

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ATTORNEY GENERAL for the  
STATE OF MICHIGAN, et al,  
MICHIGAN NATURE RESOURCES  
COMMISSION, MICHIGAN WATER  
RESOURCES COMMISSION, and  
MICHIGAN DEPARTMENT OF NATURAL  
RESOURCES,

Plaintiffs,

vs

GELMAN SCIENCES INC.,  
a Michigan corporation,

Defendant.

Case No. 88-34734 CE

Hon. Donald E. Shelton

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**DEFENDANT'S OPPOSITION TO MOTION TO  
ENFORCE ORDER PROHIBITING GROUNDWATER USE**

**INTRODUCTION**

In its December 17, 2004 Order and Opinion Regarding Remediation of the Contamination of the "Unit E" Aquifer (the "Unit E Order"), this Court instructed the parties to establish an area – subsequently called the Prohibition Zone ("PZ") – within which human

consumption or use of groundwater would be illegal. This judicial “institutional control” was intended to prevent *unacceptable* human exposures to the contaminated groundwater that would eventually migrate through the Prohibition Zone by making uses that might lead to such unacceptable exposures illegal. Although the highest concentrations of 1,4-dioxane in the groundwater in the PZ (2,000 – 3,000 ppb) were above the level determined to be safe to drink (85 ppb), they were orders of magnitude below the direct contact criterion (1,700,000 ppb). Consequently, the only potentially “unacceptable” or unsafe exposure to the groundwater is via the drinking water pathway.

In order to eliminate the possibility of groundwater consumption, this Court’s Unit E Order required Pall Life Sciences (“PLS”) to first identify and then connect to municipal water any properties within the PZ that were still using private water supply wells for their drinking water. By February 2005, PLS had identified and initiated the process of providing municipal water to the few properties (seven) in the PZ still using private water supplies. Consequently, it is undisputed that no one is drinking the groundwater within the PZ and that any unacceptable exposure to the groundwater was eliminated years ago.

Plaintiffs’ motion, therefore, has nothing to do with the Court’s mandate to protect the public from drinking or using the groundwater in a way that would be unsafe. PLS achieved that goal a long time ago. Rather, Plaintiffs’ motion arises from its four year attempt to expand the Court’s original mandate and the scope of PLS’ Well Identification Work Plan, which was approved by the Michigan Department of Environmental Quality (“MDEQ”). This is evidenced by the fact that after PLS identified all of the drinking water wells in the PZ, the MDEQ then required PLS to identify any property that *may* at one time have had a well – even

where it was undisputed that the property has been serviced by municipal water for decades (in many cases for over 50 years).

Despite objecting to this requirement, PLS dutifully identified each of the properties that may have previously had a well. For each property, PLS then gathered a tremendous amount of historical information to determine if a well could have been present and, if so, when the property was connected to municipal water. If PLS learned that a well had been replaced in the relatively recent past (within the last 20 years), PLS took the additional steps of providing (often by hand) the owner of the property with an MDEQ-approved survey to determine if he or she was aware of any vestigial well still present on the property. PLS even inspected some of these properties with the owner's consent to see if the former well was still present. These efforts have been summarized in voluminous reports PLS submitted to the MDEQ over the last four years. As a result of these extraordinary efforts, PLS has identified (and then abandoned) only a handful of wells that were either out-of-use "abandoned" wells (but not properly grouted by today's well abandonment procedures) or wells used for single property irrigation.

Predictably, this effort has not satisfied the MDEQ. Plaintiffs' motion seeks to force PLS to survey and inspect hundreds of homes that have been connected to municipal water for more than 20 years (many well over 50 years). Then, when such surveys invariably yield no useful information, Plaintiffs seek to burden the unlucky homeowners with additional documentation and warnings about the possibility that a well last used 50 years ago might still be located on their property. PLS has disputed that this level of investigation is necessary, not because it is less concerned about public health than the MDEQ or because the investigation is hard and costly, but because there is no reasonably possible scenario under which the residents of such properties could be subject to any unacceptable exposures and, hence, no measurable

public health benefit to be gained. PLS asks this Court to deny Plaintiffs' motion because the relief sought will not make the institutional control this Court established any more protective. Rather, the requested relief will only place additional burdens on the homeowners within the Prohibition Zone and distract the parties from far more important work to be done to improve the cleanup program.

## **FACTUAL BACKGROUND**

### 1. Origin and Function of the Prohibition Zone

In the summer and fall of 2004, the parties debated how to address the groundwater contamination in the "Unit E" aquifer. PLS' plan proposed, in part, to prevent unacceptable exposures to the contaminated groundwater through an "institutional control" that would make consumption or unauthorized use of the groundwater in the affected area illegal. This approach made sense because: a) existing City ordinances already made such use of the groundwater within the City limits illegal independent of the groundwater contamination; b) municipal water was available to the affected area; and c) with very limited exceptions, none of the potentially affected properties used private water supply wells.

