr. at 64. Since 2006, Reliable Lyons has accepted roughly 6,000,000 cubic yards of CCDD and continuously maintains a groundwater elevation of 372.0 USGS, which is currently 150 to 250 feet below the CCDD fill in the quarry. Exh. 57 at 1. Mr. Wilcox testified that Reliable Lyons is designed with an inward gradient so the water in the facility is often diluted with groundwater. Tr. at 64. Reliable Lyons has pumped a total of 74.9 million gallons

in the six months preceding May 13, 2013. Exh. 57 at 1-2. Of the 74.9 million gallons, 32 million gallons resulted from precipitation while the remaining 42.9 million gallons came from surrounding groundwater flowing into the site. *Id.* at 2.

LRRA estimated that 43% of the water pumped by Reliable Lyons has been in direct contact with the CCDD material at the facility. Exh. 57 at 2. Reliable Lyons has sampled the pumped water discharged from the dewatering well for SVOCs and RCRA metals and "has found only one detect (Barium at 0.052 mg/L per attached Lab report)." *Id.* Mr. Lansu further states that "[a]ssuming a dilution ratio of 2.34 to 1 from groundwater and that groundwater contains no Barium; the water flowing thru the CCDD has a concentration of Barium roughly equal to 0.12 mg/L." *Id.*

James E. Huff

James E. Huff provided testimony responding to a number of the Board's pre-filed questions, on the proposed groundwater regulations proposed by IEPA, on the pH values for uncontaminated soil, and on MACs in the regulations. The Board summarizes this testimony below.

Response to Board Questions

Comment on the Prevalence of Parameters in CCDD and Uncontaminated Soil. Mr. Huff previously indicated that monitoring costs could be minimized by limiting "the groundwater monitoring to volatile organic compounds (VOCs) and dissolved RCRA metals," rather than testing for the entire list of parameters in the Board's groundwater quality rules at Part 620 (35 Ill. Adm. Code 620). PC 59 at 3. In response to his comment, the Board asked several questions of the participants including a question regarding the prevalence of parameters other than VOCs and RCRA metals. Exh. 52 at 3(a). Mr. Huff directed the Board's attention to *The Illinois Integrated Water Quality Report and Section 303(d) List-2012, Volume II: Groundwater*, which focused on VOCs, chlorides, nitrates, and herbicides. Exh. 58 at 1-2. According to Mr. Huff, the report supports his conclusion that no other contaminants could be present in CCDD or uncontaminated soil. *Id.* at 2. Mr. Huff emphasized the importance of remembering "that uncontaminated soil going to a CCDD or uncontaminated soil fill is an urban issue, and not an agricultural area issue." *Id.* The excess soil from roadway construction activities is the primary source of uncontaminated soils, and gasoline stations, dry cleaners, and similar types of commercial industries are located along roadways. *Id.* Mr. Huff also stated that "metals to a large degree will be held in the soil due to the cationic exchange capacity of soils." *Id.*

Costs for a VOC and Dissolved Metal Analysis Versus Running All Part 620 Parameters. Mr. Huff testified that the price for a VOC analysis of a groundwater sample is about $180 per sample. Exh. 58 at 2. Since the list of parameters in Part 620 includes a number of metals that are not common to industrial or commercial facilities, the cost per sample would be about $306. *Id.* However, if only the eight RCRA metals were tested, the price per sample would be $126. SVOCs are included on the list of parameters in Part 620 and analysis would

cost about $300 per sample. Finally, "to run the complete 620 List, excluding the contaminants exempted, the cost per sample would be on the order $2,303 per sample." *Id.* at 3.

Part 620 Metals Standards Based on Dissolved Concentrations. Mr. Huff stated that it is unclear whether the groundwater quality metals standards are based on dissolved concentrations. Exh. 58 at 3. Often, monitoring wells in Illinois are screened in unconsolidated units rich in silts and/or clays, and Mr. Huff stated that "developing the well sufficiently to achieve a 1 Turbidity Unit level cannot be achieved." *Id.* In fact, when screening for total metals, "the results simply reflect what is in the groundwater plus what is in particulate state." *Id.*

Front-End Screening. Mr. Huff does not recommend implementing the front-end screening requirements contained in the Part 1100 adopted on August 21, 2012. Exh. 58 at 3-4. Mr. Huff explained that, as he previously testified, there are false positives with the photo ionization detector (PID) meter that have caused loads to be rejected at the receiving facility. *Id.* at 3. He further explained that the receiving facilities have each adopted their own protocol and "it would seem that each facility should be allowed to determine what PID response should trigger rejection, as they are clearly accepting additional responsibility with monitoring wells." *Id.* at 4. Mr. Huff added that if IEPA is uncomfortable with this suggestion, they should direct their attention to his previous recommendation of "a value of 5 ppm which would eliminate most of the false positives." *Id.*

Inclusion of Remediation Options at CCDD and Fill Sites. Mr. Huff expressed concern that if the proposed monitoring rules are adopted, "either very little soil would meet the definition of uncontaminated soil or that the CCDD and uncontaminated soil fill sites would vacate this market." Exh. 58 at 4.

Pre-existing conditions at CCDD Facilities. Mr. Huff noted that for many years the industry was not heavily regulated and to require monitoring at existing facilities would pick up not only new impacts but existing impacts. Exh. 58 at 4. Developing a baseline would "grandfather" the pre-existing contamination. Mr. Huff explained that the original discussion concerning pre-existing conditions assumed any discovered groundwater impacts "would be found through additional monitoring as being statistically significant." *Id.*

Please Provide a Range Of Remediation Cost. Mr. Huff provided a USEPA report on pump and treat costs at Superfund sites as a comparison to what would be required at these CCDD Facilities under the proposed rules. The estimated median capital cost of installation is $2.9 million. Exh. 58 at 5.

Identify the Specific Provisions of IEPA's Proposed Rules That Reference the Non-Degradation Requirement. Mr. Huff directed the Board's attention to Mr. Richard Cobb's testimony in Proposed Amendments to Groundwater Quality Standards, 35 Ill. Adm. Code 620, R08-18, which described the antidegradation concept. Exch. 58 at 5. Mr. Huff noted that this concept was included in IEPA's proposed CCDD regulations. *Id.* IEPA's proposed CCDD regulations made one concession in Section 1100.720 by allowing operators to achieve Class I groundwater standards on the subject property in lieu of being held to a non-degradation

standard. In addition, "if corrective actions are needed beyond the fill operation property boundaries, subsection 1100.720(d) requires compliance with Part 620, and as Mr. Nightingale noted, includes the non-degradation provisions." *Id.*

Comments on Proposed Rule Language

Mr. Huff provided specific testimony on IEPA's proposed groundwater monitoring rules. That testimony is summarized below.

Section 1100.725(b) Groundwater Monitoring System. In noting the difficulty of satisfying the vertical component of Section 1100.725(a)(2), Mr. Huff testified, "[w]ithout an extensive hydrogeological study, the vertical component will be unknown." Exh. 58 at 6. Mr. Huff's comments continued with an explanation of how such a study can be conducted. According to Mr. Huff, these studies "will require a minimum of two wells screened at different elevations at each location…and this should be factored into the costs." Finally, he warned that "the wells installed may not be indicative of impacts from the CCDD facilities." *Id.*

Section 1100.725(b) Groundwater Monitoring System. Mr. Huff next provided testimony on the language in Section 1100.725(b), which does not require screening wells into separate groundwater monitoring systems if the sampling will "enable detection and measurement of constituents that have entered the groundwater from each unit." Exh. 58 at 6, quoting proposed Section 1100.725(b). Mr. Huff stated that the rule language makes "unclear how one can accomplish this requirement without the separate screening of wells at different elevations," and requested that IEPA "provide some guidance in the record on this point." *Id.*

Section 1100.735 Monitoring Parameters. Mr. Huff testified that the list of monitoring parameters "is excessive and will result in unnecessary testing and follow-up work." Exh. 58 at 6. Specifically with monitoring for total versus dissolved metals, Mr. Huff testified that specifying dissolved metals will result in elimination of a significant number of false positives due to sediment. *Id.* Regarding Iron and Manganese, Mr. Huff stated that the presence of iron and manganese results from "the oxidation/changing conditions within the aquifer" rather than the soil content. *Id.* He added, "major problems will result if these compounds remain on the list" and recommended that they be added to Section 1100 Appendix A's list of exemptions. *Id.* at 6-7. *Id.*

Mr. Huff testified that the metals he discussed above are encountered in few industries and that "[i]t seems unreasonable to impose the economic burden of routinely testing every monitoring well at each quarry for these metals that are rarely encountered." Exh. 58 at 7. He recommended that these metals be added to Section 1100 Appendix A's list of exemptions. *Id.*

Continuing with his testimony on specific parameters, Mr. Huff noted that with chloride, sulfate, and total dissolved solids, these parameters are list as Secondary Drinking Water Standards due to taste issues, not health issues, and recommended adding all three to the Section 1100 Appendix A list of exemptions. Exh. 58 at 7. Mr. Huff explained that fluoride, nitrate, and perchlorate, should be added to Section 1100 Appendix A's list of exemptions. *Id.* And finally for organic chemical constituents, Mr. Huff stated that it makes "no technical or economic sense" to require testing of all organic constituents without consideration of their mobility. *Id.* He

added that "IEPA will likely be concerned that one or more of these parameters recommended could be present at these CCDD and uncontaminated soil fill sites" but "nothing…would preclude IEPA from collecting its own samples and testing for these parameters as they deem this to be an appropriate expenditure of the State's financial resources." *Id.*

Maximum pH for Uncontaminated Soil

Mr. Huff testified that the Board imposed "unexpectedly to all participants" a maximum pH of 9.0 for uncontaminated soil fill, and that created a number of problems. Exh. 58 at 8. Mr. Huff explained that the aggregate limestone beneath roadways and buildings can have a pH as high as 12.45 and loads have been rejected for exceeding the 9.0 pH level. *Id.* As many quarries are limestone quarries where pH values of higher than 9.0 exist, the limit set by the Board "does not make sense". *Id.* Mr. Huff recommended that the pH limit be raised to 12.5. *Id.*

Codify MACs in Regulations

Mr. Huff testified that the MAC values being set by IEPA, with no input from outside IEPA are not reasonable. Exh. 58 at 9-10. Mr. Huff asked that the current docket be extended to vet MACs and place the MACs in the regulations. *Id.* at 10.

The Office of the Attorney General

The People presented prefiled testimony by Stephen Sylvester (Exh. 59) in response to the Board's pre-filed questions (Exh. 52) regarding groundwater monitoring. Mr. Sylvester stated that the People have been involved in this rulemaking since the rule was being considered by IEPA and have advocated for groundwater monitoring throughout the R12-9 proceeding. Tr. at 82.

Changes to Proposal if Groundwater Monitoring is Added

Mr. Sylvester compared CCDD to inert waste and explained that the primary distinction between inert waste and CCDD is that CCDD contains asphalt, thereby warranting classification as a "chemical waste" rather than an "inert waste." Exh. 59 at 2. Specifically, inert waste includes "only non-biodegradable and non-putrescible solid wastes; including but not limited to, bricks, masonry, and concrete. 35 Ill. Adm. Code 810.103." Exh. 59 at 1-2. CCDD, on the other hand, "means uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed or other asphalt pavement, or soil generated from construction or demolition activities. 415 ILCS 5/3.160 (2014)." *Id.*

Mr. Sylvester noted that proposed Section 1100.740 provides, as a minimum, for annual groundwater testing whereas the Board's inert waste regulations require semi-annual testing. Because inert waste is potentially more benign than chemical waste, Mr. Sylvester recommended that groundwater monitoring be conducted quarterly, rather than annually. Exh. 59 at 2.

Mr. Sylvester recommended that the Board consider narrower timeframes to address any instances of non-compliance with the Class I Groundwater Standards. Exh. 59 at 2. In addition,

Mr. Sylvester suggested that proposed Section 1100.745(c), as currently drafted, assumes that an owner/operator's corrective action program will be acceptable. *Id.* Therefore, Mr. Sylvester suggested that corrective action programs "should be subject to review and approval by the [IEPA] and that any deficiencies identified by the [IEPA] should be addressed within 30 days." *Id.* at 3.

Mr. Sylvester also recommended that Section 1100.750 be deleted from Subpart G and suggested that "if an owner/operator wants to make an alternate non-compliance response, it should do so in accordance with the time frames required in Section 1100.745." Exh. 59 at 3.

Front-end Screening

Mr. Sylvester recommended that the front-end screening requirements be retained, even if groundwater monitoring is required. Exh. 59 at 3. Mr. Sylvester explained soil certification and load checking for CCDD disposal facilities alone does not sufficiently ensure that CCDD and uncontaminated soil fill sites will not impact State groundwater. *Id.* Mr. Sylvester advocated for a "dual approach" to regulation of CCDD and uncontaminated soil fill sites consisting of both groundwater monitoring and front-end screening to ensure that groundwater is protected. *Id.* Mr. Sylvester opined that this approach is particularly necessary for those who rely on groundwater for drinking water. *Id.*

Mr. Sylvester argued that the Board should adopt a comprehensive approach in protecting the State's groundwater that includes groundwater monitoring at CCDD facilities. Exh. 59 at 4. Mr. Sylvester is concerned that without groundwater monitoring, contamination will only be discovered once it has impacted individuals relying on groundwater for drinking water. *Id.* "Such a scenario is at odds with the General Assembly's requirement that the Board promulgate standard and procedures necessary to protect groundwater. *See* 415 ILCS 5/22.51(f)(1); *see also* ILCS Const. Art. 11, § 2 (Each person has a right to a healthful environment)." *Id.*

Self Implementing

Mr. Sylvester stated that most State groundwater monitoring programs require "self-reporting" and groundwater protection cannot always be guaranteed under self-reporting. Exh. 59 at 5. To that end, Mr. Sylvester opined that CCDD facilities should be required to submit groundwater monitoring plans and results to IEPA so that IEPA has the information needed to determine whether groundwater contamination has occurred at a particular site. *Id.* Mr. Sylvester explained that a self-implementing groundwater monitoring program leaves it up to the CCDD owner or operator to decide whether to report exceedances of any applicable regulatory standards. *Id.* Mr. Sylvester also noted that another important consideration is that if results are reported to IEPA, public access to the information is available under the Freedom of Information Act (5 ILCS 140/1 *et seq.*). *Id.*

Evidence of Groundwater Impacts at Properly Run Facilities

Mr. Sylvester expressed concern that from 1997 to 2005, no regulations existed and no permits were issued for CCDD sites in Illinois. Exh. 59 at 6. Mr. Sylvester offered that this was

because in 1997 the General Assembly adopted a new definition for CCDD, "which essentially provided that to the extent provided by federal law, CCDD could be disposed of at a CCDD fill site, without the need for any soil certification, load checking and/or screening." *Id.* Mr. Sylvester noted that in 2005, the General Assembly enacted Section 22.51 of the Act (415 ILCS 5/22.51 (2014)) that included a requirement that loads be checked with a PID or equivalent device. *Id.* Mr. Sylvester opined that these steps were still insufficient. *Id.* at 7.

Mr. Sylvester maintained that the "lack of effective procedures to identify contaminated materials from 1997 to 2010 highlights the need for groundwater monitoring to detect groundwater contamination from fill material that did not receive the level of pre-disposal scrutiny currently required." Exh. 59 at 7. Further, Mr. Sylvester indicated that CCDD is not actually "clean" as CCDD by definition may lawfully contain carcinogenic compounds in the form of PNAs, and thus the threat of groundwater contamination will always exist at CCDD facilities. *Id.*

Evidence of Contamination at Existing Facilities

Mr. Sylvester reiterated the need for groundwater monitoring because of the years when facilities were not regulated. Exh. 59 at 8. Mr. Sylvester also provided data from a case involving the deposition of CCDD above grade at a fill site. *Id.* The data demonstrates that Class I groundwater standards were exceeded at the site. *Id.* at 8-10. Mr. Sylvester claimed that based on this data, conceding that the sample size is small, one third of the CCDD facilities show groundwater contamination. *Id.* at 10. Therefore, Mr. Sylvester requested that the Board include groundwater monitoring in the rules. *Id.*

In response to questions at hearing, Mr. Sylvester acknowledged that the facility where the groundwater data were collected closed prior to the adoption of the Board's rules. Tr. at 92. Mr. Sylvester also conceded that two facilities operating after the Board's rules were adopted do not exhibit exceedances of groundwater standards. Tr. at 94. Mr. Sylvester also acknowledged that none of the 13 enforcement actions brought by Mr. Sylvester against CCDD facilities has alleged violations of groundwater standards. Tr. at 91.

Marvin Traylor, Illinois Asphalt Pavement Association

Mr. Traylor testified while asking questions of Mr. Sylvester. Tr. at 98-104. Mr. Traylor explained that a refinery breaks down crude oil into products that have a high value and what is left is asphalt cement. Tr. at 99. Asphalt cement holds the rock and sand together for asphalt roads, and it is non-leachable and inert. *Id.* Mr. Traylor provided two studies (Exh. 60 and 61) that support his testimony regarding asphalt. Mr. Traylor testified that there are numerous other national studies that demonstrate that asphalt cement contains no PAHs and no PNAs. *Id.* Mr. Taylor claimed it is a "commonly known fact that asphalt cement is inert and not a threat to the groundwater." *Id.* at 99-100.

IEPA

IEPA filed testimony (Exh. 63) responding to questions set forth by the Board in an April 18, 2013 hearing officer order (Exh. 52), by the IAAP (Exh. 53), and the People (Exh. 54). The following summarizes those responses.

Responses to the Board's Questions

Costs of Groundwater Monitoring. IEPA explained that the cost of design and installation of a groundwater monitoring system when capital funding is obtained through a loan would increase by approximately 5%. Exh. 63 at 8-9. More specifically, the cost would increase from $0.52 per cubic yard to $0.60 per cubic yard if the interest rate is 3% per annum, $0.66 per cubic yard at an interest rate of 5%, and at a 7% interest rate the cost would be $0.72. *Id.* at 9.

Parameters to be Monitored. IEPA responded that after adoption of Part 1100 amendments, IEPA conducted a sampling exercise. Exh. 63 at 9. IEPA stated that one conclusion from this sampling exercise is that even following the procedures of Part 1100, soils with contamination above the MAC are being accepted. *Id.* IEPA stated that at 12 sites either a PID or x-ray fluoroscopy (XRF) (or both) were used to screen the soil prior to acceptance, inspectors collected samples from those sites, and those samples were analyzed. *Id.* IEPA stated that at 10 of the 12 sites, exceedances of MACs were found. *Id.*

IEPA claimed that because construction or demolition activities may occur almost anywhere, IEPA "cautions against excluding entire categories of contaminants from monitoring requirements". Exh. 63 at 10. IEPA indicated that the costs for analysis of both volatiles and metals would be $486. *Id.* As to whether the RCRA metals are based on dissolved concentrations, IEPA said "the short answer is no". *Id.* IEPA stated while the groundwater standards are based on totals, what is required is determined by the specific program. *Id.* IEPA continued:

> Therefore, totals are always required, buts some programs such as RCRA also require that dissolved samples be taken in order to statistically assess groundwater. The compliance determination may be made by following the incorporated analytical methods (35 Ill. Adm. Code 620.125), which provide for both totals and dissolved analyses. Exh. 63 at 11.

Changes to be Made if Groundwater Monitoring is Added. IEPA suggested revisions to the proposed groundwater monitoring regulations to address concerns about self-reporting. Exh. 63 at 11.

Front-End Screening. IEPA supports the continued inclusion of front-end screening requirements even if groundwater monitoring is required. Exh. 63 at 11-12. IEPA indicated it would also accept returning to the source site certification originally proposed by IEPA. *Id.* at 12.

Self Reporting. IEPA cannot "guarantee" groundwater protection, but IEPA proposed groundwater monitoring because the "chances of protecting groundwater" are better with monitoring than without monitoring. Exh. 63 at 12. IEPA argued that groundwater monitoring

is the single most effective tool for identifying contamination of groundwater at early stages. *Id.* IEPA stated that self-reporting is the norm on a national basis and it is the only viable option. *Id.* IEPA indicated that "[a]ssuming the groundwater sampling and analysis are performed and documented, the primary concerns about self-reporting would be falsification of records, failure to report an exceedance, or both." *Id.* at 12-13. IEPA stated it believes that falsification is unlikely to become a problem as falsification is a difficult prospect, given liability and potential violations of the Act. *Id.* at 13.

Concerns for Groundwater Contamination from CCDD and Uncontaminated Soil Fill. IEPA indicated that both general and clean construction and demolition debris, including soil, are municipal waste upon generation, but certain fractions of CCDD are excluded when certain conditions are met. Exh. 63 at 13. IEPA explained that to be excluded from waste, soil must be "uncontaminated" and that can mean meeting the criteria in Section 1100.Subpart F (35 Ill. Adm. Code 1100.Subpart F) or that the soil will not pose a threat to human health and safety and the environment. *Id.*, citing 415 ILCS 5/3/160 (2014). IEPA opined that the environment would include groundwater. *Id.*

IEPA further opined that the possible deposition of non-compliant CCDD or uncontaminated soil fill poses a significant threat and that is the impetus behind proposed groundwater monitoring. Exh. 63 at 13. Mr. Clay clarified that the presence of asphalt as a part of CCDD or uncontaminated soil is not the reason IEPA believes groundwater monitoring is necessary. Tr. at 108. IEPA indicated its belief that most facilities are run with due care for compliance; however IEPA's position is that soils that do not comply with MAC is likely to be accepted as fill. Exh. 63 at 13. This creates a possibility for groundwater contamination and groundwater monitoring is the most effective way to protect groundwater. *Id.* at 14.

