

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL FOR THE STATE OF
MICHIGAN *ex rel.* MICHIGAN DEPARTMENT
OF ENVIRONMENT, GREAT LAKES, AND
ENERGY,

Plaintiffs,

-v-

File No. 88-34734-CE
Honorable Timothy P. Connors

GELMAN SCIENCES INC.,
a Michigan Corporation,

Defendant.

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[The text of the Third Amended Consent Judgment used for comparison was compiled from the original Consent Judgment language, as amended by the First, Second and Third Amendments. The introductory language to the Original Consent Judgment, and to the First, Second, and Third Amendments, are omitted from this comparison. Those introductions were original to each document; not amendments of prior introductions. Changes from “MDEQ,” “MDNR,” “MDNRE,” and “Plaintiffs” to “EGLE” are not marked, changes from “GSI” to “Gelman” are not marked., and updates to contact names are not marked. Name replacements for notice purposes also are not marked.]

FOURTH AMENDED AND RESTATED CONSENT JUDGMENT

The Parties enter this Fourth Amended and Restated Consent Judgment (“Consent Judgment” or “Fourth Amended 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. Among other things, the Parties enter this Consent Judgment to reflect EGLE’s revision of the generic state-wide residential and non-residential generic drinking water cleanup criteria for 1,4-dioxane in groundwater to 7.2 micrograms per liter (“ug/L”) and 350 ug/L, respectively, and of the generic groundwater-surface water interface cleanup criterion for 1,4-dioxane in groundwater to 280 ug/L. The Parties agree to be bound by the terms of this Consent Judgment and stipulate to its entry by the Court.

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 Consent Judgment finds, that the terms and conditions of the Consent Judgment are reasonable, adequately resolve the environmental issues covered by the Consent 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 [Consent](#) Judgment and to resolve disputes arising under the [Consent](#) 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~~[that](#) are appended hereto, the following definitions shall apply:

A. “Consent Judgment” or “[Fourth Amended Consent](#) Judgment” shall mean this [Fourth Amended and Restated](#) Consent Judgment day 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 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. [“1,4-dioxane” shall mean 1,4-dioxane released to or migrating from the Gelman Property. This term as it is used in this Consent Judgment shall not include any 1,4-dioxane that Defendant establishes by a preponderance of the evidence to have originated from a release for which Defendant is not legally responsible, except to the extent that such 1,4-dioxane is](#)

commingled with 1,4-dioxane released to or migrating from the Gelman Property. Nothing in this Consent Judgment shall preclude Defendant's right to seek contribution or cost recovery from other parties responsible for such commingled 1,4-dioxane.

~~F.E.~~ “Eastern Area” shall mean the part of the Site that is located east of Wagner Road, including the areas encompassed by the Prohibition Zone ~~and Expanded Prohibition Zone~~.

F. “EGLE” shall mean the Michigan Department of Environment, Great Lakes, and Energy, the successor to the Michigan Department of Environmental Quality, the Michigan Department of Natural Resources and Environment, the Michigan Department of Natural Resources, and the Water Resources Commission. Pursuant to Executive Order 2019-06, effective April 22, 2019, the Michigan Department of Environmental Quality was renamed the Michigan Department of Environment, Great Lakes, and Energy.

~~D.G.~~ “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.H.~~ “Gelman” ~~or “GSP”~~ shall mean Gelman Sciences, Inc.

~~F.I.~~ “GSI/Gelman Property” shall mean the real property described in Attachment A, currently owned and operated by where Defendant formerly operated a manufacturing facility in Scio Township, Michigan. The Defendant sold portions of the property and retains one parcel only for purposes of operating a water treatment system (the “Wagner Road Treatment Facility”).

J. “Generic GSI Criterion” shall mean the generic groundwater surfacewater interface (“GSI”) cleanup criterion for 1,4-dioxane of 280 ug/L established pursuant to MCL 324.20120e(1)(a).

~~G.K.~~ “Groundwater Contamination” or “Groundwater Contaminant” shall mean the 1,4-dioxane in the groundwater at a concentration in excess of 857.2 micrograms per liter (“ug/L”) ~~(subject to approval by the Court of the application of a new criteria),~~ as determined by the ~~sampling and~~ analytical method(s) described in Attachment B to this Consent Judgment, subject to review and approval by EGLE.

~~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.

L. “Municipal Water Connection Contingency Plan” or “MWCCP” shall mean a contingency plan developed to identify the steps necessary to connect properties that rely on a private drinking water well to municipal water in the event those wells are threatened by 1,4-dioxane concentrations in excess of the applicable drinking water cleanup criterion and the estimated time necessary to implement each step of the water connection process.

M. “Part 201” shall mean Part 201 of the Natural Resources and Environmental Protection Act, MCL 324.20101, *et seq.*

~~I.N.~~ “Parties” shall mean Plaintiffs and Defendant.

~~J.O.~~ “Plaintiffs” shall mean the Attorney General of the State of Michigan, ~~ex rel,~~ Michigan Department of Natural Resources and Environment, ex rel. EGLE.

~~K.~~ “Redskin Well” means the ~~purge well currently located on the Redskin Industries~~ property.

~~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.~~

~~OP.~~ "Prohibition Zone" or "PZ" shall mean the area that is subject to the institutional control established by the Prohibition Zone Order and this Consent Judgment. A map depicting the Prohibition Zone established by this Fourth Amended Consent Judgment is attached as Attachment C.

~~P.Q.~~ "Prohibition Zone Order" shall collectively mean the Court's Order Prohibiting Groundwater Use, dated May 17, 2005, which established a judicial institutional control, and the March 8, 2011 Stipulated Order Amending Previous Remediation Orders, which incorporated the Prohibition Zone Order into this Consent Judgment and applied the institutional control to the Expanded Prohibition Zone, as defined in the Third Amendment to Consent Judgment.

~~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.~~

~~R.~~ "PZ Boundary Wells" shall mean those wells on or near the boundary of the Prohibition Zone and designated in Section V.A.3.b herein, whose purpose is to detect movement of 1,4-dioxane near the Prohibition Zone boundary.

~~L.S.~~ "Remedial Action" or "Remediation" shall mean removal, treatment, and proper disposal of gGroundwater and sSoil contaminantsContamination, land use or resource

restrictions, and institutional controls, pursuant to the terms and conditions of this Consent Judgment and work plans approved by EGLE under this Consent Judgment.

T. “Response Activity” or “Response Activities” shall have the same meaning as that term is defined in Part 201, MCL 324.20101(vv).

U. “Sentinel Wells” shall mean those wells designated in Section V.A.3.a herein, whose purpose is to detect movement of 1,4-dioxane toward the Prohibition Zone boundary.

M.V. “Site” shall mean the Gelman Property and other areas affected by the migration of 1,4-dioxane emanating from the Gelman Property.

N.W. “Soil Contamination” or “Soil Contaminant” shall mean 1,4-dioxane in soil at a concentration in excess of ~~1700 ug/kg~~ 500 micrograms per kilogram (“ug/kg”), as determined by the ~~sampling and~~ analytical method(s) described in Attachment ~~CD~~, or another higher concentration limit derived by means consistent with Mich Admin Code R ~~299.5718~~ 299.18 or MCL 324.20120a.

X. “Verification Process” shall mean the process through which Defendant shall test for and verify concentrations of 1,4-dioxane in excess of the applicable threshold at the relevant monitoring and drinking water wells, using the sampling and analytical method(s) described in Attachment B to this Consent Judgment. Specifically, Defendant shall sample the wells on a quarterly basis unless an alternative schedule is agreed upon with EGLE. Groundwater samples will be analyzed for 1,4-dioxane, either by Defendant’s laboratory or a third-party laboratory retained by Defendant. In the event that 1,4-dioxane concentrations in groundwater sampled from any well exceed the applicable threshold, Defendant shall notify EGLE by phone or electronic mail within 48 hours of completion of the data verification and validation specified in the Quality Assurance Project Plan (“QAPP”) described in Section V.E. Defendant will

resample the same well within five days after the data verification and validation of the original result or at a time agreed upon with EGLE, if EGLE opts to take split samples. If a second sample analyzed by Defendant's laboratory or a third-party laboratory retained by Defendant has contaminant concentrations exceeding the applicable threshold, the exceedance will be considered verified and Defendant shall undertake the required Response Activities.

In the event that EGLE opts to take split samples, Defendant shall also collect an additional split sample for potential analysis within the applicable holding time by a mutually agreed-upon third-party laboratory at Defendant's expense. If the results from one sample, but not both, confirm a verified exceedance, the third sample analyzed by the mutually agreed-upon third-party laboratory, using the sampling and analytical method(s) described in Attachment B to this Consent Judgment, shall serve as the relevant result for verification purposes.

U.Y. ~~“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.~~

IV. IMPLEMENTATION OF REMEDIAL ACTION BY DEFENDANT

Defendant shall implement the Remedial Action to address Groundwater and Soil Contamination at, and emanating from, the Gelman Property in accordance with (1) the terms and conditions of this Consent Judgment; and (2) work plans approved by EGLE pursuant to this Consent Judgment. Notwithstanding any requirements set forth in this Consent Judgment obligating Defendant to operate remedial systems on a continuous basis, at a minimum rate, or until certain circumstances occur, Defendant may temporarily reduce or shut-down such remedial systems for reasonably necessary maintenance according to EGLE-approved operation and maintenance plans.

V. GROUNDWATER REMEDIATION

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. to satisfy the objectives described below.~~ Defendant also shall implement a monitoring program to verify the effectiveness of these systems.

A. Eastern Area System

1. Objectives. The remedial objectives of the Eastern Area ~~System~~ (“Eastern Area Objectives”) shall be: the following:

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.~~

ba. Prohibition Zone Containment Objective. Defendant shall prevent Groundwater Contamination, regardless of the aquifer designation or the depth of the groundwater or Groundwater Contamination, from migrating beyond the boundaries of the Prohibition Zone as may be amended pursuant to Section V.A.2.f. Compliance with the

Prohibition Zone Containment Objective shall be determined as provided in Section V.A.4.b. below. 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.

b. Groundwater-Surface Water Interface Objective. Defendant shall prevent 1,4-dioxane from venting into surface waters in the Eastern Area at concentrations above the Generic GSI Cleanup Criterion, except in compliance with Part 201, including MCL 324.20120e ("Groundwater-Surface Water Interface Objective" for the Eastern Area).

2. Prohibition Zone Institutional Control. Pursuant to MCL 324.20121(8) and the Prohibition Zone Order, the following land and resource use restrictions shall apply to the Prohibition Zone depicted on the map attached hereto as Attachment C:

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

b. 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.