This Court adopted this approach in its Unit E Order and instructed the parties to submit an order to establish the area within which consumption or use of groundwater would be prohibited (subsequently designated as the "Prohibition Zone"). (Unit E Order, p. 11.) The order to be drafted by the parties and presented to the Court was to include a prohibition against the "installation of new water supply wells for drinking, irrigation, or commercial or industrial use." (*Id.* (emphasis added).) The order was also to require PLS to provide municipal water to any "existing private drinking water wells within" the Prohibition Zone in order to eliminate

unacceptable exposures to the groundwater. (*Id.* (emphasis added).) The Unit E Order did not instruct the parties to look for or abandon currently existing non-drinking water supply wells (e.g., irrigation wells) or old drinking water wells no longer in use.

The subsequently entered May 17, 2005 Order Prohibiting Groundwater Use (the “PZ Order”), described PLS’ responsibilities as follows:

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

(PZ Order, p. 3)<sup>1</sup>

From the beginning, the parties have disagreed as to the meaning of this paragraph and whether it requires PLS to do more than eliminate unacceptable exposures by identifying and then replacing private wells currently being used for drinking. In addition to drinking water wells, Plaintiffs have forced PLS to attempt to identify and then abandon two additional categories of private wells: a) private wells currently being used for non-drinking water uses such as lawn irrigation or to supply water to a heat pump system; and b) out-of-use wells that may have been used as drinking water wells before the property was connected to municipal water, but which have been abandoned and not used since.

Despite PLS’ repeated objections to the broadened scope of its investigation, PLS has, without waiving these objections, worked over the last four years to address the MDEQ’s concerns. In hopes of avoiding the need to involve the Court, PLS agreed not only to continue its search for out-of-service wells, but also to properly abandon the few such wells that were

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<sup>1</sup> The Unit E Order and the PZ Order are attached collectively as Attachment A for the Court’s convenience.

discovered. What remains in dispute is how far PLS should be required to go in looking for these vestigial wells, which would not create an unacceptable exposure even if they exist.

## 2. Investigation Methodology

On June 17, 2005, PLS submitted the required Work Plan for Identification, Abandonment, and Replacement of Certain Private Water Supply Wells (the “Well ID Plan”) (Exhibit 1). The Well ID Plan set forth the steps PLS proposed to implement in order to identify any private drinking water wells that still might be in use within the PZ. (Well ID Plan, p. 1). At the MDEQ’s request, the Well ID Plan was divided into two parts and the investigation phased. Part I provided for identification of existing private drinking water wells within the Prohibition Zone. By the time PLS submitted the Well ID Plan, it had already identified seven properties in the PZ that were still serviced by a private drinking water supply well rather than municipal water. (Well ID Plan, p. 1, Table 1). These are the only active private drinking water wells that have been located in the PZ. None of the MDEQ-mandated investigations that PLS has reluctantly conducted over the last four years has revealed a single property within the PZ that was using a private well to supply drinking water.

As described in the Well ID Plan, PLS agreed to make additional efforts to obtain sufficient information to conclude that it was unlikely that any other active drinking water wells existed in the PZ. This effort was divided into three tasks:

- Task 1: PLS proposed to conduct a door to door survey of two specific neighborhoods (the Westover Subdivision and the South Wagner Road properties directly across from the Gelman facility) considered to be “vulnerable” because they were serviced by wells in the recent past. The purpose of this task was to determine if the owner was aware of any still-existing wells. This information might reasonably be available to the owner because the original wells had only recently been replaced by municipal water.
- Task 2: PLS agreed to research and prepare a chronology regarding the availability of municipal water within the Prohibition Zone.

- Task 3: PLS also agreed to research and prepare a memorandum regarding ordinances regulating connection to municipal water.

The purpose of Tasks 2 and 3 was to explain the evolution of the City of Ann Arbor water supply to the MDEQ and to show that, from a legal and practical perspective, the vast majority of the properties within the PZ would not likely have active wells because: 1) they would have been required by the City ordinances then in effect to connect to municipal water when they were developed; and 2) would have been connected to municipal water for many years. The MDEQ agreed that if such a showing could be made, no further investigation of the properties would be required.<sup>2</sup>

The Well ID Plan provided that if “vulnerable” properties within the Prohibition Zone were identified as a result of this investigation, PLS would propose a supplement to the work plan to address such properties. (Well ID Plan, p. 2). Properties considered “vulnerable” were those properties within the PZ that were not zoned part of the City of Ann Arbor (e.g., Ann Arbor Township islands) and properties that were built in areas where municipal water was not yet available. Such properties could legally be serviced by private water supply wells. In a May 20, 2005 meeting, the MDEQ also expressed its concern that that properties formerly located in township islands that had been annexed some time after construction may yet be serviced by private wells, albeit illegal ones. PLS agreed to further investigate such neighborhoods that converted from private wells to municipal water in “recent years” while its review of the City’s water supply system and legal requirements was taking place. (Well ID, p. 2). PLS never agreed to take additional investigatory steps (e.g., surveys or inspections)