Does Data Provided by LRRA Influence IEPA's Views on Requiring Groundwater Monitoring. IEPA noted that pursuant to an enforcement case, State of Illinois v. J.T. Einoder, groundwater monitoring was ordered for a CCDD disposal site in Lynwood, Illinois (Lynwood Site). Exh. 63 at 14, 24. Mr. Clay testified that the Lynwood Site accepted waste from 1997 to 2003, a time period before the adoption of Part 1100. Tr. at 151. Further, the Lynwood Site accepted materials other than CCDD. *Id.* at 152. Based on the data from those monitoring wells in November of 2012, exceedances of the Part 620 standards were found for arsenic, iron, lead and manganese. *Id.* The well was installed to monitor the leachate found exceedances of the Part 620 standards for iron, lead, and manganese, as well as eight semi-volatile organic chemicals. Exh. 63 at 14, 24 IEPA opined that the "main reason why very little groundwater monitoring data exists" is because permitted facilities are not required to perform groundwater monitoring. *Id.*

IEPA testified that it would not "equate" the results provided by LRRA on Reliable Lyons from dewatering with sampling and analysis from a dedicated groundwater monitoring system. Exh. 63 at 15. IEPA's understanding is that operations that pump large volumes of water to create a cone of depression are discharging large amounts of water that do not come in to contact with the fill material. *Id.* IEPA suggested that the dilution from the high volume of draw down "very likely masked detection of contaminants". *Id.* IEPA also noted that the larger

groundwater analysis excluded volatile contaminants that are more mobile and more likely to be detected. *Id.*

IEPA stated that given the "very limited number of examples and the mixed results", IEPA is disinclined to change its views on the threat to groundwater. Exh. 63 at 15. IEPA testified that it still supports groundwater monitoring. *Id.*

Similarity to Other Regulated Materials. IEPA does not equate CCDD and uncontaminated soils to the characteristics of on-site landfilling, waste-piling, and the storage and handling of pesticides, fertilizers, road oils and deicing agents (activities the Board addressed in Groundwater Protection: Regulations of Existing and New Activities Within Setback Zones and Regulated Recharge Areas; Groundwater Technical Standards: 35 Ill. Adm. Code 601, 615, 616, and 617, R89-5 (Dec. 6, 1991)). Exh. 63 at 15. IEPA is convinced that soil accepted at fill operations will "inevitably include non-compliant soils with the potential to create groundwater contamination". *Id.* IEPA argued that this conviction justifies the IEPA's position that the Board should apply groundwater protection at both types of facility in the same manner. *Id.*

IEPA reiterated its claim that in R89-5 the Board concluded that waiting for proof of contamination would defeat the preventative aspects of the groundwater protection policy of the State. Exh. 63 at 15-16, *see also* PC 62 at 14. Even though IEPA does not equate the activities in R89-5 with CCDD and uncontaminated soil fills, IEPA opined that there are some similarities. *Id.* at 16.

Remediation. IEPA stated it does not support using Part 742, TACO (35 Ill. Adm. Code 742) in response to contamination from fill operations. Exh. 63 at 16. Rather, IEPA's proposed corrective action procedures rely on the Part 620 standards and procedures to protect groundwater. *Id.* IEPA opined that the TACO program is not appropriate for fill operations as the TACO methodology requires that the nature and extent of the soil and groundwater contamination must be investigated and defined using sampling and analysis. *Id.* at 17. Further, under TACO the contamination source must be removed and the soil cleaned to the soil objectives. *Id.* IEPA stated that fill operation cannot effectively address the source to stop further contamination. *Id.* at 18.

Establishment of a Baseline. IEPA indicated that the establishment of a baseline, as discussed by Mr. Huff (PC 59) clearly is intended to grandfather existing contamination. Exh. 63 at 18. IEPA opined that such an approach is inconsistent with the Groundwater Protection Act and the State's policy to protect its groundwater resources. *Id.* at 19. IEPA stated:

> It would be a poor precedent for the Board to set by adopting rules that excuse prior actions and their consequences that would have been violations of the Act at the time they were committed. By raising the issue of existing contamination at fill operations and expressing his view of the consequences that may result, Mr. Huff has introduced another strong argument for requiring groundwater monitoring at fill operations. *Id.* at 20.

Costs of Remediation and Establishing a Groundwater Management Zone. IEPA stated that a groundwater management zone would most likely be established along with a plan to pump and treat groundwater. Exh. 63 at 20. Mr. Cobb stated that the intent of a groundwater management zone is "to mitigate, not just write off groundwater". Tr. at 127. IEPA continued that while pump and treat might be appropriate, there are other options such as hooking up to an existing safe and reliable source for drinking water. Exh. 63 at 20. IEPA explained that the costs for remediation and establishing a groundwater management zone are dependent on site-specific conditions and may vary substantially from site to site. *Id.* IEPA noted it has provided information on costs of groundwater remediation from sources other than fill operations (PC 62 at 23-29); however, the most cost-effective approach begins with early detection. *Id.*

Non-Degradation and Appropriateness of Class I Groundwater Quality Standards as Compliance Standards. IEPA proposed at Section 1100.755 standards for off-site contamination that included a nondegradation provision from Part 620. Exh. 63 at 21. IEPA indicated that Section 1100.755 would allow contamination to the Class I standards onsite. "The principle underlying the proposed use of the non-degradation provision off-site is that the contamination of other people's property should not be authorized by law nor should the rights of those property owners to seek legal redress for such contamination be preemptively limited." *Id.* IEPA stated that if such contamination occurs, corrective action should include plans to mitigate any impairment to groundwater. *Id.* IEPA proposed the Class I groundwater quality standard as the on-site compliance standard for fill operations because of the relationship to MACs for chemical constituents in uncontaminated soils. *Id.*, *see also* PC 62 at 2,3. IEPA reiterated that it proposed groundwater monitoring as a part of its "multi-barrier approach to preventing groundwater contamination as directed by the legislature." Exh. 63 at 21. IEPA opined that as a part of the multi-barrier approach requiring compliance with Class I standards operates as a check on the effectiveness of the other protections to ensure the effectiveness of those protections. *Id.* at 22.

Protection of Class III Groundwater Areas. IEPA agreed that a setback zone similar to the potable water well setback zone would protect Class III areas. Exh. 63 at 22, 23.

Setback Zones for Potable Water Supplies. IEPA indicated that the setback zone restriction applies only to existing potable water wells and noted that there are statutory provisions that should protect against new potable wells being installed within 200 feet of a CCDD or uncontaminated soil fill operation. Exh. 63 at 23. If such a well is installed, IEPA stated that the only recourse an owner or operator has it to report the well to the permitting agency. *Id.*

Responses to IAAP Questions

Exempt Excavations. IEPA indicated that Section 1100.101(b)(2) and (b)(3) contain exclusions for certain excavation activities from the CCDD rules. Exh. 63 at 1. Those sections exclude:

2) The use of CCDD or uncontaminated soil as fill material in a current or former quarry, mine, or other excavation located on the site where the CCDD or uncontaminated soil was generated;

3) The use of CCDD or uncontaminated soil as fill material in an excavation other than a current or former quarry or mine if the use complies with Illinois Department of Transportation specifications. 35 Ill. Adm. Code 1100.101(b)(2) and (b)(3).

The IEPA also explained that a facility in Madison County, Maclair Asphalt Sales L.L.C. (Maclair) involves a Illinois Department of Transportation (IDOT) borrow pit on the Maclair property. Exh. 63 at 1, *see also* Exh. 65. That particular facility is exempt based on a recent consent order and is subject to limitations. *Id.* at 2.

Mr. Clay testified that borrow pit operators can take CCDD from IDOT, or a county or municipal job, and not have a permit from IEPA as long as the material is uncontaminated . Tr. at 136-37. Mr. Clay explained that an IDOT, municipal, or county engineer would have to sign off that the material is uncontaminated, but they would not have to be a professional engineer. *Id.* at 137. However, the borrow pit operator would not have to test the material or have a permit from IEPA. *Id.* Mr. Clay reminded that this is a statutory exemption and these borrow pits are not subject to the Part 1100 rules. *Id.* at 139.

Why Exempt. IEPA explained that the exemptions in Sections 1100.101(b)(2) and (b)(3) are derived from Section 22.51(b)(4)(B) and the process is overseen by engineers in accordance with IDOT specifications. Exh. 63 at 2-8. Mr. Clay testified that the proposed groundwater monitoring requirements would not apply to these sites. Tr. at 131.

Responses to the People's Questions

Evidence of Impact on Groundwater From CCDD Facilities. IEPA noted that pursuant to an enforcement case, State of Illinois v. J.T. Einoder, groundwater monitoring was ordered for a CCDD disposal site in Lynwood, Illinois. Exh. 63 at 14, 24. Based on the data from those monitoring wells in November of 2012, exceedances of the Part 620 standards were found for arsenic, iron, lead and manganese. *Id.* The well installed to monitor the leachate found exceedances of the Part 620 standards for iron, lead, and manganese, as well as eight semi-volatile organic chemicals. *Id.* IEPA opined that the "main reason why very little groundwater monitoring data exists" is because permitted facilities are not required to perform groundwater monitoring. *Id.*

Impact of Amendments on Protection of Groundwater at Sites Accepting Fill from 1997 to 2010. IEPA explained that the amendments to Part 1100 are not retroactive and thus have no limiting effect on soil accepted prior to 1997. Exh. 63 at 24. Likewise, IEPA testified that the regulations have no impact on noncompliant soils accepted at fill sites and do not pertain to asphalt that is a part of CCDD. *Id.* at 25.

Limiting Frequency of Groundwater Monitoring. IEPA stated that CCDD and uncontaminated soil used as fill at sites regulated under the Part 1100 rules are not wastes as long as they meet the conditions for exemption from classification as waste. Exh. 63 at 25. IEPA further stated that it and the Board were directed by the legislature to ensure that groundwater would be protected and IEPA believes the certification and testing requirements will work to exclude non-compliant materials to a significant extent but not completely. *Id.* IEPA opined that the potential to cause groundwater contamination will remain and groundwater monitoring is the only reliable way to address that threat. *Id.*

IEPA opined that groundwater monitoring requirements, similar to those for inert landfills, were not necessary considering the potential threat to groundwater. Exh. 63 at 25. Annual sampling was determined to be the least expensive that would allow for compliance demonstration and annual sampling takes into consideration the front-end screening. *Id.*

60-Day Reporting Requirement for Exceedances. IEPA noted that the proposed 60-day requirement starts from when the sample is taken. Exh. 63 at 26. IEPA acknowledged that the inert landfill waste rules require reporting within one business day, but IEPA interprets that as being one business day from when the results are received. *Id.* The 60-day requirement in Part 1100 allows time for sending the sample to the lab and for results to be received. *Id.*

Corrective Action. IEPA stated that when it is determined that corrective action is required, the facility will be required to develop and implement a plan under the supervision of a licensed professional engineer. Exh. 63 at 26. IEPA field inspectors will verify that the plan is proceeding during routine inspections. *Id.* The IEPA will not review the plan, but the plan will be submitted to IEPA, and IEPA will review reports and perform inspections. *Id.* at 26-27.

Alternative Non-Compliance Plan. IEPA responded to questions regarding timing and incentives for providing an alternative non-compliance plan. Exh. 63 at 27. IEPA indicated that the timing was necessary to accomplish the steps necessary and the incentive will be cost savings. *Id.*

NPDES Permit Modification to Monitor for All Constituents. IEPA responded that it is not necessary to require NPDES monitoring for all constituents as an applicant must fully characterize the pollutants in the wastewater. Exh. 63 at 28. Based on a technical review, IEPA establishes discharge limitations and monitoring . *Id.*

Other Jurisdictions

Mr. Nightingale testified that at one point, IEPA searched other states to determine what might be regulated with CCDD and uncontaminated soil fill. Tr. at 153. Mr. Nightingale explained that no other state was regulating CCDD and uncontaminated soil fill quite like Illinois. *Id.* Mr. Nightingale noted that other states did not have groundwater monitoring and nothing proposed by IEPA would conflict with USEPA's requirements. *Id.* at 154.

Illinois Association of Aggregate Producers

Mr. Bret Hall, Hanson Material Service

Mr. Bret Hall stated that he worked for Hanson Material Service (Hanson) and has been involved with Hanson's CCDD facilities for 13 years. Tr. at 172. Mr. Henriksen asked Mr. Hall if he was aware of the Hanson site as depicted on the map of Will County provided by Mr. Cravens. *Id.* Mr. Hall said that he was aware of the map but that the location of the Hanson facility was incorrectly depicted. Tr. at 172, 173. He elaborated by saying the map depicts the Hanson facility as being on the west side of the Des Plaines River, when it is actually located on the east side of the river, a difference of approximately a quarter mile. Tr. at 173. Mr. Hall stated that the reason this difference is significant is that there are wells on the west side of Route 53, and the map indicates the Hanson facility is directly adjacent to these wells, which is not the case. Tr. at 173, 174.

Mr. Hall explained that he had been involved with Hanson's CCDD facility prior to the development of the Part 1100 rules and participated with the aggregate industry's efforts to develop best management practices. Tr. at 175. At that time, Hanson used a PID and screened every load. Mr. Hall reported that he also implemented the Part 1100 rules once they were adopted. *Id.* He was asked whether he believed the Part 1100 rules provided adequate groundwater protection, and Mr. Hall responded that "they are quite adequate". Tr. at 176. He elaborated to say that they conduct site inspections to ensure they have analytical data, which demonstrates they "meet or fall below the maximum level of concentrations for chemical constituents and uncontaminated soil". *Id.*

Mr. Hall was also asked about concerns regarding the liability for groundwater monitoring test results that might stem from pollution caused by off-site sources. Tr. at 176. He responded by saying that this is "of a much greater concern, even, than the upfront costs". *Id.* Mr. Hall stated that this liability concern is one reason that Hanson is concerned by having to install groundwater monitoring wells. Tr. at 177.

The question was raised as to whether Mr. Hall was aware that IEPA has said that CCDD material can be deposited in farm fields and naturally occurring depressions and that these sites are not regulated. Tr. at 177. Mr. Hall was aware of this and that CCDD can be disposed of in unregulated borrow pits as well. *Id.* Mr. Hall stated that he did not know how, without the controls required of CCDD sites, that these unregulated sites can avoid the contaminants they are able to. Tr. at 178.

Mr. Josh Quinn, Vulcan Materials

Mr. Josh Quinn stated that he is a Principal Environmental Specialist for Vulcan Materials and has been involved in the CCDD issue associated with the aggregate industry for 12 years. Tr. at 179, 180. He stated that he was responsible for compliance monitoring for all aspects of all CCDD and registered uncontaminated soil fill sites and had been involved in the development of the aggregate industry's best management practices to handle CCDD. Tr. at 180.

Mr. Quinn also stated that he was involved with the development of the Part 1100 rules, which, in his professional opinion, "provide adequate protection to the environment." Tr. at 180.

Mr. Quinn was asked if he and his company, Vulcan Materials, had concerns that "groundwater monitoring test results may not be indicative of our contribution through our CCDD or soil fill only operations". Tr. at 181. He elaborated to say that monitoring may detect contaminants from sites that have nothing to do with their facility. *Id.*

Finally, Mr. Quinn was asked if he was aware of CCDD being dumped in farm fields without any regulations, as long as the CCDD does not exceed grade. Tr. at 181. He stated "there is an elevated and concerning risk with the unregulated CCDD disposal in farm fields, or IDOT, county, or municipal borrow pits." *Id.*

John Henriksen

Mr. Henriksen responded to a question as to why CCDD fill operations should not be required to conduct groundwater monitoring by stating that the "General Assembly specifically did not mention groundwater monitoring, and they did that for a reason". Tr. at 187. Mr. Henriksen elaborated by saying that it was not the intent of the General Assembly to require groundwater monitoring at uncontaminated soil fill operations and that the aggregate industry can and does accept upfront controls at CCDD facilities to ensure groundwater is not impacted. Tr. at 188. He opined that the "more you tighten up on our industry beyond the due diligence we've put in place", the more likely it is to drive us out of business. *Id.*

Mr. Henriksen noted that as CCDD sites close, the material is still going to be generated, all of which has to be disposed of somewhere. Tr. at 189. The material will be disposed of in a solid waste facility, which is more costly, or be deposited in "farm fields, forest preserve districts" or borrow pits, which are unregulated. Mr. Henriksen argued that IEPA and the Board need to impose reasonable requirements on CCDD fill operations, and that the Part 1100 rules do a good job at protecting groundwater. *Id.* He also noted that the small number of existing CCDD facilities "have an enormous regulatory burden on them, a burden that's not reflected in any state in the nation" and yet, IEPA wants to add additional burdens. Tr. at 190.

POST-HEARING PUBLIC COMMENTS

At the close of hearing, the hearing officer set forth by hearing officer order a series of questions from the hearing. Hearing Officer Order (June 12, 2013). The hearing officer also set a comment period to end on August 1, 2013. *Id.* Below the Board summarizes the comments and responses to questions.

VCNA Prairie, Inc. (PC 67)

VCNA Prairie, Inc. (Prairie) submitted post-hearing comments by Mr. Richard Olsen, President and Mr. Michael Pratt, General Manager, Aggregate Division. PC 67 at 1, 2. Prairie was founded in 1948 in Bridgeview, Illinois and currently operates four permitted CCDD fill

operations. Prairie noted that it has been involved in the development of legislation, regulations, and best management practices for CCDD with IEPA since 1998.

Prairie expressed "full support of the elimination of groundwater monitoring". PC 67 at 1. Prairie noted the testimony of LRRA (Exh. 57) at the May 20, 2013 hearing, where LRRA identified a cost of $471,000 for Bluff City Materials for installing groundwater monitoring wells and developing a groundwater model for their facility. While Prairie stated that it had not implemented a groundwater monitoring program for any of its CCDD facilities, "it is clear that the direct costs to Prairie would be cause to reconsider our continued acceptance of CCDD". *Id.* Prairie opined that their cost to implement a groundwater monitoring program would exceed $1,884,000, which would be borne by Illinois taxpayers. *Id.*

Prairie reported testimony by Claire Manning from the March 14, 2012 hearing where the disposal costs for uncontaminated soil at a landfill for twenty Chicago Public Building Commission (CPBC) projects was estimated at $20.6 million, while disposal at a permitted CCDD facility would be approximately $5.7 million. PC 67 at 1, *referring to* Exh. 50. Prairie stated that similar figures existed for IDOT and the Chicago Department of Transportation. Prairie opined that "it is not unreasonable to extrapolate the CPBC numbers and recognize that well over $100 million would be spent unnecessarily on an annual basis for disposal of CCDD and uncontaminated soil at a municipal landfill". *Id.*

Prairie explained the cost effective cycle that is repeated throughout a construction project. PC 67 at 1. Commercial trucks are loaded with CCDD or uncontaminated soil and hauled to a quarry or gravel pit regulated by IEPA where the material is placed for reclamation. Often, the same truck is loaded with aggregate material and returns to the work site. This process reduces the number of trucks on the road, thereby reducing fuel consumption and wear and tear on roadways. *Id.*

Prairie noted that since Part 1100 has been in effect, it has witnessed an increased number of unregulated CCDD disposal options being available. PC 67 at 2. This includes farm fields, construction sites, valleys, and ditches, none of which are required to be permitted by the State or local municipalities. Prairie opined that the material accepted at these unregulated sites is not screened to confirm that it is uncontaminated. *Id.* Prairie warned that "the true risk to groundwater quality is this unregulated and unmonitored placement of CCDD occurring throughout the State". Imposing "overly burdensome requirements on permitted and registered sites" will cause many of these sites to cease operation, thus increasing the amount of materials being disposed of at unregulated sites. *Id.*

Sexton Properties (PC 68)

Mr. Todd Daniels, Director of Operations, submitted comments to the Board on behalf of Sexton Properties, R.P., LLC,. PC 68 at 1. Sexton reported that it owns a CCDD facility in Richton Park, Illinois that consists of 81 acres. This facility has been in operation since October 2004, which is prior to the original permitting regulations for CCDD operations in Part 1100. *Id.*

Sexton argued that requiring groundwater monitoring is unnecessary and will drive many CCDD operators out of business. PC 68 at 1. Sexton agreed with the Board's conclusion to not require groundwater monitoring at CCDD and uncontaminated soil fill sites. Sexton argued that "the economics of running a CCDD facility in Illinois cannot justify the added – and we believe unnecessary – costs of operating a groundwater monitoring system". *Id.* In fact, Sexton speculated that if such monitoring is required, it will "likely be forced to prematurely close the CCDD operation at the Richton Park facility". *Id.*

Sexton observed that the data submitted to the Board regarding whether CCDD operations affect groundwater were all collected "*before the implementation*" of the more stringent requirements. PC 68 at 2 (emphasis in original). Sexton further noted that IEPA's proposed language in "Subpart G assumes the failure of these procedures". Sexton argues that before the Board adopts a groundwater monitoring requirement, it should have a record stating that "not only that the front-end controls do not work but that they fail to such a degree that a threat to the environment is presented". *Id.*

Sexton reminded that CCDD and uncontaminated soil are not wastes and that the Board's regulations impose qualitative and quantitative standards to ensure that these materials are in fact clean. PC 68 at 2. Sexton also noted that requiring groundwater monitoring at uncontaminated soil fill operations "creates an inherent contradiction with the Site Remediation Program". *Id.* Sexton explained that when an owner of a contaminated site achieves the Tier 1 TACO standards, the owner receives a "no further remediation" letter, but when an owner of an uncontaminated soil fill operation achieves the same soil standards, the owner is subjected to groundwater monitoring. *Id.* at 2 and 3. Sexton opined that "[f]or the state's environmental program to have integrity, soil meeting the designated Tier 1 standards must be considered clean and thus warranting no further remediation under both the Site Remediation Program *and* CCDD regulations". *Id.* at 3.

Illinois Association of Aggregate Producers (PC 69)

John Henriksen, Executive Director of IAAP, submitted comments on behalf of IAAP. PC 69 at 1. IAAP provided an overview of the historical development of the clean fill industry and clean fill legislation, "in order to put into context the aggregate industry's current opposition to groundwater monitoring" at CCDD or uncontaminated soil fill sites. *Id.*

IAAP represents companies that "mine and produce crushed stone, sand, gravel, silica sand and agricultural lime", or "aggregates". PC 69 at 1. In addition to producing aggregates, IAAP noted that some companies have accepted CCDD as fill to "accelerate the reclamation of excavations generated by mining". Aggregate mines "have historically charged only nominal fees for clean fill disposal in comparison to the high tipping fees for these materials assessed by solid waste landfills". *Id.*

IAAP opined that "as the State's regulatory oversight of clean fill sites has intensified, the number of Illinois pits and quarries accepting these materials has steadily declined". PC 69 at 1. Because these sites "provide an economical way to handle materials that cannot be incorporated into building sites, the costs have increased for all sectors of the construction

industries". *Id.* at 1 and 2. Materials not accepted at one of these sites are required to be taken to a solid waste landfill or are "dumped at a non-regulated site". *Id.* at 2.

