STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE STATE OF MICHIGAN, *ex rel.* MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT,

Plaintiff,

and

CITY OF ANN ARBOR, WASHTENAW COUNTY, WASHTENAW COUNTY HEALTH DEPARTMENT, WASHTENAW COUNTY HEALTH OFFICER ELLEN RABINOWITZ, in her official capacity, the HURON RIVER WATERSHED COUNCIL, and SCIO TOWNSHIP,

Intervening Plaintiffs,

-v-

GELMAN SCIENCES, INC., d/b/a PALL LIFE SCIENCES, a Michigan Corporation,

Defendant.

Case No. 88-34734-CE
Hon. Timothy P. Connors

INTERVENING PLAINTIFFS' BRIEF IN OPPOSITION TO GELMAN'S MOTION FOR RECONSIDERATION

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INTERVENING PLAINTIFFS' BRIEF IN OPPOSITION TO GELMAN'S MOTION FOR RECONSIDERATION

Defendant Gelman Sciences, Inc. ("Gelman") filed a motion for reconsideration of the Court's order scheduling a hearing on modification to the existing cleanup regime.[1] In its motion, Gelman misleads the Court about the nature and history of judicial oversight in this case, raises meritless due process arguments, falsely claims that possible EPA involvement would divest the Court of jurisdiction (contrary to both law and the EPA's own stated position[2]), and otherwise attempts to obscure the relevant issues before the Court. As set forth below, Gelman's arguments have no basis in fact or law. The Court should reject Gelman's attempt to undermine the Court's authority and to set additional barriers to the effective remediation of the Gelman site.

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[1] The Court entered subsequent orders concerning the hearing and briefing schedule. The most recent version of the scheduling order (the Fourth Amended Scheduling Order) was entered on January 27, 2021.

[2] See **Ex. A**, EPA in Michigan: Gelman Science Frequently Asked Questions, No. 2 ("Even if EPA pursues listing the Site on the NPL, EPA will not require that the State court litigation be ended, or the terms of a Consent Judgment to be changed.").

BACKGROUND

One of the principal driving forces for modifying the cleanup regime in effect in this case was the State's 2016 adoption of new stringent cleanup criteria for 1,4-dioxane, which reduced allowable concentrations by more than an order of magnitude (e.g., from 85 ppb to 7.2 ppb for groundwater to be used for residential drinking water; and from 2,800 ppb to 280 ppb for groundwater venting to surface water).[3] The State, Gelman and the Intervenors negotiated a document to replace the existing amended Consent Judgment. When no more could be achieved through negotiation, the negotiated revised Consent Judgment (the "Proposed Fourth CJ") was made public. Although the Proposed Fourth CJ was a significant improvement over what had been previously negotiated between EGLE and Gelman, the Local Government Intervenors' governing bodies ultimately rejected the Proposed Fourth CJ as insufficient.

On November 19, 2020, this Court conducted a status conference with all attorneys of record at which the Court was advised of the rejection of the Proposed Fourth CJ. Because it was a status conference, no arguments were heard and no pleadings, testimony or evidence was submitted. The Court did not issue any rulings for the record. Instead, the Court exercised its broad and unquestionable authority to manage its docket by issuing a Scheduling Order that set the hearings about which Gelman now complains. The Court described the purpose of the hearings as an opportunity for the parties to present their position regarding terms desired and appropriate to revise and supplement the existing cleanup regime, which could include changes to provisions in the Proposed Fourth CJ. To that end, the Court created a fair and reasonable process by requiring each party to present both the scientific and the legal support for its positions. Thus,

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[3] The cleanup criteria are often expressed interchangeably in terms of micrograms per liter (ug/L) or parts per billion (ppb). For simplicity, the term ppb is used in this brief.

the purpose and scope of the hearing set by the Scheduling Order was limited to potential modification of the existing cleanup regime, which all parties agree is appropriate in light of the recent revisions to cleanup criteria. The hearing was not intended to address other issues, such as the varied relief Intervenors would seek if they filed their complaints.

On January 7, 2021, 49 days after the Court issued the Scheduling Order, Gelman filed its Motion for Reconsideration of the Scheduling Order now before the Court. Gelman did not appeal the Scheduling Order to the Michigan Court of Appeals. Gelman did not seek clarification of the Scheduling Order by motion or otherwise. Gelman did not file a motion to set aside the Scheduling Order.

ARGUMENT

I. The Court has broad inherent and equitable powers to enforce its own directives and Gelman should be estopped from arguing otherwise.

Gelman's brief tells a simplistic story of a two-party environmental consent judgment with laissez-faire judicial oversight. Gelman also suggests that any remedial obligation imposed at the site was the product of the parties' consent. The reality of this decades-long cleanup case tells a very different story.

A. The parties frequently have called upon the Court to make rulings and exercise its inherent powers where they have been unable to reach consent.

The current cleanup regime is governed by several orders and judgments—the Consent Judgment entered October 26, 1992 (**Ex. B**[4]), the [First] Amendment to Consent Judgment dated September 23, 1996 (**Ex. C**), the Second Amendment to Consent Judgment dated October 20, 1999 (**Ex. D**), the Third Amendment to Consent Judgment dated March 8, 2011 (**Ex. E**) (collectively with the prior amendments and original Consent Judgment, "Third Amended CJ" or "Consent

[4] Intervenors have not included in the applicable exhibits the attachments to the Consent Judgment or its amendments. Those attachments are not material to the issues before the Court.

Judgment"), the Remediation and Enforcement Order ("REO") dated July 17, 2000 (**Ex. F**), the Opinion and Order Regarding Remediation of the Contamination of the "Unit E" Aquifer ("Unit E Order") dated December 17, 2004 (**Ex. G**), the Order Prohibiting Groundwater Use ("Prohibition Zone Order") dated May 17, 2005 (**Ex. H**), and the Stipulated Order Amending Previous Remediation Orders dated March 8, 2011 ("Stipulated Order") (**Ex. I**). None of the foregoing Orders was entered as a consensual amendment to the Consent Judgment.

Over the history of this case, this Court has not hesitated to enter orders to supplement the then-current consent judgment in order to account for changed circumstances or to better achieve the consent judgment cleanup objectives. Similar to the procedure that Gelman currently challenges, the Court entered the REO after briefing and three days of evidentiary hearings in order to resolve a dispute between the parties. The Court ruled:

> Based upon the evidence submitted, this Court is going to grant equitable relief in the sense that the Court will use its equitable powers to enforce the consent judgment to insure that dioxane levels in these water supplies is brought within acceptable standards as soon as possible. Both sides in this dispute appear to need the intervention of the Court to keep them moving toward this goal.

Ex. F, p. 3.

The REO imposed significant additional obligations on Gelman with tight timeframes, including submission of a detailed plan to reduce 1,4-dioxane in all affected water supplies below legally acceptable levels within a maximum period of five years and increased extraction and treatment. *Id.*, p. 4-5. Even though Gelman did not consent to entry of the REO, Gelman notably did not appeal the REO after it was entered.

Shortly after entry of the REO, the Court again had to resolve a significant dispute between the parties, this time over how to handle Gelman's discovery that 1,4-dioxane had migrated into a deeper aquifer called "Unit E." EGLE[5] and Gelman disagreed over numerous issues, including whether the Unit E contamination was subject to the Consent Judgment, the scope of the Court's review of EGLE's determinations, and whether Gelman would be required to comply with EGLE's aquifer protection rules[6] and, if not, what conditions Gelman would need to satisfy.

EGLE insisted that waiver of the aquifer protection rules would require institutional controls to prevent consumption of contaminated groundwater. Gelman argued that the Court had the power to enter an order achieving that purpose based on the Court's inherent authority to enforce its judgments and issue any order to fully execute its directives. **Ex. J**, Supp. Filing in Support of Remedial Alternative, filed October 14, 2000, p. 5-6 (citing MCL 600.611, *Cohen v Cohen*, 125 Mich App 206 (1983), and *Spurling v Battista*, 76 Mich App 350 (1977)).

After briefing and hearings, the Court entered the "Unit E Order". **Ex. G**. The Court first addressed the questions the parties had raised "about the applicability of the Consent Judgment to Unit E, the responsibility of the Court to review [EGLE's] actions, and the scope of the Court's role in this process." *Id.*, p. 3. The Court rejected Gelman's argument that the Unit E plume was not subject to the Consent Judgment and concluded that the Court "has the inherent and equitable powers to enforce its judgment with all appropriate measures and sanctions as to Unit E contamination." *Id.*, p. 4. Over EGLE's objection, the Court determined it had broad authority to review EGLE's actions and broad powers to assure the cleanup of 1,4-dioxane was achieved "as

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[5] "EGLE" is used throughout this brief, in place of the department's former names "MDEQ" or "MDNRE".

[6] Simply stated, the aquifer protection rules require remediation of contamination in an aquifer down to cleanup criteria and prohibit expansion of such contamination after the initiation of cleanup. Mich Admin R 299.3.

soon as possible." *Id.* p. 4-5. The Court further ruled that it "has and intends to exercise its inherent powers to enforce its own directives…. It is going to take continued concerted actions by all of the parties to remedy this expanding contamination. The Court is determined to exercise all of its inherent, statutory, and equitable powers to assure that those actions take place as soon as possible." *Id.*, p. 5.

The Court proceeded to address the dispute over the conditions EGLE demanded in exchange for a waiver from the aquifer protection rules. One of those conditions was use of an institutional control to restrict groundwater use. The Court adopted Gelman's argument (and cited Gelman's case law) that the Court had the inherent, statutory, and equitable powers to issue an order establishing an area where use of groundwater would be prohibited. *Id.* p. 5, 11. The Court then entered the "Prohibition Zone Order" in 2005. **Ex. H**.

B. A supplemental remediation order is authorized and appropriate to address changed circumstances.

As is evident from the history of this case, the current remedial regime for the Gelman contamination is not a mere bilateral agreement between EGLE and Gelman. It is an amalgamation of various rulings of the Court, many of which dramatically changed the scope of remediation yet were entered without the parties' consent. When negotiations have failed, each party from time to time has asked the Court to invoke its inherent and equitable powers to enforce and achieve the remedial objectives of the then-current orders and judgments.

Against that historical backdrop, it is bewildering to hear Gelman argue that its consent is required for any change in the existing cleanup regime. As a preliminary matter, even Gelman agrees that the existing cleanup regime must be modified. EGLE issued a "finding of emergency" in 2016 after a shallow groundwater investigation revealed the presence of 1,4-dioxane in a residential area just west of downtown Ann Arbor. **Ex. K**, Emergency Rules and Finding of

Emergency. Despite the existence of the current cleanup regime, EGLE concluded that the 1,4-dioxane pollution "pose[d] a threat to public health, safety or welfare of [the State's] citizens and the environment" and that "the current cleanup criteria…are not protective of public health." *Id.* EGLE later dramatically reduced the cleanup criteria for 1,4-dioxane, including a reduction in the residential drinking water standard from 85 ppb to 7.2 ppb. As a result of these actions, EGLE and Gelman began negotiating an amendment to the Third Amended CJ.

Although it concedes that the cleanup regime must be changed to effectuate the new cleanup criteria, Gelman incorrectly suggests that the only way that can be accomplished is if it consents to any proposed modification. The history of this case disproves Gelman's premise—the Court already has altered the cleanup regime multiple times through supplemental orders and rulings, as the Court was fully authorized to do. Gelman itself has argued, "[c]ircuit courts have jurisdiction and power to make any order proper to fully effectuate the circuit courts' jurisdiction and judgments," and that this Court has "inherent authority to enforce [its] own directives." **Ex. I**, p. 5-6 (citing *Cohen*). Broadly speaking, the objectives of the Court's existing directives are the delineation, monitoring, remediation, and prevention of expansion of the 1,4-dioxane contamination. See, generally, **Exs. B-I**. This Court has the power to enter orders to fully effectuate those objectives.

Not only is the foregoing a correct statement of the law, Gelman should be judicially estopped from arguing otherwise. "Judicial estoppel is an equitable doctrine, which generally prevents a party from prevailing in one phase of a case on an argument and then relying on a contradictory argument to prevail in another phase." *Spohn v Van Dyke Pub Sch*, 296 Mich App 470, 479–480 (2012) (internal citations omitted); *Paschke v Retool Indus*, 445 Mich 502, 509 (1994) ("Sometimes described as the doctrine against the assertion of inconsistent positions,

judicial estoppel is widely viewed as a tool to be used by the courts in impeding those litigants who would otherwise play 'fast and loose' with the judicial system."). Gelman previously persuaded the Court to impose the Prohibition Zone—now a central component of the cleanup regime—on the premise that such action was within the Court's inherent and equitable powers.[7] Gelman cannot now argue that the Court is without authority to make changes to the cleanup regime unless Gelman approves those changes.

Even if the Court were to modify the Consent Judgment, the standard for doing so is not nearly as narrow as Gelman now suggests. The Consent Judgment itself authorizes the Court to make rulings in order to resolve disputes between the parties. See, e.g., Article XVI – Dispute Resolution. **Ex. B**, p. 46-48 and **Ex. E**, p. 29. Gelman also may be required to perform additional response activities if, for example, EGLE adopts one or more new, more restrictive cleanup criteria and the change in criteria indicate that the existing remedy is not protective of public health, safety, welfare, and the environment. See Section VIII.E.1 – Plaintiffs' Covenant Not to Sue and Reservation of Rights. **Ex. E**, p. 29-30.

Gelman has recognized that a consent judgment may be modified even in the absence of consent or a contract-type defense (e.g., fraud or mistake). In 2007, Gelman filed a unilateral motion to amend the consent judgment because EGLE would not agree to Gelman's proposed changes. Gelman recognized that a consent judgment is no mere contract—"judicial approval of a consent decree places the power and prestige of the court behind the agreement reached by the parties." **Ex. L**, Gelman's Brief in Support of Motion to Amend Consent Judgment, filed July 6, 2007, p. 8, quoting *Vanguards of Cleveland v City of Cleveland*, 23 F3d 1013, 1018 (CA6 1994).

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[7] It is worth emphasizing that the Prohibition Zone came at a significant cost: it restricted the water rights of numerous private and public property owners.

Gelman argued that a consent judgment could be modified under the following circumstances:

> (1) when changed factual conditions make compliance with the decree substantially more onerous, (2) when a decree proves to be unworkable because of unforeseen obstacles, or (3) when enforcement of the decree without modification would be detrimental to the public interest.

Id., quoting *Vanguards*, 23 F3d at 1018. Enforcement of the current cleanup regime without modification or supplementation would be detrimental to the public interest in light of EGLE's recent emergency finding and significant reduction of the cleanup criteria for 1,4-dioxane. **Ex. K**.

Simply stated, Gelman knowingly and voluntarily signed a consent judgment in the early stages of this case. By doing so, Gelman subjected itself to the ongoing jurisdiction and authority of the Court over the cleanup regime embodied in that consent judgment. Gelman has invoked the Court's broad powers over the cleanup regime when it has suited Gelman's purposes, even over the objection of EGLE. The inconsistent and legally flawed position that Gelman now asserts should be rejected.

II. Gelman's due process argument is premature, overstates what process is required, and draws a false equivalence between the limited nature of the subject hearings and a final determination on the merits.

Only Gelman, who unsuccessfully appealed this Court's simple, procedural intervention orders to the Michigan Supreme Court, could conjure up a due process problem out of a scheduling order. Gelman's due process complaints are hopelessly premature. The parties have not yet filed briefs, nor has the Court held hearings on those briefs or reached any decision on whether or how much the current cleanup approach might be altered. The Court has not determined whether it will need testimony, supplemental briefs, etc. Gelman's due process arguments are not ripe for review because there has not been even an arguable violation of Gelman's rights. See, *City of Huntington Woods v City of Detroit*, 279 Mich App 603, 615 (2008) ("The doctrine of ripeness is designed to prevent the adjudication of hypothetical or contingent claims before an actual injury has been

sustained. A claim is not ripe if it rests upon contingent future events that may not occur as anticipated, or indeed may not occur at all.") (internal quotations and citations omitted).

Even if the Court considers Gelman's unripe arguments, they fail on the merits. Due process requires only notice and an opportunity to be heard. See, e.g., *In re AG for Investigative Subpoenas*, 274 Mich App 696, 705-06 (2007). "[D]ue process is also a flexible concept and calls for such procedural protections as the particular situation demands." *Id.* (internal citation omitted). Because due process is flexible, it does not mandate trial-like proceedings in all situations. *English v Blue Cross Blue Shield*, 263 Mich App 449, 460 (2004).

The Court already has afforded Gelman what due process requires—notice that the Court is considering changes to the existing cleanup regime, the opportunity to file legal briefs and expert reports, and three days of hearings. The nature of the proceeding at issue does not suggest that more is required.[8] At most, the result of the proceeding will be an order modifying or supplementing the existing cleanup orders. The result of the proceeding will not be summary disposition of the Intervenors' claims or a final order on the merits. Intervenors' draft complaints seek broad and varied relief, including past and future response costs and damages. See, e.g., **Ex. M**, City of Ann Arbor Intervening Complaint, p. 16, 18. Those claims and issues would be dealt with later, and not in the hearing about which Gelman complains. The Court has given no indication that it has any intention of doing more than decide what revisions or supplementation is needed to the existing cleanup judgments and orders.

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[8] Of course, if the Court has concerns after conducting the procedures described in the scheduling order, it could always order additional procedures or the taking of additional evidence prior to rendering a decision.

Although the Intervenors also seek injunctive relief in their draft complaints, that has nothing to do with the proceeding Gelman challenges. As explained earlier in this brief, the parties—including Gelman—agree the existing judgments and orders should be modified, and the law is clear that the Court has inherent and equitable powers to enter additional orders to fully effectuate its existing directives or to react to changed circumstances. The Court has those powers independent of claims made in the case, let alone claims in draft intervention complaints. Whatever defenses Gelman believes it has to Intervenors' potential claims are irrelevant and certainly need not be litigated before the Court can exercise its unquestionable authority over the Court's *existing* orders and judgments. Although the Court has requested Intervenors' input on improvements to the existing cleanup regime, presumably the Court was animated by the same concerns that led it to allow intervention in the first place:

> When we look at this philosophically then we start to say well, of course, those who have a statutory duty or legal responsibility or the entrustment of the public need to be at that table because the collective wisdom and viewpoints in solving a problem is always preferable to individual views. **Ex. N**, 12.15.16 Transcript, p. 48-49.[9]

The Court is of course free to give whatever weight it chooses to Intervenors' arguments and Gelman will have the opportunity to respond. Indeed, if Gelman is so confident there is no legal or scientific basis to require it to do more than what it negotiated with EGLE prior to the intervention, it is unclear why it is resisting so vigorously the opportunity to explain that to the Court. Nor is it clear why Gelman is resisting the type of procedure in which it has participated without objection multiple times over the course of the case. See, Section I.A, above. Gelman's

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[9] Recent case history has demonstrated the wisdom of the Court's decision to allow intervention. Intervention has significantly increased public participation in the process, which was sorely lacking at the time that EGLE and Gelman negotiated a modification to the Consent Judgment behind closed doors. The Proposed Fourth CJ that the Intervenors negotiated also was a significant improvement over the EGLE-Gelman negotiated modification.

due process arguments are meritless.

III. The Intervenors' requests for EPA involvement at the Gelman Site do not divest this Court of jurisdiction and the Intervenors intend to vigorously pursue their claims in this Court.

Gelman's assertion that EPA involvement at the site would strip this Court of jurisdiction is false. The federal Superfund law expressly does not preempt states from regulating releases of hazardous substances pursuant to state law. This Court has jurisdiction over the Gelman site pursuant to Michigan's environmental remediation statute, which is based on the federal Superfund law. EPA recognizes a state's authority to regulate the remediation of hazardous substances and EPA's involvement at the site would not affect this Court's jurisdiction. For years, Intervenors have wanted a more effective remediation and therefore have requested federal resources to support additional monitoring, greater delineation of the plume and more removal of 1,4-dioxane from the environment, all of which have a sound basis in law and science.

In making their requests for EPA involvement at the Gelman site, Local Government Intervenors have no intent of divesting this Court of jurisdiction. To the contrary, the Intervenors all favor pursuing their claims in this Court to achieve improvements to the existing remedial actions at the site under Michigan law and have made this clear in public statements. For example, in its Resolution rejecting the Proposed Fourth CJ and renewing its EPA petition, Scio Township clearly stated its desire to continue with its claims in this Court: "This renewal of Scio Township's 2016 petition for involvement by USEPA does not preclude simultaneous efforts to obtain a thorough clean-up either through negotiations or a court-ordered ruling from the Washtenaw County Circuit Court." **Ex. O**, Scio Resolution. The Resolution also identified several areas of concern regarding the Proposed Fourth CJ and asked "that the Washtenaw County Circuit Court consider these items as it formulates a new plan for remediation of the Gelman site." *Id*.

The Local Government Intervenors' requests for EPA involvement stem from a desire to access the considerable federal resources available for Superfund sites in order to support more effective monitoring and remediation, especially in light of EPA's conclusion made in 2016 that the site would be eligible for a Superfund listing. These resources would be particularly beneficial at this juncture, given that EGLE recently lowered the 1,4-dioxane drinking water criterion from 85 ppb to 7.2 ppb as the contaminant plume continues to spread throughout Scio Township and the City of Ann Arbor.

Requests for EPA involvement and continued pursuit of claims in this Court are not mutually exclusive. EGLE has been the regulatory agency at this site for a long time and, if EPA decided to become involved, it would likely be several years from now in a coordinated effort with the State. Superfund law, the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C 9601 et seq. ("CERCLA") and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR 300.1 et seq. ("NCP"), provides for substantial state involvement at Superfund sites. Section 104(d) of CERCLA provides that states may be authorized to carry out removal or remedial actions at Superfund sites. 42 U.S.C 9604(d). The NCP provides for state involvement in the preliminary assessment and National Priorities List process, the remedial investigation and feasibility process and selection of a remedy. 40 CFR 300.515.

Most Superfund sites in Michigan involve a coordinated effort between EPA and EGLE governed by a Memorandum of Understanding or a Superfund Cooperative Agreement. Local Government Intervenors would like EPA to undertake its thorough evaluation process and possibly implement more comprehensive monitoring and remedial actions to address the environmental risks associated with the large contaminant plume. This would likely occur in coordination with EGLE and would not affect the jurisdiction of this Court.

Gelman's assertion that EPA involvement at this site would divest this Court of jurisdiction is untrue and directly contrary to CERCLA's language. Virtually all courts agree that Congress did not intend to preempt the field of hazardous substance remediation and in fact left considerable room for the states to regulate such activity. Section 114 of CERCLA provides that "nothing in this chapter shall be construed or interpreted as preempting any State from imposing any additional liability or requirements with respect to the release of hazardous substances within such State." 42 USC 9614(a). Similarly, Section 302(d) provides that "nothing in this chapter shall affect or modify in any way the obligations or liabilities of any person under other Federal or State law, including common law, with respect to releases of hazardous substances or other pollutants or contaminants." 42 USC 9652(d).

Courts analyzing CERCLA have consistently recognized the ability of states to regulate the remediation of hazardous substances. See *Bedford Affiliates v Sills*, 156 F3d 416, 426-27 (CA2 1998) (concluding that "it was not part of the legislative purpose that CERCLA be a comprehensive regulatory scheme occupying the entire filed of hazardous wastes"); *ARCO Environmental Remediation, LLC v Dept of Health and Environmental Quality*, 213 F3d 1108, 1114 (CA 9 2000) ("CERCLA does not completely occupy the field of environmental regulation."); *Board of County Commissioners v Brown Group Retail*, 598 F Supp 2d 1185, 1192 (D Colo 2009) (finding that state law claims including negligence, negligence per se and strict liability for abnormally dangerous activities were not preempted by CERCLA.).

Gelman's argument that EPA involvement would divest this Court of jurisdiction is based on Section 113(b) of CERCLA (42 USC 9613(b)), which grants United States district courts exclusive original jurisdiction over controversies under CERCLA. Courts have made clear, however, that this grant of jurisdiction does not divest state courts of jurisdiction to hear claims

arising under state law which relate to CERCLA sites. Gelman's argument ignores the clear language of Section 114, which gives states wide latitude to regulate hazardous substance remediation. Furthermore, the United States Supreme Court recently rejected Gelman's argument in *Atlantic Richfield Co v Christian*, 140 S Ct 1335; 206 L Ed 2d 516 (2020). The Supreme Court held that Section 113(b) only grants exclusive jurisdiction to federal courts for CERCLA actions and that federal courts are not granted exclusive jurisdiction over actions that may relate to CERCLA sites but arise under state laws. The Court stated "the Act does not strip the Montana courts of jurisdiction over this lawsuit . . . it does not displace state court jurisdiction over claims brought under other sources of law." *Id*. at 533.

EGLE has been the exclusive regulator at the Gelman site for over 30 years. Its regulatory authority is based on Part 201 of the Natural Resources and Environmental Protection Act ("NREPA"), MCL 324.20101 et seq. Part 201 is modeled after CERCLA, and it grants EGLE the authority to identify, investigate and evaluate contaminated sites and order responsible parties to conduct remediation activities, much like EPA does under CERCLA. Furthermore, the Intervenors have brought injunctive, declaratory and cost recovery claims under Part 201, together with common law claims based on nuisance and negligence. The Supreme Court made it clear in *Atlantic Richfield* that CERCLA does not strip this Court of jurisdiction over the State and Intervenor claims brought pursuant to Michigan law.

Intervenor claims not affected by CERCLA include those of Washtenaw County, which has a statutory duty to protect the public health. MCL 333.2433(1). The Public Health Code ("PHC") clearly states that it shall be "liberally construed" for the protection of the health, safety, and welfare of the people of this state. MCL 333.1111(2). The Michigan Supreme Court agrees:

> In fact, the preliminary provisions of the PHC require that the code and each of its various parts 'be liberally construed for the protection of the health, safety, and welfare of the people of this state.' MCL 333.1111(2)." *McNeil v Charlevoix Cnty,* 484 Mich 69, 78 (2009).

The point is simple. The County Health Department's mandatory statutory duty to promote the public health and protect the people of Washtenaw from environmental health hazards such as 1,4-dioxane must be liberally construed for the protection of the people of Washtenaw.

MCL 333.2435 provides the County Health Department with the power to "advise" other agencies and persons as to the water supply and enter into agreements with other governmental entities to carry out its duties under the PHC. Again, this is a statutory mandate. This language makes it clear that the jurisdiction is concurrent with other agencies and underscores the necessity of including the County and local governmental entities in this case to address the significant public health concerns presented by the contaminant plume.

Michigan issued Emergency Rules regarding the establishment of new cleanup criteria for 1,4-dioxane. The Emergency Rules stated that they were promulgated by EGLE in order to establish a "cleanup criteria" under the remediation provisions of the state law. **Ex. K**. Thus, the stated goal for the Emergency Rules is "cleanup". This must be the goal and the objective going forward given the identified public health issue.

The Emergency Rules state that EGLE finds that releases of 1,4-dioxane have occurred and pose a threat to "public health" safety, or welfare of its citizens and the environment. *Id*. This triggers the statutory role of the County Health Department as set forth herein. The Emergency Rules affirmatively state that shallow groundwater investigations in the "Ann Arbor area" have detected 1,4-dioxane in the groundwater in close proximity to residential homes. *Id*. This is a major problem and represents a significant *public health concern*. Again, this unquestionably triggers the statutory duties of the County Health Department as set forth above.

The Emergency Rules state that current cleanup criteria for 1,4-dioxane initially established in 2002 are outdated and are not protective of "public health" with respect to the drinking water ingestion pathway and the vapor intrusion pathway. *Id*. Again, this represents a significant public health concern and triggers the mandatory statutory duty of the County Health Department.

The Emergency Rules then conclude that, because the previous cleanup criteria for 1,4-dioxane are not protective of public health, new emergency rules are demanded and set the residential drinking water cleanup criterion for 1,4-dioxane in groundwater at 7.2 ppb and the residential vapor intrusion criterion at 29 ppb for 1,4-dioxane. *Id*. These are actionable "cleanup" requirements. The Governor executed the Emergency Rules and concurred in the findings of EGLE that circumstances creating an emergency have occurred and the "public interest" requires the promulgation of the Rules.

The County Health Department has a unique interest and a mandatory statutory duty to protect the "public health" of Washtenaw County. By stating that the public health is at risk, the Governor unquestionably triggered the statutory duties of the County Health Department and this Court has unfettered jurisdiction to hear these claims, as well as others brought by Intervenors, as it considers modifications to the existing judgments and orders governing the site.

IV. This Court has never served as mediator or facilitator in this case and has never suggested it intends to do so in future proceedings.

Gelman attempts to create an issue which does not exist with its suggestion that the proposed hearing would put the Court in the position of serving as both mediator/facilitator and trier of fact. The Court has never suggested it would serve as a mediator in this case. Indeed, the parties were engaged in extensive settlement discussions at the courthouse for three years and the Court never once became involved in the substance of the negotiations. The Court has scheduled

a hearing to hear argument from the parties as to the appropriate components of a remediation order for the Gelman site. After the hearing, presumably the Court will issue its findings based on the legal and scientific arguments presented by the parties. Nothing about this proposed hearing suggests that the Court will serve in any capacity other than as trier of fact.

Even if the Court became involved in settlement negotiations, it is unlikely this would lead to disqualification as suggested by Gelman. In support of its argument, Gelman relies on the Michigan Court Rules regarding case evaluation which prohibit a judge from presiding at a trial of any case on which the judge served as a case evaluator. The court hearing that was scheduled is obviously not case evaluation and the rules cited by Gelman have no relevance to possible disqualification under the present circumstances.

The court rule regarding disqualification of a judge does not include participation in settlement discussions as a ground for disqualification. MCR 2.003(C). The most relevant standard for disqualification under these circumstances is MCR 2.003(C)(1), which allows a party to move for disqualification when "the judge is personally biased or prejudiced for or against a party or attorney." The Michigan Supreme Court has set a high bar for proving judicial bias, holding that claims of judicial bias must overcome a "heavy presumption of judicial impartiality." *Cain v Michigan Dept of Corrections*, 451 Mich 470, 497 (1996).

This high standard for establishing judicial bias has been reflected in court decisions which have considered motions for disqualification in the context of a judge participating in settlement discussions. Michigan courts have made it clear that judges who obtain knowledge of the case through participation in settlement conferences, as opposed to an extrajudicial source, should not be disqualified. "Facts learned in a judicial capacity through a review of evidence presented in court, . . . in the course of settlement conferences . . . are not facts gathered from an extrajudicial

source." *Arrowood Indemnification Co v City of Warren*, 54 F Supp 3d 723, 727 (ED Mich 2014), (quoting *McGuire v Warner*, 05-40185, 2009 US Dist LEXIS 100583, 2009 WL 3586527 (ED Mich Oct 29, 2009). See also, *Eyde v Eyde*, No. 243670, 2004 WL 1366007 (Mich Ct App June, 17, 2004) (unpublished) (judge's involvement in settlement discussions not a basis for disqualification). **(Ex. P)**

This Court has not indicated that it intends to participate in settlement discussions. However, since the parties have already engaged in extensive negotiations, resulting in a lengthy document that was made available to the public, it would not be surprising if in the course of conducting hearings the Court were to learn information discussed during these negotiations. Even if that occurred, the Court would gain such information in the course of its normal judicial duties, which would not be a basis for disqualification.

CONCLUSION

The Court made a simple, routine decision to issue a scheduling order. That order set briefing deadlines and scheduled hearings on potential modifications to the Court's own, existing judgments and orders. Such a procedure is unquestionably within the Court's powers. Such a procedure is not going to violate anyone's rights.

Everyone agrees that the existing cleanup regime must be modified. When the Court permitted intervention, it made the reasoned and principled decision that additional voices from the public would improve both the process and the quality of the modifications. The Court was correct—intervention allowed additional participation and insight into what had been a closed-door process and produced a much more robust set of proposed modifications. The fact that the Proposed Fourth CJ was not entered does not mean that intervention failed; it simply means that more work needs to be done. The Court's scheduling order is the next logical step in that process. Gelman's motion should be denied.

Respectfully submitted,

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Date: March 8, 2021

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE
STATE OF MICHIGAN, *ex rel.* MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENT,

Plaintiff,

and

CITY OF ANN ARBOR, WASHTENAW COUNTY,
WASHTENAW COUNTY HEALTH
DEPARTMENT, WASHTENAW COUNTY
HEALTH OFFICER ELLEN RABINOWITZ, in her
official capacity, the HURON RIVER WATERSHED
COUNCIL, and SCIO TOWNSHIP,

Intervening Plaintiffs,

-v-

GELMAN SCIENCES, INC., d/b/a PALL LIFE
SCIENCES, a Michigan Corporation,

Defendant.

Case No. 88-34734-CE
Hon. Timothy P. Connors

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EXHIBIT A

Gelman Science Frequently Asked Questions

EPA Role in Cleanup

1. What are EPA and Michigan Environment, Great Lakes, and Energy's (EGLE) roles at the Gelman site?

While cleanup work is conducted at many sites under the State of Michigan's programs, cleanups under EPA's Superfund remedial program is an option to address contaminated hazardous waste sites that are on the federal National Priorities List (NPL). Sites are listed on the NPL after EPA and the State agree that addressing the contamination under the federal Superfund program is the best option. EPA will not generally proceed with listing a site on the NPL absent a formal State request. NPL listing determinations are made by EPA after taking into account comments and input from all appropriate stakeholders.

2. Does EPA have a position on the current negotiations with EGLE and Gelman on the Consent Judgement?

EPA is not a party to the Consent Judgement, and it is not a part of the ongoing negotiations. EPA has not in the past, and is not currently, taking a position in the State court litigation involving the Gelman site. EPA has not taken a position on the specific terms of the Consent Judgment. EPA is not a party to this action and cannot dictate its terms. Even if EPA pursues listing the Site on the NPL, EPA will not require that the State court litigation be ended, or the terms of a Consent Judgment to be changed. It is in the interest of all parties and stakeholders going forward that Michigan and Gelman continue to work together to monitor and control the site releases consistent with State of Michigan enforcement requirements.

EPA's Cleanup Process

3. What is the status of listing the Gelman site onto the National Priorities List?

The Gelman site is not currently on the NPL, though EPA has completed some steps necessary for potential listing on the NPL. In 2016 EPA received a petition to evaluate the Gelman site for potential inclusion on the NPL. In response to this petition, in coordination with EGLE, EPA conducted a Site Preliminary Assessment to gather and assess site data and determine data gaps. In this Preliminary Assessment, the site was determined eligible for further consideration as an NPL candidate. Though the site was determined eligible for further evaluation as an NPL site, at that time Michigan requested to continue addressing the Gelman contamination under its State enforcement authority. As such Michigan reports to EPA annually on the progress of its Gelman cleanup efforts. Another Preliminary Assessment would not need to be conducted if EPA decides to pursue NPL listing of the Gelman site. While EPA has not yet determined whether to pursue listing the site on the NPL, if EPA decides to pursue listing it would take approximately three additional years to proceed through the NPL listing process.

When EPA evaluates a site for NPL listing there is no guarantee that the site will be listed on the NPL. For example, the proposed listing can be challenged in court, preventing EPA from adding the site to the NPL. If the Gelman site is listed on the NPL, at that time, EPA would become the lead enforcement agency and would coordinate with Michigan on how to smoothly transition the enforcement lead to EPA.

4. What steps would EPA take if Gelman were to become a Superfund Site? How long would those steps take?

Once a site is on the NPL, EPA negotiates with any potentially responsible parties (PRPs) to have them conduct the investigation to study the nature and extent of site contamination (remedial investigation [RI]) and evaluate engineering options to address the contamination (feasibility study [FS]). The timeline for these negotiations is variable, but generally it takes several months to a year. After the FS is completed, EPA will select a remedy for the site and issue a Record of Decision (ROD). At the ROD stage, EPA, as enforcement lead, could incorporate appropriate requirements of the State Consent Judgment into its remedy. The next step is the negotiation of a federal consent decree for completion of a Superfund Remedial Design and Remedial Action (RD/RA) with the PRPs to implement the remedy selected in the ROD.

If at any time EPA finds it is necessary to use Superfund Removal enforcement authorities to address an imminent and substantial endangerment from actual or potential releases of contamination, that option is available.

The timeline to conduct RI/FS work is very variable from a few to several years or longer. At this time EPA is not familiar enough with data that has been collected at the Gelman site to determine if it would contribute to efficiencies in our process to evaluate and address site contamination under the Superfund NPL process. The timeline for design and cleanup work at an NPL site is also highly variable, taking from a few years to several decades. At more complex sites, such as Gelman, EPA can evaluate segments of the contamination to identify and implement interim cleanup actions early in the process, followed by additional interim action(s), and a final cleanup action.

LAST UPDATED ON MARCH 3, 2021

EXHIBIT B

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

FRANK J. KELLEY, Attorney General
for the State of Michigan, ex rel,
MICHIGAN NATURAL RESOURCES COMMISSION,
MICHIGAN WATER RESOURCES COMMISSION,
and MICHIGAN DEPARTMENT OF NATURAL
RESOURCES,

Plaintiffs,

v

GELMAN SCIENCES, INC.,
a Michigan corporation,

Defendant.

OCT 3 0 1992

File No. 88-34734-CE

Honorable Patrick J. Conlin

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CONSENT JUDGMENT

The Parties enter this Consent Judgment in recognition of, and with the intention of, furtherance of the public interest by (1) addressing environmental concerns raised in Plaintiffs' Complaint; (2) expediting remedial action at the Site; and (3) avoiding further litigation concerning matters covered by this Consent Judgment. The Parties agree to be bound by the terms of this Consent Judgment and stipulate to its entry by the Court.

EXHIBIT 136

The Parties recognize that this Consent Judgment is a compromise of disputed claims. By entering into this Consent Judgment, Defendant does not admit any of the allegations of the Complaint, does not admit any fault or liability under any statutory or common law, and does not waive any rights, claims, or defenses with respect to any person, including the State of Michigan, its agencies, and employees, except as otherwise provided herein. By entering into this Consent Judgment, Plaintiffs do not admit the validity or factual basis of any of the defenses asserted by Defendant, do not admit the validity of any factual or legal determinations previously made by the Court in this matter, and do not waive any rights with respect to any person, including Defendant, except as otherwise provided herein. The Parties agree, and the Court by entering this Judgment finds, that the terms and conditions of the Judgment are reasonable, adequately resolve the environmental issues covered by the Judgment, and properly protect the public interest.

NOW, THEREFORE, upon the consent of the Parties, by their attorneys, it is hereby ORDERED and ADJUDGED:

I. JURISDICTION

A. This Court has jurisdiction over the subject matter of this action. This Court also has personal jurisdiction over the Defendant.

B. This Court shall retain jurisdiction over the Parties and the subject matter of this action to enforce this Judgment and to resolve disputes arising under the Judgment.

II. PARTIES BOUND

This Consent Judgment applies to, is binding upon, and inures to the benefit of Plaintiffs, Defendant, and their successors and assigns.

III. DEFINITIONS

Whenever the terms listed below are used in this Consent Judgment or the Attachments which are appended hereto, the following definitions shall apply:

A. "Consent Judgment" or "Judgment" shall mean this Consent Judgment and all Attachments appended hereto. All Attachments to this Consent Judgment are incorporated herein and made enforceable parts of this Consent Judgment.

B. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working Day" shall mean a day other than a Saturday, Sunday, or a State legal holiday. In computing any period of time under this Consent Judgment, where the last day would fall on a Saturday, Sunday, or State legal holiday, the period shall run until the end of the next working day.

C. "Defendant" shall mean Gelman Sciences, Inc.

D. "Evergreen Subdivision Area" shall mean the residential subdivision generally located north of I-94 and between Wagner and Maple Roads, bounded on the west by Rose Street, on the north by Dexter Road, and on the south and east by Valley Drive.

E. "Gelman" or "GSI" shall mean Gelman Sciences, Inc.

F. "GSI Property" shall mean the real property described in Attachment A, currently owned and operated by GSI in Scio Township, Michigan.

G. "Groundwater Contamination" or "Groundwater Contaminant" shall mean 1,4-dioxane in groundwater at a concentration in excess of 3 micrograms per liter ("ug/l") determined by the sampling and analytical method(s) described in Attachment B.

H. "MDNR" shall mean the Michigan Department of Natural Resources.

I. "Parties" shall mean Plaintiffs and Defendant.

J. "Plaintiffs" shall mean Frank J. Kelley, Attorney General of the State of Michigan, ex rel, Michigan Natural Resources Commission, Michigan Water Resources Commission, and Michigan Department of Natural Resources.

K. "Redskin Well" means the purge well currently located on the Redskin Industries property.

L. "Remedial Action" or "Remediation" shall mean removal, treatment, and proper disposal of groundwater and soil contaminants pursuant to the terms and conditions of this Consent Judgment and work plans approved by the MDNR under this Judgment.

M. "Site" shall mean the GSI Property and other areas affected by the migration of groundwater contamination emanating from the GSI Property.

N. "Soil Contamination" or "Soil Contaminant" shall mean 1,4-dioxane in soil at a concentration in excess of 60 ug/kg, as determined by the sampling and analytical method(s) described in Attachment C, or other higher concentration limit derived by means consistent with Mich Admin Code R 299.5711(2) or R 299.5717.

O. "Spray Irrigation Field" shall mean that area of the GSI site formerly used for spray irrigation of treated process wastewater, as depicted on the map included as Attachment D.

P. "Unit C3 Aquifer" means the aquifer identified as the C3 Unit in reports prepared for Defendant by Keck Consulting.

IV. IMPLEMENTATION OF REMEDIAL ACTION BY DEFENDANT

Defendant shall implement the Remedial Action to address groundwater and soil contamination at, and emanating from, the GSI Property in accordance with (1) the terms and conditions of this Consent Judgment; and (2) work plans approved by the MDNR pursuant to this Consent Judgment.

V. GROUNDWATER REMEDIATION

Defendant shall design, install, operate, and maintain the systems described below to remove, to treat (as required), and to dispose properly of contaminated groundwater. The objectives of these systems shall be to contain the plumes of groundwater contamination emanating from the GSI Property as described below and to extract the contaminated groundwater from the aquifers at designated locations for treatment (as required) and disposal. Defendant also shall implement a monitoring program to verify the effectiveness of these systems.

A. Evergreen Subdivision Area System (hereinafter "Evergreen System")

1. Objectives. The objectives of this system shall be: (a) to intercept and contain the leading edge of the plume of groundwater contamination detected in the vicinity of the Evergreen Subdivision area; (b) to remove the contaminated

groundwater from the affected aquifer; and (c) to remove all groundwater contaminants from the affected aquifer or upgradient aquifers within the Site that is not otherwise removed by the Core System provided in Section V.B. or the GSI Property Remediation Systems provided in Section VI.

2. Investigation and Design of System.

a. Pump Test Report. Defendant has constructed a purge/test well in the Evergreen Subdivision and conducted a pump test. No later than five days after entry of this Consent Judgment, Defendant shall submit to MDNR a report showing the well construction details and containing pump test and aquifer performance data.

b. Treatment Equipment. Within five days after entry of this Consent Judgment, Defendant shall submit to MDNR specifications for equipment for the treatment of purged groundwater using ultraviolet light and oxidating agents sufficient to remove 1,4-dioxane from goundwater to levels of 3 ug/l or lower. Defendant shall order such equipment within ten days after receiving approval from MDNR.

c. Obtaining Authorization for Groundwater Reinjection. Within 90 days after entry of the Consent Judgment, Defendant shall do one of the following: (i) submit a complete application to the Water Resources Commission for a groundwater discharge permit or permit exemption to authorize the reinjection

of purged, treated groundwater from the Evergreen System; or (ii) submit a plan to MDNR for reinjection of purged, treated groundwater from the Evergreen System that will assure compliance with and be authorized by the generic Exemption for Groundwater Remediation Activites issued by the Water Resources Commission on August 20, 1992.

d. Work Plan. Within 90 days after entry of the Consent Judgment, Defendant shall submit to MDNR for its review and approval a work plan for continued investigation of the Evergreen Subdivision and design of the Evergreen System. At a minimum, the work plan shall include, without limitation, installation of at least one purge well and associated observation well(s) and a schedule for implementing the work plan. The work plan shall specify the treatment and disposal options to be used for the Evergreen System as described in Section V.A.5. The existing test/purge well can be incorporated into the work plan if appropriate.

3. Implementation. Within 14 days after receipt of the MDNR's written approval of the work plan described in Section V.A.2., Defendant shall implement the work plan. Defendant shall submit the following to MDNR according to the approved time schedule: (a) the completed Evergreen System design; (b) a schedule for implementing the design; (c) an operation and maintenance plan for the Evergreen System; and (d) an effectiveness monitoring plan.

4. Operation and Maintenance. Upon approval of the Evergreen System design by the MDNR, Defendant shall install the Evergreen System according to the approved schedule and thereafter, except for temporary shutdowns pursuant to Section V.A.6. of this Consent Judgement, continuously operate and maintain the System according to the approved plans until Defendant is authorized to terminate purge well operations pursuant to Section V.D.

5. Treatment and Disposal. Groundwater extracted by the purge well(s) in the Evergreen System shall be treated as necessary using ultraviolet light and oxidizing agents and disposed of in accordance with the Evergeen System design approved by the MDNR. The options for such disposal are the following:

a. Groundwater Discharge. The purged groundwater shall be treated to reduce 1,4-dioxane concentrations to the level required by the Water Resources Commission, and discharged to groundwaters in the vicinity of the Evergreen Subdivision in compliance with the permit or exemption authorizing such discharge referred to in Section V.A.2.c.

b. Sanitary Sewer Discharge. Use of the sanitary sewer leading to the Ann Arbor Wastewater Treatment Plant is conditioned upon approval of the City of Ann Arbor. If discharge is made to the sanitary sewer, the Evergreen System shall be operated and monitored in compliance with the terms

and conditions of the Industrial User's Permit to be issued by the City of Ann Arbor, a copy of which is attached hereto as Attachment G, and any subsequent written amendment of that Permit made by the City of Ann Arbor. The terms and conditions of the Permit and any subsequent amendment shall be directly enforceable by the MDNR against Gelman as requirements of this Consent Judgment.

c. Storm Drain Discharge. Use of the storm drain is conditioned upon approval of such use by the City of Ann Arbor and the Allen Creek Drainage District. Discharge to the Huron River via the Ann Arbor stormwater system shall be in accordance with NPDES Permit No. MI-008453 and conditions required by the City and the Drainage District. If the storm drain is to be used for disposal, no later than 21 days after permission is granted by the City and the Drainage District to use the storm drain for continuous disposal of purged groundwater, Defendant shall submit to MDNR, the City of Ann Arbor, and the Drainage District for their review and approval a protocol under which the purge system shall be temporarily shut down: (i) for maintenance of the storm drain; and (ii) during storm events to assure that the stormwater system retains adequate capacity to handle run-off created during such events. The purge system shall be operated in accordance with the approved protocol for temporary shutdown.

6. Monitoring Plan. Defendant shall implement the approved monitoring plan required by Section V.A.3.d. The monitoring plan shall include collection of data to measure the effectiveness of the System in: (a) hydraulically containing groundwater contamination; (b) removing groundwater contaminants from the aquifer; and (c) complying with applicable limitations on the discharge of the purged groundwater. The monitoring plan shall be continued until terminated pursuant to Section V.E.

B. Core Area System
(hereinafter "Core System")

1. Objectives. For purposes of the Consent Judgment, the "Core Area" means that portion of the Unit C3 aquifer containing 1,4-dioxane in a concentration exceeding 500 ug/l. The objectives of the Core System are to intercept and contain the migration of groundwater from the Core Area and remove contaminated groundwater from the Core Area until the termination criterion for the Core System in Section V.D.1. is satisfied. The Core System shall also prevent the discharge of contaminated groundwater into the Honey Creek Tributary in concentrations in excess of 100 ug/l or in excess of a concentration which would cause groundwater contamination at any location along or adjacent to the entire length of Honey Creek or the Honey Creek Tributary.

2. Evaluation of Groundwater Reinjection Alternative. No later than 35 days after entry of the Consent Judgment, Defendant will complete and submit to MDNR a report on a pilot test for the treatment system using ultraviolet light and oxidizing agent(s) to be used for treatment of extracted groundwater prior to reinjection. No later than 90 days after entry of this Consent Judgment, Defendant may apply to the Michigan Water Resources Commission for authorization for Defendant to reinject treated groundwater extracted from the Core Area. A reinjection program shall consist of the following: (a) installation of a series of purge wells that will control groundwater flow as described in Section V.B.1. and extract water from the Core Area to be treated and reinjected; (b) the system described in the application shall include a groundwater treatment system using ultraviolet light and oxidizing agent(s) to reduce 1,4-dioxane concentrations in the purged groundwater to the level required for a discharge by the Water Resources Commission; (c) the discharge level for 1,4-dioxane in groundwater to be reinjected in the Core Area shall be established based upon performance of further tests by Defendant on the treatment technology and shall in any event be less than 60 ug/l.

3. Groundwater Reinjection. Defendant shall, no later than 120 days after entry of this Consent Judgment: (a) select, verify, and calibrate a model for the groundwater reinjection system; (b) prepare a final report on the model;

and (c) submit to MDNR for review and approval the final report on the model, Defendant's proposed final design for the Core System, a schedule for implementing the design, an operation and maintenance plan for the system, and an effectiveness monitoring plan for the system.

The Groundwater Reinjection System, including the discharge level for 1,4-dioxane, shall be subject to the final approval of the Water Resources Commission and the MDNR. At a minimum, the System shall be designed and operated so as to ensure that: (a) the purged groundwater is reinjected only into portions of the aquifer(s) where groundwater contamination is already present; (b) the concentration of 1,4-dioxane in the aquifer(s) is not increased; and (c) the areal extent of groundwater contamination is not increased.