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

d. The prohibitions listed in Subsections V.A.2.a-c do not apply to the installation and use of:

i. Groundwater extraction and monitoring wells as part of Response Activities approved by EGLE or otherwise authorized under Parts 201 or 213 of the Natural Resources and Environmental Protection Act (“NREPA”), or other legal authority;

ii. 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;

iii. 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;

iv. Emergency measures necessary to protect public health, safety, welfare or the environment;

v. Any existing water supply well that has been demonstrated, on a case-by-case basis and with the written approval of EGLE, to draw water from a formation that is not likely to become contaminated with 1,4-dioxane emanating from the Gelman Property. Such wells shall be monitored for 1,4-dioxane by Defendant at a frequency determined by EGLE; and

vi. The City of Ann Arbor’s Northwest Supply Well, provided that the City of Ann Arbor operates the Northwest Supply Well in a manner that does not prevent its municipal water supply system from complying with all applicable state and federal laws and regulations.

e. Attachment E (consisting of the map depicting the Prohibition Zone and the above list of prohibitions/exceptions) shall be published and maintained in the

same manner as a zoning ordinance at Defendant's sole expense. EGLE-approved legal notice of the Prohibition Zone expansion reflected in Attachment F shall be provided at Defendant's sole expense.

f. The Prohibition Zone Institutional Control shall remain in effect in this form until such time as it is modified through amendment of this Consent Judgment, with a minimum of 30 days' prior notice to all Parties. The Defendant or EGLE may move to amend this Consent Judgment to modify the boundaries of the Prohibition Zone to reflect material changes in the boundaries or fate and transport of the Groundwater Contamination as determined by future hydrogeological investigations or EGLE-approved monitoring of the fate and transport of the Groundwater Contamination. The dispute resolution procedures of Section XVI shall not apply to such motion. Rather, the Prohibition Zone boundary may not be expanded unless the moving Party demonstrates by clear and convincing evidence that there are compelling reasons that the proposed expansion is needed to prevent an unacceptable risk to human health. The above-described showing shall not apply to a motion if the Prohibition Zone expansion being sought arises from or is related to: (1) inclusion of the Triangle Property under the following subsection; (2) the incorporation of a more restrictive definition of Groundwater Contamination (i.e., a criterion less than 7.2 ug/L) into this Consent Judgment; or (3) expansion under V.A.6.c up to and including back to the boundary established by this Fourth Amended Consent Judgment.

g. Future Inclusion of Triangle Property in the Prohibition Zone. The triangular piece of property located along Dexter Road/M-14 ("Triangle Property"), depicted in Attachment C, will be included in the Prohibition Zone if the data obtained from monitoring wells MW-121s and MW-121d and other nearby wells, including any water supply well installed

on the property, as validated by the Verification Process, indicate that the Groundwater Contamination has migrated to the Triangle Property.

g.h. Well Identification. To identify any wells newly included in the Prohibition Zone as a result of this modification or any future modification to the Prohibition Zone, pursuant to an EGLE-approved schedule, Defendant shall implement a well identification plan for the affected area that is consistent with the Expanded Prohibition Zone Well Identification Work Plan approved by EGLE 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.i. Plugging of Private Water Supply Wells. The Prohibition Zone Order's requirement that Defendant shall plug and replace any private drinking water wells identified in any areas newly included in the Prohibition Zone by connecting those properties to the municipal water supply shall apply to the Expanded Prohibition Zone. Unless otherwise approved by EGLE, Defendant shall also properly plug non-drinking water wells in any areas newly included 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.

j. Municipal Water Connection Contingency Plan ("MWCCP"). Defendant shall develop a MWCCP addressing the potential provision of municipal water to properties using private drinking water wells in the Calvin Street, Wagner Road, and Lakeview Avenue areas. The MWCCP will be developed according to a schedule to be approved by EGLE.

~~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.~~

~~3. Monitoring and Extraction Well Installation and Operation. Defendant shall install the following additional wells in the Eastern Area according to a schedule approved by EGLE and subject to access and receipt of any required approvals pursuant to Section VII.D:~~

a. Sentinel Well Installation. Defendant shall install the following three monitoring well clusters to monitor movement of 1,4-dioxane south of the northern Prohibition Zone boundary, in addition to MW-120, MW-123, and MW-129 that are already in place (collectively referred to herein as “Sentinel Wells”):

- i. Residential area in the general vicinity of Ravenwood and Barber Avenues (Location “A” on map attached as Attachment G);
- ii. Residential area in the general vicinity of Sequoia Parkway and Archwood Avenues between Delwood and Center (Location “B” on map attached as Attachment G); and
- iii. Residential area in the general vicinity of Maple Road and North Circle Drive (Location “C” on the map attached as Attachment G).

b. PZ Boundary Well Installation. Defendant shall install the following two monitoring well clusters to monitor the movement of 1,4-dioxane near the PZ Boundary (collectively referred to herein as “PZ Boundary Wells”):

- i. Residential, commercial, and vacant area east of South Wagner Road, north of West Liberty Road, west of Lakeview Avenue, and south of Second Sister Lake (Location “D” on map attached as Attachment G); and
- ii. Residential area south/southeast of the MW-112 cluster (Location “E” on map attached as Attachment G).

c. Sentinel and PZ Boundary Well Installation and Sampling. Defendant shall install the new well clusters according to a schedule to be approved by EGLE. Each new Sentinel or PZ Boundary Well cluster will include two to three monitoring wells, and the determination of the number of wells shall be based on EGLE’s and the Defendant’s evaluation of the geologic conditions present at each location, consistent with past practice. The frequency of sampling these monitoring wells and the analytical methodology for sample analysis will be included in the Eastern Area System Monitoring Plan, as amended.

d. Drilling Techniques. Borings for new wells installed pursuant to Section V.A.2-3 shall be drilled to bedrock unless a different depth is approved by EGLE or if conditions make such installation impracticable. EGLE 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 EGLE, Defendant may initiate dispute resolution under Section XVI of this 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 EGLE agrees to alternate techniques. Any material excavated as the result of well installation shall be properly characterized and disposed of or transferred to an appropriate facility for preservation and future scientific investigation, at Defendant's discretion.

e. Installation of Additional Groundwater Extraction Wells.

i. Defendant shall install an additional groundwater extraction well (the "Rose Well") and associated infrastructure in the general area bounded by Rose Street and Pinewood Street as designated on Attachment G or convert former injection well IW-2 to a groundwater extraction well, or both. The decision to install the Rose Well or to convert IW-2 to an extraction well (or to do both) and exact location of the Rose Well if installed will be based on an evaluation of relevant geologic conditions, water quality, and other relevant factors, including access.

ii. Subject to V.A.3.g., below, Defendant shall install an additional groundwater extraction well (the "Parklake Well") and associated infrastructure in the parcel owned by the City of Ann Arbor bounded by Parklake Avenue and Jackson Road as

designated on Attachment G (the “City of Ann Arbor-owned parcel”). The exact location of the Parklake Well within the City of Ann Arbor-owned parcel will be based on an evaluation of relevant geologic conditions, water quality, and other relevant factors, including access. Terms of access to the City of Ann Arbor-owned parcel shall be governed by an access or license agreement between Defendant and the City of Ann Arbor and Defendant’s obligation to install and operate the Parklake well shall be conditioned on negotiation of a mutually acceptable agreement with the City of Ann Arbor.

f. ~~Continued Evergreen Subdivision Eastern~~ Area Groundwater Extraction ~~As Necessary~~.

i. _____ The Defendant shall ~~continue to~~ operate the Evergreen Subdivision ~~area~~ Area extraction wells ~~LB-1 and LB-3 (the “LB Wells”), LB-4 and either the Rose Well or IW-2, or both (including EGLE-approved replacement well(s)) (collectively, the “Evergreen Wells”), and TW-19 and TW-23 (or EGLE-approved replacement well(s)) (the “Maple Road Wells”),~~ at a combined minimum purge rate of ~~100~~ approximately 200 gallons per minute (“gpm”); or the maximum capacity of the existing deep transmission pipeline, whichever is less provided Defendant properly maintains the pipeline, in order to reduce the ~~migration~~ mass of 1,4-dioxane migrating through the Evergreen Subdivision Area and the mass of 1,4-dioxane migrating east of Maple Road, 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. In the event the maximum capacity of the existing deep transmission pipeline is ever reduced to below 180 gpm, Defendant shall repair and/or reconfigure the pipeline and related infrastructure, or take other action, including potentially replacing the pipeline or treating and disposing of some portion of the extracted groundwater at a different location, as needed to

once again achieve a capacity of 190 – 200 gpm. Defendant shall have the discretion to adjust the individual well purge rates in order to optimize mass removal and compliance with the Eastern Area Objectives, provided that it shall operate the Evergreen Wells at a combined minimum purge rate of approximately 100 gpm, until such time as the Eastern Area Objectives will be met at a reduced extraction rate without the need to operate these wells. Before significantly reducing ~~or~~ extraction below the minimum purge rates described above or permanently terminating extraction from either the ~~LB~~ Evergreen Wells, or the Maple Road Wells, ~~the~~ Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusion that the Eastern Area Objectives can be met at a reduced extraction rate or without the need to operate these extraction wells. EGLE 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~~ Defendant 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 EGLE’s conclusion, Defendant may initiate~~ dispute resolution under Section XVI of this Consent Judgment. The Defendant shall not significantly reduce or terminate extraction from the ~~LB~~ Wells Evergreen Wells or the Maple Road Wells during the 56-day review period or while MDNRE Defendant is ~~reviewing or disputing~~ EGLE’s conclusion. ~~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.~~

ii. Defendant shall operate the Parklake Well, at a purge rate of approximately 200 gpm, subject to the yield of the aquifer in that area and discharge volume restrictions imposed in connection with the method of water disposal including discharge restrictions during wet weather events, in order to reduce the mass of 1,4-dioxane migrating from that area. Purged groundwater from the Parklake Well shall be treated with ozone/hydrogen peroxide or ultraviolet light and oxidizing agents at the City Ann Arbor-owned parcel. Defendant shall operate this extraction and treatment system until the 1,4-dioxane concentration in the groundwater extracted from the Parklake Well has been reduced below 500 ug/L. Once concentrations have been reduced below 500 ug/L, Defendant shall cycle the Parklake Well off and on for several periods of time approved by EGLE to demonstrate that significant concentration rebound is not occurring. Defendant shall not permanently terminate extraction and treatment of water from the Parklake Well before the second anniversary of the date extraction was commenced. Before significantly reducing or terminating extraction from the Parklake Well (beyond the discharge volume restrictions/ variations arising from the approved discharge option/above-described cycling), Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusion that the foregoing conditions have been satisfied. EGLE will review the analysis and data and provide a written response to Defendant within 56 days after receiving Defendant's written analysis and data. If Defendant disagrees with EGLE's conclusion, Defendant may initiate dispute resolution under Section XVI of this Consent Judgment. The Defendant shall not significantly reduce or terminate extraction

from the Parklake Well during the 56-day review period or while Defendant is disputing EGLE's conclusion.

g. Prerequisites for Parklake Well. Notwithstanding anything else in this Consent Judgment, Defendant shall not be obligated to install and operate the Parklake Well unless and until EGLE issues Defendant an NPDES permit with effluent limitations, discharge limits (other than volume) and other conditions no more restrictive than those included in Defendant's NPDES Permit No. MI-0048453 dated October 1, 2014 ("2014 NPDES Permit") that authorizes discharge of groundwater extracted by the Parklake Well to First Sister Lake following treatment with ozone/hydrogen peroxide technology .