History of CCDD Legislation

IAAP noted that until 1997 there was little oversight of clean construction or demolition debris because these materials were not classified as "wastes" by the Act. PC 69 at 2. However, because of "environmental pollution issues associated with illegal dump sites", the Act was amended on August 17, 1997 to separate construction materials into "General" and "Clean". Clean CCD could still be accepted as long as they were placed at or below grade and then covered. General CCD would have to be disposed of at a solid waste landfill, which was subject to groundwater monitoring requirements, or sent to a recycling facility, which was required to "control, manage, and dispose of any storm water runoff and leachate generated at the facility". *Id.*

IAAP further explained that the Act was amended again on January 1, 1998 to require sites accepting either General or Clean CCD to maintain records of the materials it received. PC 69 at 2. IAAP opined that these legislative changes were a result of "rogue fill site operators who knowingly accepted waste materials instead of clean fill". IAAP emphasized the fact that neither the 1997 nor the 1998 IEPA-supported legislative changes required groundwater monitoring. *Id.*

In 1999, IAAP began discussions with IEPA regarding "voluntary best management practices for aggregate mines that accept CCDD". PC 69 at 2. This was due to the increasing concerns by aggregate producers that "they might become subject to burdensome regulatory oversight due to the actions of illegal fill site operators". The IAAP best management practices for clean fill were endorsed by IEPA on July 13, 2004. *Id.* IAAP noted that IEPA noted that these voluntary guidelines went "beyond compliance" and yet did not include groundwater monitoring requirements. PC 69 at 3.

IAAP continued by noting that on July 19, 2005, legislation authorized a "more rigorous regulatory scheme for the disposal of CCDD". PC 69 at 3. IAAP noted that this legislation was not an IEPA initiative and was enacted in response to an operator who accepted general CCD at an abandoned quarry. This new legislation required the Board to adopt regulations that would include standards for CCDD fill operations. IAAP explained that IAAP worked with IEPA to develop "a workable regulatory system for CCDD operations", which "created the first comprehensive scheme for CCDD disposal". *Id.*

It was during the Board's rulemaking proceedings for Part 1100, IAAP explained, that the Attorney General's Office provided comments suggesting that the "clean fill rules should contain groundwater monitoring". PC 69 at 3. IAAP further noted that the Board "rejected this argument noting that the groundwater monitoring regimes cited by the OAG were appropriate for inert waste landfills that accept General CCDD" and not for those accepting CCDD. IAAP stated that IEPA "had never recommended – let alone required – groundwater monitoring at CCDD disposal sites". *Id.* IAAP summarized by stating that the 2005 legislative changes for a more rigorous scheme to regulate CCDD was not an IEPA initiative, and that IEPA "has never

recorded a groundwater violation associated with sites regulated under Part 1100"; therefore, IAAP concluded that IEPA's "prior decision not to impose this regulatory burden upon the clean fill industry was correct". *Id.*

IAAP discussed changes adopted by the General Assembly in 2010. PC 69 at 4. These changes were a result of concerns by a group of fill site operators that claimed existing law did not provide a clear definition of "uncontaminated soil" that could be accepted at CCDD sites. This new legislation required the Board to adopt rules that established maximum concentrations of contaminants that could be present in "uncontaminated soil". *Id.* IAAP also noted the new legislation required the Board to adopt "standards and procedures necessary to protect groundwater". In 2001, IEPA filed proposed rules that included a groundwater monitoring program in Part 1100, Subpart G. *Id.*

Rejection of Groundwater Monitoring

After "significant written and oral testimony", IAAP stated, "the Board issued an order approving amendments to Part 1100" but rejected Subpart G requiring groundwater. PC 69 at 4. IAAP quoted the Board as saying "the statutory directive to protect groundwater does not equate to requiring groundwater monitoring". IAAP reminded that the Board affirmed this decision at second notice. *Id.* IAAP argued that this "was correct given the lack of any new arguments or relevant evidence submitted during this proceeding in support of groundwater monitoring". *Id.*

IAAP noted that the recurring argument provided in this proceeding to support groundwater monitoring was "due to the alleged **potential** for groundwater pollution from CCDD and uncontaminated soil fill sites notwithstanding implementation of the certification and load checking program". PC 69 at 4 (emphasis in original). IEPA used the Board's rules at R 89-5, which imposed groundwater monitoring at facilities handling pesticides and fertilizers, as an argument in favor of requiring groundwater monitoring. *Id.* at 5. IAAP opined that this requirement for sites regulated under Parts 615 and 616 were justified because the materials were "**certain** to pollute groundwater, if released", as compared to the "**low potential** for groundwater pollution given the mandated certification and load checking program for soil accepted as fill". *Id.* (emphasis in the original).

IAAP members were accepting "clean construction and demolition debris for use as fill in 1987 and continue to do so today at the 49 permitted CCDD and 19 permitted uncontaminated soil fill operations regulated" by IEPA. PC 69 at 5. IAAP opined that the focus by IEPA on requiring groundwater monitoring is difficult to understand "given the proliferation of unregulated "clean fill" dumps scattered throughout Illinois". *Id.* As an example, IAAP noted that CCDD or uncontaminated soil from certain road projects are allowed to be deposited in pits without load checking or groundwater monitoring although IDOT specifications are required to be met. *Id.* at 6. In addition, IAAP explained that CCDD material "can be dumped in any farm field, ravine, or low lying area without obtaining an Agency permit or even registering with the Agency, as long as the material is placed below grade". IAAP argued that these unregulated sites have none of the controls provided within IDOT specifications, no "upfront testing, certification and load checking controls set forth in Section 1100.205, and no groundwater monitoring". *Id.*

IAAP argued that "the only groundwater monitoring results in the record taken from sites regulated under Part 1100…show no pollution has occurred". PC 69 at 7. IAAP concluded by stating that "the comprehensive CCDD and uncontaminated soil fill regulatory scheme approved by the Board is reasonable and adequately protects the environment from air, land and water pollution". IAAP further argued that to require "these sites to also implement the Subpart G groundwater monitoring program is a costly and unreasonable addition to the regulatory burden already accepted by CCDD and uncontaminated soil fill sites – a burden not shared by the thousands of unregulated "clean fill" sites located throughout Illinois". *Id.* IAAP closed by stating the Board's decision to reject groundwater monitoring "was correct when issued and remains correct given the lack of any new arguments or relevant evidence to the contrary offered in this proceeding". *Id.*

Land Reclamation & Recycling Association (PC 70)

LRRA responded to questions raised at hearing in a final comment. The first question responded to was a question regarding the relationship of MACs to pH, and LRRA asked that the maximum pH be raised to 12.5 to allow for disposal of soil containing limestone aggregate. PC 70 at 1.

LRRA also responded to a question concerning other states' regulations for CCDD and whether or not groundwater monitoring was required. LRRA indicated its research found that Pennsylvania has rules similar to Illinois and once soil is certified as "clean" there are no restrictions on placement. PC 70 at 2.

James E. Huff, Huff & Huff, Inc. (PC 71)

Mr. Huff submitted post-hearing comments to the Board where he addressed four questions related to the issue as to whether groundwater monitoring wells should be required at CCDD fill operations. PC 71 at 1. He also identified three issues unrelated to groundwater monitoring where he asked the Board to amend the existing regulations. *Id.*

Cost of Groundwater Monitoring

Mr. Huff noted that the cost is a "function of the number of monitoring wells that will be required to delineate the vertical and horizontal extent of any groundwater impact". PC 71 at 1. Mr. Huff reminded that the Board received information on the actual costs of a monitoring well network, with modeling, that were significant as well as figures submitted by IEPA that were significantly cheaper. *Id.* Mr. Huff asked IEPA whether four monitoring wells would be sufficient, and received what he referred to as a vague answer. *Id.* Based on this response, Mr. Huff suggested that "budgeting for eight monitoring wells would likely represent closer to the norm". *Id.* at 2.

Parameters to Be Monitored

Mr. Huff noted that he raised this question in his Pre-filed Supplemental Testimony, but information provided by IEPA at the hearing provided little clarity. Mr. Huff argued that

confusion exists as to whether total or dissolved metals are to be included, what the role of sediment is, and what approach is to be used for testing. PC 71 at 2. Mr. Huff raised the question as to why running the test for total metals is necessary, presuming the statistics approach can be used to establish compliance, as suggested by IEPA. Mr. Huff opined that the Board could provide clarity to this in the regulations and "avoid the costs of false positives due to sediment". *Id.*

Potential Closing of Facilities

Mr. Huff addressed whether the "economic burden of groundwater monitoring or the prospect of remediation result in a significant number of CCDD fill sites discontinuing accepting clean fill". PC 71 at 2. In Mr. Huff's earlier testimony, he expressed concern that a large number of CCDD operations would close before installing monitoring wells, which would result in a huge financial burden to construction projects. Mr. Huff stated that his concerns were not related to the costs of the monitoring wells or sampling, but continues to be with "the parameters being monitored and pre-existing conditions". *Id.*

One concern Mr. Huff raised was the ability to use groundwater management zones if contamination was found. PC 71 at 3. IEPA staff suggested a groundwater management zone was to "mitigate an impairment, not just right up front put a restrictive use ordinance in and automatically write groundwater off". *Id.* at 3 and 4. Mr. Huff opined that CCDD fill sites would be required to actively treat groundwater before pursuing a groundwater management zone, unlike LUST sites and those enrolled in the Site Remediation Program, which can rely on groundwater use restrictions. *Id.* at 4.

Mr. Huff identified additional reasons groundwater monitoring requirements may lead to the closure of CCDD fill sites. PC 71 at 4. These include the insufficient time allowed in the regulations to investigate an exceedance and develop a plan and the time required for IEPA to issue an NPDES permit. Mr. Huff also noted that as the regulations are now written, "every facility with an exceedance will be out-of-compliance before corrective actions can be implemented, and thus subject to potential enforcement actions". Mr. Huff opined that "Discontinuing accepting uncontaminated soil and not installing monitoring wells is clearly the option that the industry will take." *Id.*

Unregulated Fill Operations

Mr. Huff discussed whether the economic burden of groundwater monitoring will drive generators to use unregulated fill operations where there is no oversight by IEPA. PC 71 at 5. Mr. Huff reminded the Board of comments provided by Mr. Henriksen, who had noted there are alternatives to taking CCDD and uncontaminated soil fill to regulated facilities. These include "farm fields, forest preserves and borrow pits that are virtually unregulated". Mr. Huff asserted that the "disposition of uncontaminated soil is almost always left to the contractors", and because contractors are selected based on price, "they will utilize the low cost disposal option". Mr. Huff opined that the requirements of Part 1100 put CCDD facilities at a competitive cost disadvantage and by requiring groundwater monitoring "this disparity will increase for those facilities that remain in the business of accepting uncontaminated soil". *Id.*

Issues Unrelated to Groundwater

Mr. Huff raised three issues unrelated to groundwater monitoring where he asked the Board to amend the existing regulations. PC 71 at 5. The first is that there is no technical basis for an upper pH limit of 9.0, which he discussed in his response to the Board's Pre-filed Question. The second is that the "no deflection criteria on the PID meter has caused a significant number of rejected loads, many before they are even transported to the CCDD facilities". He noted that IEPA had promised to respond to the PID threshold for rejection. The third issue raised by Mr. Huff is the recommendation for the Board to codify the MACs in the regulations, which he discussed in his Pre-filed Supplemental Testimony. *Id.*

Will County Land Use Department, Resource Recovery & Energy Division (PC 72)

Dean Olson, Director of the Resource Recovery & Energy Division, Will County Land Use Department, submitted responses to some of the questions posed by the Board in its June 12, 2013 Hearing Officer Order.

In response to the question as to whether background levels should be established for all wells or just upgradient wells, assuming groundwater monitoring is required, Mr. Olson stated that "all monitoring wells should have four quarters of background levels established for all required groundwater monitoring parameters". PC 72 at 1. Mr. Olson opined that this is because downgradient or upgradient is not always easily determined, and groundwater flow can change seasonally. Also, obtaining four quarters of background levels allows for the use of "intra-well statistical analysis, if necessary". *Id.*

Mr. Olson responded to the Board's question of whether a site would only need four groundwater monitoring wells. PC 72 at 1. He stated that four monitoring wells would be appropriate "for a CCDD site with a clearly apparent groundwater flow direction". In this case, Mr. Olson states that one upgradient and three downgradient wells would suffice. *Id.*.

In response to the Board's question regarding the range of costs estimates for establishing a groundwater monitoring network, Mr. Olson referenced a Chicago Sun-Times article that indicated a CCDD site in Will County had sold for $17.7 million. PC 72 at 2. Mr. Olson opined that if a CCDD site would be worth this amount, "it indicates that a significant amount of profit is anticipated by the operator". Mr. Olson, therefore, found it difficult to understand "why a CCDD owner or operator cannot afford to install a groundwater monitoring system and sample groundwater". *Id.* Mr. Olson reiterated Will County's groundwater consultant's cost estimates to implement a groundwater monitoring system as applied to four sites in Will County (PC 55, Exh. 53 at 3). The costs per cubic yard ranged from $0.05 to $0.16. The total cost Mr. Olson provided for all four sites was $156,399 for well installation and ranged from $58,048 to $1,036,389 in annual costs for monitoring at facilities with an operating life of 3 to 33 years. *Id., referring to* PC 55, Exh. 53 at 3.

The Board asked how many of the nine facilities shown on the map of Will County provided by Mr. Cravens in his testimony are now accepting CCDD or uncontaminated soil. PC

72 at 1. Mr. Olson responded by indicating nine CCDD sites accept material in Will County, and one site accepts uncontaminated soil fill. He further explained that it was his understanding that three CCDD sites are being mined and dewatered. *Id.*

In response to the Board's question as to whether it should consider raising the PID response value to 5.0 ppm as suggested in Mr. Huff's testimony, Mr. Olson stated that "Will County would not be in agreement with an increase in the PID response value to 5.0 ppm". PC 72 at 1. Mr. Olson elaborated by suggesting that "Any increase in contaminant acceptance criteria should be accompanied by the addition of an appropriate environmental protection system, such as a liner system". *Id.*

Citizens Against Ruining the Environment (PC 73)

CARE urged the Board to "adopt groundwater monitoring requirements for CCDD and uncontaminated soil fill facilities in order to act consistently with the legislative mandate, the evidence in the record, and the well-being of Illinois residents, who, like CARE members, rely on groundwater for their drinking water". PC 73 at 1. CARE provided five specific comments to the Board.

Current Regulations Insufficient

CARE contended that current regulations cannot ensure compliance with the proper disposal of CCDD materials. PC 73 at 1. CARE noted that it has identified 175 enforcement actions by IEPA since 2002 for violations of existing standards at CCDD sites. *Id.* Since Part 1100 regulations have been in effect, the People have filed 11 enforcement actions against CCDD disposal owners or operators. *Id.* at 1 and 2. CARE provided details for five such enforcement cases. CARE stated that these violations were for the deposition of general or clean construction or demolition debris and the open dumping of waste in a manner resulting in litter. *Id.* at 2, 3, 4, 5.

CARE argued that these five cases, in addition to the hundreds of other violations identified by CARE or the People, "illustrate that failure to comply with regulations is quite common in the CCDD disposal industry". PC 73 at 5. CARE further argued that even after the new requirements for soil certification were adopted, the People filed two enforcement actions against uncontaminated soil fill facilities for violating the regulations. CARE opined that this "unrelenting continuing history of non-compliance forms the context for the [I]EPA, the Illinois Attorney General, Will County, and CARE to assert the necessity of groundwater monitoring at CCDD and [uncontaminated soil fill] facilities". *Id.* at 5 and 6.

First Indication of Contamination

CARE argued that without groundwater monitoring, "the first indication of groundwater contamination will be in public and private wells supplying potable water to Illinois residents". PC 73 at 6. CARE reported that there are nine CCDD facilities within Will County that have the "potential to contaminate this shallow aquifer and the groundwater that thousands of Will County residents rely on". *Id.* at 5 and 6. CARE stated that groundwater monitoring will allow

facility operators to detect releases before they affect potable water sources. *Id.* at 7. In addition, CARE opined that groundwater monitoring will "provide a present day baseline of groundwater conditions that will allow facility operators to evaluate impacts (or confirm the lack of impacts) over time". CARE further opined that if groundwater monitoring fails to detect releases over time, the Board can "revisit this issue on a rulemaking Petition". *Id.* at 7.

Cost of Groundwater Monitoring

CARE argued that the cost of groundwater monitoring at CCDD facilities is "reasonable, particularly when balanced against the detrimental impact of undetected, contaminated groundwater resources". PC 73 at 8. CARE challenged the claim that CCDD facilities may choose to close rather than absorb the costs of groundwater monitoring as overstated. *Id.* In addition, CARE argued that the costs of groundwater monitoring should not be the basis for the Board to deny the requests by IEPA, the People, Will County and CARE for regulations requiring groundwater monitoring. *Id.* at 9.

Self-Implementation

CARE stated that self-implementation of monitoring is insufficient, and groundwater monitoring plans and resulting data should be submitted to IEPA, although IEPA did not include this requirement in its proposed regulations. PC 73 at 9. CARE opined that "a self-reporting system is essentially the same as having no groundwater monitoring at all". CARE further argued that this issue should be examined "in light of the unrelenting history of non-compliance in the CCDD disposal industry". *Id.* The same facilities that do not comply with regulations regarding CCDD disposal are also not likely to comply with regulations to report exceedances. *Id.* CARE, the People, and Will County agreed that the public must have access to groundwater monitoring data, which means the data must be submitted to IEPA.

Front-End Screening

CARE argued that even if groundwater monitoring is required, front-end screening of materials disposed of at CCDD facilities must be continued. PC 73 at 10. CARE opined that groundwater monitoring, "acting in combination with front-end screening, provides the best opportunity to protect citizens who use groundwater as their main source of drinking water". *Id.* CARE concluded by reiterating its request that the Board implement groundwater monitoring requirements for CCDD facilities to ensure the protection of groundwater resources and to "act in accordance with the mandate of the General Assembly". *Id.*

Illinois Environmental Protection Agency (PC 74)

IEPA addressed the importance of groundwater monitoring and answered questions raised at the May 20, 2013 hearing. PC 74 at 1. IEPA contended that the Board's adoption of groundwater monitoring requirements for fill operations is "essential if compliance is to be achieved with the state's long-standing policy of restoring, protecting and enhancing the groundwater of the state as a natural and public resource". *Id.* IEPA further argued that there is "simply no question of the legislative intent to protect the state's groundwater resources

primarily by the prevention of groundwater contamination". *Id.* at 2 (emphasis in original). IEPA cited both the Act and Groundwater Protection Act to support its argument. *Id.*

Front-End Screening

While IEPA stated that it appreciated the Board adopting the health-based MACs and agreed that the strengthened screening requirements will likely exclude more contaminated soils from fill operations, it does not believe these provisions are adequate to protect groundwater. PC 74 at 3. IEPA argued that it is "convinced that only groundwater monitoring can provide the information necessary to fully understand and evaluate the threat to fill operations". IEPA further stated that without groundwater monitoring, there will be no mechanism to identify groundwater contamination at an early stage to take preventive action. *Id.*

According to IEPA, the "potential for fill operations to cause groundwater contamination is undeniable", even with the screening requirements adopted. PC 74 at 4. IEPA presented evidence to support this argument. *Id.* at 5, *referring to* Exh. 63 at 9. In sampling conducted in 2012, IEPA reported that it identified exceedances of the MACs and/or the pH limits at ten of twelve CCDD facilities. IEPA further noted that Mr. Hock testified to the fact that he had found seven incidents of PNAs above the proposed MACs in 44 samples taken from 44 borings. *Id.* Lastly, IEPA reported that it had reviewed the 417 rejection sheets it received from fill operations from September 2012 through June 2013 and found that 64.5% or 269 were rejected because of PID readings ranging from a low of 0.1 ppm to 185 ppm. *Id.* at 6. A PID reading in excess of the calibration level does not identify the specific volatiles detected or the concentrations, so any exceedance of a MAC cannot be confirmed. *Id.*

IEPA argued that the above examples demonstrate how limited the front-end screening process can be. PC 74 at 6. In addition, IEPA noted that this is compounded by the fact that source site owner/operators are allowed to self-certify when the property is not a potentially impacted property. As an example, IEPA provided figures reported by IAAP from 2010 through 2012 from four fill sites in northeastern Illinois. *Id.* Self-certifications ranged from 53% to 84.5% of the total soil certifications accepted at these four facilities. *Id.* at 7. This demonstrates, according to IEPA, that the majority of soil going to these fill sites is not subject to the front-end controls required of professional engineer/geologist certification or sampling and analysis to ensure that the soil is uncontaminated. *Id.*

Unregulated Period

IEPA raised the issue of the likelihood of groundwater contamination from fill operations prior to the 2006 adoption of Part 1100 rules and during the period of 2006 and the 2010 statutory interim requirements. PC 74 at 8. None of the mandatory screening practices were in place prior to 2006 and only the load checking replacements were in effect between 2006 and mid-2010. IEPA observed that "once contaminated soil has been accepted at fill sites, contamination very likely will migrate to groundwater". *Id.* This is exacerbated by the large volumes of soil being collected at these sites over many years, infiltration of acidic precipitation, the placement of these materials in the saturated zone, and the complete lack of technological controls such as liners. *Id.* at 8 and 9.

Cost of Groundwater Monitoring

According to IEPA, the cost of groundwater monitoring is reasonable, particularly in comparison to the costs of landfilling the soils, the costs associated with groundwater contamination, and the "present and future costs of the loss of groundwater resources". PC 74 at 9. IEPA noted further that through tipping fees, fill site owners can reallocate the costs of groundwater monitoring to the source site owners disposing of the soil in the fill sites. IEPA opined that figures have been presented in the record that demonstrate "the increased cost for groundwater monitoring is just a fraction of the current tipping fees per cubic yard". *Id.*

Responses to Specific Questions

In its comments, IEPA addressed a number of questions raised by participants at hearing, or in pre-filed or oral testimony. The Board will summarize IEPAs responses to those questions directly related to the issue of requiring groundwater monitoring.

