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Via Email RBultje@dickinsonwright.com

Ronald A. Bultje, Esq. Dickinson Wright 200 Ottawa Ave., N.W. Suite 1000 Grand Rapids, Michigan 49503-2427

Re: Grand Haven Board of Power and Light/JB Sims site

Dear Mr. Bultje:

This letter is sent to you as counsel for the City of Grand Haven. This letter, while not a formal opinion of counsel, is a summary of our evaluation relating to the legal arguments and strategies arising from the following facts to update our prior March 2021 letters regarding the JB Sims Site. These issues present the likelihood of potential litigation and liability and, as such, a full joint briefing of both governing bodies on the facts and law is advisable.

As you will recall, we left off with the following issues:

- 1. Dialogue with, and gathering and presentation of data to, EGLE and EPA regarding the Unit 3A/B impoundments closure report;
- 2. Dialogue with, and gathering and presentation of data to, EGLE and EPA regarding the Unit 3A/B alternate source demonstration;
- 3. Evaluating closure options for Unit 1/2 Impoundment;
- 4. Responding to EGLE comments regarding groundwater monitoring at the Island;
- 5. Concerns regarding past ash disposal at the Island;
- 6. Concerns regarding past waste disposal at the Island; and
- 7. Responding to questions regarding future development at the Island.

The following should bring the Council and BLP up to date. In summary, while progress has been made on demonstrating that the clay remaining at the site of the Unit 3A/B Impoundments is natural, unimpacted clay, EGLE seems disinclined to allow it to stay. EGLE appears opposed to accepting that contamination detected in the groundwater is from unlined Unit 1/2 Impoundment or residual ash placed at the Site and not in a regulated impoundment. The process of evaluating closure

options for the Unit 1/2 Impoundment continues but has been complicated by the discovery of PFAS compounds throughout the Site, apparently related to past non-ash waste disposal at the Site. This, along with a few other compounds detected raise significant impediments relating to future development at the Sims Site and perhaps larger areas of the Island.

A. Sitewide Issues

1. Recent analytical testing – PFAS

As part of BLP's efforts to assess the various options for closure of the Unit 1/2 Impoundment and for additional work at the Unit 3 Impoundments, the BLP directed its expert, Golder, to conduct a broader evaluation of groundwater on the Site. Previously, BLP had limited its evaluation of the Site groundwater to coal ash constituents as required by the federal law and State rules.

While EGLE and EPA are still discussing groundwater monitoring (see below), BLP, on its own initiative, tested contaminants from the existing wells on the Sims Site. The testing for non-CCR constituents was conducted because all of the BLP's closure options for Unit 1/2 Impoundment (and possibly the Unit 3 Impoundments if the discussion below is unsuccessful) will require some degree of dewatering. Further, EGLE's apparent preferred strategy of material removal will require the pumping of contaminated groundwater and discharging it following treatment. The BLP cannot develop detailed closure engineering plans and cost estimates without understanding what groundwater treatment would entail and could not legally discharge groundwater into the Grand River without first understanding the make-up of that water.

The data was received in the last two weeks, and steps were taken to confirm that the sampling and testing protocols were appropriate as the testing thresholds are very low (in the single parts per trillion) and false positives are very common due to minor sampling errors (even as minor as a technician using the wrong personal care products). That confirmation was received, and I reached out to you that same day.

The data shows levels of ammonia and total inorganic nitrogen elevated above Michigan drinking water and surface water protection criteria in a number of wells and these compounds are not consistent with coal combustion and so, appear to be originating from other wastes which were dumped at the Site. Additionally, cyanide was reported above EGLE's Groundwater Surface Water Interface (GSI) criterion.

Further, as we discussed, levels of PFAS compounds were detected at the Site. Most of the existing wells had a detection of either PFOA or PFOS or both in excess of the Michigan cleanup standards which took effect as of August 3, 2020. Prior to that date, only three of the samples would've exceeded the EPA recommended criteria for PFOS and there would have been no exceedances for PFOA. The change in Michigan's standards resulted in a number of PFOS and PFOA exceedances. To confirm these results, additional samples were taken on June 24, 2021 and are currently being analyzed. Results are expected within 2-3 weeks from the sample date. The highest detection of both compounds is at the northeast end of the Sims Site, apparently upgradient of the impoundments. This indicates that PFAS compound detection is not related to the ash and more likely relates to materials historically disposed of by others at the Sims Site or from adjacent properties.