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<sup>2</sup> Part II of the Well ID Plan described the process that would be used to plug any identified water supply wells. Part III of the Well ID Plan also provided for three tasks to be accomplished with respect to properties within the Prohibition Zone that were identified as possessing private water supply wells and that did not have a connection to the municipal water supply. There have been no disputes regarding the procedures described in these Parts.

regarding properties that had been serviced by municipal water other than those that converted in the recent past. The MDEQ made a preliminary response to the Well ID Plan by letter dated July 11, 2005, followed by a compilation of comments and a conditional approval dated August 12, 2005. (collectively, Exhibit 2).

3. Summary of Well Identification Investigation Procedures

PLS provided its initial Report of Prohibition Zone Well Identification Plan on February 28, 2006 (“Well ID Report”) (Exhibit 3). In the three years since then, there has been a detailed exchange of information and further comments as PLS has worked with MDEQ to identify “vulnerable” properties within the PZ. The Well ID Report set forth the results of tasks PLS agreed to undertake to determine if there were any private drinking water supply wells located within the PZ, including its thorough examination of the evolution of the City water distribution system. The results of this investigation confirmed that local laws and ordinances required homes built in the City to connect to municipal water when it was available.

The Well ID Report meticulously documents the growth of the City of Ann Arbor, its water distribution system, and the City ordinances mandating connection to municipal water (See Well ID Report, pp. 4 – 8).<sup>3</sup> As a result of this investigation, the parties have agreed that

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<sup>3</sup> For example, counsel for PLS: 1) used the University of Michigan law library to research and copy historical sections of the Ann Arbor City Code (and before that, the Charter) and provided excerpts to the MDEQ related to the legal requirements for hook up of City wells; 2) used the Ann Arbor historical collection in the District Library to research (and photocopy) minutes from the Ann Arbor City Council related to provision of water supplies to new areas of the City, and used and photocopied maps from its map collection to document the growth of the City limits over time; 3) used the Burton Historical Collection at the University of Michigan libraries to obtain reports, minutes, and maps (both fire insurance and from the City of Ann Arbor Utilities Department) regarding the expansion, scope, and growth of the municipal system (these maps were photographed because they could not be removed for copying); and 4) found and provided excerpts from two histories of Ann Arbor that described the early water supply systems from 1840 until 1917. Counsel also went to the City Zoning Department to obtain copies of zoning maps showing township islands, called the Utility Department to get water hookup date information, and reviewed on-line maps and tax records to get building construction dates and subdivision information.



houses built inside the City limits with municipal water present at the time of construction would not have been serviced by a private well – private wells in this circumstance would have been illegal and an unnecessary expense that the builder would have been unlikely to incur. This circumstance existed for almost all of the PZ east of Maple Road (the “Eastern PZ”), other than those properties located within Ann Arbor Township islands (which PLS investigated further).<sup>4</sup> This was true whether or not an individual parcel was developed as part of a subdivision, a fact that the MDEQ has failed to grasp.

In general, the City’s water system was expanded to service new residential subdivisions after the initial distribution system was constructed. In order to document this development pattern and to identify any areas where the potential for private wells existed, PLS obtained subdivision and historical water distribution system maps and supplied these to the MDEQ. These maps show the date each of the subdivisions within the Prohibition Zone was platted and indicate roughly the earliest years houses were constructed. The water distribution maps show that municipal water was available within the City and expanded concurrently with the City limits. These maps confirm that nearly all of the developed parcels in the Eastern PZ were located within subdivisions that had municipal water when the subdivisions were platted and the homes built. Thus, these parcels would not have been serviced by a residential well. Nobody disputes this conclusion.

The MDEQ, however, has arbitrarily concluded that those few properties that were built outside of subdivisions were likely serviced by private wells and that they need to be further

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<sup>4</sup> The portion of the PZ west of Maple Road – the “Western PZ” – is somewhat more likely to contain out-of-service private wells because properties in this area were not necessarily within the City of Ann Arbor when the homes were built. As a result, the majority of the “vulnerable” areas investigated by PLS have been located west of Maple Road.

investigated as “vulnerable” properties (the white areas on Exhibit 1 to Plaintiffs’ Motion). In fact, PLS’ historical review of the evolution of the City’s water distribution system has already confirmed that such “non-subdivision” properties were connected to municipal water when they were built unless they were in a township island. Municipal water was available to these non-subdivision properties, and they were located within the City limits when developed. Consequently, they were subject to the same legal water connection requirements as subdivision properties. These properties and Plaintiffs’ demand for more investigation are discussed further in Section II.3, *infra*.