Groundwater. IEPA was asked whether the modeling performed at the Bluff City fill site that established the three dimensional flow of groundwater near the Bluff Springs Fen was typical of assessments needed to be done at CCDD sites given that the cost was approximately $364,000. PC 74 at 13. IEPA opined that the cost for the Bluff City fill site is not typical and that the typical assessment would cost less. IEPA explained that the model used for the Bluff City fill site was complex and was needed to establish the direction of groundwater flow and to establish the groundwater monitoring network. In fact, IEPA offered that in the "vast majority of cases for the fill sites under this regulation no modeling will need to be conducted to determine the direction of groundwater flow". *Id.* IEPA did offer that modeling might be needed in complex vertical and horizontal groundwater flow regimes as in the Bluff City site. *Id.* at 14.

IEPA was asked if the horizontal component of downgradient groundwater quality is determined using a monitoring well that is screened to capture groundwater at different depths, would it be necessary to determine the precise vertical component for the purposes of groundwater monitoring and demonstrating compliance. PC 74 at 14 and 15. IEPA responded by saying, yes, groundwater monitoring wells must be screened at different intervals to monitor the permeable zones encountered. *Id.* at 15. IEPA elaborated by saying the well screen cannot be less than 5 feet or more than 10 feet in length, which results in nested wells. *Id.*

IEPA argued that determining the placement and number of wells needed requires both vertical and horizontal components for the purposes of monitoring and compliance with the Class I groundwater quality standards. PC 74 at 15. IEPA reported that this "can be accomplished using calculations and does not require modeling". *Id.*

The question was asked of IEPA as to whether background levels should be established for all wells or just the upgradient wells, if groundwater monitoring was required. PC 74 at 12. IEPA stated that it "is only concerned with the establishment of background levels for upgradient wells". *Id.*

IEPA was asked at the hearing to comment on testimony provided by Mr. Huff that asserted eight monitoring wells would be necessary to characterize downgradient groundwater quality in both vertical and horizontal directions. PC 74 at 16. IEPA previously indicated that only four wells might be required. IEPA was asked under what conditions only four wells might be required. IEPA stated that the conditions under which a site would need only four wells was dependent, at a minimum, on the size of the fill operation, the complexity of the geology/hydrogeology, and the vertical and horizontal extent and concentration of any constituents in the groundwater. IEPA opined that there are many variables to any site that would require a site-specific evaluation, but it contended a "minimum of three wells are needed to establish groundwater flow direction". *Id.*

pH Levels. Several questions were raised with IEPA regarding the pH standard of a maximum of 9.0. PC 74 at 17. The first was whether the rules should address contaminant concentrations for pH greater than 9.0 in that the MACs for only two constituents become more stringent as pH values increase. These are chromium (+6) and selenium. *Id.* Specifically, IEPA was asked if it could "propose MAC values for both chromium (+6) and selenium for pH greater than 9.0 or even just for pH of 12.49". *Id.* IEPA responded that while it could do this, these values "will lack the scientific veracity we typically employ". *Id.* at 18. IEPA evaluated establishing a maximum pH of 12.5 using TACO equations, finding that "following the procedures of 35 Ill. Adm. Code 1100.605, the MACs would default to the background concentrations should the Board decide to extend the pH range to a maximum of 12.5". *Id.*

IEPA was also asked whether the pH range should be limited to 6.25 to 12.5 as suggested by Mr. Huff's testimony. PC 74 at 18. IEPA recommended that the expansion of the upper pH limit under Part 1100 "to be moderate and not exceed pH 10.0-11.0". *Id.* at 20. IEPA expressed concerns with a pH of 12.5 because of concerns for soils in the highly caustic range approaching pH 12.5. IEPA has not considered a pH above 9.0 "because that is the upper limit of pH-dependent determinations in TACO. *Id.*

Related to the issue discussed above, IEPA was asked if it had received any information from the fill operators that there were problems with load rejection under the current pH standard of 6.5 to 9.0. PC 74 at 37. IEPA stated that it reviewed the PID rejection forms submitted between September 2012 and June 2013. Of the 378 forms applicable after the pH standard became effective, only three showed a rejection for pH, and these were due to there being no pH test results presented at the fill operation gate by their hauler. IEPA attributed this to the fact that pH screening is occurring earlier in the process, as testified to by Mr. Wilcox. *Id.*

MACs. The question was asked of IEPA as to whether the MACs in uncontaminated soils should still be based on the lowest pH dependent value in 742, Appendix B, Table C even if the pH range was limited to between 6.25 and 12.5. PC 74 at 22. IEPA stated yes; however, calculating MACs for soil pH values above 9.0 will require computations that are outside of the TACO regulation. These computations require extensive knowledge of TACO, which is why IEPA argued it preferred that the "Section 1100.605 procedures for determining MACS not be revisited". *Id.* IEPA was also asked whether the current MAC values are sufficiently protective even if there is an expansion of the upper pH limit. IEPA stated that yes, it believed the "MAC

values will continue to be protective irrespective of a moderate expansion of the upper range of acceptable soil pH". *Id.*

PID Responses. IEPA was asked whether the Board should consider raising the PID response value to 5.0 ppm as suggested by Mr. Huff's testimony. PC 74 at 27. IEPA responded by reminding that the language of the regulations requires rejection if the PID reading is above "background levels", although IEPA noted that background is not necessarily zero. IEPA stated that it is not comfortable raising the PID response value to 5.0 ppm "without further scientific evidence of its appropriateness". *Id.*

Turbidity. The question was raised to IEPA as to whether including a provision that would limit samples submitted for total and dissolved metals analysis to 10 nephelometric turbidity units (NTU) would be appropriate in order to avoid the submission of groundwater monitoring samples from wells where an adequate purge had not been achieved and the groundwater had not been stabilized. PC 74 at 29. IEPA stated that it does not recommend adding an NTU factor into collecting groundwater samples for metals because NTUs are more appropriately applied to surface water sources of drinking water. *Id.*

Codification of MACs. Mr. Huff raised a question in pre-filed testimony as to whether the Board would "consider codification of the CCDD MAC concentrations". PC 74 at 41. He also expressed concern about the use of TACO background values for several constituents on the MAC Table. IEPA opposed the recommendation to codify MACs, believing that it has been "completely transparent about the methodology it proposed to establish the MACs". *Id.* IEPA noted that the methodology in Section 1100.605 "provides a logical and detailed narrative framework to satisfy this mandate". *Id.* at 42. IEPA argued that there was "no acceptable basis other than TACO" because TACO provides objectives for three receptors and three pathways of exposure. The lowest value of these options was selected to become the contaminant concentration that is protective of public health and safety". *Id.* IEPA suggested that if a consultant has calculated a different result than what IEPA has published in the MAC Table, IEPA should be contacted so the discrepancy can be worked out. *Id.* at 43.

Liability. Mr. Hall and Mr. Quinn testified about "their fears of fill operations being held liable for the groundwater contamination of others if groundwater monitoring is required". PC 74 at 44. IEPA opined that there was a provision in proposed Section 1100.750 that allows fill site owners to demonstrate that contamination identified in the monitoring is not from their facility. *Id.* IEPA stated that it assumed the concerns related to "contaminated groundwater flowing radially (360º) from various areas into the fill site in response to a cone of depression created from a well or sump dewatering the quarry". *Id.* at 44 and 45. IEPA explained that "the largest volume of water being pulled into the ZOC [Zone of Capture] is primarily coming from the up-gradient end of the ZOC and not from all directions or 360º". *Id.* at 46. IEPA concluded by stating "This limits the amount of variability in the background groundwater quality coming into the site." *Id.*

Dewatering. IEPA noted that its proposed groundwater monitoring requirements would not be effective until such time that the owner/operator of the fill site turns off the dewatering pumps. PC 74 at 47. When the monitoring wells are installed, the flow direction will be

determined as well as whether the site is contributing to any groundwater contamination that has been detected in down-gradient monitoring wells. Therefore, IEPA opines, "pre- and post-dewatering background groundwater quality should not be substantially different in the up-gradient monitoring well and down-gradient point of compliance monitoring well(s)". *Id*

Illinois Department of Transportation (PC 75)

IDOT submitted comments to the Board to clarify some of the statements made by other parties at the May 20, 2013 hearing. PC 75 at 1. IDOT addressed IEPA's questions regarding the "IDOT exemption" for CCDD from Part 1100. PC 75 at 2. IDOT explained that the exemption is stated in Section 22.51(b)(4)(B) of the Act (415 ILCS 5/22.51(b)(4)(B) (2014)). The statute provides that subsection 22.51(b) does not apply to the use of CCDD as fill material in an excavation other than a current or former quarry or mine if this use complies with the IDOT's specifications. PC 75 at 2. IDOT noted that Section 22.51(b) of the Act (415 ILCS 5/22.51 (2014)) applies to CCDD only; it does not apply to the management of soil. *Id.*

IDOT opines that there are three types of soils: 1) unregulated soil, 2) uncontaminated soil, and 3) special waste soil. PC 75 at 2. According to IDOT, unregulated soils are soils that are not regulated under Section 3.160 or 3.475 of the Act (415 ILCS 5/.160 and 3.475 (2014). IDOT continued that uncontaminated soils are those regulated under Part 1100 and can be disposed of at a current or former quarry or mine or other excavation. *Id.* IDOT stated that special waste soils are those that can contain "potential infectious medical waste, hazardous waste, industrial process waste, or pollution control waste." *Id.*

IDOT explained that it "evaluates all excess soil material that must be managed offsite." PC 75 at 2. IDOT evaluates all projects that have soil excavations through the IDOT's Phase I process. *Id.* The Phase I process initially screens the surrounding properties within the construction project to determine if there are any potentially impacted properties (PIP) on or adjacent to the project. *Id.* IDOT explained that "if there is a possibility that a PIP exists within or adjacent to the construction project, then a preliminary environmental site assessment (PESA) is completed. *Id.* at 3.

IDOT explained that if its screening process results conclude that there are no PIPs within the project, or if the PESA report finds properties that are not PIP, "then the soil excavated as part of the construction project is determined to be not regulated." PC 75 at 3. According to IDOT, these unregulated soils can be "managed without restrictions". IDOT further explained that if the PESA finds properties that are PIPs, then the IDOT will investigate along the area to be excavated to determine the nature and extent of the potential impacts along the rights-of way. *Id.* Soil analytical results are then compared to Tier I Soil Remediation Objectives for Residential Properties in 35 Ill. Adm. Code 742. IDOT explained that soils that do not exceed the most stringent exposure route values are determined to be unregulated soils, while soils that exceed the most stringent exposure route values are determined to be regulated soils. *Id.*

If excavated soils are associated with soil analytical results that do not exceed the MAC Table in 35 Ill. Adm. Code 1000.Subpart F, they are determined to be "uncontaminated soil." PC 75 at 3. These soils can be managed without restriction. *Id.* Results that exceed the MAC

Table in 35 Ill. Adm. Code 1000.Subpart F are classified as "special waste." These soils are often managed as "non-special waste and are disposed of at a properly permitted solid waste landfill." *Id.*

IDOT explained that it evaluates all excavated soils before a construction project begins. PC 75 at 3. IDOT claims that it has a limited exemption afforded by the Act and 35 Ill. Adm. Code 1100, regarding placing CCDD and soil in a low lying area or in a former IDOT borrow pit. IDOT claims this is warranted because IDOT "makes certain in advance that the CCDD and soil that are placed in these areas are protective of human health and the environment and will not cause or contribute to groundwater contamination." PC 75 at 3-4.

Waste Management of Illinois, Inc. (PC 76)

Waste Management responded to the Board's hearing officer order of June 12, 2013. That hearing officer order set forth several questions that had been raised at the May 20, 2013 hearing. The Board summarizes those responses below.

LRRA Modeling Costs

Waste Management clarified that the cost of $364,000 for modelling by LRRA for the Bluff City facility were not typical for a CCDD as there has been no modeling performed at any CCDD site in the State. PC 76 at 1. Waste Management explained that the modeling performed for the Bluff City Materials facility is unique to that facility and was required by the Illinois Department of Natural Resources (IDNR) to ensure the protection of an adjacent Illinois Nature Preserve, the Bluff Spring Fen, due to the operation of an underground limestone mine. The modeling was meant to evaluate potential impacts to groundwater recharge to the fen from dewatering activities associated with this operation. It was required by a Fen Protection Plan agreed to by Bluff City Materials and the IDNR in 2003, three years before the original CCDD regulations were promulgated in 2006. According to Waste Management, this had nothing to do with the operation or monitoring of a CCDD facility. *Id.*

Waste Management provided two attachments containing the minutes of the 179th and 180th Meetings of the INPC, "in which the threat to the Bluff Spring Fen is discussed along with the Fen Protection Plan, including this modeling." PC 76 at 1. Waste Management explained that the CCDD groundwater monitoring described in the initial Agency proposal did not require modeling. Rather, the development of a groundwater monitoring program at a CCDD site can be accomplished by performing an "appropriate hydrogeologic site investigation and characterization and groundwater modeling is not a required element." *Id.*

Typical Groundwater Assessment at CCDD facility

Waste Management explained that there has been no groundwater modeling performed at any CCDD facility in the state, and so therefore there is "nothing typical." PC 76 at 1. Waste Management pointed out that the Agency proposal for groundwater monitoring contains no requirement to perform groundwater modeling. *Id.*

Raising PID Response Value

Waste Management explained that "relaxation of the PID" would be "misguided". PC 76 at 1. Although Mr. Huff claimed that relaxing the PID would be appropriate, Waste Management pointed out that the purpose of a groundwater monitoring system is to monitor performance of a facility, not to provide environmental protection. Waste Management claimed that the relaxation of "such an acceptance standard should be accompanied by a commensurate increase in environmental protection, such as the installation of a liner system." *Id.*

Limiting Samples From Monitoring Wells

Waste Management claimed that it would not be appropriate to limit samples submitted for metals analysis (total and/or dissolved) to 10 NTU or less in order to avoid the submission of groundwater monitoring samples from monitoring wells where an adequate purge has not been achieved and the groundwater has not been stabilized. PC 76 at 2. Waste Management explained that this would be "inconsistent with current groundwater monitoring procedures required for both Illinois non-hazardous (35 Ill. Adm. Code 811) and hazardous (35 Ill. Adm. Code 724) solid waste landfills", and that "the use of low-flow sampling procedures is routinely used at these types of facilities, including groundwater monitoring wells screened within fine-grained materials, without the need for a 10 NTU standard". *Id.*

The Office of the Attorney General (PC 77)

The People argued that protecting citizen's rights to a healthy environment is an obligation of the Attorney General under the Illinois Constitution. PC 77 at 1, citing Ill. Const. 1970, art. XI §2; People v. NL Industries, 152 Ill.2d 82, 102 (1992). The People maintained that the obligation includes ensuring that CCDD is disposed properly and that groundwater is protected. *Id.*, citing 415 ILCS 5/21, 22.51, and 12(a), (d) (2014). The People concurred with IEPA's post-hearing comments (PC 74) and reiterated the importance of protecting the State's groundwater in this proceeding. *Id.* at 1-2.

Law Requires Protection of Groundwater

The People have advocated throughout this proceeding for the inclusion of groundwater monitoring in Part 1100. PC 77 at 2. The People noted that this rulemaking is required by Section 22.51 of the Act and Section 22.51(f)(1) of the Act (415 ILCS 5/22.51(f)(1) (2014)) contains requirements for Part 1100 rulemaking. *Id.* The People noted that Section 22.51(f)(1) of the Act (415 ILCS 5/22.51(f)(1) (2014)) specifically requires the rules to "include standards and procedures necessary to protect groundwater". *Id.* at 3.

The People reiterated its opinion that the Illinois Constitution, the Act and the Groundwater Protection Act, establish a framework for protection of groundwater in the State. PC 77 at 3-5, *see also* Exh 59. The People note that the statutory framework includes direction to "restore, maintain and enhance the purity of the waters" of Illinois. PC 77 at 4, quoting 415 ILCS 5/11(b) (2014). Further, the Groundwater Protection Act includes findings by the General Assembly that contamination of groundwater will have an adverse impact on the health and

welfare of the citizens of the State and groundwater protection is necessary for the economic development of the State. *Id.*, quoting 415 ILCS 55/2 (2014). Finally, the People noted that Section 12 of the Act prohibits pollution of the waters of the State and even the creation of a potential water pollution hazard. *Id.*, quoting 415 ILCS 5/12(a) and (d) (2014).

The People maintained that the General Assembly's enactment of these provisions "lead to the conclusion that the use of CCDD as fill may, at a minimum, create a water pollution hazard." PC 77 at 5. The People further maintained that the "plain language" of Section 22.51 of the Act (415 ILCS 5/22.51 (2014)) demonstrates that the General Assembly determined that CCDD fill operations threaten groundwater. *Id.*

The People claimed that the Board has to this point relied on adoption of certification requirements (*i.e.* the MACs of contaminants) to ensure the protection of groundwater. PC 77 at 6. However, the People argued that certification requirements cannot be solely relied on to protect groundwater, where the record in this case demonstrates:

1) disposal of fill without any regulatory safeguards from 1997 to 2005,

2) screening of incoming loads with a photo ionization detector ("PID") limited to detecting only the presence of volatile organic chemicals ("VOCs') from 2005 to 2010,

3) numerous fill operator's failing to comply with the Part 1100 regulations; and

4) the presence of soils at fill operations that exceed the MACs. Given the Act's mandate that it be "liberally construed" to effectuate its purposes, coupled with the General Assembly's mandate to protect, enhance and restore the State's groundwater, the Board should require groundwater monitoring and corrective action at fill operations. *Id.*

Information in the Record Warrants Groundwater Monitoring

The People reiterated that the need for groundwater monitoring is evident given the regulatory history of CCDD facilities from 1997 to 2010. PC 77 at 6, *see also* Exh. 59. The People opined that the lack of procedures for identification of contaminated materials at fill operations from 1997 to 2010 "highlights the need for groundwater monitoring to detect" contamination from fill that did not receive the level of "pre-disposal scrutiny currently required". *Id.*

The People offered that there is ample evidence in the record of contamination at fill sites, noting testimony regarding samples from CCDD sites that included detections of PNAs above the MACs. PC 77 at 6, citing Exh. 12 at 3-5. The People also pointed to IEPA's soil samples for twelve fill operations where surface samples from the active fill face were taken and analyzed for metals, semi-volatile organic compounds, and pH. PC 77 at 6-7, citing Exh. 63 at 9-10. The People noted that IEPA identified exceedances of the MACs and/or pH limits at ten of

the 12 facilities. *Id.* The People also reiterated that since the latest amendments to Part 1100 there have been 13 enforcement actions for violations at CCDD facilities.

The People believe that a more comprehensive approach to groundwater protection is necessary and that groundwater monitoring should be included in Part 1100. PC 77 at 7. This approach is particularly necessary for people who rely on groundwater for drinking water and absent monitoring contamination may not be discovered until drinking water has been impacted. *Id.* Thus, the People argued that the Board should include groundwater monitoring in Part 1100. *Id.*

Effects of Reclaimed Asphalt on the Environment

In previous comments, the People indicated concern for contaminants from reclaimed asphalt pavement, which contains PNAs. *See* Exh. 54 at 7. The People noted testimony from the May 20, 2013 hearing, that asphalt is "inert" and "nonleachable" and that it is "commonly known that asphalt cement is inert and not a threat to the groundwater." Tr. at 99-100; Exh. 60 and 61. The People claimed that a review of State laws, guidance documents and scientific literature indicates that there is firm support for the contention that asphalt is not necessarily "inert" and poses a threat to groundwater. PC 77 at 7-8.

The People noted that the definition of "inert waste" in the Board's rules does not include "reclaimed or other asphalt pavement," like the definition for CCDD. PC 77 at 8, citing 415 ILCS 5/3 .160(b) (2014). Inert Waste:

> means any solid waste that will not decompose biologically, bum, serve as food for vectors, form a gas, cause an odor, or form a contaminated leachate, as determined in accordance with 35 Ill. Adm. Code 811.202(b). Such inert wastes will include only non-biodegradable and non-putrescible solid wastes. Inert wastes may include, but are not limited to, bricks, masonry, and concrete (cured for 60 days or more). 35 Ill. Adm. Code 810.103.

Further, the People noted that Section 22.51(f)(1) of the Act (415 ILCS 5/22.51(f)(1) (2014)) also indicated that the CCDD regulations could limit the amount of asphalt used as fill. PC 77 at 8. Section 22.51(f)(1) provides in part:

> The rules may also include limits on the use of recyclable concrete and asphalt as fill material at clean construction or demolition debris fill operations, taking into account factors such as technical feasibility, economic reasonableness, and the availability of markets for such materials. 415 ILCS 5/22.51(f)(1) (2014)

The People then provided a review of other jurisdictions and reclaimed asphalt. PC 77 at 9-12.

The People expressed concerns with other contaminants that also could be in reclaimed asphalt. PC 77 at 12. The People noted asphalt can include vehicle debris, and, road salts, and can be contaminated by sealcoating. *Id.*

The People argued that if asphalt were considered inert waste then the Board should look to the inert waste regulations at 35 Ill. Adm. Code 811. PC 77 at 14. The People noted that inert waste landfills are required to collect and analyze leachate and to notify IEPA of any contamination. *Id.*

Illinois Nature Preserve Commission (PC 78)

INPC responded to questions submitted by the Board on April 18, 2013 (Exh. 52). The Board sought information from INPC about the location of CCDD or uncontaminated soil fill sites within Class III groundwater contribution areas. Exh. 52. INPC provided maps and information of either a CCDD or uncontaminated soil fill located within Class III groundwater areas in three parts of the State. Those are the Sand Ridge Nature Preserve (Cook County), Searls Park Prairie Nature Preserve (Winnebago County), and Yonder Prairie Nature Preserve (McHenry County). PC 78 at Exhibits 1, 2, and 3. INPC agrees that a setback zone could help to protect these areas and INPC asked that Board to consider hydrologic vulnerability of and hydraulic connectivity to Nature Preserves when determining whether or not to require groundwater monitoring. PC 78 at 2.