4. Surface Water Discharge Alternative. In the event that Defendant elects not to proceed with groundwater reinjection as provided in Section V.B.2., or in the event Defendant is denied permission to install such a system, no later than 90 days after the election or denial, Defendant shall submit to the MDNR for its review and approval Defendant's proposed final design of the Core System, a schedule for implementing the design, an operation and maintenance plan for the System, and an effectiveness monitoring plan for the System. The Core System shall include groundwater purge wells as necessary to meet the

objectives described in Section V.B.1. The Core System also shall include a treatment system using ultraviolet light and oxidizing agent(s) to reduce 1,4-dioxane concentrations in the purged groundwater to the levels required for a discharge described below and facilities for discharging the treated water into local surface waters or sanitary sewer line(s). Discharge to local surface waters shall be in accordance with NPDES Permit No. MI-008453 and any subsequent amendment of that Permit. Use of the sanitary sewer is conditioned upon and subject to an Industrial Users Permit to be obtained from either the City of Ann Arbor or Scio Township, as required by law. If discharge is made to the sanitary sewer, the Core Treatment System shall be operated and monitored to assure compliance with the terms and conditions of the required Industrial User's Permit and any subsequent amendment of that permit. The terms and conditions of the Permit and any subsequent amendment shall be directly enforceable by the MDNR against Gelman as requirements of this Consent Judgment.

5. Implementation of Program. Upon approval by the MDNR, Defendant shall install the Core System according to the approved schedule and thereafter continuously operate and maintain the System according to the approved plans until Defendant is authorized to terminate operation pursuant to Section V.D. Defendant may, thereafter and at its option, continue purge operations as provided in this Section.

6. Monitoring Plan. Defendant shall implement the approved monitoring plan required by Section V.B. The monitoring plan shall include collection of data to demonstrate the effectiveness of the Core System in: (a) hydraulically containing the Core Area; (b) removing groundwater contaminants from the aquifer; and (c) complying with applicable limitations on the discharge of the purged groundwater. The monitoring plan shall be continued until terminated pursuant to Section V.E.

C. Western Plume System
(hereinafter "Western System")

1. Objectives. The objectives of the Western System are: (a) to contain downgradient migration of any plume(s) of groundwater contamination emanating from the GSI Property that are located outside the Core Area and to the northwest, west, or southwest of the GSI facility; (b) to remove groundwater contaminants from the affected aquifer(s); and (c) to remove all groundwater contaminants from the affected aquifer or upgradient aquifers within the Site that are not otherwise removed by the Core System provided in Section V.B. or the GSI Property Remediation Systems provided in Section IV.

2. Design of System. The Western System shall include a series of groundwater test/purge wells placed and operated so as to create overlapping capture zones preventing the downgradient migration of groundwater contaminants. The System

also may incorporate one or more existing artesian wells with overlapping capture zones preventing the downgradient migration of groundwater contaminants. The System also may incorporate one or more existing artesian wells with overlapping capture zones to prevent the downgradient migration of groundwater contaminated with 1,4-dioxane. Defendant shall apply for authorization to reinject purged groundwater or for a permit for discharge of the purged groundwater into the Honey Creek if facilities are constructed for such discharge as part of the Western System. The Western System shall also include facilities for treating purged groundwater as necessary to meet applicable permit requirements and facilities for monitoring the effectiveness of the System.

3. Remedial Investigation. No later than 60 days after the effective date of this Consent Judgment, Defendant shall submit to the MDNR for its review and approval a work plan for remedial investigation and design of the Western System and a schedule for implementing the work plan. The work plan shall include plans for installation of a series of test/purge wells, conduct of an aquifer performance test(s), groundwater monitoring operations and maintenance plan, and system design.

4. Implementation of Remedial Investigation. Defendant shall implement the approved work plan according to the approved schedule.

5. Installation of System. Upon approval by the MDNR, Defendant shall install the Western System and thereafter continuously operate and maintain the system according to the approved plans and schedules until Defendant is authorized to terminate operation pursuant to Section V.D. of this Consent Judgment.

6. Monitoring. Defendant shall implement the approved monitoring plan to verify the effectiveness of the Western System in meeting the objectives of Section V.C.1. The monitoring plan shall include collection of data to demonstrate the effectiveness of the Western System in: (a) hydraulically containing groundwater contamination; (b) removing groundwater contaminants from the aquifer; and (c) complying with applicable limitations on the discharge of the purged groundwater. The monitoring program shall be continued until terminated pursuant to Section V.E.

D. Termination Of Groundwater Purge Systems Operation

1. Evergreen System. Except as otherwise provided pursuant to Section V.D.2., Defendant shall continue to operate the Evergreen System required under this Consent Judgment until six consecutive monthly tests of samples from the purge well(s) and associated monitoring well(s), including all upgradient monitoring wells in the Core Area, fail to detect the presence

of 1,4-dioxane in groundwater at a concentration which exceeds 3 ug/l.

Western System. Except as otherwise provided pursuant to Section V.D.2., Defendant shall continue to operate the Western System required under this Consent Judgment until six consecutive monthly tests of samples from the purge well(s) and associated monitoring well(s), including all upgradient monitoring wells in the Core Area, fail to detect the presence of 1,4-dioxane in groundwater at a concentration which exceeds 3 ug/l.

Core System. Except as otherwise provided pursuant to Section V.D.2, Defendant shall continue to operate the Core System required under this Consent Judgment until six consecutive monthly tests of samples from the purge well(s) and associated monitoring well(s) fail to detect the presence of 1,4-dioxane in groundwater at a concentration which exceeds 60 ug/l if the Groundwater Reinjection Alternative is selected, or 500 ug/l if Surface Water Discharge Alternative is selected.

2. The termination criteria provided in Section V.D.1. may be modified as follows:

a. At any time two years after entry of this Consent Judgment, Defendant may propose to the MDNR that the termination criteria be modified based upon either or both of the following:

i. a change in legally applicable or relevant and appropriate regulatory criteria since the entry of this Consent Judgment; for purposes of this subparagraph, "regulatory criteria" shall mean any promulgated standard criterion or limitation under federal or state environmental law specifically applicable to 1,4-dioxane; or

ii. scientific evidence newly released since the entry of this Consent Judgment, which, in combination with the existing scientific evidence, establishes that different termination criteria for 1,4-dioxane are appropriate and will assure protection of public health, safety, welfare, the environment, and natural resources.

b. Defendant shall submit any such proposal in writing, together with supporting documentation, to the MDNR for review.

c. If the Parties agree to a proposed modification, the agreement shall be made by written Stipulation filed with the Court pursuant to Section XXIV of this Judgment.

d. If MDNR disapproves the proposed modification, Defendant may invoke the Dispute Resolution procedures contained in Section XVI of this Consent Judgment. Alternatively, if MDNR disapproves a

proposed modification, Defendant and Plaintiffs may agree to resolve the dispute pursuant to subparagraph V.D.3.

3. If the parties do not agree to a proposed modification, Defendant and Plaintiffs may prepare a list of the items of difference to be submitted to a scientific advisory panel for review and recommendations. The scientific advisory panel shall be comprised of three persons with scientific expertise in the discipline(s) relevant to the items of difference. No member of the panel may be a person who has been employed or retained by either party, except persons compensated solely for providing peer review of the Hartung Report, in connection with the subject of this litigation.

a. If this procedure is invoked, each party shall, within 14 days, select one member of the panel. Those two members of the panel shall select the third member. Defendant shall, within 28 days after this procedure is invoked, establish a fund of at least $10,000.00, from which each member of the panel shall be paid reasonable compensation for their services, including actual and necessary expenses. If the parties do not agree concerning the qualifications, eligibility, or compensation of panel members, they may invoke the Dispute Resolution procedures contained in Section XVI of this Consent Judgment.

b. Within a reasonable period of time after selection of all panel members, the panel shall confer and establish a schedule for acceptance of submissions from the parties completing review and making recommendations on the items of difference.

c. The scientific advisory panel shall make its recommendations concerning resolution of the items of difference to the parties. If both parties accept those recommendations, the termination criteria shall be modified in accordance with such recommendations. If the parties disagree with the recommendations, the MDNR's proposed resolution of the dispute shall be final unless Defendant invokes the procedures for judicial Dispute Resolution as provided in Section XVI of the Judgment. The recommendation of the scientific advisory panel and any related documents shall be submitted to the Court as part of the record to be considered by the Court in resolving the dispute.

4. Notification of Termination. At least 30 days prior to the date Defendant proposes to terminate operation of a purge well pursuant to the criteria established in subparagraph V.D.1., or a modified criterion established through subparagraph V.D.2., Defendant shall send written notice to the MDNR identifying the proposed action and the test data demonstrating compliance with the termination criterion.

5. Termination. Within 30 days after the MDNR's receipt of the notice and supporting documentation, the MDNR shall approve or disapprove the proposed termination in writing. Defendant may terminate operation of the well system(s) in question upon: (a) receipt of written notice of approval from the MDNR; or (b) receipt of notice of a final decision approving termination pursuant to dispute resolution procedures of Section XVI of the Consent Judgment.

E. Post-Termination Monitoring

1. For systems with a termination criterion of 3 ug/l, for a period of five years after cessation of operation of any purge well, Defendant shall continue monitoring of the purge well and/or associated monitoring wells, in accordance with the approved monitoring plan, to verify that the concentration of 1,4-dioxane in the groundwater does not exceed the termination criterion. If such post-termination monitoring reveals the presence of 1,4-dioxane in excess of the termination criterion, Defendant shall immediately notify the MDNR and shall collect a second sample within 14 days of such finding. If the second sample confirms the presence of 1,4-dioxane in excess of the termination criterion:

a. if the confirmed concentrations are in excess of 6 ug/l, Defendant shall restart the associated purge well system; or

b. if the confirmed concentrations are between 3 ug/l and 6 ug/l, Defendant may continue to monitor the well bi-weekly for two months without restart of the associated purge well. At the end of the monitoring period, if concentrations in the monitoring well meet the termination criterion of 3 ug/l, Defendant shall continue to monitor as required by the approved monitoring program; if concentrations do not meet the termination criterion, Defendant shall restart the associated purge well.

2. For all other groundwater systems, for a period of five years after ceasing operation of any purge well, Defendant shall continue monitoring of the purge well and/or associated monitoring wells, in accordance with the approved monitoring plan, to verify that the concentration of 1,4-dioxane in the groundwater does not exceed the termination criterion. If such post-termination monitoring reveals the presence of 1,4-dioxane in excess of the termination criterion, Defendant shall immediately notify MDNR and shall collect a second sample within 14 days of such finding. If any two consecutive samples are found at or above the termination criterion, Defendant shall immediately restart the purge well system.

VI. GSI PROPERTY REMEDIATION

Defendant shall design, install, operate, and maintain the systems described below to control, remove, and treat (as required) soil contamination at the GSI Property. The overall objective of these systems shall be to: (1) prevent the migration of 1,4-dioxane from contaminated soils into any aquifer in concentrations that cause groundwater contamination; (2) to prevent venting of groundwater contamination into Honey Creek Tributary; and (3) to prevent venting of groundwater contamination to Third Sister Lake. Defendant also shall implement a monitoring plan to verify the effectiveness of these systems.

A. Marshy Area System
(hereinafter "Marshy Area System")

1. Objectives. The objectives of this System are to: (a) remove contaminated groundwater from the Marshy Area located north of former Ponds I and II; (b) reduce the migration of contaminated groundwater from the Marshy Area into other aquifers; and (c) to prevent the discharge of contaminated groundwater from the Marshy Area into the Honey Creek Tributary in concentrations in excess of 100 ug/l or in excess of a concentration which would cause groundwater contamination along or adjacent to the entire length of Honey Creek or Honey Creek Tributary.

2. Design. No later than 150 days after the effective date, Defendant shall submit its proposed design of the Marshy Area System a schedule for implementing the design, an operation and maintenance plan for the System, and an effectiveness monitoring plan to MDNR for its review and approval.

3. Treatment and Disposal. The Marshy Area System shall include: (a) facilities for the collection of contaminated groundwater (either an interceptor trench or sumps); (b) facilities for disposing of the contaminated groundwater (including disposal to local surface waters in accordance with NPDES Permit MI-008453, Defendant's deep well, or in any other manner approved by MDNR and/or the Water Resources Commission); and (c) if the water is to be discharged to the sanitary sewer for ultimate disposal at the City of Ann Arbor Wastewater Treatment Plant, treatment facilities to ensure that discharge to the sanitary sewer complies with the terms and conditions of the Industrial User's Permit authorizing such discharge, and any subsequent amendment to that Permit. The terms and conditions of the Permit and any subsequent amendment shall be directly enforceable by the MDNR against Gelman as requirements of this Consent Judgment. Use of the sanitary sewer is conditioned on approval of the City of Ann Arbor and Scio Township.

4. Installation and Operation. Upon approval by the MDNR, Defendant shall install the Marshy Area System and thereafter continuously operate and maintain the System according to the approved plans until it is authorized to shut down the System pursuant to Section VI.D. of this Consent Judgment.

5. Monitoring. Defendant shall implement the approved monitoring plan to verify the effectiveness of the Marshy Area System in meeting the requirements of this Remedial Action Consent Judgment. The monitoring plan shall be continued until terminated pursuant to Section VI.D. of this Consent Judgment.

B. Spray Irrigation Field

1. Objectives. The objectives of this program shall be to meet the overall objective of Section VI upon completion of the program and to prevent the discharge of groundwater contamination into Third Sister Lake.

2. Remedial Investigation. Defendant shall, no later than 180 days after the effective date, submit to MDNR for review and approval a work plan for determining the distribution of soil contamination in the former spray irrigation area. Soil characteristics for the area may be extrapolated from results of samples taken from representative spray head locations.

3. Soil Flushing System. Defendant shall, no later than 240 days after the effective date, submit to MDNR for review and approval a work plan for the installation of a system to flush the former spray irrigation field with clean water to enhance removal of 1,4-dioxane from contaminated soils. The work plan shall include Defendant's proposed design of the system, a time schedule for implementation of the system, an operating and maintenance plan, and effectiveness monitoring plan.

4. Structures in the Spray Field. The following structures have been constructed over portions of the former spray irrigation area: (a) the Defendant's warehouse; (b) the parking area south of the Defendant's warehouse; and (c) the parking lot between the Medical Device Division Building and the Defendant's warehouse. These structures are identified in Attachment D. With respect to these structures, during such time as they are kept in good maintenance and repair, the soils beneath such structures need not be sampled nor directly addressed in the soils systems remediation plan. In the event that the structures are not kept in good maintenance or repair, or are scheduled to be replaced or demolished, Defendant shall notify MDNR of such a circumstance, and take the following actions:

a. Defendant shall, within 21 days after notification, submit to MDNR for approval a work plan for investigating the extent of contamination (if any) of the soils beneath the structure, along with a schedule for implementation of the work plan.

b. Within 14 days after approval of the work plan by MDNR, Defendant shall implement the work plan and submit a report of the results to MDNR within the time specified in the approved schedule.

c. If soil contamination is identified in any of the areas investigated, Defendant shall submit, together with the report required in Section VI.B.4.b., a remediation plan for that area that provides for induced flushing of contaminants from the impacted soils. The plan shall include a proposed schedule for implementation. The remediation system shall be installed, operated, and terminated in accordance with the approved plan.

5. Installation, Operation, and Monitoring. Upon approval by MDNR, Defendant shall install, operate, maintain, and monitor the Spray Irrigation Field System in accordance with the approved plans and the termination criteria established in Section VI.D.

C. Soils System

1. Objectives. The objectives of this program are to: (a) evaluate the feasibility and effectiveness of available options for remediation of identified source areas; (b) design and implement remedial systems to achieve the overall objectives of Section VI; and (c) verify the effectiveness of those systems.

2. Soils Remediation Plan. Defendant shall, no later than 210 days after the effective date, submit to MDNR for review and approval a soils remediation plan for addressing identified areas of soil contamination. The areas to be addressed include the burn pit; the former Pond I area; the former Pond II area; the former Lift Station area; and Pond III. These areas are depicted on Attachment E. As part of the remediation plan, Defendant may make a demonstration that with respect to any of these areas, cleanup to a level established under Mich Adm Code R 299.5717 ("Type C") is appropriate by addressing the factors set forth in Mich Adm Code R 299.5717(3). Defendant's proposal for the preferred remedial alternative(s) to be implemented to address each area of soil contamination shall be identified in the soils remediation plan. The proposed remedial alternative(s) to be implemented must attain the overall objectives of Section VI. Based upon their review, the MDNR shall either: (a) approve Defendant's proposed remedial alternative(s); or (b) disapprove the proposed remedial

alternative(s) and select the other remedial alternative(s) to be implemented. A decision by MDNR to disapprove Defendant's remedial proposal is subject to Defendant's rights under the Dispute Resolution provisions of Section XVI of the Consent Judgment.

3. Design. Defendant shall, not later than 60 days after: (a) the MDNR's decision approving the proposed remedial alternative(s); or (b) the final decision in Dispute Resolution pursuant to Section XVI of the Consent Judgment, submit the following to the MDNR for review and approval: Defendant's proposed design of each selected remedial system, a time schedule for implementation of the system, an operating and maintenance plan, and effectiveness monitoring plan.

4. Installation, Operation, and Monitoring. Upon approval by MDNR, Defendant shall install, operate, maintain, and monitor the systems in accordance with the approved plans, and the termination criteria established in Section VI.D. of the Consent Judgment.

D. Termination Criteria for GSI Property Remediation

1. Remedial Systems Collecting or Extracting Contaminated Groundwater.

a. Except as otherwise provided pursuant to Section VI.D.3., Defendant shall continue to operate the Marshy Area System and any groundwater remediation program developed as part of the Soils System required under this Consent Judgment until six consecutive monthly tests of samples from the purge well(s) and associated monitoring well(s) fail to detect the presence of 1,4-dioxane in groundwater at a concentration at or above 500 ug/l. Notwithstanding this criterion, Defendant shall continue to operate the portions of the such systems necessary to assure that contaminated groundwater does not vent into surface waters in concentrations in excess of 100 ug/l until such time as Defendant demonstrates to Plaintiff that venting in excess of 100 ug/l is not occurring from the Marshy Areas or Soils Systems and Defendant demonstrates that venting into surface waters will not cause groundwater contamination along or adjacent to the entire length of Honey Creek or the Honey Creek Tributary. These Systems shall also be subject to the same post-shutdown monitoring and restart requirements as those Systems described in Section V.E.

b. Except as otherwise provided pursuant to Section VI.D.3., Defendant shall continue to operate the purge wells for the Spray Irrigation Field System until six consecutive monthly tests of samples from the purge well(s) fail to detect the presence of 1,4-dioxane in groundwater at a concentration at or above 500 ug/l. Notwithstanding this criterion, Defendant

shall continue to operate such purge wells as necessary to assure that contaminated groundwater does not vent into Third Sister Lake. These Systems shall also be subject to the same post-shutdown monitoring and restart requirements as those Systems described in Section V.E.

2. All Other GSI Property Remedial Systems. Except as provided in Section VI.D.3., each GSI Property Remedial System not subject to termination pursuant to Section VI.D.1. shall be operated until Defendant demonstrates, through representative soil sampling and analysis in accordance with the effectiveness monitoring plan approved by the MDNR, that the concentration of 1,4-dioxane in soils in the area in question does not exceed 60 ug/kg or other higher concentration derived by means consistent with Mich Admin Code R 299.5711(2) or R 299.5717.

3. The termination criteria provided in Section VI.D. may be modified in the same manner as specified in Sections V.D.2. and V.D.3.

4. At least 30 days prior to the date Defendant proposes to terminate operation of a system pursuant to Section VI.D., Defendant shall send a written notice to the MDNR identifying the proposed action and shall send test data demonstrating compliance with the termination criterion.

5. Within 30 days after the MDNR's receipt of the written notice and supporting documentation, the MDNR shall approve or disapprove the proposed termination in writing. Defendant may terminate operation of the system(s) in question upon: (a) receipt of written notice of approval from Plaintiffs; or (b) if the Dispute Resolution procedures of Section XVI are invoked, receipt of a final decision pursuant to that Section.

VII. COMPLIANCE WITH OTHER LAWS AND PERMITS

A. Defendant shall undertake all activities pursuant to this Consent Judgment in accordance with the requirements of all applicable laws, regulations, and permits.

B. Defendant shall apply for all permits necessary for implementation of the Consent Judgment including, without limitation, surface water discharge permit(s) and air discharge permit(s).

C. Defendant shall include in all contracts entered into by the Defendant for Remedial Action required under this Consent Judgment (and shall require that any contractor include in all subcontract(s), a provision stating that such contractors and subcontractors, including their agents and employees, shall perform all activities required by such contracts or subcontracts in compliance with and all applicable laws, regulations, and permits. Defendant shall provide a copy of relevant approved workplans to any such contractor or subcontractor.

D. The Parties agree to provide reasonable cooperation and assistance to the Defendant in obtaining necessary approvals and permits for Remedial Action. Plaintiffs shall not unreasonably withhold or delay any required approvals or permits for Defendant's performance of the Remedial Action. Plaintiffs expressly acknowledge that one or more of the following permits and approvals may be necessary for Remedial Action:

1. NPDES Permit No. MI-008453.
2. An Air Permit for discharges of contaminants to the atmosphere for vapor extraction systems, if such systems are part of the remedial design;
3. A Wetlands Permit if necessary for construction of the Marshy Area System or the construction of facilities as part of the Core or Western Systems;
4. An Industrial User's Permit to be issued by the City of Ann Arbor for use of the sewer to dispose of treated or untreated purged groundwater. Plaintiffs have no objection to receipt by the Ann Arbor Wastewater Treatment Plant of the purged groundwater extracted pursuant to the terms and conditions of this Judgment, and acknowledge that receipt of the purged groundwater would not necessitate any change in current and proposed residual management programs of the Ann Arbor Wastewater Treatment Plant;

5. Permit(s) or permit exemptions to be issued by the Water Resources Commission to authorize the reinjection of purged and treated groundwater in the Evergreen, Core, and Western System Areas;
6. Surface water discharge permit(s) for discharge into surface waters in the Western System area, if necessary;
7. Approval of the City of Ann Arbor and the Washtenaw County Drain Commissioner to use storm drains for the remedial programs; or
8. A permit for the use of Defendant's deep well for injection of purged groundwater from the remedial systems required under this Consent Judgment.

VIII. SAMPLING AND ANALYSIS

Defendant shall make available to Plaintiffs the results of all sampling, tests, and/or other data generated in the performance or monitoring of any requirement under this Consent Judgment. Sampling data generated consistent with this Consent Judgment shall be admissible in evidence in any proceeding related to enforcement of this Judgment without waiver by any Party of any objection as to weight or relevance. Plaintiffs and/or their authorized representatives, at their discretion, may

take split or duplicate samples and observe the sampling event. Plaintiffs shall make available to Defendant the results of all sampling, tests, and/or other data generated in the performance or monitoring of any requirement under this Consent Judgment. Defendant will provide Plaintiffs with reasonable notice of changes in the schedule of data collection activities included in the progress reports submitted pursuant to Section XII.

IX. ACCESS

A. From the effective date of this Consent Judgment, the Plaintiffs, their authorized employees, agents, representatives, contractors, and consultants, upon presentation of proper identification, shall have the right at all reasonable times to enter the Site and any property to which access is required for the implementation of this Consent Judgment, to the extent access to the property is owned, controlled by, or available to the Defendant, for the purpose of conducting any activity authorized by this Consent Judgment, including, but not limited to:

1. Monitoring of the Remedial Action or any other activities taking place pursuant to this Consent Judgment on the property;
2. Verification of any data or information submitted to the Plaintiffs;

3. Conduct of investigations related to contamination at the Site;

4. Collection of samples;

5. Assessment of the need for, or planning and implementing of, Response Actions at the Site; and

6. Inspection and copying of non-privileged documents including records, operating logs, contracts, or other documents required to assess Defendant's compliance with this Consent Judgment.

All Parties with access to the Site or other property pursuant to this paragraph shall comply with all applicable health and safety laws and regulations.

B. To the extent that the Site or any other area where Remedial Action is to be performed by the Defendant under this Consent Judgment is owned or controlled by persons other than the Defendant, Defendant shall use its best efforts to secure from such persons access for Defendant, Plaintiffs, and their authorized employees, agents, representatives, contractors, and consultants. Defendant shall provide Plaintiffs with a copy of each access agreement secured pursuant to this paragraph. For purposes of this Paragraph, "best efforts" includes, but is not limited to, seeking judicial assistance to secure such access. If access is not obtained within 30 days after the MDNR approves any work plan or design for which such access is necessary,

Defendant shall notify the Plaintiffs promptly. Plaintiffs thereafter shall assist Defendant in obtaining access. Plaintiffs agree to use appropriate authority available under state law, including authority provided under the Michigan Environmental Response Act, as amended, MCL 229.601 et seq, to obtain access to property on behalf of themselves and Defendant for the purpose of implementing Remedial Action under this Consent Judgment.

X. APPROVALS OF SUBMISSIONS

Upon receipt of any plan, report, or other item that is required to be submitted for approval pursuant to this Consent Judgment, as soon as practicable, but in no event later than 56 days after receipt of any such submission, the Plaintiffs will: (1) approve the submission; or (2) submit to Defendant changes in the submission that would result in approval of the submission. If Plaintiffs do not respond within 56 days after receipt of the submittal, Defendant may submit the matter to Dispute Resolution pursuant to Section XVI. Upon receipt of a notice of approval or changes from Plaintiffs, Defendant shall proceed to take any action required by the plan, report, or other item, as approved or as may be modified to address the deficiencies identified by Plaintiffs. If Defendant does not accept the changes proposed by Plaintiffs, Defendant may submit the matter to Dispute Resolution, Section XVI.

XI. PROJECT COORDINATORS

A. Plaintiffs designate Leonard Lipinski as Plaintiffs' Project Coordinator. Defendant designates James Fahrner, Vice President and Chief Financial Officer, as Defendant's Project Coordinator. Defendant's Project Coordinator shall have primary responsibility for implementation of the Remedial Action at the Site. Plaintiffs' Project Coordinator will be the primary designated representative for Plaintiffs with respect to implementation of the Remedial Action at the Site. All communication between Defendant and Plaintiffs, including all documents, reports, approvals, other submissions and correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Judgment, shall be directed through the Project Coordinators. If any Party changes its designated Project Coordinator, that Party shall provide the name, address, and telephone number of the successor in writing to the other Party seven days prior to the date on which the change is to be effective. This paragraph does not relieve Defendant from other reporting obligations under the law.

B. Plaintiffs may designate other authorized representatives, employees, contractors, and consultants to observe and monitor the progress of any activity undertaken pursuant to this Consent Judgment. Plaintiffs' Project Coordinator shall provide Defendant's Project Coordinator

with the names, addresses, telephone numbers, positions, and responsibilities of any person designated pursuant to this section.

XII. PROGRESS REPORTS

Defendant shall provide to Plaintiffs written quarterly progress reports that shall: (1) describe the actions which have been taken toward achieving compliance with this Consent Judgment during the previous three months; (2) describe data collection and activities scheduled for the next three months; and (3) include all results of sampling and tests and other data received by the Defendant, its consultants, engineers, or agents during the previous three months relating to Remedial Action performed pursuant to this Consent Judgment. Defendant shall submit the first quarterly report to MDNR within 120 days after entry of this Consent Judgment, and by the 30th day of the month following each quarterly period thereafter, as feasible, until termination of this Consent Judgment as provided in Section XXV.

XIII. RESTRICTIONS ON ALIENATION

A. Defendant shall not sell, lease, or alienate the GSI Property unless the purchaser, lessee, or grantee provides prior written agreement with Plaintiffs that the purchaser, lessee, or grantee will not interfere with any term or condition of this

Consent Judgment. Notwithstanding any purchase, lease, or grant, Defendant shall remain obligated to comply with all terms and conditions of this Consent Judgment.

B. Any deed, title, or other instrument of conveyance regarding the GSI Property shall contain a notice that Defendant's Property is the subject of this Consent Judgment, setting forth the caption of the case, the case number, and the court having jurisdiction herein.

XIV. FORCE MAJEURE

Any delay attributable to a Force Majeure shall not be deemed a violation of Defendant's obligations under this Consent Judgment.

A. "Force Majeure" is defined as an occurrence or nonoccurrence arising from causes beyond the control of Defendant or of any entity controlled by the Defendant performing Remedial Action, such as Defendant's employees, contractors, and subcontractors. Such occurrence or nonoccurrence includes, but is not limited to: (1) an Act of God; (2) untimely review of permit applications or submissions; (3) acts or omissions of third parties for which Defendant is not responsible; (4) insolvency of any vendor, contractor, or subcontractor retained by Defendant as part of implementation of this Judgment; and (5) delay in obtaining necessary access agreements under Section IX

that could not have been avoided or overcome by due diligence. "Force Majeure" does not include unanticipated or increased costs, changed financial circumstances, or nonattainment of the treatment and termination standards set forth in Sections V and VI.

B. When circumstances occur that Defendant believes constitute Force Majeure, Defendant shall notify the MDNR by telephone of the circumstances within 48 hours after Defendant first believes those circumstances to apply. Within 14 working days after Defendant first believes those circumstances to apply, Defendant shall supply to the MDNR, in writing, an explanation of the cause(s) of any actual or expected delay, the anticipated duration of the delay, the measures taken and the measures to be taken by Defendant to avoid, minimize, or overcome the delay, and the timetable for implementation of such measures. Failure of Defendant to comply with the written notice provisions of this paragraph shall constitute a waiver of Defendant's right to assert a claim of Force Majeure with respect to the circumstances in question.

C. A determination by the MDNR that an event does not constitute Majeure, that a delay was not caused by Force, or that the period of delay was not necessary to compensate for Force Majeure may be subject to Dispute Resolution under Section XVI of this Judgment.

D. The MDNR shall respond, in writing, to any request by Defendant for a Force Majeure extension within 30 days of receipt of the Defendant's request. If the MDNR does not respond within that time period, Defendant's request shall be deemed granted. If the MDNR agrees that a delay is or was caused by Force Majeure, Defendant's delays shall be excused, stipulated penalties shall not accrue, and the MDNR shall provide Defendant such additional time as may be necessary to compensate for the Force Majeure event.

E. Delay in achievement of any obligation established by the Consent Judgment shall not automatically justify or excuse delay in achievement of any subsequent obligation unless the subsequent obligation automatically follows from the delayed obligation.

XV. REVOCATION OR MODIFICATION OF LICENSES OR PERMITS

Any delay attributable to the revocation or modification of licenses or permits obtained by Defendant to implement remediation actions as set forth in this Consent Judgment shall not be deemed a violation of Defendant's obligations under this Consent Judgment, provided that such revocation or modification arises from causes beyond the control of Defendant or of any entity controlled by the Defendant performing Remedial Action, such as Defendant's employees, contractors, and subcontractors.

A. Licenses or permits that may need to be obtained or modified by Defendant to implement the Remedial Actions are those specified in Section VII.D. and licenses, easements, and other agreements for access to property or rights of way on property necessary for the installation of remedial systems required by this Consent Judgment.

B. A revocation or modification of a license or permit within the meaning of this section means withdrawal of permission, denial of permission, a limitation or a change in license or permit conditions that delays the implementation of all or part of a remedial system. Revocation or modification due to Defendant's violation of a license or permit (or any conditions of a license or permit) shall not constitute a revocation or modification covered by this section.

C. When circumstances occur that Defendant believes constitute revocation or modification of a license or permit, Defendant shall notify the MDNR by telephone of the circumstances within 48 hours after Defendant first believes those circumstances to apply. Within 14 working days after Defendant first believes those circumstances to apply, Defendant shall supply to the MDNR, in writing, an explanation of the cause(s) of any actual or expected delay, the anticipated duration of the delay, the measures taken and the measures to be taken by Defendant to avoid, minimize, or overcome the delay, and the

timetable for implementation of such measures. Failure of Defendant to comply with the written notice provisions of this paragraph shall constitute a waiver of Defendant's right to assert a claim of revocation or modification of a license or permit with respect to the circumstances in question.

D. A determination by the MDNR that an event does not constitute revocation or modification of a license or permit, that a delay was not caused by revocation or modification of a license or permit, or that the period of delay was not necessary to compensate for revocation or modification of a license or permit may be subject to Dispute Resolution under Section XVI of this Consent Judgment.

E. The MDNR shall respond, in writing, to any request by Defendant for a revocation or modification of a license or permit extension within 30 days of receipt of the Defendant's request. If the MDNR does not respond within that time period, Defendant's request shall be deemed granted. If the MDNR agrees that a delay is or was caused by revocation or modification of a license or permit, Defendant's delays shall be excused, stipulated penalties shall not accrue, and the MDNR shall provide Defendant such additional time as may be necessary to compensate for the revocation or modification of a license or permit.

F. Delay in achievement of any obligation established by the Consent Judgment shall not automatically justify or excuse delay in achievement of any subsequent obligation unless the subsequent obligation automatically follows from the delayed obligation.

XVI. DISPUTE RESOLUTION

A. The dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under this Consent Judgment and shall apply to all provisions of this Consent Judgment, whether or not particular provisions of the Consent Judgment in question make reference to the dispute resolution provisions of this Section. Any dispute that arises under this Consent Judgment initially shall be the subject of informal negotiations between the Parties. The period of negotiations shall not exceed ten working days from the date of written notice by any Party that a dispute has arisen. This period may be extended or shortened by agreement of the Parties.

B. Immediately upon expiration of the informal negotiation period (or sooner if upon agreement of the parties), the MDNR shall provide to Defendant a written statement setting forth the MDNR's proposed resolution of the dispute. Such resolution shall be final unless, within 15 days after receipt of the MDNR's proposed resolution (clearly identified as such

under this Section), Defendant files a petition for resolution with the Washtenaw County Circuit Court setting forth the matter in dispute, the efforts made by the Parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Judgment.

C. Within ten days of the filing of the petition, Plaintiffs may file a response to the petition, and unless a dispute arises from the alleged failure of MDNR to timely make a decision, MDNR will submit to the Court all documents containing information related to the matters in dispute, including documents provided to MDNR by Defendant. In the event of a dispute arising from the alleged failure of MDNR to timely make a decision, within ten days of filing of the petition, each party shall submit to the Court correspondence, reports, affidavits, maps, diagrams, and other documents setting forth facts pertaining to the matters in dispute. Those documents and this Consent Judgment shall comprise the record upon which the Court shall resolve the dispute. Additional evidence may be taken by the Court on its own motion or at the request of either party if the Court finds that the record is incomplete or inadequate. Review of the petition shall be conducted by the Court and shall be confined to the record. The review shall be independent of any factual or legal conclusions made by the Court prior to the date of entry of the Consent Judgment.

D. The Court shall uphold the decision of MDNR on the issue in dispute unless the Court determines that the decision is any of the following:

1. Inconsistent with this Consent Judgment;
2. Not supported by competent, material, and substantial evidence on the whole record;
3. Arbitrary, capricious, or clearly an abuse or unwarranted exercise of discretion; and
4. Affected by other substantial and material error of law;

E. The filing of a petition for resolution of a dispute shall not by itself extend or postpone any obligation of Defendant under this Consent Judgment, provided, however, that payment of stipulated penalties with respect to the disputed matter shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue as provided in Section XVII. Stipulated penalties that have accrued with respect to the matter in dispute shall not be assessed by the Court and shall be dissolved if Defendant prevails on the matter. The Court may also direct that stipulated penalties shall not be assessed and paid as provided in Section XVII upon a determination that there was a substantial basis for Defendant's position on the disputed matter.

XVII. STIPULATED PENALTIES

A. Except as otherwise provided, if Defendant fails or refuses to comply with any term or condition in Sections IV, V, VI, VII, or VIII, or with any plan, requirement, or schedule established pursuant to those Sections, then Defendant shall pay stipulated penalties in the following amounts for each working day for every failure or refusal to comply or conform:

Period of Delay	Penalty Per Violation Per Day
1st through 15th Day	$ 1,000
15th through 30th Day	$ 1,500
Beyond 30 Days	$ 2,000

B. Except as otherwise provided if Defendant fails or refuses to comply with any other term or condition of this Consent Judgment, Defendant shall pay to Plaintiffs stipulated penalties of $500.00 per working day for each and every failure to comply.

C. If Defendant is in violation of this Consent Judgment, Defendant shall notify Plaintiffs of any violation no later than five working days after first becoming aware of such violation, and shall describe the violation.

D. Stipulated penalties shall begin to accrue upon the next day after performance was due or other failure or refusal to comply occurred. Penalties shall continue to accrue until the final day of correction of the noncompliance. Separate penalties

shall accrue for each separate failure or refusal to comply with the terms and conditions of this Consent Judgment. Penalties may be waived in whole or in part by Plaintiffs or may be dissolved by the Court pursuant to Section XVII.

E. Stipulated penalties shall be paid no later than 14 working days after receipt by Defendant of a written demand from Plaintiffs. Defendant shall make payment by transmitting a check in the amount due, payable to the "State of Michigan", addressed to the Assistant Attorney General in Charge, Environmental Protection Division, P.O. Box 30212, Lansing, Michigan 48909.

F. Plaintiffs agree that, in the event that an act or omission of Defendant constitutes a violation of this Consent Judgment subject to stipulated penalties and a violation of other applicable law, Plaintiffs will not impose upon Defendant for that violation both the stipulated penalties provided under this Consent Judgment and the civil penalties permitted under other applicable laws. Plaintiffs reserve the right to pursue any other remedy or remedies to which they may be entitled under this Consent Judgment or any applicable law for any failure or refusal of the Defendant to comply with the requirements of this Consent Judgment.

XVIII. PLAINTIFFS' COVENANT NOT TO SUE AND RESERVATION OF RIGHTS

A. Except as otherwise provided in this Consent Judgment, Plaintiffs covenant not to sue or take administrative action for Covered Matters against Defendant, its officers, employees, agents, directors, and any persons acting on its behalf or under its control.

B. "Covered Matters" shall mean any and all claims available to Plaintiffs under federal and state law arising out of the subject matter of the Plaintiffs' Complaint with respect to the following:

1. Claims for injunctive relief to address soil, groundwater, and surface water contamination at or emanating from the GSI Property;
2. Claims for civil penalties and costs;
3. Claims for natural resource damages;
4. Claims for reimbursement of response costs incurred prior to entry of this Consent Judgment or incurred by Plaintiffs for provision of alternative water supplies in the Evergreen Subdivision; and
5. Claims for reimbursement of costs incurred by Plaintiffs for overseeing the implementation of this Consent Judgment.

C. "Covered Matters" does not include:

1. Claims based upon a failure by Defendant to comply with the requirements of this Consent Judgment;
2. Liability for violations of federal or state law which occur during implementation of the Remedial Action; and
3. Liability arising from the disposal, treatment, or handling of any hazardous substance removed from the Site.

D. With respect to liability for alleged past violations of law, this covenant not to sue shall take effect on the effective date of this Consent Judgment. With respect to future liability for performance of response activities required to be performed under this Consent Judgment, the covenant not to sue shall take effect upon issuance by MDNR of the Certificate of Completion in accordance with Section XXV.

E. Notwithstanding any other provision in this Consent Judgment: (1) Plaintiffs reserve the right to institute proceedings in this action or in a new action seeking to require Defendant to perform any additional response activity at the Site; and (2) Plaintiffs reserve the right to institute proceedings in this action or in a new action seeking to reimburse Plaintiffs for response costs incurred by the State of Michigan relating to the Site. Plaintiffs' rights in D.1. and D.2. apply if and only

if the following conditions are met:

1. For proceedings prior to Plaintiffs' certification of completion of the Remedial Action concerning the Site,
   a. conditions at the Site, previously unknown to the Plaintiffs, are discovered after the entry of this Consent Judgment, or new information previously unknown to Plaintiffs is received after the effective date of the Consent Judgment; and
   b. these previously unknown conditions indicate that the Remedial Action is not protective of the public health, safety, welfare, and the environment; and
2. For proceedings subsequent to Plaintiffs' certification of completion of the Remedial Action concerning the Site,
   a. conditions at the Site, previously unknown to the Plaintiffs, are discovered or new information previously unknown to Plaintiffs is received after the certification of completion by Plaintiffs; and

b. these previously unknown conditions indicate that the remedial action is not protective of the public health, safety, welfare, and the environment.

F. Nothing in this Consent Judgment shall in any manner restrict or limit the nature or scope of response actions that may be taken by Plaintiffs in fulfilling their responsibilities under federal and state law, and this Consent Judgment does not release, waive, limit, or impair in any manner the claims, rights, remedies, or defenses of Plaintiffs against a person or entity not a party to this Consent Judgment.

G. Except as expressly provided in this Consent Judgment, Plaintiffs reserve all other rights and defenses that they may have, and this Consent Judgment is without prejudice, and shall not be construed to waive, estop, or otherwise diminish Plaintiffs' right to seek other relief with respect to all matters other than Covered Matters.

XIX. DEFENDANT'S COVENANT NOT TO SUE AND RESERVATION OF RIGHTS

A. Defendant hereby covenants not to sue and agrees not to assert any claim or cause of action against Plaintiffs or any other agency of the State of Michigan with respect to environmental contamination at the Site or response activities relating to the Site arising from this Consent Judgment.

B. Notwithstanding any other provision in this Consent Judgment, for matters that are not Covered Matters as defined in Section XVIII.E., or in the event that Plaintiffs institute proceedings as allowed under Section XVIII.E., Defendant reserves all other rights, defenses, or counterclaims that it may have with respect to such matters and this Consent Judgment is without prejudice, and shall not be construed to waive, estop, or otherwise diminish Defendant's right to seek other relief and to assert any other rights and defenses with respect to such other matters.

C. Nothing in this Consent Judgment shall in any way impair Defendant's rights, claims, or defenses with respect to any person not a party to this Consent Judgment.

XX. INDEMNIFICATION AND INSURANCE

A. Defendant shall indemnify and save and hold harmless the State of Michigan and its departments, agencies, officials, agents, employees, contractors, and representatives from any and all claims or causes of action arising from, or on account of, acts or omissions of Defendant, its officers, employees, agents, and any persons acting on its behalf or under its control in carrying out Remedial Action pursuant to this Consent Judgment. Plaintiffs shall not be held out as a party to any contract entered into by or on behalf of Defendant in carrying out

activities pursuant to this Consent Judgment. Neither the Defendant nor any contractor shall be considered an agent of Plaintiffs. Defendant shall not indemnify or save and hold harmless Plaintiffs from their own negligence pursuant to this paragraph.

B. Prior to commencing any Remedial Action on the Gelman Property, Defendant shall secure, and shall maintain for the duration of the Remedial Action, comprehensive general liability insurance with limits of $1,000,000.00, combined single limit, naming as an additional insured the State of Michigan. If Defendant demonstrates by evidence satisfactory to Plaintiffs that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then with respect to that contractor or subcontractor, Defendant need provide only that portion, if any, of the insurance described above that is not maintained by the contractor or subcontractor.

XXI. RECORD RETENTION

Defendant, Plaintiffs, and their representatives, consultants, and contractors shall preserve and retain, during the pendency of this Consent Judgment and for a period of ten years after its termination, all records, sampling or test results, charts, and other documents that are maintained or

generated pursuant to any requirement of this Consent Judgment, including, but not limited to, documents reflecting the results of any sampling or tests or other data or information generated or acquired by Plaintiffs or Defendant, or on their behalf, with respect to the implementation of this Consent Judgment. After the ten year period of document retention, the Defendant and its successors shall notify Plaintiffs, in writing, at least 90 days prior to the destruction of such documents or records, and upon request, the Defendant and/or its successor shall relinquish custody of all records and documents to Plaintiffs.

XXII. ACCESS TO INFORMATION

Upon request, Plaintiffs and Defendant shall provide to the requesting Party copies of or access to all nonprivileged documents and information within their possession and/or control or that of their employees, contractors, agents, or representatives, relating to activities at the Site or to the implementation of this Consent Judgment, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Remedial Action. Upon request, Defendant shall also make available to Plaintiffs, their employees, contractors, agents, or representatives with knowledge of relevant facts concerning the performance of the Remedial Action. The

Plaintiffs shall treat as confidential all documents provided to Plaintiffs by the Defendant marked "confidential" or "proprietary."

XXIII. NOTICES

Whenever under the terms of this Consent Judgment notice is required to be given or a report, sampling data, analysis, or other document is required to be forwarded by one Party to the other, such notice or document shall be directed to the following individuals at the specified addresses or at such other address as may subsequently be designated in writing:

For Plaintiffs:

Leonard Lipinski
Project Manager
Michigan Deptartment
of Natural Resources
Environmental Response Division
301 East Louis Glick Highway
Jackson, MI 49201

For Defendants:

James Fahrner
Vice President
Gelman Sciences, Inc.
600 South Wagner Road
Ann Arbor, MI 48106

and

David H. Fink
Cooper, Fink & Zausmer, P.C.
31700 Middlebelt Road
Suite 150
Farmington Hills, MI 48334

Any party may substitute for those designated to receive such notices by providing prior written notice to the other parties.

XXIV. MODIFICATION

This Consent Judgment may not be modified unless such modification is in writing, signed by all Parties, and approved and entered by the Court. Remedial Plans, work plans, or other submissions made pursuant to this Consent Judgment may be modified by mutual agreement of the Parties.

XXV. CERTIFICATION AND TERMINATION

A. When Defendant determines that it has completed all Remedial Action required by this Consent Judgment, Defendant shall submit to the MDNR a Notification of Completion and a draft final report. The draft final report must summarize all Remedial Action performed under this Consent Judgment and the performance levels achieved. The draft final report shall include or refer to any supporting documentation.

B. Upon receipt of the Notification of Completion, the MDNR will review the Notification of Completion and the accompanying draft final report, any supporting documentation, and the actual Remedial Action performed pursuant to this Consent Judgment. After conducting this review, and not later than three months after receipt of the Notification of Completion, the MDNR shall issue a Certificate of Completion upon a determination by the MDNR that Defendant has completed satisfactorily all requirements of this Consent Decree, including, but not limited

to, completion of all Remedial Action, achievement of all termination and treatment standards required by this Consent Judgment, compliance with all terms and conditions of this Consent Judgment, and payment of any and all stipulated penalties owed to Plaintiffs. If the MDNR does not respond to the Notification of Completion within three months after receipt of the Notification of Completion, Defendant may submit the matter to Dispute Resolution pursuant to Section XVI. This Consent Judgment shall terminate upon motion and order of this Court after issuance of the Certificate of Completion. Upon issuance, the Certificate of Completion may be recorded.

XXVI. RELATED SETTLEMENT

The Parties' agreement to be bound by this Consent Judgment is contingent upon the stipulation by the Parties to, and the entry by the Court of, the proposed Consent Judgment in the related case State of Michigan v Gelman Sciences, Inc. (E.D. Mich. No. 90-CV-72946-DT), a copy of which is attached hereto as Attachment F. In the event that the related Consent Judgment in Michigan v Gelman Sciences, Inc. is not entered, this Consent Judgment shall be without force and effect.

XXVII. EFFECTIVE DATE

The effective date of this Consent Judgment shall be the date upon which this Consent Judgment is entered by the Court.

XXVIII. SEVERABILITY

The provisions of this Consent Judgment shall be severable. Should any provision be declared by a court of competent jurisdiction to be inconsistent with federal or state law, and therefore unenforceable, the remaining provisions of this Consent Judgment shall remain in full force and effect.

XXIX. SIGNATORIES

Each undersigned representative of a Party to this Consent Judgment certifies that he or she is fully authorized by the Party to enter into this Consent Judgment and to legally bind such Party to the respective terms and conditions of this Consent Judgment.

IT IS SO STIPULATED AND AGREED:

PLAINTIFFS

FRANK J. KELLEY
Attorney General for
the State of Michigan
Attorney for Plaintiffs

Robert P. Reichel

A. Michael Leffler (P24254)
Robert P. Reichel (P31878)
Assistant Attorneys General
Environmental Protection Division
P.O. Box 30212
Lansing, MI 48909
Telephone: (517) 373-7780

Dated: 10/23/92

DEFENDANT

GELMAN SCIENCES, INC.

Approved as to form:
Cooper, Fink & Zausmer, P.C.
Attorneys for Defendant
Gelman Sciences, Inc.

David H. Fink (P28235)
Alan D. Wasserman (P39509)
Thomas A. Biscup (P40380)
Cooper, Fink & Zausmer, P.C.
31700 Middlebelt Road
Suite 150
Farmington Hills, MI 48334

Dated: 10/16/92

IT IS SO ORDERED AND ADJUDGED this _____ day of OCT 26 1992, 1992.

HONORABLE PATRICK J. CONLIN
Circuit Court Judge

EXHIBIT C

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

FRANK J. KELLEY, Attorney General
for the State of Michigan, ex rel,
MICHIGAN NATURAL RESOURCES COMMISSION,
MICHIGAN WATER RESOURCES COMMISSION,
and MICHIGAN DEPARTMENT OF NATURAL
RESOURCES,

Plaintiffs,

v

GELMAN SCIENCES, INC.,
a Michigan corporation,

Defendant.

File No. 88-34734-CE

Honorable ~~Patrick J. Coa~~lin

Robert P. Reichel (P31878)
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Natural Resources Division
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300 South Washington
Suite 530
Lansing, MI 48913
Telephone: (517) 335-1488
Attorney for Plaintiffs

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Farmington Hills, MI 48018
Telephone: (313) 851-4111
Attorneys for Defendant

AMENDMENT TO CONSENT JUDGMENT

A Consent Judgment was entered in this case on October 26, 1992. The Consent Judgment requires Defendant, Gelman Sciences, Inc., to implement various remedial actions to address environmental contamination in the vicinity of Defendant's property in Scio Township, subject to the approval of the Michigan Department of Natural Resources ("MDNR").

Since the entry of the Consent Judgment, Executive Order 1995-18 reorganized the MDNR and transferred the MDNR functions relevant to this action to a new Michigan Department of Environmental Quality ("MDEQ").

Since the entry of the Consent Judgment, state environmental laws relevant to this action, including the former Michigan Environmental Response Act, 1982 PA 307, as amended, have been recodified and amended as Part 201 of the Natural Resources and Environmental Protection Act ("NREPA"), 1994 PA 451, as amended, MCL 324.20101 et seq. Those amendments have changed cleanup criteria, MCL 324.20120a, and, in MCL 324.20102a, required the MDEQ to approve requests by persons implementing response activities to change plans for such response activity to be consistent with the new cleanup criteria.

Defendant has requested the MDEQ to approve changes in the Remedial Action Plan attached to the Consent Judgment. The MDEQ has agreed that certain changes to the Remedial Action Plan are appropriate.

The Parties have agreed that it is appropriate to establish schedules for submittal and completion of certain remaining response activities at the site.