#### 4. PLS Investigation of Potentially “Vulnerable” Properties

Following the submission of PLS’ Well ID Report, the parties developed tables and then electronic spreadsheets identifying all of the “vulnerable” properties – those developed before the property was annexed into the City or before municipal water was available. Such properties were not legally required to connect to municipal water when built, and, therefore, it is *possible* that a well could have existed on the property at one time. Once these properties were identified, PLS undertook additional investigations to determine whether these parcels were *likely* to have been serviced by a private well before being connected to municipal water. With respect to each such property, PLS assembled all available information and presented it to the MDEQ. These sources of information included:

- FOIA requests to the City of Ann Arbor, Ann Arbor Township, Scio Township, Washtenaw County, and the Washtenaw County Health Department;
- Visits to these local agencies and review of additional records;
- Consultation of online records and databases;
- Review of records at local libraries; and

- Extensive conversations/interviews of staff persons from the relevant local agencies.

The full nature of PLS' investigation has been documented in numerous submittals to the MDEQ over the last four years that are attached as Exhibits 3 to 11.

For each of the parcels considered vulnerable, PLS has attempted to identify dates of construction; annexation dates; when taps to municipal water were available for the location; and, where available, billing information. PLS has used the combined information (date of construction, date of annexation, date that tap was available, and sometimes even billing information) to draw an informed conclusion as to whether it is likely that the location was serviced by a private well at one time.

The spreadsheet attached to PLS' October 24, 2008 response (Exhibit 11) summarizes the results of this investigation ("Summary Spreadsheet"). In those locations where available information suggests there is a reasonable possibility that a well may have been in use in the relatively recent past (<20 years ago), PLS has sent surveys to the address, interviewed the resident, or both. When allowed, PLS has also physically inspected the property looking for any out-of-use wells. The results of this investigation have been compiled and submitted to the MDEQ. This was done in accordance with the procedures described in PLS' original Well ID Work Plan, which the MDEQ approved. As described in the Summary Spreadsheet, the properties and PLS' conclusions as to whether further action is needed are categorized as follows:

Category 1. This category includes properties that PLS has concluded were provided municipal water within one year of the construction date. When the information PLS obtained indicated that taps were available at or near the time the property was developed, PLS concluded that the house was connected to that tap. It is extremely unlikely that the developer would have gone to the expense and effort to install a private well when municipal water was immediately available. PLS does not believe any further investigation of these properties is warranted because it is unlikely they were ever serviced by a private water well. **The MDEQ has agreed with this conclusion, and no further work is required.**

Category 2. These properties are ones where the available records confirm that municipal water has been provided to the property for more than 30 years, but are not sufficient to completely eliminate the possibility that a private well existed in the distant past. PLS does not believe any further action is warranted at such properties because it is unlikely that the agreed upon survey tools would yield any useful information. Residents are unlikely to have any useful information regarding wells that may have been present this long ago. It is equally unlikely that an inspection would be able to locate wells this old. Consequently, PLS does not intend to take further action regarding this category of properties. **The MDEQ disagrees with PLS' conclusion and has demanded that PLS survey these properties and, if a well cannot be located, provide the written notice to the owner described below.**

Category 3. This category includes properties for which the available information indicated the property may have been serviced by a private well in the last 30 years. For properties in this category, PLS received reliable information from the resident confirming that he/she was not aware of any existing wells on the property. In many instances, PLS personnel were also allowed to inspect the property to confirm the absence of wells. Consistent with the procedures approved by the MDEQ, no further action regarding these properties is required. **The MDEQ disagrees with PLS' conclusion and has demanded that PLS provide the owners with the written notice described below.**

Category 4. These properties were annexed within one year of the date the home on each property was built. As documented in previous submissions to the MDEQ, properties annexed into the City were legally required to connect to municipal water. PLS has added a field with annexation dates for many of these addresses to verify that they would have been subject to this legal requirement within one year of the construction date. No further action regarding properties in this category is required because it is unlikely that they were ever serviced by a private well. **The MDEQ has agreed with this conclusion, and no further work is required.**

Category 5. These properties were included within the City limits at the time the homes were built, and municipal water was available. Specifically, houses built within the City at or near the tap date are not considered to be probable locations for wells because they would have been subject to the same legal requirements discussed above, and it is unlikely that a builder would have gone to the expense of installing a well under such circumstances. No further action is required with regard to this category of properties because it does not appear that they would have ever been serviced by a private well. **The MDEQ has agreed with this conclusion, and no further work is required. However, the MDEQ has disputed that several of the properties PLS has included in this category actually belong in this category (see, e.g., 1706 Dexter).**

Category A. One well was located as a result of a survey response from the owner of 1521 Miller. PLS abandoned this out-of-service well despite its position that the PZ Order does not require it to do so. The well abandonment records have been provided to the MDEQ.