DISCUSSION

At the request of JCAR, the Board opened this subdocket to allow an opportunity for participants and other interested persons to provide comment and testimony on the Board's decision not to require groundwater monitoring as a part of the CCDD and uncontaminated soil fill regulations in Part 1100. The Board received an additional 30 comments in this subdocket, some expanding on prior comments, while others offered new perspectives on the issue. In addition, the Board held another day of hearing devoted to the issue of groundwater monitoring. The issue remains whether or not the record supports requiring groundwater monitoring for CCDD and uncontaminated soil fill operations regulated under Part 1100. After reviewing the entire record and considering the additional comments and testimony, the Board remains unconvinced that groundwater monitoring for permitted CCDD and uncontaminated soil fills sites is required for the protection of groundwater. In fact, the Board finds additional evidence provided in this subdocket to support the Board's finding. The following discussion explains the Board's reasons why it remains unconvinced that groundwater monitoring is necessary to protect groundwater.

CCDD Regulated Under Part 1100 and "Waste"

The Board notes that the record indicates some confusion may still exist with regard to CCDD and uncontaminated soil that is placed in permitted facilities regulated under Part 1100 and materials that are considered "waste". The Board notes that several commenters referred to CCDD and uncontaminated soil as "waste" in their comments. The Board disagrees with this reference and reiterates its finding:

> that CCDD and uncontaminated soil meeting the requirements of this rule are not a waste. Section 3.160(b) of the Act specifically provides for CCDD and uncontaminated soil, used "as fill material in a current or former quarry, mine, or

> other excavation, is used in accordance with the requirements of Section 22.51 of this Act" are not waste. The Board will therefore not treat them as waste. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 86 (June 7, 2012.)

This distinction was made by the General Assembly in deciding to allow CCDD and uncontaminated soil facilities to operate under the statute and the Board rules implementing the statute. Therefore, the Board cannot treat CCDD and uncontaminated soil, regulated under Part 1100, as waste.

In addition to this confusion in the record, the People reiterate arguments that CCDD and uncontaminated soil fill operations regulated under Part 1100 will include materials that have characteristics similar to waste disposed of in inert landfills regulated under 35 Ill. Adm. Code 810. The Board remains unconvinced that CCDD and uncontaminated soil regulated under Part 1100 should be regulated as if the materials are inert waste. As stated above CCDD and uncontaminated soil regulated under Part 1100 are not waste, and the General Assembly made that clear. Section 22.51(d) of the Act specifically states: "[t]his Section applies only to clean construction or demolition debris that is not considered "waste" as provided in Section 3.160 of this Act." 415 ILCS 5/22.51(d) 2014. Thus, the General Assembly did not intend CCDD that is regulated under Section 22.51 to be treated as waste, even inert waste.

Exempt Sites

One area that received additional attention as a part of this subdocket is the number of sites exempt from Sections 22.51 and 22.51a of the Act (415 ILCS 5/22.51 and 22.51a (2014)), and as a result from Part 1100. Those exemptions are codified in Sections 1100.101(b)(2) and (3). Of particular interest are sites that use CCDD or uncontaminated soil as fill other than at former quarries or mines that comply with IDOT specifications. At hearing, these sites were referred to as "borrow pits". There are numerous borrow pits developed every year in Illinois as part of state, county, or municipal road construction projects. IDOT provided guidance on how it determines that the CCDD or uncontaminated soil is "clean". A review of those procedures demonstrates that they are similar to the procedures codified in Part 1100 for permitted facilities, although groundwater monitoring is not required. These exempt sites however are not subject to Part 1100, and would therefore be exempt from any groundwater monitoring requirements, if the Board adopted such requirements. The Board believes that the existence of these borrow pits that are statutorily exempted from Part 1100, further supports the Board's reading of the statute that groundwater monitoring is not required. Further, the borrow pits use similar methods for determining what material can be placed in the borrow pits as those methods used by permitted CCDD and uncontaminated soil fill sites, and those are the only steps borrow pits use to protect groundwater. Therefore, the Board is convinced that permitted CCDD and uncontaminated soil fill sites that have even more stringent requirements, need not perform groundwater monitoring to protect groundwater.

Procedures in Part 1100 Are Sufficient

IEPA continues to argue that groundwater monitoring is the best avenue to protect against potential contamination from CCDD and uncontaminated soil fill sites. The People, CARE, and Will County among others support this position, arguing that there could be some failure of the front-end screening that would result in contamination. Further, many who support groundwater monitoring would have the front-end screening requirements remain in place. The Board stated at second notice:

> The Board's rules, building on the IEPA's proposal, require that a site owner must certify that the soil is not from a PIP in order to avoid testing soils for constituents other than pH. Further, the Board offers guidance in the rules on what a site owner/operator must examine in order to determine if the site is a PIP. Thus, procedures are required that will limit the use of uncontaminated soil that has not been tested to sites that are unlikely to have been impacted by contaminants.
>
> If a source site is a PIP, then testing must be done and soils cannot exceed the MACs. If soils exceed the MACs the soil is not "uncontaminated" and cannot be used as fill in a CCDD or uncontaminated soil fill operation. Thus, the Board's rules prohibit using soils that are contaminated as fill material in a CCDD or uncontaminated soil fill operation. As the rules do not allow for contaminated material to be placed in a fill operation, the Board is unconvinced that groundwater monitoring is required.
>
> The Board understands that mistakes can be made and that there are persons who may choose to ignore the law. However, the rules do provide checks at the fill sites to alleviate the potential for source site owners/operators to make mistakes. Furthermore, LPE/LPGs [licensed professional engineer/licensed professional geologist] will be certifying that soils meet MACs from PIPs and errors by LPE/LPGs have ramifications for them professionally. Thus, the Board is convinced that the rules provide checks and balances against errors and persons who may choose to ignore the law. Proposed Amendments to Clean Construction or Demolition Debris Fill Operations (CCDD): Proposed Amendments to 35 Ill. Adm. Code 1100, R12-9, slip op. at 8.-876 (June 7, 2012.)

The Board is unconvinced by the additional arguments made in this subdocket that the safeguards adopted to protect groundwater will fail. While evidence of enforcement actions and evidence regarding sites not regulated under Part 1100 were offered, the record still does not provide indications of groundwater contamination at sites that are permitted under Part 1100. Also, while the Lynwood site showed contamination, Reliable Lyons does not show contamination in its dewatering.

The Board is also puzzled by information that facilities that dewater and, therefore, have an NPDES permit, are not required to perform groundwater monitoring and would only do so when dewatering ended. This could mean that groundwater monitoring will not even begin at some Part 1100 sites for years. This is especially puzzling as the IEPA argued that it would not "equate" dewatering data to data from groundwater monitoring. It would seem that the analysis

of water being removed from the facilities would offer some insight into what contaminants might enter the groundwater.

Adding this information to the fact discussed above that many borrow pits exist annually in Illinois, which use similar methods to certify the material as clean, the Board finds that the safeguards adopted in Part 1100 are sufficient to protect groundwater.

Legal Background

Participants provided no new arguments regarding the Board's authority; however, IEPA did argue that the Board's approach in this rulemaking is contrary to the approach taken in R89-5. The Board finds that this rulemaking is quite different from R89-5. First, the Board notes that in R89-5 the Board adopted rules because:

> Sections 14.4(b) and 14.4(d) mandate *inter alia* that the [IEPA] propose and the Board promulgate regulations prescribing standards and requirements for certain activities within setback zones and regulated recharge areas, as those terms are defined in the [Groundwater Protection Act]. The set of affected activities included, in general, those activities that offer significant potential for producing groundwater contamination, and which are not otherwise currently subject to regulations which limit or eliminate their potential for producing groundwater contamination. Groundwater Protection: Regulations of Existing and New Activities Within Setback Zones and Regulated Recharge Areas; Groundwater Technical Standards: 35 Ill. Adm. Code 601, 615, 616, and 617, R89-5, slip op. at 1 (Dec. 6, 1991)).

The Groundwater Protection Act defined the activities to be examined in R89-5.

In this rulemaking, the Board already adopted safeguards for groundwater. Further the General Assembly did not include facilities permitted under Part 1100 as one of the activities to be given special consideration by the Groundwater Protection Act. Further, in R89-5, the Board was adopting rules to protect sensitive areas for groundwater and establishing setback zones; while under Part 1100, new wells are not allowed within a specific setback zone and thus Part 1100 already established setback zones for permitted CCDD and uncontaminated soil fill sites. For all of these reasons, the Board finds that its ruling in R89-5 is consistent with the Board's decision not to require groundwater monitoring in Part 1100.

Issues Unrelated to Groundwater

The Board appreciates the concerns raised, in particular by Mr. Huff, regarding pH, establishing a PID threshold, and codification of MACs. However because the Board is not proceeding with a rule at this time, the Board will not review the changes requested in this docket. If these concerns remain, participants are encouraged to propose a new rulemaking.

CONCLUSION

After reviewing the entire record and considering the additional comments and testimony, the Board remains unconvinced that groundwater monitoring for permitted CCDD and uncontaminated soil fills sites is required for the protection of groundwater. Therefore, the Board closes this docket.

ORDER

The Board closes this subdocket.

IT IS SO ORDERED.

Board Member J. A. Burke abstains.
Board Member C.K. Zalewski abstains.

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on August 6, 2015, by a vote of 3-0.

John T. Therriault

John T. Therriault, Clerk
Illinois Pollution Control Board

2017 IL App (3d) 150637-U

Order filed September 12, 2017

IN THE

APPELLATE COURT OF ILLINOIS

THIRD DISTRICT

2017

COUNTY OF WILL and WILL COUNTY LAND USE DEPARTMENT,	)	Petition for Review of Order of the Illinois Pollution Control Board dated August 6, 2015.
Petitioners-Appellants,	)	
v.	)	Appeal Nos. 3-15-0637 3-16-0058
ILLINOIS POLLUTION CONTROL BOARD,	)	IPCB No. 2012-009(B)
Respondent-Appellee.	)	Appeal from a Decision of the Illinois Pollution Control Board.

JUSTICE SCHMIDT delivered the judgment of the court.
Presiding Justice Holdridge concurred in the judgment.
Justice Wright dissented.

ORDER

¶ 1 *Held*: The Illinois Pollution Control Board's determination that groundwater monitoring regulations were unnecessary to protect groundwater from clean construction and demolition debris and uncontaminated soil fill operations was not arbitrary, capricious, or unreasonable.

¶ 2 In 2011, the Illinois Environmental Protection Agency (IEPA) proposed regulations to eliminate groundwater contamination purportedly caused by clean construction and demolition debris (CCDD) and uncontaminated soil fill (USF) operations. See Ill. Admin. Code § 1100. The proposed regulations included "front-end" material certification and testing mandates, as

well as "back-end" groundwater monitoring requirements. The Illinois Pollution Control Board (Board) amended and approved the IEPA's proposed front-end regulations; these regulations set maximum allowable concentrations (MACs) of certain substances in acceptable fill materials.

¶ 3 However, the Board rejected "Subpart G," the IEPA's back-end groundwater monitoring proposal. On August 6, 2015, after two docket proceedings, four hearings, and dozens of pre- and post-hearing public comments, the Board issued its final order rejecting Subpart G. Based upon the record, the Board concluded that back-end groundwater monitoring regulations were unnecessary; the newly-promulgated front-end screening regulations would adequately protect groundwater by regulating materials that fill operations could accept and deposit. The People of the State of Illinois, Will County, and Will County's Land Use Department object to the Board's decision; they seek review pursuant to Illinois Supreme Court Rule 335 (eff. Feb. 1, 1994) and the Illinois Environmental Protection Act (Act) (415 ILCS 5/29(a), 5/41(a) (West 2014)). For the reasons set forth below, we confirm the Board's determination.

¶ 4 BACKGROUND

¶ 5 CCDD and USF are the remnants of construction projects. Road, building, and landscaping construction projects, both public and private, generate soil, asphalt, bricks, concrete, and other construction materials that are eventually discarded. Fill operations are businesses that take these materials and deposit them in large quarries; the materials decompose over time. Fill operations do not add chemicals or otherwise alter the CCDD and USF materials received—they exist in the quarries just as they existed elsewhere in buildings, roads, or soil. Operators fill water into the quarries. If the deposited CCDD and USF materials contain certain contaminants or certain amounts of contaminants, these contaminants may "leach" into the water pumped through the quarries.

¶ 6 The General Assembly first recognized CCDD in 1997; it amended the Act to distinguish "general" and "clean" construction and demolition debris materials (Public Act 90-475 (eff. Aug. 17, 1997)). The amendment defined clean materials (CCDD) as "uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement, or soil generated from construction or demolition activities." 415 ILCS 5/3.78a (West 2000); see also 415 ILCS 5/3.160(b) (West 2014). Public Act 90-475 also declared that CCDD was not considered "waste" if used as fill material and deposited below grade either under a road or structure or in a manner that supported vegetation. *Id.*

¶ 7 Months later, Public Act 90-344 (eff. Jan. 1, 1998) amended the Act to require CCDD fill site operators, haulers, and generators to maintain dated records describing the volumes and sources of the materials received, hauled, or generated. See 415 ILCS 5/21(w) (West 2000). Public Act 90-344 meant to deter fill site operators from accepting waste materials instead of clean fill.

¶ 8 In 2005, Public Act 94-272 (eff. July 19, 2005)) amended the Act by requiring CCDD and USF site operators to obtain permits from the IEPA; the amendment also instructed the IEPA to propose, and the Board to promulgate, regulations concerning acceptable standards and uses for CCDD and USF at fill sites. See 415 ILCS 5/22.51(c) (West 2006). In 2006, the Board promulgated formal CCDD disposal regulations at Part 1100 of the Administrative Code (35 Ill. Admin. Code § 1100). Under these regulations, fill site operators were required, for the first time, to visually inspect and test CCDD materials with photo ionization detectors (PIDs) or similar devices to ensure accepted materials were "clean" or "uncontaminated."

¶ 9 In 2010, the General Assembly passed Public Act 96-1416 (eff. July 30, 2010), which defined "uncontaminated soil fill" as soil from construction projects that does not contain

contaminants harmful to human health or the environment. 415 ILCS 5/3.160(c) (West 2014). The Board subsequently set MACs for certain substances commonly found in USF. 35 Ill. Admin. Code § 1100.605. Public Act 96-1416 also directed the IEPA to propose, and the Board to promulgate, regulations that protect groundwater from CCDD and USF fill operations. 415 ILCS 5/22.51(f)(1), 22.51a(d)(1) (West 2010).

¶ 10 I. Proposed Regulations

¶ 11 In 2011, the IEPA initiated the rulemaking proceedings at issue in accordance with Public Act 96-1416. The Act authorizes the IEPA to propose regulations (415 ILCS 5/4 (West 2014)) but delegates final rulemaking authority to the Board (415 ILCS 5/5(c), 5/28 (West 2014)). The Board operates as a "science court." Each of the Board's five members is appointed by the governor, with the advice and consent of the senate, and must be qualified with verifiable experience in pollution control. 415 ILCS 5/5(a) (West 2014).

¶ 12 The IEPA's proposals included front-end regulations that increased CCDD and USF fill site operators' certification and screening requirements to ensure accepted fill materials were "clean" or "uncontaminated." The IEPA also proposed "Subpart G," a back-end groundwater monitoring requirement. Subpart G required site operators to build monitoring wells and annually monitor groundwater for contamination. Additionally, Subpart G required site operators to either show that discovered contamination was not related to fill operations or remediate any contamination exceeding the Board's MACs for potable resource groundwater (35 Ill. Admin. Code § 620.410).

¶ 13 As proposed, Subpart G was self-implementing; private site operators were not required to obtain an additional permit to monitor or report monitoring plans to the IEPA. Subpart G also proposed lifetime application, which included fill sites' operation, closure, post-closure

maintenance, and corrective action. However, sites that closed or entered post-closure maintenance within one year of Subpart G's effective date were excused from compliance. Sites engaged in dewatering were also excused from Subpart G's monitoring requirements until dewatering ended. However, dewatering is a temporary process—without water pumping into the quarries, the deposited materials will fill the quarries more quickly due to slower decomposition. Therefore, sites could not maintain dewatering permanently to avoid complying with Subpart G.

¶ 14 II. Base Docket and Initial Proceedings

¶ 15 On August 14, 2011, the Board, as it must under the Act (415 ILCS 5/27(b)(1) (West 2014)), asked the Department of Commerce and Economic Opportunity (DCEO) to study the proposed regulations' economic impact. The DCEO declined the Board's request. Nonetheless, pursuant to the Administrative Procedure Act (5 ILCS 100/5 *et seq.* (West 2014)), the Board held two hearings on the IEPA's proposed regulations prior to first notice; the first on September 26, 2011, the second on October 25 and 26, 2011.

¶ 16 In addition to hearing participants' testimony during these initial hearings, the Board invited comment on the DCEO's decision not to perform an economic impact study—generally, all parties expressed disappointment with the DCEO's decision. Despite the lack of an economic impact study, Subpart G's proponents asserted that groundwater monitoring was economically reasonable.

¶ 17 Will County and its Land Use Department advocated for Subpart G. By 2011, the IEPA had issued permits to 60 CCDD fill operations statewide. Although these sites were spread among 18 counties, 9 of the 60 CCDD sites operated within Will County and sat near major waterways such as the Des Plaines and Du Page Rivers. According to Will County, 71% of its

residents obtain their potable water supply "exclusively" from groundwater running through shallow bedrock aquifers, which are susceptible to contamination from CCDD and USF fill operations.

¶ 18 Both Will County and the IEPA argued that fill site operators have historically ignored regulations. Although the IEPA admitted at the September 26 hearing that operators' compliance with the proposed front-end regulations would negate the need for groundwater monitoring, both the IEPA and Will County assumed that operators—either by mistake or intent—would not regularly comply with the front-end regulations. Therefore, Subpart G offered a necessary check on operators by providing a means of exposing their failures to comply with the front-end regulations.

¶ 19 Advocates for Subpart G also suggested that materials deposited in fill sites' quarries before 2011 present "a clear and present danger" to groundwater. CCDD and USF fill site operators were effectively unregulated prior to 2005 and, according to the IEPA and Will County, insufficiently regulated until these rulemaking proceedings. According to the IEPA and Will County, unknown contaminants from these older, unregulated materials may migrate into the aquifers. Front-end regulations do nothing to address the threat posed by these older materials.

¶ 20 Will County and the IEPA also noted that reclaimed asphalt (a material within CCDD's definition under the Act) contains constituent polynuclear aromatic hydrocarbons (PNAs). PNAs are carcinogens that could, if leached from the asphalt, contaminate the potable groundwater supply. Participants in these rulemaking proceedings disagreed as to whether PNAs can, in fact, be leached from the asphalt. Subpart G's opponents advocated that asphalt is nonleachable and inert; therefore, water passing through asphalt fill would not acquire its constituent PNAs.

¶ 21 All participants agreed that CCDD and USF fill operations provide a significant public benefit. Site operations are subject to state regulations and agency oversight. Alternative methods to dispose of CCDD and USF are neither environmentally safe nor cost-effective. Without fill site operations, CCDD and USF materials would be dumped haphazardly at unregulated sites or placed in landfills at a drastically higher cost to taxpayers and private entities.

¶ 22 On February 2, 2012, the Board published its first notice opinion in the *Illinois Register*. The Board adopted most of the IEPA's proposed regulations; in fact, the Board published more stringent front-end screening, testing, and certification measures than the IEPA proposed. However, the Board rejected Subpart G. According to the Board, the front-end regulations ensured that deposited materials would not contaminate groundwater; Subpart G proposed a costly measure that offered little or no environmental benefit. To this end, the Board opined that Subpart G's proponents did not provide sufficient evidence to show CCDD and USF materials that comply with the front-end regulations threaten groundwater.

¶ 23 The Board held another two-day hearing on March 13 and 14, 2012. The IEPA urged the Board to reconsider Subpart G. The Board "remained unconvinced" that groundwater monitoring was necessary to prevent contamination. According to the Board, the record indicated that front-end certification and screening regulations were sufficient to protect groundwater.

¶ 24 On June 7, 2012, the Board issued its second notice opinion and order, which again rejected Subpart G. The Board found that its authority included adopting rules based on policy objectives, including the nature of the pollution issue, the risk implicated, and the "technical feasibility and economic reasonableness of measuring or reducing the particular type of

pollution." 415 ILCS 5/27(a) (West 2014). Moreover, the Board found that the Act's mandate to protect groundwater at CCDD and USF fill sites (415 ILCS 5/22.51(f)(1), 22.51a(d)(1) (West 2014)) did not require groundwater monitoring regulations. Finally, the Board found that the front-end certification and screening regulations adequately protected groundwater, as required by the Act (415 ILCS 5/22.51, 22.51a (West 2014)).

¶ 25 The Board declined to impose "costly" monitoring and remediation regulations upon site operators to address purported contamination problems that "the record [did] not support." The record did not show that compliant CCDD and USF materials pose a threat to groundwater. Nor was Subpart G, in the Board's estimation, economically reasonable; operators would bear large costs or be forced out of business in exchange for an unknown environmental benefit.

¶ 26 On August 14, 2012, the Joint Committee on Administrative Rules (JCAR) issued a certificate of no objection to the Board's proposed regulations. However, JCAR also recommended that the Board "give further consideration to whether groundwater monitoring should be required." On August 23, 2012, the Board adopted the rule as proposed to JCAR. However, the Board followed JCAR's recommendation and opened "subdocket B" to further consider Subpart G in separate proceedings.

¶ 27 III. Subdocket B Proceedings

¶ 28 Within subdocket B, the Board included "all the comments, testimony, and filings" from the base docket. Then, on September 21, 2012, subdocket B's hearing officer opened a pre-hearing public comment period to more thoroughly address issues debated in the base docket regarding Subpart G. The Board fielded over a dozen comments during this initial comment period.

¶ 29 A. Prehearing Public Comments

¶ 30 Will County officials, in favor of Subpart G, asserted that no groundwater contamination evidence existed because no data had been collected; Will County believed that a study would show groundwater contamination attributable to fill site operations. Without Subpart G, Will County believed that operators would perpetuate this suspected groundwater contamination by ignoring the front-end regulations and accepting noncompliant materials. Will County also argued that Subpart G's costs to operators would be "incidental" compared to remediation costs and costs associated with citizens' exposure to contaminated groundwater.

¶ 31 Will County hired Michael Crutcher, a licensed engineer and hydrogeologist, to analyze Subpart G's potential costs. Crutcher determined that groundwater monitoring costs would total $58,048 over a site's 3-year lifespan, and $1,036,389 over a 33-year lifespan; this total cost amounted to $.06 to $.16 per cubic yard of accepted material—sites charge "tipping fees" between $4.50 and $5 per cubic yard. In addition to the annual monitoring costs, Crutcher estimated that site operators would spend $156,399 to install four monitoring wells. Based on Crutcher's findings, Will County concluded that these costs could easily be recaptured by slight increases in operators' tipping fees.