Data provided by the Northwest Ottawa Water Treatment Plant, indicates that no PFAS compounds have been detected in excess of these stringent standards since 2018. 2019 EGLE data for the Grand River confirms this.

EGLE has taken the position that mixing zones (a concept the BLP had been exploring with EGLE relating to other constituents in groundwater) are not available for PFAS compounds. A mixing zone was part of the same strategy that was used on the former Shell property directly to the east of the Sims Site. Once material removal was conducted, a mixing zone was established for 7 hazardous chemicals and a restrictive covenant placed on the property. Mich. Admin. Code R. 323.1082 does presume that mixing zones are not available for new discharges of bioaccumulative chemicals of concern (BCCs) and even existing discharges are not to receive mixing zones except in limited circumstances which need further exploration.

As this Site appears never have to been regulated as a landfill, we expect that the PFAS issues will likely be addressed under Part 201 of the Michigan Environmental Code. Part 201 does not prohibit the use of the surface of the property for any type of development purposes, but any such work would need to exercise due care to ensure that conditions are not exacerbated and that public health is protected. Building over those areas, if done properly, may encapsulate those areas akin to the clay of the Unit 3 Impoundments. If the source of the PFAS is from outside the Sims Site, then there is a strong argument that the BLP is not obligated to remediate those compounds but is obligated to exercise due care. MCL 324.20126(4)(b).

As you know, this information was disclosed to the City and the State and on June 21, 2021, EGLE contacted the BLP and EGLE recommended collecting surface water samples in the adjacent surface waters including from the adjoining wetlands North and East of the Site. The BLP had already planned on this and provided EGLE a map of these additional locations on June 23, 2021. EGLE also noted that it would be reaching out to set up a meeting with Grand Haven City officials to discuss the PFAS results.

On June 25th, the BLP received an email from EGLE which, among other things, indicated Kent Walters of EGLE's Materials Management Division (MMD) would be the "lead" EGLE staff member regarding the PFAS issue and that EGLE intended to schedule a meeting near the end of July with local officials and legislative contacts that wish to participate to provide a site overview of the testing and to be available for any questions.

2. Groundwater Monitoring

As you know, EGLE and the BLP have been discussing the Sims Site groundwater monitoring program. The BLP has been in the process of expanding its monitoring well network in place since early 2017 and will need to expand it again following a recent delineation of the Inactive Units 1/2 impoundment as explained below.

In response to a delineation report that BLP submitted in November 2019 based on EGLE guidance, in March 2020, the BLP was informed that the Environmental Protection Agency (EPA) viewed the delineation of the Inactive 1/2 Impoundment differently than EGLE did. Given that monitoring wells are to be in close proximity to the unit boundaries, MAC R 299.4906, understanding the EPA's delineation of the Inactive 1/2 Impoundment was critical to well placement. While the BLP has expanded the monitoring well program multiple times since inception in 2017, it would not have

been appropriate to continue modifying the monitoring well network until a consensus was reached on the limits of what both EGLE and EPA collectively considered the inactive impoundment. The BLP spent 2020 discussing with both EPA and EGLE attempting to reach consensus on the delineation of the inactive Impoundment.

On its own initiative, BLP felt it would be appropriate to test the waters surrounding Harbor Island to determine if there were any impacts from coal ash contamination detected internally on the Island, while the process of delineating the inactive Impoundment delineation was being resolved. This sampling was conducted during the Summer of 2020 and the results were made public and submitted to EGLE and EPA.

During a call on November 24, 2020, EPA provided a conceptual interpretation of the inactive Impoundment delineation. The BLP sought and received additional information from EPA and then worked with its team on this issue. On January 14, 2021, the BLP confirmed with EPA and EGLE that this was the agreed-upon delineation. This meant that revisions could be proposed to the monitoring program that would hopefully meet both EPA and EGLE's approval.