Category L. There are a small number of properties (<10) where wells were known to exist and where the parties are aware that the wells were kept open even after the properties were

connected to municipal water. The wells at several of these properties were initially sampled by PLS but are no longer as part of its groundwater monitoring program. Because there are no records confirming that these wells have been abandoned, PLS surveyed each of these properties and inspected them when allowed to do so. PLS confirmed the absence of wells at several of these properties through these procedures, and these properties are included in category 3, described above. There are, however, several properties where surveys were not returned or were returned by a resident who had only lived in the house a short time. PLS has agreed to send another letter to the properties in this category because a well was known to exist in the recent past, and the survey tool did not provide adequate information to confirm the absence of the well.

Therefore, as described above, PLS has completed the tasks required by this Court's orders and the MDEQ-approved Well ID Work Plan, with the exception of the handful of properties in Category L, to which PLS has agreed to send a follow up letter.<sup>5</sup>

5. Remaining MDEQ Demands

Plaintiffs continue to demand further investigation and/or notice with regard to both the previously identified properties and those non-subdivision properties located within the "white areas" on Exhibit 1 to Plaintiffs' Motion. Specifically, Plaintiffs are demanding that PLS undertake the following additional work:

- a. Work Required with Respect to Previously Investigated Properties
  - i. Survey (and inspect if possible) properties that have been connected to municipal water for more than 20 years (the Category 2 properties);
  - ii. Provide further written notice of existing groundwater use restrictions and a demand for information with respect to previously surveyed properties where the information received did not affirmatively rule out the possibility that an out-of-use well might still be present on the property (the Category 3 properties and any Category 2 properties if the subsequent surveys are similarly inconclusive);
  - iii. Complete other measures described in MDEQ's March 18, 2009 Letter.

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<sup>5</sup> In addition, PLS has been unable to document that each of the homes it surveyed received a copy of the PZ Order and the survey cover letter required by the MDEQ, which PLS agreed to provide. This information may not have been provided to homeowners who were surveyed in person, although the requirements of the PZ Order would have been discussed. Although PLS does not believe this oversight has compromised the protectiveness of the Prohibition Zone or the thoroughness of its Well ID investigation, PLS has agreed to resend these materials to the previously surveyed homeowners.

- b. Work Required with Respect to Non-Subdivision Properties
  - i. Produce a list of each of the “non-subdivision” properties located within the “white areas” identified in Plaintiffs’ Exhibit 1;
  - ii. Further investigate each of the “non-subdivision” properties so listed as if they were “vulnerable,” including sending a survey to each property that may have at one time been serviced by a private well;
  - iii. Provide a spreadsheet describing the results of PLS’ investigation of each of the non-subdivision properties;
  - iv. Provide further written notice of existing groundwater use restrictions and a demand for information with respect to previously surveyed properties where the information received did not affirmatively rule out the possibility that an out-of-use well might still be present on the property.
- c. Provide a Final Report, Including a Property by Property Summary of Investigation Results.

As set forth below, PLS asks this Court to confirm that PLS’ investigation to date has more than satisfied the requirements of the Unit E and PZ Orders.

## LEGAL ARGUMENT

### **I. This Court’s Orders Do Not Require PLS to Definitively Prove That No Out-of-Use Wells Exist in the PZ.**

The threshold issue is whether this Court ever intended to require PLS to do more than locate any drinking water wells still in use in the Prohibition Zone and connect those properties to municipal water. As noted above, PLS accomplished this step and eliminated any unacceptable exposures in 2005. Did this Court really intend to also require PLS to look for abandoned wells on properties that have undisputedly been drinking municipal water for more than 30 years? If this was not what the Court intended, Plaintiffs’ motion can be dismissed without further analysis.<sup>6</sup>

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<sup>6</sup> Plaintiffs suggest that PLS waived its right to argue the intent of this Court’s Orders because PLS did not “immediately” file a formal dispute resolution petition when the MDEQ demanded that PLS to do so. (*See* Plaintiffs’ Motion, p. 6). The Dispute Resolution procedures of the Consent Judgment have no application to

As set forth above, the Unit E Order does not require PLS to do anything more than pay to connect any properties within the PZ still using private drinking water wells to municipal water. (Unit E Order, p. 11). PLS has done that.

The Unit E Order instructed the parties to draft an order that would create the institutional control with the groundwater use restrictions described in the Unit E Order. Not surprisingly, the parties could not agree on the required order, and this Court was forced to resolve the disputes. Plaintiffs' counsel drafted the relevant paragraph of the PZ Order that was ultimately entered, which reads:

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

(PZ Order, p. 3)

Plaintiffs now assert that their use of “private wells” rather than “private drinking water wells” in the fifth and sixth lines of the paragraph was significant rather than stylistic and that “private wells” is intended to include non-drinking water wells. To the extent that was Plaintiffs' intent, PLS was not clever enough to decipher it when the language of the order was litigated. PLS interprets this paragraph as requiring PLS to do exactly what the Court ordered it to do in the Unit E Order – make sure no one living or working within the PZ is drinking the groundwater.