~~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.~~

4. Verification Monitoring. Defendant shall amend its Eastern Area System Monitoring Plan dated December 22, 2011 to include the monitoring wells installed under Section V.A.3 within 60 days of their installation. The Eastern Area System Monitoring Plan, as

amended (hereinafter the “Verification Plan”), shall be sufficient to meet the objectives of this Section.

a. Objectives of Verification Plan. The Verification Plan shall include the collection of data sufficient to measure the effectiveness of the Remediation and to:
(i) ensure that any potential migration of Groundwater Contamination outside of the Prohibition Zone is detected before such migration occurs and with sufficient time to allow Defendant to maintain compliance with the Prohibition Zone Containment Objective; (ii) verify that the Groundwater-Surface Water Interface Objective is satisfied; (iii) track the migration of the Groundwater Contamination to determine the need for additional investigation and monitoring points to meet the objectives in Section V.A.1, including the determination of the fate and transport of Groundwater Contamination when and if it reaches the Allen Creek Drain (including its branches) and the portion of the Huron River that is the easternmost extent of the Prohibition Zone; and (iv) evaluate potential changes in groundwater flow resulting from adjustments in extraction rates at different extraction well locations. The Verification Plan shall be continued until terminated pursuant to Section V.D.

b. Compliance Determination. The Verification Plan shall include the following steps for verifying sampling results and confirming compliance or noncompliance with the Eastern Area Objectives.

i. Verification Process for Sentinel Wells. Defendant shall conduct the Verification Process as defined in Section III.X for each Sentinel Well to verify any exceedance of 7.2 ug/L. A verified detection above 7.2 ug/L will be considered a “Verified Sentinel Well Exceedance” and Defendant shall take the Response Activities set forth in Section V.A.5.a.

ii. Verification Process for PZ Boundary Wells. Defendant shall conduct the Verification Process as defined in Section III.X for each PZ Boundary Well to verify any exceedance of 4.6 ug/L and/or 7.2 ug/L. A verified detection above 4.6 ug/L will be considered a “Verified PZ Boundary Well Exceedance” and Defendant shall take the Response Activities set forth in Section V.5.b. A verified detection above 7.2 ug/L will be considered a “Confirmed PZ Boundary Well Noncompliance” and Defendant shall take the Response Activities set forth in Section V.5.c.

~~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.~~

5. Eastern Area Response Activities. Defendant shall take the following Response Activities:

a. Verified Sentinel Well Exceedance. In the event of a Verified Sentinel Well Exceedance, Defendant shall sample that Sentinel Well monthly. If the concentrations of 1,4-dioxane are less than 7.2 ug/L in samples from any two successive monthly sampling events, Defendant shall return to sampling that Sentinel Well quarterly. If, however, the concentrations of 1,4-dioxane exceed 7.2 ug/L in samples collected from the same Sentinel Well in any three successive monthly sampling events, Defendant shall take the following actions:

i. If involving a Sentinel Well in the north, installation of up to two additional well clusters near the Prohibition Zone boundary (the location of which shall be determined based on the location of the initial exceedance). If more than one Sentinel Well in the north exceeds the trigger level, Defendant and EGLE will mutually agree on the number of

PZ Boundary Wells to be installed. Defendant shall sample the new PZ Boundary Wells monthly until Defendant completes the hydrogeological assessment described in Section V.A.5.a.ii below.

ii. Completion of a focused hydrogeological assessment of the applicable area that analyzes the likelihood that 1,4-dioxane at levels above 7.2 ug/L will migrate outside the Prohibition Zone. The assessment shall also opine on the mechanism causing the exceedances and the potential risk of impact to private drinking water wells. Defendant shall provide this assessment to EGLE within 60 days after installation of the new PZ Boundary Well(s). If the focused hydrogeological assessment determines that there is a low potential for the Groundwater Contamination to migrate beyond the Prohibition Zone boundary, normal quarterly monitoring of the Sentinel Well and applicable PZ Boundary Wells will resume. If the focused hydrogeological assessment determines that there is a reasonable likelihood for 1,4-dioxane greater than 7.2 ug/L to migrate beyond the Prohibition Zone boundary, the Defendant shall initiate the following Response Activities:

(A) Defendant shall continue to monitor the affected Sentinel Well(s) and the Prohibition Zone Boundary Wells on a monthly basis.

(B) If the Verified Sentinel Well Exceedance occurs in a Sentinel Well to be installed near the northern boundary of the Prohibition Zone, Defendant shall develop a “Remedial Contingency Plan” that identifies the Response Activities that could be implemented to prevent Groundwater Contamination from migrating beyond the Prohibition Zone Boundary. The Remedial Contingency Plan may identify expansion of the Prohibition Zone as an option, subject to Section V.A.2.f. Defendant shall submit the Remedial Contingency Plan to EGLE within 45 days after the focused hydrogeological assessment is completed.

(C) Defendant will review the Municipal Water Connection Contingency Plan, if applicable, and initiate preliminary activities related to provision of municipal water to potentially impacted private drinking water wells. The amount of work to be completed will be based on the anticipated time frame for water extension and the projected time of migration to potential receptors.

b. Verified PZ Boundary Well Exceedance. In the event of a Verified PZ Boundary Well Exceedance, Defendant shall sample that PZ Boundary Well monthly. If the concentrations of 1,4-dioxane are less than 4.6 ug/L in samples from any two successive monthly sampling events, Defendant shall return to sampling that PZ Boundary Well quarterly. If, however, the concentrations of 1,4-dioxane exceed 4.6 ug/L in samples collected from the same PZ Boundary Well in any three successive monthly sampling events, Defendant shall take the following actions:

i. Defendant, in consultation with EGLE, shall sample select private drinking water wells in the immediate vicinity of the impacted PZ Boundary Well.

ii. Defendant will review the Municipal Water Connection Contingency Plan, and initiate further activities related to potential provision of municipal water to potentially impacted private drinking water wells as appropriate. The amount of work to be completed will be based on the anticipated time frames for water extension and the projected time of migration to potential receptors.

iii. Subject to Section V.A.2.f, Defendant shall implement the Remedial Contingency Plan as necessary to prevent contaminant levels above 7.2 ug/L from migrating beyond the Prohibition Zone Boundary.

c. Confirmed PZ Boundary Well Noncompliance. In the event of a Confirmed PZ Boundary Well Noncompliance, Defendant shall sample that PZ Boundary Well monthly. If the concentrations of 1,4-dioxane are less than 7.2 ug/L in samples from any two successive monthly sampling events, Defendant shall return to sampling that PZ Boundary Well quarterly. If, however, the concentrations of 1,4-dioxane exceed 7.2 ug/L in samples collected from the same PZ Boundary Well in any four successive monthly sampling events, Defendant shall take the following actions:

i. Defendant shall sample any active drinking water wells in the immediate vicinity of the impacted PZ Boundary Well on a monthly basis.

ii. Defendant will review the Municipal Water Connection Contingency Plan and implement the remaining activities necessary to provide municipal water to properties serviced by private drinking water wells potentially impacted by 1,4-dioxane concentrations above the applicable drinking water cleanup criterion.

iii. Defendant shall connect any such properties to municipal water on a case-by-case basis as determined by EGLE or if requested by the property owner.

iv. Subject to Section V.A.2.f, Defendant shall undertake Response Actions as necessary to reduce concentrations in the affected PZ Boundary Well(s) to less than 7.2 ug/L.

d. Bottled Water. At any time, Defendant shall supply the occupants of any property with a threatened drinking water well with bottled water if, prior to connection to municipal water, 1,4-dioxane concentrations in the drinking water well servicing the property exceed 3.0 ug/L. This obligation shall terminate if either (i) the 1,4-dioxane concentration in the

well drops below 3.0 ug/L during two consecutive sampling events or (ii) the property is connected to an alternative water supply.

b.e. Triangle Property. 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 EGLE. Defendant shall monitor such well(s) on EGLE-approved schedule unless or until that property is included in the ~~Expanded~~ Prohibition Zone, at which time, ~~the any~~ water ~~supply~~ well(s) shall be addressed as part of the well identification process described in Section V.A.2.h.

ef. Downgradient Investigation. The Defendant shall continue to implement its Downgradient Investigation Work Plan as approved by EGLE on February 4, 2005, as may be amended, to track the ~~G~~roundwater ~~C~~ontamination as it migrates to ensure any potential migration of ~~G~~roundwater ~~C~~ontamination outside of the Prohibition Zone ~~or Expanded Prohibition Zone~~ is detected before such migration occurs with sufficient time to allow Defendant to maintain compliance with the Prohibition Zone Containment Objective and to ensure compliance with the Groundwater-Surface Water Interface Objective. Defendant shall, as the next phase of this iterative investigation process investigate the area depicted on the map attached as Attachment G, including the installation of monitoring wells at the following locations subject to access and receipt of any required approvals pursuant to Section VII.D:

- i. A monitoring well nest in the residential area in the general vicinity of intersection of Washington and 7th Streets (Location “F” on Attachment G);
- iii. A shallow well in the residential area in the general vicinity of current monitoring well nest MW-98 (Location “G” on Attachment G); and
- iv. A monitoring well nest in the residential area in the general vicinity of Brierwood and Linwood Streets (Location “H” on Attachment G).

The data from these wells will be used to guide additional downgradient investigations as necessary to ensure compliance with the Eastern Area Objectives.