Based on this confirmed delineation, Golder developed a proposed expanded monitoring well network, which the BLP proposed to EPA and EGLE on March 23, 2021. During a follow up call on April 14, 2021, it became apparent that neither EPA nor EGLE would comment on the groundwater monitoring proposal until more information was developed regarding the groundwater flow at the Island, given the recent conditions including the record high water levels experienced through 2020. During that call, BLP asked if it would be helpful to install a series of piezometers across the site so that the site groundwater conditions could be better defined. EPA and EGLE agreed.

In an email dated March 30, 2021 and in an April 14, 2021 call, EGLE raised concerns including focusing on one monitoring well, MW-7, which EGLE asserted is not a proper background well. EGLE cited to Michigan Administrative Code, R 299.4906(1)(a) of the Part 115 rules which states that a groundwater monitoring system shall, "Represent the quality of background groundwater that has not been affected by leakage from a unit." EGLE's position was "MW-7 is in the groundwater flow path of Unit 1/2 [Impoundment], which also has historically accepted wastes from Unit 3 A/B [Impoundments]." The term "unit" is not well defined in the law and is not defined in the Part 115 Rules at all. It appears that a "unit" is a landfill unit and not a coal ash impoundment which is not defined as a "unit." See, e.g., MCL 324.11503(12), 11512(1), MAC R 299.4102(a) and (q) (defining closed unit and existing unit as types of landfill units).

BLP agrees that MW-7 appears to be impacted by coal ash previously placed as historical fill, the appropriateness of its use as a background well will be determined based on the results of the piezometers proposed to be installed around the former Sims site.

In May, the BLP then submitted to EGLE and EPA a plan to install piezometers, which, after some discussion with EGLE, was revised to include stilling wells as EGLE requested and on June 22, 2021, EGLE approved the work plan. The BLP applied to EGLE for a wetland permit (as some of the piezometers will be located in regulated wetlands) on June 24, and upon issuance of the permit, the BLP will move to implement the plan. Upon receipt of the data from the new piezometers, revisions to the current monitoring plan will be developed and shared with EGLE and EPA for their review and approval and, following approval, will be implemented.

B. Impoundments 3A and B

1. EGLE's position

a. The remaining clay

These Impoundments remain empty and EGLE may continue to take the position that the detection of iron, selenium and arsenic in the clay mandate the removal and disposal of the clay. That removal, disposal and replacement could cost as much as \$750,000. Because contaminants would be exposed, to avoid liability for exacerbation due to the exposure, that clay would need to be replaced. EGLE's position is rooted in the literal language of the law which says that closure of an impoundment by removal of coal ash is complete when, among other options, the owner or operator certifies that:

- 1. constituent concentrations remaining in the coal ash impoundment do not exceed the lesser of the applicable standards adopted by EGLE under MCL 324.20120a or the groundwater protection standards established pursuant to 40 CFR 257.95(h); and
- 2. any concentrations of soil or groundwater affected by releases do not exceed the lesser of the applicable standards adopted by EGLE under MCL 324.20120a or the groundwater protection standards established pursuant to 40 CFR 257.95(h).

MCL 324.11519b(9). The first criterion is at issue here. As you know, at the end of December, BLP submitted to EGLE a Closure Report certifying removal and closure based on:

- 1. Visual inspection;
- 2. Photographic confirmation of the visual inspection;
- 3. Colorimetric testing;
- 4. Microscopic evaluation;
- 5. Chemical analysis, including randomized testing and chemical analysis of the remaining clay materials and then testing the clay to determine if any constituents would leach out at any levels of concern.

On April 8, 2021, EGLE wrote a technical letter contending, among other things, that eight different metals were detected in the clay at levels above the State's statewide background criteria. The issue is whether the detections are representative of background. If at or below background, then the MCL 324.20120a standard is satisfied. Part 201 provides that one may demonstrate that a hazardous substance does not exceed background concentration by a number of methods, including:

- (i) The hazardous substance complies with the statewide default background levels....
- (ii) The hazardous substance is listed in table 2, 3, or 4 of [EGLE's] 2005 Michigan background soil survey, is present in a soil type identified in 1 or more of those tables, and meets 1 of the following:
 - (A) If a glacial lobe area in table 2, 3, or 4 lists an arithmetic or geometric mean for the hazardous substance that is represented by 9 or more samples, the concentration of that hazardous substance is the lesser of the following:

- (I) Two standard deviations of that mean for the soil type and glacial lobe area in which the hazardous substance is located.
- (II) The uppermost value in the typical range of data for the hazardous substance in table 1 of the department's 2005 Michigan background soil survey....
- (iv) A site-specific demonstration.