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disputes about the proper interpretation of this Court's orders. Moreover, this Court is certainly free to clarify for the parties what it wanted the parties to do. The reality is that PLS made every attempt to comply with the MDEQ's demands even though PLS did not agree with them because PLS did not want to involve this Court in what should be a straight-forward record review process. When the MDEQ's increasingly unreasonable demands finally forced PLS to throw up its hands in frustration, this Court required Plaintiffs, not PLS, to petition this Court for relief. (*See* this Court's April 6, 2009 Scheduling Order).

The MDEQ offers no convincing substantive argument why the PZ Order should be interpreted to require PLS to undertake a search for abandoned drinking water wells and irrigation wells.<sup>7</sup> The only substantive argument the MDEQ offers as justification for this “needle-in-the-haystack” investigation is that old private wells could have theoretically been retained and cross-connected with the municipal water or used to supply water for non-potable uses such as irrigation. Neither of these scenarios presents any realistic unacceptable exposures or supports the MDEQ’s repeated requests for this level of investigation. Cross-connections are and always have been illegal within the City of Ann Arbor for reasons independent of the PZ Order. It is extremely unlikely that the City of Ann Arbor would have countenanced such connections when properties were connected to City water because they can negatively affect the municipal water system.<sup>8</sup> Moreover, because such connections have always been illegal, it is not clear how PLS could ever ferret out these connections – if any exist – short of inspecting the plumbing of each home in Ann Arbor. Although the potential use of old wells for irrigation is possible, PLS’ already extensive search of properties that may have had a private well within the last 20 years has only revealed three such wells (and only one on a residential property). Even if additional irrigation wells exist, they do not lead to unacceptable exposures for the very reason that they are not used to supply potable water. The highest contaminant concentrations that might migrate through the Prohibition Zone (~ 3000 ppb) are orders of magnitude below the level that might present a direct contact hazard – levels above 1,700,000 ppb.

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<sup>7</sup> As noted in PLS’ November 14, 2005 Response (page 2) to the MDEQ’s August 12, 2005 conditional approval letter, any well that is not currently in use is considered legally “abandoned.” *See Admin R. 325.1601(1) (Definition of Abandoned Well).*

<sup>8</sup> Even without a cross connection, such “secondary” water supplies themselves have almost always been illegal. During the short period of time it was legal for a homeowner already connected to municipal water to also have a private well, the owner was required to provide written notice of the well to City Utilities Department. (Well ID Report, p. 8). The City Utilities Department has confirmed that it does not have any record of receiving any such notifications.



## **II. Plaintiffs' Remaining Demands for Further Investigation and Notice Should be Rejected.**

Even if this Court intended to require PLS to attempt to locate non-drinking water wells and out-of-use wells, PLS has already taken every reasonable step to do so. Plaintiffs' never-ending demands for still more work should be rejected.

### **1. PLS Should Not Be Required To Survey Properties That Have Been Connected To Municipal Water For More Than 20 Years.**

The MDEQ has demanded that PLS survey the owners of any properties where it is possible a well existed, no matter how long ago the property was connected to municipal water. (Category 2 properties). As stated above, PLS has concluded that surveying owners of such properties is unlikely to yield any useful information. The current owners are unlikely to have any useful information regarding wells that may have been present this long ago.<sup>9</sup> It is equally unlikely that an inspection would be able to locate wells this old. For example, the home at 1500 Dexter was built in 1901; City water has been available to this property since 1915; and the property was annexed into the City in 1964. As a result, the owner would have been obligated to connect to City water – if the property was not already connected – in 1964. Nevertheless, the MDEQ has demanded that PLS survey this property owner to learn what they might know about a well that was installed 108 years ago, that was replaced at least 45 years ago. Not only is such an effort burdensome on (and potentially alarming to) the homeowner, but past history demonstrates that the MDEQ will not be satisfied that the information received

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<sup>9</sup> It should be noted that surveys done in the agreed vulnerable neighborhoods (those west of Wagner Road) have generally supported PLS' conclusions. Most owners are "new" to those properties even though the properties may have had wells within the last 20 years and are unaware of the existence or location of the old wells. In only two or three cases, the owners could point out such locations. East of Maple, where the MDEQ insists more such surveys be done, the shift to municipal water happened 40 years ago, and it is even less likely that surveys will be useful.

is sufficient to rule out the possibility that a well might exist, buried somewhere on the property.<sup>10</sup>

2. PLS Should Not Be Required To Provide Burdensome Written Notice to Property Owners Regarding Already Well-Known Restrictions on Groundwater Use.

The MDEQ has demanded that PLS “provide notification to specific property owners within the Prohibition Zone where wells were known to exist, but cannot be found and plugged, or where the absence of wells cannot be verified.” This would include Category 3 properties that PLS has already surveyed (those connected in the last 20 years) where it is not possible to either locate the well or definitively prove that no well ever existed. It would also likely include all of the Category 2 properties, assuming the futile exercise of surveying these properties fails to provide definitive information regarding the existence or absence of a hypothetical well.