6. Prohibition Zone Boundary Review.

a. Five years after entry of this Fourth Amended Consent Judgment and then every five years thereafter, Defendant and EGLE shall confer and determine whether the boundary of the Prohibition Zone can be contracted without either: (i) posing a current or future risk to the public health and welfare, including maintaining an adequate distance between the Groundwater Contamination and the Prohibition Zone boundary; or (ii) requiring Defendant to undertake additional Response Activities to contain the Groundwater Contamination within the contracted Prohibition Zone boundary beyond those Response Activities otherwise required immediately before the proposed contraction. This determination will be based on consideration of the totality of all data from existing Eastern Area monitoring wells.

b. If EGLE and Defendant jointly agree that the Prohibition Zone boundary may be contracted under these conditions, the Parties shall move to amend Attachments C and E of this Consent Judgment for the sole purpose of establishing a revised boundary for the Prohibition Zone. If only one Party concludes that the Prohibition Zone boundary may be contracted under these conditions, that Party may move to amend Attachments C and E of this Consent Judgment for the sole purpose of establishing a revised boundary for the Prohibition Zone, but must demonstrate by clear and convincing evidence that the above conditions are satisfied. The non-moving Party may oppose or otherwise respond to such motion and the showing required under Section XVI shall not apply to the Court's resolution of the motion.

c. If the Prohibition Zone boundary is contracted under Section V.A.6 and the Parties, either jointly or independently, subsequently determine that based on the totality of the data, the Prohibition Zone boundary should be expanded up to and including back to the boundary established by this Fourth Amended Consent Judgment in order to protect the public health and welfare, the Party(ies) may move to amend Attachments C and E of this Consent Judgment for the sole purpose of establishing a revised boundary for the Prohibition Zone. Neither Section XVI nor the showing required under Section V.A.2.f shall apply to the Court's resolution of the motion, provided that the expansion sought does not extend beyond the boundary established by this Fourth Amended Consent Judgment.

d. To the extent the Prohibition Zone boundary is contracted under Section V.A.6.a, Defendant shall not be required to undertake Response Activities to contain the Groundwater Contamination within the contracted boundary beyond those Response Activities required immediately before the Prohibition Zone was contracted.

4.7. Operation and Maintenance. Subject to Sections ~~V.A.2.f and V.A.7.5, V.A.3.f, V.A.9,~~ and reasonably necessary maintenance according to EGLE-approved operation and maintenance plans, 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~~ Prohibition Zone Containment Objective until Defendant is authorized to terminate extraction well operations pursuant to Section V.~~DC.1.a~~

5.8. Treatment and Disposal. Groundwater extracted by the extraction well(s) in the Eastern Area System shall be treated (as necessary) ~~using methods depending on the disposal method(s) utilized~~ with ozone/hydrogen peroxide or ultraviolet light and oxidizing

agent(s), or such other method approved by EGLE to reduce 1,4-dioxane concentrations to the required level and disposed of using methods approved by EGLE, 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 EGLE, and discharged to groundwaters at locations approved by EGLE 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~~Evergreen and Maple Road Wells 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 EGLE against Defendant as requirements of this Consent Judgment.

c. Storm ~~Drain~~Sewer Discharge. Use of the storm drain or sewer 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.~~the appropriate regulatory authority(ies). Discharge to the Huron River via ~~the Ann Arbor stormwater~~a storm water system shall be in accordance with the relevant NPDES Permit and conditions required by the relevant regulatory authority(ies)~~City and the Drainage District.~~ If ~~the a~~ storm drain or sewer 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 EGLE, ~~the City of Ann Arbor,~~ and the ~~Drainage District~~appropriate local regulatory authority(ies) for their review and approval, a protocol under which the purge system shall be temporarily shut down: (i) for maintenance of the storm drain or sewer and (ii) during storm events to assure that the ~~stormwater~~storm water system retains adequate capacity to handle runoff created during such events. Defendant shall not be permitted or be under any obligation under this subsection to discharge purged groundwater to the storm drain or sewer unless the protocol for temporary shutdown is approved by all necessary authorities. Following approval of the protocol, 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.

i. The existing deep transmission pipeline, an additional pipeline, or a pipeline replacing the existing deep transmission pipeline may be used to convey purged groundwater from the existing Evergreen Area infrastructure to the Wagner Road Treatment Facility where the purged groundwater shall be treated to reduce 1,4-dioxane concentrations to the level required by NPDES Permit No. MI-0048453, as amended or reissued.

ii. Installation of an additional pipeline or a replacement pipeline ~~replacing from~~ the existing ~~pipeline~~Evergreen Area to the Wagner Road Treatment Facility is conditioned upon approval of such installation by EGLE. 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, Seio Township, and the Washtenaw County Road Commission,~~appropriate local authority(ies), if required by statute or ordinance, or by Order of the Court pursuant to the authority under MCL 324.20135a. Defendant shall design and install

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.~~ Defendant shall participate in the notification system provided by MISS DIG Systems, Inc., or its successor (“MISS DIG”), and shall comply with the provisions of MCL 460.721, et seq., as may be amended and with the regulations promulgated thereunder. Defendant shall properly mark its facilities upon notice from MISS DIG. 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. Existing, Replacement, or Additional Pipeline from Maple Road Extraction Well(s). Defendant may operate the existing pipeline or install and operate a replacement pipeline or an additional pipeline from the Maple Road Extraction Well(s) to the existing Evergreen area infrastructure to convey groundwater extracted from the Maple Road Extraction Wells to the Wagner Road Treatment Facility, where the purged groundwater shall be treated to reduce 1,4-dioxane concentrations to the level required by NPDES Permit No. MI-0048453, as amended or reissued. Installation and operation of ~~a proposed~~ an additional or replacement pipeline from the Maple Road area to Evergreen area is conditioned upon approval of such installation and operation by EGLE. 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 shall participate in the notification system provided by MISS DIG and shall comply with the provisions of MCL 460.721, et seq., as may be amended, and with the regulations promulgated thereunder. Defendant shall properly mark its facilities upon notice from MISS DIG. 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).~~

f. Pipeline from Rose Well. Installation and operation of a proposed pipeline from the Rose Well to the existing Evergreen area infrastructure is conditioned upon approval of such installation and operation by EGLE. 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 and install 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. To reduce the possibility of accidental damage to the pipeline, Defendant shall participate in the notification system provided by MISS DIG and shall comply with the provisions of MCL 460.721, et seq., as may be

amended, and with the regulations promulgated thereunder. Defendant shall properly mark its facilities upon notice from MISS DIG. Defendant may operate such pipeline to, among other things, convey groundwater extracted from the Rose Well to the existing Evergreen Area infrastructure and then to the Wagner Road Treatment Facility, where the purged groundwater shall be treated to reduce 1,4-dioxane concentrations to the level required by NPDES Permit No. MI-0048453, as amended or reissued.

g. Surface Water Discharge to First Sister Lake. Groundwater extracted from the Parklake Well may be discharged to First Sister Lake, conditioned on EGLE's issuance of an NPDES permit with effluent limitations, discharge limits (other than volume), and other conditions no more restrictive than those included in Defendant's 2014 NPDES Permit that authorizes discharge of groundwater to First Sister Lake following treatment with ozone/hydrogen peroxide technology. Defendant shall submit a protocol to EGLE and the appropriate local authority(ies) for their review and approval, a protocol under which the Parklake Well shall be temporarily shut down during storm events or high water levels in First Sister Lake as necessary to avoid flooding. Defendant shall not be under any obligation to operate the Parklake Well unless the protocol for temporary shutdown is approved by all necessary authorities. Following approval of the protocol, Defendant shall operate the Parklake Well in accordance with the approved protocol.

7.9. Wagner Road Extraction. ~~TW-18 and TW-21~~The extraction wells currently or in the future located just west of Wagner Road (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 ~~itsthe~~ 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- or that reduction of the Wagner Road extraction rate would enhance 1,4-dioxane mass removal from the Parklake Well and/or the Rose Well/IW-2 and Defendant's efforts to reduce the mass of 1,4-dioxane migrating east of Maple Road and/or through the Evergreen Subdivision Area. Before significantly reducing or terminating extraction from the Wagner Road Wells, Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusion- that the above-objectives can be met at a reduced extraction rate or without the need to operate these extraction wells. EGLE 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~~ Defendant disagrees with ~~the Defendant's decision to reduce or terminate extraction, it~~ EGLE's conclusion, Defendant may initiate dispute resolution under Section XVI of this Consent Judgment. ~~the decision in Court within 15 days 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 during the 56-day review period or while ~~MDNRE~~ Defendant is ~~reviewing or disputing~~ EGLE's conclusion. ~~the Defendant's determination. MDNRE will make all reasonable efforts to have the motion resolved in a reasonable timeframe.~~

810. Options Array for Transmission Line Failure/Inadequate Capacity. The Defendant has provided EGLE with documentation regarding the life expectancy of the deep transmission line and an Options Array (attached as Attachment H). 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 Gelman Property proves to be insufficient to meet the ~~Eastern Area Objectives~~Prohibition Zone Containment Objective.

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.23.b and c ~~of this Consent Judgment~~), from expanding. Compliance with this objective shall be determined as set forth in Section V.B.4, below. Continued migration of ~~g~~Groundwater ~~e~~Contamination into the Prohibition Zone ~~or Expanded Prohibition Zone, as may be modified,~~ 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 EGLE 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~~network of monitoring wells in the Western Area to be ~~developed~~selected and/or installed by the ~~Parties~~Defendant as provided in Sections V.B.2-3.b and c ~~and d~~, below (“Western Area Compliance Well Network”) and the Compliance Process set forth in Section V.B.4 (“Western Area Compliance Process”). Except as provided in Section VI.C.1, there is no independent mass removal requirement or a requirement that ~~the~~ Defendant operate any particular Western Area 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.~~DC~~.1.c. and the establishment of property use restrictions as required by Section V.B.~~2.e~~.3.a. If prohibited expansion occurs, as determined by the Western Area Compliance Well Network and the Western Area Compliance Process, Defendant shall undertake additional response activities to return the Groundwater Contamination to the boundary established by the Western Area Compliance Well Network (such response activities may include ~~recommencement of~~groundwater extraction at particular locations).

As part of the Third Amendment to Consent Judgment, EGLE agreed 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~~Section shall limit Defendant's ability to contest the assessment of such stipulated penalties as provided in this Consent Judgment.

2. Western Area Groundwater-Surface Water Interface Objective.

a. Defendant shall prevent 1,4-dioxane from venting into surface waters in the Western Area at concentrations above the Generic GSI Cleanup Criterion, except in compliance with Part 201, including MCL 324.20120e ("Groundwater-Surface Water Interface Objective" for the Western Area).

b. GSI Investigation Work Plan. Within 90 days of entry of this Consent Judgment, Defendant shall submit to EGLE for its review and approval a work plan for investigation of the groundwater-surface water interface in the Western Area and a schedule for implementing the work plan. Defendant's work plan shall include:

i. An evaluation of the Western Area and identification of any areas where the GSI pathway is relevant, i.e., any areas where 1,4-dioxane in groundwater is reasonably expected to vent to surface water in concentrations that exceed the Generic GSI Criterion based on evaluation of the factors listed in MCL 324.20120e(3); and

ii. A description of the Response Activities Defendant will take to determine whether 1,4-dioxane in groundwater is venting to surface water in any such areas in concentrations that exceed the Generic GSI Criterion.

c. GSI Response Activity Work Plan. With respect to any areas where the above-described GSI investigation demonstrates that 1,4-dioxane in groundwater is venting to surface water in any such areas in concentrations that exceed the Generic GSI Criterion, Defendant shall submit for EGLE review and approval a work plan and a schedule for implementing the work plan that describes the Response Activities, including any evaluations under MCL 324.20120e, Defendant will undertake to ensure compliance with Groundwater-Surface Water Interface Objective within a reasonable timeframe.

d. Compliance with Groundwater-Surface Water Interface Objective. Defendant shall undertake such Response Activities and/or evaluations as necessary to achieve compliance with the Groundwater-Surface Water Interface Objective. It shall not be a violation of this Consent Judgment nor shall Defendant be subject to stipulated penalties unless and until Defendant fails to achieve compliance with the Groundwater-Surface Water Interface Objective

within a reasonable timeframe established by EGLE and then only from that point forward.
EGLE's determination of a reasonable timeframe for compliance with the Groundwater-Surface
Water Interface Objective is subject to dispute resolution under Section XVI.