EGLE had previously stated that, without information regarding the source of the clay used in constructing the Impoundments in 1983, BLP was required to use the more conservative Statewide Default Screening Level and could not use the process laid out in (ii) above – the 2005 background soil survey.

As a result of this discussion, the BLP investigated further and located an individual who operated a trucking company that excavated and transported the clay to the Site for construction of the Impoundments. We now know that the clay was sourced from a former clay excavation area that is now the Bass River State Recreation Area (BRSRA) in Ottawa County. The BLP collected nine soil samples from the BRSRA which were then analyzed by a laboratory. With this information, Golder re-evaluated the clay data against the 2005 background soils study. Of the 8 chemicals that EGLE listed as above the Statewide Default Background Screening Levels, four of those (barium, chromium, cobalt and nickel) are now deemed below background based on the State's own study of regional clay sources. As to lithium, Golder calculated the mean and two standard deviations using the analytical data from the nine native clay samples collected. The lithium in the clay is below that measure and, therefore, also qualifies as below background.

Therefore, of the 22 constituents originally analyzed, once the clay source was analyzed, only three constituents remain that are subject to further evaluation and discussion: arsenic, iron and selenium. The data supports the clay detections as being the result of natural occurrence and not evidence of a release, as EGLE previously seemed to believe. The BLP is continuing its dialogue with EGLE on this issue and this week sent a supplemental package of information and analysis to EGLE which concluded that the detections of those three compounds in the remaining clay was consistent with native clay and was not influenced by any coal ash residues.

If forced to remove the clay, the BLP would have to stage and time the removal and some sort of replacement to avoid exacerbation of the ash and waste beneath the former Unit 3A/3B Impoundments, otherwise there could be an improper discharge to the Grand River as well as, fines and penalties and possibly remedial expenses. Additionally, this approach offers no tangible environmental benefit relative to the cost and diverts resources from the Sims Site's other, more pressing, environmental issues that pose a more significant risk.

Finally, at EGLE's request, BLP committed to remove ash residuals that rest outside some of the berms and on some of the roadways outside the 3A and 3B Impoundments. This will be followed by some of the same confirmation techniques (likely colorimetric and microscopic confirmation) that were used with the interior of the Impoundments. Golder has estimated this cost to be on the order of \$120,000. An argument can be made that these materials are unrelated to the closure of the Impoundments but it is not likely to be successful at least as to the ash staged on the outside of the berms and would seem to be a hard sell as to the ash spilled or dropped on the road as part of loading and shipping of ash away from the Impoundments.

b. Remediate the groundwater

As you know, the area under the Impoundments is a field of ash and non-BLP waste. EGLE could resolve this issue and permit the closure of the former Unit 3 Impoundments by approving the BLP's Alternative Source Demonstration ("ASD") submitted at the end of last year. It is also possible that EGLE would grant additional time for more data to be gathered under a Consent Order to allow EGLE to conclude that the chemistry detected is not from the materials that had been stored (and are now removed) in the clay Impoundments.

EGLE staff previously took the position that they will not approve an ASD that does not contain irrefutable proof, even if the clay layer is removed, that the Impoundments did not leak to the groundwater. We believe that EGLE is applying too stringent a standard of proof (beyond a reasonable doubt) and should, instead, apply the clear and convincing standard. In its April 8, 2021, letter, EGLE took the position that merely conducting assessment monitoring of the Impoundments somehow presumes that the Unit 3 Impoundments leaked and so an ASD may not be approved.

As a point of clarification, the Impoundments were required by the federal rule and State legislation to conduct detection monitoring to detect any elevated levels of coal ash compounds. The BLP did this and when elevated constituents were detected, the BLP moved into the required assessment monitoring to assess the site's situation and move toward some sort of response to the contamination. This is discussed in greater detail below.