MDEQ would, among other things, require PLS to inform the property owner that: 1) it is illegal to use the groundwater; 2) an out-of-use well could be present on his/her property; 3) the property owner “must” provide any information about the existence of wells to PLS or the MDEQ; and 4) the property owner is obligated to disclose the restrictions on groundwater use to prospective purchasers of the property pursuant to MCL 324.20116(3). PLS has refused to provide this additional notice because it is unnecessary and unreasonably burdensome for the property owners.

The proposed additional notification that it is illegal to use the groundwater is utterly redundant. The Prohibition Zone and the PZ Order have already been publicized in the local newspaper, both in the legal notice section and in numerous front page articles. These orders

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<sup>10</sup> The MDEQ acknowledges that wells taken out of use in the past were often cut off several feet below ground.

and the groundwater restrictions are also published and available for public inspection at the City and on numerous government websites, including the Map Washtenaw website, where the Prohibition Zone appears as a default layer on the opening page. Moreover, previously existing ordinances have made it illegal to use a well within the City limits in general for decades. PLS has also already explained the groundwater use restrictions, the well identification process, and PLS' obligation to connect residents to municipal water to the residents that it surveyed (properties where it is reasonably possible that a well was in use in the last 20 years). Thus, the notice MDEQ is now demanding adds no further protection.

It would also be inappropriate for PLS to provide residents with legal advice regarding their obligations under Part 201, particularly when PLS does not agree with the MDEQ's interpretation of Part 201. Only an agency committed to unnecessarily burdening innocent homeowners would interpret MCL 324.20116(3) as requiring a homeowner to inform a prospective buyer about the groundwater use restriction imposed by the PZ Order when the same restriction already exists for reasons completely independent of the contamination issue. It is already illegal to install a well in the City – that is why the PZ Order made sense in the first place.

Finally, PLS is not aware of any legal authority that would authorize it (or the MDEQ for that matter) to require homeowners to “provide information about the existence of wells to PLS or the DEQ.”

### 3. No Further Investigation of the “White Areas” Is Necessary

As noted above, the MDEQ completely misinterprets the significance of the fact that the vast majority of the development of the City was done on a subdivision-by-subdivision basis. This observation has provided a convenient and easily grasped justification for concluding that

there was no need to further investigate entire sections of the Prohibition Zone. No one disputes that. However, the MDEQ has erroneously concluded that a property is “vulnerable” simply because it was developed outside of a subdivision. This is simply not true. So long as it was located within the City limits and municipal water was available, the same legal requirements applied to non-subdivision properties as applied to properties located within subdivisions.

PLS’ initial review of the development of the City boundaries and its water system eliminated the possibility that many of the white areas utilized a private well. For instance, properties within the area served by the original water system were required to connect to it, and wells in this area were rare to begin with. (Well ID Report, pp. 4-8). PLS previously informed the MDEQ that it would not be further investigating properties located in the area serviced by the early water system. Other non-subdivision properties were not considered further for other equally obvious reasons (e.g., many of the white areas are park properties and schools supplied with municipal water).

Nevertheless, in the spreadsheet attached as Attachment B, PLS has listed each of the properties located within the white areas identified in Plaintiffs’ Motion. PLS has reviewed these properties again and, as set forth in the narrative included in Attachment B, it is extremely unlikely any of these properties was serviced by a well in the recent past, if at all.

#### 4. No Final Report Is Necessary

While PLS appreciates MDEQ’s desire to have everything wrapped up in one package, it was the MDEQ’s request that this project be completed in phases. The process was also necessarily an iterative one that has been documented appropriately as each task has been completed. PLS will discuss with the MDEQ the most appropriate method of compiling the

previously submitted documentation so that it is in one location that can be conveniently referenced. PLS, however, disagrees with the MDEQ's suggestion that this compilation is some kind of "living document." It was important to identify properties where unacceptable exposures might occur, and PLS has committed tremendous resources to make sure any such properties were thoroughly investigated to eliminate this possibility. Although the results of this process must be documented – as they have been – there is little need for either the MDEQ or local units of government to revisit this effort in the future on a property-by-property basis. Going forward, the protections established by the Court are self-enforcing and effective in preventing unacceptable exposures to the groundwater.

## CONCLUSION

PLS remains committed to fulfilling the Court's mandate of insuring that there are no private water wells still in use within the Prohibition Zone and thus no unacceptable exposures to the groundwater. Indeed PLS has gone well beyond that mandate and thoroughly investigated any properties where there may have been a private well at anytime in the past, even though these properties were connected to municipal water decades ago. PLS is confident that the efforts of both PLS and the MDEQ will insure that the institutional control established by the Court is protective of the public health. PLS, therefore, asks this Court to deny Plaintiffs' motion in its entirety.