THEREFORE, the Parties agree to this Amendment to the Consent Judgment ("Amendment") and such Amendment is ordered, adjudged, and decreed as follows:

FIRST, modify Sections III.G, H, and N to read as follows:

G. "Groundwater Contamination" or "Groundwater Contaminant" shall mean 1,4-dioxane in groundwater at a concentration in excess of 77 micrograms per liter ("ug/l") as determined by the sampling and analytical method(s) described in Attachment B.

H. "MDEQ" shall mean the Michigan Department of Environmental Quality, the successor to the Michigan Department of Natural Resources ("MDNR") and to the Water Resources Commission. All references to the "MDNR" or to the "Water Resources Commission" in this Consent Judgment shall be deemed to refer to the MDEQ.

N. "Soil Contamination" or "Soil Contaminant" shall mean 1,4-dioxane in soil at a concentration in excess of 1500 ug/kg as determined by the sampling and analytical method(s) described in Attachment C or other higher concentration limit derived by means consistent with Mich Admin Code R 299.5711(2) or MCL 324.20120a.

SECOND, modify Section V.A.5 to read as follows:

5. Treatment and Disposal. Groundwater extracted by the purge wells(s) in the Evergreen System shall be treated as necessary using ultraviolet light and oxidizing agents or such other method as approved by the MDEQ and disposed of in accordance with the Evergreen System design approved by the MDNR or MDEQ. The options for such disposal are the following:

THIRD, insert new Section V.A.7 to read as follows:

7. On August 15, 1996, Defendant submitted to the MDEQ a written report based upon groundwater monitoring data and modeling, evaluating whether the existing Evergreen System is intercepting and containing the leading edge of the plume of groundwater contamination in the vicinity of the Evergreen Subdivision area. Unless that report demonstrates to the MDEQ's satisfaction that the existing Evergreen System is meeting that objective, Defendant shall, at MDEQ's written request, install additional monitoring and/or purge wells as needed to ensure that the objectives of the Evergreen System are achieved.

FOURTH, modify Section V.B.1 to read as follows:

1. Objectives. For purposes of the Consent Judgment, the "Core Area" means that portion of the Unit C_3 aquifer containing 1,4-dioxane in a concentration exceeding 500 ug/l. The objectives of the Core System are to intercept and contain the migration of groundwater from the Core Area and remove contaminated

groundwater from the Core Area until the termination criterion for the Core System in Section V.D.1 is satisfied.

FIFTH, modify the last clause of Section V.B.2 to read as follows:

(c) the discharge level for 1,4-dioxane in groundwater to be reinjected in the Core Area shall be established based upon performance of further tests by Defendant on the treatment technology and shall, in any event, be less than 77 ug/l.

SIXTH, modify Section V.B.4 to read as follows:

4. Surface Water Discharge Alternative. Defendant shall, not later than September 30, 1996, submit to MDEQ for review and approval Defendant's design for the Core System, a schedule for implementing the design, an operation and maintenance plan for the System, and an effectiveness monitoring plan for the System. The Core System shall include groundwater purge wells as necessary to meet the objectives described in Section V.B.1. The design shall include, at a minimum, three purge wells.

Purged groundwater from the Core Area System shall be treated with ultraviolet light and oxidizing agent(s) or such other method approved by the MDEQ to reduce 1,4-dioxane concentrations to the level as required by NPDES Permit No. MI-008453, as amended or reissued. Discharge to the Honey Creek tributary shall be in accordance with NPDES Permit No. MI-008453, as amended or reissued.

SEVENTH, modify Section V.B.5 to read as follows:

5. Implementation of Program. Upon approval by the MDEQ, Defendant shall install the Core System according to the approved schedule and thereafter continuously operate and maintain the System according to the approved plans until Defendant is authorized to terminate operation pursuant to Section V.D. Defendant may thereafter, and at its option, continue purge operations as provided in this Section.

In any event, Defendant shall, beginning not later than December 28, 1996, continuously operate groundwater purge wells in the Core Area System at the rate of at least 65 gallons per minute until termination is authorized pursuant to this Judgment. This initial, minimum purging rate requirement is intended solely as a means of assuring progress toward remediation of the Core Area by a date certain and shall not be construed as an indication that the rate is sufficient to meet the objectives of the Core System.

EIGHTH, add a new Section V.B.7 to read as follows:

7. Modification of Program. Defendant may, at its option, propose to MDEQ for review and approval modification(s) to the Core System, provided such modification(s) will satisfy the objectives of the Consent Judgment as defined in Section V.B.1. Any proposed modification involving groundwater reinjection shall satisfy the requirements of Section V.B.3. If approved by the MDEQ, the modification(s) shall be implemented according to MDEQ approval plan(s) and schedule(s).

NINTH, modify Section V.C.3 to read as follows:

3. Remedial Investigation. No later than April 28, 1997, Defendant shall submit to the MDEQ for its review and approval a revised work plan for remedial investigation and design of the Western System and a schedule for implementing the revised work plan. The revised work plan shall include plans for installation of a series of test/purge wells, conduct of an aquifer performance test(s), groundwater monitoring, an operations and maintenance plan, and system design.

TENTH, modify Section V.D.1 as follows:

Change 3 ug/l to 77 ug/l and change 60 ug/l to 77 ug/l.

ELEVENTH, modify Section V.E.1 to read as follows:

1. For systems with a termination criterion of 77 ug/l, for a period of five (5) years after cessation of operation of any purge well, Defendant shall continue monitoring the purge well and/or associated monitoring wells, in accordance with the approved monitoring plan, to verify that the concentration of 1,4-dioxane in the groundwater does not exceed the termination criterion. If such post-termination monitoring reveals the presence of 1,4-dioxane in excess of the termination criterion, Defendant shall immediately notify MDEQ and shall collect a second sample within fourteen (14) days of such finding. If the second sample confirms the presence of 1,4-dioxane in excess of the termination criterion, Defendant shall restart the associated purge well system.

TWELFTH, add a new Section V.F to read as follows:

F. Minimum Monitoring. In the event that any groundwater system provided for in Section V is not operating for any reason other than compliance with the termination criteria of Section V.D, Defendant shall, not later than November 30, 1996, and at least semi-annually thereafter, collect and analyze for 1,4-dioxane samples from groundwater monitoring wells designated MW-15D, MW-16, MW-21, MW-28, MW-40S, MW-40D, MW-41S, MW-41D, and MW-43, and report the results to MDEQ. Such minimum monitoring shall not obligate Defendant to duplicate monitoring required under any MDEQ-approved monitoring plan for a groundwater system.

THIRTEENTH, modify the first paragraph of Section VI to read as follows:

Defendant shall design, install, operate, and maintain the systems described below to control, remove, and treat (as required) soil contamination at the GSI Property. The overall objective of these systems shall be to: (a) prevent the migration of 1,4-dioxane from contaminated soils into any aquifer in concentrations that cause groundwater contamination; (b) prevent venting of groundwater contamination into Honey Creek Tributary of 1,4-dioxane in quantities which cause the concentration of 1,4-dioxane at the groundwater-surface water interface of the Tributary to exceed 2000 ug/l; and (c) prevent venting of groundwater contamination to Third Sister Lake in quantities which cause the concentration of 1,4-dioxane at the groundwater-surface water interface of the Lake to exceed 2000 ug/l. Defendant also shall implement a monitoring plan to verify the effectiveness of these systems.

FOURTEENTH. modify Section VI.A.1 to read as follows:

1. Objectives. The objectives of this System are to: (a) remove contaminated groundwater from the Marshy Area located north of former Ponds I and II; (b) reduce the migration of contaminated groundwater from the Marshy Area into other aquifers; and (c) prevent the discharge of contaminated groundwater from the Marshy Area into the Honey Creek Tributary in quantities which cause the concentration of 1,4-dioxane at the groundwater-surface water interface of the Tributary to exceed 2000 ug/l.

FIFTEENTH. modify Sections VI.A.2 and VI.A.4 to read as follows:

2. Pilot Test and Design. No later than December 28, 1996, Defendant shall begin the Extended Pilot Test according to the plan conditionally approved by MDEQ on July 26, 1995. No later than March 1, 1998, Defendant shall submit to MDEQ for review and approval the Pilot Test Report, final design, and effectiveness monitoring plan. No later than June 13, 1998, Defendant shall submit to MDEQ for review and approval the operation and maintenance plan.

4. Installation and Operation. Upon approval of the final design by MDEQ and in any event not later than September 27, 1998, Defendant shall complete installation of the system according to the approved design and begin operation. Defendant shall thereafter continuously operate the system according to the approved plans until it is authorized to shut down the system pursuant to Section VI.D of the Consent Judgment.

SIXTEENTH, modify Section VI.B.1 to read as follows:

1. Objectives. The objectives of this program shall be to meet the overall objective of Section VI upon completion of the program and to prevent the discharge of groundwater contamination into Third Sister Lake in quantities which cause the concentration of 1,4-dioxane at the groundwater-surface water interface of Third Sister Lake to exceed 2000 ug/l.

SEVENTEENTH, modify Section VI.B.3 by striking the paragraph.

EIGHTEENTH, modify Section VI.C.2 to read as follows:

2. Defendant shall, no later than November 30, 1996, submit to MDEQ for review and approval a revised soils remediation plan for addressing identified areas of soil contamination. The areas to be addressed include the burn pit; the former Pond I area; the former Pond II area; the form Lift Station area; and Pond III. The plan submitted by Defendant shall be consistent with cleanup criteria as provided in MCL 324.20120a.

The Defendant's proposal must attain the overall objectives of Section VI.

NINETEENTH, modify Section VI.D.1.a to read as follows:

(a) Except as otherwise provided pursuant to Section VI.D.3, Defendant shall continue to operate the Marshy Area System until six (6) consecutive monthly tests of samples from the purge well(s) and associated monitoring well(s) fail to detect the

presence of 1,4-dioxane in groundwater at a concentration at or above 500 ug/l. This System shall also be subject to the same post-shutdown monitoring and restart requirements as those Systems described in Section V.E.

TWENTIETH, modify Section VI.D.1.b by deleting the paragraph.

TWENTY-FIRST, modify the last clause of Section VI.D. 2 to read as follows:

2. ... that the concentration of 1,4-dioxane in soils in the area in question does not exceed 1500 ug/kg or other higher concentration derived by means consistent with Mich Admin Code R 299.5711(2) or MCL 324.20120a.

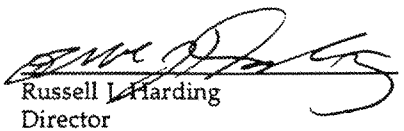
TWENTY-SECOND, modify Section IX.B as follows:

Modify the third sentence to read: "For purposes of this Paragraph, 'best efforts' includes, but is not limited to, seeking judicial assistance to secure such access pursuant to MCL 324.20135a." Delete the remainder of this subsection.

The Parties to the Amendment agree that no changes in the Consent Judgment other than those specified above are intended by this Amendment, that all provisions of the Consent Judgment remain in force to the extent they are not specifically and affirmatively altered by this Amendment, and that -- unless expressly stated otherwise -- all provisions of the Consent Judgment not altered by this Amendment apply to it.

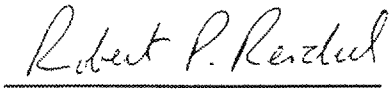
IT IS SO STIPULATED AND AGREED:

PLAINTIFFS



Russell J. Harding
Director
Michigan Department of
Environmental Quality

Dated: 9/17/96



A. Michael Leffler (P24254)
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300 South Washington
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Attorneys for Plaintiffs

Dated: 9/30/96

DEFENDANT

GELMAN SCIENCES, INC.

Approved as to form:
Cooper, Fink & Zausmer, P.C.
Attorneys for Defendant
Gelman Sciences, Inc.

Dated: September 3, 1996

David H. Fink (P28235)
Alan D. Wasserman (P39509)
31700 Middlebelt Road
Suite 150
Farmington Hills, MI 48018
Telephone: (313) 851-4111

IT IS SO ORDERED AND ADJUDGED this 23 day of September, 1996.

/S/ MELINDA MORRIS

HONORABLE PATRICK J CONLIN
Circuit Court Judge

cases/9206322 amendment

EXHIBIT D

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

JENNIFER M. GRANHOLM, Attorney General for the State of Michigan, ex rel, MICHIGAN NATURAL RESOURCES COMMISSION, MICHIGAN WATER RESOURCES COMMISSION, and MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY,

Plaintiffs,

v

GELMAN SCIENCES, INC., a Michigan corporation,

Defendant.

File No. 88-34734-CE

Honorable Melinda Morris

SECOND AMENDMENT TO CONSENT JUDGMENT

A Consent Judgment was entered in this case on October 26, 1992. The Consent Judgment requires Defendant, Gelman Sciences, Inc., to implement various remedial actions to address environmental contamination in the vicinity of Defendant's property in Scio Township, subject to the approval of the Michigan Department of Environmental Quality ("MDEQ").

The Consent Judgment was amended by stipulation of the parties and Order of the Court on September 23, 1996 ("First Amendment of Consent Judgment").

In February 1997, Defendant Gelman Sciences, Inc.'s assets and liabilities were purchased by Pall Acquisitions, Inc., and Defendant is now known as Pall/Gelman Sciences, Inc. ("Pall/Gelman").

Defendant has requested the MDEQ to approve two new alternative disposal methods for the purged groundwater from the Evergreen Subdivision Area System.

System is conditioned upon approval of such installation by the MDEQ. If the pipeline is proposed to be installed on public property, the pipeline installation is conditioned upon approval of such installation by the City of Ann Arbor, Scio Township, and the Washtenaw County Road Commission, if required by statute or ordinance, or by Order of the Court pursuant to the authority under MCLA §324.20135a. Defendant shall design the pipeline in compliance with all state requirements and install the pipeline with monitoring devices to detect any leaks. If leaks are detected, the system will automatically shut down and notify an operator of the condition. In the event that any leakage is detected, Defendant shall take any measures necessary to repair any leaks and perform any remediation that may be necessary. To reduce the possibility of accidental damage to the pipeline during any future construction, the location of the pipeline will be registered with MISS DIG System, Inc.

(ii) Transportation of Untreated Groundwater. Defendant's option to use a pipeline to transport untreated groundwater extracted from the Evergreen System well(s) to the Core Area System for treatment and disposal is also subject to the following conditions. Before using such a pipeline for that purpose, Defendant shall submit and receive MDEQ approval of a written demonstration that the Core Area System has continuously operated in full compliance with the requirements of this Consent Judgment and applicable permit(s) in the immediately preceding six (6) months and that the Core Area System has sufficient additional treatment capacity to reliably treat, in full compliance with this Consent Judgment and applicable permit(s), all the additional groundwater Defendant proposes to transmit from the Evergreen System through the pipeline. In addition, Defendant shall submit and receive MDEQ approval of a plan for this use of the pipeline.

(iii) Transportation of Treated Groundwater. Defendant's option to use a pipeline to transport groundwater, already treated by the Evergreen Treatment System, to the Core Area for disposal through the NPDES permit discharge point

into the Honey Creek, is subject to the following conditions. Before using such a pipeline for that purpose, Defendant shall submit and obtain MDEQ approval of a written demonstration that sufficient additional discharge capacity exists to handle the combined discharge flow from the Core Area System and the anticipated discharge flow from the Evergreen System. In addition, Defendant shall submit and obtain MDEQ approval of a plan for this use of the pipeline. Any treated flows from the Evergreen Treatment System being discharged at the Core System shall meet the current NPDES permit limits for the Honey Creek discharge.

(iv) Nothing in this subsection shall relieve Defendant of its obligations to: (a) continuously operate the Evergreen System and to properly treat and dispose of contaminated groundwater in compliance with the Consent Judgment and applicable permit(s), using one or more of the other options for disposal, as necessary; and (b) continuously operate the Core Area System to properly treat and dispose of contaminated groundwater in compliance with the Consent Judgment and applicable permit(s).

The Parties to the Second Amendment agree that no changes in the Consent Judgment other than those specified above are intended by this Second Amendment. The Parties further agree that entry of this Second Amendment shall not constitute a waiver by either party of its respective legal position regarding the applicability of the requirements of Part 201 of the Natural Resources and Environmental Protection Act to the MDEQ's review, consideration and approval of response activities to be performed by Defendant pursuant to the Consent Judgment.

IT IS SO STIPULATED AND AGREED:

PLAINTIFFS

Dated: 10/20/99

Russell J. Harding
Director
Michigan Department of
Environmental Quality

Approved as to form:
Assistant Attorneys General
Natural Resources Division
Attorneys for Plaintiff

Dated: 10-19-99

A. Michael Leffler (P24254)
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Knapp's Office Centre, Suite 530
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(517) 335-1488
Attorneys for Plaintiffs

IT IS SO STIPULATED AND AGREED:

DEFENDANT

Dated: 9-13-99

Mary Ann Bartlett, Secretary
PALL/GELMAN SCIENCES, INC.

Approved as to form:
Plunkett & Cooney, P.C.
Attorneys for Defendant
Gelman Sciences, Inc.

Richard D. Connors

Dated: 9-7-99

Richard D. Connors (P40479)
Dennis Cowan (P36184)
505 North Woodward, Suite 3000
Bloomfield Hills, MI 48304
(248) 901-4050

IT IS SO ORDERED AND ADJUDGED this 20 day of October 1999.

S/MELINDA MORRIS

HONORABLE MELINDA MORRIS
Circuit Court Judge

8901467/Gelman/Second Amend-clean

EXHIBIT E

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE STATE OF MICHIGAN, ex rel, MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT,

Plaintiffs,

v

GELMAN SCIENCES, INC., a Michigan corporation,

Defendant.

File No. 88-34734-CE

Honorable Donald E. Shelton

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THIRD AMENDMENT TO CONSENT JUDGMENT

A Consent Judgment was entered in this case on October 26, 1992. The Consent Judgment requires Defendant, Gelman Sciences, Inc., to implement various response activities to address environmental contamination in the vicinity of Defendant's property in Scio Township, subject to the approval of the Michigan Department of Environmental Quality ("MDEQ").

The Consent Judgment was amended by stipulation of the parties and Order of the Court on September 23, 1996 ("Amendment to Consent Judgment") and October 20, 1999 ("Second Amendment to Consent Judgment").

The Court has also supplemented the Consent Judgment with several cleanup related orders, based on information about the nature and extent of contamination acquired after the Consent Judgment and the Amendments were entered, including, Remediation and Enforcement Order (REO) dated July 17, 2000, the Opinion and Order Regarding Remediation of the Contamination of the "Unit E" Aquifer ("Unit E Order"), dated December 17, 2004, and the Order Prohibiting Groundwater Use, dated May 17, 2005.

Since entry of the Second Amendment to Consent Judgment, Executive Order No. 2009-45 was signed and effective January 2010, the MDEQ was abolished as an agency of the State, the Michigan Department of Natural Resources (MDNRE) was created, and all of the authority, powers, duties, functions, responsibilities, and personnel relevant to this action were transferred to the MDNRE.

THEREFORE, the Parties agree to this Third Amendment to the Consent Judgment ("Third Amendment") and such Third Amendment is ordered, adjudged, and decreed as follows:

FIRST, modify Sections III.F G, H, J, and N to read as follows:

F. "GSI Property" shall mean the real property described in Attachment A, currently owned and operated by Defendant in Scio Township, Michigan.

G. "Groundwater Contamination" or "Groundwater Contaminant" shall mean 1,4-dioxane in groundwater at a concentration in excess of 85 micrograms per liter ("ug/l") (subject to approval by the Court of the application of a new criteria) determined by the sampling and

analytical method(s) described in Attachment B to this Consent Judgment, subject to review and approval by MDNRE.

H. "MDNRE" shall mean the Michigan Department of Natural Resources and Environment, the successor to the Michigan Department of Environmental Quality ("MDEQ"), the Michigan Department of Natural Resources ("MDNR"), and to the Water Resources Commission. All references to the "MDEQ," "MDNR," or to the "Water Resources Commission" in this Consent Judgment, as amended, shall be deemed to refer to the MDNRE or any successor agency.

J. "Plaintiffs" shall mean the Attorney General of the State of Michigan, ex rel, Michigan Department of Natural Resources and Environment.

N. "Soil Contamination" or "Soil Contaminant" shall mean 1,4-dioxane in soil at a concentration in excess of 1700 ug/kg as determined by the sampling and analytical method(s) described in Attachment C, or other higher concentration limit derived by means consistent with Mich Admin Code R 299.5718 or MCL 324.20120a.

SECOND, delete Section III.P and insert new Sections III.P., Q., R., S., T, and U.:

P. "Prohibition Zone Order" shall mean the Court's Order Prohibiting Groundwater Use, dated May 17, 2005, which established a judicial institutional control.

Q. "Prohibition Zone" shall mean the area that is subject to the institutional control established by the Prohibition Zone Order.

R. "Expanded Prohibition Zone" shall mean the area that shall be subject to the institutional control established by the Prohibition Zone Order pursuant to this Third Amendment to the Consent Judgment. A map depicting the Prohibition Zone and the Expanded Prohibition Zone is attached as Attachment E.

S. "Unit E Order" shall mean the Court's Opinion and Order Regarding Remediation of the Contamination of the Unit E Aquifer dated December 17, 2004.

T. "Eastern Area" shall mean the part of the Site that is located east of Wagner Road and the areas encompassed by the Prohibition Zone and Expanded Prohibition Zone.

U. "Western Area" shall mean that part of the Site located west of Wagner Road, excepting the Little Lake Area System described in Section V.C.

THIRD, modify the first paragraph of Section V to read as follows:

Defendant shall design, install, operate, and maintain the systems described below. The objectives of these systems shall be to extract the contaminated groundwater from the aquifers at designated locations for treatment (as required) and proper disposal to the extent necessary to prevent the plumes of groundwater contamination emanating from the GSI Property from expanding beyond the current boundaries of such plumes, except into and within the Prohibition Zone and Expanded Prohibition Zone (subject to paragraph 9 of the Prohibition Zone Order, as modified by Section V.A.2.b., of this Consent Judgment with regard to the northern boundaries of the Prohibition Zone and Expanded Prohibition Zone), as described below. Defendant also shall implement a monitoring program to verify the effectiveness of these systems.

FOURTH, modify Section V.A. to read as follows:

A. Eastern Area System

1. Objectives. The remedial objectives of the Eastern Area System ("Eastern Area Objectives") shall be:

a. Maple Road Containment Objective. The current Unit E objective set forth in the Unit E Order of preventing contaminant concentrations above the groundwater-surface water interface criterion of 2,800 ug/l (subject to approval by the Court of

the application of a new criteria) from migrating east of Maple Road shall apply to the Eastern Area System, regardless of the aquifer designation, or depth of groundwater or groundwater contamination.

b. Prohibition Zone Containment Objective. Use of groundwater in the Prohibition Zone and Expanded Prohibition Zone will be governed by the Prohibition Zone Order regardless of the aquifer designation or the depth of the groundwater or groundwater contamination. MDNRE-approved legal notice of the proposed Prohibition Zone expansion shall be provided at Defendant's sole expense.

2. Eastern Area Response Activities. The following response actions shall be implemented:

a. Maple Road Extraction. Defendant shall continue to operate TW-19 as necessary to meet the Maple Road containment objective.

b. Verification Plan. Defendant shall implement its June 3, 2009 Plan for Verifying the Effectiveness of Proposed Remedial Obligations ("Verification Plan"), as modified by this Sections V.A.2.b. and c., to ensure that any potential migration of groundwater contamination outside of the Expanded Prohibition Zone is detected before such migration occurs. Defendant shall install four additional monitoring well clusters in the Evergreen Subdivision area at the approximate locations indicated on the map attached as Attachment F. If concentrations of 1,4-dioxane in one or more of the three new monitoring wells installed at the perimeter of the Expanded Prohibition Zone or the existing MW-120s, MW-120d, MW-121s, and MW-121d exceed 20 ug/l, Defendant shall conduct a hydrogeological investigation to determine the fate of any groundwater contamination in this area as described in the Verification Plan. This investigation will be conducted pursuant to a MDNRE-approved work plan. The

work plan shall be submitted within 45 days after the first exceedence. If concentrations in any of the perimeter wells exceed 85 ug/l (or any other criteria approved by the Court) or if the Defendant's investigation or monitoring indicates that the plume of groundwater contamination will migrate outside of the Prohibition Zone or Expanded Prohibition Zone, Defendant shall conduct a Feasibility Study of available options for addressing the situation pursuant to a MDNRE-approved format. The Feasibility Study shall be submitted within 90 days after a determination by the Defendant or a written notification by the MDNRE that one is required. This Feasibility Study shall include options other than simply expanding the Prohibition Zone or Expanded Prohibition Zone, although that option may be included in the analysis. The parties agree that any further expansion of the northern boundaries of the Prohibition Zone or Expanded Prohibition Zone to address migration of groundwater contamination outside of the Prohibition Zone or Expanded Prohibition Zone should be avoided, unless there are compelling reasons to do so. The Defendant's Feasibility Study shall identify a preferred alternative. The MDNRE shall review the Feasibility Study and either approve the Defendant's preferred alternative or submit changes as provided in Section X of the Consent Judgment. The Defendant shall implement the approved alternative, or any changes submitted by the MDNRE unless the Defendant initiates Dispute Resolution under Section XVI of the Consent Judgment.

c. Additional Evergreen Monitoring Wells. Defendant shall install the new well clusters described in Section V.A.2.b. according to a schedule to be approved by the MDNRE . Each of the new well clusters will include two to three additional monitoring wells, and the determination of the number of wells shall be based on the Parties' evaluation of the geologic conditions present at each location, consistent with past practice. The easternmost of these well clusters shall be installed last and the data obtained from the other newly installed

well clusters and existing wells will be used to determine the location of the easternmost well cluster. The easternmost well cluster will be installed approximately one year after the other well clusters are installed and after the Parties have been able to evaluate at least four quarters of data from the new wells and existing well, unless the Parties agree that it should be installed sooner.

d. Drilling Techniques. Borings for new wells installed pursuant to Section V.A.2. shall be drilled to bedrock unless a different depth is approved by MDNRE or if conditions make such installation impracticable. The MDNRE reserves the right to require alternate drilling techniques to reach bedrock if standard methods are not able to do so. If the Defendant believes that drilling one or more of these wells to bedrock is not practical due to the geologic conditions encountered and/or that such conditions do not warrant the alternative drilling technique required by the MDNRE, Defendant may initiate dispute resolution under Section XVI of the Consent Judgment. The wells shall be installed using Defendant's current vertical profiling techniques, which are designed to minimize the amount of water introduced during drilling, unless the MDNRE agrees to alternate techniques.

e. Downgradient Investigation. The Defendant shall continue to implement its Downgradient Investigation Work Plan as approved by the MDNRE on February 4, 2005, to track the groundwater contamination as it migrates to ensure any potential migration of groundwater contamination outside of the Prohibition Zone or Expanded Prohibition Zone is detected before such migration occurs.

f. Continued Evergreen Subdivision area Groundwater Extraction as Necessary. The Defendant shall continue to operate the Evergreen Subdivision area extraction wells LB-1 and LB-3 (the "LB Wells") at a combined purge rate of 100 gallons per minute

(gpm), in order to reduce the migration of 1,4-dioxane, until such time as it determines that the Eastern Area cleanup objectives will be met at a reduced extraction rate or without the need to operate these extraction wells. Before significantly reducing or terminating extraction from the LB Wells, the Defendant shall consult with Plaintiffs and provide a written analysis, together with the data that supports its conclusion. MDNRE will review the analysis and data and provide a written response to Defendants within 56 days after receiving Defendant's written analysis and data. If the MDNRE disagrees with the Defendant's decision to reduce or terminate extraction, it may dispute the decision in Court within 15 days of its written response. Within 15 days of the filing of MDNRE's dispute, Defendant may file a response to the petition. The Parties may agree to extend these time frames to facilitate resolution of the dispute. The Defendant shall not significantly reduce or terminate extraction from the LB Wells while MDNRE is reviewing or disputing the Defendant's determination. MDNRE will make all reasonable efforts to have the motion resolved in a reasonable timeframe. If extraction from the LB Wells is terminated either by the agreement of the Parties or an order of the Court, the Defendant shall continue to maintain the LB Wells in an operable condition until such time as the Parties agree (or the Court decides) that the well(s) may be abandoned. Defendant shall abandon the Allison Street (AE-3) extraction well operation upon entry of this Third Amendment.

g. Well Identification. Defendant shall implement the Expanded Prohibition Zone Well Identification Work Plan as approved by MDNRE on February 4, 2011, pursuant to the approved schedule, unless Defendant files a Petition with the Court by March 16, 2011, seeking clarification of the scope of this Court's Prohibition Zone Order.

h. Plugging of Private Water Supply Wells. The Prohibition Zone Order's requirement that Defendant plug and replace any private drinking water wells by connecting those properties to municipal water shall apply to the Expanded Prohibition Zone. Defendant shall also properly plug non-drinking water wells in the Expanded Prohibition Zone unless it petitions the Court to clarify whether the Prohibition Zone Order requires Defendant to plug such wells and the Court determines it does not.

3. Future Inclusion of Triangle Property in the Expanded Prohibition Zone. MDNRE may request that the triangle piece of property located along Dexter/M-14 (Triangle Property) be included in the Expanded Prohibition Zone if the data obtained from the monitoring wells installed pursuant to Section V.A.2.c., above, (specifically, the Wagner Road and Ironwood/Henry monitoring wells) and other nearby wells indicate that the chemical and hydraulic data does not support Defendant's conceptual model regarding groundwater and contaminant flow in the area. Defendant may dispute such request pursuant to Section XVI of this Consent Judgment.

a. If the Triangle Property is later included in the Expanded Prohibition Zone, any further expansion beyond the Triangle Property shall be subject the same Feasibility Study requirements of Section V.A.2.b.

b. If a drinking water supply well is installed on the Triangle Property in the future, Defendant shall take the necessary steps to obtain permission to sample the well on a schedule approved by the MDNRE. Defendant shall monitor such wells on the MDNRE-approved schedule unless or until that property is included in the Expanded Prohibition Zone, at which time, the water supply well(s) shall be addressed as part of the well identification process.

4. Operation and Maintenance. Subject to Section V.A.2.f and V.A.7., Defendant shall operate and maintain the Eastern Area System as necessary to meet the Eastern Area Objectives. Defendant shall continuously operate, as necessary, and maintain the Eastern Area System according to MDNRE-approved operation and maintenance plans until Defendant is authorized to terminate extraction well operations pursuant to SectionV.D.1.a.

5. Treatment and Disposal. Groundwater extracted by the extraction well(s) in the Eastern Area System shall be treated (as necessary) using methods approved by the MDNRE and disposed of using methods approved by the MDNRE, including, but not limited to, the following options:

a. Groundwater Discharge. The purged groundwater shall be treated to reduce 1,4-dioxane concentrations to the level required by the MDNRE, and discharged to groundwaters at locations approved by MDNRE in compliance with a permit or exemption authorizing such discharge.

b. Sanitary Sewer Discharge. Use of the sanitary sewer leading to the Ann Arbor Wastewater Treatment Plant is conditioned upon approval of the City of Ann Arbor. If discharge is made to the sanitary sewer, the Eastern Area System shall be operated and monitored in compliance with the terms and conditions of an Industrial User's Permit from the City of Ann Arbor, and any subsequent written amendment of that permit made by the City of Ann Arbor. The terms and conditions of any such permit and any subsequent amendment shall be directly enforceable by the MDNRE against Defendant as requirements of this Consent Judgment.

c. Storm Drain Discharge. Use of the storm drain is conditioned upon issuance of an NPDES permit and approval of such use by the City of Ann Arbor and the

Allen Creek Drainage District. Discharge to the Huron River via the Ann Arbor stormwater system shall be in accordance with the NPDES Permit and conditions required by the City and the Drainage District. If the storm drain is to be used for disposal, no later than twenty-one (21) days after permission is granted by the City and the Drainage District to use the storm drain for disposal of purged groundwater, Defendant shall submit to MDNRE, the City of Ann Arbor, and the Drainage District for their review and approval, a protocol under which the purge system shall be temporarily shut down: (i) for maintenance of the storm drain and (ii) during storm events to assure that the stormwater system retains adequate capacity to handle run-off created during such events. The purge system shall be operated in accordance with the approved protocol for temporary shutdown.

d. Existing or Additional/Replacement Pipeline to Wagner Road Treatment Facility. Installation of an additional pipeline or a pipeline replacing the existing pipeline to the Wagner Road Treatment Facility is conditioned upon approval of such installation by the MDNRE. If the pipeline is proposed to be installed on public property, the pipeline installation is conditioned upon approval of such installation by the City of Ann Arbor, Scio Township, and the Washtenaw County Road Commission, if required by statute or ordinance, or by Order of the Court pursuant to the authority under MCL 324.20135a. Defendant shall design the pipeline in compliance with all state requirements and install the pipeline with monitoring devices to detect any leaks. If leaks are detected, the system will automatically shut down and notify an operator of the condition. In the event that any leakage is detected, Defendant shall take any measures necessary to repair any leaks and perform any remediation that may be necessary. To reduce the possibility of accidental damage to the pipeline during any future construction, the location of the pipeline will be registered with MISS DIG System, Inc. Nothing

in this subsection shall relieve Defendant of its obligations to properly treat and dispose of contaminated groundwater in compliance with the Consent Judgment and applicable permit(s), using one or more of the other options for disposal, as necessary.

e. Additional Pipeline from Maple Road Extraction Well(s). Installation and operation of a proposed pipeline from the Maple Road Area to Evergreen area is conditioned upon approval of such installation and operation by the MDNRE. If the pipeline is proposed to be installed on public property, the pipeline installation is conditioned upon approval of such installation by the appropriate local authorities, if required by statute or ordinance, or Order of the Court pursuant to the authority under MCL 324.20135a. Defendant shall design any such pipeline in compliance with all state requirements and install it with monitoring devices to detect any leaks. In the event any leakage is detected, Defendant shall take any measures necessary to repair any leaks and perform any remediation that may be necessary. The pipeline shall be registered with the MISS DIG System, Inc., to reduce the possibility of accidental damage to the pipeline. Defendant may operate such pipeline to, among other things, convey groundwater extracted from TW-19 to the Wagner Road treatment systems, where it can be treated and disposed via the Defendant's permitted surface water discharge (capacity permitting).

6. Monitoring Plans. Defendant shall implement a MDNRE-approved monitoring plan for the Eastern Area. The monitoring plans shall include the collection of data to measure the effectiveness of the System in (a) ensuring that any potential migration of groundwater contamination outside of the Prohibition Zone or Expanded Prohibition Zone is detected before such migration occurs; (b) tracking the migration of the groundwater contamination to determine the need for additional investigation to ensure that there are adequate monitoring points to meet objective in Subsection (a) of this Section, including the determination

of the fate of groundwater contamination when and if it reaches the portion of the Huron River that is the easternmost extent of the Prohibition Zone; (c) verifying that concentrations of 1,4-dioxane greater than the groundwater-surface water interface criterion of 2800 ug/l (or any other criterion approved by the Court) does not migrate east of Maple Road; (d) complying with the applicable limitations on the discharge of the purged groundwater; and (e) evaluating capture areas for extraction wells and potential changes in groundwater flow from changes in extraction rates and locations.

To satisfy the objectives of this Section V.A.6, Defendant shall implement the following monitoring plans:

a. The portion of Defendant's Comprehensive Groundwater Monitoring Plan, May 4, 2009, amended June 2, 2009 (ACGMP), relevant to the Eastern Area, upon approval of the MDNRE as provided in Section X. Defendant shall continue to implement the currently approved monitoring plan until MDNRE approves the final ACGMP for the Eastern Area.

b. Defendant's Performance Monitoring Plan for Maple Road, which shall include the existing MW-84d as a monitoring point in lieu of the previously requested additional monitoring well closer to Maple Road, which shall be incorporated into the ACGMP for the Eastern Area.

The monitoring plans shall be continued until terminated pursuant to Section V.E.

7. Wagner Road Extraction. TW-18 and TW-21 (the "Wagner Road Wells") shall be considered part of the Eastern Area System even though they are located just West of Wagner Road. The Defendant shall initially operate the Wagner Road Wells at a combined 200 gallons per minute (gpm) extraction rate (with a minimum extraction rate of 50 gpm for each of

the wells). The Defendant shall continue to operate its Wagner Road Wells in order to reduce the migration of 1,4-dioxane east of Wagner Road at this rate until such time as it determines that the Eastern Area cleanup objectives will be met with a lower combined extraction rate or without the need to operate these wells. Before significantly reducing or terminating extraction from the Wagner Road Wells, Defendant shall consult with Plaintiffs and provide a written analysis, together with the data that supports its conclusion. MDNRE will review the analysis and data and provide a written response to Defendants within 56 days after receiving Defendant's written analysis and data. If the MDNRE disagrees with the Defendant's decision to reduce or terminate extraction, it may dispute the decision in Court within 15 days of the date of its written response. Within 15 days of the filing of MDNRE's dispute, Defendant may file a response to the petition. The Parties may agree to extend these time frames to facilitate resolution of the dispute. The Defendant shall not significantly reduce or terminate the Wagner Road extraction while MDNRE is reviewing or disputing the Defendant's determination. MDNRE will make all reasonable efforts to have the motion resolved in a reasonable timeframe.

8. Options Array for Transmission Line Failure/Inadequate Capacity.

The Defendant has provided the MDNRE with documentation regarding the life expectancy of the deep transmission line and an Options Array (attached as Attachment G). The Options Array describes the various options that may be available if the deep transmission line fails or the 200 gpm capacity of the existing deep transmission line that transports groundwater from the Eastern Area System to the treatment system located on the GSI Property proves to be insufficient to meet the Eastern Area Objectives.

FIFTH, delete the existing Section V.B. and replace with the following:

B. Western Area System

1. Western Area System Non-Expansion Cleanup Objective. The Defendant shall prevent the horizontal extent of the groundwater contamination in the Western Area from expanding. The horizontal extent shall be the maximum horizontal areal extent of groundwater contamination regardless of the depth of the groundwater contamination (as established under Section V.B.2.c. of this Consent Judgment). Continued migration of groundwater contamination into the Prohibition Zone or Expanded Prohibition Zone shall not be considered expansion and is allowed. A change in the horizontal extent of groundwater contamination resulting solely from the Court's application of a new cleanup criterion shall not constitute expansion. Nothing in this Section prohibits the Plaintiffs from seeking additional response activities pursuant to Section XVIII.E of this Consent Judgment. Compliance with the Non-Expansion Cleanup Objective shall be established and verified by the Compliance Well Network to be developed by the Parties as provided in Sections V.B.2.c and d., below ("Compliance Well Network"). There is no independent mass removal requirement or a requirement that the Defendant operate any particular extraction well(s) at any particular rate beyond what is necessary to prevent the prohibited expansion, provided that Defendant's ability to terminate all groundwater extraction in the Western Area is subject to Section V.D.1.c. and the establishment of property use restrictions as required by Section V.B.2.e. If prohibited expansion occurs, Defendant shall undertake additional response activities to return the groundwater contamination to the boundary established by the Compliance Well Network (such response activities may include recommencement of extraction at particular locations).

Plaintiffs agree to modify the remedial objective for the Western Area as provided herein to a no expansion performance objective in reliance on Defendant's agreement to comply with a no expansion performance objective for the Western Area. To ensure compliance with this

objective, Defendant acknowledges that in addition to taking further response action to return the horizontal extent of groundwater contamination to the boundary established by the Compliance Well Network, Defendant shall be subject to stipulated penalties for violation of the objective as provided in Section XVII. Nothing in this paragraph shall limit Defendant's ability to contest the assessment of such stipulated penalties as provided in this Consent Judgment.

2. Western Area Response Activities. The following response activities shall be implemented:

a. Extraction Wells. The Western Area response activities shall include the operation of groundwater extraction wells as necessary to meet the objective described in Section V.B.1. Purged groundwater from the Western Area System shall be treated with ozone/hydrogen peroxide or ultraviolet light and oxidizing agent(s), or such other method approved by the MDNRE to reduce 1,4-dioxane concentrations to the level as required by NPDES Permit No. MI-0048453, as amended or reissued. Discharge to the Honey Creek tributary shall be in accordance with NPDES Permit No. MI-0048453, as amended or reissued.

b. Decommissioning Extraction Wells. Within 14 days after entry of this Third Amendment, Defendant shall submit to MDNRE a list of Western Area extraction wells that it intends to decommission (take out-of-service) in 2011. The MDNRE has the right to petition the Court to stop the Defendant from taking such extraction well(s) out-of-service within 60 days of receiving the list identifying such extraction well(s). The Defendant shall maintain all other extraction wells, including, but not limited to, TW-2 (Dolph Park) and TW-12, in operable condition even if it subsequently terminates extraction from the well(s) until such time as the Parties agree (or the Court decides) that the well(s) may be abandoned.

c. Western Area Delineation Investigation. Defendant shall complete the following investigation, as may be amended by agreement of the Parties to reflect data obtained during the investigation, to address gaps in the current definition of the plume and to further define the horizontal extent of groundwater contamination in the Western Area:

i. Install monitoring wells screened to monitor the intermediate (Unit D2) and deep (Unit E) zones at/near the existing MW-20. An additional monitoring well at or near existing MW-36 will not be necessary unless the results from the wells installed at/near MW-20 are inconsistent with the Defendant's conceptual flow model (that the contamination in the shallower unit does not continue migrating to the west, but instead drops into the deeper unit and flows east into the Prohibition Zone or Expanded Prohibition Zone).

ii. Install a monitoring well cluster just west of Wagner Road and South of I-94.

iii. Install a monitoring well cluster in the Nancy Drive/MW-14d area, to define the extent of groundwater contamination from surface to bedrock, with final placement of the cluster to be determined after the Wagner Road/I-94 well cluster is installed or as otherwise agreed.

iv. Install a monitoring well screened to monitor the deep (Unit E) zone near/at MW-125, with location to be approved by MDNRE. PLS will vertically profile every ten feet throughout the deep (Unit E) saturated interval.

Defendant shall promptly provide the data/results from the investigation to the MDNRE so that the MDNRE receives them prior to Defendant's submission of the Monitoring Plan described in Subsection V.B.2.d, below. MDNRE reserves the right to request the installation of additional borings/monitoring wells, if the totality of the data from the wells to be installed indicate that the horizontal extent of groundwater contamination has not been completely defined.

d. Compliance Monitoring Well Network/Performance Monitoring Plan. Within 15 days of completing the investigation described in Subsection V.B.2.c , above, Defendant shall submit a Monitoring Plan, including Defendant's analysis of the data obtained during the investigation for review and approval by the MDNRE. The Monitoring Plan shall include the collection of data from a compliance monitoring well network sufficient to verify the

effectiveness of the Western Area System in meeting the Western Area objective set forth in Section V.B.1. The locations and/or number of the compliance monitoring wells for the Monitoring Plan will be determined based on the data obtained from the investigation Defendant shall conduct pursuant to Section V.B.2.c. The MDNRE shall approve the Monitoring Plan, submit to Defendant changes in the Monitoring Plan that would result in approval, or deny the Monitoring Plan within 35 days of receiving the Monitoring Plan. Defendant shall either implement the MDNRE-approved Monitoring Plan, including any changes required by MDNRE, or initiate dispute resolution pursuant to Section XVI of this Consent Judgment. Defendant shall implement the MDNRE (or Court)-approved Monitoring Plan to verify the effectiveness of the Western Area System in meeting the Western Area objective. Defendant shall continue to implement the current MDNRE-approved monitoring plan(s) until MDNRE approves the Monitoring Plan required by this Section. The monitoring program shall be continued until terminated pursuant to Section V.E.

e. Property Restrictions. The Defendant shall have property use restrictions that are sufficient to prevent unacceptable exposures in place for any properties affected by Soil Contamination or Groundwater Contamination before completely terminating extraction in the Western Area.

3. Internal Plume Characterization. Additional definition within the plume and/or characterization of source areas, except as may be required under Section VI of this Consent Judgment, is not necessary based on the additional monitoring wells to be installed as provided in Section V.B.2.c. MDNRE reserves the right to petition the Court to require such work if there are unexpected findings that MDNRE determines warrants additional characterization.

SIXTH, modify Section V.C. to read as follows:

C. Little Lake Area System

1. Little Lake Area System Non-Expansion Objective. The objective of the Little Lake Area System is to prevent expansion of the horizontal extent of any groundwater contamination located in this area.

2. Response Activities. Defendant shall implement some form of active remediation in this area until the termination criterion is reached under Section V.D.1.d. or appropriate land or resource use restrictions on the affected property(ies) approved by the MDNRE are in place. Defendant shall continue its batch purging program from the extraction well located on the Ann Arbor Cleaning Supply property pursuant to MDNRE-approved plans unless some other form of active remediation is approved by the MDNRE. Defendant may resubmit a proposal to temporarily reduce the frequency of the batch purging of this well so that the effects of batch purging can be evaluated. Defendant shall also have the option of obtaining appropriate land use or resource use restrictions on the affected property(ies) as an alternative to active remediation in this area, conditioned on MDNRE's approval.

3. Monitoring Plan. Within 45 days of entry of this Third Amendment, Defendant shall submit to the MDNRE for approval under Section X of this Consent Judgment a revised Monitoring Plan that identifies which of the existing monitoring wells will be used as compliance wells to verify the effectiveness of the Little Lake Area System in meeting the non-expansion objective of Section V.C.1. Defendant shall continue to implement the current MDNRE-approved monitoring plan until MDNRE approves the Monitoring Plan required by this Section. If a form of active remediation other than batch purging or land use or resource use

restrictions are approved by the MDNRE, Defendant shall submit a revised monitoring plan, modified as necessary to verify the effectiveness of such response activities.

The monitoring plan shall be continued until terminated pursuant to Section V.E.

SEVENTH, modify Section V.D.1 to read as follows:

D. Termination of Groundwater Extraction Systems

1. Defendant may only terminate the Groundwater Extraction Systems listed below as provided below:

a. Termination Criteria for LB Wells/Wagner Road Wells. Except as otherwise provided pursuant to Section V.D.2, Defendant may only significantly reduce or terminate operation of the LB Wells and the Wagner Road Wells as provided in Sections V.A.2.f. and V.A.7., respectively.

b. Termination Criteria for TW-19. Except as otherwise provided pursuant to Section V.D.2, Defendant shall maintain TW-19 in an operable condition and operate as needed to meet the groundwater-surface water interface criterion containment objective until all approved monitoring wells upgradient of Maple Road are below the groundwater surface water interface criterion for six consecutive months or until Defendant can establish to the satisfaction of MDNRE that additional purging from TW-19 is no longer necessary to satisfy the containment objective at this location. If Defendant requests to decommission TW-19, Defendant's request must be made in writing for review and approval pursuant to Section X of the Consent Judgment. The request must include all supporting documentation demonstrating compliance with the termination criteria. Defendant may initiate dispute resolution pursuant to Section XVI of this Consent Judgment if the DNRE does not approve Defendant's request. Defendant may decommission TW-19 upon: (i) receipt of notice of approval from MDNRE; or

(ii) receipt of notice of a final decision approving termination pursuant to dispute resolution procedures of Section XVI of this Consent Judgment. Defendant shall not permanently plug TW-19 until completion of the post-termination monitoring pursuant to Section V.E.1.b.

c. Termination Criteria for Non-Expansion Objective for Western Area. Except as otherwise provided pursuant to Section V.D.2, and subject to Section V.B.1., Defendant shall not terminate all groundwater extraction in the Western Area until:

i. Defendant can establish to Plaintiffs' satisfaction that groundwater extraction is no longer necessary to prevent the expansion of groundwater contamination prohibited under Section V.B.1. Defendant's demonstration shall also establish that any remaining 1,4-dioxane contamination in the Marshy and Soil Systems will not cause any prohibited expansion of groundwater contamination; and

ii. Defendant has the land use or resource use restrictions described in Section V.B.2.e. in place.

Defendant's request to terminate extraction in the Western Area must be made in writing for review and approval pursuant to Section X of the Consent Judgment. The request must include all supporting documentation demonstrating compliance with the termination criteria. Defendant may initiate dispute resolution pursuant to Section XVI of the Consent Judgment if the MDNRE does not approve the Defendant's request/demonstration. Defendant may terminate Western Area groundwater extraction upon: (i) receipt of notice of approval from MDNRE; or (ii) receipt of notice of a final decision approving termination pursuant to dispute resolution procedures of Section XVI of this Consent Judgment.

d. Termination Criteria for Little Lake Area Well (a/ k/a Ann Arbor Cleaning Supply Well). Except as otherwise provided pursuant to Section V.D.2., Defendant

shall continue to operate the Ann Arbor Supply Well on a batch purging basis (or implement another form of MDNRE-approved active remediation) until six consecutive monthly tests of samples from the extraction well and associated monitoring wells, fail to detect the presence of groundwater contamination or until appropriate land use restrictions are placed on the affected property(ies).

EIGHTH, delete Sections V.D.4 and V.D.5 .

NINTH, modify Section V.E. to read as follows:

E. Post-Termination Monitoring

1. Eastern Area

a. Prohibition Zone Containment Objective. Except as otherwise provided pursuant to Section V.D.2, Defendant shall continue to monitor the groundwater contamination as it migrates within the Prohibition Zone and Expanded Prohibition Zone until all approved monitoring wells are below 85 ug/l or such other applicable criterion for 1,4-dioxane for six consecutive months, or Defendant can establish to MDNRE's satisfaction that continued monitoring is not necessary to satisfy the Prohibition Zone containment objective. Defendant's request to terminate monitoring must be made in writing for review and approval pursuant to Section X of the Consent Judgment. Defendant may initiate dispute resolution pursuant to Section XVI of this Consent Judgment if the MDNRE does not approve its termination request.

b. Groundwater/Surface Water Containment Objective. Except as provided in Section V.E.1.a., for Prohibition Zone monitoring wells, post-termination monitoring is required for Eastern Area wells for a minimum of 10 years after purging is terminated under Section V.D.1.b. with cessation subject to MDNRE approval. Defendant's request to terminate monitoring must be made in writing for review and approval pursuant to

Section X of the Consent Judgment. Defendant may initiate dispute resolution pursuant to Section XVI of this Consent Judgment if the MDNRE does not approve its termination request.

c. Maple Road Extraction. If Defendant has decommissioned TW-19 based on monitoring well results showing that upgradient monitoring wells are below the groundwater/surface water interface criterion (rather than a demonstration) as provided in Section V.D.1.b and the monitoring conducted pursuant to Section V.E.1.b. reveal that the termination criterion is no longer being met, Defendant shall immediately notify MDNRE and collect a second sample within 14 days of such finding. If any two consecutive samples are found at or above the termination criterion, then Defendant shall take the steps necessary to put TW-19 in an operable condition and operate the well as necessary to satisfy the groundwater/surface interface water containment objective unless it can establish to Plaintiffs' satisfaction that such actions are not necessary to meet the groundwater/surface water interface containment objective.