EGLE's April 8, 2021 letter cited to MCL 324.11511a(3) to contend that the assessment monitoring somehow bars an Alternate Source Demonstration. That section of the law relates to the prerequisites for the issuance of a construction permit for a new coal ash impoundment or a new lateral expansion of a coal ash impoundment and does require a detection monitoring program/hydrogeological monitoring plan that complies with R 299.4440 to R 299.4445 and R 299.4905 to R 299.4908 of the part 115 rules, "as applicable" and requires compliance with MCL 324.11519b(2) and (4), "if applicable." Assessment monitoring is discussed in MCL 324.11519b which mandates if detection monitoring confirms a statistically significant increase over background, then assessment monitoring is to be conducted. It is not triggered by a release – but by a detection in the groundwater of an increase over background. There is no presumption to be rebutted. However, given the information discussed in the Closure Report, any such presumption has been rebutted.

As noted above, EGLE recently took the position that the Site does not have an appropriate groundwater monitoring network in large part because it requires background monitoring well locations other than those included in its current program. If EGLE believes that the current background wells are not correctly located, then the BLP must conclude that the determination that detection monitoring confirmation of an increase over background is similarly suspect and, therefore, the move to detection monitoring may have been premature. However, out of an abundance of caution and based on the data available to it, the BLP took the conservative action of moving into assessment monitoring.

¹ This monitoring was done before the groundwater monitoring plan was approved by EGLE. The BLP was faced with an impossible choice – either do not monitor the groundwater and face a claim that it had violated the law or monitor with a system that was not approved in advance by EGLE and face an argument that the system was inadequate. The BLP chose the more protective of the two approaches – to begin groundwater monitoring.

Part 115 Rule 4441(8) (and similarly 40 CFR 257.95(g)(3)(ii)) provides that, while in assessment monitoring, the owner/operator may demonstrate that a source other than the regulated unit caused the contamination. Specifically,

An owner and operator may demonstrate that a source other than a type II landfill unit or other source at the facility caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, or statistical evaluation or from natural variation in groundwater quality. A report that documents the demonstration shall be certified by a qualified groundwater scientist, approved by the director, and placed in the operating record. Until a successful demonstration is made, the owner and operator shall comply with subrules (6) and (7) of this rule. If a successful demonstration is made, the owner and operator shall do the following:

(a) Continue monitoring in accordance with the assessment monitoring program pursuant to this rule.....

Therefore, it is clear that an effort to demonstrate that an alternate source caused contamination is entirely consistent with the conducting of assessment monitoring and that assessment monitoring does not create any sort of presumption that the conducting assessment monitoring somehow concedes that the unit has leaked. In fact, the opposite is true and the demonstration of an alternate source actually is consistent with the assessment monitoring. BLP is similarly communicating with EGLE on this point.

If EGLE's position on the ASD remains, BLP would have no choice but to develop a response action plan pursuant to MCL 324.11519b(4). This would mean a plan to identify sources of contamination and interim response activities to control sources of contamination. MAC R. 299.4442. This would be followed by a corrective action plan that assess the effectiveness of potential corrective measures in meeting all of the requirements and objectives including protection of human health and the environment, achieving groundwater protection standards, and preventing future releases. MAC R. 299.4443-4445. As to these issues, on May 4, 2021, the BLP submitted to EGLE an summary of the monitoring history and assessment of the progress of the assessment of corrective measures (including much of what's described in this letter) and indicating that additional time was needed to complete the BLP's assessment. As part of its reply, EGLE stated that "The proposed Administrative Consent Order that EGLE is drafting will include as part of its compliance program deadlines for submittals required to bring Impoundment 3A/3B into compliance with Part 115 ... including a deadline for the submittal of the Assessment of Corrective Measures." The BLP has responded to some of the specific points made in that letter.

EGLE has indicated that if wastes are left in place, use restrictions are a certainty – the scope of those restrictions beyond a ban on using groundwater would be open to discussion but may include prohibiting residential use. Removal will be exceptionally expensive as it would include the excavation, transit and disposal of the ash and wastes, as well as treatment, management and disposal of water encountered during removal.