¶ 32 Several environmental agencies and associations also favored Subpart G. The Illinois Nature Preserve Commission (INPC) stated that fill site operations could compromise several nature preserves' water supply. Similarly, the Will County Forest Preserve District stated that site operations could jeopardize sensitive habitats within local nature preserves. Moreover, the District stated that most Will County communities rely upon groundwater as their potable water source; therefore, Subpart G's costs to operators were relatively small compared to ensuring clean water for Will County citizens. Finally, Citizens Against Ruining the Environment (CARE) contended that, because the sites quarries are unlined, contaminants would inevitably

accumulate and migrate into the water supply unless site operators perfectly complied with the front-end regulations—CARE believed perfect compliance to be unrealistic.

¶ 33 The IEPA and the People characterized Subpart G as "the single most important measure for achieving groundwater protection." The IEPA stated that front-end regulations would achieve "limited effectiveness" without back-end monitoring; site operators would have no incentive to comply with front-end regulations without Subpart G exposing operators' noncompliance through monitoring. Further, the People contended that front-end regulations without Subpart G do nothing to address current contamination or contaminated materials deposited before these rulemaking proceedings.

¶ 34 The IEPA and the People also argued that Subpart G's costs were reasonable. The People characterized Subpart G's costs as "insignificant." The IEPA deemed monitoring costs small compared to potential remediation costs, which are "inherently expensive." The IEPA calculated that the cost of a monitoring design and well installation would amount to less than $.12 per cubic yard over 10 years for 96% percent of sites, and less than $.52 per cubic yard over the same period for 99% of sites. Although these estimations seem insignificant, they amount to a 2.5% to 11.5% tipping fee increase for 10 years, not counting costs increases unrelated to Subpart G.

¶ 35 Springfield's City Water, Light, and Power stated that Subpart G was unnecessary and could force site operators out of business, force price increases, and needlessly direct non-contaminated materials to more expensive landfills. Springfield also expressed extreme disappointment with the DCEO's decision not to perform an economic impact study; interested parties had no way to determine Subpart G's costs to operators, effect on the industry, or eventual costs to taxpayers if operators shut down rather than complying with Subpart G.

¶ 36 The Land Reclamation and Recycling Association (LRRA), a fill site association, also disfavored Subpart G. The LRRA contended that Subpart G would require eight monitoring wells, rather than four, at each fill site. Based upon a member fill site's recent monitoring well installation, the LRRA estimated that developing a groundwater flow model and installing eight wells would cost sites over $470,000—three times Will County and the IEPA's estimations. The IEPA rebutted that groundwater flow models are, in most cases, unnecessary; the IEPA also maintained that sites would need only four wells to adequately monitor groundwater.

¶ 37 The LRRA also cited water sampling data from a member fill site, Reliable Lyons. Reliable Lyons stored CCDD fill in a 275-foot quarry; the operator installed a groundwater collection system at the bottom of this quarry. Over several years prior to the study, Reliable Lyons accepted over six million cubic yards of CCDD. Water pumped from Reliable Lyons' site into the Des Plaines River contained no contamination exceeding the Board's potable water supply MACs. Although advocates for Subpart G contended that Reliable Lyons' water samples were diluted, and therefore inaccurate, the LRRA estimated that approximately 43% of the sampled groundwater came in direct contact with CCDD materials.

¶ 38 Finally, the Illinois Transportation Coalition (ITC) stated that groundwater was adequately protected by "regulating the quality of CCDD" with front-end certification and screening. The ITC noted two types of costs associated with Subpart G; known capital and operating costs and unknown costs. Site operators were concerned with the unknown, but undoubtedly substantial, unknown costs that Subpart G could impose, such as remediation costs. Further, the ITC pointed out that groundwater monitoring could uncover contamination from pre-regulation practices. Therefore, Subpart G could place operators on the hook for millions of

dollars in remediation costs without evidence that the operators violated a single regulation, past or present.

¶ 39 B. Subdocket B Hearing

¶ 40 On May 30, 2013, the Board held its subdocket B hearing. Many of the same participants who provided prehearing comments testified at the hearing. Will County's expert geologist, Stuart Cravens, testified that CCDD and USF contaminants could migrate more than 10 feet per day through an aquifer. He also opined that PIDs and other tools used to certify, screen, or inspect materials before deposit were unreliable in detecting PNAs and semi-volatile organic contaminants found in asphalt and other forms of CCDD.

¶ 41 Assistant Attorney General Stephen Sylvester, on the People's behalf, equated CCDD to "inert waste," which includes materials such as bricks, masonry, and concrete. The Board requires inert waste landfills to monitor leachates (liquid that has percolated through a solid and extracted, or "leached," some of its constituents) every six months and report these results to the IEPA. 35 Ill. Admin. Code § 811.206. Therefore, the People claimed that Subpart G was, in fact, too lax. As proposed, Subpart G was self-implementing and required annual, rather than semiannual, monitoring.

¶ 42 The People also cited data from a CCDD fill site near Lynwood, Illinois. The Lynwood site was not licensed by the IEPA, accepted noncompliant CCDD materials, and piled materials above grade. Test samples taken from the Lynwood site showed numerous MAC exceedances and prevalent groundwater contamination. The Lynwood site is now closed. Further, because the Lynwood site stored CCDD above grade, the materials constituted "waste" under the Act.

¶ 43 Subpart G's opponents argued that CCDD and USF materials are not "waste" or inert waste. By definition, CCDD and USF must be "clean" and "uncontaminated," respectively.

Moreover, licensed sites do not deposit or store materials above grade, as did the Lynwood site prior to closure. Thus, the material stored at these fill operations do not constitute "waste" under the Act.

¶ 44 Perhaps the most disputed issue surrounding Subpart G was its intended retroactive effect. The People testified that fill site operators' preregulation actions have contaminated or will contaminate groundwater near the sites. Subpart G required operators to finance remediation for any contamination related to fill operations, regardless of when the contamination occurred. James Huff, a professional geologist for the ITC, testified that Subpart G's intended retroactive effect was unfair to site owners and would likely devastate the industry. He advocated for monitoring baselines that would account for preexisting groundwater conditions; operators would be responsible for contamination exceeding the baseline levels rather than all prior contamination that may or may not be attributable to site operations or the current operators.

¶ 45 C. Posthearing Comments

¶ 46 By a hearing officer order on June 12, 2013, the Board invited posthearing comments before making its final determination. Site operators stated that they would be forced to reassess or close operations if the Board imposed Subpart G. One operator, VCNA Prairie, Inc., pointed out that taxpayers would ultimately bear the costs of fill sites closing. According to the Chicago Public Building Commission, CCDD and USF from a large construction project could be deposited in a fill site quarry for approximately $5.7 million; the same materials from the same project would cost approximately $20.6 million to deposit into a landfill. These price increases, if site operators shut down, would discourage public construction projects by increasing their costs to taxpayers.

¶ 47 John Henriksen from the IAAP also pointed out that the Act permits the Illinois Department of Transportation (IDOT) to deposit CCDD and USF from road projects into "clean fill dumps" or "borrow pits." See 415 ILCS 5/22.51(b)(4)(B) (West 2014). Subpart G, if promulgated, would not apply to borrow pits. In defense of the borrow pit rules, IDOT stated that it inspects the CCDD or USF before deposit to ensure the materials are "protective of human health and the environment and will not cause or contribute to groundwater contamination." Site operators took issue with Subpart G's implicit approval of IDOT's front-end inspection measures while Subpart G's advocates argued that back-end groundwater monitoring was indispensable to regulating private operators. The People and Will County claimed that Subpart G must apply to private operators because they are motivated by profit and, therefore, less likely than IDOT to comply with front-end regulations. The People also claimed that borrow pits are much smaller and have shorter lifespans than fill site quarries; "[i]t is, in large part, the size, depth and longevity of these [quarries] that pose risks to groundwater."

¶ 48 In their final comments, Subpart G advocates reiterated that site operators would continue to contaminate groundwater without back-end groundwater monitoring and remediation regulations. The IEPA cited groundwater sampling from 2012 in which it found pH level or MAC exceedances in 10 of 12 samples from various fill sites. The IEPA also cited an IAAP study showing PNA exceedances in 7 of 44 samples taken from three fill sites. Based on these studies, the IEPA argued that Subpart G's costs were reasonable compared to landfill costs, costs associated with groundwater contamination, and "present and future costs of the loss of groundwater resources." Will County's Land Use Department added that fill site operators could afford Subpart G's costs; Director Dean Olson cited a newspaper article reporting on a Will County CCDD fill site that sold for $17.7 million.

¶ 49 D. Subdocket B Opinion and Order

¶ 50 On August 6, 2015, the Board issued its subdocket B opinion and order, which rejected Subpart G. In coming to its decision, the Board considered the base docket, as well as subdocket B's hearing testimony, public comments, and posthearing comments. The Board remained "unconvinced that groundwater monitoring" was "required for the protection of groundwater." The Board also found that CCDD and USF do not constitute "waste" under the Act and should not be regulated like inert waste, as the People argued. Additionally, the Board pointed out that its new front-end regulations imposed "more stringent requirements" than those IDOT employs before depositing CCDD and USF materials into borrow pits. In sum, the Board believed in the front-end regulations' utility and found Subpart G's advocates failed to clearly demonstrate that licensed CCDD or USF fill sites, acting within the law, need to monitor groundwater. This appeal followed.

¶ 51 ANALYSIS

¶ 52 Rules adopted by the Board pursuant to its statutory authority (415 ILCS 5/27 (West 2014)) will stand unless shown to be arbitrary, capricious, or unreasonable. *Granite City Division of National Steel Co. v. Pollution Control Board*, 155 Ill. 2d 149, 162 (1993); *Celotex Corp. v. Pollution Control Board*, 94 Ill. 2d 107, 125 (1983). Because administrative agencies, like the Board, employ specific expertise in promulgating regulations, courts should hesitate to find agencies' regulations unreasonable. *Shell Oil Co. v. Pollution Control Board*, 37 Ill. App. 3d 264, 270-71 (1976).

¶ 53 In exercising its rulemaking authority, the Board performs a quasi-legislative function; therefore, the Board is not required to support its conclusions or opinions with any given quantum of evidence. *Granite City*, 155 Ill. 2d at 180. On review, courts do not "determine

whether the Board's action was wise, or even if it was the most reasonable based on the record." *Central Illinois Public Service Co. v. Pollution Control Board*, 116 Ill. 2d 397, 412 (1987).

¶ 54 Instead, the objecting party must prove that the Board's regulations are invalid, which is a high burden. See *Granite City*, 155 Ill. 2d at 180; *Illinois State Chamber of Commerce v. Pollution Control Board*, 177 Ill. App. 3d 923, 928 (1988). Relevant factors for determining whether an agency's rule is arbitrary, capricious, or unreasonable include whether the agency's decision relies upon factors that the legislature did not intend the agency to consider, entirely fails to consider an important aspect of the problem addressed, or offers an explanation that runs counter to the evidence presented—or one that is so implausible that it could not be ascribed to a difference in view or be the product of the Board's expertise. *Greer v. Illinois Housing Development Authority*, 122 Ill. 2d 462, 505-06 (1988); *Waste Management of Illinois, Inc. v. Pollution Control Board*, 231 Ill. App. 3d 278, 285 (1992). The People and Will County argue that all three considerations indicate the Board's decision to reject Subpart G was arbitrary, capricious, or unreasonable. We address each argument in turn.

¶ 55 I. Factors the Legislature Did Not Intend the Board to Consider

¶ 56 The People and Will County first argue that the Board "injected into the proceeding an unnecessary and inappropriate factor" by considering whether CCDD and USF constitute "waste" under the Act. Sections 22.51 and 22.51a (415 ILCS 5/22.51, 22.51a (West 2014)) direct the Board to promulgate regulations that apply to CCDD and USF operations; the regulations must protect groundwater. The objecting parties argue that whether CCDD and USF constitute "waste" is irrelevant to whether fill site operations have caused groundwater contamination or otherwise pose a threat to groundwater.

¶ 57 Will County argues that whether CCDD and USF materials are "waste" under the Act "has no bearing on whether the groundwater near [the fill sites] is contaminated." In fact, Will County suggests that the source of groundwater contamination is altogether irrelevant: "it makes no difference to the citizens of Will County if a contaminant came from CCDD or USF or some other source. Nor should it make a difference to the Board." According to Will County, the Illinois Constitution imposes a duty upon citizens to maintain a healthful environment for the benefit of this generation and future generations (Ill. Const. 1970, art. XI, § 1); thus, the Act requires the Board to approve Subpart G regardless of whether CCDD and USF constitute "waste."

¶ 58 Similarly, the People contend that the Board cannot promulgate rules to protect groundwater without addressing contamination that has occurred or may occur due to operators' past practices. The People claim that materials deposited before these proceedings threaten groundwater; these materials have purportedly caused groundwater contamination at fill sites and are likely to further contaminate groundwater over time.

¶ 59 The Board contends that Public Act 96-1416 (eff. July 30, 2010) ordered the Board to promulgate *prospective* regulations for CCDD and USF fill site operations, not to "detect and remediate historical contamination." Accordingly, whether CCDD and USF constitute "waste" under the Act is relevant to determining how the materials should be regulated moving forward.

¶ 60 Public Act 96-1416 amended the Act to require groundwater protection regulations specifically applicable to licensed CCDD and USF fill operations. 415 ILCS 5/22.51, 22.51a (West 2014). Section 22.51 requires the Board's CCDD groundwater protection regulations to include standards and procedures that "may include, but shall not be limited to" soil fill certification and testing, surface water runoff, liners or protective barriers, "monitoring

(including, but not limited to, groundwater monitoring)," corrective action, recordkeeping, reporting, closure and postclosure controls, location standards, and modifying existing permits. 415 ILCS 5/22.51(f)(1) (West 2014). Additionally, section 22.51a states that the Board's USF regulations "shall include *** testing and certification of soil used as fill material and requirements for recordkeeping." 415 ILCS 5/22.51a(d)(1) (West 2014).

¶ 61 Neither the People nor Will County argues that prospective regulations were not within the amendment's scope. Nor do the objecting parties challenge the Board's rulemaking authority or raise a question of statutory interpretation. Whether CCDD and USF constitute "waste" or "inert waste" is relevant to determining what prospective regulations are necessary to protect groundwater, as some of the Board's other regulations demonstrate (see, *e.g.*, 35 Ill. Admin. Code § 811.206).

¶ 62 We also note the People's disagreement with the Board's decision not to treat CCDD "as waste, even inert waste." During subdocket B proceedings, the People compared CCDD to inert waste in an effort to prove Subpart G's necessity. In fact, the People argued that Subpart G was too lax compared to the semiannual leachate monitoring requirements for inert waste landfills (35 Ill. Admin. Code § 811.206). The People equated, in purpose and effect, Subpart G to inert waste landfill regulations; thus, the Board had to consider whether CCDD and USF materials should be treated as "waste" or "inert waste."

¶ 63 We hold that whether CCDD and USF constitute "waste" was relevant to the Board's rulemaking determination, as indicated by the record. The Board's consideration of this factor, therefore, does not suggest its final determination was arbitrary, capricious, or unreasonable.

¶ 64 II. Failing to Consider Important Aspects of the Problem

¶ 65 The People and Will County next argue that the Board's decision was arbitrary, capricious, and unreasonable because it failed to consider site operators' prior actions that may pose a continuing threat to groundwater. The objecting parties suspect that materials deposited before these proceedings "present a clear and present danger to groundwater." They argue that the risk of pollution from preregulation materials was "obviously an 'important aspect' of the groundwater monitoring problem," which the Board ignored. They also argue that the Board failed to consider fill operators' history of "scoff-law" behavior that Subpart G aimed to rectify. We disagree.

¶ 66 The Board considered operators' past practices; it simply did not attribute as much weight to this issue as the People and Will County would have liked. During these proceedings, Subpart G's advocates provided lengthy testimony and comment regarding site operators' past practices and lack of adequate regulation. However, the Board "remained unconvinced" that compliant CCDD and USF pose contamination threats; the Board also found that "the record still does not provide indications of groundwater contamination at [licensed fill sites]." Further, the Board steadfastly maintained throughout both rulemaking dockets that Subpart G's potential effect, if any, did not justify its known and unknown costs to site operators.

¶ 67 Next, the People and Will County disagree as to whether cost was an important aspect of these proceedings that the Board failed to consider. The People argue that, because the Board did not address Subpart G's costs in its final order, the Board retreated from cost as a justification for rejecting Subpart G. Will County, on the other hand, admits that "cost [was] a compelling issue, and the pivotal issue for private industry." Thus, Will County claims that the Board's failure to address costs in its subdocket B order indicates it failed to consider an important aspect of the problem addressed in these proceedings.

¶ 68 The record indicates that the Board thoroughly investigated site operators' costs to comply with Subpart G. In fact, most of Subpart G's pushback addressed its costs to site operators and the corresponding industry effects. Moreover, the DCEO denied the Board's request for an economic impact study. The Board relied on participants' economic analyses. We do not find that the Board failed to consider costs altogether, as Will County suggests.

¶ 69 We also need not rely upon cost analysis to affirm the Board's determination. Participants in these proceedings provided more than enough information for the Board to make its decision. The record indicates that the Board considered all significant issues presented by the evidence. The objecting parties' disagreement with the Board's final determination, and the weight it assigned to certain evidence, does not compel this court to reweigh the evidence on review. We hold that the Board did not fail to consider any important aspect of protecting groundwater from CCDD and USF fill site operations.

¶ 70 III. Evidentiary Support for the Board's Determination

¶ 71 We reiterate that the Board exercised its quasi-legislative authority to promulgate pollution regulations during these proceedings. Accordingly, the Board's determinations were not required to be supported by any given quantum of evidence. *Granite City Division of National Steel Co.*, 155 Ill. 2d at 180. Despite this deferential standard, the Board's determination can be arbitrary, capricious, or unreasonable, if it runs completely counter to the evidence presented or is so implausible that reasonable minds could not disagree. See *Greer*, 122 Ill. 2d at 505-06; *Waste Management of Illinois, Inc.*, 231 Ill. App. 3d at 285.

¶ 72 The People and Will County argue that the Board's determination "runs counter to nearly all of the evidence presented." First, the objecting parties point to the IEPA and IAAP's sampling data, which purportedly showed contamination at several fill sites. They also highlight

data obtained from the now-closed Lynwood site. They argue that this evidence clearly demonstrates that CCDD and USF contaminates groundwater; therefore, the Board's decision to reject Subpart G was arbitrary, capricious, or unreasonable.

¶ 73 However, the Board points out that Reliable Lyons' data showed no contamination; Reliable Lyons is one of the largest fill site operations in Illinois. According to the Board, data from the Lynwood site, which operated in violation of the Act, and the IEPA's sampling data failed to demonstrate that CCDD and USF materials that complied with the new front-end regulations caused groundwater contamination. For the Board, the front-end regulations sufficiently protected groundwater; site operators' compliance with regulations were enforcement concerns outside the scope of these proceedings.

¶ 74 In further support of its opinion that front-end regulations adequately protected groundwater, the Board cited IDOT's borrow pit rules. The Board noted that borrow pits are not, and would not under Subpart G, be subject to groundwater monitoring requirements. The Board interpreted this omission to imply that front-end regulations, at least in some cases, were sufficient to protect groundwater.

¶ 75 The People and Will County claim that borrow pit rules do not support the Board's determination. Fill site quarries are larger, deeper, and have longer lifespans than borrow pits; the objecting parties argue that these distinguishing characteristics are why fill site operations threaten groundwater. Further, the objecting parties argue that Subpart G's back-end monitoring requirements check private operators' profit motivation; the IDOT does not utilize borrow pits for profit.

¶ 76 Regardless of the differences between borrow pits and fill site quarries, they hold the same materials—CCDD and USF. Thus, borrow pit rules are relevant, though perhaps not

dispositive, to how CCDD and USF can be safely discarded. The Board, not this court, utilizes its expertise and delegated authority to weigh the evidence presented during rulemaking proceedings. The Board's reference to borrow pit rules in its final order and opinion does not render its determination implausible or completely counter to the evidence presented.

¶ 77 We find that the Board's decision was adequately supported by the record of proceedings. Participants presented substantial evidence and testimony during multiple dockets, hearings, and public comment periods. According to the Board, Subpart G's proponents did not show that compliant CCDD and USF materials pose a threat to groundwater that justifies implementing Subpart G. Even without considering Subpart G's economic reasonableness, the thorough record sufficiently supported the Board's determination. Therefore, we cannot find the Board's determination to be arbitrary, capricious, or unreasonable. We confirm the Board's August 6, 2015, order.

¶ 78 CONCLUSION

¶ 79 For the foregoing reasons, the decision of the Illinois Pollution Control Board is confirmed.

¶ 80 Confirmed.

¶ 81 JUSTICE WRIGHT, dissenting.

¶ 82 Unlike my respected colleagues, I conclude the Board's decision to reject Subpart G, runs counter to the evidence and is so implausible that the Board's reasoning cannot be ascribed to a difference of viewpoints or the product of the Board's superior expertise. See *Greer v. Illinois Housing Development Authority,* 122 Ill. 2d 462, 506 (1988). The Board's conclusion, that front-end regulations are sufficient to provide prospective protection for groundwater, represents a result-driven theory that favors the industry without a sound evidentiary basis. I conclude the

Board's decision to reject Subpart G was not only arbitrary, capricious, and unreasonable but also contrary to the legislative directive of Public Act 96-1416.

¶ 83 I begin with a brief review of the reasonable parameters of Subpart G. Subpart G was proposed by the IEPA on July 29, 2011, in accordance with sections 22.51 and 22.51a of the Environmental Protection Act (415 ILCS 5/22.51, 22.51a (West 2010)). The IEPA's proposal for the amendment of the Board's rules is predicated on an assumption that there is a real risk for future contamination of groundwater located below quarries, mines and other excavations where disposal of CCDD and USF occurs. This real risk resulted in a legislative directive and is not subject to debate.