2. Western Area. Post-termination monitoring will be required for a minimum of ten years after termination of extraction with cessation subject to MDNRE approval. Except as otherwise provided pursuant to Section V.D.2, Defendant shall continue to monitor the groundwater in accordance with approved monitoring plan(s), to verify that it remains in compliance with the no expansion performance objective set forth in Section V.B.1. If any violation is detected, Defendant shall immediately notify MDNRE and take whatever steps are necessary to comply with the requirements of Section V.B.1.

3. Little Lake Area System. Post-termination monitoring will be required for a minimum of ten years after termination of active remediation in the Little Lake Area with cessation subject to MDNRE approval. Defendant shall continue to monitor the Ann Arbor

Cleaning Supply extraction well and/or associated monitoring wells, in accordance with approved monitoring plans to verify that:

a. the concentration of 1.4-dioxane in the groundwater does not exceed the termination criterion. If such post-termination monitoring reveals the presence of 1,4-dioxane in excess of the termination criterion, Defendant shall immediately notify MDNRE and shall collect a second sample within 14 days of such finding. If any two consecutive samples are found at or above the termination criterion, Defendant shall immediately restart the previously-approved method of active remediation, unless Defendant has obtained appropriate land use or resource use restrictions on the affected property(ies) pursuant to Section V.C.2, (in which case subsection b, below shall apply); or

b. 1,4-dioxane in excess of the termination criterion is not migrating outside the MDNRE-approved area of land use or resource use restrictions.

TENTH, delete Section V.F.

ELEVENTH, modify the first paragraph of Section VI to read as follows:

Defendant shall design, install, operate, and maintain the systems described below to control, remove, and treat Soil Contamination at the GSI Property and remove and treat groundwater from the Marshy Area located north of former Ponds I and II as necessary to: (a) prevent the migration of 1,4-dioxane from contaminated soils into any aquifer in concentrations that cause the expansion of groundwater contamination in violation of Section V.B.1 of this Consent Judgment; (b) prevent venting of groundwater into Honey Creek Tributary with 1,4-dioxane in quantities that cause the concentration of 1,4-dioxane at the groundwater-surface water interface of the Tributary to exceed 2800 ug/l; and (c) prevent venting of groundwater to Third Sister Lake with 1,4-dioxane in quantities that cause of the concentration of 1,4-dioxane at

the groundwater-surface water interface of the Lake to exceed 2800 ug/l. Defendant also shall implement a monitoring plan to verify the effectiveness of these systems.

TWELTH, modify Section VI.A. to read as follows:

1. Objectives. The objectives of this System are to: (a) prevent expansion of groundwater contamination prohibited under Section V.B.1.; and (b) prevent the discharge of contaminated groundwater from the Marshy Area into the Honey Creek Tributary in quantities that cause the concentration of 1,4-dioxane at the groundwater-surface water interface of the Tributary to exceed 2800 ug/1.

2. Response Activities. Defendant shall operate the Marshy Area System described in Defendant's May 5, 2000 Final Design and Effectiveness Monitoring Plan, as subsequently modified and approved by the MDNRE as necessary to meet the objectives of the Marshy Area System until its operation may be terminated under Section VI.D. of this Consent Judgment.

3. Monitoring. Defendant shall implement the MDNRE-approved monitoring plan to verify the effectiveness of the Marshy Area System in meeting the requirements of this Consent Judgment. The monitoring plan shall be continued until terminated pursuant to Section VI.D. of this Consent Judgment.

THIRTEENTH, modify Section VI.B.1 by replacing "2000 ug/l" with "2800 ug/l".

FOURTEENTH, renumber Sections VI.B.4 and VI.B.5 to VI.B.3 and VI.B.4, respectively, and modify new Section VI.B.3.c. to read as follows:

c. If Soil Contamination is identified in any of the areas investigated, Defendant shall submit, together with the report required in Section VI.B.3.b., an analysis of whether such Soil Contamination will cause the expansion of Groundwater Contamination prohibited under Section V.B.1. or venting of groundwater to Third Sister Lake with 1,4-dioxane

in quantities that cause of the concentration of 1,4-dioxane at the groundwater-surface water interface of the Lake to exceed 2800 ug/l. If either will occur, Defendant shall submit a remediation plan for that area that achieves the overall objectives of Section VI. The plan shall include a proposed schedule for implementation. The remediation system shall be installed, operated, and terminated in accordance with the approved plan.

FIFTEENTH, modify Section VI.C.1. to read as follows:

1. Objectives. The objectives of this program are to: (a) evaluate the necessity, feasibility and effectiveness of available options for remediation of identified source areas; (b) design and implement remedial systems, if necessary, to achieve the overall objectives of Section VI; and (c) verify the effectiveness of those systems.

SIXTEENTH, modify Section VI.C.2. to read as follows:

2. Soils Remediation Plan. Defendant shall, no later than November 30, 1996 submit to MDEQ for review and approval a revised soils remediation plan for addressing identified areas of soil contamination. The areas to be addressed include the burn pit; the former Pond I area; the former Pond II area; the former Lift Station Area; and Pond III.

The Defendant's proposal must attain the overall objectives of Section VI.

SEVENTEENTH, modify Section VI.D.1 to read as follows:

1. Termination Criteria for GSI Property Remediation. Defendant shall continue to operate each of the GSI Property Remedial Systems, including the Marshy Area System until Defendant can make a demonstration to Plaintiffs' satisfaction that 1,4-dioxane remaining in any of the areas addressed would not cause: a) any expansion of groundwater

contamination in the Western Area as prohibited in Section V.B.1; or b) venting of groundwater into the Honey Creek Tributary or to the Third Sister Lake in quantities that cause the concentration of 1,4-dioxane at the groundwater-surface water interface of the Tributary or Lake to exceed 2800 ug/l. The demonstration described in this Section must be made in writing for review and approval by MDNRE pursuant to Section X of the Consent Judgment, and approved by MDNRE before Defendant terminates all groundwater extraction in the Western Area. Defendant may initiate dispute resolution pursuant to Section XVI of this Consent Judgment if MDNRE does not approve Defendant's demonstration. These Systems shall also be subject to the same post-termination monitoring as the Western Area System, described in Section V.E.2.

EIGHTEENTH, delete Sections VI.D.2., 4., and 5, and renumber VI.D.3 as VI.D.2

NINTEENTH, modify Section VII.D.1 by replacing "MI-008453" with MI-0048453"

TWENTIETH, modify Sections VII.D.5. and 6. to read as follows:

5. Permit(s) or permit exemptions to be issued by the MDNRE to authorize the reinjection of purged and treated groundwater in the Eastern Area, Western Area, and Little Lake Area;

6. Surface water discharge permit(s) for discharge into surface waters in the Little Lake System Area, if necessary;

TWENTY-FIRST, modify Section X to read as follows:

Upon receipt of any plan, report, or other items that is required to be submitted for approval pursuant to this Consent Judgment, as soon as practicable, but in no event later than 56 days after receipt of such submission, except for a feasibility analysis or plan that proposes a risk based cleanup or requires public comment submitted pursuant to Section V.A.2.b., of this Consent Judgment, the Plaintiff will: (1) approve the submission; or (2) submit to Defendant changes in the submission that would result in approval of the submission. Plaintiff will (1) approve a Feasibility Study or plan that proposes a risk based cleanup or a remedy that requires public comment; or (2) submit to Defendant changes in such submittal that would result in approval in the time provided under Part 201 of the Natural Resources and Environmental Protection Act, as amended, [MCL 324.20101 *et seq.*]. If Plaintiffs do not respond within 56 days, or 180 days, respectively, Defendant may submit the matter to Dispute Resolution pursuant to Section XVI. Upon receipt of a notice of approval or changes from the Plaintiffs, Defendant shall proceed to take any action required by the plan, report or other item, as approved or as may be modified to address the deficiencies identified by Plaintiffs. If Defendant does not accept the changes proposed by Plaintiffs, Defendant may submit the matter to Dispute Resolution pursuant to Section XVI.

TWENTY-SECOND, modify the first two sentences of Section XI.A., to read as follows:

A. Plaintiffs designate Sybil Kolon as Plaintiffs' Project Coordinator. Defendant designates Farsad Fotouhi, Vice President of Corporate Environmental Engineering, as Defendant's Project Coordinator.

TWENTY-THIRD, modify Section XIII.A. as follows:

A. Defendant shall not sell, lease, or alienate the GSI Property until: (1) it places an MDNRE approved land use or resource use restrictions on the affected portion(s) of the GSI

Property; and (2) any purchaser, lessee, or grantee provides to Plaintiffs its written agreement providing that the purchaser, lessee, or grantee will not interfere with any term or condition of this Consent Judgment. Notwithstanding any purchase, lease, or grant, Defendant shall remain obligated to comply with all terms and conditions of this Consent Judgment.

TWENTY-FORTH, modify Section XVI.A. by adding the following clause to the beginning of the section:

A. Except as provided in Sections V.A.2.f., V.A.7., and V.D.1.a., the dispute resolution procedures of this Section shall ...

TWENTY-FIFTH, modify Section XVII.E as follows:

E. Stipulated penalties shall be paid no later than 14 working days after receipt by Defendant of a written demand from Plaintiffs. Defendant shall make payment by transmitting a check in the amount due, payable to the "State of Michigan", addressed to the Revenue Control Unit; Finance Section, Administration Division; Michigan Department of Natural Resources and Environment; P.O. Box 30657; Lansing, MI 48909-8157. Via Courier to the Revenue Control Unit; Finance Section, Administration Division; Michigan Department of Natural Resources and Environment; Constitution Hall, 5th Floor South Tower; 525 West Allegan Street; Lansing, MI 48933-2125. To ensure proper credit, include the settlement ID - ERD1902 on the payment.

TWENTY-SIXTH, modify Section XVIII.E to read as follows:

E. Notwithstanding any other provision in this Consent Judgment: (1) Plaintiffs reserve the right to institute proceedings in this action or in a new action seeking to require Defendant to perform any additional response activity at the Site; and (2) Plaintiffs reserve the right to institute proceedings in this action or in a new action seeking to reimburse Plaintiffs for

response costs incurred by the State of Michigan relating to the Site. Plaintiffs' rights in E.1. and E.2. apply if the following conditions are met:

1. For proceedings prior to Plaintiffs' certification of completion of the Remedial Action concerning the Site,

a. (i) conditions at the Site, previously unknown to the Plaintiffs, are discovered after entry of this Consent Judgment, (ii) new information previously unknown to Plaintiffs is received after entry of the Consent Judgment, or (iii) MDNRE adopts one or more new, more restrictive cleanup criteria for 1,4-dioxane pursuant to Part 201 of the Natural Resources and Environmental Protection Act (NREPA), MCL 324.20101 et seq., after entry of the Consent Judgment; and

b. these previously unknown conditions, new information, and/or change in criteria indicate that the Remedial Action is not protective of the public health, safety, welfare, and the environment; and

2. For proceedings subsequent to Plaintiffs' certification of completion of the Remedial Action concerning the Site,

a. (i) conditions at the Site, previously unknown to the Plaintiffs, are discovered after certification of completion by Plaintiffs, (ii) new information previously unknown to Plaintiffs is received after certification of completion by Plaintiffs, or (iii) MDNRE adopts one or more new, more restrictive cleanup criteria for 1,4-dioxane pursuant to Part 201 of NREPA, after certification of completion by Plaintiffs; and

b. these previously unknown conditions, new information, and/or change in criteria indicate that the Remedial Action is not protective of the public health, safety, welfare, and the environment.

If Plaintiffs adopt one of more new, more restrictive, cleanup criteria, Plaintiffs' rights in E.1. and E.2. shall also be subject to Defendant's right to seek another site specific criterion(ia) that is protective of public health, safety, welfare, and the environment and/or to argue that Plaintiffs have not made the demonstration(s) required under this Section.

TWENTY-SEVENTH, modify Section XX by changing the heading and adding new subsection C, as follows:

XX. INDEMNIFICATION, INSURANCE, AND FINANCIAL ASSURANCE

C. Financial Assurance

1. Defendant shall be responsible for providing and maintaining financial assurance in a mechanism approved by MDNRE in an amount sufficient to cover the estimated cost to assure performance of the response activities required, to meet, the remedial objectives of this Consent Judgment including, but not limited to investigation, monitoring, operation and maintenance, and other costs (collectively referred to as "Long-Term Costs"). Defendant shall continuously maintain a financial assurance mechanism (FAM) until MDNRE's Remediation Division (RD) Chief or his or her authorized representative notifies it in writing that it is no longer required to maintain a FAM. Defendant shall provide a FAM for MDNRE's approval within 45 days of entry of this Third Amendment.

2. Defendant may satisfy the FAM requirement set forth in this Section by satisfying the requirements of the financial test and/or corporate guarantee, attached as Attachment H, as may be amended by the Parties or by the Court upon the motion of either Party (Financial Test). Defendant shall be responsible for providing to the MDNRE financial information sufficient to demonstrate that Defendant satisfies the Financial Test. If Defendant utilizes the Financial Test to satisfy the financial assurance requirement of this Consent

Judgment, Long-Term Costs shall be documented, at Defendant's discretion, on the basis of either: a) an annual estimate of maximum costs for the response activities required by the Consent Judgment as if they were to be conducted by a person under contract to the MDNRE (MDNRE-Contractor Costs); or b) an annual estimate of maximum costs for the response activities required by the Consent Judgment as if they were to be conducted by employees of Defendant and/or contractors hired by Defendant, as applicable (Defendant's Internal Costs). In addition, Defendant shall resubmit the Financial Test and the associated required documents annually within 90 days of the end of its fiscal year or any Guarantor's fiscal year, subject to Section XX.C.4. Defendant is not required to provide another type of FAM so long as Defendant continues to meet the requirements for the Financial Test.

3. Ninety (90) days prior to the five (5)-year anniversary of the effective date of this Third Amendment to Consent Judgment, and each subsequent five (5)-year anniversary, Defendant shall provide to the MDNRE for its approval, a report (Long-Term Cost Report) containing the following:

a. If Defendant is required to provide a FAM other than the Financial Test or if Defendant's estimate of the long term costs for the Financial Test is based on Defendant's Internal Costs, then the Long-Term Cost Report shall contain the actual costs of the response activities required to meet the remedial objectives of this Consent Judgment at the Site for the previous five-year period and an estimate of the amount of funds necessary to assure the performance of the response activities required to meet the remedial objectives of this Consent Judgment at the Site for the following thirty (30)-year period given the financial trends in existence at the time of preparation of the report (Long-Term Cost Report). The Long-Term Cost Report shall also include all assumptions and calculations used in preparing the necessary

cost estimate and be signed by an authorized representative of Defendant who shall confirm the estimate is based upon actual costs. Defendant may only use a present worth analysis if an interest accruing FAM is selected; or

b. If Defendant's estimate of the Long Term Costs for the Financial Test is based on MDNRE-Contractor Costs, and the actual costs are less than the estimate, the Long-Term Cost Report shall contain a certification from Defendant that the total actual costs Defendant incurred to implement the required response activities for the previous five-year period was less than the previously provided cost estimate based on MDNRE-Contractor Costs. If actual costs are more than the estimate, then Defendant shall provide the actual cost incurred to meet the remedial objectives of this Consent Judgment for the previous five years. The Long-Term Cost Report shall also include an estimate of the amount of funds necessary to assure the performance of the response activities required to meet the remedial objectives of this Consent Judgment at the Site for the following thirty (30)-year period given the financial trends in existence at the time of preparation of the Long-Term Cost Report. The Long-Term Cost Report shall also include all assumptions and calculations used in preparing the necessary cost estimate and be signed by an authorized representative of Defendant.

4. Within 30 days of receiving MDNRE's approval of the Long-Term Cost Report, or within 90 days of the end of Defendant's (or any Guarantor's) fiscal year, whichever is later, Defendant shall resubmit its Financial Test, which shall reflect Defendant's (or, at its option, its parent corporation, Pall Corporation's) current financial information and the current estimate of the costs of the response activities required by the Consent Judgment. If this or any Financial Test indicates that Defendant (and its parent corporation, Pall Corporation if Defendant chooses to include Pall Corporation as a corporate guarantor) no longer satisfies the Financial

Test, Defendant will be required to provide to MDNRE for its approval a revised current estimate of the costs of the response activities required by the Consent Judgment to reflect the costs needed for the MDNRE to perform the necessary work using MDNRE contractors. The Parties shall negotiate a mutually acceptable alternative FAM. If the Parties are unable to reach an agreement, Plaintiffs shall provide Defendant with the FAM that will be required, which Defendant must provide unless Defendant initiates dispute resolution pursuant to Section XVI of the Consent Judgment, however during the dispute resolution process, Defendant may not challenge the underlying requirement that some type of FAM is required.

TWENTY-EIGHTH, modify Section XXIII by replacing the individual representatives of the Parties with the following individuals:

For Plaintiffs:

Sybil Kolon
Project Coordinator
Michigan Department
of Natural Resources
and Environment
Remediation Division
301 East Louis Glick Highway
Jackson, MI 49201

For Defendants:

Farsad Fotouhi
Vice President of Corporate Environmental
Engineering
Gelman Sciences, Inc.
600 South Wagner Road
Ann Arbor, MI 48106

and

Michael L. Caldwell
Zausmer, Kaufman, August, Caldwell & Tayler,
P.C.
31700 Middlebelt Road, Ste. 150
Farmington Hills, MI 48334

TWENTY-NINTH, modify Section XXVI by replacing "Attachment F" in the fourth line of that Section with "Attachment I".

IT IS SO STIPULATED AND AGREED:

PLAINTIFFS

Dan Wyant

Dated: 3.4.11

Dan Wyant, Director
Michigan Department of Natural
Resources and Environment

Approved as to form:

Dated: 3-4-11

Celeste R. Gill (P52484)
Assistant Attorney General
Environment, Natural Resources and
Agriculture Division
P.O. Box 30755
Lansing, MI 48909
(517) 373-7540
Attorney for Plaintiffs

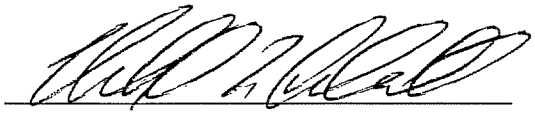
IT IS SO STIPULATED AND AGREED:

DEFENDANT

Dated: 3/3/11

Roberto Perez
President
Gelman Sciences, Inc.

Approved as to form:



Dated: 3/3/11

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535 Griswold St. Suite 1000
Detroit, MI 48226
(313) 963-3873
Attorneys for Defendant

IT IS SO ORDERED AND ADJUDGED this ____ day of MAR - 8 2011.

/S/DONALD E. SHELTON

HONORABLE DONALD E. SHELTON
Circuit Court Judge

LF/Gelman/88-34734-CE/Third Amendments to Consent Judgment

EXHIBIT F

COPY

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

JENNIFER GRANHOLM, Attorney General for the State of Michigan, ex rel, MICHIGAN NATURAL RESOURCES COMMISSION, MICHIGAN WATER RESOURCES COMMISSION, and MICHIGAN DEPARTMENT OF NATURAL RESOURCES,

Plaintiff,

vs

GELMAN SCIENCES, INC.,

Defendant.

Case No. 88-34734-CE

Honorable Donald E. Shelton

OPINION AND REMEDIATION ENFORCEMENT ORDER

At a Session of the Court held in the Washtenaw County Courthouse in the City of Ann Arbor, on July 17, 2000

PRESENT: HONORABLE DONALD E. SHELTON, Circuit Judge

This case was originally filed in 1988 by the State to require Gelman Sciences, Inc. to clean up pollution of local water supplies caused by the discharge of dioxane from its manufacturing facility. A consent judgment identifying the required remediation actions was agreed to by the parties and entered on October 22, 1992. In the 12 years this case has been pending, many things have changed, including the identity if the participants. The successor to the plaintiff agency is now called the Michigan Department of Environmental Quality ("MDEQ"). The defendant corporation has been acquired by another company and is now known as Pall/Gelman Sciences, Inc. ("PGSI).

The original judge retired and the case was reassigned and has subsequently been reassign to this Court as companion to other litigation involving this issue. The original consent judgment was amended by the parties and the Court on September 23, 1996 and again on October 20, 1999.

On February 14, 2000 plaintiff filed a motion to enforce the consent judgment. The MDEQ claims that PGSI has not complied with the terms of the consent judgment as amended and seeks equitable relief in the form of an order requiring PGSI to perform specific "environmental response activities" to achieve the cleanup requirements of the consent judgment. The MDEQ also seeks to an order requiring the payment of certain "stipulated penalties" provided in the consent judgment. PGSI asserts that it has actively sought to remediate the pollution and that no penalties are due under the terms of the judgment. The issues were defined in a Joint Prehearing Statement filed by the parties on June 21, 2000. An evidentiary hearing was conducted on July 6, 7 and 10, 2000. The parties were also given the opportunity to respond to the Court's proposed Order. The Court's findings and conclusions, in part, are set forth below in this Opinion and Order.

The monitoring and purging of dioxane from the aquifers flowing under and around the Gelman facility is an ongoing process. The defendant, particularly since the change in ownership, has acted in good faith to meet its obligations to identify and clean up the polluted water supplies. It is also clear, however, that the purging of dioxane has not occurred fast enough to provide the public, or the Court, with assurance that the plume of dioxane was contained as early as it should have been or that there is an ongoing approved plan that will lead to the removal of unlawful levels of this pollutant from the area's water supplies. In part this appears to be because Gelman, especially

early on, did not know how to detect or remove the pollutant or act quickly enough to find out and do so. In part, however, this also appears to be because the MDEQ itself did not know how to monitor or purge the pollutant or it just acted far too slowly in its "reactive only" mode to Gelman's proposed work plans. It also appears that some of the delay has been the result of the inability to obtain land and other access to install the necessary monitoring, purging and treating equipment.

Assigning responsibility for these delays however is not this Court's priority. The fact is that the consent judgment of the Court, as subsequently amended, was intended to bring about a cleanup of this pollution and it has not yet done so. It is far less important to fix blame for that failure than it is to enforce its terms to bring about the cleanup. Based upon the evidence submitted, this Court is going to grant equitable relief in the sense that the Court will use its equitable powers to enforce the consent judgment to insure that dioxane levels in these water supplies is brought within acceptable standards as soon as possible. Both sides in this dispute appear to need the intervention of the Court to keep them moving toward this goal.

The Court's remediation order is designed first to require PGSI to submit an enforceable long range plan which will reduce all dioxane in these water supplies below legally acceptable levels and second to order immediate measures to move that process along faster than it has moved in the past. As to the request for monetary penalties, there has been considerable testimony about whether PGSI is liable for stipulated penalties under the amended consent judgment. The Court will take these requests for penalties under advisement. However, the parties are advised that the Court intends to enforce the consent judgment and the equitable

remediation measures in this order by virtue of its contempt powers and all of the sanctions available thereunder.

Remediation Enforcement Order

1. PGSI shall submit a detailed plan, with monthly benchmarks, which will reduce the dioxane in all affected water supplies below legally acceptable levels within a maximum period of five years from the date of this Order. The plan will also provide for subsequent monitoring of those water supplies for an additional ten year period thereafter. This plan will be submitted to the MDEQ for review within 45 days of this Order. MDEQ will respond within 75 days of this Order and the parties will confer and discuss the issues raised by the MDEQ review, if any. The plan will then be submitted to this Court within 90 days of this Order, for review and adoption as an Order of the Court.
2. As to the area in which monitoring well "10d" is located, the additional monitoring wells requested by the MDEQ will be installed within 60 days of this Order. An additional two purging wells in the monitoring well 10d area will be also be installed and operational within 60 days of this Order.
3. PGSI will install an additional ultraviolet treatment unit which shall be operational within 75 days of this Order. The capacity of the unit shall be consistent with the Court's maximum total remediation period of 5 years described in paragraph 1 of this Order.

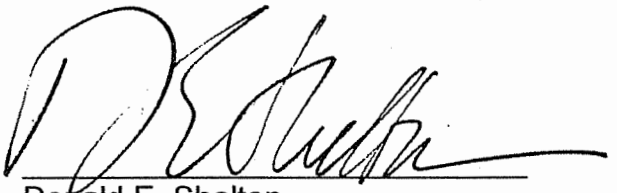
4. Purging from the horizontal well in the Evergreen area shall commence within 30 days after the additional ultraviolet treatment unit is installed.

5. The combined pumping rate of the LB1, LB2 and AE1 purging wells will be increased to 200 gpm within 30 days after the additional ultraviolet treatment unit is installed.

6. Monitoring wells in the Dupont section of the Evergreen area will be installed as requested by the MDEQ. These wells will be operational within 45 days after access is obtained. PGSI shall secure access for those wells within 30 days of this Order or, if necessary, commence legal action to do so within that time.

7. In the Western area, PGSI shall install monitoring wells as requested by MDEQ. These wells will be operational within 45 days after access is obtained. PGSI shall secure access for those wells within 30 days of this Order or, if necessary, commence legal action to do so within that time. In the event that monitoring of those wells for five months thereafter shows an increasing concentration of dioxane above legally acceptable levels, then a purging well will be installed and be operational within 60 days after that five month period. The Court reserves judgment as to any other remedial measures in this area in the event that there is no evidence of such increasing levels.

IT IS SO ORDERED.



Donald E. Shelton
Circuit Judge

EXHIBIT G

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

JENNIFER GRANHOLM, Attorney General for the State of Michigan, ex rel, MICHIGAN NATURAL RESOURCES COMMISSION, MICHIGAN WATER RESOURCES COMMISSION, and MICHIGAN DEPARTMENT OF NATURAL RESOURCES,

Plaintiff,

vs

GELMAN SCIENCES, INC.,

Defendant.

Case No. 88-34734-CE

Honorable Donald E. Shelton

OPINION AND ORDER REGARDING REMEDIATION OF THE CONTAMINATION OF THE "UNIT E" AQUIFER

At a Session of the Court held in the Washtenaw County Courthouse in the City of Ann Arbor, on December 17, 2004

PRESENT: HONORABLE DONALD E. SHELTON, Circuit Judge

Background

Gelman Sciences makes filters for medical purposes and employs several hundred people at a facility located on Wagner Road in Scio Township, adjacent to the City of Ann Arbor. For several years in its production of these filters Gelman used a man-made compound known as 1,4 dioxane, a solvent used in a number of products and industries. It is classified by the Environmental Protection Agency as a "possible" human carcinogen. Gelman had been storing waste water containing dioxane in unlined lagoons near its plant and had apparently also sprayed the wastewater on the ground around the plant. In the mid 1980's, it was discovered that this waste water had seeped

through the ground and contaminated the ground water supply in the area. Gelman ceased using dioxane in 1986.

This case was originally filed in 1988 by the State to require Gelman to clean up pollution of local water supplies caused by the discharge of dioxane. The original judge conducted a trial in 1991 and found that the contamination was the result of waste disposal practices by Gelman but that those practices had been done in accordance with State approved procedures. Eventually, a Consent Judgment identifying the required remediation actions was agreed to by the parties and entered on October 26, 1992. In the 16 years this case has been pending, many things have changed, including the identity if the participants. The successor to the plaintiff agency is now called the Michigan Department of Environmental Quality ("MDEQ"). The defendant corporation was acquired by another company in 1997 and is now known as Pall Life Sciences, Inc. ("Pall"). The original judge retired, the case was reassigned, and then was subsequently reassigned to this Court.

The original Consent Judgment was amended by the parties and the Court on September 23, 1996 and again on October 20, 1999. In early 2000, the MDEQ filed a motion to enforce the Consent Judgment and for monetary sanctions. This Court conducted a lengthy evidentiary hearing. On July 17, 2000 the Court entered its Remediation Enforcement Order which ordered the development and implementation of a detailed plan to reduce the dioxane in all affected water supplies below legally acceptable levels within a period of five years. The Court ordered plan also provided for subsequent monitoring of water supplies for an additional ten year period. The parties

were advised that the Court intended to vigorously enforce the Consent Judgment and its remedial orders with all of its statutory and equitable powers.

The parties have complied with the basic provisions of Court's Remediation Enforcement Order. By pumping and treating over a billion gallons of contaminated water at a treatment facility constructed on its Wagner Road site, over 37,000 pounds of 1,4 dioxane has been removed from the aquifer covered by this Court's five year order. Pall has complied with the terms of that Order.

However, in 2001 it was discovered that the contaminant had somehow seeped below the shallower aquifer and had contaminated a much deeper aquifer denominated by the parties as "Unit E". Test wells revealed that the plume of dioxane in that aquifer had spread Eastward under the City of Ann Arbor. The parties have been testing throughout the area to determine the spread of the plume and have been trying to develop a plan to treat the contamination of that aquifer. While there is apparent agreement on several aspects of the proposed remedial action, MDEQ and Pall disagree about important parts of the plan. The Court ordered the parties to submit their view of the proposals and to respond to questions posed at the last hearing so that the Court could resolve the outstanding issues and expedite the decontamination process for Unit E.

Procedural Posture

Initially, the parties have raised questions about the applicability of the Consent Judgment to Unit E, the responsibility of the Court to review MDEQ actions, and the scope of the Court's role in this process.

The Court finds that the Unit E contamination is subject to the Consent Judgment in this case. While this particular area of contamination had not been discovered at the time of the Consent Judgment, that judgment was intended to address the entire issue of the remediation of 1,4 dioxane emanating from the Gelman property on Wagner Road. Technically, the Court agrees with the MDEQ assertion that Unit E falls within the "Western System" as that phrase was used in the Consent Judgment. Its subsequent migration in an easterly direction does not negate that finding. The Court has the inherent and equitable powers to enforce its judgment with all appropriate measures and sanctions as to Unit E contamination.

The MDEQ, however, also questions the scope of the Court's powers and responsibilities regarding enforcement of the Consent Judgment and the Court's statutory powers and responsibilities pursuant to Part 201 of the NREPA, MCL 324.20101 *et seq*. As MDEQ asserts, the Court's determination of appropriate remedial action under both the Consent Judgment and the statute should normally be based on the administrative record, including all materials submitted by the defendant. *Consent Judgment*, Sec. XVI.C; MCL 324.20137(5). The Consent Judgment also provides for the taking of additional evidence "by the Court on its own motion or at the request of either party if the Court finds that the record is incomplete or inadequate". *Consent Judgment*, Sec. XVI.C.

The Court's review of MDEQ actions is not solely limited to a determination of whether those actions are "arbitrary and capricious". The standard for review under the statute is whether the "decision was arbitrary and capricious or 'otherwise not in accordance with law'". MCL 324.20137(5). The standard for review of MDEQ remedial

action proposals under the Consent Judgment in this case is broader as well. It provides that MDEQ actions are reviewed by this Court to determine if the decision is either (1) inconsistent with the Consent Judgment, or (2) not supported by competent, material, and substantial evidence on the whole record, or (3) arbitrary, capricious, or clearly an abuse or unwarranted exercise of discretion, or (4) affected by any other substantial and material error of law. *Consent Judgment*, Section XVI.D.

Additionally, the Court has and intends to exercise its inherent powers to enforce its own directives. Circuit courts have the jurisdiction and the power to make any order to fully effectuate the circuit courts' jurisdiction and judgments. See *St. Clair Commercial & Savings Bank v. Macauley*, 66 Mich App 210 (1975); *Schaeffer v. Schaeffer*, 106 Mich App 452 (1981); *Cohen v. Cohen*, 125 Mich App 206 (1983); MCL 600.611. This case ended up in Court initially because no clean up of significant pollution had even begun without Court intervention. The MDEQ, and subsequently the defendant, sought to invoke the equitable and statutory powers of the Court to bring about remediation of a dangerous contamination of the public's water supply. Eventually a judgment was entered and remediation orders have been made by the Court to effectuate that judgment and the goal of cleaning up this pollution. Despite the best efforts of the parties, it is not done. The extent of the contamination is deeper and greater than originally known, perhaps aggravated many years ago both by the initial resistance of Gelman and the initial ineffectiveness of the State agency. It is going to take continued concerted actions by all of the parties to remedy this expanding contamination. The Court is determined to exercise all of its inherent, statutory, and equitable powers to assure that those actions take place as soon as possible.

The Unit E Disputes

The Unit E aquifer is extremely deep, apparently over 200 feet underground. It appears to flow in an easterly direction eventually depositing water into the Huron River, which runs through Washtenaw County and the City of Ann Arbor. Test wells have indicated the presence of 1,4 dioxane under the City with the leading edge of the plume more than two miles from the Wagner Road facility. The plume is continuing to spread. At this point, the aquifer is not a source of drinking water. The City of Ann Arbor services all of its citizens with a municipal water system which draws its water primarily from the Huron River but at a point well upstream of the point at which the Unit E aquifer vents into the river. One City well did draw water from the aquifer but it has been taken out of service. There are no private wells drawing from the affected portion of the aquifer.

The MDEQ and Pall have diligently been pursuing a plan to control the contamination plume in the Unit E aquifer. Test wells have been put in place. Working in conjunction with the MDEQ, Pall has designed new technologies to arrest the contamination. The parties have cooperated in the exchange of technical data and other information. There is significant public interest and several public hearings have been held. Input has been received from public interest organizations as well as from the City of Ann Arbor. MDEQ made a decision on September 1, 2004 outlining its plan for Unit E remediation. The parties agree on much of that plan but disagree on two important elements: (1) the actions to be taken at the Wagner Road facility to prevent further contamination of the aquifer, and (2) the approach to be used to remove contaminants

from the plume in the aquifer that is already migrating East of the Wagner Road facility. The disputes as to those issues are properly before the Court.

Actions to be Taken at the Wagner Road Facility

The MDEQ calls for Pall to do test borings and then install extraction wells into the Unit E aquifer at the Wagner Road site and to purge the water from those wells at the treatment facility Pall has built and operates on that property. The purged water would then be discharged into Honey Creek in the same manner as Pall has successfully treated and discharged water from shallower sources. Pall agrees with the test borings, including one with the "rotosonic" technique required by MDEQ.

Pall disputes the MDEQ requirement that extraction wells and treatment then be undertaken with a goal to "capture the entire width of the Unit E plume at Wagner Road" and to "create a hydraulic barrier near Wagner Road to prevent further migration of groundwater contamination above 85 ppb east of Wagner Road". Pall proposes that any extraction wells would be designed to reduce the mass of contaminants but claims that the objective of capturing the entire width of the plume at that point is not feasible, not supported by the evidence, and would be inconsistent with its obligations under the Consent Judgment.

It appears to the Court that much of this dispute is semantic, or at least premature. The goal set by the MDEQ of total capture of the width of the plume is certainly appropriate - if it can be done. Whether it is feasible or not depends on a number of factors that will not be known until the test borings are complete. That portion of the MDEQ rationale relating to protecting non-existent private wells and protecting the non-operational City Northwest Supply well is not supported by the evidence on the

record. However, the primary MDEQ rationale is that controlling groundwater contamination at or near its source is more efficient than trying to capture it later as it spreads through the aquifer. There is ample support for that position. Pall does not seriously contest that proposition but disagrees with MDEQ's projection of the degree to which such interception will prove successful. Pall may well be right but the reality is that we will simply not know how much reduction is possible until the test wells are complete and extraction wells placed into operation.

One portion of the Pall objection to the Wagner Road plan deserves more serious consideration. Pall maintains that if it extracts and treats all of the Unit E water that MDEQ wants at Wagner Road, it will not be able to discharge that water into Honey Creek because, when combined with the other required treatment already underway, the total will exceed the NPDES discharge permit levels allowed by MDEQ. To the extent that this proves to be true, the MDEQ will either have to expeditiously increase the discharge permit level or forego its goal of complete Unit E capture at Wagner Road. To the extent that there is a "competition" for permitted discharge, priority must be given to the water currently being treated from shallower levels.

Subject to the limitations expressed above, Pall shall:

1. Perform the investigation described in the August 1, 2004 Work Plan for Test Boring/Well installation and Aquifer Testing in the Wagner Road Area, as modified by MDEQ's letter of August 19, 2004, including the use of rotosonic drilling for at least one boring.
2. Submit a report of the investigation to MDEQ within 30 days of the completion of the aquifer performance test.

3. Within 60 days after completion of the aquifer performance test, submit a work plan to MDEQ which will, to the maximum extent feasible, prevent further migration of groundwater contamination above 85 ppb of 1,4 dioxane eastward into the Unit E aquifer. The plan will identify any required increase in the NPDES discharge permit to accommodate such additional treatment.
4. If the parties do not agree on a Unit E Wagner Road work plan within 30 days after submission, it will be brought before the Court on motion by MDEQ for resolution.

Actions to be Taken in the Eastern Portion of Unit E

The other major issue is how to remove contaminants from the plume that has already spread eastward into the Unit E aquifer. It will never be possible to extract all of the 1,4 dioxane from this deep aquifer and the geology is such that it will ultimately end up in the Huron River and be diluted far below currently acceptable standards. But the goal must be to remove as much of the contaminant as possible, as quickly as possible, so that the ultimate dilution will take place with minimal impact on the water resource.

Pall has proposed remediation by means of a reinjection system in which water is extracted from the aquifer, treated on the Maple Road site, and immediately reinjected into the aquifer at that location. This system is one which has been developed over the last many months and has been the subject of much investigation by the parties as well as review hearings by the Court. The MDEQ has, with the conditions and qualifications discussed below, agreed with the Pall reinjection plan. The Court believes that treatment and reinjection of Unit E water

should commence forthwith in accordance with that plan. Pall shall submit its detailed work plan to MDEQ not later than thirty days from this Order. The work plan will be designed to purge enough water so that any water escaping from the purging zone in Unit E will not exceed 2,800 ppb recommended by the MDEQ.

The MDEQ qualified its approval of the Pall plan on six conditions, some of which form the basis of the disputes now before the Court. The first MDEQ condition is that the City of Ann Arbor formally abandon the Northwest Water Supply ("Montgomery") well. The City closed the well in February of 2001. The cause for the closing is being disputed between the City and Pall in a separate lawsuit. The City there claims that it closed the well because dioxane from the Gelman site had contaminated it. Pall claims that the level of 1,4 dioxane alleged to be in the well was 2 ppb, well below the 85 ppb standard. Pall also claims that the well is closed because the City found 18 ppb of arsenic, unrelated to any Gelman contamination, in the well. The outcome of those allegations, and any compensation claims, will be decided in that separate action. As far as this case is concerned, the closed well has no bearing on the remediation plan for Unit E. There is no basis to include it as a condition to the clean up plan.

The third condition imposed by MDEQ relates to the administrative requirements of the statute. Since the proposed remedial plan contemplates levels above 85 ppb, provisions of the rules require an administrative "waiver". Pursuant to MCL 324.20118(6)(d), such a waiver would require "other institutional controls necessary to prevent unacceptable risk from exposure to the hazardous substances". MCL 324.20120b(5) states the mechanisms for such institutional

controls "include, but are not limited to, an ordinance that prohibits the use of groundwater or an aquifer in a manner and to a degree that protects against unacceptable exposures as defined by the cleanup criteria approved as part of the remedial plan". Applied to this case, this means that there must be enforceable restrictions on the human use of water from the Unit E aquifer during remediation. Pall asserts that the Washtenaw County Rules and Regulations for the Protection of Groundwater adopted on February 4, 2004, if supplemented by an appropriate order from this Court, meet that statutory requirement. The Court agrees. Under the circumstances of this case it would be arbitrary and unreasonable to delay the cleanup of the Unit E aquifer pending the drafting and potential adoption of an ordinance or other legislative action to supplement the Washtenaw County Rules and Regulations already in place. The parties are directed to submit a proposed order to this Court which will include at least the following controls:

1. A map that identifies the area that would be covered by the judicial institutional control, including a buffer zone.

2. A prohibition against the installation of new water supply wells for drinking, irrigation, or commercial or industrial use, within the zones shown on the map.

3. A prohibition directed to the County Health Officer prohibiting permits for well construction in those zones.

4. A prohibition against consumption or use of groundwater from within the zones.

5. A requirement that PLS provide, at its expense, connection to the City of Ann Arbor municipal water supply for any existing private drinking water wells within the zones.

6. A requirement that the Order be published and maintained in the same manner as a zoning ordinance.

7. A provision that the Order shall remain in effect until such time as it is amended or rescinded by further Order of the Court, with a minimum 30 days notice to all parties.

8. A provision to allow either party to move to amend the boundaries of the prohibition zone to reflect material changes in the boundaries or fate of the plume as determined by future hydrogeological investigations and/or monitoring.

Next, the MDEQ conditions its approval of the remediation plan on the retention by Pall of a person to do "stochastic modeling" of Unit E. Based on the record, there is no substantial evidence to indicate that such a model would assist the remediation of this area in any way. The field data required by the MDEQ has served to develop the model for remediation and will continue to do so. It is this field data that allows the MDEQ, and then the Court, to review whether the remediation is working. There is no indication that "stochastic modeling" will add anything to those remediation efforts and it is not required. MDEQ has properly required that Pall conduct future monitoring of the plume path and plume concentration. Pall has agreed and has submitted a work plan to meet that requirement.

Finally, and most importantly, the MDEQ has conditioned its approval of the remediation plan on the development of an alternative plan that would require construction of a large treatment facility at Maple Road and the piping of water from significant distances through Unit E back to Maple Road for treatment and then discharge into the Huron River via another pipeline. The alternative insisted upon by MDEQ would require the installation and operation of a treatment system large enough to accommodate 1150 gallons per minute in the commercial area near Maple Road. Pall contends that such a facility is not feasible and would not be safe. The feasibility of the MDEQ proposal is subject to serious question. The acquisition and rezoning of enough

land to site both the treatment facility and the required ponds in this congested area would take considerable time, if it ever could be done. Such a facility would require location and storage of an amount of liquid oxygen equal to that currently used at the Wagner Road treatment facility and five times the amount used at the current Maple Road mobile facility. Locating such a facility in this retail commercial area does pose significant dangers.

Most importantly, the alternative in this MDEQ condition means that thousands, perhaps millions, of gallons of contaminated water would need to be piped under the City to be treated at the proposed Maple Road facility. This would require the installation of three to four miles of pipelines, including at least 1½ miles of pipelines in residential Ann Arbor neighborhoods. To say that the residents in the affected areas would be reluctant to agree to have pipelines containing 1,4 dioxane running through their neighborhoods is an understatement by several degrees of magnitude. Public hearings have demonstrated overwhelming opposition to such a plan. While the City of Ann Arbor has filed a pleading agreeing with the construction a Maple Road facility, notably missing from its brief is any commitment to facilitate the location of the required dioxane-bearing pipelines in Ann Arbor neighborhoods. In 1998 it took months, and this Court eventually had to intervene with an Order, to force the installation of 1000 feet of a pipeline near the Wagner Road facility--and that pipeline was only running under a freeway.

Whether the concerns of residents about such pipelines are scientifically justified or not, the political and practical reality is that the required pipeline rights-of-way and construction could not begin to take place for years, if ever. This contamination was

discovered twenty years ago and this lawsuit to get it cleaned up has been pending for sixteen of those years. The water in the Unit E aquifer continues to flow and the plume of 1,4 dioxane continues to expand within it. We simply do not have the years it would take for the MDEQ alternative to begin to remove any contamination from the leading edge of the Unit E. plume. After careful examination of the MDEQ alternative set forth in its conditions, the Court finds that it is not feasible, is unwarranted, and is not supported by competent, material, and substantial evidence.

Conclusion

The parties have worked diligently to address the question of how the contamination of the Unit E aquifer should be addressed and have investigated several alternatives. The process has been exhaustive but not expeditious. In the meantime the plume of 1,4 dioxane continues to spread. It is not the role of this Court to devise or fashion remedies for the spreading pollution of this deep aquifer. It is the role of this Court to enforce the Consent Judgment and to assure that whatever remedy is implemented conforms to that Judgment and to the pollution statutes of the State. The overriding guideline for that enforcement is the health and welfare of the public. The health and welfare of the public demands that the cleanup of the contamination of this large body of underground water begin, and proceed, as soon as humanly possible. The parties are ordered to implement the holdings in this Opinion and Order forthwith.

IT IS SO ORDERED

Donald E. Shelton
Circuit Judge

EXHIBIT H

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

JENNIFER M. GRANHOLM, Attorney General for the State of Michigan, *ex rel*, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY,

Plaintiffs,

v

GELMAN SCIENCES, INC., a Michigan corporation,

Defendant.

File No. 88-34734-CE

Honorable Donald E. Shelton

ORDER PROHIBITING GROUNDWATER USE

At a session of said Court held in the City of Ann Arbor, County of Washtenaw, Michigan, on the 17th day of May, 2005.

PRESENT: HONORABLE DONALD E. SHELTON
Circuit Court Judge

On December 17, 2004, this Court issued its Opinion and Order Regarding Remediation of the Contamination of the "Unit E" Aquifer. That Opinion and Order resolved a dispute between the Parties regarding the September 1, 2004 Decision Document issued by the Michigan Department of Environmental Quality (MDEQ) regarding remediation of the "Unit E" groundwater contamination emanating from the Pall Life Sciences (PLS) (formerly known as Gelman Sciences, Inc.) facility in Scio Township, Washtenaw County.

Among other things, this Court determined that in order to satisfy the requirements of MCL 324.20118(6)(d) and MCL 324.20120b(5) for institutional controls preventing

unacceptable exposure to 1,4-dioxane in the groundwater, it is necessary and appropriate to supplement the Washtenaw County Rules and Regulations for the Protection of Groundwater adopted February 4, 2004, with a legally enforceable order of this Court prohibiting certain groundwater uses in specifically defined areas and addressing the relevant conditions identified in the MDEQ's September 1, 2004 Decision Document.

ACCORDINGLY, pursuant to the December 17, 2004 Opinion and Order, based upon further information provided by the Parties, for the reasons stated by the Court in its May 4, 2005 ruling on Plaintiffs' Motion to Enter Order Prohibiting Groundwater Use, and in the exercise of this Court's statutory and inherent authority to enforce its orders and judgments,

IT IS HEREBY ORDERED:

1. The prohibitions imposed by this Order apply to the zone identified in the map attached hereto as Figure 1 (Prohibition Zone).

2. The installation by any person of a new water supply well in the Prohibition Zone for drinking, irrigation, commercial, or industrial use is prohibited.

3. The Washtenaw County Health Officer or any other entity authorized to issue well construction permits shall not issue a well construction permit for any well in the Prohibition Zone.

4. The consumption or use by any person of groundwater from the Prohibition Zone is prohibited.

5. The prohibitions listed in paragraphs 2, 3, and 4 do not apply to the installation and use of:

(a) groundwater extraction and monitoring wells as part of response activities approved by MDEQ or otherwise authorized under Parts 201 or 213 of NREPA, or other legal authority.

(b) dewatering wells for lawful construction or maintenance activities, provided that appropriate measures are taken to prevent unacceptable human or environmental exposures to hazardous substances and comply with MCL 324.20107a.

(c) wells supplying heat pump systems that either operate in a closed loop system, or if not, are demonstrated to operate in a manner sufficient to prevent unacceptable human or environmental exposures to hazardous substances and comply with MCL 324.20107a.

(d) emergency measures necessary to protect public health, safety, welfare or the environment.

(e) any existing water supply well that has been demonstrated, on a case-by-case basis and with the written approval of the MDEQ, to draw water from a formation that is not likely to become contaminated with 1,4-dioxane emanating from the PLS facility. Such wells shall be monitored for 1,4-dioxane by PLS at a frequency determined by the MDEQ.

6. PLS shall provide, at its expense, connection to the City of Ann Arbor municipal water supply to replace any existing private drinking water wells within the Prohibition Zone. Within thirty (30) days after entry of this Order, PLS shall submit to MDEQ for review and approval a work plan for identifying, or verifying the absence of, any private wells within the Prohibition Zone, for the abandonment of any such private wells and for replacement of private drinking water wells with connection to the municipal water supply. Well abandonment and replacement shall be performed in accordance with all applicable regulations and procedures at the expense of PLS. PLS shall implement the work plan and schedule approved by MDEQ.

7. This Order shall be published and maintained in the same manner as a zoning ordinance.

8. This Order shall remain in effect in this form until such time as it is amended or rescinded by further order of this Court, with a minimum of thirty (30) days prior notice to all Parties.

9. Either Party may move to amend the boundaries of the Prohibition Zone to reflect material changes in the boundaries or fate of the groundwater contamination plume as described by future hydrogeological investigation or MDEQ approved monitoring of the fate of the groundwater contamination.

10. In the event the boundary of the Prohibition Zone is expanded, PLS shall, within thirty (30) days after entry of such an Order, submit to the MDEQ for review and approval, a work plan for identifying, or verifying the absence of any private wells within the modified Prohibition Zone, for the abandonment of any such private wells, and for the connection to the municipal water supply to replace any drinking water wells within the modified Prohibition Zone.

11. Either Party or a local unit of government having jurisdiction within the Prohibition Zone may seek enforcement of this Order by the Court.

12. This Order shall not affect the rights, liabilities, or defenses of any party in any other legal or administrative proceeding, nor shall it constitute evidence of either the presence or absence of 1,4-dioxane at any location inside or outside the Prohibition Zone in any such proceeding.

/s/DONALD E. SHELTON

HONORABLE DONALD E. SHELTON
Circuit Court Judge

APPROVED AS TO FORM:

Robert P. Reichel

Robert P. Reichel (P31878)
Assistant Attorney General
Attorney for Plaintiffs

Michael L. Caldwell by RPR with consent

Michael L. Caldwell (P40554)
Alan D. Wasserman (P39509)
Attorneys for Defendant

Gelman/19890014677/Order3

EXHIBIT I

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE STATE OF MICHIGAN, *ex rel*, MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT,

Plaintiffs,

v

GELMAN SCIENCES, INC., a Michigan corporation,

Defendant.