2.3. Western Area Response Activities. Defendant shall implement the
following response activities ~~shall be implemented:~~

a. Groundwater Extraction Wells. The Western Area Response
Activities shall include the operation of groundwater extraction wells as necessary to meet the
objectives described in Section V.B.1- and 2, including operation of the Marshy Area
groundwater extraction system described in Defendant's May 5, 2000 Final Design and
Effectiveness Monitoring Plan, as subsequently modified and approved by EGLE. Defendant
shall also install and operate additional groundwater extraction wells at the Gelman Property as
described in Section VI, below, in order to reduce the mass of 1,4-dioxane in the groundwater.
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 EGLE 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. 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.

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.~~

e.b. 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, install the following additional groundwater monitoring wells pursuant to a schedule approved by EGLE and subject to the accessibility of the locations and obtaining access and any required approvals under Section VII.D at the approximate locations described below and on the map attached as Attachment G to address gaps in the current definition of the ~~plume~~Groundwater Contamination 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.~~

- i. Commercial area north of Jackson Road (across from April Drive) and south of US-Highway I-94, near MW-40s&d. (Deep well only) (Location “I” on Attachment G);
- ii. Commercial area north of Jackson Road (across from Nancy Drive) and south of US-Highway I-94, east of MW-40s&d and west of the MW-133 cluster (Location “J” on Attachment G);
- iii. Residential area west of West Delhi, north of Jackson Road and south of US-Highway I-94 (Location “K” on Attachment G);
- iv. Residential area southwest of the MW-141 cluster in the vicinity of Kilkenny and Birkdale (Location “L” on Attachment G);
- v. Residential area along Myrtle between Jackson Road and Park Road (Shallow Well only) (Location “M” on Attachment G); and
- vi. Residential and vacant area within approximately 250 feet of Honey Creek southwest of Dexter Road (Location “N” on Attachment G).

This investigation may be amended by agreement of EGLE and the Defendant to reflect data obtained during the investigation. Defendant shall promptly provide the data/results from the investigation to EGLE so that EGLE receives them prior to Defendant’s submission of the Compliance Monitoring Plan described in Subsection V.B.2.d,3.c, below. Based on the data obtained from the wells described above, Defendant may propose to install additional monitoring wells to potentially serve as Compliance Wells rather than one or more of the wells identified above. EGLE 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.

dc. Compliance ~~Monitoring~~ Well Network/~~Performance and~~ Compliance Monitoring Plan. Within ~~4530~~ days of completing the investigation described in Subsection V.B.23.eb, above, Defendant shall ~~submit a~~ amend its Western Area Monitoring Plan;

dated April 18, 2011, including Defendant’s analysis of the data obtained during the investigation for review and approval by EGLE, to identify the network of compliance wells that will be used to confirm compliance with the Western Area Non-Expansion Cleanup Objective (hereinafter referred to as the “Compliance Monitoring Plan”). The Compliance 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.Non-Expansion Cleanup Objective~~. The locations and/or number of the Compliance ~~monitoring~~ Wells for the Compliance Monitoring Plan will be determined based on the data obtained from the investigation Defendant shall conduct pursuant to Section V.B.~~23.eb~~, and shall be made up of existing monitoring wells. EGLE shall approve the Compliance Monitoring Plan, submit to Defendant changes in the Compliance Monitoring Plan that would result in approval, or deny the Compliance Monitoring Plan within 35 days of receiving the Compliance Monitoring Plan. Defendant shall either implement the EGLE-approved Compliance Monitoring Plan, including any changes required by EGLE, or initiate dispute resolution pursuant to Section XVI of this Consent Judgment. Defendant shall implement the EGLE- (or Court)-approved Compliance Monitoring Plan to verify the effectiveness of the Western Area System in meeting the Western Area ~~objective~~.Non-Expansion Cleanup Objective. Defendant shall continue to implement the current EGLE-approved monitoring plan(s) until EGLE approves the Compliance Monitoring Plan required by this Section. The monitoring program shall be continued until terminated pursuant to Section V.~~ED~~.

d. Municipal Water Connection Contingency Plan (“MWCCP”).

Defendant shall develop a MWCCP addressing the potential provision of township water to

properties using private drinking water wells on Elizabeth Road. The MWCCP will be developed according to a schedule to be approved by EGLE.

~~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.~~

~~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.~~

~~4. Compliance Determination for Non-Expansion Objective. The Compliance Monitoring Plan shall include the following steps for verifying sampling results and confirming compliance or noncompliance with the Western Area Non-Expansion Cleanup Objective.~~

~~a. Monitoring Frequency/Analytical Method. Defendant will sample groundwater from the Compliance Wells on a quarterly basis unless an alternative schedule is agreed upon on with EGLE. Groundwater samples will be submitted to a laboratory owned, operated or contracted by Defendant for 1,4-dioxane analysis.~~

~~b. Verification Process. Defendant shall conduct the Verification Process as defined in Section III.X for each Compliance Well to verify any exceedance of 7.2 ug/L. A verified detection above 7.2 ug/L will be considered a "Verified Compliance Well~~

Exceedance.” If a second sample does not exceed 7.2 ug/L, monitoring of the well will increase to monthly until the pattern of exceedances is broken by two successive sampling events below 7.2 ug/L. At that point, a quarterly monitoring frequency will resume.

c. Response Activities. In the event of a Verified Compliance Well Exceedance, Defendant shall take the following Response Activities:

i. Sample selected nearby private drinking water wells.

Defendant shall sample select private drinking water wells unless otherwise the Parties otherwise agree. Prior to sampling the selected wells, Defendant shall submit a list of the wells to be sampled and other sampling details to EGLE for approval. In selecting wells to be sampled, Defendant shall consider data collected from monitoring and private drinking water wells within 1,000 feet of the Compliance Well(s) that exceeded 7.2 ug/L, groundwater flow, hydrogeology and well depth. EGLE shall respond within seven days after receipt of Defendant’s list of select private drinking water wells and shall either approve the list or propose alternate or additional wells to be sampled.

ii. If a Verified Compliance Well Exceedance occurs in the same Compliance Well in any two successive monthly sampling events, Defendant shall take the following Response Activities:

(A) Continue to sample the previously selected private drinking water well(s) on a monthly basis unless otherwise agreed upon with EGLE.

(B) Conduct focused hydrogeological investigation to determine whether the Verified Compliance Well Exceedance is a temporary fluctuation or evidence of plume expansion. The investigation shall include the measurement of groundwater levels in relevant monitoring wells in the vicinity of the Compliance Well with the Verified

Compliance Well Exceedance. Defendant shall report its findings to EGLE within 30 days of completing the hydrogeological investigation.

(C) Conduct Statistical Analysis. During the eight month period after the second consecutive Verified Compliance Well Exceedance, Defendant shall complete a statistical analysis of the data using a Mann-Kendall Trend Test or other statistical technique approved by EGLE.

(D) Interim Measures Feasibility Study. During the eight month period after the second consecutive Verified Compliance Well Exceedance, Defendant shall evaluate affirmative measures to control expansion of the Groundwater Contamination as necessary to reduce the concentration of 1,4-dioxane in the relevant Compliance Well to below 7.2 ug/L, including adjustments in groundwater extraction rates, the installation of additional groundwater extraction wells or other remedial technologies. Defendant shall submit to EGLE a feasibility study within 240 days of the Verified Compliance Well Exceedance. The feasibility study shall include an evaluation of the feasibility and effectiveness of all applicable measures to control expansion of the Groundwater Contamination as necessary to reduce the concentration of 1,4-dioxane in the relevant Compliance Well to below 7.2 ug/L in light of the geology and current understanding of the fate and transport of the Groundwater Contamination.

iii. If, after conducting the focused hydrogeological investigation and statistical analysis, the totality of the data evidences a reasonable likelihood that the Western Area Non-Expansion Cleanup Objective is not being met, Defendant shall evaluate and, subject to EGLE approval, implement one or more of the potential response activities identified in the feasibility study, or other response activities, as necessary to achieve

compliance with the Western Area Non-Expansion Cleanup Objective. Nothing in this Section shall prevent Defendant from implementing response activities as necessary to achieve the Western Area Non-Expansion Cleanup Objective at an earlier time.

d. Stipulated Penalties/Exacerbation. Defendant shall not be subject to stipulated penalties until concentrations in at least four consecutive monthly samples from a given Compliance Well exceed 7.2 ug/L, at which point Defendant shall be subject to stipulated penalties for violation of the Western Area Non-Expansion Cleanup Objective as provided in Section XVII, provided, however, that Defendant shall not be subject to stipulated penalties with respect to prohibited expansion of the horizontal extent of the Groundwater Contamination if Defendant can demonstrate by a preponderance of the evidence that the migration of the Groundwater Contamination is caused in whole or in part by the actions of an unrelated third party that have contributed to or exacerbated the Groundwater Contamination. In such event, although Defendant is not subject to stipulated penalties, Defendant shall remain responsible for mitigating the migration of the Groundwater Contamination. Nothing in this Consent Judgment shall preclude Defendant from seeking contribution or cost recovery from other parties responsible for or contributing to exacerbation of the Groundwater Contamination.

e. Private Drinking Water Well Response Activities. If, after conducting the focused hydrogeological investigation and statistical analysis, the totality of the data evidences a reasonable likelihood that 1,4-dioxane will be present at concentrations above 7.2 ug/L in a residential drinking water well and/or at concentrations above 350 ug/L in an active non-residential drinking water well, Defendant shall evaluate and, if appropriate, implement response activities, including, without limitation, the following:

i. Sampling of at risk drinking water well(s) on a monthly basis;

ii. Implementation of affirmative interim measures to mitigate the expansion of 1,4-dioxane at concentrations above the applicable drinking water standard toward the drinking water well(s) as determined in the feasibility study described in Section V.B.4.c.ii.(D);

iii. Evaluation of land use restrictions and/or institutional controls to eliminate drinking water exposures to 1,4-dioxane in the groundwater at concentrations above the applicable drinking water standard; and

iv. Evaluation of water supply alternatives including, but not limited to, providing bottled water, a township water connection, installation of a new drinking water well completed in an uncontaminated portion of the subsurface, and point-of-use treatment systems.