¶ 84 The proposed Subpart G allowed owners and operators of CCDD and USF fill operations to develop their own conservative and flexible approach to groundwater monitoring at each site. For example, the proposed Subpart G allowed owners and operators to determine the number of wells necessary to monitor groundwater at each site. Subpart G appears to contemplate a minimal amount of groundwater monitoring by merely requiring a "sufficient" number of wells at each site. The wells would be required to be installed at appropriate locations and depths to yield "[s]amples that represent the background groundwater quality;" and "[s]amples that represent the quality of groundwater that is downgradient from the fill operation or unit with respect to groundwater flow, including both horizontal and vertical directions, and that may be affected by constituents from the fill operation or unit."

¶ 85 In addition, Subpart G contains a rational requirement that a professional engineer should supervise the design and preparation of all groundwater monitoring systems, programs, and reports necessary to comply with the regulations. Importantly, Subpart G did not dictate the frequency of groundwater testing beyond the required annual sampling. I observe Subpart G took

into account the often expressed concerns of the industry by allowing owners and operators to chose the minimum number of wells necessary for each particular site based on the advice of a professional engineer selected by the owners and operators.

¶ 86 In addition, Subpart G allows a CCDD fill operation or a USF operation to completely avoid groundwater monitoring by using a dewatering process. Specifically, where dewatering is present and part of the operation, Subpart G permits the facility to delay compliance with these provisions until one year after the dewatering ceases. If dewatering continues, groundwater testing is obviated by that particular process onsite.

¶ 87 Further, the provisions of Subpart G are very generous to the industry because the provisions are self-implementing, meaning that owners and operators are not required to submit information to the IEPA unless the site's records reveal an exceedance exists in a groundwater sample collected by the site operator. Subpart G also contains procedures that allow an owner or operator to demonstrate that a detected exceedance resulted from natural phenomena, sampling or analysis errors, or an offsite source of contamination.

¶ 88 With these reasonable parameters of Subpart G in mind, the manifest weight of the evidence discussed below clearly reveals that there are serious gaps at every stage of the front-end screening process. I cannot uphold the Board's decision finding the front-end provisions are sufficient to protect groundwater because there is no reason to believe contamination now exists at these sites or will occur in the future. I hope the fallacy of the Board's rationale will become evident based upon the analysis of each front-end provision discussed separately below.

¶ 89 I. Certification Before Arrival at Fill Site

¶ 90 The front-end provisions require certification before the materials arrive at the fill site. According to the Illinois Association of Aggregate Producers, between August 2010 and

April 28, 2012, approximately 63% of the certifications for the disposal of materials at fill sites were self-certified by the source site originator. The weakness in the front-end requirements arises because the source site owner or operator is assigned the task of certifying that the soil destined for a fill site did not originate from a potentially impacted property. Once certified by the source site originator, presumably a layman employed by the source site, the regulations do not require this initial self-certification to be double-checked by a licensed professional engineer/licensed professional geologist (LPE/LPG) before the material arrives at the fill site. 35 Ill. Adm. Code 1100.205(a)(1)(A) (West 2014).

¶ 91 In other words, more than half of the materials actually delivered to a fill site are screened once by someone other than the site originator, and the second inspection occurs at the gates of the fill site operation that profits from accepting such loads. The certified soil does not undergo any analytical soil testing by a professional LPE/LPG for compliance with the MACs as required by section 1100.205(a)(1)(B). 35 Ill. Adm. Code 1100.205(a)(1)(B) (West 2014).

¶ 92 I agree with the IEPA's assumption that most original source site owners and operators will make a good faith effort to comply with the new rules. Yet, as the IEPA points out, accurately assessing whether a property has been potentially impacted is not a simple task and is subject to a strong likelihood of human error. Respectfully, I submit that source site originators may find it difficult, if not impossible, to hire, train, and retain reliable employees that are motivated to develop and exercise the necessary familiarity with complex legal, environmental and technical concepts necessary to become proficient at identifying potentially impacted properties.

¶ 93 I observe that only 37% of the loads that are not source site certified (as originating from a non-impacted property) will be inspected by a LPE/LPG. Hence, 37% of the material placed in

a fill site will be professionally inspected and certified as having a soil pH within the range of 6.25 to 9.0 and free of chemical constituents at levels above the MACs established under subpart F of Part 1100. 35 Ill. Adm. Code 1100.205(a)(1)(B) (West 2014). In my view, unless *all* loads are subject to certification by a LPE/LPG, 63% of the loads that are self-certified have a great risk for inadvertent noncompliance that will impact groundwater prospectively by inadvertent contamination – but contamination nonetheless.

¶ 94 Turning to the certifications provided by an LPE/LPG of soil from a potentially impacted property, these evaluations are inherently complex and necessarily involve the professional judgment of one person. Therefore, variations in the results of different professionals should be expected and materials one expert would reject may be overlooked by another professional with a less exacting approach. Hence, even the tighter front-end procedures for 37% of loads inspected by LPE/LPG professionals may potentially include some materials that are contaminated above the MACs. Again, inadvertent contamination is contamination nonetheless.

¶ 95 While the professional certification from potentially contaminated sites reduces the risks, it is not a perfect process. The Board's conclusion that front-end certification procedures actually provide adequate protection for groundwater is simply unsupported.

¶ 96 For example, the IEPA reviewed 417 rejection sheets received from fill operations for September 2012 through June 2013. The IEPA selected this time period for review because the strengthened certifications were in place at this time, after the effective date of the Part 1100 amendments on August 27, 2012. The IEPA found that 269 of the 417 loads rejected, or approximately 64.5%, were rejected due to high PID readings. Hence, a large portion of loads certified as safe by the original source operation undisputedly contained volatiles that pose a risk to groundwater.

¶ 97 Moreover, since the Part 1100 regulations became effective, the Illinois Attorney General has filed more than 11 enforcement actions against CCDD disposal owners and operators for violations of the regulatory standards. The Board ignored this evidence provided by the IEPA and the Illinois Attorney General.

¶ 98 Despite these undisputed facts, the Board's final decision fails to recognize the limited effectiveness of the front-end certification process. This limited effectiveness is attributable to the relatively certain component of human error that could occur before any particular load arrives at the disposal site.

¶ 99 II. Load Inspections at Fill Sites

¶ 100 The front-end provisions also require load-checking procedures by the disposal site. These load-checking procedures are contained in section 1100.205(b) and seem to represent an attempt to double-check the accuracy of the initial certification process. 35 Ill. Adm. Code 1100.205(b) (West 2014).

¶ 101 These double-checking procedures begin with a visual inspection of each load followed by the use of a PID by a person at the fill site. 35 Ill. Adm. Code 1100.205(b)(1)(A) (West 2014). Visual observations will only permit detection of the most obvious contaminants that are visible to the person inspecting a large load. The use of a PID is also not failproof. Even assuming the employee carefully operated the PID, the PID may detect some, but not all, of the camouflaged contaminants. For example, PIDs are designed to detect concentrations of certain organic and inorganic vapors in the air. However, the PIDs cannot detect most semi-volatile organic compounds (SVOCs), polynuclear aromatics (PNAs), and metals that place groundwater at great risk. Further, PIDs are also susceptible to human calibration errors and may be influenced by weather conditions, electrical fields or signals, or other unrelated sources. The fact that PIDs are

not a reliable indicator for the presence of cancer-causing PNAs is particularly concerning given that PNAs are present in asphalt, which is frequently delivered to CCDD sites.

¶ 102 Due to both human error and the weaknesses in the PID screening device, SVOCs, PNAs, and various metals, such as arsenic, iron, lead, nickel, and mercury, may slip though front-end checkpoints at fill sites. For these reasons, the Board's conclusion that front-end regulations are sufficient turns a blind eye to reality.

¶ 103 III. Exceptions

¶ 104 Next, I address the Board's justification to reject Subpart G because dewatering operations, borrow pits, and operations subject to impending closure, are exempt from the groundwater testing requirements. The Board rationalizes that since the IEPA created exceptions from groundwater testing for some operations, then no operations should be required to conduct mandated groundwater testing. However, the Board ignored many important differences between facilities subject to the exceptions and CCDD and USF sites subject to the regulations.

¶ 105 In support of the Board's decision to strike Subpart G, the Board relies on the fact the Reliable Lyons site did not show contamination in the dewatering process. I agree that samples obtained from the dewatering process at Reliable Lyons showed no evidence of groundwater contamination as a result of the fill operation. This fact supports the reasonable and rational provisions of Subpart G that recognize a dewatering process justifies the long-term exception for dewatering activities in Subpart G.

¶ 106 Turning to borrow pits for a moment, borrow pits are much smaller in scale and are more temporary than sites subject to Part 1100 rules. As the People argue, it is the large size, vast depths, and longevity of CCDD and USF sites that cause these sites to pose the greatest risk of groundwater contamination. There is also a tendency for contaminants to aggregate over long

periods of time, due to the large volume of materials compacted in the fill site. Many facilities subject to Part 1100 rules are also located in areas that are geologically susceptible to groundwater contamination and are within 2500 feet or less of hundreds of existing community water supply wells, non-community water supply wells, and private water wells. While borrow pits may pose some risk to groundwater, the risk is diminished by the direct oversight of the State regarding when borrow pits are needed.

¶ 107 Further, Subpart G does not apply to fill operations that have closed or certify they will close within one year after the effective date of the amendments establishing Subpart G. This consideration supports my conclusion that the proposed rules were designed to protect groundwater from a reasonable and restrained approach to prevent *ongoing* contamination, rather than remediation for past abuses. If a site is closed, the ongoing risk to groundwater is greatly reduced, if not eliminated.

¶ 108 Case law recognizes the Board is not required to choose between promulgating rules against all evils of the same kind, or not implementing any reasonable rules at all. See *Tometz v. Board of Education, Waukegan City School District No. 61*, 39 Ill. 2d 593, 601 (1968). On this basis, I conclude the Board was not justified in rejecting all groundwater testing because dewatering operations, borrow bits, and facilities that would be closing within a short time frame were excluded from ongoing groundwater testing requirements.

¶ 109 IV. No Proof of Existing Contamination

¶ 110 The Board also justified the decision to strike Subpart G from Part 1100 based on the Board's conclusion that no evidence conclusively established that groundwater contamination existed at sites regulated under Part 1100. In my view, this is the weakest, most irrational, and

arbitrarily flawed reasoning the Board provided to support a result-oriented decision to strike Subpart G as desired by the industry.

¶ 111 First, the legislative directive required the IEPA and the Board to act in a timely fashion by adopting rules designed to afford protection to groundwater. The Board was not assigned the task to decide if prospective groundwater protection was necessary in the first place.

¶ 112 Further, the fact that the industry was strongly opposed to any baseline testing on-site suggests to me that the industry is well aware of the growing risks of future groundwater contamination at preexisting fill site locations with ongoing disposal activities. To defeat groundwater testing pursuant to Subpart G, the fill site operators regulated under Part 1100 could have easily collected samples and voluntarily tested groundwater on-site to demonstrate to the Board during public comment periods that the quality of groundwater at any given site remained pristine. The absence of proof concerning the current well-being of groundwater at current fill sites is telling.

¶ 113 More importantly, the Board's suggestion that evidence of groundwater contamination at sites regulated under Part 1100 must be proven before the Board will adopt the IEPA's proposed regulations for groundwater monitoring is an inappropriate standard. This standard is inconsistent with the State's long-standing policy of taking a preventative approach to protecting groundwater from contamination and thereby preserving the State's groundwater resources. See 415 ILCS 55/2(b) (West 2014) (stating "it is the policy of the State of Illinois to restore, protect, and enhance the groundwaters of the State, as a natural and public resource.").

¶ 114 As the IEPA argues, "the reason there is no evidence either way is that, insofar as the Agency knows, no one has been looking for it." Under these circumstances, where there have been little or no investigations performed at CCDD and USF operations regulated under Part

1100, the Board should not have drawn any definitive conclusions from the lack of information about groundwater contamination at these sites.

¶ 115 In any event, with the benefit of hindsight, the sampling that has been performed by the IEPA since the new rules were enacted clearly demonstrates that the front-end provisions are inadequate. For example, the IEPA conducted sampling in late 2012 after the Board's adoption of the MACs. In this study, inspectors went to 12 sites and collected random samples of recently deposited surface soil from the active fill face at the sites. The soil was screened by using a PID or an x-ray fluoroscopy (XRF), or both, prior to selecting a location to collect a sample. The samples were sent to the IEPA's laboratory and analyzed for pH, metals, and semi-volatiles. The samples were not analyzed for volatiles because only surface samples were taken, and any volatiles at the surface were expected to have evaporated. The results showed that at 10 of the 12 sites sampled, exceedances of the MACs were found. In particular, exceedances of cadmium, iron, aluminum, chromium, lead, magnesium, manganese, and benzo(a)pyrene were all detected. Further, the pH level of a sample at one site was above the acceptable range. Based on these results, it is clear that even with the new front-end provisions in effect, soils with contaminant levels above the MACs will nonetheless be accepted at fill sites.

¶ 116 I disagree that the history of the Lynwood site supports the Board's decision to reject Subpart G. In November of 2012, the first round of groundwater samples were collected from nine monitoring wells installed around the Lynwood site. The 2012 results showed exceedances of the 35 Ill. Adm. Code 620 Class I groundwater quality standards for arsenic, iron, lead, and manganese. Furthermore, one of the nine monitoring wells was installed directly into the filled area of the site and, therefore, was in direct contact with the fill. This particular well showed exceedances of the section 620 groundwater standards for three metals (iron, lead, and

manganese) and eight semi-volatile organic chemicals (Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, and Bis(2-ethylhexyl)phthalate). The Board's August 6, 2015, opinion simply ignored the results of the 2012 testing at the Lynwood site that demonstrated the existing and obvious dangers CCDD sites can pose to groundwater.

¶ 117 V. Costs

¶ 118 Although the Board's final decision issued on August 6, 2015, did not expressly address the costs of installing and operating a groundwater monitoring system, the Board addressed this issue in an earlier opinion and order, dated February 2, 2012. In that decision, the Board stated, "considering the potentially sizeable costs for groundwater monitoring, the Board finds that this record does not support groundwater monitoring at this time."

¶ 119 The evidence in this extensive record clearly contradicts the Board's conclusion that excessive costs, associated with the installation of groundwater monitoring wells, justify the rejection of Subpart G. Here, the record shows that current tipping fees of approximately $5 per cubic yard could be increased by as much as 16 cents per cubic yard if the site owner passes on the cost to the originator. This represents approximately 3 cents on each dollar paid for disposal. The Chicago Public Building Commission stated the estimated cost to deposit materials in a fill site quarry for a large construction project would equal $5.7 million. Thus, the implementation of groundwater monitoring would increase the cost of disposal of materials from a large construction project by merely $171,000. Considering that it would cost $20.6 million to deposit the materials from a large construction site in Chicago in a land fill, I find the cost considerations to the industry to be inconsequential. Moreover, the evidence in the record demonstrates that the potential costs that could be passed on to the consumer are relatively low, particularly when

balanced against the cost to society that arises from the delayed detection of contaminated groundwater.

¶ 120 The record contains the *unsupported* claims or threats of industry members that the costs of installing and implementing a groundwater monitoring system will drive them out of business. Interestingly, the record reveals that a Will County CCDD site sold for $17.7 million in 2008. Even if a site owner elects to sell the business, such sites have great market value for others hoping to enter into the same business endeavor.

¶ 121 Respectfully, I submit it is the prohibitive costs of correcting any contamination detected after the implementation of Subpart G, rather than the costs of groundwater testing, that could cause fill sites to close their gates. If a handful of concerned industry members close their sites all together, the risk of prospective groundwater contamination from those sites are eliminated. Moreover, there are a large number of CCDD sites in Will County alone and the record suggests the remaining operational CCDD sites in Will County could accommodate the closure of multiple competing CCDD facilities.

¶ 122 The Board's front-end rules serve the purpose of superficially complying with a legislative mandate to protect groundwater while affording the greatest protection to business interests that do not wish to have the costs of remediation reduce profits. Without groundwater testing on-site, the site operators are at less risk of being traced as the source of contamination for purposes of sharing the costs of remediation.

¶ 123 Here, the front-end rules significantly delay the discovery of contaminants in the groundwater until the contaminants reach a water treatment facility or other location where groundwater is tested. Due to this delay attributable to the deletion of Subpart G, the risk of tracing the original source of contamination back to either site operators or material originators is

significantly reduced by other intervening environmental factors and the passage of time. As it stands, prospective groundwater contamination will only be discovered through the testing of drinking water by private and public entities. Once contamination is detected at local wells or water treatment facilities, it may be impossible to identify the source of the contamination. Thus, homeowners and other taxpayers may be left with the bill for expensive remediation costs.

¶ 124 For many years, the industry had minimal regulations that may have resulted in prior contamination with little assignable blame. The industry would like to continue this trend. For purposes of this dissent, I recognize that the industry has expressed a strong resistance to the adoption of groundwater monitoring regulations because there is a significant likelihood that historical contamination, attributable to prior unregulated activities, exists on numerous CCDD sites.

¶ 125 The Board has arbitrarily placed the industry's financial interests above public interests because a viable compromise was suggested during the testimony of James E. Huff, a professional geologist for the ITC. Huff established that historical contamination could be addressed with a "baseline approach" to the condition of groundwater that considers preexisting levels of contaminants from prior operations. Such an approach would "grandfather in" historical impacts and hold current site owners and operators accountable to correct or remediate only the damage to groundwater from new impacts. Under this approach, fill site owners and operators would be required to remediate only if there is a statistically significant change in groundwater quality at a site *after* implementation of Subpart G. However, the Board ignored this rational solution and provided reasons for the Board's conclusion to avoid groundwater testing that were arbitrary and contrary to the evidence submitted to the Board.

¶ 126 According to the record, it is undisputed that approximately 71% of Will County residents rely exclusively on groundwater sources for their potable water supply. Without groundwater monitoring, there will be no mechanism to make an early discovery of groundwater contamination before the groundwater is processed for human consumption at various sites in Will County. Once contaminated groundwater reaches points where it will be treated to become a potable resource for public consumption, the original source of contamination will be more difficult to locate. I submit that the Board's decision to reject Subpart G and to shift this financial responsibility of detecting and remediating contamination to taxpayers is motivated by a desire to protect the industry from the burden of correcting prospective and inevitable contamination, no matter how slight, that can be traced to CCDD and USF sites.

¶ 127 I conclude the People and Will County have met the onerous burden of demonstrating to this court that the Board's decision to reject the IEPA's proposal for groundwater monitoring, in some form, as a part of the Part 1100 rules, was arbitrary and capricious and against the manifest weight of the evidence presented to the Board. Accordingly, I would reverse the Board's rulemaking and remand this matter to the Board with directions to incorporate some form of groundwater monitoring procedures and corrective action, if necessary, in the Part 1100 regulations.

¶ 128 For these reasons, I respectfully dissent from the majority's decision to affirm the Board's August 6, 2015, opinion and order.

Table of Content
Record Activity Pages
Books 1-9

BOOK 1		
1-44	8/23/12	Opinion and order of Board adopting rules/excluding Subpart G
45-46	8/24/12	Letter re: rule publication from Sec. of State
47-48	9/21/12	Hearing officer order re: post-JCAR hearing re: Subpart G
49	3/21/13	Notice of prehearing video and teleconference (scheduling order)
50-69	3/21/13	Order of Board requiring additional hearings on Subpart G
70-71	4/8/13	Notice of hearing/order
72	4/12/13	Certificate of publication/State Journal Register
73-78	4/18/13	Pre-filed question for Agency submitted by the Ill. Assoc. of Aggregate Producers
79-85	4/18/13	Hearing officer order re: questions for hearing
86-93	4/19/13	Attorney General's pre-filed questions re: necessity for groundwater monitoring
94	4/12/13	Certificate of publication/Chicago Sun-Times
95-104	5/13/13	Pre-filed testimony of Martin J. Hamper, PG
BOOK 2		
105-305	5/13/13	Attorney General's responses to Board's pre-filed questions
306-322	5/13/13	Response to questions on behalf of Land Reclamation & Recycling Association
BOOK 3		
323-416	5/13/13	Pre-filed testimony of James E. Huff, P.E
417-428	5/13/13	Pre-filed testimony by the County of Will (Stuart J. Cravens) for the 5/20/13 hearing in response to pre-filed questions re: necessity for groundwater monitoring
429-469	5/13/13	Agency responses to pre-filed questions
470-471	5/22/13	Exhibit list (Exh. 52-65)
472-475	6/12/13	Hearing officer order re: additional questions
476-542	8/06/15	Final opinion and order (closing docket)

BOOK 4		
543-44	7/29/11	Appearance: Agency attorney Kimberly Geving
545	7/29/11	Appearance: Agency attorney H.Mark Wight
546	7/29/11	Appearance: Agency attorney Stephanie Flowers
547	7/29/11	Certification of origination
548	7/29/11	Motion for acceptance
549-552	7/29/11	Agency's motion to waive filing requirements
553-643	7/29/11	Statement of reasons
644-645	8/04/11	Letter from Board to Warren Riley, DCEO re: request for economic impact study
646-648	8/04/11	Order: Re: waiving Agency filing requirements for certain documents
649-650	8/15/11	Notice of hearing: Sept. 26, 2011
651-653	9/01/11	Appearance: Waste Management
654-656	9/01/11	Appearance: Waste Management
657-699	9/02/11	Pre-filed testimony of Stephen F. Nightingale
700-704	9/02/11	Pre-filed testimony of Paul Purseglove on acceptance of painted CCDD at fill operations: Proposed sections 1100.103, 1100.201(f), 1100.205(d), 1100.212
705-711	9/02/11	Pre-filed testimony of Douglas W. Clay on Agency's proposed amendments at Section 1100.600
712-742	9/02/11	Pre-filed testimony of Leslie Morrow on the Agency's proposed amendments to Board's CCDD rules at Sections 1100.605 and 1100.610
743-744	9/06/11	Pre-filed questions of Agency submitted by Illinois Chapter of the National Solid Wastes Management Association
745-750	9/15/11	Pre-filed questions of Agency submitted by Waste Management of Illinois, Inc.
751-756	9/15/11	Pre-filed questions of Agency and appearance of Brian Lansu, Land Reclamation & Recycling Association
757-764	9/16/11	Pre-filed questions of Agency submitted by Illinois Association of Aggregate Producers
765	9/20/11	Ltr. to Board from IDCEO declining request to perform economic impact study
BOOK 5		
766	9/28/11	Exhibit list (Exh. 1-6)
767-797	10/06/11	Pre-filed testimony of James E. Huff, P.E.
798-815	10/06/11	Pre-filed testimony of Mark J. Krumenacher, P.G.