File No. 88-34734-CE

Honorable Donald E. Shelton

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Farmington Hills, MI 48334
(248) 851-4111
Attorney for Defendant

STIPULATED ORDER AMENDING PREVIOUS REMEDIATION ORDERS

At a session of said Court, held in the County of Washtenaw
City of Ann Arbor, State of Michigan, on _____

PRESENT: Hon. _____
CIRCUIT COURT JUDGE

RECITALS

A. A Consent Judgment was entered in this case on October 26, 1992. The Consent Judgment requires Defendant, Gelman Sciences, Inc., to implement various response activities to address environmental contamination in the vicinity of Defendant's property in Scio Township, subject to the approval of the Michigan Department of Natural Resources and Environment ("MDNRE"). The original Consent Judgment was amended by stipulation of the Plaintiffs and Defendant (collectively the "Parties) and Order of the Court on September 23, 1996 and October 20, 1999 (collectively the "Consent Judgment").

B. On November 15, 2010, counsel for the Parties presented the Court with a Notice of Tentative Agreement on Proposed Modifications to Remedial Objectives for Gelman Site ("Notice"), which described proposed changes that the parties had tentatively agreed to make to the remediation program for the Gelman Site.

C. During a hearing held on November 22, 2010, the Court instructed the parties to prepare an amendment to the October 26, 1992 Consent Judgment that was consistent with the proposed changes described in the Notice.

D. Contemporaneously with this Stipulated Order, the Parties are submitting the proposed Third Amendment to the Consent Judgment ("Third Amendment"), which memorializes the changes to the cleanup program described in the previously submitted Notice. By their signatures on the Third Amendment, the Parties stipulate and agree to its entry by the Court.

E. The Court has also supplemented the Consent Judgment with several cleanup related orders, based on information about the nature and extent of contamination acquired after the Consent Judgment and the Amendments were entered, including, Remediation and

Enforcement Order ("REO") dated July 17, 2000, the Opinion and order Regarding Remediation of the Contamination of the "Unit E" Aquifer ("Unit E Order"), dated December 17, 2004, and the Order Prohibiting Groundwater Use ("Prohibition Zone Order"), dated May 17, 2005.

F. Since entry of the REO and the Unit E Order, the parties have further refined their understanding of the nature and extent of contamination at the Gelman Site, which is reflected in the Third Amendment.

The Parties, through their legal counsel, stipulate and agree:

1. To the extent the Third Amendment is inconsistent with any of the requirements of the REO and/or the Unit E Order, the Third Amendment shall govern. In particular, the Third Amendment eliminates and supersedes the following remedial objectives of the REO and Unit E Order:

a. The REO's requirement that Defendant maintain a combined purge rate for the Evergreen System extraction wells of at least 200 gpm.

b. The REO's requirement that Defendant implement a plan to reduce the 1,4-dioxane in all affected water supplies below legally acceptable levels within five years.

c. The Unit E Order's requirement that Defendant prevent, to the extent feasible, groundwater in the Unit E aquifer containing 1,4-dixoane in concentrations above 85 parts per billion (ug/l) from migrating east of Wagner Road.

2. The Court's Prohibition Zone Order will continue in force and is incorporated by reference by the Third Amendment and shall now apply to the "Expanded Prohibition Zone" as described in the Third Amendment, provided that the ability of the Parties under Paragraph 9 of

the Prohibition Zone Order to move the Court to alter the boundaries of the Prohibition Zone (and now Expanded Prohibition Zone) is modified as described in Section V.A.2.b. of the Third Amendment with regard to the northern boundaries.

APPROVED AS TO FORM AND SUBSTANCE:

CELESTE R. GILL (P52484)
Attorney for Plaintiffs

MICHAEL L. CALDWELL (P40554)
Attorney for Defendant

IT IS SO ORDERED.

CIRCUIT COURT JUDGE

LF/Gelman/88-34734-CE/Stip and Order Amending Previous Remediation Orders

EXHIBIT J

Pall Life Sciences' Supplemental Filing In Support Of Pall Life Sciences' Remedial Alternative

I. Introduction

On June 1, 2004, Pall Life Sciences ("PLS") submitted its Final Feasibility Study ("FS") to the DEQ. The FS was intended to provide a framework for evaluating the need for, and the potential benefit of, various response action alternatives for addressing the Unit E contamination. PLS' analysis revealed a number of significant factors that PLS considered in designing its preferred remedy. These factors included:

- All available groundwater data indicate that the Unit E plume will migrate to the Huron River at a point that is well downstream of the City's Barton Pond water intake.
- There are no private drinking water wells between the leading edge of the Unit E plume and the Huron River. The entire area is already serviced by the City of Ann Arbor's municipal water system, which obtains the majority of its water from the Huron River, well upstream from the Unit E plume.
- The only municipal drinking water well in the vicinity of the plume – the Northwest Supply Well – has already been taken out of service due to "water quality concerns" either because of the trace levels of 1,4-dioxane detected in the well in February 2001 or because arsenic is also present in the well at levels almost twice the legal limit.
- Arsenic has also been detected in other areas of the Unit E at levels far above the legally permissible level, calling into question the usefulness of this aquifer as a source of drinking water.
- The recently adopted Washtenaw County Rules and Regulations for the Protection of Groundwater ("Washtenaw County Rules") effectively prevent the installation of any new drinking water wells in the migration pathway of the plume.
- The "groundwater/surface water interface" ("GSI") criterion of 2,800 ppb is the next most restrictive cleanup criterion once the drinking water pathway is eliminated.
- Even without any active remediation, it is extremely unlikely that concentrations in the plume would even approach the GSI criterion by the time the plume reaches the Huron River.
- Any attempt to capture the entire width of the Unit E plume, either at the leading edge or another location, would require the installation of miles of pipeline, which would disrupt the congested residential neighborhoods and retail businesses in the area.
- The incredible disruption associated with capturing the plume would serve no purpose because the water is "unsafe" only if it is going to be consumed, and it is already illegal to do so.

Based on these considerations, PLS identified a remedy that was both protective of human and environmental receptors and respectful of the community. PLS' remedy

focused on reducing concentrations at two locations so that the plume will pose no threat to receptors by the time it reaches the Huron River. In PLS' judgment, the location of this plume makes it inappropriate to blindly adhere to Part 201's default prohibition on allowing the plume to expand. PLS' focus on protecting receptors through mass reduction rather than containment allowed PLS to minimize the infrastructure associated with the remedial system and to locate the reduced infrastructure away from congested residential areas.

After reviewing the FS, the DEQ submitted its Decision Document to this Court on September 1, 2004. While the formality of the document and the excessive use of mandatory language can give the impression that the parties are at loggerheads, the reality is not so dire. The DEQ concluded that, as a legal matter, it could not approve PLS' alternative as a *final remedy* based on the current state of affairs. But the DEQ agreed that PLS' remedy could be a legal, approvable, and protective final remedy if six identified conditions could be met. The most significant issues that prevented the DEQ from approving PLS' remedy are legal in nature rather than technical. The DEQ gave PLS one year to resolve these issues. In the event PLS was unable to satisfy these conditions, the DEQ concluded that PLS should be required to implement the much more invasive and controversial remedy described in the Decision Document.[1]

After reviewing the DEQ Decision Document and PLS' status report, this Court indicated that it did not believe that it was appropriate to wait a year before determining what would be done as a final response for addressing the Unit E. This Court indicated that it would modify its REO to address the Unit E contamination within 60 days of the September 8, 2004 hearing. The Court invited the parties to submit additional materials if they wished, particularly to address the questions raised by the Court during the hearing. PLS appreciates the opportunity to submit the following report and attached materials.

II. Questions Raised by the Court.

This Court asked the parties to address four specific questions raised during the September 8, 2004 Status Conference. The first three inquires relate to several of the six conditions that the DEQ indicated PLS would have to satisfy before PLS' remedy could be approved. The fourth concerns the parties' respective positions regarding the work at Wagner Road. PLS' response to each is indicated below.

A. What is the Technical Basis for the DEQ's Concerns Regarding PLS' Plan to Reinject Treated Groundwater near Maple Road?

[1] PLS has submitted detailed comments on DEQ's plan, and has provided in Attachment A a list of disputed conclusions in the Decision Document along with explanations as appropriate. As noted in Attachment A, DEQ's contingency is subject to several significant unknowns, which it should also have identified as conditions to its own plan. These include the layout of the pipelines, the limits of an NPDES permit to the Huron River, and the feasibility of siting, constructing and operating a 1300 gpm treatment system in the Maple Road area.

PLS is proposing to reinject the purged groundwater after treatment via two injection wells located to the north and to the south of the extraction well along Wagner Road. The DEQ has responded that PLS must provide "sufficient hydrogeological information to resolve **concerns** about reinjection" and that PLS must identify an acceptable method of disposing of the treated groundwater.

During the recent status hearing, the Court asked the DEQ to identify the technical basis for its concerns. PLS has met twice with DEQ's technical staff, once in person just prior to the status conference and once after the conference via a conference call. The DEQ has been unable to identify what additional information it wants PLS to submit in this regard.

PLS strongly believes that it is not necessary to "study this to death" and that the available information provides a sufficient basis for approving this disposal method. PLS has numerous monitoring wells in the Maple Village area and has conducted two aquifer pump tests to determine aquifer characteristics in this area. PLS has submitted all of this data to DEQ. PLS has also submitted its Modeling Report (Exhibit 1) that addresses the DEQ's original concerns and demonstrates that the proposed reinjection will not adversely affect the plume. The modeling also shows that the proposed extraction will significantly reduce the contaminant levels that might otherwise migrate past Maple Road. PLS agrees with the DEQ that, given the size of the plume, it would be very problematic and likely impossible to reliably reinject the volume of water needed to capture the entire width of the plume, let alone the volume needed to capture it twice as the DEQ has proposed. The existing information, however, demonstrates that PLS' more realistic plan is technically feasible. Therefore, PLS believes this condition has already been met.

PLS' work plan for implementing its proposed interim response is ready to be submitted to the DEQ for approval. PLS is simply waiting for DEQ to identify what additional information it needs in order to satisfy DEQ's unarticulated technical concerns in this regard. If necessary, PLS will attempt to address any reasonable data requests, but PLS believes that its work plan is currently approvable.

B. Can a Judicial Order be Used to Satisfy the DEQ's Institutional Control Requirement?

The DEQ contends that in order for PLS' remedy to be protective, an institutional control must be in place that would prevent use of the groundwater in the "relevant areas" of the site.[2] To the extent an institutional control under Section 18 of Part 201 (MCL 324.20118) is required in order for the DEQ to approve PLS' remedy, the current Washtenaw County Rules already substantively accomplish this. The Washtenaw County Rules already reliably restrict the installation of new water supply wells in the areas affected by the Unit E plume under the following provisions:

[2] As set forth in PLS' FS, the DEQ has authority under Section 18 to waive its aquifer control rules without the need for institutional controls. PLS attempted to demonstrate how this could be done in its FS, but the DEQ has declined to use that authority.

- No one can construct or drill any well (including a drinking water well) without first obtaining a permit from the County Health Office (Sec. 2:1);

- No municipality within the county may issue a building permit where a well is necessary or allow construction to commence on any land where an approved public or private water supply is not available until issuance of a permit by the Health Officer (Sec. 2:4);

- No permit can be issued by the Health Officer if it is not in compliance with the Rules or if it would create a dangerous or unsafe condition (Sec. 2:5);

- It is unlawful for any person to occupy or permit to be occupied any premise in Washtenaw County not equipped with an adequate supply of potable water as determined by the Health Officer (Sec. 6:1);

- The rules apply to all non-community and private groundwater supplies within Washtenaw County (Sec. 6:2);

- Water supplies intended for human consumption that are not "potable" must either be abandoned, identified at the outlet as unfit for human consumption, or treated by methods approved by DEQ or the County Health Officer so as to make the water potable (Secs. 6:2, 6:3). "Potable" water is defined as water that is free of contaminants in concentrations that may cause disease or harmful physiological effects, is safe for human consumption and meets the State drinking water standards set forth in the Michigan Safe Drinking Water Act (Sec. 1:15);

- Newly drilled wells cannot be used for human consumption until approved by the Health Officer and after they have been tested for bacteriological or chemical contaminants (Sec. 6:6); and

- No well can be located within at least 100 feet of a source of contamination, or within such increased distance as determined necessary by the Health Officer (Sec. 6:7).

This existing institutional control already prohibits the installation of water wells in the affected areas. The DEQ acknowledges that the County Rules already prohibit property owners between the plume and the river from installing new water supply wells.[3]

[3] DEQ staff explained the issues they have with the ordinance in a memorandum attached as Appendix C to DEQ's Decision Document. DEQ staff acknowledged, however, that many of the specific issues appear to be easily addressed (*e.g.*, provide a map, limit variances to isolation zones, provide more clarity in decision standards). The primary concern expressed in the memo arises from the author's understanding that there are existing drinking water wells that would be in the area threatened or impacted by "the PLS plumes." DEQ district staff members more familiar with the site agree that this is not the case with Unit E,

To the extent it is necessary to supplement the existing institutional control, PLS has suggested that this Court could issue an order that would address the minor deficiencies in the existing Washtenaw County Rules. Such an order could also constitute a stand alone institutional control that would meet the requirements of Part 201.

As was acknowledged during the status hearing, Part 201 does not preclude such an order from serving as an acceptable form of institutional control. Part 201 provides, in relevant part:

> If the department determines that exposure to hazardous substances may be reliably restricted by an institutional control in lieu of a restrictive covenant, and that imposition of land use or resource use restrictions through restrictive covenants is impractical, the department may approve of a remedial action plan under section 20120a(1)(f) to (j) or (2) that relies on such institutional control. Mechanisms that may be considered under this subsection include, but are not limited to, an ordinance that prohibits the use of groundwater or an aquifer in a manner and to a degree that protects against unacceptable exposures as defined by the cleanup criteria approved as part of the remedial action plan. An ordinance that serves as an exposure control pursuant to this subsection shall be published and maintained in the same manner as zoning ordinances and shall include a requirement that the local unit of government notify the department at least 30 days prior to adopting a modification to the ordinance, or to the lapsing or revocation of the ordinance.

MCL 324.20120b(5) (emphasis added). Similarly, the Part 201 rules define "institutional control" as a "measure" that reliably prevents unacceptable exposures to contamination:

> (j) "Institutional control" means a measure which is approved by the department, which takes a form other than a restrictive covenant, and which limits or prohibits certain activities that may interfere with the integrity or effectiveness of a remedial action or result in exposure to hazardous substances at a facility, or which provides notice about the presence of a hazardous substance at a facility in concentrations that exceed only an aesthetic-based cleanup criterion.

Mich Adm Code R. 299.5101(j). Thus, under both Part 201 and the Part 201 rules, a judicial order could be an institutional control provided it was crafted in such a way that it satisfies the identified requirements.

Issuance of such a judicial institutional control is well within this Court's authority to enforce its judgments. The Michigan Revised Judicature Act provides that "[c]ircuit

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and indicated that the staff person who reviewed the ordinance may have also been looking at other portions of the site that do not need the institutional control.

courts have jurisdiction and power to make any order proper to fully effectuate the circuit courts' jurisdiction and judgments." MCL 600.611. Michigan case law provides that courts possess inherent authority to enforce their own directives. See Cohen v Cohen, 125 Mich App 206 (1983). In addition, courts have stated that circuit courts have broad powers, including the power to make an order to fully effectuate their jurisdiction and judgments. See Spurling v Battista, 76 Mich App 350 (1977).

This Court's authority under the RJA is analogous to the authority granted to federal courts under the federal All Writs Act, 28 USC 1651, which states that "courts established by Act of Congress may issue all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law." Federal case law has held that "the All Writs Act provides district courts with the authority to bind nonparties in order to prevent the frustration of consent decrees that determine parties' obligations under the law." United States v City of Detroit, 329 F 3d 515 (CA 6 2003); see also Grand Traverse Band of Ottawa & Chippewa Indians v Director, Michigan Dep't of Natural Resources, 141 F 3d 635 (CA 6 1998) (affirming district court order barring non-parties from interfering with consent judgment). In City of Detroit, the Sixth Circuit held that the district court acted properly in ordering the United States Army Corps of Engineers to accept dredged sediment in connection with a consent judgment between the United States and the City of Detroit requiring the City of Detroit to bring its wastewater treatment system into compliance with its NPDES permit. Id.

Thus, this Court has authority to bind third parties as part of a enforceable judicial institutional control. Based on a review of these requirements and comments made by DEQ staff on the Washtenaw County Rules, PLS recommends that the following elements be included as part of an order imposing institutional controls:

1. The requirement that the parties confer and submit to the Court within a specified period of time a map that identifies the agreed upon area that would be covered by the judicial institutional control, including a buffer zone (the "Protected Area"), or if agreement cannot be reached, the parties' respective positions.

2. A prohibition against the installation of new water supply wells for drinking, irrigation, or commercial or industrial use, within the Protected Zone shown on the map.

3. Service of the Order on the Washtenaw County Health Department with the instruction prohibiting the County Health Officer from issuing permits for well construction in the Protected Zone. It should be noted that this prohibition is completely consistent with the existing County Rules governing issuance of permits.

4. A prohibition against consumption or use of groundwater from within the Protected Zone.

5. A requirement that PLS provide, at its expense, connection to the City of Ann Arbor municipal water supply for any existing private drinking water wells within the Protected Zone.

6. A requirement that the Order be published and maintained in the same manner as a zoning ordinance.

7. A provision that the Order shall remain in effect until such time as it is amended or rescinded by further Order of the Court, with a minimum 30 days notice to all parties, including specifically DEQ.

8. A provision to allow either party to move to amend the boundaries of the prohibition zone to reflect material changes in the boundaries or fate of the plume as determined by future hydrogeological investigations and/or monitoring.

An order that contains these elements would appear to be sufficient to reliably restrict groundwater use consistent with PLS's proposed response.

C. What Water Supply Wells Should PLS be Required to Monitor?

PLS agrees that its remedy should include a monitoring plan for any water supply wells outside the area covered by the institutional control that are conceivably threatened with contamination. The number and location of the wells that would need to be monitored would be dependant on the area to be covered by the judicial institutional control. PLS would anticipate, however, that wells on the east side (and in the vicinity of) the Huron River would eventually be monitored. PLS' monitoring plan would also include "sentinel wells" near the Huron River. PLS also anticipates that the Northwest Supply Well would be monitored (as it would be under the DEQ's contingent remedy). PLS' remedy includes a contingency plan to prevent unacceptable exposures if any such water supply wells are threatened. PLS has also, consistent with its proposal (and with one of DEQ's conditions), submitted a work plan for a downgradient investigation of the Unit E plume. (Exhibit 2). These wells may also be available for monitoring as a way of confirming the boundaries of an institutional control.

D. What Should be Done at Wagner Road?

The one aspect of PLS' proposed remedy on which the parties are in clear disagreement is the Wagner Road element. PLS has proposed to continue its on-site purging and to conduct an investigation in the Wagner Road area to determine if concentrations in this area are high enough to justify an additional purge well. PLS is not proposing to capture the entire width of the plume at this location because it serves no useful purpose to do so. Rather, PLS has proposed to reduce concentrations at this location, depending on the results of the pending investigation. The DEQ initially approved this mass reduction objective, but later asserted that PLS should attempt to capture the entire width of the plume at this location.

Capturing the width of the plume using conventional pump and treat technologies is, according to DEQ, a preferable remedy because DEQ "believes" it will accelerate groundwater cleanup horizons. As will be explained in more detail below, pump and treat technologies are not suitable for this objective. There is no basis for DEQ's assumption that its proposal would result in attaining the cleanup criteria any sooner than PLS' proposal. The most efficient mid-plume remedial technique is mass reduction in areas of high concentration, not containment. This is what PLS is doing in the C3/D2 plume (*e.g.*, the horizontal well).

PLS also is very concerned that a "capture" objective cannot be directly verified. Currently, hydraulic capture at other areas of the site is enforced through minimum purge rates and by monitoring verification wells to show that the plume is not "escaping" hydraulic capture. Monitoring downgradient of the barrier, however, cannot be used to verify compliance for Wagner Road. This is because there are significant concentrations of 1,4-dioxane in the ground on both sides of the hypothetical barrier. Monitoring wells installed ahead of the barrier will not be able to verify that the barrier is operating as designed. This puts PLS in a perilous position if capture becomes an enforceable objective. Relying only on minimum purge rates is really no different than mass reduction, which is what PLS has proposed.

The unilateral change in performance objectives would also directly conflict with PLS' obligations under this Court's REO. Although the exact capture volume is unknown, it will undoubtedly exceed the available capacity under the NPDES permit unless more capacity is diverted from the D2/C3 cleanup effort. PLS has already allocated approximately 180 gpm of the 1300 gpm capacity allowed under the permit to its on-site extraction wells. Because of decreasing water levels in the C3 and D2 aquifers (and resulting decrease in purge rates), there is still a small amount of capacity that can be allocated to mass removal at Wagner Road if concentrations in this area justify that response. What the DEQ has proposed, however, will greatly exceed the available capacity and would require PLS to choose between attempting to comply with the Court's REO and complying with the DEQ's proposed interim response.

PLS urges the Court to allow PLS to move forward with its groundwater quality investigation. If concentrations justify additional mass removal, PLS will install an additional well and connect it to the existing treatment system. There is, however, no basis for the DEQ's plume capture performance objective.

III. Satisfaction of DEQ Conditions.

PLS urges this Court to address the most problematic prerequisite to approval of PLS' remedy – the institutional control requirement (Condition 3). Issuance of a judicial institutional control would greatly benefit the community as a whole and spare residents the disruption and safety concerns associated with any other plan. If this condition is satisfied judicially, PLS' plan is readily approvable now, not a year from now. PLS has already agreed to Condition 2 (containment of 2800 ppb contour at Maple Road as a

performance objective) and Conditions 4 and 5 (monitoring of potential receptors and contingency plans). As discussed above, PLS believes that Condition 6 (acceptable disposal option for treated water at Maple Road) has already been met and is willing to attempt to address any reasonable requests for additional data to confirm that reinjection is feasible at this location. The only remaining condition, then, is the DEQ's insistence that the Northwest Supply Well be abandoned (Condition 1).

PLS strongly disagrees with DEQ's conclusion that formal abandonment of the Northwest Supply Well is a legal barrier to approval of PLS' proposed remedy. This condition arises from the DEQ's unpromulgated internal policy against allowing expansion of the plume within a designated wellhead protection area. This should not be considered a condition of approving PLS' plan for the simple reason that the City has effectively abandoned the well already. The City discontinued operation of this well in February 2001when it detected concentrations of 2 ppb of 1,4-dioxane. Given the City's very public position that any detectable levels of 1,4-dioxane are not acceptable, it cannot reasonably be expected that the City will ever use that well. Moreover, the well is independently contaminated with naturally occurring arsenic at levels above the allowable limit of 10 ppb. The City's own sampling data from 2002 confirms that the well contained 18 ppb of arsenic. (Exhibit 3). The City claims to have abandoned its well because it detected 1,4-dioxane – a "suspected carcinogen" – at levels 40 times lower than the cleanup standard. It necessarily follows that the presence of arsenic – a "known carcinogen" – at levels well above the cleanup standard would independently cause the City to abandon its well.[4] Under these circumstances, the DEQ's internal policy is irrelevant and should not drive remedial decisions.

In addition, the City has already sued PLS and is contending that PLS must pay to replace the well because it is no longer useable. The issue of proper compensation, if any, will be resolved shortly in that litigation. It would be inappropriate to reject a proposed remedial alternative that is otherwise protective based on the existence of a well that has in fact been abandoned. Certainly, PLS would urge the Court to refrain from ordering PLS to implement the DEQ's draconian and unsafe remedial alternative before the significance of this well is decided in the pending litigation.

IV. Additional Factors that Militate in Favor of PLS' Suggested Remedy.

PLS would ask the Court to also consider the factors discussed below when determining the proper course of action.

A. Timeliness

PLS' plan has the advantage of being timely. In addition to avoiding the multi-year effort needed to build pipelines three to four miles long, PLS' proposed plan incorporates the only discharge method that would not require a discharge permit and that

[4] The City's sampling arsenic result is consistent with preliminary sampling PLS conducted in other monitoring wells in the Unit E aquifer, which showed elevated arsenic levels well above the federal MCL at multiple locations.

can be implemented without requiring access to significant numbers of properties. PLS' proposed groundwater reinjection is authorized under Mich Adm Code R. 323.2210(u)(ii) and does not require a NPDES, deepwell injection, or groundwater discharge permit. DEQ's proposal, and any other discharge scenario, requires issuance of a permit that can and, given the history of this site, will be challenged in a contested case proceeding.

Once access for the treatment system and the limited amount of necessary infrastructure is obtained, PLS can install its Maple Road purge system within 4-6 months. PLS' ability to promptly address the Maple Road area is important because it allows PLS to prevent the much higher concentrations west of Maple Road from migrating into the congested residential areas to the east.

Moreover, it is unlikely that the DEQ's contingent plan would achieve the applicable cleanup criterion any sooner than PLS' plan. The DEQ claims that by segmenting the plume, its plan will shorten the cleanup horizon. This theoretical advantage has been repudiated by the experience of experts in the field. It is well known in the professional community that pump and treat approaches in all but very simple situations typically cannot fully attain groundwater restoration (health based goals) throughout a plume no matter how long the system is operated. The main reason is the phenomena of "tailing" and "rebound." This is described in guidance for pump and treat systems put out by USEPA for superfund sites. *Pump and Treat Groundwater Remediation, A Guide for Decisionmakers,* USEPA, July 6, 1996 (EPA/625/R-95/005), available at http://www.epa.gov/ORD/NRMRL/pubs/625r95005/625r95005.pdf. Tailing and rebound will, in situations such as this one, which involves multilayered heterogenous geology, frustrate any cleanup goal for Unit E that is based on attaining criteria throughout the aquifer. Thus, there is no basis for DEQ's assertion that more pumping at the interior of the plume will attain criteria "faster" than PLS' plan.

B. The DEQ's Contingent Remedy is Not Legally Required or Feasible.

1. There is no legal basis for DEQ's Plan.

The DEQ has taken the position that PLS is required to remediate the Unit E under the 1992 Consent Judgment. Specifically, the DEQ asserts that PLS is required to remediate the Unit E plume, which has migrated ***east*** from the Wagner Road facility under the Consent Judgment provisions regarding the ***Western*** System, which provide:

> **Western Plume System**
> (hereinafter AWestern System@)
>
> 1. Objectives. The objectives of the Western System are: (a) to contain downgradient migration of any plume(s) of groundwater contamination emanating from the GSI Property that are located outside the Core Area and to the **northwest, west, or southwest** of the GSI facility; (b) to remove groundwater contaminants from the affected aquifer(s); and (c) to remove all groundwater contaminants from the

> affected aquifer or upgradient aquifers within the Site that are not otherwise removed by the Core System provided in Section V.B. or the GSI Property Remediation Systems provided in Section IV.

Consent Judgment, Section V.C.1 (emphasis added).

PLS does not concede that the Consent Judgment requires PLS to remediate the Unit E. To this point, PLS has been willing to move forward with the investigation and remediation of the Unit E without engaging a legal effort to contest responsibility.[5] But even if the Consent Judgment was applied to this new area of contamination, it provides no support for a plan that requires three separate capture zones. The only interim response/source control required by the Consent Judgment is contained in Section V.B.1, which relates to the "Core Area" – the portion of the shallow $\mathbf{C_3}$ aquifer that contains contamination above 500 ppb. The Consent Judgment contains no interim response requirements that could possibly apply to the Unit E. There is no remedial objective or other requirement in the Consent Judgment that could be construed to require the type of program envisioned by DEQ. The most the Consent Judgment could be interpreted to require would be containment of the leading edge – a remedial objective that neither the City of Ann Arbor nor its citizens want implemented.

DEQ also claims that its proposal is supported by Part 201.[6] To the extent it applies, Part 201 does not require interim response on the grand scale suggested by DEQ. The releases at issue all took place well before 1995. Therefore, the source control measures suggested by DEQ would not be required by Section 14(1)(d), MCL 324.20114(1)(d), even if they were "technically practical, cost effective, and [protective of] the environment."[7] This is particularly true where PLS has already proposed appropriate interim response measures.

Moreover, PLS cannot be required to undertake ***any*** response activity under Part 201 because the releases that are alleged to have caused the Unit E contamination were "permitted releases." Part 201 defines a "permitted release" as "a release in compliance with an applicable, legally enforceable permit issued under state law." MCL 324.20101(aa)(i). After a six-month long trial, this Court's predecessor, Hon. Patrick J. Conlin, determined that the state authorized the very releases currently at issue pursuant to a series of state-issued wastewater discharge permits. His July 25, 1991 Opinion is attached as Exhibit 4. Therefore, the "permitted release" issue has already been adjudicated as between the parties in favor of PLS. That decision would be binding on

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[5] PLS reserves the right to contest the applicability of the Consent Judgment to the Unit E in the event the DEQ or a Court attempts to compel PLS to implement the DEQ's proposed remedy.

[6] PLS notes that Part 201 gives a party to a consent judgment entered prior to the 1995 amendments the right to proceed under the consent judgment or under Part 201. MCL 324.20102a(3). Thus, Part 201 would only be relevant to the extent the Consent Judgment does not apply to the Unit E or, if it does, only to the extent PLS chooses to proceed under that statute.

[7] As PLS explained in its FS, interim response activities beyond what PLS has proposed would not satisfy any of these criteria.

the parties under the doctrines of *res judicata* and *collateral estoppel*. Dart v Dart, 460 Mich 573 (1999) (res judicata); Hawkins v Murphy, 222 Mich App 664 (1997) (collateral estoppel).

Part 201 does not require PLS to undertake any response activities to address such permitted releases:

> A person shall not be required under this part to undertake response activity for a permitted release. Recovery by any person for response activity costs or damages resulting from a permitted release shall be pursuant to other applicable law, in lieu of this part.

MCL 324.20126a(5) (emphasis added).

Thus the DEQ cannot compel PLS to implement the response activities that it asserts must be undertaken in the event PLS is unable to obtain approval of PLS' proposed remedy.

2. DEQ's plan is not feasible.

PLS has gone to great lengths and expense to avoid embroiling this community in a legal battle over the responsibility for the Unit E. Despite strong legal arguments in its favor, PLS has proposed a responsible and protective remedial alternative and is committed to implement it. What PLS is unwilling to do is to spend tens of millions of dollars to prove what should be clear on its face: the DEQ's contingent remedy is neither feasible nor appropriate.

a. Treatment System

DEQ's contingent remedy would require a Maple Road-based treatment system approximately the same size as the one PLS operates at its facility. To give the Court some perspective on the scale of operation the DEQ's proposal would require, the operational requirements of PLS' current system are instructive.

At the PLS facility, the UV-H202 system occupies a dedicated building that is 60 x 115 ft. and can treat 1300 gpm of groundwater contaminated with 1,4-dioxane. It receives shipments via tanker truck every three to four days of sulfuric acid, sodium bisulfite, caustic, and hydrogen peroxide in approximately 20-ton lots. The facility has its own transformer, which consumes approximately 530,000-kilowatt hours of electricity every month. PLS utilizes two 1,000,000-gallon equalization ponds to insure continuous operation and compliance with its stringent NPDES permit requirements. While an ozone/H2O2 system would consume a somewhat smaller volume of chemicals, a system sized to meet DEQ's requirements can be expected to be on a scale of the one that is located already at PLS and, in any event, to be far larger and to consume far more raw materials than the system proposed by PLS for its more realistic Maple Road purging

program.[8]

It is not feasible to place a treatment system large enough to accommodate 1150 gpm required by DEQ's plan in a commercial area. Installing and operating a system that could accommodate 1150 gpm anywhere in the vicinity of Maple Road is not feasible primarily because of three factors: i) the significant health and safety issues associated with liquid oxygen; ii) the physical size of the system; and iii) the absence of any properties in the area that are available and properly zoned for this type of industrial operation.

i. It is Not Safe to Site a Liquid Oxygen-Based Treatment Unit in the Maple Road Area.

A treatment system of this size would require liquid oxygen. PLS does not believe that it is safe to use and store the volume of liquid oxygen that would be needed to treat 1150 gpm of contaminated groundwater in the Maple Road area.[9] PLS estimates that such a treatment unit would require 40,000 cubic feet of liquid oxygen per day. This usage would require construction of a large liquid oxygen storage tank and frequent refilling by a liquid oxygen tanker truck. This use is not appropriate for a highly utilized retail commercial area. That is precisely why PLS designed the mobile ozone treatment unit to utilize a oxygen generator rather than liquid oxygen. Mr. Fotouhi convinced PLS management to adopt this design even though it would have been much cheaper to implement its proposed interim response with a liquid oxygen-based treatment system. (Compare the FS unit cost of treating 1000 gallons for the mobile unit ($2.64/1000gallons) with the on-site liquid oxygen-based treatment costs ($0.91/1000 gallons)).

Nor is it feasible to generate enough oxygen (with an oxygen generator) from the atmosphere to reliably treat 1150 gpm. PLS' current **200 gpm** system already utilizes the second biggest oxygen generator on the market. It is not technically feasible to string together six or seven of these units to generate the oxygen needed to treat 1150 gpm. Each oxygen generator would require its own compressor, air dryers, and other associated equipment. From an engineering standpoint, it is not possible to reliably operate such a system on anything approaching a continuous basis.

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[8] DEQ's consultant estimated that their system would be of similar size. The "footprint" for the packaged system and supply equipment was estimated to be a total of 640 square feet, plus a large liquid oxygen tank with vaporizers (which will need containment and security) plus sufficient ground space for trucks to make chemical deliveries and additional ground space to secure the system (fencing, on-site security). (Email from Anne Turne to Mike Pozniak, August 25, 2004, attached as part of Appendix B, Attachment B, to DEQ's Decision Document). This is actually somewhat larger than PLS' facility.

[9] DEQ's vendor acknowledged that liquid oxygen presents significant health and safety issues, but claimed the concerns could be managed by securing the site and following proper liquid oxygen handling procedures. PLS submits this is an appropriate response only if the land is industrial. Zoning prohibits, for health and safety reasons, the location of this type of storage unit in a retail area.

ii. The Treatment System, Including Ponds, Required by the DEQ's Remedy is Too Large to be Accommodated by any Properties in the Wagner Road Area.

For a host of engineering reasons, a system sized to accomplish DEQ's proposed remedial objectives would require the construction of both an equalization ("Red") pond and a discharge ("Green") pond. Without such ponds it is PLS judgment that it would not be able to continuously purge the groundwater (as required to capture) or to meet the stringent discharge requirements of a NPDES permit. Again, this point is driven home by the fact that the treatment system would be essentially the same size as the system PLS operates on site. PLS currently utilizes two 1,000,000-gallon ponds. While it would not be absolutely necessary to have ponds with that volume at an off-site location, it would be prudent to have ponds with a volume of at least 500,000 gallons to accommodate a treatment volume of 1150 gpm. If the performance objective is to capture the entire width of the plume, ponds of this size would be needed to allow for continuous purging during maintenance of the treatment system. Even ponds this large would only provide storage capacity for approximately six hours of continuous operation.

These ponds would be necessary to meet the technical challenges associated with operating a treatment system that would have to meet NPDES discharge limits, 24 hours a day, 7 days a week, and 365 days a year – challenges with which PLS is well familiar. For example, the equalization or "Red" pond would be required so that the entity operating the system could precipitate out the iron in the water. If the iron is not removed prior to treatment, the treatment process would cause the iron to precipitate. In that condition, the iron would readily adhere to the interior of the lengthy pipelines associated with DEQ's proposal. Because of the extreme length of pipeline contemplated, it would not be practical to clean the iron residue from the pipeline to the River. The only practical way to address the iron issue is to precipitate the iron out prior to treatment, and that requires a pond.[10]

Moreover, much of PLS' success in operating a continuous purging/treatment operation is achieved because of the stability its on-site ponds provide. With such ponds, it is possible to maintain the steady volume of water needed to avoid constantly readjusting the calibration of the system, which would prevent the operator from meeting the discharge criteria. An equalization pond is particularly necessary under DEQ's proposal since water will be purged from multiple locations with varying concentrations and water chemistry.

It would also be necessary to have a discharge or "Green" pond to provide assurance that stringent NPDES permit requirements could be met by the treatment system. If effluent sampling shows that limit not satisfied, the operator would be able to re-circulate through the treatment system. Consistent compliance with a hypothetical

[10] DEQ's vendor acknowledged it had not field-tested its equipment where there is high iron, although it claimed it should not interfere with functioning of its unit. Even if this claim holds true, the iron would still have to be removed to control discharge to the Huron River through a long pipeline.

NPDES permit could not be achieved without such a pond. The Green pond also allows for further iron removal prior to being placed in a three-mile long pipeline.

Under DEQ's proposal, the resulting footprint of the required 1150 gpm treatment system would be far too large to be placed on any property in the vicinity of Maple Road. The treatment unit (even if it was feasible to configure a system that could generate the required amount of oxygen from the atmosphere) would at a minimum replicate PLS' current treatment building, which is approximately 60 X 115 ft. Treatment ponds would require an area of at least 120 X 140 ft. Therefore, even if it was safe to locate a system big enough to accommodate DEQ's remedial objectives it would not be possible to do so in the congested commercial area available.

iii. The DEQ's Proposed Remedy is Not Consistent with Existing Zoning.

Part of DEQ's response plan requires PLS to construct and operate a treatment plant of approximately 1300 gpm capacity in the vicinity of Maple Village Shopping Center ("MVSC") in Ann Arbor. A plant of this size would be an industrial use under Chapter 55 of the Ordinances of the City of Ann Arbor. Attached as Exhibit 5 are maps of the zoning above the Unit E plume from PLS' facility through the leading edge of the plume and beyond. These maps show that no property within the vicinity of MVSC (approximately 1000 foot radius from the proposed capture areas) is properly zoned for the DEQ's treatment plant. Even if one were to expand a search to cover more of the West Side of Ann Arbor, only two small parcels (near Liberty) have an industrial zoning classification. Both properties are too far away to be of practical use, are developed, occupied, and not for sale, and both are too small for a treatment plant that would meet DEQ's requirements. (See Map of Section 930).

Part 201 of NREPA requires that remedies selected by DEQ be consistent with zoning. This question most often arises when a response activity is intended to attain a criterion other than the most restrictive (residential) criterion. However, it is also a significant issue here, where in order to attain residential criteria, DEQ is ordering that property be put to non-residential use for a treatment plant, inconsistent with local zoning and current activity patterns. In this case, it is patently inconsistent for DEQ to insist that local ordinances controlling groundwater use must be made consistent with PLS' remedy, while ignoring zoning ordinances of these same local units of government in the case of its own remedy. Land use controls, including zoning and groundwater use ordinances, must both be examined in evaluating the appropriateness of a response activity plan, both in concept and in attaining cleanup objectives.

Section 20a of Part 201, MCL 324.20120a(6), provides in pertinent part that "the department shall not grant final approval for a remedial action plan that relies on a change in zoning designation until a final determination of that zoning change has been made by the local unit of government." That section also requires that a remedial action plan include documentation that the current property use is consistent with the current zoning or is a legal nonconforming use. While the shopping center use is consistent with

the current zoning, the DEQ's plan is manifestly not, and cannot be legally approved as a final remedy for the site unless and until there is a zoning change approved by the local unit of government. DEQ's administrative rules similarly emphasize that zoning must be consistent with the selected response activity. See Mich Adm Code R. 299.526(6)(b) (final interim responses must be consistent with zoning and land use activity patterns); R. 299.522(7)(d) (requiring DEQ to consider comments from neighbors or the local unit of government that a proposed response activity is inconsistent with current zoning); R. 299.532(8)(b) (a remedial action plan must contain statements and representations regarding current zoning to show consistency with proposed response actions).

DEQ's "Decision Document", its "Public Comment Responsiveness Summary" and the "Executive Summary" say nothing about zoning. The only comments regarding land-use that it responded to were in connection with PLS's plan, where DEQ did not dispute the relevance of this factor but only said it was "premature" with respect to evaluating PLS' contingency plan along the river. (Decision Document at 9). The record is otherwise devoid of any consideration of this issue.

b. Pipelines

Given the history of this site, it is capricious for DEQ to assume that PLS could implement a remedial alternative that requires construction of three to four miles of pipeline (about 1.5 miles of which would be installed within congested neighborhoods). As documented in the FS, these pipelines would cause tremendous disruption in the community, without any corresponding environmental or human health benefit. Recent public hearings/meetings have made clear that there is no public support for such construction among the affected homeowners (to the extent they even received notice of the project). Over 500 homeowners signed declarations and petitions opposing the disruption of their neighborhoods that would be caused by attempting to implement the DEQ's contingent remedy. These petitions were only from persons mobilized by DEQ's incomplete conceptual pipeline map. DEQ acknowledges that it is in fact not possible to know the extent of opposition or disruption until a complete design (all the way to the River) is proposed.

In the Evergreen subdivision, PLS sued the City to obtain access to City right-of-ways to install approximately 1000 feet of pipe. Even though this took place in a situation that demanded the utmost urgency, and even with this Court's intervention, it took over a year to get that 1000 feet of pipe installed. DEQ's proposal would require approximately 16,000 feet of pipeline to be installed in front of hundreds of homes and businesses, through right-of-ways owned by at least three different governmental units. The contemplated pipeline construction would not be feasible or even remotely timely. Even if such a series of pipelines were feasible and access to pipelines voluntarily granted, the construction would take years to complete.

LIST OF ATTACHMENTS AND EXHIBITS

Exhibit 1 Modeling Report for Reinjection
Exhibit 2 Work Plan for Downgradient Investigation
Exhibit 3 Arsenic data for Northwest Supply Well
Exhibit 4 Opinion and Order of Judge Conlin
Exhibit 5 Zoning Maps

Attachment A: PLS Response to MDEQ September 1, 2004 Decision Document
Attachment B: Decision Matrix

ATTACHMENT A
Pall Life Sciences Response to
DEQ's September 1, 2004 Decision Document

Introduction

DEQ issued its Decision Document on September 1, 2004. To the extent this document represents a final decision of DEQ, PLS is disputing that decision. This document lists conclusions set forth in DEQ's decision document which PLS disputes, the reason for the dispute, and additional supporting materials.

Cover Letter, Robert Reichel to Honorable Donald E. Shelton, September 1, 2004

- PLS disputes the conclusion that its proposed remedy as outlined in the FS "cannot be approved by DEQ, based upon the requirements of Part 201 of the Natural Resources and Environmental Protection Act." (Par. No. 1).

- PLS disputes (for the reasons stated below) the remedial alternative suggested by DEQ if PLS cannot meet the six specified conditions within one year. (Par. No. 3).

- PLS disputes (for the reasons stated below) that it must concurrently with pursuing its proposal begin to implement DEQ's alternative. (Par. No. 5).

Gelman Site Enforcement Activities

- PLS disagrees with DEQ's characterization of the disposition by this Court of the February 2000 motion by the Michigan Department of Attorney General ("DAG"). (Decision Document, at 3). PLS incorporates by reference its responsive pleadings and testimony in court in connection with its defense of the motion. PLS specifically denies, for the reasons set forth in the referenced documents, the statement in the Decision Document that PLS had not complied with the Consent Judgment. It is not appropriate to present this as a fact when it was contested and this Court did not decide the underlying contentions.

Unit E Plume

- PLS disagrees with the DEQ's characterization of the historic data regarding Unit E. Specifically, there is an implication that PLS or other parties knew of, but did not disclose, Unit E contamination before it was found in May, 2001. (Decision Document, at 4). This is not accurate.

- PLS does not agree that the test it conducted on in-situ treatment at MVSC proved that the technology was infeasible. (Decision Document, at 5). PLS agrees the results of the test ruled out use of the technology in the MVSC area based on the conditions of the test. PLS is

still reviewing the potential for in-situ to work in other locations, for other applications at the site, and under different conditions than those imposed by DEQ for the MVSC test.

DEQ Analysis of PLS's Proposed Response Action

- PLS disputes DEQ's characterization of the time that it would take PLS to achieve cleanup criteria using its proposed method. (Decision Document, at 9). Any remedy that involves pump and treat technology to address the Unit E suffers from the same uncertainty in predicting cleanup horizons due to the phenomenon of tailing and rebound. (See note 2). The statute and rules do not require DEQ to balance estimated cleanup times in evaluating options, nor is it possible to do so where both options involve pump and treat. It is arbitrary to rely on guesses as to cleanup horizons as a basis for selecting an option in this context.

- PLS disputes DEQ's conclusion that the WCRRPG is not adequate under Part 201. (Decision Document, at 9). The contours of the Unit E contamination (as defined by the 85 ppb iso-concentration line) are fairly well established. No one has identified existing drinking water supply wells in this zone. There are also no industrial wells within this zone. The "deficiencies" identified by DEQ are, therefore, speculative and should not disqualify an otherwise useable institutional control.

- PLS disagrees with DEQ's analysis of the viability of the Northwest Supply Well. (Decision Document, at 9). The analysis arbitrarily ignores the fact that the City of Ann Arbor has publically stated it will not turn on that well, and that it has sued PLS for, among other things, the replacement value of the well. Use of the well would be inconsistent with the City's lawsuit. Moreover, there is nothing in the record or the Decision Document that suggests that the City needs the well for water supply or otherwise intends to use the well under any circumstances.

- DEQ's application of its "policy" (Decision Document, at 9) to deny a waiver request when a plume is in a wellhead protection area is arbitrary and capricious and not supported by the record. No such written policy has, in fact, been produced. There is no way for PLS to comment upon, or for the Court to determine if the rationale for that policy (if it indeed exists independent of this particular site) applies to the circumstances of the Northwest Supply Well.

- DEQ's determination that the WCRRPG does not meet the requirements for acceptable institutional controls is also arbitrary and not supported by the record. There are no rules or written guidance that elaborate on the elements of an institutional control. Section 18 of Part 201 provides only that an institutional control that is proposed as part of a remedy be adequate "to prevent unacceptable risk from exposure to the hazardous substances, as defined by the cleanup criteria approved as part of the remedial action plan." Section 20b of Part 201 provides: "mechanisms that may be considered under this subsection include, but are not

limited to, an ordinance that prohibits the use of groundwater or an aquifer in a manner and to a degree that protects against unacceptable exposures as defined by the cleanup criteria approved as part of the remedial action plan. An ordinance that serves as an exposure control pursuant to this subsection shall be published and maintained in the same manner as zoning ordinances and shall include a requirement that the local unit of government notify the department at least 30 days prior to adopting a modification to the ordinance, or to the lapsing or revocation of the ordinance." It should be noted that neither statute prohibits exposure to *any* risk. The ordinance must be sufficient to prevent *unacceptable* exposure. With the exception of the Northwest Supply Well (discussed above) there are no water supply wells currently in the Unit E. While other Unit E wells exist, they are not near the plume and are located either cross-gradient or very far downgradient from the leading edge of the plume. There is, therefore, no basis in the record for concluding that the WCRRPG is insufficient merely because it does not require abandon of wells that actually do not exist within the plume boundaries or within any area that the plume could reasonably reach for many years.[1]

- DEQ's observation that the WCRRPG does not restrict operation of industrial wells (Record of Decision, at 9) is also misplaced. Current zoning does not allow industrial uses along the projected flow path, except in limited areas adjacent to the Huron River that is far downgradient of the leading edge. Also, the basis for this objection is stated to be that an industrial well "could change the configuration of the plume." DEQ fails to explain why it matters if the configuration of the plume changes, provided the plume remains subject to the WCRRPG. Finally, while it is "possible" that zoning may change, that land uses may change in Ann Arbor, that a heretofore non-existent hypothetical industrial user might then move to Ann Arbor and want to install a well notwithstanding that its due diligence should show that the Unit E is contaminated, this is not a risk that is significant enough to be a basis for rejecting PLS's plan. The statute only requires protection against unacceptable risk.

- PLS rejects as inaccurate and misleading DEQ's contention that there is no provision to monitor or protect existing private water supply wells east of the Huron River if the plume does underflow the Huron River. (Decision Document, at 9). The nearest such well is *three miles away*. PLS has already proposed a downgradient investigation that will answer DEQ's concern many years before the plume could ever reach that well, even assuming it took a bee-line under the river. In addition, as DEQ elsewhere acknowledges but omits in its analysis, PLS has proposed a contingency plan to intercept contaminated groundwater *before* the water

[1] The wells generally downgradient are in Ann Arbor Township. As part of its proposal, DEQ acknowledges that PLS has agreed to further demonstrate through investigation that these wells are not threatened by continued migration of a portion of the Unit E plume. In the interim, the WCRRPG is more than adequate to control actual exposures within the current plume boundaries and projected flowpath for the foreseeable future.

reaches receptors. There is, therefore, no basis in fact for DEQ's suggestion that PLS's plan would allow downgradient wells to become contaminated. One other observation – PLS is aware of one well, three miles away, that is on the other side of the river along the projected flow path. All other residential wells in that general direction are four miles away. While PLS, this Court, and DEQ all share in a goal to get started in addressing Unit E, there is no imminent threat to the public health or safety. The Decision Document is flawed to the extent it suggests that DEQ must reject PLS's proposal as inadequate to protect the public health and safety.

- DEQ also rejects PLS's proposal on the basis that there is a substantial degree of long-term uncertainty associated with assumptions about groundwater flow and that there is currently not enough information to predict the exact route the plume will follow. (Decision Document, at 9). PLS disagrees with this assessment. PLS' projected the plume flow path using available geologic information and analysis. The projection was not a mere "assumption." Nothing in the record shows that DEQ has in any way attempted to quantify the "uncertainty" it references, and DEQ ignores the WCRRPG, the current flowpaths delineated in the DEQ-approved wellhead protection report, the available hydrogeologic information, and logic. PLS submitted information to support its proposed flow path, including model runs that show the dramatic decline in concentrations in the projected plume as PLS's mass removal strategy is implemented. While it is always possible to claim, as DEQ does here, that there is not enough information to determine "exactly" where the plume goes, there is nothing in the record that suggests it is necessary to know this to such a degree of certainty. To the contrary, the record evidence suggests that concentrations will be low enough to not present an unacceptable risk, even if the exact flowpath is not yet known. Moreover, DEQ's finding ignores three components of PLS's plan: (1) collection of additional information downgradient to verify the information PLS has submitted (which will provide more certainty, even if not "exact"); (2) the WCRRPG, which controls risk of exposure; and (3) PLS's contingency plan to intercept the plume near the river should (1) and (2) prove inadequate to control risks.