v. If at any time 1,4-dioxane is detected in an active private drinking water well above 3.0 ug/L, Defendant shall promptly at its expense, offer the occupants of the property the option of receiving bottled water and shall sample the well monthly. These obligations shall terminate if either (i) the 1,4-dioxane concentration in the well drops below 3.0 ug/L during two consecutive sampling events or (ii) the property is connected to a permanent alternative water supply. Furthermore, Defendant shall work with EGLE and municipal authorities to evaluate long-term and economically reasonable water supply options.

vi. If 1,4-dioxane is detected at concentrations above 7.2 ug/L in an active residential drinking water well and/or at concentrations above 350 ug/L in an active non-residential drinking water well, Defendant shall conduct the Verification Process as defined

in Section III.X for each such private drinking water well. If the detection above 7.2 ug/L is verified, Defendant shall monitor each such private drinking water well on a monthly basis if not already doing so and shall continue monthly monitoring until the well is no longer considered at risk under Section V.B.4.e.i. If 1,4-dioxane is detected at concentrations above 7.2 ug/L in four consecutive monthly samples or any seven monthly samples in any 12 month period, Defendant shall provide at its expense a long-term alternative water supply to the property serviced by the affected well. Such long-term alternative water supply may be in the form of a township water connection, installation of a new drinking water well completed in an uncontaminated portion of the subsurface, or a point-of-use treatment system, or other long-term drinking water supply option approved by EGLE. Defendant shall also provide at its expense bottled water to the property owner until the property is serviced by a long-term alternative water supply.

5. Groundwater Contamination Delineation. Additional delineation of the extent of Groundwater Contamination, including within the plume boundary, and/or characterization of source areas shall not be required except as provided in Section V.B.3.c. EGLE reserves the right to petition the Court to require additional work if there are findings that EGLE determines warrant additional Groundwater Contamination delineation.

~~D-C.~~ Termination of Groundwater Extraction Systems

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

a. Termination Criteria for ~~LB~~Evergreen Wells/Maple Road Wells/Wagner Road Wells. Except as otherwise provided pursuant to Section V.~~DC~~.2, Defendant may only ~~significantly~~ reduce (below the stated minimum purge rates) or terminate operation of the ~~LB Wells and~~Evergreen Wells/Maple Road Wells as provided in Section

V.A.3.f.i. and of the Wagner Road Wells as provided in Sections Section V.A.2.f. and V.A.7., respectively⁹.

b. Termination Criteria for Parklake Well. Except as otherwise provided pursuant to Section V.C.2, Defendant may reduce or terminate operation of the Parklake Well as provided in Section V.A.3.f.ii.

~~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.~~ Defendant may terminate the groundwater extraction described in Section VI.C.1 as provided in that Section. Except as otherwise provided pursuant to Section V.C.2, and subject to

Section V.B.1., Defendant shall not terminate all groundwater extraction in the Western Area until all of the following are established:

i. Defendant can establish to EGLE's satisfaction that groundwater extraction is no longer necessary to prevent the expansion of Ggroundwater Ccontamination prohibited under Section V.B.1.;

ii. ~~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~~ groundwater extraction is no longer necessary to satisfy the Groundwater-Surface Water Interface Objective under Section V.B.2;

and

~~iii.~~ Defendant has the land use or resource use restrictions described in Section V.B.3.a 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 this 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~~this Consent Judgment if EGLE does not approve the Defendant's request/demonstration. Defendant may terminate Western Area groundwater extraction upon: (i) receipt of notice of approval from EGLE; or (ii) receipt of notice of a final decision approving termination pursuant to dispute resolution procedures of Section XVI of this Consent Judgment.

~~e. — 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).~~

2. Modification of Termination Criteria/Cleanup Criteria. The termination criteria provided in Section V.D.C.1. and/or the definition of “Groundwater Contamination” or “Soil Contamination” may be modified as follows:

a. ~~At any time two years~~ After entry of this Fourth Amended Consent Judgment, Defendant may propose to EGLE 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 Fourth Amended Consent Judgment; for purposes ~~of~~for this ~~subparagraph~~Subsection, “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 date of ~~this Consent Judgment,~~the United States Environmental Protection Agency’s IRIS risk assessment for 1,4-dioxane (August 11, 2010), which, in combination with the existing scientific evidence, establishes that different termination criteria/definitions 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 EGLE for review.

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

d. If EGLE disapproves the proposed modification, Defendant may invoke the dispute resolution procedures contained in Section XVI of this Consent Judgment. Alternatively, if EGLE disapproves a proposed modification, Defendant ~~and Plaintiffs~~ may ~~agree~~seek to ~~resolve~~have the dispute ~~resolved~~ pursuant to ~~subparagraph~~Subsection V.~~DC~~.3.

3. If the ~~parties do not agree to a proposed modification~~Defendant invokes the procedures of this Subsection, Defendant and ~~Plaintiffs may~~EGLE shall 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~~EGLE and Defendant 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 EGLE and the parties~~Defendant~~ 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 EGLE and the parties~~Defendant~~. If both parties~~EGLE and Defendant~~ accept those recommendations, the termination criteria shall be modified in accordance with such recommendations. If EGLE and the parties~~Defendant~~ disagree with the recommendations, ~~the MDNR's~~EGLE's proposed resolution of the dispute shall be final unless Defendant invokes the procedures for judicial dispute resolution as provided in Section XVI of this Consent 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.

E-D. Post-Termination Monitoring

1. Eastern Area

a. Prohibition Zone Containment Objective. Except as otherwise provided pursuant to Section V.DC.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 857.2 ug/L or such other applicable criterion for 1,4-dioxane for six consecutive months, or Defendant can establish to EGLE'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 this Consent Judgment. Defendant may initiate dispute resolution

pursuant to Section XVI of this Consent Judgment if EGLE does not approve its termination request.

b. ~~Groundwater/Surface Water~~ Containment Interface Objective.

Except as provided in Section V.~~E.D.1.a.~~, for Prohibition Zone monitoring wells, post-termination monitoring is required for Eastern Area wells for a minimum of ~~40~~ten years after purging is terminated under Section V.~~D.C.1.ba.~~ with cessation subject to EGLE approval.

Defendant's request to terminate monitoring must be made in writing for review and approval pursuant to Section X of this Consent Judgment. Defendant may initiate dispute resolution pursuant to Section XVI of this Consent Judgment if EGLE 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 EGLE approval.

Except as otherwise provided pursuant to Section V.~~DC~~.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~~Non-Expansion Cleanup Objective set forth in Section V.B.1- and the Groundwater-Surface Water Interface Objective set forth in Section V.B.2. If any ~~violation~~exceedance is detected, Defendant shall immediately notify EGLE and take whatever steps are necessary to comply with the requirements of Section V.B.1, or V.B.2, as applicable.

~~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.~~

E. Quality Assurance Project Plan (QAPP). Defendant previously voluntarily submitted to EGLE for review and approval a QAPP, which is intended to describe the quality control, quality assurance, sampling protocol, and chain of custody procedures that will be used in carrying out the tasks required by this Consent Judgment. EGLE shall review, and Defendant shall revise accordingly, the QAPP to ensure that it is in general accordance with the United States Environmental Protection Agency’s (“U.S. EPA” or “EPA”) “Guidance for Quality Assurance Project Plans,” EPA QA/G-5, December 2002; and American National Standard ANSI/ASQC E4-2004, “Quality Systems For Environmental Data And Technology Programs – Requirements With Guidance For Use.”

VI. GELMAN PROPERTY RESPONSE ACTIVITIES

A. Gelman Property Objectives. The objectives for the Gelman Property shall be to prevent the migration of 1,4-dioxane from contaminated soils on the Gelman Property into any aquifer at concentrations or locations that cause non-compliance with the Western Area objectives set forth in Sections V.B.1 and V.B.2.

B. Response Activities.

1. Remedial Systems. Defendant shall design and implement remedial systems at the Gelman Property as necessary to achieve the Gelman Property Objectives.

2. Monitoring. Defendant shall implement an EGLE-approved Compliance Monitoring Plan to verify that the Gelman Property Soil Contamination does not cause or contribute to non-compliance with the Western Area objectives set forth in Sections V.B.1 and V.B.2, and to verify the effectiveness of any implemented remedial system.

C. Additional Source Control. Defendant shall implement the following Response Activities to reduce the mass of and/or exposure to 1,4-dioxane present in the soils and/or

shallow groundwater on the Gelman Property subject to receipt of any required approvals pursuant to Section VII.D:

1. Additional Groundwater Extraction. Defendant shall install and operate three extraction wells, PW-1000 (previously installed), EX-1, and EX-3 at the general locations depicted in the attached Attachment I to enhance control and mass removal of 1,4-dioxane from this area of shallow groundwater contamination. Defendant shall operate these extraction wells at a combined purge rate of approximately 75 gpm, subject to aquifer yield. Defendant shall have the discretion to adjust the individual well purge rates in order to optimize mass removal. Subject to Defendant's ability to adjust individual well purge rates, Defendant shall continue to extract a combined purge rate of approximately 75 gpm, subject to aquifer yield, from this system until the 1,4-dioxane concentration in the groundwater extracted from each of these extraction wells has been reduced below 500 ug/L and, once the concentrations in all three of the wells have been reduced below 500 ug/L, Defendant shall cycle those wells off and on for several periods of time approved by EGLE to demonstrate that significant concentration rebound is not occurring. Before otherwise significantly reducing or terminating extraction from this system, Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusion that the concentration of 1,4-dioxane in the groundwater extracted from each of these wells has been reduced below 500 ug/L, as stated above. EGLE 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 Defendant disagrees with EGLE's conclusion, Defendant may initiate dispute resolution under Section XVI of this Consent Judgment. The Defendant shall not significantly reduce or terminate the extraction from this system during the 56-day review period or while Defendant is disputing EGLE's conclusion.

Based on the performance achieved from these extraction wells, the Parties shall evaluate whether installation of up to three additional extraction wells at the general locations indicated on Attachment I would accelerate mass removal to a degree that meaningfully benefits the Remediation. If EGLE determines that additional mass removal from these locations would be beneficial, Defendant shall, subject to its right to invoke Dispute Resolution under Section XVI, install and operate these additional wells pursuant to a work plan approved by EGLE.

Groundwater extracted from the extraction wells described in this subparagraph will be conveyed to the Wagner Road Treatment Facility for treatment and disposal pursuant to Defendant's NPDES Permit No. MI-0048453, as amended or re-issued.