2. EPA's position

There has been little discussion regarding the Unit 3 Impoundments with EPA but based on the current version of the rules, BLP has until October 15, 2023 to achieve closure. 40 CFR 257.103(f)(vi)(A). With respect to groundwater, the argument regarding the timeline of sampling should similarly permit BLP to seek a review by EPA of its ASD. Following additional monitoring, EPA may approve the ASD although, given EGLE's opposition, this seems unlikely. EPA does not license impoundments and so that issue would not apply under EPA's rules. The approach to groundwater would be effectively the same as EGLE's although some of the groundwater performance standards that must be met would be different.

C. Impoundment 1/2

1. EGLE's position

Thus far, EPA is again allowing EGLE to take the lead but it is very possible that EGLE and EPA's positions will diverge on this issue. EGLE has taken the position that this Impoundment is regulated under Part 115 and is subject to the closure requirements in Part 115 for Type III landfills. EGLE has stated that the December 28, 2020 deadline does not apply to Impoundment 1/2 but that closure must still be conducted by some as-yet unspecified date that satisfies MAC R. 299.4309.

EGLE correctly states that coal ash falls within the definition of a low-hazard industrial waste, MCL §324.11504(10)(a), and, from that, argues that the Impoundment 1/2 is an industrial waste surface impoundment subject to the closure requirements for Type III landfills pursuant to M.A.C. R 299.4309.

Part 115 does not define a low hazard industrial waste surface impoundment. Section 4(11) does define a "low-hazard-potential coal ash impoundment" as "a coal ash impoundment that is a diked surface impoundment, the failure or misoperation of which is expected to result in no loss of human life and low economic or environmental losses principally limited to the impoundment owner's property." EGLE appears to have concluded that Impoundment 1/2 poses only low risk.

MCL §324.11502(17) defines a "coal ash impoundment" as:

"a natural topographic depression, man-made excavation, or diked area that is not a landfill and that is designed to hold *and*, *after October 14*, *2015*, *accepted* an accumulation of coal ash and liquids or other materials approved by the department for treatment, storage, or disposal and did not receive department approval of its closure. A coal ash impoundment in existence before October 14, 2015 that receives waste after [December 28, 2018], and that does not have a permit pursuant to part 31, is considered an open dump beginning [December 28, 2020] unless the owner or operator has completed closure of the coal ash impoundment under section 11519b or obtained an operating license for the coal ash impoundment."

With respect to Unit 1/2, because it accepted no coal ash after October 14, 2015, it is not a "coal ash impoundment" and therefore, cannot be a "low-hazard potential coal ash impoundment" because to be a low-hazard coal ash impoundment, it must first be a coal ash impoundment and that is not the case here. In this case, the Unit 1/2 Impoundment would not be deemed an open dump; EGLE is not alleging a violation of the law and is not demanding licensure.

a. Closure

EGLE's entire argument regarding the Unit 1/2 Impoundment appears to hinge on Rule 309. That Rule provides rules for the design, permitting, construction, operation and closure of "a surface impoundment that receives low-hazard industrial sludges" and predates the coal ash sections of Part 115. Subparagraphs 2 through 6 of that rule relate to permitting, construction and operations, and, therefore, do not apply here. The term "surface impoundment" is not defined in the rules or statute but as noted above, coal ash is a low hazard industrial waste. At most, the Unit 1/2 Impoundment is subject to only subparagraphs 1 and 7 if closed with waste in place:

- "(1) The requirements of this rule apply to a surface impoundment which receives low-hazard industrial waste sludges or slurries that contain free liquids and which is an impoundment where solid waste will remain after closure. ... An industrial waste surface impoundment that is closed as a landfill shall be in compliance with all parts of these rules designated as applying to type III landfills....
- (7) At closure, the owner or operator of a surface impoundment that is closed as a landfill shall do all of the following unless the director determines that such actions are not necessary:
 - (a) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues.
 - (b) Stabilize remaining wastes to a bearing capacity that is sufficient to support final cover.
 - (c) Cover the surface impoundment with a final cover that [complies] with ... R 299,4304.
 - (d) Conduct groundwater monitoring and postclosure maintenance in accordance with rules applicable to type III landfills."