- PLS acknowledges that a hydrogeologic study is necessary to add certainty to its plan. It has submitted a work plan to accomplish this to DEQ. PLS disputes that the current uncertainty is any more significant than the uncertainty in DEQ's alternative proposal. If and until an NPDES permit is issued, for example, neither PLS nor DEQ can know if it is feasible to discharge to the river or to treat extracted water at MVSC.

- PLS disagrees with DEQ's position that it need not evaluate "as premature" the claim made by PLS that its proposal would be more compatible with existing land uses than the leading edge alternatives. (Decision Document, at 9). It is not premature to make this evaluation. PLS has submitted information to DEQ, as have other commentators, regarding these issues.

Public Involvement – Responsiveness Summary

Comment 28 (Responsiveness Summary at 7): PLS strongly objects to and disputes statements made by DEQ to the public that suggests PLS is responsible to third parties in any respect. This statement is inappropriate in the context of the Decision Document and is not accurate as a matter of law. *Comment 29 (Responsiveness Summary at 7)*: PLS disputes that a pipeline to the Huron River is the only feasible method of discharge for treated groundwater from the Unit E.

Comments 31 and 32 (Responsiveness Summary at 7): PLS disputes the technical objections DEQ has interposed to reinjection as proposed by PLS.

DEQ's Preliminary (July 2004) Proposed Remedial Alternative and Evaluation

This section of the Decision Document (Page 11 to 17) reiterates the position taken in July 2004. PLS has already submitted comments on that document which is part of the record here, and PLS incorporates by reference those comments.

In addition, PLS disputes that it is necessary to design a conveyance system to transport water downstream of the City's water intake in the Huron River. (Decision Document, at 13). PLS has operated a 1300 gpm groundwater treatment system at its facility for years without any incident that threatens the City's water supply. There are numerous controlled and uncontrolled industrial, agricultural and residential discharges to the Huron River upstream of the water supply intake that in comparison are far greater threats than the strictly controlled discharge from PLS. In fact, PLS has added significant volumes of clean water to the Huron River. There is no basis on the record for designating a location downstream of the intake as the only acceptable surface water discharge point into the Huron River.

DEQ's September 1, 2004 Selected Remedial Alternative for the Unit E Plume

- PLS does not agree with the conclusion of DEQ that its proposed plan "is necessary to comply with Part 201 and the CJ." (Decision Document, at 13). This is not correct as a matter of law. The CJ does not require capture of the width of any of the identified plumes, except at the leading edge.

- PLS disputes that the balance of the criteria favor DEQ's alternative over PLS's selected remedial action. (Decision Document, at 13). A matrix comparing PLS's remedial action with DEQ's alternative is included as Attachment B. As shown on that matrix, none of the factors favor DEQ's alternative, and several factors favor PLS's remedial action.

- PLS also disputes the viability of verifying compliance with DEQ's approach. DEQ would require at each location the prevention of further migration at each location of concentration of 1,4-dioxane above 85 ppb in the downgradient or easterly direction. No method is suggested by DEQ, nor does PLS know of one, that can verify that this performance objective is being met, even if such a system were installed. That is because it is expected

that interior concentrations of the plume will continue to be at levels above 85 ppb for an undetermined time following initiation of DEQ's response. It does not appear feasible to directly verify whether the hydraulic barrier actually functions. Since PLS can be subject to penalties for failing to meet this directive, it is impermissible for the DEQ to establish an unattainable (or at least an unverifiable) performance objective. To the extent DEQ specifies some indirect measurement (such as purge rate) as the only way to document performance, DEQ's remedy in effect becomes only a more vigorous mass reduction strategy. DEQ cannot, and has not attempted to, justify their proposal on that basis.

- PLS disputes DEQ's conclusion that a new 1300 gpm groundwater treatment facility can be located at or near the MVSC. (Decision Document at 14). PLS submitted significant information on the needs and risks of such a system in support of its contention that it is not feasible to build nor safe to operate at that location. DEQ, without any contrary information on specifications, research into existing property uses, or available property in the area, has dismissed PLS's information and simply stated it "believes" such a system to be feasible. This is patently insufficient. There is no support in the record for the DEQ's belief. Belief will not change zoning requirements; it will not create vacant land where there is none; it will not force owners of property to give up ownership for a cleanup; nor it will make a project feasible that is not. The very fact that DEQ suggests that alternative locations be explored illustrates that a suitable location may, in fact, not exist at all. Additionally, this decision is arbitrary. There is no legal distinction between the type of uncertainty associated with the groundwater plume direction and the uncertainty associated with whether the DEQ's treatment plant could be sited and constructed. On the contrary, PLS has made a record in support of its plan and explaining in detail the infeasibility of DEQ's treatment system. Yet DEQ has rejected the former as unacceptable (for the time being) because of lack of precision, while accepting the uncertainty of its own proposal on the basis of "belief."

- PLS disputes DEQ's assertion that its plan would "significantly reduce" the amount of time needed to clean up the contaminated aquifer, and that this time difference (if it exists) reduces the threat to the public health, safety and welfare. (Decision Document, at 14, 15). There is no record on this. DEQ's position is once again based on belief instead of data. More importantly, there is no identified threat to the public health, safety and welfare presented by the Unit E that is time sensitive so there is absolutely no basis for the conclusion that a faster remedy is somehow a better one, even if DEQ's remedy could be

faster.[2]

- PLS disputes that DEQ need not consider balancing costs of PLS and DEQ's proposals because PLS's proposal is not protective. (Decision Document, at 14). The response actions are both protective and this balancing should occur.

- PLS disputes DEQ's conclusion that there is a need for a stochastic groundwater model. (Decision Document, at 15). This model is wholly unnecessary for DEQ's proposed remedy because the leading edge of the plume (not to mention two other locations) will have to be contained, leaving no need to do anything other than conventional performance monitoring outside of the plume and no need to do anything at all interior to the plume using a model.
- PLS disputes DEQ's assertion that its proposal reduces uncertainties associated with PLS proposal (Decision Document, at 14). As stated here and in earlier comments, the record shows that the uncertainties regarding risk are comparable for each remedy. The uncertainties regarding implementation are, however, far greater for DEQ's proposal.

- PLS disputes DEQ's conclusion that its remedy is "more readily implementable" than PLS's proposed remedy. (Decision Document, at 15). PLS and other commentators provided significant information to DEQ calling into question the implementability of its remedy. There is no substantive record response to these concerns. DEQ has, instead, dismissed them. Without limitation, DEQ has not responded substantively to the following facts regarding implementation of their remedy: (1) no available proximate property, suitable zoned and sized for DEQ's treatment system; (2) resistance expressed by the citizens of Ann Arbor, and even the City itself, to DEQ's plan to the extent it involves bringing contaminated groundwater to the surface in residential neighborhoods and disrupting those neighborhoods with infrastructure; (3) no NPDES permit has been issued for discharge to the Huron River; and (4) no transmission pipeline routes have been proposed by DEQ, making it impossible to

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[2] It has been well known in the professional community that pump and treat approaches in all but very simple situations typically cannot fully attain groundwater restoration (health based goals) throughout a plume no matter how long the system is operated. The main reason is the phenomenon of "tailing" and "rebound." This is described in guidance for pump and treat systems put out by USEPA for superfund sites. *Pump and Treat Groundwater Remediation, A Guide for Decisionmakers,* USEPA, July 6, 1996 (EPA/625/R-95/005), available at http://www.epa.gov/ORD/NRMRL/pubs/625r95005/625r95005.pdf. Tailing and rebound will, in situations such as this one, involving multilayered heterogenous geology, frustrate any cleanup of Unit E that is based on attaining criteria throughout the aquifer. There is no basis for DEQ's assertion that more pumping at the interior of the plume will attain criteria "faster."

know if a feasible route in fact exists at this time.

- PLS disputes DEQ's "recommendation" that it pursue use of the sanitary and/or storm sewer for disposal of treated groundwater from the Maple Road area. (Decision Document at 14). The record shows that the City cannot accept enough capacity to make this worthwhile, and has imposed conditions that make effective use of the sanitary impossible. The treatment system operational records at the Wagner Road facility show that it cannot be reliably switched on and off in response to weather conditions and still attain treatment limits. The calibration needed to assure that the right combination of energy, oxidants, contaminants, and balancing chemicals are maintained to meet cleanup limits is upset when the system is brought up and down.

- PLS disputes that it has not already met with its proposal, conditions 2, 3, 4, and 6 as outlined by DEQ in its Decision Document at 15-16. PLS also maintains, for the reasons discussed above, that condition 1 (Northwest Supply well elimination) is moot, unnecessary, and hence arbitrary.

- PLS disputes all of the elements of DEQ's proposal. (Decision Document, at 16).

Appendix B, Attachment A: Response to Summary Comments (Weston)

- PLS disputes Weston's response to PLS's comments regarding construction of pipelines. Based on the record and this response, Weston acknowledges that the full extent of the difficulties that will be encountered during the construction of the pipelines along the final pathway can only be determined as the design of the proposed alternative is refined. It is arbitrary and capricious, then, to make a judgment that the difficulties would be acceptable or surmountable without a final design. DEQ's solution, which is also arbitrary, is to make this PLS' problem. This is a further example of how DEQ is prepared to make judgements on inadequate information (or none at all) in support of its proposal, but requires PLS to make additional demonstrations as a condition to approval PLS's response action. So, for example, if there is not enough information to make decisions on the feasibility of reinjection (despite information provided in support to DEQ), then there is also not enough information to determine the feasibility of lengthy pipelines until a design is put forward.

- PLS disputes Weston's conclusions about the feasibility of treating 1300 gpm at Maple Village. In order to answer PLS's comments, Weston went back to a system vendor and asked for additional information. This information does not support DEQ's or Weston's conclusion as to feasibility, however. The record shows that the vendor acknowledged that it did not have data related to iron content or other characteristics of area groundwater, making their conclusions regarding the necessity of detention ponds unreliable. The record shows that the vendor acknowledged that "there are potentially significant health and safety issues associated with the handling and storage of liquid oxygen." The record shows that the neither DEQ nor the vendor can say reliably that treatment ponds would not be necessary

because the NPDES limits are not known. In particular, background concentrations of iron, bromide and arsenic may all create significant problems for the vendor's system.

PLS also disputes Weston's conclusion that ponds will not be needed to assist the treatment system. First, it is not disputed that PLS's existing UV-H202 system does use and need such ponds. DEQ stated in its decision document that PLS might have to use this system at MVSC if the proposed hydrogen-peroxide and ozone system will not meet (as yet undetermined) NPDES permit requirements. (Decision Document, at 14). While PLS is confident that it will be able to switch technologies DEQ apparently does not share that view and so cannot, as a basis of its decision, assume that UV-H202 will not be used. Second, until NPDES permit limits are known and a large scale H202/ozone system can be field tested using the Unit E water chemistry it cannot be said that ponds will not be necessary. There may be other engineering solutions to water quality problems, but these may involve additional cost, additional space, and may have other unintended or unforeseen consequences that preclude reliably selecting a treatment location that does not have room for ponds. This is particularly true where past experience has shown that these ponds are very useful in managing treatment efficiency and compliance with permit limits at the PLS plant.

Attachment 2: Decision Matrix

Rule 603 Criteria for Evaluation of Remedial Alternatives	Comments	Favors PLS Plan	Favors DEQ Alternative
The effectiveness of protecting the public health, safety, and welfare and the environment	Both remedies are equally protective.	--	--
Long-term uncertainties associated with proposed remedial action	For PLS plan, uncertainty is with projected pathway and fate of plume; for DEQ uncertainty is NPDES permit conditions and feasibility of treatment at MVSC and of construction of pipelines	--	--
The toxicity, mobility, and propensity to bio-accumulate of the hazardous substance	Not evaluated. Same for both.	--	--
The short and long-term potential for adverse health effects from human exposure	There are no current exposures. Both plans prevent future exposures	--	--
The costs of the remedial action, including long-term maintenance	DEQ did not balance the costs, although it did review the estimates. PLS estimates its plan will be much less costly.	Yes	No
The reliability of alternatives	Both rely on "pump and treat."	--	--
The potential threat to public health, safety and welfare and the environment associated with the excavation, transportation, and re-disposal or containment	PLS's plan is low (reinjection into aquifer). DEQ's alternative considerably higher (large scale treatment, oxygen storage, materials transportation, construction and operation of pipelines)	Yes	No
The ability to monitor remedial performance	Both require extensive monitoring	--	--
The reliability of the alternatives	Large scale system proposed by DEQ is more prone to long term operation and maintenance problems; no way to directly verify internal "capture" requirement. PLS has proposed reinjection, which is well established technology.	Yes	No
The public's perspective about the extent to which the proposed remedial action effectively addresses Part 201 and the Part 201 Rules.	Public comments went both ways. However, residents at the leading edge and the City of Ann Arbor do not favor "leading edge" capture.	--	--
The potential for future remediation if the alternative fails	Same for both.	--	--

EXHIBIT K

DEPARTMENT OF ENVIRONMENTAL QUALITY

REMEDIATION AND REDEVELOPMENT DIVISION

ESTABLISHMENT OF CLEANUP CRITERIA FOR 1,4-DIOXANE

EMERGENCY RULES

Filed with the Secretary of State on

These rules take effect upon filing with the Secretary of State and shall remain in effect for 6 months.

(By the authority conferred on the Department of Environmental Quality by 1994 PA 451, 1969 PA 306, MCL 324.20104(1), MCL 324.20120a(17), and MCL 24.248)

FINDING OF EMERGENCY

These rules are promulgated by the Department of Environmental Quality to establish cleanup criteria for 1,4-dioxane under the authority of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The Department of Environmental Quality finds that releases of 1,4-dioxane have occurred throughout Michigan that pose a threat to public health, safety, or welfare of its citizens and the environment. Recent shallow groundwater investigations in the Ann Arbor area have detected 1,4-dioxane in the groundwater in close proximity to residential homes. The known area of 1,4-dioxane groundwater contamination in Ann Arbor covers several square miles defined by a boundary of 85 parts per billion, the current residential cleanup criteria. The extent of 1,4-dioxane groundwater contamination that is less than 85 parts per billion, but greater than 7.2 parts per billion, is unknown; and 1,4-dioxane contamination is expected to be present beneath many square miles of the city of Ann Arbor occupied by residential dwellings. The current cleanup criteria for 1,4-dioxane, initially established in 2002, are outdated and are not protective of public health with respect to the drinking water ingestion pathway and the vapor intrusion pathway.

These rules establish the 1,4-dioxane cleanup criterion for the drinking water ingestion pathway at 7.2 parts per billion and the vapor intrusion screening criterion at 29 parts per billion. These criteria are calculated using the latest United States Environmental Protection Agency toxicity data for the chemical 1,4-dioxane and the Department of Environmental Quality's residential exposure algorithms to protect both children and adults from unsafe levels of the chemical.

The Department of Environmental Quality, therefore, finds that the current cleanup criteria for 1,4-dioxane are not protective of public health with respect to the drinking water ingestion pathway and the vapor intrusion pathway, which, therefore, requires

the promulgation of emergency rules without following the notice and participation procedures required by sections 41, 42, and 48 of 1969 PA 306, as amended, MCL 24.241, MCL 24.242, and MCL 24.248 of the Michigan Compiled Laws.

Rule 1. The residential drinking water cleanup criterion for 1,4-dioxane in groundwater is 7.2 parts per billion.

Rule 2. The residential vapor intrusion screening criterion for 1,4-dioxane is 29 parts per billion.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

C. Heidi Grether

C. Heidi Grether
Director

Pursuant to Section 48(1) of 1969 PA 306, as amended, MCL 24.248(1), I hereby concur in the finding of the Department of Environmental Quality that circumstances creating an emergency have occurred and the public interest requires the promulgation of the above rule.

Governor

10-27-16

Date

EXHIBIT L

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL for the
STATE OF MICHIGAN, et al,
MICHIGAN NATURAL RESOURCES
COMMISSION, MICHIGAN WATER
RESOURCES COMMISSION, and
MICHIGAN DEPARTMENT OF NATURAL
RESOURCES,

Plaintiffs,

Case No. 88-34734-CE

vs

Hon. Donald E. Shelton

GELMAN SCIENCES INC.,
a Michigan corporation,

Defendant.
_____/

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BRIEF IN SUPPORT OF
MOTION TO AMEND CONSENT JUDGMENT

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INTRODUCTION

Pall Life Sciences ("PLS") seeks to amend the Consent Judgment to clarify its obligations with regard to the Evergreen System. Specifically, PLS asks that the Consent Judgment be amended to clarify that the objectives of the Evergreen groundwater extraction system do not apply to the plume of contamination in the Unit E aquifer. As the Court is aware, contamination in the Unit E was discovered in 2001, well after the parties drafted the October 1992 Consent Judgment. The proposed amendment to the Consent Judgment will make it consistent with the current state of knowledge and this Court's December 17, 2004 Opinion and Order Regarding Remediation of the Contamination of the "Unit E" Aquifer (the "Unit E Order"). This amendment is necessary because operation of the Evergreen System, which is designed to meet the current objective of capturing the "leading edge" of the groundwater contamination "in the vicinity of" the Evergreen Subdivision, has unintentionally distorted the Unit E plume and drawn additional groundwater contamination from the Unit E aquifer into the Evergreen Subdivision. Continued adherence to the original Consent Judgment objectives will negatively affect both the Evergreen Subdivision cleanup and the institutional control established by this Court's "Unit E Order" to protect the public from the Unit E plume. In particular, continued operation of the Evergreen System will continue to pull the Unit E plume north, beyond the current boundary of the Prohibition Zone.[1]

[1] As set forth in PLS' Motion to Amend Consent Judgment, PLS is also proposing to modify the cleanup criteria set forth in the Consent Judgment to make them consistent with the current DEQ regulations. This type of amendment is specifically required by State law, and the parties have previously stipulated to a much more significant modification of the cleanup criteria based on earlier revisions to the State-wide cleanup criteria. PLS does not expect the State to oppose these modifications. Consequently, PLS will not address these changes in this brief, but reserves the right to do so if they are, in fact, opposed.

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FACTUAL AND PROCEDURAL BACKGROUND

A. Consent Judgment Objectives for the Evergreen System.

The parties to this action entered a Consent Judgment in this matter on October 26, 1992. The Consent Judgment has been amended on two occasions since that time. (Relevant portions of the Consent Judgment are attached as Exhibit 1.) The Consent Judgment requires PLS to implement various remedial actions to address environmental contamination in the vicinity of PLS' property.

The Consent Judgment addresses each of the known areas of groundwater contamination, including the plume of contamination that migrated into the "Evergreen Subdivision Area."[2] The plume of contamination located in the Evergreen Subdivision has generally been referred to as the D_2 plume, so named after the aquifer within which the plume has migrated to the subdivision.

At the time the parties entered into the Consent Judgment, the parties were unaware of any contamination in what is now known as the "Unit E" aquifer. Accordingly, the parties drafted the Consent Judgment objectives for the Evergreen System broadly, based on the assumption that the only contamination "in the vicinity of the" Evergreen Subdivision was contamination known to be present in the D_2 aquifer:

> (a) to intercept and contain *the leading edge of the plume of groundwater contamination detected in the vicinity of the Evergreen Subdivision area*; (b) to remove the contaminated groundwater from the affected aquifer; and (c) to remove all groundwater contaminants from the affected aquifer or upgradient aquifers within the Site that is not otherwise removed by the Core System provided in Section V.B. or the GSI Property Remediation Systems provided in Section VI.

(Exhibit 1, § V.A.1 (emphasis added).) In 2001, the parties discovered that the assumption underlying this provision was inaccurate.

[2] The Consent Judgment defines the "Evergreen Subdivision Area" as the "residential subdivision generally located north of I-94 and between Wagner and Maple Roads, bounded on the west by Rose Street, on the north by Dexter Road, and on the south and east by Valley Drive." (Exhibit 1, § III.D.)

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B. Interaction of Unit E and D_2 Plumes.

Contamination in the Unit E aquifer was discovered for the first time in 2001. (Unit E Order, Exhibit 2, p. 3.) After extensive briefing and public debate, the Court issued its Unit E Order. The Unit E Order sets forth how PLS will be required to address the groundwater plume present in the Unit E aquifer. Among other protections, the Unit E Order establishes a "Prohibition Zone" within which the use of, and exposure to, the groundwater is generally prohibited. PLS is also required to prevent groundwater contamination in excess of 2800 parts per billion ("ppb") from migrating east of Maple Road. Less contaminated portions of the Unit E plume are allowed to migrate safely to the Huron River, subject to the protections of the Prohibition Zone. Although concentrations in the Maple Road area have not approached 2800 ppb, PLS has been operating its Maple Road groundwater extraction/treatment/reinjection system since March of last year.

Historically, the parties understood that Unit E plume and the D_2 plume were two distinct plumes of contamination. However, based on newly collected data, it is now clear that there is no geologic separation between the two aquifers in certain areas and that they can hydraulically communicate in the areas where they are not physically separated. (Affidavit of James W. Brode ("Brode Aff."), Exhibit 3, ¶ 19.) It is also clear that, as a result of this connection, operation of the Evergreen System has unintentionally pulled in a portion of the Unit E plume into the Evergreen Subdivision from the south and into the capture zone of the Evergreen System extraction wells. (Brode Aff., Exhibit 3, ¶¶ 18, 19.)

Pumping the Evergreen System at the current rates has caused a significant hydraulic depression in the area of LB-1 and LB-3 as well as a steep hydraulic gradient from south to north along the southern flank of the Evergreen System area. (Brode Aff., Exhibit 3, ¶ 19.) This has

caused the plume at that location to be drawn into the Evergreen Subdivision Area and beyond the northern boundary of the Prohibition Zone. (Brode Aff., Exhibit 3, ¶ 20.) The evidence that this is occurring is overwhelming. Among other things, recent data show that the concentration of 1,4-dioxane in groundwater samples from wells LB-1, LB-2 and LB-3 (which has replaced LB-2) has remained stable. (Brode Aff., Exhibit 3, ¶ 19.) On the other hand, concentrations of 1,4-dioxane in the upgradient portion of the D_2 plume – the Evergreen System's only known source of contamination other than contribution from the Unit E plume – *have been declining since 2001.* (Brode Aff., Exhibit 3, ¶ 19.) Similarly, the concentration of 1,4-dioxane has steadily increased in samples from wells located southeast of the LB extraction wells (see, e.g., 440 Clarendon and 456 Clarendon), even though the LB wells have prevented groundwater contamination from migrating east of Evergreen Street since 1996. (Brode Aff., Exhibit 3, ¶ 19.) These data, and the other evidence described in Mr. Brode's affidavit, indicate that the capture zone for LB-1, LB-3 and AE-1 includes a portion of the "Unit E" plume and that operation of those wells at the current rates (LB-1 at 90 gpm and LB-3 at 80 gpm) has pulled the northern portion of the Unit E plume toward those wells and into the Evergreen Subdivision. (Brode Aff., Exhibit 3, ¶¶ 18, 19.)

C. The Allison Street Extraction Well Is No Longer Necessary to Satisfy the Consent Judgment.

Moreover, data gathered by PLS indicate that further operation of the Allison Street extraction well (currently AE-3) is not necessary to satisfy the original intent of the parties with regard to the objectives of the Evergreen System remediation, *i.e.*, capture and containment of the D_2 plume. As this Court will recall, PLS installed an extraction well along Allison Street (after extensive litigation) in order to capture a small portion of the plume that may have escaped beyond the LB extraction location on Evergreen Street in 1996, during the period PLS was

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forced to stop extraction because the injection well used to dispose of the treated water became inoperable. PLS restarted the LB extraction and reestablished capture at the Evergreen Street location within a few months, after PLS obtained permission to dispose of its treated water via the City's sanitary sewer. PLS has captured the entire width of the D_2 plume at the Evergreen Street location since that time. (Brode Aff., Exhibit 3, ¶ 18.)

Because the upgradient source of contamination was quickly cut off, the escaped portion of the plume the Allison Street extraction well was intended to capture was quite small – PLS estimates the mass of this plume fragment to be approximately 60 pounds. (Brode Aff., Exhibit 3, ¶ 19.) Despite the fact that PLS' Evergreen Street extraction has cut off the upgradient source of contamination reaching the Allison Street extraction wells, PLS has removed approximately 100 pounds of 1,4-dioxane from the AE wells to date. In addition, concentrations in a small area in the immediate vicinity of the AE wells have also remained slightly above the cleanup criterion, even though the upgradient contaminant source was cut off in 1996. (Brode Aff., Exhibit 3, ¶ 19.) The only plausible explanation for these data is contribution from the Unit E aquifer. Accordingly, and contrary to the original purpose of the Allison Street extraction, the small amount of contaminant mass currently being captured by AE-3 (concentrations in AE-3 have been below 85 ppb since July, 2005) is primarily, if not entirely, Unit E contamination, not the leading edge of the D_2 plume. (Brode Aff., Exhibit 3, ¶ 19.) Therefore, continued operation of an extraction well at Allison Street is no longer necessary to achieve the Consent Judgment objectives for the Evergreen System, as the parties originally envisioned them. Indeed, operation of the Allison Street extraction well only exacerbates the distortion of the Unit E plume and the extent to which that plume is being pulled beyond the Prohibition Zone boundary.

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D. Proposed Amendment to Consent Judgment.

Accordingly, PLS seeks to amend the Consent Judgment to clarify that it obligations with regard to the Evergreen System do not unintentionally require it to operate the Evergreen System in such a way that it draws contamination from the Unit E aquifer into the Evergreen Subdivision. PLS proposes to amend the Consent Judgment as follows:

> A. Evergreen Subdivision Area System
> (hereinafter "Evergreen System")
>
> 1. Objectives. The objectives of this system shall be: (a) to prevent groundwater contamination that is present north of Valley Street and west of Evergreen Street within the Evergreen Subdivision area from migrating east of Evergreen Street, except to the extent such groundwater contamination may migrate east of Evergreen Street, but remains within the capture zone of the extraction well or wells located in the immediate vicinity of Evergreen Street; (b) to remove the contaminated groundwater from the affected aquifer; and (c) to remove all groundwater contaminants from the affected aquifer or upgradient aquifers within the Site that is not otherwise removed by the Core System provided in Section V.B. or the GSI Property Remediation Systems provided in Section VI. The objectives of the Evergreen System shall not apply to groundwater contamination that is addressed by this Court's December 17, 2004 Order and Opinion Regarding Remediation of the Contamination of the "Unit E" Aquifer.

(Proposed changes highlighted.)

By removing the reference to intercepting the "leading edge" of groundwater contamination in the "vicinity of" the Evergreen Subdivision area, the proposed modification eliminates the ambiguity caused by the intrusion of Unit E contamination and the confusion between what constitutes the leading edge of the D_2 plume versus the northern edge of the Unit E plume. The proposed amendment unequivocally requires PLS to capture the entire width of the D_2 plume at the LB extraction well location on Evergreen Street, consistent with the DEQ's past interpretation of the Consent Judgment. These modifications will allow PLS to design the Evergreen System in a way that minimizes if not eliminates the unintended distortion of the Unit E plume, allowing that plume to resume its natural migration pathway within the Prohibition

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Zone. Amending the Consent Judgment objectives to allow PLS to terminate the Allison Street extraction will not cause any significant environmental harm or danger to the public. If AE-3 were to be permanently shut off, any such contamination beyond the capture zone of LB-1 and LB-3 would migrate a short distance (about 500 feet), then enter the existing boundaries of the Prohibition Zone. The contamination would then merge with the existing Unit E plume in the area of Maple Road. (Brode Aff., Exhibit 3, ¶ 16.)

LEGAL STANDARDS FOR AMENDING THE CONSENT JUDGMENT

A consent decree is a judicial "hybrid," with characteristics of both a voluntary settlement agreement and a final judicial order. *Vanguards of Cleveland v City of Cleveland*, 23 F3d 1013, 1017 (CA6 1994). "[J]udicial approval of a consent decree places the power and prestige of the court behind the agreement reached by the parties." *Id.* at 1018. Accordingly, "[t]he injunctive quality of a consent decree compels the approving court to: (1) retain jurisdiction over the decree during the term of its existence, (2) protect the integrity of the decree with its contempt powers, and (3) modify the decree is 'changed circumstances' subvert its intended purpose." *Id.*

Modification of a consent decree is appropriate "(1) 'when changed factual conditions make compliance with the decree substantially more onerous,' (2) 'when a decree proves to be unworkable because of unforeseen obstacles,' or (3) 'when enforcement of the decree without modification would be detrimental to the public interest.'" *Vanguards,* 23 F3d at 1018; *Rufo v Inmates of Suffolk County Jail*, 502 US 367, 384 (1992). The moving party has the burden of establishing a "significant change in circumstances." *Vanguards,* 23 F3d at 1018; *Rufo,* 502 US 367 at 383. A party satisfies this burden "'by showing either a significant change in factual conditions or in law.'" *Vanguards*, 23 F3d at 1018, *quoting Rufo*, 502 US at 384.

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A. Amendment is Necessary Because of Changed Circumstances.

Here, a significant change in factual circumstances has occurred with regard to the Evergreen System that was unknown to the parties at the time they entered into the Consent Judgment. At time of Consent Judgment, the parties were not aware that the Unit E plume existed. PLS' continued investigation of the Unit E plume and its relationship to the D_2 plume only recently revealed that a portion of the Unit E plume was being drawn into the Evergreen Subdivision area by the unnecessarily high purge rates of the extraction wells.

When the Consent Judgment was drafted, there was no reason to distinguish between the known contamination migrating to this area in the D_2 aquifer and contamination from some other location because the D_2 aquifer was the only known source of contamination in the area. In light of the existence of the Unit E plume and the recent discovery that it is being artificially drawn into the Evergreen Subdivision area, the existing requirement to generally "intercept and contain the leading edge of the plume of groundwater contamination detected in the vicinity of the Evergreen Subdivision area" no longer makes sense. This is particularly true with regard to the operation of AE-3. That purge well is not capturing the "leading edge" of the D_2 plume any longer – it is distorting the "side edge" of the Unit E plume. This is not what the parties intended when the Consent Judgment was drafted. The Consent Judgment needs to be amended so that its requirements for the Evergreen System are consistent with both the parties' original intent and the current factual circumstances.

B. Amendment of the Consent Judgment is Necessary to Effectuate this Court's Unit E Order and to Protect the Public Interest.

PLS' current obligation under the current Consent Judgment to capture and remove any contamination "in the vicinity of the Evergreen Subdivision area" is endangering the effectiveness of this Court's Unit E Order and the protections put in place to protect the public

from that area of contamination. The excessive purging required to meet this objective has already distorted the Unit E plume and drawn the northern edge of that plume beyond the original boundary of the Prohibition Zone. PLS and the DEQ have already begun the process of revising the Prohibition Zone boundary, and further amendment will likely be necessary unless the excessive Evergreen purging is reduced. Continued distortion of the Unit E plume could potentially cause the plume to flow in an unanticipated direction, which would further endanger the ability of the Unit E Order to protect the public.

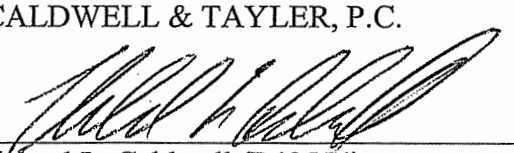
Finally, as set forth in Mr. Fotouhi's affidavit, the currently required level of groundwater extraction is having, and will continue to have, a detrimental effect on the groundwater cleanup as a whole. (Affidavit of Farsad Fotouhi, Exhibit 4, ¶ 33.)

CONCLUSION

For the reasons stated above, and for the reasons set for in the Petition for Dispute Resolution filed contemporaneously with this motion, PLS asks this Court to enter the Third Amendment to Consent Judgment attached to PLS' motion in order to clarify PLS' obligations under the Consent Judgment with regard to the Evergreen Subdivision area.

Respectfully submitted,

ZAUSMER, KAUFMAN, AUGUST
CALDWELL & TAYLER, P.C.



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Dated: July 6, 2007

EXHIBIT M

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE STATE OF MICHIGAN, *ex rel.* MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT,	Case No. 88-34734-CE Hon. Timothy P. Connors

Plaintiffs,

and

CITY OF ANN ARBOR

Intervening Plaintiff

vs.

GELMAN SCIENCES, INC., d/b/a PALL LIFE SCIENCES, a Michigan Corporation,

Defendant.
_____/

BODMAN PLC
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_____/

INTERVENOR CITY OF ANN ARBOR'S COMPLAINT

The City of Ann Arbor, a municipal corporation ("Ann Arbor" or the "City") states as follows for its complaint as intervenor:

JURISDICTION AND VENUE

1. This Court has jurisdiction over this matter pursuant to MCL 324.1701, MCL 324.20135 and MCL 324.20137, and because damages sought by Ann Arbor exceed $25,000. Ann Arbor also seeks injunctive relief.

2. Venue is proper in this court pursuant to MCL 324.1701(1), MCL 324.20135(7), MCL 324.20137(3) and MCL 600.1629 because the release (within the meaning of MCL 324.20101) of Hazardous Substances that is the subject of this complaint, and the acts, omissions, injuries and damages complained of herein, occurred in Washtenaw County.

THE PARTIES

3. The City is a municipal corporation located in Ann Arbor, Michigan.

4. Defendant Gelman Sciences, Inc. d/b/a Pall Life Sciences ("Pall" or "Defendant") is a Michigan corporation that conducts business in Washtenaw County.

5. Defendant Pall is the successor of the 1997 merger between Gelman Sciences, Inc. and Pall Acquisition Corporation through a stock purchase agreement and merger.

6. Defendant Pall owns real property located at 600 South Wagner Road, Ann Arbor, Michigan, 48103 ("Source Property").

7. Defendant operates the Source Property.

8. In 2013 Defendant ceased commercial operations at the Source Property, but continues to occupy and operate the Source Property and utilize it.

NATURE OF THE CLAIM

A. Introduction.

9. In 2004 and 2005, the City filed actions in state and federal courts against Defendant regarding Hazardous Substances[1] [principally 1,4 dioxane, which according to EPA is a probable carcinogen] Released[2] by Defendant at and migrating from Defendant's property, as well as a petition for a contested case hearing to challenge Defendant's permit to discharge treated water to Honey Creek.

10. In 2006, the parties entered into a settlement agreement ("Settlement Agreement") in which Defendant agreed to, among other things, compensate the City, monitor water quality, and provide the City with extensive and detailed reports on its sampling activities and other data. In exchange the City granted Defendant a limited release of claims.

11. The City entered into the Settlement Agreement under the belief that Defendant would undertake and successfully complete its obligations under the then-existing consent judgment, among them to contain the spread of the contaminated 1,4 dioxane plumes.

12. In the Settlement Agreement, the City reserved the right to assert future claims with respect to among other things: (A) Claims for response costs and response activity costs to address new plumes of contamination; and (B) All Claims related to the unforeseen change in the migration pathway of a known plume, which results in contamination above the applicable cleanup criteria (as they might be amended in the future) and which causes City property to be considered a Facility under Part 201 of Michigan's Natural Resources and Environmental Protection Act ("NREPA").

---

[1] As "Hazardous Substance" is defined by MCL 324.20101(1)(x).
[2] As "Release" is defined by MCL 324.20101(1)(pp).

13. The City disclaims any attempt to make a claim in this suit which exceeds what is allowed by the Settlement Agreement.

B. Current Conditions

14. Among other things, MCL 324.20114 requires that the Owner or Operator of a "facility" who is liable for a "Release" of hazardous substances must: (i) "…determine the nature and extent of the Release at the facility"; (ii) "Immediately stop or prevent an ongoing release at the source"; and (iii) "diligently pursue response activities necessary to achieve the cleanup criteria established under [Part 201]…"

15. Despite the requirements of MCL 324.20114, Defendant's releases of 1,4 dioxane have not been stopped at the source, but instead have been allowed to continue to migrate away from Defendant's property.

16. On October 27, 2016, the Michigan Department of Environmental Quality ("MDEQ") declared that Defendant's releases of hundreds of thousands of pounds of 1,4 dioxane into groundwater in and around Ann Arbor constitutes an emergency threatening the public health, safety and welfare of local citizens and the environment.

17. In declaring an emergency, MDEQ pointed to, among other things, "[r]ecent shallow groundwater investigations" that "have detected 1,4 dioxane in close proximity to residential homes."

18. This latest discovery of 1,4 dioxane in shallow groundwater near Huron and Seventh Streets in the City of Ann Arbor is simply one of many recent findings demonstrating the continued spread of 1,4 dioxane in and around the City.

19. In fact, dozens of monitoring wells have recently recorded their highest ever levels of 1,4 dioxane. And monitoring wells that for many years tested clean of 1,4 dioxane are now recording measurable concentrations of it.

20. MDEQ stated that the known area of 1,4 dioxane contamination "covers several square miles." In addition, even after 30-years of remediation efforts and despite the requirements of MCL 324.20114, MDEQ further determined that the extent of the 1,4 dioxane groundwater pollution is still "unknown".

21. Between 2002 and October 27, 2016, the 1,4 dioxane cleanup criteria for drinking water was 85 parts per billion. MDEQ now has concluded that standard "outdated and not protective of public health."

22. Therefore, MDEQ promulgated, on an emergency basis, an emergency rule establishing a residential drinking water cleanup criterion for 1,4 dioxane in groundwater of 7.2 parts per billion, effective October 28, 2016.

23. MDEQ also promulgated, on an emergency basis, an emergency rule establishing a residential vapor intrusion screening criterion for 1,4 dioxane of 29 parts per billion.

24. The new cleanup and screening criteria will require additional, more stringent enforcement actions, potentially including the amendment of the current consent judgment between the State of Michigan and Gelman, which would be necessary if Defendant is to satisfy the requirement of MCL 324.20114 to achieve the amended cleanup criteria and screening levels.

25. On information and belief, the Attorney General and Gelman already have been negotiating proposed amendments to the current consent judgment.

26. The consent judgment, as currently amended, has not sufficiently protected the public or the City. Contamination has been allowed to spread for decades and, despite numerous court orders and promises from Gelman, has not even been controlled, contained, or even delineated, let alone cleaned up.

27. Many of the burdens of prior "containment" approaches have fallen on the City of Ann Arbor and its residents, along with residents of surrounding communities.

28. The City seeks to recover from Defendant Response Activity Costs that the City has incurred already, and that it will incur in the future, that relate to Hazardous Substances Released by Defendant to the environment at, and which have migrated away from the Source Property, relating to claims that were reserved in the prior settlement with Defendant.

29. The City also seeks injunctive relief that would compel Defendant to clean up Hazardous Substances, and to prevent future migration of such Hazardous Substances, that exceed cleanup criteria recently promulgated by the state of Michigan, beyond the Prohibition Zone as it existed in the Settlement Agreement.

C. History of Gelman's Contamination.

30. For many years, Defendant Released Hazardous Substances to the environment at the Source Property.

31. More specifically, between about 1966 and 1986, Defendant unlawfully discharged the chemical 1,4 dioxane at the Source Property by several methods, including spray-irrigating fields located at the Source Property and pumping contaminated water to unlined lagoons adjacent to Defendant's manufacturing facility.

32. 1,4 dioxane is a probable human carcinogen and a Hazardous Substance. According to the Environmental Protection Agency, exposure to high concentrations of 1,4

dioxane may also result in nausea, drowsiness, headache, and irritation of the eyes, nose and throat. Exposure typically occurs through inhalation, ingestion of contaminated food or water, or dermal contact.

33. Defendant's Hazardous Substances entered the soil and groundwater at the Source Property, and have migrated, and continue to migrate, away from the Source Property and into several aquifers in Washtenaw County.

34. Drinking water wells have been contaminated by the Hazardous Substances Released at the Source Property and those Hazardous Substances have migrated into surface water bodies, including Honey Creek and its tributary, which is an intermittent stream traversing the Source Property.

35. Defendant's unlawful activity was discovered in 1984, and Defendant has made numerous representations, promises and agreements to remediate the Hazardous Substances over the years.

36. Defendant discharged approximately 850,000 pounds of 1,4 dioxane into the environment. Only about 110,000 pounds of the 1,4 dioxane, or about 13% of the amount Released, has been extracted and treated.

37. The 1,4 dioxane released by Defendant infiltrated the groundwater and has and continues to spread under and through the City of Ann Arbor and surrounding communities.

38. The City suffered damages and incurred Response Activity Costs because of the Release, threatened release and disposal of Hazardous Substances, including 1,4 dioxane that has migrated from Defendant's Source Property.

39. In 1992, Defendant entered into a consent judgment with the State of Michigan, and promised to remediate the 1,4 dioxane contamination with the objectives of both containing

the plumes of groundwater contamination emanating from the Source Property and fully extracting all contaminated groundwater for treatment and disposal.

40. In particular, contaminated groundwater was to be removed from affected aquifers, treated to eliminate the 1,4 dioxane contamination, and then returned to the environment.

41. Despite the entry of the consent judgment, Defendant did not remove and treat all of the contaminated groundwater from the Source Property or from other aquifers in Ann Arbor and surrounding communities. Nor did Defendant successfully contain the 1,4 dioxane plumes. Instead, the contaminated groundwater continued to spread.

42. In 1996, an amendment to the consent judgment was entered, under which Defendant was ordered to change its Remedial Action Plan. Among other things, Defendant was required to install additional monitoring and/or purge wells to ensure that the clean-up objectives in the original consent judgment were achieved.

43. By 1999, fifteen years after Defendant's releases were first discovered, not only was Defendant's promised remediation of the 1,4 dioxane pollution not complete, but the contaminated plumes continued to spread through Ann Arbor and surrounding communities, endangering the integrity of drinking water systems and the public health. In 1999, Defendant sought to adopt new disposal methods to purge groundwater from impacted aquifers.

44. In 2005, Defendant gave up attempting to remove all of the 1,4 dioxane-polluted groundwater. Rather than conducting the remediation required by the original consent judgment, Defendant and MDEQ agreed to seek an amendment to the consent judgment, which allowed Defendant to adopt a program that Defendant insisted would "contain" the toxic plumes and prevent them from spreading outside a court-ordered "Prohibition Zone." The purpose of the

Prohibition Zone was "to prevent human exposure to groundwater that is or may become contaminated at 1,4 dioxane at levels that exceed acceptable criteria." A map depicting the Prohibition Zone is attached as **Exhibit A**. A new amendment to the consent judgment was entered.

45. The Prohibition Zone encompassed the areas of known contamination and then-foreseeable migration pathways of known 1,4 dioxane plumes at concentrations exceeding the then-existing cleanup criteria.

46. Cleanup criteria are set and periodically revised by the Michigan Department of Environmental Quality ("MDEQ") for various Hazardous Substances in various environmental exposure pathways (e.g., groundwater used for drinking).

47. Because of the health risk posed by concentrations of 1,4 dioxane that exceed the cleanup criteria, the installation of new drinking water and irrigation wells and the maintenance of existing drinking water and irrigation wells was prohibited within the Prohibition Zone, existing wells were abandoned, and households that were previously able to use private wells were required to convert to piped municipal water supplied by the City of Ann Arbor water system. The City was required to supply water to those residents.

48. Despite Defendant's renewed promise to contain the spread of the plumes, its efforts again failed. In 2011, Defendant and MDEQ agreed to seek a further amendment to the consent judgment, to delineate an Expanded Prohibition Zone in new areas where the plumes had spread and/or were expected to spread.

49. A third amendment to the consent judgment was entered, the objectives of which were to extract groundwater for treatment and disposal to the extent necessary to prevent the

contaminated groundwater plumes from expanding beyond their then-current boundaries, except within the Prohibition Zone and Expanded Prohibition Zone.

D. The Contamination Persists and Continues to Spread as Defendant Reduces its Cleanup Efforts.

50. Despite Defendant's repeated promises to remedy or at least contain the contamination, 30 years into the cleanup, 1,4 dioxane is still present in groundwater at concentrations hundreds of times the applicable cleanup criterion. And the plumes continue to expand.

51. For example, monitoring well MW121d, which lies on the northern boundary of a plume on Dexter Road east of Wagner Road, was established in 2008. At that time, tests showed no measurable concentrations of 1,4 dioxane. However, more recent samples from MW121d have measurable 1,4 dioxane. Moreover, just 750 feet to the southeast, a monitoring well at 465 DuPont had1,4 dioxane concentrations as high as 1700 ppb in 2015 tests. As another example, test results from monitoring well MW54d, which is sited outside of the Prohibition Zone and the foreseeable 1,4 dioxane pathway as of the date of the Settlement Agreement, showed concentrations of 1,4 dioxane exceeding 85 ppb beginning in 2014.

52. Indeed, many monitoring wells in the Expanded Prohibition Zone are showing new or increased levels of 1,4 dioxane.

53. Recently, a shallow groundwater investigation found 1,4 dioxane in two test wells located near Huron and Seventh Street in the City of Ann Arbor. Groundwater in this area is less than twenty feet from the surface.

54. The presence of 1,4 dioxane in shallow groundwater opens up a new potential exposure pathway. The 1,4 dioxane in shallow groundwater can volatilize, and then migrate up through soil, entering buildings, where those vapors can be inhaled, exposing persons to these

Hazardous Substances. This possible pathway can be of special concern when the groundwater can leak into basements or be exposed by digging or construction activities under buildings.

55. Despite the continued spread of the plumes, Defendant has actually reduced the volume of water it treats on an annual basis, and has decreased monitoring efforts.

56. In addition, Defendant has not been transparent about its cleanup activities. Among other things, Defendant seeks to keep secret its latest plan to monitor and remediate the 1,4 dioxane plumes. It has not provided a copy of its plan to the City. Defendant even cut off MDEQ's access to Defendant's internal database that had allowed MDEQ real-time information on the plumes.

E. The City's Settlement Agreement with Defendant.

57. Unfortunately, this complaint does not mark the first time that the City has been forced to take legal action against Defendant for its contamination of groundwater and surface water.

58. As noted above, in 2004 and 2005, the City filed actions in state and federal courts against Defendant, as well as a petition for a contested case hearing to challenge Defendant's permit to discharge treated water to Honey Creek.

59. In 2006, the parties entered into a settlement agreement ("Settlement Agreement") in which Defendant agreed to, among other things, compensate the City, monitor water quality, and provide the City with extensive and detailed reports on its sampling activities and other data. In exchange the City granted Defendant a limited release of claims.

60. The City entered into the Settlement Agreement under the belief that Defendant would undertake and successfully complete its obligations under the then-existing consent judgment, among them to contain the spread of the contaminated 1,4 dioxane plumes.

61. In the Settlement Agreement, the City reserved the right to assert future claims with respect to among other things: (A) Claims for response costs and response activity costs to address new plumes of contamination; and (B) All types of Claims related to an unforeseen change in the migration pathway of a known plume, which results in contamination above the applicable cleanup criteria (as they might be amended in the future) and which causes City property to be considered a Facility under Part 201 of NREPA.

62. There have been unforeseen changes in the migration pathways of 1,4 dioxane contamination, resulting in groundwater contamination above the current 7.2 ppb cleanup criterion. For example, test results from monitoring well MW54d, which is sited outside of the Prohibition Zone and the foreseeable 1,4 dioxane pathway as of the date of the Settlement Agreement, showed concentrations of 1,4 dioxane exceeding 85 ppb beginning in 2014. As another example, Monitoring Well MW 110 has tested at 66 ppb.

63. The City did not release Defendant from any of the claims it asserts herein.

F. The Current Threat to Public Health and the Costs to the City.

64. The continued spread of the 1,4 dioxane plumes threatens the health, safety and welfare of Ann Arbor citizens and exposes Ann Arbor to response costs and response activity costs.

65. For example, there are approximately 83 homes that are within 600 feet of the estimated1,4 dioxane plume boundary. Approximately 62 of those homes do not currently have access to municipal water supplies.

66. Defendant's groundwater pollution threatens to impair dozens, if not hundreds, of homes both inside and outside the Prohibition Zone and Expanded Prohibition Zone by causing

1,4 dioxane levels in water under those homes to exceed the current and/or proposed cleanup criteria, for inhalation and drinking water.

67. In the past, when 1,4 dioxane has impaired drinking water wells, affected property owners have been forced to connect to the City's municipal water system.

68. In addition, Defendant's failure to contain the plumes, the continued spread of 1,4 dioxane through the groundwater in unforeseen ways, and the lack of knowledge concerning the extent of the 1,4 dioxane pollution and its future pathways endanger the City's water supplies, and the City's ability to obtain new sources of drinking water.

69. Furthermore, the continued and uncontained spread of 1,4 dioxane, and the fact that the MDEQ has concluded that, even after a 30-year cleanup effort, the extent of contamination at levels above the current cleanup criteria is "unknown," threatens the drinking water supplies of the City of Ann Arbor.

70. In particular, continued migration of 1,4 dioxane to the Huron River upstream of Barton Dam threatens Ann Arbor's primary drinking water supply. Currently, there is a lack of groundwater monitoring wells between known groundwater contamination and the Huron River upstream of Barton Dam.

71. City personnel have devoted significant time and effort, at the City's cost, to necessary monitoring, planning, and analysis activities.

72. The City has engaged consultants and attorneys to assist it in these activities, at the City's cost.

COUNT I

INJUNCTION, COST RECOVERY AND DECLARATORY JUDGMENT UNDER PART 201 OF THE MICHIGAN NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, M.C.L. 324.20201, et seq.

73. The City incorporates all preceding paragraphs of this Complaint by reference.

74. Certain areas within the City limits, including areas impacted by unforeseen changes in the migration pathway of the Hazardous Substances outside of the Prohibition Zone that have resulted in the presence of 1,4 dioxane at concentrations that exceed the applicable cleanup criteria and/or State of Federal Maximum Contaminant Level, are "Facilities," as that term is defined by MCL 324.20101(1)(o), due to Releases of Defendant's Hazardous Substances that originated at and from the Source Property owned or operated by Defendant.

75. Defendant owned the Source Property from which those Hazardous Substances (including 1,4 dioxane) were Released.

76. Defendant operated the Source Property from which those Hazardous Substances (including 1,4 dioxane) was Released.

77. Defendant arranged to treat or to dispose of those Hazardous Substances (including 1,4 dioxane) that were Released at and from Defendant's Source Property.

78. The Releases of Hazardous Substances by Defendant have migrated to and under the City's property in concentrations that either exceed the cleanup criteria for unrestricted residential use, or threaten to continue to be Released to and under the City's property (by migration) in higher concentrations, which prevent the City from continuing to use water under that property in its public supply system, until Defendant's Hazardous Substances are cleansed from the aquifers.