2. Phytoremediation—Former Pond 1 and 2 Area. Defendant shall apply phytoremediation techniques in the treatment area depicted on Attachment I to reduce the potential mass flux of 1,4-dioxane from vadose zone soils in this area to the groundwater aquifers. Defendant shall plant and maintain trees in the treatment area in order to: (i) remove 1,4-dioxane mass by via biodegradation and transpiration; and (ii) extract and reduce the volume of shallow perched groundwater in this area. Defendant shall install and maintain the trees in a healthy state and replace trees as necessary to assure continued success of the phytoremediation system. Defendant shall continue to operate the phytoremediation system as set forth above until it determines that the further reduction of the mass flux of 1,4-dioxane from the vadose zone soils to the groundwater aquifers is not necessary to achieve compliance with the Gelman Property Objectives. Before significantly reducing or terminating phytoremediation in the Former Pond 1 and 2 area, Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusions. EGLE 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 Defendant disagrees with EGLE's conclusion, Defendant may initiate dispute resolution under Section XVI of this Consent Judgment. The Defendant shall not significantly reduce or terminate the phytoremediation during the 56-day review period or while Defendant is disputing EGLE's conclusion.

3. Phytoremediation—Marshy Area. Defendant will undertake actions to reduce the percolation/infiltration of 1,4-dioxane from Marshy Area to the underlying groundwater through the application of phytoremediation techniques in the area depicted in Attachment I. The initial phase of these Response Activities may include further investigation of the Marshy Area as needed to complete the phytoremediation design regarding methods of enabling roots from trees grown in the Marshy Area to extend into deeper soils containing elevated concentrations of 1,4-dioxane. Defendant shall install and maintain the trees in a healthy state as necessary to assure continued success of the phytoremediation system. Defendant shall continue to operate the phytoremediation system as set forth above until it determines that the further reduction of the percolation/infiltration of 1,4-dioxane from the Marshy Area to the underlying groundwater is not necessary to achieve compliance with the Gelman Property Objectives. Before significantly reducing or terminating phytoremediation in the Marshy Area, Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusions. EGLE 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 Defendant disagrees with EGLE's decision to reduce or terminate the phytoremediation in the Marshy Area, Defendant may initiate dispute resolution under Section XVI of this Consent Judgment. The Defendant shall not significantly reduce or terminate the phytoremediation in the

Marshy Area during the 56-day review period or while Defendant is disputing EGLE's conclusion.

4. Former Burn Pit Area. Defendant shall undertake the following Response Activities with respect to the former Burn Pit area depicted on Attachments I and J:

a. Install, operate, and maintain a Heated Soil Vapor Extraction System ("HSVE System"). The HSVE System shall be designed to reduce the mass of 1,4-dioxane present in the soils in the portion of the former Burn Pit area identified as "Heated Soil Vapor Extraction" on Attachment J. Defendant shall operate the HSVE system until 1,4-dioxane concentrations in the HSVE System's effluent/exhaust has been reduced to levels that indicate that continued operation of the HVSE system will no longer contribute to meaningful reduction of 1,4-dioxane mass in the Former Burn Pit Area Soils or the Soil Contamination in the treatment area is eliminated, whichever occurs first. Before significantly reducing or terminating operation of the HSVE system, Defendant shall consult with EGLE and provide a written analysis, together with the data that supports its conclusion, that one or both of the above conditions has been satisfied. EGLE will review the analysis and data and provide a written response to Defendant within 56 days after receiving Defendant's written analysis and data. If Defendant disagrees with EGLE's conclusion, Defendant may initiate dispute resolution under Section XVI of this Consent Judgment. The Defendant shall not significantly reduce or terminate operation of the HSVE system during the 56-day review period or while Defendant is disputing EGLE's conclusion.

Following completion of the HSVE treatment, Defendant shall install an impervious barrier over the HSVE Treatment Area to inhibit water from percolating through the soils in the former Burn Pit Area, except with regard to any areas where Defendant can demonstrate to

EGLE's satisfaction that Soil Contamination does not exist. Defendant shall maintain the impervious barrier in place until Soil Contamination is no longer present in the underlying soils.

b. Cap the portion of the former Burn Pit area identified as "Capped Area" on Attachment J with an impervious barrier to inhibit water from percolating through the soils in the former Burn Pit area. Defendant shall maintain the impervious barrier in place until Soil Contamination is no longer present in the underlying soils.

5. After completing installation of the Response Activity systems listed in Sections VI.C.2, VI.C.3 and VI.C.4, the Defendant shall submit a separate installation report (i.e., as-built report) for each of the systems. The reports shall describe the systems as installed including, but not limited to, components of a system, location of components within the specific areas, depths of components of a system, and operational specifications of components of a system.

6. Required Approvals. Notwithstanding the above, Defendant's obligation to implement any of the additional source control Response Activities described in Section VI.C is conditioned upon receipt of any required approvals pursuant to Section VII.D.

VI. GSI PROPERTY REMEDIATION

~~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.~~

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

~~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/l.~~

~~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.~~

~~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 in quantities which cause the concentration of 1,4 dioxane at the groundwater-surface water interface of Third Sister Lake to exceed 2800 ug/l.~~

~~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. 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:~~

~~e. 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.~~

~~d. 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.~~

~~e. 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.~~

~~4. — 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 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.~~

~~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.~~

~~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. — 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.~~

~~2. — 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.~~

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 this 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 subcontracts), 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 work plans to any such contractor or subcontractor.

D. The Parties/Plaintiffs 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 a necessary prerequisite for ~~Remedial Action~~ one or more of the Response Activities set forth in this Consent Judgment:

1. Renewal of NPDES Permit No. MI-0048453 with respect to the discharge of treated groundwater to the unnamed tributary of Honey Creek.

2. An NPDES Permit that authorizes the discharge of groundwater to First Sister Lake in connection with operation of the Parklake Well following treatment with ozone/hydrogen peroxide technology that has effluent limitations, discharge limits (other than

volume), and other conditions no more restrictive than those included in Defendant's 2014 NPDES Permit.

3. Negotiation and execution of an access agreement between Defendant and the City of Ann Arbor providing reasonable and necessary access to the City-owned parcel at Parklake Avenue and Jackson Road with respect to installation and operation of an extraction well, operation and maintenance of a groundwater treatment unit, and disposal of treated groundwater.

2-4. An Air Permit for discharges of contaminants to the atmosphere for vapor extraction systems, including the HSVE system described in Subsection VI.C.4, under terms reasonably acceptable to Defendant and as necessary if such systems are part of the remedial design.

3-5. A Wetlands Permit(s) from EGLE and/or Scio Township if necessary for construction of the Marshy Area System or the construction of facilities as part of the Core or Western Systems; the response activities described in Section VI.C.3 with terms reasonably acceptable to Defendant;

4-6. 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 from the Evergreen and/or Maple Road Wells. 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 Consent 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.

~~5.7.~~ Permit(s) or permit exemptions to be issued by EGLE to authorize the reinjection of purged and treated groundwater in the Eastern Area, and Western Area, ~~and Little Lake Area;~~

~~6.8.~~ Surface water discharge permit(s) for discharge into surface waters in the area of Little Lake ~~System Area~~, if necessary.

~~7.9.~~ Approval of the City of Ann Arbor and the Washtenaw County Drain Commissioner to use storm drains or sewers for the remedial programs.

~~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.~~

10. Washtenaw County permits as necessary for the installation of extraction wells, monitoring wells, and borings.

VIII. SAMPLING AND ANALYSIS

Defendant shall make available to EGLE 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 Consent Judgment without waiver by any Party of any objection as to weight or relevance. EGLE and/or their authorized representatives, at their discretion, may take split or duplicate samples and observe the sampling event. EGLE 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 EGLE 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, EGLE, ~~their~~its 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 EGLE;
3. Conduct of investigations related to ~~contamination~~1,4-dioxane concentrations at the Site;
4. Collection of samples;
5. Assessment of the need for, or planning and implementing of, Response ~~Actions~~Activities 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~~Section 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, EGLE, and their authorized employees, agents, representatives, contractors, and consultants. Defendant shall provide EGLE with a copy of each access agreement secured pursuant to this ~~paragraph~~Section. For purposes of this ~~Paragraph~~Section, “best efforts” includes, but is not limited to, seeking judicial assistance to secure such access pursuant to MCL 324.20135a.

X. APPROVALS OF SUBMISSIONS

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~~, EGLE will: (1) approve the submission or (2) submit to Defendant changes in the submission that would result in approval of the submission. EGLE 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 EGLE does 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 EGLE, 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 EGLE. If Defendant does not accept the changes proposed by EGLE, Defendant may submit the matter to dispute resolution pursuant to Section XVI.

XI. PROJECT COORDINATORS

A. Plaintiffs designate Daniel Hamel as EGLE's Project Coordinator. Defendant designates Lawrence Gelb as Defendant's Project Coordinator. Defendant's Project Coordinator shall have primary responsibility for implementation of the Remedial Action at the Site. EGLE's 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 EGLE, 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, [email 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 [paragraphSection](#) does not relieve Defendant from other reporting obligations under the law.

B. EGLE may designate other authorized representatives, employees, contractors, and consultants to observe and monitor the progress of any activity undertaken pursuant to this Consent Judgment. EGLE's 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 EGLE 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 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 EGLE 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 Gelman Property until: (1) it places an EGLE-approved land use or resource use restrictions on the affected portion(s) of the Gelman Property; and (2) any purchaser, lessee, or grantee provides to EGLE 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.

B. Any deed, title, or other instrument of conveyance regarding the Gelman 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 [Consent](#) 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 EGLE 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 EGLE, 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 [paragraphSection](#) 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 EGLE that an event does not constitute [Force](#) Majeure, that a delay was not caused by Force [Majeure](#), 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 [Consent](#) Judgment.

D. EGLE 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 EGLE does not

respond within that time period, Defendant's request shall be deemed granted. If EGLE agrees that a delay is or was caused by Force Majeure, Defendant's delays shall be excused, stipulated penalties shall not accrue, and EGLE 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 this 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 EGLE 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 EGLE, 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 [paragraphSection](#) 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 EGLE 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. EGLE 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 EGLE does not respond within that time period, Defendant's request shall be deemed granted. If EGLE 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 EGLE 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 this 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. ~~Except as provided in Sections V.A.2.f., V.A.7., and V.D.1.a., the~~ 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 except for disputes related to Prohibition Zone boundary modification under Sections V.A.2.f and V.A.6, whether or not particular provisions of this 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~~ EGLE or the Defendant that a dispute has arisen. This period may be extended or shortened by agreement of EGLE or the Parties Defendant.

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

C. Within ten days of the filing of the petition, EGLE may file a response to the petition, and unless a dispute arises from the alleged failure of EGLE to timely make a decision, EGLE will submit to the Court all documents containing information related to the matters in dispute, including documents provided to EGLE by Defendant. In the event of a dispute arising from the alleged failure of EGLE 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 this Consent Judgment.