816-824	10/07/11	Pre-filed testimony of David G. Pyles, P.G and Harvey Porkorny, P.G. (American Institute of Professional Geologists).
825-834	10/07/11	Additional testimony of Stephen F. Nightingale on IEPA's Errata Sheet No. 1
835-844	10/07/11	Testimony of Thomas C. Hornshaw on Agency Errata 1
845-856	10/07/11	Agency Errata Sheet 1
857-871	10/07/11	Pre-filed testimony of John Hock, P.E.
872-881	10/07/11	Pre-filed testimony of Randi Wille
882-892	10/07/11	Pre-filed testimony of Gregory Wilcox, P.E.,
893-896	10/07/11	Pre-filed testimony of Duane T. Kreuger
897-898	10/07/11	Pre-filed testimony of William G. Dixon. Jr.
899		Pre-filed testimony of Jennifer B. Bauer, L.G., Association of Environmental & Engineering Geologists
900-901	10/07/11	Pre-filed testimony of Kevin S. Richards, Ph.D., P.E., L.P.G.
902-903	10/07/11	Pre-filed questions of IEPA submitted by Land and Lakes Company
904-917	10/07/11	Pre-filed testimony of Kenneth Liss submitted By Waste Management of Illinois, Inc.
918-948	10/07/11	Proposed amendment to pre-filed testimony of Steven Gobelman re: IEPA's proposed amendments to Section 1100.212
949-954	10/07/11	Pre-filed testimony of Ryan M. LaDieu, P.E.
955-957	10/07/11	Pre-filed testimony of Claire A. Manning
958-960	10/07/11	Appearance of Public Building Commission of Chicago
961-965	10/17/11	Pre-filed questions of Kenneth Liss submitted by the Illinois Association of Aggregate Producers
966-972	10/17/11	Pre-filed questions of Agency submitted by the Suburban Public Works Directors Association
973-976	10/17/11	Pre-filed questions of Agency submitted by the City of Chicago
977-979	10/17/11	Appearance by City of Chicago
980-981	10/17/11	Pre-filed questions to Tom Hornshaw
982	10/17/11	Pre-filed questions to Steven Gobelman
983-984	10/17/11	Pre-filed questions to Kenneth Liss
985-987	10/17/11	Pre-filed questions to John Hock
987a-987f	10/17/11	Agency's pre-filed questions for John E. Hock, P.E., and James E. Huff, P.E.
987g-987k	10/17/11	Pre-filed questions of John E. Hock, James E. Huff and Gregory Wilcox submitted by Waste Management of Illinois, Inc.

990-998	10/17/11	Pre-filed questions directed to Agency submitted by Illinois Attorney General's Office
999-1006	10/17/11	Pre-filed questions of Agency from the Public Building Commission of Chicago
BOOK 6		
1007-1008	10/28/11	Exhibit List(1-25)
1008a	10/28/11	Hearing officer order (Call for comment)
1009-1010	11/10/11	Hearing officer order (Notice of additional hearing)
1010a-1010i	11/21/11	Errata Sheet 3
1010j	11/21/11	Motion for waiver of copy requirements
1010k-1010n	11/21/11	Motion to correct transcript
1011-1126	2/02/12	Opinion and order of Board
1127-1128	2/15/12	Notice of hearing
1129-1178	2/17/12	Ltr from Sec. of State to Board re: rules published w/attachments
1179-1217	2/28/12	First Notice version of Title 35, Part 1100
1218-1246	2/28/12	Title 35: Environmental Protection, Subtitle J: Clean Construction Or Demolition Debris; Chapter I: Pollution Control Board Part 1100; Clean Construction Or Demolition Debris Fill Operations and Uncontaminated Soil Fill Operations
1247	2/17/12	Document comparison
1248	2/20/12	Notice of hearing published
BOOK 7		
1249-1251	3/02/12	Pre-filed testimony of Bret Hall
1252-1253	3/02/12	Pre-filed testimony of Annick Maenhout
1254-1260	3/02/12	Pre-filed testimony of Gregory Wilcox, P.E.
1261-1271	3/2/12	Pre-filed testimony of John Hock, P.E.
1272-1280	3/05/12	Pre-filed testimony of Pat Metz, P.E.
1281-1317	3/05/12	Testimony of Richard P. Cobb, P.O
1318-1334	3/05/12	Testimony of Douglas W. Clav, P.E.
1335-1397	3/05/12	Pre-filed testimony of James E. Huff, P.E. (including Exhibit D: Testimony of Dr. Thomas C. Hornshaw on proposed subparts D, E, F and H)
1398-1401	3/05/12	Pre-filed testimony of Dr. Fabian G. Fernandez
1402-1467	3/05/12	Proposed amendment to pre-filed testimony of Steven Gobelman re: amendments to section 1100.205

Book 8		
1468-1511	3/05/12	Pre-filed testimony of Dr. William Roy
1512	3/05/12	Pre-filed testimony of Claire A. Manning
1518-1522	3/05/12	Pre-filed testimony of Kenneth Liss submitted by Waste Management of Illinois, Inc.
1523-1555	3/05/12	Pre-filed testimony of the Illinois Attorney General's Office re: Board's first notice proposal
1556-1560	3/09/12	Hearing officer order
1561-1563	3/14/12	Exhibit list
1564	3/14/12	Hearing officer order
1565-1571	4/12/12	Motion to correct transcript
1572-1576	4/16/12	Motion to correct transcript
1577-1582	4/18/12	Motion to correct transcript of Steven Gobelman
1583-1589	4/19/12	Motion to allow corrected copies
1590-1677		Bureau of Local Roads and Streets Manual
BOOK 9		
1678-1807	6/07/12	Opinion and Order of the Board
1808	6/08/12	Memorandum to PCB from JCAR
1809	7/10/12	Letter to PCB from JCAR re: Clean Construction or Demolition Debris Fill Operations (35 Ill. Adm. Code 1100; 36 Ill Reg. 2801 - 2/24/12)
1810	7/26/12	Opinion and Order of Board (delaying adoption of the rule until August).
1811	8/14/12	Ltr from JCAR to Board re: Clean Construction or Demolition Debris Fill Operations (35 Ill. Adm. Code 1100; 36 Ill. Reg. 2801 - 2/24/12)
1812	8/14/12	Certification of no objection to proposed rulemaking
1813	8/22/12	Statement of recommendation to proposed rulemaking
1814-1815	8/22/12	Second notice changes
1816-1859	8/23/12	Opinion and Order (Opening Subdocket B)
1860-1861	8/23/12	Ltr from Board to JCAR re: Clean Construction or Demolition Debris Fill Operations (35 Ill. Adm. Code 1100; 36 Ill. Reg. 2801 (Feb. 24, 2012)

1862	8/29/12	Ltr from Sec. of State to Board re: rules meeting standards and are published
1863	8/16/12	Statement of recommendation to proposed rulemaking
1864	8/31/12	Ltr from Sec. of State to Board re: rules meeting standards and publication
1865-1911	8/27/12	Board notice of adopted amendment
1912	9/11/12	Ltr from JCAR re: no further action
1913-1915	4/24/13	Ltr from JCAR re: discovered non-substantive errors

Exhibit List

Exh. #	Description
1	Pre-filed testimony of Stephen F. Nightingale
2	Prefiled testimony of Paul Purseglove on acceptance of painted CCDD at CCDD Fill Operations: Proposed Sections 1100.103, 1100.201(F), 1100.205(D), 1100.212
3	Prefiled testimony of Douglas W. Clay
4	Prefiled testimony of Leslie Morrow on Agency's proposed amendments to sections 1100.605 and 1100.610
5	Blank Form: Source Site Certification by Owner or Operator for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-662
6	Blank Form: Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD Or Uncontaminated Soil Fill Operation LPC-663
7	Errata Sheet Number 1
8	Errata Sheet Number 2
9	Blank Form: Rejected Load Certification for Loads of CCDD and Uncontaminated Soil Accepted Pursuant To 35 Ill. Admin. Code 1100.205(A)(4) LPC-667
10	Pre-filed testimony of James E. Huff, P.E.
11	Pre-filed testimony of Mark J. Krumenacher, P.G.
12	Pre-filed testimony of John Hock, P.E.
13	Pre-filed testimony of Randi Wille
14	Pre-filed testimony of David G. Pyles, P.G and Harvey Porkorny, P.G. and their appearance on behalf of the American Institute of Professional Geologists (AIPG)
15	Pre-filed testimony of Gregory W. Wilcox on behalf of the Land Reclamation & Recycling Association
16	Pre-filed testimony of William G. Dixon, Jr.
17	Pre-filed testimony of Kenneth Liss submitted by Waste Management of Illinois, Inc.
18	Pre-filed testimony of Steven Gobelman regarding Agency's proposed amendments to section 1100.212
19	Pre-filed testimony of Ryan M. LaDieu on behalf of True North Consultants, Inc.
20	Pre-filed testimony of Claire A. Manning
21	Additional Testimony of Stephen F. Nightingale
22	Testimony of Thomas C. Hornshaw on Agency's Errata Sheet No. 1
23	No document provided
24	List of out-of-state laboratories with NELAP Secondary Accreditation from Illinois (2011)
25	Summary of Illinois Soil pH values
26	Pre-Filed Testimony of Richard P. Cobb, P.G., on Board's first notice proposal
27	CCDD & USFO Sites in relation to the potential for aquifer recharge within Will County
28	CCDD & USFO Sites in relation to the potential for aquifer recharge within Cook County

29	CCDD & USFO Sites in relation to the potential for aquifer recharge within Kane County
30	CCDD & USFO Sites in relation to the potential for aquifer recharge within Kendall County
31	CCDD & USFO Sites in relation to the potential for aquifer recharge within Lake County
32	CCDD & USFO Sites in relation to the potential for aquifer recharge within McHenry County
33	Additional testimony of Douglas W. Clay for the Agency
34	Proposed amendment to and pre-filed testimony of Steven Gobelman regarding the Board's proposed amendments to section 1100.205
35	Pre-filed testimony of the Attorney General's Office on Board's first notice proposal
36	Pre-filed testimony of Bret Hall
37	Pre-filed testimony of Annick Maenhout
38	Pre-filed testimony of Gregory Wilcox, P.E.
39	Pre-filed testimony of John Hock, P.E.
40	Recalculated pH values produced by Hock following Dr. Roy's methodology
41	pH data for Hanson Material Service
42	Sample data in H plus ion concentrations
43	Pre-filed testimony of Pat Metz, P.E.
44	Suggested amendment to section 1100.205 Pat Metz, City Of Springfield, City Water, Light And Power
45	Pre-filed supplemental testimony of James E. Huff, P.E.
46	Chapter twenty-seven - environmental surveys: Bureau of Design and Environment manual
47	Environmental studies manual – July 2001
48	Pre-filed testimony of Dr. Fabin G. Fernúndez
49	Pre-filed testimony of Kenneth Liss submitted by Waste Management of Illinois, Inc.
50	Pre-filed testimony of Dr. William Roy
51	Pre-filed testimony of Claire A. Manning
52	Hearing Officer Order – Pre-filed questions by the Board
53	Pre-filed questions for the Agency submitted by the Illinois Association of Aggregate Producers
54	The Office of the Attorney General's pre-filed questions regarding the necessity for groundwater monitoring
55	Pre-filed testimony for the May 20, 2013 hearing submitted by County of Will by Stuart J. Cravens
56	Pre-filed testimony of Martin J. Hamper, PG
57	Responses to Board questions on behalf of Land Reclamation & Recycling Association (LRRA)
58	Pre-filed supplemental testimony of James E. Huff, P.E.
59	Office of Attorney General's responses to Board's pre-filed questions
60	Evaluation of Rap for use as clean fill by: Anthony J. Kriech
61	Leachability of asphalt and concrete pavements by: Anthony J. Kriech

62	Letter dated 11/4/92 to Senator Karpiel from IAPA thanking her for sponsoring HB 4039
63	Agency's responses to pre-filed questions: Les Morrow, Doug Clay, Chris Liebman, Richard Cobb, Terri Blake Myers, Steve Nightingale, and Thomas Hornshaw
64	Correction to Agency's responses to pre-filed questions: Board question No. 3a
65	Memorandum and Order

Record of Public Comments

PC 1	10/14/11	Pat Metz, P.E.
PC 2	10/07/11	Dr. Kevin Richards
PC 3	10/05/11	Jennifer Bauer, L.G.
PC 4	10/07/11	Pre-filed testimony of Duane T. Kreuger
PC 5	10/07/11	Pre-filed testimony of Michael J. Sturino
PC 6	10/25/11	Dean Olson
PC 7	11/23/11	Michael Stanczak
PC 8	12/01/11	Waste Management
PC 9	12/01/11	Agency
PC 10	12/02/11	Keith Harvey
PC 11	12/02/11	Illinois Transportation Coalition
PC 12	12/02/11	Dean Olson, Will County Land Use Department
PC 13	12/01/11	Christine Zeman, City of Springfield, Office Of Public Utilities
PC 14	12/02/11	Vulcan Material
PC 15	12/02/11	Illinois Attorney General
PC 16	12/02/11	City of Chicago
PC 17	12/02/11	Land Reclamation & Recycling Association
PC 18	12/02/11	Illinois Environmental Council
PC 19	12/02/11	Michael Rapps, Iron Hustler Excavating, Inc.
PC 20	12/02/11	Public Building Commission of Chicago
PC 21	2/14/12	William Turley, Construction Materials Recycling Association
PC 22	3/05/12	Jane Collins, McHenry County
PC 23	3/05/12	Brian Lansu, Land Reclamation & Recycling Association
PC 24	3/05/12	The McHenry County Department of Health (MCDH) and McHenry County Planning and Development Department
PC 25	3/09/12	Michael Stanczak, Hansen Heidelberg Cement Group
PC 26	3/09/12	Michael F. McClain, Village of Lyons
PC 27	3/02/12	Edward Zabrocki, Mayor of Tinley Park
PC 28	4/17/12	Metropolitan Water Reclamation District of Greater Chicago
PC 29	4/17/12	Michael Rapps, Iron Hustler Excaving, Inc.
PC 30	4/18/12	David Clement, Vulcan Materials Company
PC 31	4/18/12	Post Hearing Comments of Keith Harley, Citizens Against Ruining the Environment
PC 32	4/18/12	Post Hearing Comments of Steven Gobelman, Illinois Department Of Transportation
PC 33	4/18/12	Second Comment: Waste Management Of Illinois, Inc.
PC 33a	4/18/12	Supplemental Comment: Waste Management Of Illinois, Inc.
PC 34	4/18/12	John Henriksen, Illinois Association Of Aggregate Producers
PC 35	4/18/12	City of Chicago re: Maximum Allowable Concentrations for Chemical Constituents in Uncontaminated Soils

PC 36	4/18/12	Jennifer Walling, Illinois Environmental Council
PC 37	4/18/12	James E. Huff, P.E., Illinois Transportation Coalition
PC 38	4/18/12	Post Hearing Comments of Illinois Attorney General
PC 39	4/18/12	Illinois Environmental Protection Agency
PC 40	4/18/12	Dean Olson, Will County Land Use Department, Resource Recovery And Energy Division
PC 41	4/18/12	Brian Lansu, Land Reclamation & Recycling Association
PC 42	4/18/12	Post-Hearing Comments: Public Building Commission Of Chicago
PC 43	4/25/12	Heather Jorna (resident)
PC 44	4/27/12	Brian Lansu, Land Reclamation & Recycling Association
PC 45	4/27/12	James E. Huff, P.E., Illinois Transportation Coalition
PC 46	4/27/12	Post-Hearing Comments: The Public Building Commission Of Chicago
PC 47	4/27/12	Illinois Environmental Protection Agency
PC 48	10/12/12	Pat Metz, Industrial Health Specialist, Office Of Public Utilities City, City of Springfield, Illinois
PC 49	11/19/12	Jenny Skufca, Illinois Nature Preserves Commission
PC 50	11/25/12	Senator Pat McGuire
PC 51	11/27/12	Representative Tom Cross
PC 52	11/28/12	Representative Lawrence “Larry” M. Welsh Jr.
PC 53	11/27/15	Representative Emily McAsey
PC 54	11/25/12	Representative Renee Kosel
PC 55	11/27/12	Lawrence M. Walsh, Will County Executive and James G. Moustis, Will County Board Chairman
PC 56	11/25/12	Senator Christine Radogno
PC 57	11/30/12	Marcella M. DeMauro, Executive Director, Forest Preserve District of Will County
PC 58	11/30/12	Land Reclamation & Recycling Association
PC 59	11/30/12	James E. Huff, Huff & Huff, Inc.
PC 60	11/30/12	Citizens Against Ruining the Environment
PC 61	12/03/12	James W. Glasgow, State’s Attorney of Will County
PC 62	12/03/12	Illinois Environmental Protection Agency
PC 63	12/03/12	Illinois Attorney General (People of the State of Illinois)
PC 64	11/27/15	Representative Emily McAsey (Duplicate of PC 53)
PC 65	5/20/13	Dorothy Hynous
PC 66	5/13/13	Mark J. Krumenacher, PG of GZA GeoEnvironmental, Inc.
PC 67	7/19/13	VCNA Prairie, Inc. by Richard Olsen, President and Michael Pratt, General Manager, Aggregate Division
PC 68	7/29/13	Sexton Properties R.P., LLC by Todd Daniels, Director of Operations
PC 69	8/01/13	Association of Aggregate Producers Post-Hearing Comments by John Henriksen, Illinois

PC 70	8/01/13	Land Reclamation & Recycling Association by Brian Lansu,
PC 71	8/01/13	Post-hearing comments: James E. Huff, Huff & Huff, Inc.
PC 72	8/01/13	Will County Land Use Department, Resource Recovery & Energy Division by Dean Olson
PC 73	8/01/13	Post-Hearing Comments: Citizens Against Ruining the Environment (CARE)
PC 74	8/01/13	Post-Hearing Comments: Illinois Environmental Protection Agency
PC 75	8/01/13	Post-Hearing Comments: Illinois Department of Transportation
PC 76	8/01/13	Waste Management of Illinois, Inc. by Christopher G. Rubak, P.E. Responses to Questions Raised at 5/20/13 Hearing
PC 77	8/01/13	Office of the Attorney General (People of the State of Illinois)
PC 78	5/13/13	Jenny Skufca, Illinois Nature Preserves Commission Responses to Pre-filed Questions

Table of Content
Record of Transcripts

Pages:	
5-8	Opening Remarks (Hearing Officer Tipsord)
8-13	Mark Wight
14-22	Rick Cobb
22-44	Question and Answer Session
44-45	Follow-up Mr. Cobb
46-53	Questions to Mr. Gobelman
54-57	Stephen Sylvester
57-63	Question and Answer Session
64-65	Mr. Henriksen
65-67	Brett Hall
67-71	Question and Answer Session
71-73	Gregory Wilcox
73-74	Annick Maenhout
74-77	Testimony of Mr. Hock
77-81	Question and Answer Session
81-85	Testimony by Mr. Metz
86-96	Question and Answer Session
96-105	James Huff
105-111	Dr. Fabian Fernandez
112-127	Question and Answer Session
127-130	Questions to Kenneth Liss
131	Closing Remarks (Hearing Officer Tipsord)
131-132	Follow-up testimony by Mr. Sylvester
132	Closing Remarks (Hearing Officer Tipsord)
Pages:	**Transcript from 3/14/12 Proceeding**:
1-66	Claire Manning And William Roy
Pages:	**Transcript from 5/20/13 Proceeding**:
9-10	Representative Larry Walsh, Jr.
11-13	Senator Pat McGuire
14-18	Will County Executive Larry Walsh, Sr.
19-60	Stuart Cravens on behalf of Will County
61	Martin Hamper, a board member for the American Institute of Professional Geologist
92-70	Brian Lansu & Gregory Wilcox on behalf of Land Reclamation & Recycling Association
70-81	James Huff (Huff & Huff, Inc.)
82-98	Stephen Sylvester on behalf of the People of the State of Illinois Marvin Traylor (Illinois Association of Aggregate Producers)
98-104	Stephen Sylvester (Cont'd) Agency Witness Question and Answer Session
104	Bret Hall Illinois Association of Aggregate Producers

108-171 172-179 179-181 181-191	Josh Quinn, Vulcan Materials - Illinois Association of Aggregate Producers Testimony of John Henriksen Illinois Association of Aggregate Producers Illinois Environmental Protection Agency's Responses To Pre-Filed Questions (Exhibit 63 Consists of the following Responses:) Les Morrow on behalf of IEPA Doug Clay on behalf of IEPA Chris Liebman on behalf of IEPA Richard Cobb on behalf of IEPA Terri Blake Myers on behalf of IEPA Steve Nightingale on behalf of IEPA

CERTIFICATE OF FILING AND SERVICE

I certify that on August 2, 2018, I electronically filed the foregoing **Brief and Appendix of the Petitioner-Appellant the People of the State of Illinois** with the Clerk of the Court for the Illinois Supreme Court by using the Odyssey eFileIL system.

I further certify that the other participants in this appeal, named below, are not registered service contacts on the Odyssey eFileIL system, and thus were served by transmitting a copy from my e-mail address on August 2, 2018, to all primary and secondary e-mail addresses of record designated by those participants.

Marie Tipsord/Jonathan M. Powell: IPCB	marie.tipsord@illinois.gov mark.powell@illinois.gov
Marie Q. Czech: Will County	mczech@willcountyillinois.com
Howard Learner/Andrene Dabaghi *Amici*, ELPC & CARE	hlearner@elpc.org adabaghi@elpc.org

Under penalties as provided by law pursuant to section 1-109 of the Illinois Code of Civil Procedure, I certify that the statements set forth in this instrument are true and correct to the best of my knowledge, information, and belief.

/s/ Carl J. Elitz

CARL J. ELITZ
Assistant Attorney General
100 W. Randolph St., 12th Floor
Chicago, Illinois 60601
(312) 814-2109
Primary e-service:
CivilAppeals@atg.state.il.us
Secondary e-service:
celitz@atg.state.il.us