79. Pursuant to MCL 324.20126(4)(c), the City is not liable under Part 201 of NREPA with respect to the Hazardous Substances Released by Defendant because the Hazardous Substances have migrated to the City's property.

80. Defendant is liable under Part 201 of NREPA with respect to the Releases of the Hazardous Substances described above, in accordance with one or more of the following: MCL

324.20126(1)(a) (as an owner or operator who is responsible for the activity that caused the Releases); MCL 324.20126(1)(b) (as an owner or operator at the time of the disposal of Hazardous Substances, who is responsible for the activity that caused the Releases).

81. The City has incurred, and will continue to incur, Response Activity Costs with respect to the Hazardous Substances Released at and from Defendant's Source Property, and that have migrated to and under, and that threaten to continue to migrate to and under, the City's property.

82. The City is entitled to recover from Defendant the Response Activity Costs the City has incurred, and that the City will incur in the future, under MCL 324.20126a.

83. In accordance with MCL 324.20114, Defendant is required, among other things, to (i) "…determine the nature and extent of the release at the facility"; (ii) "Immediately stop or prevent an ongoing release at the source"; and (iii) "diligently pursue response activities necessary to achieve the cleanup criteria established under [Part 201]…"

84. Defendant has failed and refused to undertake the Response Activities required by MCL 324.20114. Defendant has further failed to comply with the terms of the consent judgments, and has failed to contain the 1,4 dioxane plumes.

85. Instead, Defendant has allowed the contaminated plumes to continue to spread in previously unforeseen ways, such that the extent of the current contamination and potential future pathways are unknown.

86. An actual, substantial legal controversy now exists between the City and Defendant, and the City is entitled to a judicial declaration of its rights and legal relationship with Defendant. The City is entitled to a declaratory judgment pursuant to Part 201 of NREPA, that as between the City and Defendant, Defendant is solely responsible and liable for all costs of

Response Activities, removal actions and remediation of the City's property, underlying aquifers, and any other property that has been contaminated by the Releases or disposal of Hazardous Substances originating at Defendant's Property, for damages to the City's property, and for payment of all costs, including attorney fees, incurred by the City in conjunction with this litigation.

WHEREFORE, the City respectfully requests that this Court enter a judgment in its favor and against Defendant that, at a minimum:

1. Enjoins Defendant and requires Defendant: (i) to undertake necessary actions to determine the full nature and extent of Defendant's 1,4 dioxane in all areas; (ii) to take all actions necessary to stop further spread of 1,4 dioxane beyond the boundaries of the Prohibition Zone that was established under the Settlement Agreement, including, as appropriate to achieve that result, stopping the release at the Source Property and in downgradient portions of the plume; and (iii) to take all necessary actions to cleanse 1,4 dioxane from groundwater to achieve the cleanup criterion and screening levels established by MDEQ in all areas outside of the Prohibition Zone established in the Settlement Agreement, such that there no further Hazardous Substances will remain in the soil or groundwater at and under the City's property;

2. Orders Defendant to pay to the City an amount equal to all Response Activity Costs that the City has incurred to date;

3. Declares that Defendant is liable to, and must pay, all past and future Response Activity Costs incurred by the City in response to the Hazardous Substances that have or in the future may contaminate the City's property, and underlying aquifers;

4. Orders Defendant to pay to the City all costs, including attorney fees, incurred by the City; and

5. Awards to the City its costs, attorney fees and expert witness fees incurred in bringing this action.

COUNT II
NEGLIGENCE

87. The City incorporates all preceding paragraphs of this Complaint by reference.

88. Defendant owed the City a duty not to cause, and a duty not to allow, Defendant's Hazardous Substances to contaminate aquifers beneath the City that the City may use to supply potable water via the municipal water supply system.

89. Defendant owed the City a duty not to cause, and a duty not to allow, Defendant's Hazardous Substances to contaminate the aquifers from which the City actually withdraws water to supply potable water via the City's municipal water supply system.

90. Defendant has breached the duties it owed to the City: (i) by allowing the Release and disposal of Hazardous Substances at Defendant's Source Property; (ii) by failing to stop the migration of those Hazardous Substances away from Defendant's Source Property through soil and groundwater to and under the City's property; (iii) by failing to take actions to adequately investigate and clean up the subject Hazardous Substances; (iv) by allowing its Hazardous Substances to contaminate the aquifers discussed above; and (v) by allowing greater concentrations of its Hazardous Substances to continue to migrate toward and to threaten to increasingly contaminate the aquifers used by the City's municipal water supply system.

91. The City has been damaged by Defendant's Hazardous Substances that have contaminated aquifers underlying the City's property and regional aquifers lying upgradient from same.

92. Defendant's breach of the duties owed to the City is both the cause in fact and the proximate cause of the damages already suffered, and to be suffered in the future, by the City.

93. Defendant's failure to contain and remove the Hazardous Substances it Released to the environment that have now contaminated the soil and groundwater at, under, and migrating to, the City's property constitutes negligence by Defendant.

94. Defendant is therefore liable to the City for all damages arising out of Defendant's negligence, including but not limited to: (i) damages to the City's property; (ii) loss of value of the City's property; (iii) the City's loss of use and enjoyment of its property caused by the Release of Hazardous Substances that have contaminated the soil and groundwater; (iv) costs of investigations, response, removal or remediation costs and costs associated with the replacement of water supplies that the City must incur to cleanse its property for use as a source of water for its municipal supply system; and (v) costs the City has incurred and will incur to upgrade its municipal water supply system in order to meet the demands for potable water caused by Defendant's Release of Hazardous Substances.

WHEREFORE, the City respectfully requests that this Court enter a judgment in its favor and against Defendant that, at a minimum:

1. Requires Defendant to pay to the City damages that the City has suffered as a consequence of Defendant's negligence;

6. Enjoins Defendant and requires Defendant: (i) to undertake necessary actions to determine the full nature and extent of Defendant's 1,4 dioxane in all areas; (ii) to take all actions necessary to stop further spread of 1,4 dioxane beyond the boundaries of the Prohibition Zone that was established under the Settlement Agreement, including, as appropriate to achieve that result, stopping the release at the Source Property and in downgradient portions of the plume; and (iii) to take all necessary actions to cleanse 1,4 dioxane from groundwater to achieve the cleanup criterion and screening levels established by MDEQ in all areas outside of the Prohibition Zone established in the Settlement Agreement, such that there no further Hazardous Substances will remain in the soil or groundwater at and under the City's property; and

2. Awards to the City interest, costs and attorney fees incurred in this litigation.

COUNT III
NUISANCE AND TEMPORARY NUISANCE

95. The City incorporates all preceding paragraphs of this Complaint by reference.

96. By allowing the Release and disposal of Hazardous Substances at Defendant's Source Property, by failing to stop migration of those Hazardous Substances through soil and groundwater away from Defendant's Source Property to the City's property, and by failing to take actions to adequately investigate and clean up the subject Hazardous Substances, Defendant has created and is maintaining a nuisance and a temporary nuisance that has damaged, and continues to damage, the City's property, among other things.

97. Defendant has continued to maintain and has failed to abate the nuisance and temporary nuisance it created.

98. It is possible for Defendant to abate the temporary nuisance through remedial efforts.

99. The value and the City's use and enjoyment of its property have been impaired and damaged by the nuisance and temporary nuisance Defendant has created, maintained and failed to abate.

100. The City has suffered damages as a consequence of the nuisance and temporary nuisance for which Defendant is responsible, in the form of impaired property value, the loss of use and enjoyment of property, investigative costs, costs associated with identifying and developing alternative water supplies that are not threatened by Defendant's Hazardous Substances, litigation costs, and other costs and damages set out herein.

WHEREFORE, the City respectfully requests that this Court enter a judgment in its favor and against Defendant that, at a minimum:

1. Orders Defendant to pay to the City all damages the City has suffered as a consequence of the nuisance that Defendant has created, has maintained and has failed to abate;

2. Enjoins Defendant from releasing or allowing the continued migration of its Hazardous Substances;

3. Orders Defendant to abate the nuisance;

4. Enjoins Defendant and requires Defendant: (i) to undertake necessary actions to determine the full nature and extent of Defendant's 1,4 dioxane in all areas; (ii) to take all actions necessary to stop further spread of 1,4 dioxane beyond the boundaries of the Prohibition Zone that was established under the Settlement Agreement, including, as appropriate to achieve that result, stopping the release at the Source Property and in downgradient portions of the plume; and (iii) to take all necessary actions to cleanse 1,4 dioxane from groundwater to achieve the cleanup criterion and screening levels established by MDEQ in all areas outside of the Prohibition Zone established in the Settlement Agreement, such that there no further Hazardous Substances will remain in the soil or groundwater at and under the City's property; and

5. Awards to the City all interest costs and attorney fees incurred in this litigation.

COUNT IV

PUBLIC NUISANCE

101. The City incorporates all preceding paragraphs of this Complaint by reference.

102. By allowing the release and disposal of Hazardous Substances at Defendant's Source Property, by failing to stop migration of those Hazardous Substances from Defendant's Source Property, through and under property of others and to and under the City's property, and by failing to take actions to adequately investigate and clean up the Hazardous Substances,

Defendant has unreasonably interfered with the property rights of the public in the vicinity of Defendant's property, thereby creating a public nuisance.

103. The City, as a governmental unit, is not required to show that it has suffered harm different from the general public as a result of the nuisance created by Defendant.

104. Even if it were required to make such a showing, the City has suffered harm that is different from and in addition to that suffered by the general public because: the City has incurred and will continue to incur costs to develop alternative water supplies and to upgrade its public water system to service the additional demand caused by Defendant's activities; the City's property value has been impaired and the City has incurred costs associated with Response Activities and this litigation.

105. Defendant is liable to the City for the costs incurred by the City and the damages suffered by the City as a consequence of the public nuisance Defendant has created, has maintained and has failed to abate.

WHEREFORE, the City respectfully requests that this Court enter a judgment in its favor and against Defendant that, at a minimum:

1. Orders Defendant to pay to the City all damages the City has suffered as a consequence of the nuisance Defendant has created, has maintained and has failed to abate;

2. Enjoins Defendant and requires Defendant: (i) to undertake necessary actions to determine the full nature and extent of Defendant's 1,4 dioxane in all areas; (ii) to take all actions necessary to stop further spread of 1,4 dioxane beyond the boundaries of the Prohibition Zone that was established under the Settlement Agreement, including, as appropriate to achieve that result, stopping the release at the Source Property and in downgradient portions of the plume; and (iii) to take all necessary actions to cleanse 1,4 dioxane from groundwater to achieve the cleanup criterion and screening levels established by MDEQ in all areas outside of the Prohibition Zone established in the Settlement Agreement, such that there no further Hazardous Substances will remain in the soil or groundwater at and under the City's property;

3. Enjoins Defendant from releasing or allowing the continued migration of Hazardous Substances; and

4. Awards to the City all interest costs and attorney fees incurred in this litigation.

COUNT V

VIOLATION OF MICHIGAN'S ENVIRONMENTAL PROTECTION ACT

106. The City incorporates all preceding paragraphs of this Complaint by reference.

107. By allowing the release and disposal of Hazardous Substances at Defendant's Property, by allowing migration of those Hazardous Substances through the soil and groundwater to the City's property, and by failing to take timely and appropriate actions to adequately investigate and clean up the Hazardous Substances, Defendant has impaired and destroyed groundwater and surface waters of the State and has violated the public trust in those resources.

108. Defendant does not have a permit or other authorization to contaminate surface or groundwater with Hazardous Substances to the City's detriment.

109. The Releases or disposals of Hazardous Substances that have caused the impairment and destruction of these resources are in violation of federal, state and local law, and in particular, Michigan's Environmental Protection Act, MCL 324.1701 et seq., and Part 201 of NREPA.

110. In accordance with Part 201 of NREPA, Defendant has affirmative obligations to take a number of actions with respect to the contamination. Those actions include, but are not limited to:

(a) Determining the nature and extent of the Release;

(b) Stopping or preventing the continuing Release at the source;

(c) Preventing exacerbation of the contamination caused by the Release;

(d) Diligently pursuing response activities necessary to meet the cleanup criteria specified in Part 201 of NREPA; and

(e) Taking other actions specified in Part 201 of NREPA.

111. Defendant has failed to satisfy its affirmative obligations to clean up the Hazardous Substance contamination it has caused, including but not limited to those required under Part 201 of NREPA. Defendant's failure has caused Hazardous Substances to migrate beyond its property, causing regional pollution, impairment and destruction of surface and groundwater resources of the state which are utilized by the City and direct damage to the City's property.

WHEREFORE, the City respectfully requests that this Court enter judgment in City's favor and against Defendant that, at a minimum:

1. Enjoins Defendant and requires Defendant: (i) to undertake necessary actions to determine the full nature and extent of Defendant's 1,4 dioxane in all areas; (ii) to take all actions necessary to stop further spread of 1,4 dioxane beyond the boundaries of the Prohibition Zone that was established under the Settlement Agreement, including, as appropriate to achieve that result, stopping the release at the Source Property and in downgradient portions of the plume; and (iii) to take all necessary actions to cleanse 1,4 dioxane from groundwater to achieve the cleanup criterion and screening levels established by MDEQ in all areas outside of the Prohibition Zone established in the Settlement Agreement, such that there no further Hazardous Substances will remain in the soil or groundwater at and under the City's property;

2. Declares that Defendant has failed to comply with state and federal environmental cleanup statutes, sets forth the legal responsibilities that Defendant has with respect to the City and determines the validity, applicability and reasonableness of the cleanup criteria applicable to Defendant's cleanup of Hazardous Substances; and

3. Awards to the City its costs, attorney fees and expert witness fees incurred in bringing this action.

Respectfully Submitted,
BODMAN PLC

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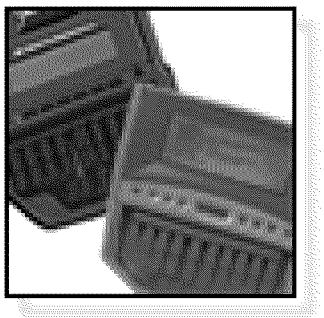
EXHIBIT N

Attorney General For State Of Michigan v. Gelman Sciences, et al

Deponent:

Taken: **12/15/2016**



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TRANSCRIPTION OF A VIDEOTAPED COURT HEARING

HELD THURSDAY, DECEMBER 15, 2016

BEFORE HON. TIMOTHY P. CONNORS

WASHTENAW COUNTY CIRCUIT COURT

CASE: ATTORNEY GENERAL FOR STATE OF MICHIGAN v GELMAN SCIENCES, et al

ATTORNEYS SPEAKING ON VIDEO:

BRIAN J. NEGELE, Appearing for State of Michigan
THOMAS P. BRUETSCH, Appearing for City of Ann Arbor
STEPHEN K. POSTEMA, Appearing for City of Ann Arbor
FREDRICK J. DINDOFFER, Appearing for City of Ann Arbor
MICHAEL L. CALDWELL, Appearing for Gelman Sciences
ROBERT C. DAVIS, Appearing for Washtenaw County Defendants
ODAY SALIM, Appearing for Huron River Watershed Council

Ann Arbor, Michigan
Thursday, December 15, 2016
Approx. 9:11 a.m.

(The case was called and the attorneys introduced themselves.)

THE COURT: Let me say if I may to help guide the oral arguments on your motion, first let me say that I have read the briefs, I took them home, read them all last night (INDECIPHERABLE) so I'm familiar with this case first of all, so you don't need to just repeat what you have in the written brief. All your records are available for public view and it's available for (INDECIPHERABLE).

Secondly, you don't need to say by way of background about the case, you know, go to the beginning of the world and tell me all about it. I'm familiar with the case.

In its very initial inception in the 1980s I was actually in this courtroom when Judge Conlin (sp) handled it. I was appointed as the Special Master by Judge Conlin on discovery issues, so I've been with it two decades.

The reason that it is assigned to me now is with the retirement I guess of the various

judges before me that handled it so I have it now and I'll have it for the next eight years.

Third, I am familiar, I'm aware, that there are multiple audiences in the case like this. Of course, there's your client, of course there's public interest, of course there's appellate audience which you have, but today we're going to be talking about what is the status of the case as it currently exists and whether or not different entities should be a part of that case by way of intervention, so we're just focused on that aspect of the case and we're aren't -- that's really where I want to stay focused.

Third, on oral argument there are three rhetorical questions that I have in my head and so therefore your arguments when you focus it in that structure, you become more effective. Even whether I agree with you or not, you won't get lost in terms of I'll hear you.

The first thing, of course, is what it is you want me to do today (INDECIPHERABLE). Secondly, how I can do it and (INDECIPHERABLE) statute, case law and court rule, and then third why.

So in reading the briefs and so forth, you know, sometimes when you say here's a long recitation of facts, etc, in the recitation of facts (INDECIPHERABLE), and then we start getting off into disagreement about a particular fact and then we're arguing all about that and never get to really the underlying core issue.

It seems to me the underlying core issue is the quality of the water. If there is a problem, what is the problem and to what degree, what should be done about it and who should be responsible for carrying it out.

And in that sense I do want to emphasize that this is a matter of interest to everybody and we need you to speak to us here as adults with on average about 50 to 65 percent water and babies it's 78 percent water, so it was about each of us and the decisions we make will affect those that come after us.

So when I read the briefs -- let me just (INDECIPHERABLE) with summation -- my understanding is there's three separate entities who are seeking intervention. There are two avenues leading to intervention. One is intervention by right and one is permissive

intervention.

The two parties who are involved in the case currently, some of them are in agreement or has no objection to permissive intervention. They take affront (INDECIPHERABLE) or concerns with the finding at this stage by the Court (INDECIPHERABLE) adequately represented, but they don't have any objection to permissive intervention.

One of the parties does object to any intervention, so rather than getting into findings or arguments or defensiveness about whether an institution or an entity is being adequate in their representation, which I think sidetracks this from the real issue, can get us off on a path that I think is not particularly helpful, I would like to focus your arguments today on permissive intervention and so let's see where are those who would disagree with permissive intervention, give me your arguments why and then I'll make a decision for you.

All right, so with that, first at the podium, boy, you got to that podium, you didn't give it up, did you.

MR. BRUETSCH: I'm not going to.

THE COURT: All right. Your name again, so tell me who you are and who you represent and what you're seeking today.

MR. BRUETSCH: Certainly, your Honor. My name is Tom Bruetsch, Thomas Bruetsch, and I represent the City of Ann Arbor, one of the parties that seeks intervention into this case, and I'll deal with your questions first.

Also, just in case, I brought a big blowup of what we submitted as Exhibit A which is the big map that shows where the plumes are. And you've indicated your history with the case, so I don't know if you'll need it, but if there comes a time where you want additional explanation about why is the quality of the groundwater in this area that you're claiming an interest in -- why does that matter, you know, we're happy to break out the big map and try to explain that and work through it.

What do we want you to do today? That's probably the easiest question that you've posed to us, and the answer to that question is we'd like you to allow the City of Ann Arbor to intervene in this case.

There are a number of reasons for that.

One of them is that as I think everyone has stated in their briefs there are ongoing negotiations right now as I understand it about a fourth amendment to the consent order that's to be brought before this court and to date those negotiations are between the State through the Attorney General and the Defendant Gelman, and we would like to participate in those negotiations.

We would like to influence those negotiations and we would like, you know, the proverbial seat at the table in those negotiations so that we can protect the City's interests and hopefully advance this clean-up to a better stage.

The unfortunate part about those negotiations is that even though we've asked, we've not been allowed the proverbial seat at the table and we've not even been allowed to understand or know what's going on in them.

These negotiations are being done in secret and despite the fact that we've asked the parties would you please share with us your proposals, would you please share with us what you're thinking so that we know how much or how little we need to be concerned, they haven't

shared that with us.

And I think the Attorney General would, but the Attorney General I think feels bound by a confidentiality of settlement discussions and unless Gelman gives its approval for that dialog to occur, they can't do anything is what they're telling us and so that's one of the reasons we've asked the Court to allow us to intervene so that we can get that seat at the table.

How do -- how can you, how can the Court make that happen, that was your second question, and you focus rightly on the intervention court rule. There's also the statute though that I want to make sure is on the Court's radar.

Under Part 201 which is the environmental statute at interest here, there is actually a specific intervention provision which is fairly rare. Usually we just rely on the court rule, but Part 201 has an intervention provision which does not have a time limit by the way and it says that when the Attorney General has brought a suit like this, any party may intervene if it's got an interest and that interest is at risk unless the Court finds that

the State or another party adequately represents the party seeking to intervene's interests.

So it's similar to the intervention-by-right rule with a couple of twists. I think that either the statute which the Court can rely on the statute to allow us to intervene, the Court can rely on either the intervention by right or, as you have indicated, the permissive intervention provisions of the court rule.

Why should you allow us to intervene? That's the question that we probably would need to spend the most time on. Ann Arbor has a number of interests in this case and a number of reasons why it wants to intervene.

The first is because the City's interests are threatened by the continued expansion of the plumes of 1.4 dioxane that are under the city and the surrounding communities and I'll get into that a little bit more in a moment.

Second is because the continued expansion of these plumes has caused a public health emergency which the State actually expressed on October 27th when it issued its new

rules on the clean-up standards for 1.4 dioxane and declared that a public emergency existed which allowed them to do this outside the regular administrative process.

Third, as I've mentioned, there are current negotiations that we very much want to be a part of to protect our own interests and fourth -- and we won't focus on this one so much given what you said is -- we've got a great deal of concern about how the interests of Ann Arbor have been represented in the past and how they might not be represented going forward in the future.

And I think, your Honor, the critical point is that Ann Arbor and other critical stakeholders here deserve a voice in the future remediation of these plumes and another consent order amendment, and this would be the fourth, should not be entered without these participants' approval.

The City's interests I think here are extreme. Ann Arbor is the only source of municipal water in this area. There are wells out there. You know, some of the wells have had to have been abandoned because of the pollution. We are the only source of municipal water and we

need to be able to protect our sources of clean safe drinking water.

The primary source for the city is up at Barton Pond and if you looked at Exhibit A, you'd see that the Barton Pond is kind of to the north, northeast of where the plume of 1.4 dioxane is currently. And one of the things that we have seen is that the plume has expanded in the north area which is very concerning for us.

There is a prohibition zone that you're, I'm sure, familiar with. The prohibition zone in the north is in the area of the Evergreen Subdivision and we've seen now two of the wells, the monitoring wells, which are on the far north border of that prohibition zone test positive for 1.4 dioxane at small levels. So the plume is reaching the border of the prohibition zone.

In addition, if you move a little bit south from the border we're seeing increased concentrations at other monitoring wells, concentrations above the new 7.2 ppb standard, concentrations even above the old 85 ppb standard. So there's more 1.4 dioxane going into that area and it's even hitting the border of the prohibition zone at at least two wells.

So we're concerned because as that plume continues to go north, if that's what it does, it starts potentially impacting Barton Pond. And they've said well, you know, you hired a consultant and your own consultant said, "No, I think it's going to go east", and that's exactly what he didn't say. He said yes, in the area of a couple of wells I think it's going to go east. We've seen these increased clusters of concentration that may go east, it may go north.

And a bigger problem is, you've got too much separation between the wells to the northeast and we don't know if 1.4 dioxane is going to be able to get through there or not. So that's one area of concern of ours.

We also have an area of concern just to the west of downtown, so if you recall kind of the plume is shaped like a long cigar and 1.4 dioxane is generally traveling west to east and the leading edge of the plume by all accounts I believe is somewhere east of 7th Street roughly. It's being detected in wells.

And the MDEQ did a shallow groundwater investigation recently and they published the results just this past October. And the results

were that they found 1.4 dioxane in two wells, shallow water wells, on 7th Street between Huron and Liberty. That's again on the leading area or leading edge area of the dioxane plume.

This is an area where the groundwater is very shallow, so, you know, it's one thing if you're out at Maple Road and Jackson Road where your water level may be 130 feet underground. It's another thing at 7th Street where the water table is 5 or 6 feet underground.

And you remember the concept that we've been operating under since about 2005 is we've got this prohibition zone or pollution zone, whatever you want to call it, where we're just going to let the dioxane flow east and the thinking is it's going to kind of take a little bit of a left turn and vent out into the Huron River.

So we're not really trying to so much clean it up, we're letting it flow and it's going to turn and go into the Huron River and vent out over a period of decades or centuries or however long it takes. Certainly longer than anyone in this courtroom is going to be around to see it.

The problem is, as I said, out at Maple

and Jackson if it's 130 feet underground and you ban drinking water wells, the theory is it will never come into contact with human beings and it's okay. At 7th Street, now that we've seen test results where dioxane is in the water, and the water table is 5 to 6 feet below ground in an area where, as you go down the hill -- I'm sure the Court know to topography.

If you leave the Court and you drive out Huron Street or you drive out Liberty Street, you do down the big hill towards 1st and then slowly start sloping up and rolls a little bit out towards Maple.

You've got that big valley down there. You've got Allen Creek down there, and so there's a sink down there where this could collect and then perhaps turn to the river.

So now you've got 1.4 dioxane in an area of very shallow groundwater and the response to that was but it's only at 1.5 ppb, it's only at 3.3 ppb. But you only have to look at the map to understand what is coming. If you look at Exhibit A and you see that six blocks to the west of 7th you're measuring at 85 ppb or more. At 10 blocks away, monitoring wells are recording 330

ppb. The design of this plan is that that's all going to travel towards 7th, towards 1st where the shallow groundwater is.

And so we think that steps need to be taken now to prevent that from happening, and the City would like to be a part of that.

As I indicated just briefly, your Honor, and this is one of our other concerns, the State, the DEQ and documents signed by the governor, indicated that there was presently a public health emergency. They issued their orders on October 27th, so just less than two months ago. And we had some concerns obviously coming from that order.

They mention the shallow groundwater investigation when they issued their order and a couple of the things that came out of that and then in the briefing, one of the things was that the extent of the plumes in that 7.2 ppb to 85 ppb, the extent of the plume is not known.

Well, that's one of the things that the statute in Part 201 requires is that you delineate the extent of the plume. We're 25 years into the investigation.

A second thing that we saw in one of

Gelman's -- in Gelman's response filed Monday was that there's still 1.4 dioxane coming out of the source property out at Wagner Road. That's what they said on Page 5 of their brief. That they've diminished the amount that's coming out, but it's still coming out, which is another thing covered by the statute.

You're supposed to stop the releases from the source property. We want to be a part of the solution that stops the pollution from flowing from the source property, that stops it from doing downhill toward the shallow groundwater area, that stops it moving north and potentially impacting our source of water at Barton Pond.

So that's why we think that you should allow us to intervene and allow other important stakeholders to intervene. We'd rather not litigate this case. We'd rather not go through another several years of litigation with Gelman. We've done that before. We will if we have to, but what we really want to do and why we're really here today is because we want that seat, that proverbial seat at the table, and I know that's kind of a -- you know, one of those abject

constructions, but we think that Ann Arbor can offer quite a bit.

We think that Washtenaw County and other important stakeholders can offer quite a bit to the negotiations because this really is our future.

This is not just the DEQ's future or the State's future, this is really our future and we want to be allowed to intervene and actually protect ourselves.

Just to wrap up, we don't believe this is just an intervention of right or an intervention of permissive -- permissive nature. We think this is an intervention of necessity. The consent order that's negotiated over the next months or, if necessary, the litigation that follows to enforce the new clean-up standards will determine what happens with this plume or these plumes or the next decade or more and to say that this public health emergency is going to be rectified by some negotiations that are done outside the public view without the participation of the key stakeholders I think would be unconscionable, so I would ask that you grant our motion and I'm happy to answer any questions you

have.

THE COURT: (INAUDIBLE) parties to the case and then any rebuttal that each of you (INAUDIBLE).

MR. DAVIS: Judge, my name is Robert Davis and I represent the County entities including the Health Department and the director, health officer.

I know you've indicated that you've read the briefs and I appreciate the opening to help us frame these arguments for you I think is wise.

2.209(b) allows for permissive intervention. I'll focus on (b) because I think it is the least restrictive method of intervention for you to grant and I would say that I'm asking you for an order under permissive intervention to allow my County Defendants to be in this litigation for two reasons, Judge.

One, because my County Health Department has a statutory duty that is now triggered and has been presented to you in the briefs you read until the twilight of last evening and, Number 2, because of my argument on standing if there were a challenge to standing, I

think that I meet the test with my County clients as having standing in this litigation.

How do I want you to go about that? By way of a court order, a court order that would grant permissive intervention by the County Defendants and why -- I want to adopt by reference all of the factual issues that you just heard from the City. If they're happening in the city, I think the judge can draw the conclusion they're happening in the county.

This entire issue is centered in Washtenaw County and that's why my clients are here. So without repeating the plume and the testing and all that, I just want to punctuate, Judge, for you my statutory obligation coming down from the State Legislature to my Health Department.

There is no dispute that the emergency rules comes out in October of 2016 and there's no dispute that in pronouncement of those rules there was a clear indication that the prior rules had been insufficient to protect public health. The new rules establish what I consider to be an actionable clean-up standard for both groundwater and residential vapor intrusion.

So what we're talking about here, Judge, is we've got new standards with respect to drinking water ingestion pathways and vapor intrusion pathways and maybe what I should say at the beginning is if we put those clean-up standards right in the middle of your courtroom here, Judge, and we said they're brand new, they're emergency, they're important, it's a declared public health concern, then why aren't all these parties sitting at a table trying to just address those clean-up standards?

We should not be standing here at odds with you or with the issues, we should be focused on those clean-up standards and my Health Department has a statutory duty coming down from the State of Michigan that says she has to be involved in that health protection. And we all should have a common goal here.

We shouldn't be fighting about the -- although I like the words the proverbial seat at the table, the table should be open and in the middle of the table should be 7.2 and other standard for vapor intrusion 20 -- 29. Thank you, Mr. Dindoffer.

And that's what we should be focused

on, Judge. Everybody here -- this is a Washtenaw County issue. The City of Ann Arbor is in Washtenaw County. The plume is entirely in Washtenaw County. The clean-up standards are directly related to the plume and the stuff, the 1.4 dioxane.

So we all have a common interest here, okay, and so when I go through the statute, for the first time the governor who is now going on break I guess into the wee hours of last night, but he said -- he said to us, we now have a public health concern. And when you use those words, it's a declared public health concern.

So you go to the other statutes that haven't been mentioned before you yet, but are in my brief, and it says that the state law concurrent says that the County has to have a Health Department and it creates a full-time health director or health officer who's in the courtroom, Judge, listening intently because she -- she's come to me and said, "I have an absolute statutory responsibility to address environmental health concerns. The governor just said there's an environmental health concern. I need to get involved" and that's why we're here.

Nobody has argued, even brother counsel from Gelman has not argued that well, there's a statute somewhere out there that says my health director, well, you can just sit on the sidelines because the State is taking care of it, or that there's a preemption. There's jurisdiction here from my Health Department. My County health officer has a statutory duty. I've outlined for you, MCL 333.2433. It's a "shall" duty.

The Supreme Court, you know, has ruled that "shall" means mandatory. She can't ignore her duty, she can't be sidelined. So when I go through the statutes that I've laid out for you in my brief, she -- it anticipates that the County health officer via the County will work with other agencies including the DEQ on matters that come down as public health concerns and that's what we have here, Judge.

It's as simple as that. And, you know, the County meets the test for intervention. I gave you some case law that said under permissive intervention (b), just because there's been a judgment entered it's not untimely. There's cases that say that and I pointed those out to you in the latter part of my brief starting at

Page 15.

So nobody has responded to me, Judge, with respect to the statutory duties of my health officer saying, "Oh, no, it's preemptive, the state law preempts your health director. Oh, no, she can sit on the sidelines. We'll indemnify her and hold her harmless in case she gets sued for not doing anything." That's not what we're hearing.

At Page 11 of the response to my motion Gelman says we -- the County may have these duties as argued. The County may have a duty to prevent and control environmental health hazards, but nothing precludes the DEQ from sharing in those goals. I kind of agree, and I think what we're saying is that in the middle of your courtroom should be those clean-up standards.

Around the table should be those with a duty to address public health concerns. My public health director, my public health officer, my County, has a duty under a separate set of statutes that have not been contested in any of the arguments before you, Judge.

And I think that if we work together we can do what you said at the beginning, clean up

the impacted groundwater to the new standard, clean up the vapor intrusion to the new standard and address as a group this public health issue.

I'm triggered statutorily and I would ask that you consider that. Thank you.

MR. SALIM: Good morning, your Honor, my name is Oday Salim, I'm with the Great Lakes Environmental Law Center and I represent the Huron River Watershed Council.

THE COURT: Tell me about your center. I'm not as familiar with it as I am some of the other entities.

MR. SALIM: Sure thing, your Honor. So Professor Noah Hall as Wayne State University Law School founded the center when I was a law student there. I was actually one of the first students to intern at it.

The Great Lakes Environmental Law Center exists to do two things. One, it exists to help government. We produce and develop policy, we provide recommendations and findings to local county, state and other kinds of government entities.

And we also try to get involved in permit comments, sometimes permit challenges and

enforcement litigation such as this.

The center is a separate non-profit entity, but it actually serves as the practical experience for the environmental law clinic students at Wayne State University Law School, so I'm the senior attorney at the center. Some of my legal work is my own, but much of the legal work at the center we do in conjunction with our students at Wayne State Law School.

So that's the background of the center.

Let me, your Honor, begin just by addressing your three questions, then I can get into the council and the interests in this matter.

What we would like this court to do, your Honor, is grant a motion for the Huron River Watershed Council to intervene, not just any motion, your Honor. We would be happy for the Court to grant a narrowing motion to use its plenary trial court authority to tell us, if you're going to intervene because there are already two parties in the matter, there may be four -- by the way, we support the City and the County in their attempts to intervene -- in order to manage the case appropriately, we want you to

intervene in a limited manner, the manner being to protect the surface water interests here.

So we'd like a grant of -- an order granting us the ability to intervene and we're happy to have that intervention narrowed to surface water interests so that we're not working too much in the areas of vapor intrusion and drinking water quality where we don't need to.

How can you do it? Certainly we would be happy for you to do it under any of the standards that are mentioned in our brief, the City's and the County's briefs, whether it's intervention by right or the statute, but of course I'll focus today on intervention -- permissive intervention as you've suggested.

Why? Well, your Honor, the Huron River Watershed Council literally only cares about the Huron River. Well, i shouldn't say it only cares, it cares about all kinds of other natural resources, but its focus is exclusively on the Huron River.

Whether it's interested in the groundwater or soils, natural resource management, it's only interested in those things with respect to the protection of the Huron

River, not only for the aquatic life in the river, the macroinvertebrates, the fish, the other species that may use the river, but also for the human beings who enjoy hiking by the river, recreating inside of the river and appreciating the river.

Our interests are incredibly narrow, your Honor. They're not only narrow, but we think that they're -- it's necessary for us to care for the surface water in a situation where the other parties understandably care a lot about vapor intrusion, drinking water quality and the kind of public health issues that come from groundwater directly.

I thought that the presentations today by the City -- the counsel for the City and the County were excellent and we certainly adopt the facts that they brought up and I think the Court will notice that one thing that was mentioned, but perhaps not emphasized is the interests of the surface water itself.

That's why we want a seat at the table, that's why we want to be part of the negotiating process and I will emphasize, your Honor, that not only do we have a narrow interest that we

want to address through intervention, we want to be part of a solution that comes more -- that comes sooner than later.

In other words, I am not here to litigate this case for the next five years unless I absolutely have to. Our primary focus is entering the negotiating realm and not working against the State and Gelman and the other parties, but working with them. There's no doubt that we all want some level of protection of groundwater, public health and the river.

The question is, what does everybody bring to the table, what kinds of areas of expertise and interest do we all bring to the negotiations.

And I think that having someone at the table who can be focused on well, understandably we think this material will vent to the river, where will it vent, in what concentrations, how can we detect it to ensure that it's venting in the places we expect it to vent, when it vents what will be acutely affected and what may be chronically affected.

I can't remember whether it was counsel for the City of the County who said this may be

venting for many, many, many years to come on an ongoing basis. So what are the chronic impacts to the aquatic life who may be in the area of the venting.

Will there be monitoring to make sure that the concentrations that we assumed would enter the river are there and are managed. We never say that the substance won't get to the river or that -- you know, we wish that it wouldn't at all, but we understand that it may, so all we're saying is let's make sure that if it gets there at all, it gets there in a manner that is not injurious to recreational interests and aquatic life interests.

And I think, you Honor, that we need to be there in this forum as opposed to other fora. For example, I understand that there may be more permits that have to be issued to the company. It's possible that they'll have to get a Part 31 permit for a discharge later, it's possible that these emergency clean-up standards that were issued will ultimately be issued in the more normal way through public notice and comment and month long administrative process.

And it's true, it's possible that we'll

get involved in those procedures as well, but the point is the two parties already in this case have been at the negotiating table ready to go for that fourth consent judgment before those potential Part 31 permits are issued, before these clean-up standards go through public notice and comment, so we need to be here now.

We got involved as soon as we reasonably could after we heard about the -- the threat to the river, after we heard about the public emergency rules and after we heard that the negotiations were -- were ongoing and leading potentially to a fourth proposed consent judgment.

That's why I think it's crucial that we not -- that it's not -- that this forum is not considered some alternative forum that if this doesn't work out for us, well, we can always come around later. It should be the opposite. We should be in this forum now and try to take care of these standards here and now so that we don't have to belabor the processes of future discharge permits and future clean-up standards.

So, your Honor, I think I'd like to just keep it brief. I think the City and

County's attorneys said a lot of what I was going to say anyway and, again, just to say one more time, our interests are narrow. We're happy to be held to that through a court order and we want to be helpful in the negotiating process and contribute to the surface water aspects of that process so that hopefully we can get at that fourth consent judgment and that it will be the appropriate one and that we won't need to get to a fifth and sixth or a seventh in years to come.

Thank you.

THE COURT: Who would like to respond first from the parties who are already in the case?

MR. CALDWELL: Your Honor, this is Mike Caldwell on behalf of Gelman. I think if it's all right, Mr. Negele, I'll go right.

MR. NEGELE: Go ahead.

MR. CALDWELL: Thank you, your Honor. The Court has had the pleasure of reviewing the extensive briefs and I'm not going to go through and even respond to what has been put forth here today. I think our briefs adequately respond to those issues and I think the Court is more interested in solutions than argument and I'd

like to provide that proposed solution to you.

First of all, the problem with the relief being sought by the proposed interveners is that if these interveners are added as parties it will unavoidably delay the important work that the parties, the DEQ and Gelman, have been undergoing for the last year in terms of negotiating the consent judgment modifications.

We have -- in anticipation of the new drinking water standard we have been proactively addressing that as far back as 2014 when we did a pretty intensive investigation of the Honey Creek area out in Scio Township to ensure that even though we had no legal obligation to do it at the time, to make sure that the plume, even when measured at detectable levels, 1 ppb, was not expanding and we did confirm that, so there's no well that -- we wanted to make sure that there were no wells that would be threatened in that area.

Over the last year we've been actively negotiating terms of consent judgment modifications with the State. We have exchanged drafts of proposed consent judgment modifications and, frankly, if it wasn't for the necessity of

having to respond to these motions to intervene, we would probably be very close if not having completed the process of drafting a document for the Court and the community's consideration.

And bringing the -- you know, the truth is the existing program is quite protective, but obviously with new standards, 10-fold decrease in the drinking water standard, although nobody is drinking the water anywhere close to that level, there are some needed modifications that we are perfectly willing to move forward with and that's what we've been discussing with the State and we'd like to move forward with that process.

Adding the interveners as parties would, even if it was just the proverbial seat at the table as counsel for the City suggests, would require a restart of those negotiations, but more important as a party any party -- any of the interveners that's added would essentially have a veto over any consent judgment that the parties and even the Court may feel is protective and makes sense.

We're going to potentially be stuck in litigation. We'd have to respond to the complaints. If one or more of the interveners

was not satisfied with the outcome of the negotiations that were initially delayed by their addition, they could simply refuse to concur in any consent judgment and we'd actually have to resolve those claims either by motion or, in a worst case scenario, by trial.

So that's the problem with allowing intervention, so -- and that's the prejudice in terms of permissive joinder, prejudice to the parties -- frankly, prejudice to the community and to this court is the delay and the potential hijacking of the whole consent judgment modification process and those are very real concerns for I think, I would hope, all involved.

So in terms of what relief we seek, the relief we would ask is that these motions be denied for the reasons set forth in our brief and I'm not going to repeat them now regarding timeliness and prejudice that I just outlined a little bit, but if the Court has any concerns in that regard, I'd like to propose an alternative that I think addresses the concerns of the proposed interveners and their desire -- an understandable desire to have a voice in the outcome of the consent judgement modifications,

but avoids the downside risk of allowing them to become parties to the action.

And, frankly, I've been practicing environmental law for quite a while, I know Mr. Davis has and all of counsel here have been and I would think that there's not one situation in Michigan where we've had an environmental consent judgment that's had parties other than the agency and the responsible party to it, so this is very unusual type relief that they're seeking.

But the idea that I would like to propose to the Court is, A, deny the motions -- you know, I'm asking you to deny them with prejudice -- but if the Court has concerns about the possibility that maybe they should have additional input into this, deny them without prejudice today, let us finish the consent judgment modifications.

This is not going to be a long process. I mean, obviously we've missed a key window between Thanksgiving and Christmas, so with the holidays it may take six to eight weeks to finish -- to have a document.

My understanding is that the State

plans to -- and Mr. Negele can speak to this in more detail -- that the State plans to when we submit this to the Court we wouldn't be asking for immediate approval, that the State plans to publish the proposed consent judgment modifications and put it out for public comment so that the entire community, not just the three proposed interveners, can comment on the revised clean-up program and the DEQ would respond -- you know, would respond to those comments, and there may be some, you know, additional modification that the parties could agree on.

And at that point we would submit the comments received, the DEQ's response to those comments, the actual document that we've put together that describes the revised clean-up program, submit that all to the Court with that kind of record.

And then if the proposed interveners have -- still feel that their concerns have not been adequately represented or that there are still deficiencies in the program, we can have a real conversation. We can talk about specifics.

Right now, the interveners don't know what they're objecting to and we don't have the

ability to explain to the Court how the concerns of the interveners have been addressed by these three modifications that take care of this interest.

These interests over here, well, this is why, you know, these were not addressed -- you know, we can't have a concrete discussion. Right now we're -- this is all speculation and hypothetical concerns.

Let us have an actual document to debate and at that point the Court could either entertain renewed motions to intervene if -- and I would like a more productive and frankly less costly method of participating would be to accept amicus briefs from the parties that are now trying to intervene.

And I think that process avoids the potential downsides of granting the intervention motions at this point when we're really talking about hypothetical concerns, hypothetically whether the DEQ is adequately representing the interests of the community, and I think that makes a lot more sense.

Now, obviously, your Honor, I'm happy to answer any questions you have about either in

briefs or that have been raised in your mind by the arguments at this point, but that's my suggestion.

THE COURT: Thank you very much.

MR. NEGELE: Good morning, your Honor. Mr. Caldwell took a lot of my talking points away, but that's fine. You know, part of an observation that he made is an observation that I want to make too is that I've been in environmental practice for quite a while. I have a number of colleagues at the State that have been in environmental practice for quite a while and in our experience we've never seen a circumstance where an environmental policy group or, you know, a public interest group basically has intervened and been a participant in the negotiation of a consent judgment, whether it's the very first negotiation of a consent judgment, or in this case the fourth amendment to a consent judgment.

It may have happened, but it must be extremely rare and, you know, I expect that if such a situation had existed that counsel would have pointed out that situation as justification for intervention.

And I would point out too I'm really focusing on one case -- or one portion I filed a brief on which is the Watershed Council's motion to intervene because our filings for the City and the County speak for themselves.

So this has been going on for, you know, 28 years and why is -- with the Watershed Council on the sidelines, so what's happened that warrants intervention now? We have new clean-up criterion for drinking water and for vapor intrusion, but where were they for the two prior criteria revisions which were the Number 1 up. Now it's gone down to the lowest level that's only like slightly more than twice what it was back in 1992.

They seem to suggest that due to their narrow interests really all they're interested in is the -- what we refer to as the GSI criterion, it's the criterion that applies to where groundwater enters to the surface water through like the bottom of a lake or a stream and that criterion is currently 2,800 ppb.

The rules right now for Part 201 are up for amendment and that's part of where this emergency rule came from because those rules are

still being considered. And the GSI criterion is one of the criteria that could be possibly considered.

So really the Watershed Council, where they really belong right now is not at the table trying to negotiate a site-specific possibly GSI criterion for this plume, but is presenting scientific evidence and information to the DEQ rule making process.

And I'd point out too that the City of Ann Arbor has one of its employees as part of a stakeholder group that is working on the rule amendments. I'd also point out too that a site-specific standard usually is used to have a higher standard rather than a lower standard because the generic criteria are presumed to be protective of whatever they're designed to protect, in this case the groundwater/surface water interface.

So really, you know, what would normally happen is there would be a showing that 2,800 is protective and a higher number is still protective in a given circumstance. We've made -- you know, in our brief we've said that we believe that we are fully protecting the

interests of the public and here the clean-up criteria are designed to specifically address the uses that the council seeks to protect.

They bring no special expertise to the table. In fact, they pointed out that they're looking for an expert to assist them in this. And while they may care more about the water in the Huron River than the, you know, other members of the public, I point out that there are, you know, quite a few number of people and I'm surprised that there aren't more of them in the audience, but I expected to see a number of members of the people we regularly see at CARD (sp) meetings in the audience that care very deeply about this, this matter.

And, you know, I'm only using this as, you know, like a purely theoretical or hyperbolic sense, but shouldn't they also be granted intervention? You know, how many cooks do we need in the kitchen here?

The State is specifically charged with protection of the environment and water resources and, you know, we fully believe that we are protecting those interests. And, you know, again, as the point was made by counsel for

Gelman is that intervention by the Watershed Council will help -- will serve to kind of -- more than kind of, to derail the negotiations that we were so close to having finished at this point.

And I'll fill in in a little more detail on what we're proposing as far as this public comment period. First, it's not required and -- but it does fit in with the -- we've made a commitment to more public engagement with respect to our involvement with this site. And so it's consistent with our public outreach commitment.

So mechanically the way we would envision this working is provide notice in the DEQ environmental calendar. It's a calendar that DEQ publishes monthly and seek public comments there and, as Mr. Caldwell pointed out, it would be public comments, it would not be just our three proposed interveners, but it would give the opportunity for the public to provide their comments.

DEQ staff, we're thinking -- you know, what I've looked at -- I don't know how long the period it would be. Typically looking at the

calendar for mostly it's air cases that are published -- public commented -- or public noticed. They typically have a 30-day period in which to provide comments. Another time period may be more appropriate, I'm not sure.

But that would still delay us, but I think the public input would be valuable. DEQ will provide responses to those comments. This is similar to what's done on a federal level too for superfund cases when they're lodging a consent judgment.

The agency will basically assemble all the comments into certain categories and provide responses to those comments, and that way we can look at whether there would be a reason to like modify certain provisions or add certain provisions and possibly make those revisions. And as I believe Mr. Caldwell explained that we would submit our proposed amended consent judgment to you along with those comments so the Court would have the benefit of those comments too and proceed from there.

THE COURT: And was I correct in my summation at the beginning that I understood that you were not objecting to permissive intervention

by either the council or the City?

MR. NEGELE: That is correct.

THE COURT: Thank you, sir. Let me say as to the interveners -- go ahead and sit down, I haven't asked you to stand up here.

I recognize and I said at the beginning that it is your motion, under the court rules you have the right if you wish to rebuttal argument.

What I find in fact is what happens is you say that and then the other side, "May I just --", and (INDECIPHERABLE) and then you say a few more.

COUNSEL: We've never done that before, your Honor.

THE COURT: Well, we'll see. I believe having read the briefs and hearing the arguments from each of you I think you have articulated your viewpoints and I have enough that I can do (INDECIPHERABLE) this motion, but if you insist, I will give you that opportunity, but I would love to (INDECIPHERABLE) opportunity to --

MR. BRUETSCH: Your Honor, we're prepared to let you move, thank you.

MR. DAVIS: Your Honor, Robert Davis for the County, same.

MR. SALIM: Oday Salim for the Huron River Watershed Council, same, your Honor.

THE COURT: There are three entities which are seeking intervention in a case involving two parties that relates to the quality of the water in Washtenaw County.

And obviously the quality of the water in Washtenaw County can have an effect on the quality of the water well beyond the geographic borders of the county. There has been in the discussion today and in the briefs a lot about process and philosophy.

The legal avenue that the parties who are seeking intervention was focused primarily at my urging under the Court Rule 2.209 intervention (b) (INDECIPHERABLE) intervention.

I acknowledge for the record that there are other avenues by statute that could grant the relief that the parties have requested, but not every path is necessary and (INDECIPHERABLE) interveners so let's focus on 2.209(b).

That court rule says that on timely application a person may intervene in an action (b)(1) when a statute, Michigan statute, or court rule confers a conditional right to intervene or

(2) when an applicant's claim or defense in the main action have a question of law or fact in common. In exercising its discretion, the Court shall consider whether the intervention will unduly delay or prejudice the adjudication of the rights of the original parties.

In the responses against intervention in whole or in part or at some level as to some or all of the interveners their argument is that it is not timely since this matter has been going on for 28 years, and that there really -- it should have been done earlier and was not done earlier.

There are arguments about delay. There are arguments about prejudice against that.

In weighing those arguments and the reason I mentioned process and philosophy at the beginning, a lot of the discussion is talking related to process about undue delay or about prejudice.

The proposals against intervention had talked about alternative processes that would still address the concerns of those seeking to intervene. Of all of the descriptions of process I will tell you the one I find the most

persuasive is that advanced by the County.

I think that your literal description of how we should approach this is right on, and that being the notion that at the center of this room is the quality of the water in these new standards, and philosophically what we all concurred, that is the charge with which we are to address, that's the thing we should be keeping in the middle at all times and those around the table then philosophically, it's an issue of stewardship.

Whether we are public entities or private entities, that by our actions may have affected the quality of water there is this responsibility of stewardship.

When we look at this philosophically then we start to say well, of course, those who have a statutory duty or a legal responsibility or the entrustment of the public need to be at that table because the collective wisdom and viewpoints in solving a problem is always preferable to individual views.