D. The Court shall uphold the decision of EGLE 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/or](#)
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:

<u>Period of Delay</u>	<u>Penalty Per Violation Per Day</u>
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 EGLE 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 EGLE 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 EGLE 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 EGLE. 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 Environment, Great Lakes, and Energy; P.O. Box 30657; Lansing, MI 48909-8157. [The check shall be transmitted](#) via Courier to the Revenue Control Unit; Finance Section, Administration Division; Michigan Department of Environment, Great Lakes, and Energy; Constitution Hall, 5th Floor South Tower; 525 West Allegan Street; Lansing, MI 48933-2125. To ensure proper credit, [Defendant shall](#) include the settlement ID - ERD1902 on the payment.

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. EGLE reserves 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 Gelman 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 EGLE of the Certificate of Completion in accordance with Section XXV.

E. Notwithstanding any other provision in this Consent Judgment: (1) EGLE reserves 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) EGLE reserves the right to institute proceedings in this action or in a new action seeking to reimburse EGLE for response costs incurred by the State of Michigan relating to the Site. EGLE's rights in [Sections XVIII.E.1-](#) and [E.2-](#) apply ~~if and only~~ if the following conditions are met:

1. For proceedings prior to EGLE's certification of completion of the Remedial Action concerning the Site,
 - a. (i) conditions at the Site, previously unknown to EGLE, are discovered after ~~the~~ entry of this Consent Judgment, (ii) new information previously unknown to EGLE is received after entry of this Consent Judgment, or (iii) EGLE 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 this 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 EGLE's certification of completion of the Remedial Action concerning the Site,

a. (i) conditions at the Site, previously unknown to EGLE, are discovered after certification of completion by EGLE, (ii) new information previously unknown to EGLE is received after certification of completion by EGLE, or (iii) EGLE adopts one or more new, more restrictive cleanup criteria for 1,4-dioxane pursuant to Part 201-~~of NREPA~~, after certification of completion by EGLE; 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 EGLE adopts one or more new, more restrictive, cleanup criteria, EGLE's rights in Sections XVIII.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 EGLE has not made the demonstration(s) required under this Section.

F. Nothing in this Consent Judgment shall in any manner restrict or limit the nature or scope of Response ~~actions~~Activities that may be taken by EGLE in fulfilling its 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 EGLE against a person or entity not a party to this Consent Judgment.

G. Except as expressly provided in this Consent Judgment, EGLE reserves 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 EGLE's 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 EGLE 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.,B.~~ 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, INSURANCE, AND FINANCIAL ASSURANCE

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. EGLE 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 EGLE. Defendant shall not indemnify or save and hold harmless Plaintiffs from their own negligence pursuant to this ~~paragraph~~Section.

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 EGLE 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.

C. Financial Assurance

1. Defendant shall be responsible for providing and maintaining financial assurance in a mechanism approved by EGLE 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 Remedial Action Costs”). Defendant shall continuously maintain a financial assurance mechanism (“FAM”) until EGLE’s Remediation and Redevelopment Division (~~RD~~)(“RRD”) 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. The Letter of Credit provided in Attachment K is the initial FAM approved by EGLE. Defendant shall be responsible for providing and maintaining financial assurance in a mechanism acceptable to EGLE to assure the performance of the Long Term Remedial Action Costs required by Defendant’s selected remedial action. 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. Defendant is not required to provide another type of FAM so long as Defendant continues to meet the requirements for the Financial Test.~~

3. The FAM shall remain in an amount sufficient to cover Long Term Remedial Action Costs for a 30-year period. Unless Defendant opts to use and satisfies the Financial Test or Financial Test/Corporate Guarantee as provided in Section XX.C.8, the FAM shall remain in a form that allows EGLE to immediately contract for the response activities for which financial assurance is required in the event Defendant fails to implement the required tasks, subject to Defendant's rights under Sections XIV and XVI.

4. Within 120 days of the Effective Date of this Fourth Amended Consent Judgment, Defendant shall provide EGLE with an estimate of the amount of funds necessary to assure Long Term Remedial Action Costs for the following 30-year period based upon an annual

estimate of costs for the response activities required by this Fourth Amended Consent Judgment as if they were to be conducted by a person under contract to EGLE (the “Updated Long Term Remedial Action Cost Estimate”). The Updated Long Term Remedial Action Cost Estimate shall include all assumptions and calculations used in preparing the cost estimate and shall be signed by an authorized representative of Defendant who shall confirm the validity of the data. Defendant may only use a present worth analysis if an interest accruing FAM is selected. Within 60 days after Defendant’s submittal of the Updated Long Term Remedial Action Cost Estimate, Defendant shall capitalize or revise the FAM in a manner acceptable to EGLE to address Long Term Remedial Action Costs unless otherwise notified by EGLE. If EGLE disagrees with the conclusions of the Updated Long Term Remedial Action Cost Estimate, Defendant shall capitalize the FAM to a level acceptable to EGLE within 30 days of EGLE notification, subject to Dispute Resolution under Section XVI.

5. Sixty days prior to the 5-year anniversary of the Effective Date of this Fourth Amended Consent Judgment and each subsequent 5-year anniversary, Defendant shall provide to EGLE a report containing the actual Long Term Remedial Action Costs for the previous 5-year period and an estimate of the amount of funds necessary to assure Long Term Remedial Action Costs for the following 30-year period given the financial trends in existence at the time of preparation of the report (“Long Term Remedial Action Cost Report”). The cost estimate shall be based upon an annual estimate of maximum costs for the response activities required by this Fourth Amended Consent Judgment as if they were to be conducted by a person under contract to EGLE, provided that, if Defendant is using the Financial Test or Corporate Guarantee/Financial Test under Section XX.C.8, below, Defendant may use an estimate on its internal costs to satisfy the Financial Test. The Long Term Remedial Action Cost Report shall

also include all assumptions and calculations used in preparing the necessary cost estimate and shall be signed by an authorized representative of Defendant who shall confirm the validity of the data. Defendant may only use a present worth analysis if an interest accruing FAM is selected.

6. Within 60 days after Defendant's submittal of the Long Term Remedial Action Cost Report to EGLE, Defendant shall capitalize or revise the FAM in a manner acceptable to EGLE to address Long Term Remedial Action Costs consistent with the conclusions of the Long Term Remedial Action Cost Report unless otherwise notified by EGLE. If EGLE disagrees with the conclusions of the Long Term Remedial Action Cost Report, Defendant shall capitalize the FAM to a level acceptable to EGLE within 30 days of EGLE notification, subject to dispute resolution under Section XVI. If, at any time, EGLE determines that the FAM does not secure sufficient funds to address Long Term Remedial Action Costs, Defendant shall capitalize the FAM or provide an alternate FAM to secure any additional costs within 30 days of request by EGLE, subject to dispute resolution under Section XVI.

7. If, pursuant to the Long Term Remedial Action Cost Report, Defendant can demonstrate that the FAM provides funds in excess of those needed for Long Term Remedial Action Costs, Defendant may request a modification in the amount. Any requested FAM modifications must be accompanied by a demonstration that the proposed FAM provides adequate funds to address future Long Term Remedial Action Costs. Upon EGLE approval of the request, Defendant may modify the FAM as approved by EGLE. Modifications to the FAM pursuant to this Section shall be approved by EGLE RRD Chief or his or her authorized representative, subject to dispute resolution under Section XVI.

8. If Defendant chooses to use the Financial Test or Corporate Guarantee/Financial Test attached as Attachment L (hereinafter, the term “Financial Test” refers to both an independent financial test or a financial test utilized in conjunction with a corporate guarantee), Defendant shall, within 90 days after the end of Defendant’s next fiscal year and the end of each succeeding fiscal year, submit to EGLE the necessary forms and supporting documents to demonstrate to the satisfaction of EGLE that Defendant can continue to meet the Financial Test requirements. If Defendant can no longer meet the financial test requirements, Defendant shall submit a proposal for an alternate FAM to satisfy its financial obligations with respect to this Consent Judgment.

9. If the Financial Test is being used as the FAM, EGLE, based on a reasonable belief that Defendant may no longer meet the requirements for the Financial Test, may require reports of financial condition at any time from Defendant, and/or require Defendant to submit updated Financial Test information to determine whether it meets the Financial Test criteria. Defendant shall provide, with reasonable promptness to EGLE, any other data and information that may reasonably be expected to materially adversely affect Defendant’s ability to meet the Financial Test requirements. If EGLE finds that Defendant no longer meets the Financial Test requirements, Defendant shall, within 30 days after notification from EGLE, submit a proposal for an alternate FAM to satisfy its financial obligations with respect to this Consent Judgment, subject to dispute resolution under Section XVI.

10. If the Financial Test/Corporate Guarantee is used as the FAM, Defendant shall comply with the terms of the Corporate Guarantee. The Corporate Guarantee shall remain in place until Long-Term Remedial Action Costs are no longer required or Defendant establishes an alternate FAM acceptable to EGLE.

11. If Defendant wishes to change the type of FAM or establish a new FAM, Defendant shall submit a request to EGLE for approval. Upon EGLE approval of the request, Defendant may change the type of FAM or establish the new FAM as approved by EGLE. Modifications to the FAM pursuant to this Section shall be approved by EGLE RRD Chief or his or her authorized representative, subject to dispute resolution under Section XVI.

12. If Defendant dissolves or otherwise ceases to conduct business and fails to make arrangements acceptable to EGLE for the continued implementation of all activities required by this Consent Judgment, all rights under this Consent Judgment regarding the FAM shall immediately and automatically vest in EGLE in accordance with the FAM.

~~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.~~

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 EGLE, 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 EGLE.

XXII. ACCESS TO INFORMATION

Upon request, EGLE and Defendant shall provide to ~~the requesting Party~~each other copies of or access to all ~~nonprivileged~~non-privileged 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 EGLE, 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:

Daniel Hamel
Project Coordinator
Michigan Department
of Environment, Great
Lakes, and Energy,
Remediation and Redevelopment
Division
301 East Louis Glick Highway
Jackson, MI 49201

For Defendants:

Lawrence Gelb
Gelman Sciences Inc.
642 South Wagner Road
Ann Arbor, MI 48106

and

Michael L. Caldwell
Zausmer, P.C.
32255 Northwestern Hwy., Ste. 225
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~~the Plaintiffs and the Defendant, 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~~Defendant and EGLE.

XXV. CERTIFICATION AND TERMINATION

A. When Defendant determines that it has completed all Remedial Action required by this Consent Judgment, Defendant shall submit to EGLE 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, EGLE 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, EGLE shall issue a Certificate of Completion upon a determination by EGLE 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 EGLE. If EGLE 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 I. 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.~~

XXVI. EFFECTIVE DATE

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

XXVII. 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.

XXVIII. SIGNATORIES

Each undersigned representative~~s~~ 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.