BLP has engaged Golder to evaluate different approaches to achieve compliance with this rule regarding the Unit 1/2 Impoundment. Golder is considering, among other things, the possibility of a closure in place that would likely include some combination of the following:

- (a) Solidifying in place materials.
- (b) Stabilizing the in place materials to support a cover.
- (c) Covering the in place materials with a substrate layer and an erosion control layer.
- (d) Conducting groundwater monitoring and ongoing cover maintenance.

We previously provided you information regarding the rough order of magnitude of the costs to either remove or cap the Unit 1/2 Impoundment. The PFAS issue recently discovered through the BLP's efforts may complicate these matters as some dewatering and water management is a component of any closure approach. Also, as noted above there will be challenges, delays and expenses arising out of the need to assess, permit and mitigate wetlands which have developed on the site as well as floodplain permitting and permitting for management of water at the site.

b. Groundwater Monitoring/Remedation

As with Unit 3, dealing with the materials themselves is only half the issue – because there is, again, impacted groundwater around the footprint of the Unit 1/2 Impoundment. Given their position

regarding Unit 3 where there was a clay barrier, here, EGLE will not agree that contaminants detected originated from outside the Impoundment. Once again, that means going through the response action plan and corrective action processes and, given EGLE's current positions, likely leads to either: (i) a more comprehensive removal of all of the ash (and all of the non-BLP wastes) and remediation of residual soil and groundwater contamination; or (ii) a more robust encapsulation of the Sims Site and perpetual monitoring, if allowed.

2. EPA's position

EPA has not yet taken a specific stance on this Unit – other than their view that it is subject to regulation and its delineation. 40 CFR 257.102. 40 CFR 257.102(b)(ii), (c), confirm that one option is removal of the coal ash from the Unit and then confirmed decontamination of the Unit and any releases from the Unit. 40 CFR 257.102(d) confirms that as part of closure when leaving ash in place, one must control, minimize or eliminate to the maximum extent feasible the release of leachate into the ground or surface waters as well as removing liquid wastes or solidifying the remaining wastes and then capping them with a cap meeting certain design specifications. Discussions with EPA need to be held to see what level of dewatering it will accept. EPA has not pursued any dialogue since the end of 2020. Complete dewatering may be impossible at this location but EGLE staff have made comments, without any supporting documentation, that they do not believe that to be the case.

Either of those paths are problematic. There are safety concerns as the materials in the area are saturated and likely somewhat unstable. Further, removal is to be confirmed through sampling and, as has already been discussed, if the "footprint" of the Impoundment could be removed, the surrounding materials are ash and likely non-BLP wastes — meaning that confirmatory sampling will be viewed as **not** confirming the complete removal. This is a challenge. There is also a possibility that the bottom of the Impoundment has become a largely stable matrix, holding itself in place. Because virtually all of the Sims Site was once river, there is an exceptionally robust water table. If this "matrix" is disturbed, it could become unstable, risking a release of contaminants into the Grand River upstream from the City's drinking water intake. This concern has been raised with EGLE and EPA and thus far, EGLE claims that neither it nor EPA is convinced of this risk. EGLE staff has not indicated what information that they would find persuasive.

Again, because of the water table, attempting to dewater the material either before or after removal would be an enormously expensive task as it would generate a large amount of water to manage and could actually draw water from the Grand River into the Island for management. As noted above, Golder is looking at options to isolate the boundary of Unit 1/2 from the remainder of the Sims Site and may need to look at options to isolate the Sims Site from the Grand River.

D. Holistic Approach

As noted in previous correspondence and in prior discussions, EGLE has been content to approach the Sims Site and Harbor Island in a piecemeal fashion. EGLE's March 19th email suggests a Consent Order is being drafted to address the Unit 3 Impoundments; there is no mention of Unit 1/2, let alone the full Sims Site or Harbor Island. Thus far, no Consent Order draft has been provided. However, the issues posed by the Impoundments and the surrounding area are virtually the same and engage and expose both the City and the BLP to expense and liability.