So I think absolutely, the questions of the City and the County both have similar but different obligations, it makes all the sense in

the world that you have (INDECIPHERABLE) of the collective wisdom that you bring in looking at a solution and I would grant that and I'll address the arguments against it in a minute.

The Huron River Watershed Council is different in its request both in terms of the nature of the request because you're asking or accepting a more limited rule and as pointed out, at least in the experience of the attorneys involved for the two parties, this would be unusual and a first.

What's wrong with that? If you have a problem, I don't see what's inherently wrong because it hasn't been done before. I do think that the Huron River Watershed Council -- and this is why I asked about the background -- I think one of the things that this county is blessed with is institutions of higher learning as our neighbors and we should be always seeking the help of those who spend their lives in the advancement of thinking about things, so I welcome in the courts and in our county the wisdom of those who spend their lives thinking about these issues.

As to undue delay or prejudice, this

case as we said has been going on, I was with it at the beginning in this courtroom. It's been going on for decades and it will go on for decades until it's cleaned up and we know it's safe.

So I don't think a few more months to incorporate collective wisdom is undue delay. I think it's being thorough and careful, transparent and open and considering. I think it is time well spent as opposed to undue delay and even procedure is delayed.

As to any prejudice, this notion of veto power and that, for example, you would only be coming in by the way, as you said, for protection of surface water.

MR. SALIM: That's correct, your Honor.

THE COURT: I'm confirming that with you, that you understand that.

MR. SALIM: Confirmed.

THE COURT: But this notion that somehow there would be a veto power at the table, etc, well, again, if consensual agreement is always good in and of itself, but I don't see anybody hijacking the process, particularly when we keep this as centered (INDECIPHERABLE).

And if it goes astray, then we have a process to determine that, so I think courts are exactly the place that provides and space and the place for the resolutions of these disputes.

We start with that philosophy, we nurture that philosophy that the County has done, we try to stay on course with that philosophy and if any entity strays from that philosophy, we bring it back and assert in another mode (INDECIPHERABLE) as opposed to litigation and an independent fact-finder hears all those arguments and makes the determination.

So motion for intervention are granted as to the City, as to the County and its entities and as to the Huron River Watershed Council for that limited purpose of protection of the surface water interests.

I will be available to all of you. You think about what are the challenges going forward in line with this philosophical approach and to the extent you need my active involvement, you probably will pick a time different than the Thursday morning motion docket (INDECIPHERABLE).

Think about that. If you want to come back to me, come back and meet with me soon just

to talk about where do we go forward from here, I am available and I will assist you in that regard.

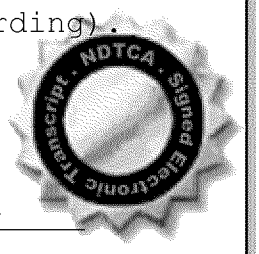
ALL COUNSEL: Thank you, your Honor.

(Proceedings concluded at 10:18 a.m.)

CERTIFICATE OF REPORTER

STATE OF MICHIGAN)
) SS
COUNTY OF WAYNE)

I HEREBY CERTIFY that I transcribed this video recording and that this is a full, true, complete and correct transcription of said audio recording (to the best of my ability to hear and understand said recording).



DALE E. ROSE,
CSR-0087

EXHIBIT O

Scio Township Board Of Trustees
Resolution Rejecting The 4th Amended Consent Judgment And
Renewing The Petition For the Gelman Sciences, Inc. Site
To Be Designated As A USEPA Superfund Site

Whereas, From 1966 and continuing into the 1980s, Gelman Sciences, Inc. (Gelman), generated many tons of 1,4-dioxane as a waste material of its production process at its plant located in Scio Township and, through various means, dumped this hazardous chemical into the natural environment where it contaminated the surface and groundwaters of the State; and

Whereas, Members of the public and environmental advocates have worked for decades to document the problem and seek State of Michigan action to require Gelman to clean up its toxic pollution, but Gelman has evaded responsibility by repeatedly concealing the extent of the contamination, opting for less-effective clean-up methods, and using legal strategies to delay and thereby allow the plume of 1,4-dioxane pollution to spread through the groundwater, contaminating wells and potentially intruding into residential basements; and

Whereas, The State of Michigan has for decades litigated against and attempted to regulate Gelman to enforce the State of Michigan environmental laws, but the dioxane plume continues to spread in multiple directions and toward the Huron River; and

Whereas, Scio Township, Ann Arbor Charter Township, and the Sierra Club joined together in 2016 to petition for action by the United States Environmental Protection Agency (USEPA) to designate the Gelman site a Superfund site; and

Whereas, The Scio Township official position supporting the designation of Gelman site as a USEPA Superfund site was approved by a unanimous vote of the board of trustees on June 14, 2016, and remains in effect; and

Whereas, Scio Township intervened, together with others, in the State's ongoing lawsuit against Gelman pending in Washtenaw County Circuit Court; and

Whereas, Settlement negotiations have occurred since 2017, with Scio Township's participation, toward a new consent judgment that would result in better cleanup of the contamination; and

Whereas, Scio Township is dissatisfied with progress on the delineation, containment and remediation of the contamination under the current third or proposed fourth consent judgment; and

Whereas, The USEPA completed the Preliminary Assessment in 2017 and indicated that the Gelman Site was eligible for the National Priorities List (NPL) but a State Concurrence Letter was required to continue the NPL designation process; and

Whereas, The delineation, containment and remediation of the contamination will be bolstered by USEPA's active involvement and enforcement of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the "Superfund" Act, as it applies to the contamination.

Whereas, This renewal of Scio Township's 2016 petition for involvement by USEPA does not preclude simultaneous efforts to obtain a thorough clean-up either through negotiations or a court-ordered ruling from the Washtenaw County Circuit Court;

Resolved, That the Scio Township Board of Trustees rejects the fourth amended consent judgment based on the following specific areas of concern raised by members of the public and asks that the Washtenaw County Circuit Court consider these items as it formulates a new plan for remediation of the Gelman site:

1. Revise the 500 ppb standard for termination of extraction wells to a lower standard of continuing to pump and treat as long mass removal is still occurring.

2. Make explicit the right of the Intervenors to participate in the NPDES permitting process, including the process for any required wetland permits.

3. Do NOT allow the discharge of treated wastewater to First Sister Lake, instead require alternative discharge sites for any water pumped and treated from the Parklake well, either by piping back to the Gelman site or piping to a site east of the Ann Arbor water intakes unless treated to non-detect and in quantities not to exceed 500 gallons a day.

4. Prohibit the expansion of the Prohibition Zone beyond the boundaries established in the third amended consent judgement.

5. Re-establish the Maple Road Containment Objective with the new generic GSI of 280 ppb

6. Re-establish the Little Lake Area System Non-expansion Objective and operation of the Ann Arbor Cleaning Supply Well.

7. Require that Gelman and EGLE perform Method 522 dioxane analytical analysis on all drinking water wells, Sentinel Wells and Compliance Wells samples.

8. Lower the trigger levels for all the delineation/sentinel wells in the Western Area and along the northern boundary of the Prohibition Zone from 7.2 ppb to a level half of the whatever the current State drinking water standard is, to ensure that remedial action takes effect before the measured level exceeds the allowable amount.

9. Require Gelman to conduct quarterly surface water sampling of all the Allen Creek storm water drains east of Maple Road, Honey Creek, First Sister Lake, etc.

10. Establish metrics/standards for the phytoremediation in the source area. For example, specify what action would be triggered if plant detritus is found to contain dioxane rather than to have dispersed it. State how long the phytoremediation will last, how it will be maintained, and under what conditions it will be discontinued.

11. Mandate additional monitoring wells for delineation, particularly toward Barton Pond so that expansion of the contamination plume will be detected well before it reaches Barton Pond, whatever direction it is traveling.

12. Make the three optional extraction wells in the source area mandatory for a total of 6 extraction wells.

13. Perform a Remedial Design Investigation across the plume area to to determine how many extraction wells are required and at what pumping rate to control and capture the dioxane groundwater plume.

14. Locate enough additional Sentinel and Compliance Wells along the northern boundary of the Prohibition Zone, east of Maple Road and across M-14 in the northwestern area near the Wagner Road and Dexter/Ann Arbor Road intersection to ensure that expansion of the contamination plume won't escape detection.

15. Require that the Municipal Water Connection Contingency Plan provide a private land owner with a municipal water supply when the dioxane concentration reaches one-half of the drinking water criterion.

16. Do not permit Gelman to apply a Mixing Zone-Based GSI to attain compliance with the GSI Objective.

17. Change the definition of GSI to the new 280 ug/L dioxane from the old 2,800 ug/L dioxane without placing any preconditions such as the omission of the Maple Road Containment Objective.

18. Require that Gelman provide public, Quarterly Reports including: analytical trends; compliance with CJ objectives and criteria; compliance with Verification Plans, Monitoring Plans, and Down-gradient Investigations; discussion of quarterly analytical results and protocols; extraction system requirement compliance; plume migration compliance; and recommendations for follow-up actions.

19. Protect the ongoing rights of local government to intervene in court processes related to the Gelman contamination so that they can effectively advocate on behalf of the health and safety of their residents.

Resolved, That the Scio Township Board of Trustees supports USEPA active involvement, as the lead agency, and enforcement of CERCLA, the "Superfund" Act, as it applies to the contamination;

Resolved, That the Scio Township Board of Trustees reaffirms its request the USEPA to list the Gelman Site a "Superfund" Site on the National Priorities List under CERCLA;

Resolved, That the Scio Township Board of Trustees authorizes the Township Supervisor to write to the Governor enclosing this resolution and soliciting a Concurrence Letter to USEPA in support of making the Gelman Site into a National Priorities List site;

Resolved, That the Scio Township Board of Trustees authorizes the Township Clerk to send this resolution and any such State Concurrence to the Washtenaw County delegation to the Michigan Legislature, the Director of the Michigan Department of Environment, Great Lakes, and Energy; and Congresswoman Debbie Dingell; and

Resolved, That the Scio Township Board of Trustees authorizes the Supervisor to take such further actions that are consistent with the purposes of this resolution.

The foregoing preamble and resolution were offered by Trustee Kathleen Knol, and supported by Trustee Jacqueline Courteau at the Regular Meeting of the Board of Trustees, Township of Scio, County of Washtenaw, State of Michigan, at the Regular Meeting held remotely at 7:00 p.m. on Tuesday, December 8, 2020.

ROLL CALL VOTE:
Ayes: Supervisor William Hathaway, Treasurer Donna E. Palmer, Trustee Jacqueline Courteau, Trustee Alec Jerome, Trustee Kathleen Knol, Trustee Jane Vogel.
Nays: Clerk Jessica M. Flintoft.

RESOLUTION DECLARED ADOPTED.

Jessica M. Flintoft
Clerk, Township of Scio

EXHIBIT P

EYDE v. EYDE

Court of Appeals of Michigan

June 17, 2004, Decided

No. 243670

Reporter
2004 Mich. App. LEXIS 1636 *; 2004 WL 1366007

MARY ANN EYDE, Plaintiff-Appellee/Cross-Appellant, v MICHAEL EYDE, Defendant-Appellant/Cross-Appellee.

Prior History: Eaton Circuit Court. LC No. 98-000153-CB.

Disposition: Affirmed in part, reversed in part, and remanded.

Core Terms

settlement agreement, parties, settlement, trial court, salary, partnership, proceeds, bias, appears, negotiations, capital account, final order, cable, insurance proceeds, disposed, motions, recusal, argues, matrix, rights, split, terms, defense counsel, claimants', one-third, assigned, loans, terms of the settlement, accrued interest, closing date

Judges: Before: Sawyer, P.J., and Bandstra and Smolenski, JJ.

Opinion

PER CURIAM.

This suit arose as the result of a partnership dissolution. Michael (defendant) and Patrick Eyde, who were brothers, had a successful partnership that was involved in real estate development. Among its holdings were Eyde Brothers Development, Michigan Farms, and Westbay Management. This litigation also involves the PMS Company, a partnership between defendant, Patrick and Sam, another Eyde brother. In 1992, Patrick died and his interest in the partnership was transferred to the Patrick Eyde Trust. Michael became the trustee of Patrick's trust and the partnership continued with the consent of Patrick's widow, plaintiff Mary Ann Eyde.

In 1996, the partnership was dissolved and reformed between defendant and the Mary Ann Eyde Trust. In 1997, plaintiff decided to dissolve this partnership as well. She filed a complaint in February 1998, seeking a **[*2]** winding up of the partnership. An agreement (the "Settlement Agreement") was reached which divided most of the partnership's assets and liabilities, and plaintiff agreed to pay defendant $ 2,660,000. This agreement was placed on the record December 23, 1998, and was signed by the parties in March 1999. All unresolved issues were submitted to the court. The parties agreed that the partnership would be wound up by March 31, 1999. What followed was over three years of litigation, resulting in this appeal. Defendant appeals as of right and plaintiff filed a cross-appeal, each dissatisfied with certain court rulings. We affirm in part, reverse in part and remand.

I. Judicial Disqualification

A. Standard of Review

Defendant's first argument is that the court erred in denying its motions to recuse the trial judge, Judge Calvin Osterhaven.

Defendant appealed only two of his motions for recusal to the chief judge, Judge Eveland. MCR 2.003(C)(3). Therefore, these are the only two motions properly before this Court. *In re Forfeiture of $ 1,159,420*, 194 Mich. App. 134, 151; 486 N.W.2d 326 (1992). Generally, a trial court's findings of fact regarding a motion **[*3]** to disqualify the judge are reviewed for an abuse of discretion and the determination of the applicability of the facts to relevant law is reviewed de novo. *Cain v Dep't of* Corrections, 451 Mich. 470, 503 n 38; 548 N.W.2d 210 (1996); *Armstrong v Ypsilanti Twp*, 248 Mich. App. 573, 596; 640 N.W.2d 321 (2001). But defendant's motions did not follow the procedures delineated in MCR 2.003. Defendant failed to file his motions within fourteen days after discovering the grounds for disqualification and did not include an affidavit. Failure to comply with the procedural requirements of MCR 2.003, such as timely filing of the motion and the inclusion of its supporting affidavit, render the motions defective, and thus, the issue is not preserved for appellate review. *People v Bettistea*, 173 Mich. App. 106, 123; 434 N.W.2d 138 (1988). Accordingly, review is for plain error only affecting defendant's substantial rights. *People v Carines*, 460 Mich. 750, 763; 597 N.W.2d 130 (1999).

B. Recusal Based on MCR 2.003 and Due Process Principles

MCR 2.003(B) provides:

> **[*4]**
> A judge is disqualified when the judge cannot impartially hear a case, including but not limited to instances in which:
> (1) The judge is personally biased or prejudiced for or against a party or attorney.
> (2) The judge has personal knowledge of disputed evidentiary facts concerning the proceeding.
>
> * * *
>
> (5) The judge knows that he . . . has an economic interest in the subject matter in controversy or in a party to the proceeding or has any other more than de minimis interest that could be substantially affected by the proceeding.

MCR 2.003(B)(1) requires a showing of *actual* bias for a judge to be disqualified pursuant to this section. *Cain, supra* at 495; emphasis in original. It also requires "personal bias." *Id.* "Thus, the challenged bias must have its origin in events or sources of information gleaned outside the judicial proceeding" or the favorable or unfavorable predisposition must spring from "facts or events occurring in the current proceeding [that] may deserve to be characterized as 'bias' or 'prejudice.'" Id. at 495-496. However, these opinions will not constitute a basis for disqualification "*unless they display* **[*5]** *a deep-seated favoritism or antagonism that would make fair judgment impossible.*" Id. at 496 (emphasis in original; citations omitted in original), quoting Liteky v United States, 510 U.S. 540, 555; 114 S. Ct. 1147; 127 L. Ed. 2d 474 (1994). Additionally, defendant must overcome a heavy presumption of judicial impartiality. *Cain, supra* at 497.

Defendant also argues that his due process rights were violated in so far as it was improper for Judge Osterhaven to preside over the proceedings based on the appearance of bias or prejudice. In *Cain, supra* at 498, quoting *Crampton v Dep't of* State, 395 Mich. 347, 351; 235 N.W.2d 352 (1975), the Court stated,

> The United States Supreme Court has disqualified judges and decisionmakers without a showing of actual bias in situations where "*experience teaches that the probability of actual bias on the part of the judge or decisionmaker is too high to be constitutionally tolerable.*" Among the situations identified by the Court as presenting that risk are where the judge or decisionmaker
>
> (1) has a pecuniary interest in the outcome;
>
> **[*6]**
> (2) "has been the target of personal abuse or criticism from the party before him";
> (3) is "enmeshed in [other] matters involving petitioner . . ."; or
> (4) might have prejudged the case because of prior participation as an
> accuser, investigator, fact finder or initial decisionmaker.
> [Emphasis in original; citations omitted in original.]

This list is not exclusive, but the examples given are to be construed narrowly. *Cain, supra* at 500 n 36. Judicial disqualification for bias or prejudice based on due process principles is found only in the most extreme cases. Id. at 498.

Defendant contends that Judge Osterhaven should have been disqualified from presiding over this case because of (1) his involvement in the settlement negotiations, the subject matter of which was before the court; (2) his direct competitive pecuniary interest, by virtue of a piece of property that he and his wife owned, in a piece of defendant's property that was at issue in the litigation; and (3) his prejudice against defendant and his first attorney.

In regards to Judge Osterhaven's participation in any settlement negotiations on December 23, 1998, the **[*7]** day the Settlement Agreement was placed on the record, we find that there is insufficient evidence on the record to conclude that Judge Osterhaven acted as more than a "messenger boy,"

as the court termed it. Judge Osterhaven specifically denied that there were discussions regarding the PMS debt. And the only evidence to the contrary was the testimony of defendant and defense counsel, who both asserted that Judge Osterhaven was "deeply" and "intimately" involved in the negotiations by making offers and suggesting counter-offers.

However, this testimony is suspect given that defendant initially testified that there were "no face to face negotiations with the other side," rather the "shuttle man was Judge Osterhaven." Defendant continued and stated that the negotiations were "conducted by an offer from one side to the other side carried by Judge Osterhaven." Even defense counsel initially stated that he didn't "think that the court had a specific discussion about PMS," and that offers were tendered by plaintiff "through Judge Osterhaven." Importantly, defendant did not raise this basis for recusal until the court was on record addressing the issue of the PMS debt, five months after **[*8]** the settlement negotiations. And then, its oral motion was contingent on whether the court decided to take extrinsic evidence, including evidence from the settlement negotiations, on the issue. Accordingly, defendant has not shown plain error affecting his substantial rights.

With respect to the court's competitive pecuniary interest, Chief Judge Eveland concluded, "Any potential rivalry with the defendant as competitors in bidding with the Drain Commission is at best speculation on a highly unlikely scenario." The only evidence that the Drain Commission was considering defendant's property for its project was defendant's own statement, which was presented to the court through defense counsel during oral argument on the motion for recusal. Judge Osterhaven revisited this issue whenever it was raised, and, at all points, had no affirmative information that there was any "competition." Defendant never provided the court with an affidavit or testimony from the Drain Commissioner to confirm his statements. Thus, without more than defendant's self-serving statement, it cannot be said that Judge Osterhaven was "enmeshed" in a matter with defendant, *Cain, supra* at 498, and there is no **[*9]** basis on which to conclude that Judge Eveland's ruling constituted plain error.

Lastly, we address whether Chief Judge Eveland erred in determining that there was no "actual bias" or "appearance of bias" sufficient to warrant Judge Osterhaven's recusal. From all accounts, the proceedings were fraught with disrespect shown by and to both parties' counsel and the court. Inappropriate language was used and discourteous behavior was shown. However, the court's opinions only constitute a basis for disqualification under *MCR 2.003(B)(1)* if the comments display a "deep-seated antagonism" towards defendant, and violate defendant's due process rights only if the appearance of bias is "too high to be constitutionally tolerable."

It is clear that most of the court's less than temperate expressions were the result of defense counsel's poor courtroom behavior. Among other conduct, defense counsel continually interrupted opposing counsel and the court, called opposing counsel a "liar" and declared "Jesus Christ" in response to a statement by opposing counsel, as well as filed a consistent stream of motions which the court viewed as a delaying or harassing tactic. However, we do note that defense **[*10]** counsel was the focal point of several unprofessional diatribes by Judge Osterhaven as well.

This case is strikingly similar to *In re Forfeiture of $ 1,159,420*, *supra at 153-154*, in which this Court concluded:

> After carefully reviewing the entire record in this case, we conclude that reversal is not warranted on this basis. It appears that throughout the trial the atmosphere was rather tense as a result of the bickering between counsel and between claimants' counsel and the trial court. It appears to us that claimants' counsel provoked the trial court with their comments and conduct in general. In addition to being disrespectful to the court in many instances, claimants' counsel resorted to attacking a prosecutor by apparently stating that her conduct "typified the basest kind of projection as described in psychiatric literature." This type of conduct was uncalled for. The trial judge also appeared to be agitated by the tactics of claimants' counsel, such as what appeared in the judge's eyes to be attempts to create appellate parachutes and reliance on what clearly appears to be a fraudulent lawsuit as an explanation for some of claimants' extensive assets. As a result, **[*11]** the judge was apparently becoming frustrated and was losing his patience. Although the judge may not have displayed the utmost courtesy, being courteous is the ideal, not the requirement. What is required is that the parties receive a fair trial. Here, claimants have failed to show that the judge's views controlled his decision-making process.

Likewise, here, while we do not condone Judge Osterhaven's comments, under the circumstances, they are understandable. Chief Judge Eveland did not err in concluding that defendant could not show that the court's comments displayed a "deep-seated antagonism," or that any of the court's adverse rulings were controlled by an apparent bias. Accordingly, defendant has failed to show plain error affecting his substantial rights.

II. PMS Debt

Defendant contends that the trial court erred in finding a latent ambiguity and taking parol evidence regarding the parties' intent to divide the PMS debt, thereby ignoring the clear

terms of the Settlement Agreement. A settlement agreement is a contract governed by general contract legal principles. *Mikonczyk v Detroit Newspapers, Inc, 238 Mich. App. 347, 349; 605 N.W.2d 360 (1999).* **[*12]** Questions of contract interpretation are reviewed de novo by this Court. *Quality Products & Concepts Co v Nagel Precision, Inc, 469 Mich. 362, 369; 666 N.W.2d 251 (2003).*

The primary purpose in interpreting a contract is to determine the parties' intent. *Id. at 375.* Generally, a contract that is clear on its face must be enforced as written. *Id.* An unambiguous contract is reflective of the parties' intent as a matter of law. *Id.* But "where a latent ambiguity exists in a contract, extrinsic evidence is admissible to indicate the actual intent of the parties as an aid to the construction of the contract. A latent ambiguity is one 'where the language employed is clear and intelligible and suggests but a single meaning, but some extrinsic fact or extraneous evidence creates a necessity for interpretation or a choice among 2 or more possible meanings.'" *Scholz v Montgomery Ward & Co, Inc, 437 Mich. 83, 103; 468 N.W.2d 845 (1991)* (Levin, J.; concurring in part, dissenting in part), quoting *Black's Law Dictionary* (4th ed), p 105. It is on this basis that the trial court decided to allow extrinsic evidence as **[*13]** to the parties' intent regarding the PMS debt, taking into account plaintiff's position that she never intended to assume any of this debt and no negotiations on the subject had been held.

The Settlement Agreement contained a "Re:" line on its first page that identified the parties and the subject matter. It read as follows:

> Re: Mary Ann Eyde/Micha
> Dissolution or Resolution of Eyde Brothers Development and Related Companies, Michigan Farms, Westbay Management Company, and PMS Company (collectively, the "Company")

The Settlement Agreement further provided that the parties would "split equally any other debts of the Company, including, but not limited to" the Michigan National Bank debt, which indisputably included the PMS debt. Thus, defendant argues that the Settlement Agreement unambiguously provides that the PMS debt was to be equally divided and should have been enforced as written.

The Settlement Agreement also specifically stated:

> The parties acknowledge that this Letter Agreement reflects the Phase I Settlement of the Parties, as stated in their agreement placed upon the record in open Court. The parties agree to abide by the terms of this **[*14]** Letter Agreement. Execution of this Letter Agreement by Mr. Eyde and Mrs. Eyde constitutes ratification of the Phase I Settlement as placed on the record in open Court and acceptance of the terms of this Letter Agreement. The Parties acknowledge that a binding settlement agreement has already been reached and that this Letter Agreement merely constitutes written confirmation of the Agreement.

Both parties signed the Settlement Agreement, and by doing so agreed to its terms. The record does not reflect any mention of the PMS debt at the hearing where the agreement was placed on the record, and, therefore, no indication of the parties' intent can be derived from it.

After reviewing the record and the terms of the Settlement Agreement, we find that the trial court erred in allowing parol evidence regarding the parties' intent to split the PMS debt. The contract was clear on its face. PMS was specifically included in the "Company" definition and the Settlement Agreement provided for the Company's debt to be divided equally. We recognize that parol evidence indicated defendant was aware of the fact that plaintiff did not appreciate the significance of these Settlement Agreement **[*15]** terms regarding the PMS debt; however, plaintiff reviewed the Settlement Agreement with her attorney and ultimately signed the document. By doing so, plaintiff agreed that the draft embodied by the March 2, 1999 letter accurately represented the terms of the Settlement Agreement.

Plaintiff's counsel testified that to the extent he noted the PMS reference in the "Re:" line, he believed it referred only to the provision providing for the one-third PMS interest transfer to defendant. Regardless, plaintiff, through her counsel, was obliged to review the document in its entirety and is charged with the effect of the terms *as explicitly written*, particularly given that the final Settlement Agreement was written on plaintiff's counsel's stationery. While this may be an inequitable result, such is often the case where the only evidence indicating a contrary intent from that clearly expressed in the written document is a party's own statement of belief.

Plaintiff asserts that this provision cannot be enforced because PMS was not a party to this lawsuit, and thus, the trial court did not have jurisdiction over PMS. However, parties are free to enter into any contract at will. While plaintiff **[*16]** could not purport to give away any rights in PMS, because she had none, she could certainly contract with defendant, who by virtue of his two-thirds interest in PMS had the ability to enter into binding contracts on PMS' behalf, and agree to pay a portion of its debt.

Yet we do find that a latent ambiguity does exist with regard to the amount of the PMS debt to be divided. It is undisputed that the PMS Company was not a partnership asset. The three Eyde brothers, Pat, Mike, and Sam, owned it in equal shares.

Per the Settlement Agreement, Patrick's children transferred their one-third interest to defendant. Therefore, as defendant concedes in his appellate brief, one-half of the PMS debt subject to the Settlement Agreement would be one-half of the debt associated with defendant's two-thirds interest, or, in other words, one-third of the overall debt. However, the Settlement Agreement also provides that the Michigan National Bank debt, which includes all of the PMS debt, was to be split equally. On its face then, this appears to also include Sam Eyde's debt portion.

Basic contract principles establish that one cannot affect the rights of a person not a party to the contract. Thus, **[*17]** we conclude that the Settlement Agreement must be interpreted as providing for the equal division of two-thirds of the PMS debt. But because of the factually intensive nature of this case, we nonetheless remand this issue for the trial court to determine how our decision impacts the division of the Michigan National Bank debt, if at all.

III. Security Deposit Liability

The next issue as framed by defendant asks whether the trial court correctly determined that defendant was responsible for one-half of the security deposit liability. We decline to address the merits of this issue because defendant concedes on appeal that the trial court's ruling was correct. Regarding the "inconsistency" of the trial court's rulings, which appears to be the actual crux of defendant's argument, defendant simply announces his position without explaining his argument and cites no authority in support of his argument regarding the relief sought. A party may not simply announce its position and leave it to this Court to discover or rationalize its argument and then search for authority to support or reject it. *Mudge v Macomb Co, 458 Mich. 87, 105; 580 N.W.2d 845 (1998).* **[*18]**

IV. Accrual of Loan Interest

This issue involves the division of interest accrued on loans held by Michigan National Bank. The Settlement Agreement specifically provided that the Michigan National Bank debt was to be divided equally. The debt was comprised of various loans. The outstanding balance of any loan is equal to the principal balance plus any interest accrued. And testimony established that the bank continued to charge the accrued interest on the loans to the partnership until the loans were paid in full.

At a hearing on September 14, 1999, the trial court ruled that the parties equally shared the blame for the delay in closing. [1] **[*19]** Despite defendant's statements assigning sole blame to plaintiff, defendant does not ask this Court to review the trial court's decision. Enforcing the clear terms of the Settlement Agreement, the trial court was obligated to divide equally not only the principal debt, but also the accrued interest. [2]

In regards to P17 of the Settlement Agreement, the benefits of this provision were only available to a "non-breaching party." Any discussion on the record at the December 23, 1998 hearing regarding the necessity of an unwinding if the settlement was not concluded by March 31, 1999, was subject to the modifier in P17, but only a "non-breaching" party could enforce the provision. Because the trial court concluded that both parties were responsible for the delay, plaintiff cannot be said to be a "non-breaching party." Accordingly, the trial court did not err in denying defendant's motion for disengorgement of profits.

V. Capital Accounts

Paragraph 1 of the Settlement Agreement indicates that the properties listed under each party's name in **[*20]** the Settlement Matrix constitute that party's portfolio. Paragraph 3 provides that the $ 2.66 million payment is "to equalize the Parties' portfolios . . . . Amounts due for capital account differential or any other miscellaneous claims of the Company or either of the Parties not addressed in this Letter Agreement against Mr. Eyde, Mrs. Eyde, or any related entities are not settled by this payment." Defendant asserts that P3, when read in conjunction with P6, clearly indicates that what was being equalized by the $ 2.66 million payment was the value of the assets retained by each party, i.e., the value of each party's "portfolio" under the Settlement Agreement. Paragraph 6 also specifically stated that "other matters not addressed in the Phase I Settlement Matrix, including, but not limited to: (a) capital accounts" were to be "accounted for separately." We believe that the clear language of the Settlement Agreement indicates that the $ 2.66 million payment was not intended to equalize the capital accounts.

However, we do not conclude that the language of the Settlement Agreement definitively entitles defendant to an accounting or to an equalization. As to what the unsettled issues **[*21]** are regarding the capital accounts, those are

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[1] Plaintiff's reference to the court's "finding" that defendant was solely to blame is misleading. It appears that the court belatedly stated its true belief regarding the situation, but it did not revise any of its rulings nor base future rulings on this belief.

[2] Defendant also alludes to the fact that until the closing, the Company's profits were to be split equally. Defendant appears to argue that the effect of this Settlement Agreement term combined with the court's ruling regarding the accrued interest unjustly enriched plaintiff. However, defendant does not develop this argument nor support it with authority.

factual questions for the trial court to resolve. Notably, at the settlement hearing, defendant's attorney stated, "And--well the only thing I think that's left below the line is that each party will account for capital accounts and any miscellaneous accounting matters which have not been specifically dealt with above the line." Plaintiff's attorney responded, "Correct. And I would note that there are a number of items . . . which have not been dealt with above the line. If they are unable to be resolved we will request that the court resolve them forthwith in a short hearing." Therefore, a remand is necessary to allow the trial court to determine the outstanding capital account issues and resolve them.

VI. Closing Date of the Company's Books

The Settlement Agreement provided that "the closing of the books date (either 12/31/98 or 1/5/99) is to be resolved by the court." The company books were to be closed when plaintiff tendered payment of $ 2.66 million to defendant. Because defendant would not accept the payment on December 31, 1998, the court ordered defendant to accept the payment on January 5, 1999. Given these circumstances, the **[*22]** court decided to "pick a date in the middle," choosing a closing date of January 3, 1999, because "there's money going out and money coming in on Mr. Eyde's part depending on when he gets that check. And the reality of the situation is, he didn't get it until January 5th, rightly or wrongly." Both parties assert on appeal that the court erred in choosing January 3, 1999, as the date of the closing, with plaintiff arguing in favor of December 31, 1998, and defendant arguing in favor of January 5, 1999, as the correct closing date.

It is undisputed that defendant refused to accept the payment on December 31, 1998. But there was much dispute over the circumstances. What is clear from the record is that plaintiff's son tendered payment after business hours--plaintiff stated that she was at the bank until 5:30 p.m.--and that a verbal altercation occurred between defendant and him, perhaps regarding the pending assignment of plaintiff's children's interest in PMS. Given these circumstances, the trial court did not clearly err in not assigning December 31, 1998, as the date of closing for the company books.

The question then becomes whether the court erred in choosing January 3, 1999, over **[*23]** January 5, 1999. As part of the Settlement Agreement, the parties agreed that this issue would be decided by the court and noted that the dispute was whether December 31st or January 5th should be the closing date. By agreeing to have the court decide this issue, we believe the dates listed in the Settlement Agreement simply constituted the parameters of the issue. The dates aided the court in narrowing the issue, but did not contractually confine the court to choosing only one date or the other. Therefore, it was within the court's equitable powers to choose an intermediate date. Given the circumstances of the tender as noted above, we find that the court's ruling was not clearly inequitable.

VII. Jurisdiction

Plaintiff's first cross-appeal argument pertains to this Court's jurisdiction to hear this appeal. Plaintiff asserts that the June 28, 2002 order was the final order as defined by *MCR 7.202(7)(a)(i)* and that the order subsequently entered on August 20, 2002, was not a final order because the "issue" the latter order disposed of had already been decided pursuant to an oral ruling from the bench two years earlier. Thus, plaintiff argues, the claim of appeal filed on September 10, 2002, was **[*24]** untimely filed. We conclude that plaintiff's jurisdictional challenge is without merit.

A party may appeal by right from a final order. *MCR 7.203(A)(1)*. In a civil action, a final order is the first order that disposes of all the claims and adjudicates the rights and liabilities of all the parties. *MCR 7.202(7)*. For two reasons we find that plaintiff's jurisdictional challenge must fail. First, it is a basic legal principle that a court speaks through its written orders and not its oral statements from the bench. *Tiedman v Tiedman, 400 Mich. 571, 576; 255 N.W.2d 632 (1977)*. Therefore, even though the trial court may have orally indicated a disposition in 2000, the actual claim was not disposed of until the order was entered on August 20, 2002. The August 20, 2002 order, in conjunction with the other orders, is the order that disposed of all of the claims of all of the parties. [3] It was the final order from which defendant's claim of appeal was properly taken. Because defendant's appeal was filed within twenty-one days of the final order's entry, this appeal was timely filed. *MCR 7.204(A)*.

[*25] The second reason plaintiff's jurisdictional challenge must fail is that even if the June 28, 2002 order was the final order as defined by *MCR 7.202(7)(a)(i)*, defendant's claim of appeal was still timely filed on September 10, 2002, because defendant filed a motion for clarification on July 18, 2002 (twenty days after the June 28, 2002 order). That motion was not disposed of until entry of the August 20, 2002 order. Under *MCR 7.204(A)(1)(b)*, the July 18, 2002 motion tolled the time period in which to file the claim of appeal until after the disposition of the July 18, 2002 motion. [4] Thus, defendant

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[3] Plaintiff responds that if this Court relies on the above reasoning, then defendant should be barred from appealing any issues that were not codified in a lower court order. Plaintiff's assertion has arguable technical merit. Nevertheless, because defendant's claim of appeal was timely filed even if the June 28, 2002 order is considered the final order, this argument is irrelevant.

[4] Plaintiff counters that defendant's motion to clarify should not be

had twenty-one days after August 20, 2002, to timely file his claim of appeal. Because the claim of appeal was filed within the twenty-one day period, the claim of appeal was timely filed even if the June 28, 2002 order was considered the final order. There is no requirement, and plaintiff does not cite any legal authority stating otherwise, that the claim of appeal must correctly identify which order is the final order as defined by the court rules.

[*26] VIII. Division of Assets

To the extent that the remaining issues involve the trial court's equitable power to divide the partnership assets, we review for clear error a trial court's findings of fact, while its holdings are reviewed de novo. [5] *Slatterly v Madiol, 257 Mich. App. 242, 248-249; 668 N.W.2d 154 (2003)*.

A. Fire-Loss Insurance Proceeds

Defendant argues that the trial court erred in not dividing the insurance proceeds equally on an accrual accounting basis. [6] We initially note that the Settlement Agreement specifically states that this issue was reserved for the court to decide, and thus, the agreement's provision for equally splitting assets does not apply. And, based on defendant's appellate argument, this Court is left with many questions pertaining to the accounting method and its **[*27]** applicability to the insurance proceeds, mainly as to the basis for defendant's assertion that an accrual method of accounting equates to an equal division of the insurance proceeds. But this Court's task is not to unravel or decipher a party's argument and then search for authority to either support or reject it. *Mudge, supra at 105*. Therefore, we decline to further address the merits of this issue because defendant failed to explain his argument and support it with authoritative law.

[*28] Next, we turn to plaintiff's cross-appeal argument regarding this issue--that the trial court erred in awarding defendant any portion of the insurance proceeds for personal property stored at Ramblewood Apartments, but not used for the Ramblewood complex, because the clear terms of the insurance policy stated that it only covered personal property used to maintain or service Ramblewood's clubhouse. In support of her argument, plaintiff cites to the record and references the insurance policy. However, a transcript of the May 17, 2000 proceedings was not part of the appellate record, nor was the insurance policy. Therefore, while plaintiff's argument may have merit, this Court does not have sufficient sources from which to decide the merits of this issue. Consequently, for differing reasons, both parties have waived appellate review of this issue. Accordingly, we find that the court did not clearly err in awarding defendant $ 7,500 of the insurance proceeds.

B. Equipment Proceeds/Litigation Settlement

Under the Settlement Agreement matrix, all equipment of the partnership, except equipment owned by Westbay Management ("Westbay") and two other non-disputed pieces of equipment, was **[*29]** assigned to defendant. The agreement did not contain any specifics. In the lower court, defendant argued that it was understood that the "Equipment" assigned to defendant pursuant to the Settlement Agreement was worth $ 484,000. Plaintiff countered that there was no such understanding and no evidence of such an agreement. Plaintiff asserted that the only equipment defendant was to receive, save for those items specifically excepted out, was all the equipment owned by the partnership at the time of dissolution.

From the last proposals exchanged by the parties, it appears that both parties contemplated defendant taking the tractor/chainsaw and Komatsu excavator. Plaintiff knew before she submitted her November 1998 proposal that the Komatsu litigation had been settled and that the tractor/chainsaw had been sold, yet still attached a dollar value of $ 484,589.37 to the equipment category. It is possible that at the time of the settlement hearing, plaintiff simply assumed that the "equipment" would include only tangible items in the company's possession at the time of dissolution, however, plaintiff's counsel's comments at an April 2000 hearing tends to belie such an understanding. [7] **[*31]** **[*30]**

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deemed a motion for "other postjudgment relief" under ***MCR 7.204(A)(1)(b)*** because no "relief" was sought, only a clarification. In this context, we believe that "relief" must be construed in its general sense, referring to the assistance sought from the court regarding the disposition of issues that affect the parties' rights. *Black's Law Dictionary* (6th ed), p 1292.

[5] The Uniform Partnership Act provides that cases, which are not specifically covered under the act, are governed by the rules of law and equity. *MCL 449.5*.

[6] Pursuant to a March 29, 1999 order, the parties agreed that all partnership accounting on unresolved matters would be done according to an accrual method. The accrual method is "[a] method of keeping accounts which shows expenses incurred and income earned for a given period, although such expenses and income may not have been actually paid or received." *Black's Law Dictionary* (6th ed), p. 19. Under this method, the right to receive mandates its inclusion in gross income, not the actual receipt. *Id.* Thus, when the account receivable amount becomes fixed, the right accrues. *Id.*

[7] At a hearing regarding two other pieces of equipment, a Hydro-ax and a forklift that defendant was arguing were included in the equipment category of the settlement matrix, plaintiff's counsel stated,

Because it is just as likely that plaintiff was trying to reap whatever benefits she could from such an argument, we find that the trial court did not commit clear error in determining that the tractor/chainsaw and Komatsu excavator were included in the equipment category of the settlement matrix. Thus, the parties' agreement superceded any right plaintiff had to the sale and litigation proceeds being put back into the partnership's account. Although defendant's actions of disposing of the tractor/chainsaw violated the court's order not to dispose of any assets during the winding up of the partnership, [8] the evidence indicates that defendant would have received this property in the settlement anyway. Accordingly, the court did not clearly err in allowing defendant to keep the sale proceeds totaling $ 23,400, and the litigation settlement totaling $ 58,000.

C. Cable Contract Proceeds

Plaintiff contends that the trial court erred in awarding a portion of the cable contract proceeds to Sam Eyde, who held a one-third interest in PMS. Plaintiff correctly points out that the clear terms of the Settlement Agreement provided that the parties were to split equally the cable contract proceeds, even though plaintiff retained ninety percent of the apartment units that the contracts serviced.

In deciding this issue, the court felt that the Settlement Agreement language should control, but also thought "we have to take into consideration Sam Eyde's situation." Thus, the court ordered the portion of the contract proceeds assignable to Whispering Pines to be subtracted from the cable contract payments and divided, one-third going to Sam Eyde and the remaining two-thirds split between the parties per the Settlement Agreement. We hold that there is no legal basis for the court's ruling.

> On page nineteen of the settlement agreement that was placed on the record, Your Honor, December 23, 1998, Mr. Tomblin makes specific reference to what was discussed at that time and he refers to the equipment which is already accounted for in the $ 484,000 that he is being figured for his equipment. I suggest, Your Honor, that that is the heavy-duty earth moving equipment that was part of the 1996 acquisition by the company and *that's what the parties had discussed.* [Emphasis added.]

Moreover, in arguing on appeal that the court erred in awarding defendant the Hydro-ax and forklift, plaintiff states, "Although not explicitly stated on the record, the 'equipment' discussed at the time of the settlement was heavy earth-moving equipment purchased by the company in 1996."

[8] We note that plaintiff did not petition the court to impose sanctions and the court chose not to do so sua sponte.

These contracts were between the cable company and Eyde **[*32]** Brothers Development Company. Defendant was fully aware of the contracts' substance when he negotiated the Settlement Agreement, yet never divulged that a portion of those payments were going to PMS. And plaintiff was not provided with copies of the cable contracts at the time of the Settlement Agreement. Although it may have been past practice for the partnership to distribute to PMS a portion of the proceeds attributable to its sole holding Whispering Pines, no written agreement was produced. Plaintiff should not be bound to a non-existent contract. If defendant desires to continue to give Sam Eyde one-third of the cable contract proceeds attributable to Whispering Pines, he is free to do so out of his portion of the proceeds. Therefore, the Settlement Agreement should have been enforced as written, and the trial court erred in concluding otherwise. On remand, the court is to determine the proper payment amounts to be allocated to plaintiff and defendant.

D. Hydro-ax/Forklift Disposition

Plaintiff argues that the Settlement Agreement contemplated defendant receiving the heavy earth-moving equipment purchased by the company in 1996. Plaintiff asserts that because the hydro-ax and **[*33]** forklift were purchased a few years earlier and were not included in the settlement matrix, the court erred by not equally dividing the value of the equipment between the parties. Defendant counters that he was to receive this equipment under the terms of the Settlement Agreement. We agree with defendant.

The Settlement Agreement matrix listed the category "Equipment." Under this category, assigned to defendant, was "All equipment, except below (incl Westbay)." On the next line of the matrix, the "D4, Rubber Tire, Kubota & Case Loader (already in Westbay)" were assigned to plaintiff. Paragraph 2 of the agreement provided, "The reference to 'Equipment' refers to earth moving equipment, construction, maintenance, and other heavy equipment." Furthermore, in a November 12, 1998 settlement proposal drafted by plaintiff, the equipment specifically listed as defendant's included the hydro-ax and forklift. This was in addition to the $ 484,589.37 worth of equipment plaintiff proposed defendant take. Plaintiff has not presented sufficient evidence for us to conclude that the trial court clearly erred in finding that the hydro-ax and forklift were given to defendant under the terms of the Settlement **[*34]** Agreement. The court properly awarded these pieces of equipment to defendant.

E. Defendant's 1998 Salary/Award of Interest on the $ 100,000 Loan

The preliminary injunction order that was entered in April 1998 provided that no consideration, including salary, was to

be paid to either party until further order of the court. The court acknowledged that these payments may have violated its order, but allowed defendant to keep the nearly $ 55,000 in salary defendant paid himself in 1998 in order to "wash out" the 1998 salary paid to Robert Kuncaitis, Westbay's accountant. Plaintiff argues that this ruling completely ignores the fact that the parties agreed to split the expenses of the company until the "above the line" settlement was finalized. Plaintiff asserts that Kuncaitis' salary was an expense of the company and should have been shared equally by the parties until the books were closed. Defendant argues that the court's ruling was just given that it found that defendant earned this salary and, therefore, it was also an expense of the company.

We find that the court's ruling was erroneous. Paragraph 9 of the court's preliminary injunction order stated, "That during the pendency [*35] of this action, there shall be no consideration, including salary, paid to any partner, nor shall there be any draws, withdrawals, or loans by or on behalf of any partner until further order of the Court." The court, however, inexplicably stated that "if we went through things with a fine tooth comb [defendant's actions] may have violated a court order." Clearly, defendant's monthly draw to himself of $ 5,000 for work he allegedly performed for Westbay was a direct violation of the preliminary injunction order.

Instead of imposing a fine, sanctions, and/or ordering defendant to return the money, the court decided to consider defendant's salary to "wash out" the salary the company paid to Mr. Kuncaitis. However, the court made no findings as to how much work defendant actually performed on behalf of Westbay. The court simply said, "You [defendant] did have some responsibilities there and if I were in your shoes I probably would have maybe felt that I was entitled to compensation too." But from the existing record it appears that during 1998 defendant undertook virtually no business actions regarding Westbay, yet paid himself his full monthly salary of $ 5,000 from that company [*36] for most of 1998.

The court also made no findings in regards to the amount of work Kuncaitis performed. It is undisputed that his salary was an expense of the company. However, at the beginning of 1998, defendant wanted to fire Kuncaitis, but at plaintiff's request the court ordered that he continue working. There are indications that after this point Kuncaitis may have been partial to plaintiff's interests and the parties disputed how much of his work benefited both parties and Westbay. [9] Yet without making any of these findings, the court concluded that the two salaries cancelled each other out.

[*37] Intertwined in this ruling is the court's decision to award defendant repayment of interest he accrued on a loan he made to the company. In November 1997, defendant removed nearly $ 800,000 from an escrow account and placed it in his own personal account. As a result, the partnership did not have enough cash on hand to pay expenses at the end of 1997 and defendant loaned the partnership $ 100,000 to cover those expenses. [10] Defense counsel suggested, "Since Mr. Kuncaitis' salary and benefits, Your Honor, is a little larger than Mr. Eyde's $ 55,000 [1998 salary], it would seem that if we're going to wash out maybe that's a fair way to compensate Mr. Eyde is at least he gets the interest that he paid the bank." The court responded, "That's what I'm going to do." Implicit in the court's ruling was that it found the decision to be "fair." However, the interest calculation had not been done, and the court did not know the amount it represented when it made its ruling. Therefore, we question how "fair" the decision was when no exact numbers were presented regarding the deficiency between defendant's and Kuncaitis' salary that the interest award was curing or the interest award amount [*38] itself. This error is compounded by our assessment of the court's decision to "wash out" defendant's salary with Kuncaitis'. Such equitable decisions are certainly within the court's power; however, we find that the court did not have sufficient facts before it to make these decisions.

We sympathize with the court's plight in this case. The sheer number of issues presented to the court and the factually intensive nature of them surely would wear on the most patient of judges. But we simply cannot let the court's rulings stand, despite its equitable powers, in the face of no factual basis to support it. Therefore, on remand, we instruct the court to hold a hearing to determine how much work during 1998 defendant performed on behalf of Westbay and award an apportioned amount. Half of the portion of defendant's 1998 salary in excess of this amount, if any, shall be awarded to plaintiff per [*39] the terms of the Settlement Agreement. Similarly, the court is to determine to what degree the work

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[9] On this point the trial court stated,

> Mr. Kuncaitis--he may have been over in the corner with Mary Ann Eyde. But on the other hand he probably did perform some functions that benefited you [defendant] the last ten months. You'd take issue with that. And of course your position is that he should have been broomed last February [1998] or before and that I shoved you down his throat. To some degree I did. I felt there was some merit to having him continue. Given the expertise and the background and the knowledge he had, particularly while this whole thing was pending here and we were trying to reach a resolution on the greater issues it made sense to me to keep as much of the status quo as possible while all this was being sorted out.

[10] Apparently defendant borrowed the money he loaned to the company because he paid interest to the bank on the loan amount.

performed by Kuncaitis was on behalf of Westbay, bearing in mind that simply because his work may have benefited or been more favorable to plaintiff does not automatically mean Kuncaitis' salary should be considered plaintiff's expense, as opposed to Westbay's. To the extent the court concludes, if at all, that Kuncaitis was acting in 1998 as plaintiff's individual employee, the corresponding salary shall be plaintiff's responsibility alone. The resultant Westbay expenses shall be borne equally by the parties. The court is also to take evidence regarding the amount of interest defendant paid on the $ 100,000 loan and make its decision regarding the interest accordingly.

IX. Conclusion

We hold that this appeal is properly before us as it was timely filed. In regards to defendant's motions to recuse Judge Osterhaven, we affirm Chief Judge Eveland's rulings denying these motions. We also affirm the court's decisions pertaining to the closing date of the company books and defendant's liability on the interest accrued on the Michigan National Bank debt. As to the other issues challenging **[*40]** certain trial court decisions, we affirm the lower court's rulings with respect to the disposition of the hydro-ax and forklift, and the proceeds from the litigation settlement involving a Komatsu excavator, as well as the proceeds from the sale of a tractor and a chainsaw.

But we reverse the court's decisions pertaining to the PMS debt, the capital accounts, the cable contract proceeds, defendant's 1998 salary, Mr. Kuncaitis' 1998 salary, and the award of interest to defendant on a $ 100,000 loan made by him to the company, and remand these issues for further proceedings in accordance with this opinion. Finally, we decline to address the merits of the following issues: the parties' security deposit liability and the division of the fire-loss insurance proceeds.

Affirmed in part, reversed in part, and remanded. We do not retain jurisdiction.

/s/ David H. Sawyer
/s/ Richard A. Bandstra
/s/ Michael R. Smolenski

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