Portions of the Sims Site were used for waste disposal by the City before ash was placed and it is still not known what sorts of contamination and/or wastes might have been disposed or the depths or horizontal locations of such waste. There may be wastes beyond the Sims Site on the remainder of Harbor Island. It is unlikely that EGLE would pursue the BLP with respect to non-BLP wastes outside the Sims Site, although they may pursue the City as well as the generators of that waste, if any can be identified. MCL §324.20101 *et seq.* ("Part 201"), 42 USC 9601 *et seq.* ("CERCLA"). The historic ash and any wastes outside the three Impoundments should not be regulated by Part 115 or the federal rule but would be governed by State cleanup and water discharge laws and rules. EGLE staff previously commented that once the Part 115 issues are resolved, the City and BLP may pursue a Part 201 process with respect to what remains. The State cleanup law (Part 201) provides far greater flexibility than EGLE appears ready to offer under Part 115. For that reason alone, it is worth pursuing a Part 201 closure of the entire Sims Site in conjunction with Part 115. More recent correspondence from EGLE seems to be backing away from that approach.

It appears that almost any removal of ash will similarly encounter non-BLP wastes which have to be assessed and managed. Given EGLE's approach to the impacted groundwater, as noted above, it seems that the State is driving the BLP and the City toward either a complete removal or a complete encapsulation. BLP has been urging a holistic strategy that would approach the Sims Site as a complete encapsulation and try to minimize the amount of excavation and disposal and to focus the State on protecting the Grand River rather than trying to excavate the entire Sims Site.

This holistic approach would most likely include: (1) a cover comparable to the Rule 309 cover being evaluated for Unit 1/2; (2) a form of barrier surrounding the Sims Site, while leaving most of the wastes in place; (3) solidifying the Unit 1/2 (and possibly other) wastes in place; (4) using a Mixing Zone relating to impacts to the Grand River; and perpetual monitoring to ensure the impacts to the River are consistent with the Mixing Zone.

BLP's sampling along the edge of the Grand River thus far indicates that the BLP ash at the Sims Site is not significantly impacting the River. If this pattern continues, this is a prime scenario for the use of a Mixing Zone where EGLE would accept these limited impacts and require perpetual monitoring to ensure no changes to the status quo. The detection of PFAS compounds in the Sims Site may change that dramatically. The availability of a mixing zone when dealing with a bioaccumulative compound is far narrower and, thus far, unheard of for PFAS compounds. MAC R. 323.1082.

E. Other outstanding issues

As you may recall, EGLE previously asserted that Unit 3A and 3B Impoundments are in violation of Part 115 and are considered "open dumps" and asserted (incorrectly) that it is illegal to own an "open dump." It is not. It is a violation of Part 115 to operate an open dump by placing waste in it. EGLE previously stated that BLP should have applied for an operating license, however the BLP has no intention of operating these impoundments as a waste disposal area. An operating license is required if the site will 'conduct, manage, maintain or operate a disposal area' MCL 324.11512(2). The power plant no longer exists and all the ash has been removed from within these Impoundments, therefore the site is not managing, maintaining, or operating a disposal area. After much dialogue, on March 19th, EGLE sent BLP an email stating that a Consent Order regarding the Unit 3 Impoundments was being drafted for BLP's review and that pursuing an operating licensure was not recommended by EGLE. No such Order has been provided to this date.

After our March meeting, a dialogue began with EGLE regarding the formal coal pile at the south west end of the Sims Site. This was the location where the BLP stockpiled coal prior to its use in the power plant. EGLE has taken the position that this area is subject to regulation under Part 115 given their view that the area is no longer storing product. EGLE demanded a Closure Plan although it is not clear that the storage area is regulated under Part 115. Assuming that the residuals are deemed a solid waste (as they likely are), the only obligation that I am aware of is the prohibition against disposal outside a licensed landfill. There may be an argument that a portion of this area was used historically for the placement of some ash residuals and that would also subject the area to liability under Part 201 and possibly Part 115. On May 19, 2021, the BLP submitted a plan for work in this area which would involve removing coal residuals and conducting post removal verification. EGLE commented on June 10, 2021 and the BLP is working to respond to those comments.

We look forward to answering your questions.

Sincerely,

Jaffe, Raitt, Heuer & Weiss Professional Corporation

Arthur H. Siegal

AHS

Cc: Mr. David Walters

Mr. Erik Booth