Respectfully submitted,

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Dated: August 28, 2009

Address	Parcel ID	Date Built	PLS Comments
Arbana Dr 100	09-09-30-135-036	not avail	Salvation Army
Arbana Dr 105	09-09-30-127-018	1956	
Broadway 841	09-09-20-403-023	Comm - 1961, 1964, 1964	
Brookridge Rd 230	09-09-20-405-039	1998	
Charlton Ave 2040	09-09-30-204-013	1966	Apartments
Charlton Ave 2041	09-09-30-204-015	1966	Apartments
Dexter	I-09-30-250-007	vacant	vacant land
Dexter 2210	09-09-30-227-004	Com -1980	Apartments
Dexter 2230	09-09-30-227-002	Com Res - 9 @ 1965	Apartments
Edmund Pl 1	09-09-30-127-012	1901	
Fuller St	09-09-20-400-001	vacant	City Park
Huron View Blvd 423	09-09-20-202-002	1955	
Huron View Blvd 433	09-09-20-202-003	1954	
Huron View Blvd 501	09-09-20-202-004	1952	
I-94 vacant	H-08-25-150-001	vacant	
Jackson 1939	09-09-30-204-016	Comm- 1969	Hillside Terrace Apartments
Jackson 1943	09-09-30-204-020	1920	
Jackson 2150	09-09-30-216-001	park	Veterans Park
Jackson 2500	09-08-25-102-004	Com - 1986	gas station
Jackson 2570	09-08-25-102-013	Com - 2001	Maple Village Shopping Center
Jackson 2625	09-08-25-103-010	Com - 1960, 1960	gas station
Jackson 2630	09-08-25-102-011	Com -1980, 1980	bank
Jackson 2728	09-08-25-101-004	Com 1986, 1986	shopping center
Jackson 2800	09-08-25-101-003	Com 1967	
Jackson 2890	09-08-25-101-002	Com 1964	service garage
Jackson 2900	09-08-25-100-003	Com 1962 & 3 @ 1999	hotel
Lake Shore Dr	09-09-20-401-006	vacant	City Park
Lake Shore Dr 1331	09-09-20-101-009	vacant	City Park
Lake Shore Dr 1352	09-09-20-101-008	vacant	City Park
Maple N 155	09-08-25-102-010	Com - 1977	Maple Village Shopping Center
Maple N 175	09-08-25-102-014	Com - 1970	Maple Village Shopping Center
Maple N 195	09-08-25-102-009	Com - 1966 & ?	Maple Village Shopping Center
Maple N 405	09-08-25-102-019	Com - 2007	pet lodge

Address	Parcel ID	Date Built	PLS Comments
Maple N 415	09-08-25-102-018	Com - 1999 & 8 @ 2001	storage units
Maple S 300	09-08-25-103-006	Com - 1979	restaurant
Mark Hannah Pl	09-09-30-135-034	vacant	City Park
Miller	09-09-19-415-023	vacant	City Park
Miller 1120	09-09-19-410-025	1900	
Miller 1128	09-09-19-410-024	1901 & ?	
Miller 1146	09-09-19-410-023	1952	
Miller 1509	09-09-19-414-044	n/a	vacant lot
Miller 1685	09-09-19-415-036	1970	
Miller 920	09-09-20-308-052	not avail	Ann Arbor Public School
N Main	09-09-20-101-901		
N Main	09-09-20-100-004	vacant	
N Main 1250	09-09-20-101-004	Off 1940	
N Main 1251	09-09-20-100-005	1925-Res 1999-Ind	
N Main 1254	09-09-20-101-003	Comm- 1937, 1937	
N Main 1307	09-09-20-100-003	vacant	City Park
N Main 1311	09-09-20-100-006	1940	
N Main 1313	09-09-20-100-028	1930	
N Main 1315	09-09-20-100-009	1940	
N Main 1319	09-09-20-100-010	1940	
N Main 1321	09-09-20-100-011	vacant	
N Main 1325	09-09-20-100-012	vacant	
N Main 1329	09-09-20-100-013	2003	
N Main 1340	09-09-20-101-010	Comm- 1950, 1950, 1999	
N Main 1350	09-09-20-101-019	Comm- 1950, 1950, 1950, 1953	
N Main 912	09-09-20-403-025	1945	
Newport Pl 737	09-09-19-414-046	not avail	garage
Newport Rd 900	09-09-19-405-078	vacant	vacant land
Newport Rd 943	09-09-19-404-021	1947	
Newport Rd 980	09-09-19-405-076	vacant	
Newport Rd 1025	09-09-19-404-023	1956	
Newport Rd 1035	09-09-19-404-024	1956	
Newport Rd 1056	09-09-19-405-008	1941	
Newport Rd 1057	09-09-19-404-025	1948	
Newport Rd 1065	09-09-19-404-026	1956	
Newport Rd 1075	09-09-19-404-027	1956	
Newport Rd 1080	09-09-19-405-007	vacant	
Newport Rd 1125	09-09-19-404-028	1952	
Newport Rd 1135	09-09-19-404-029	1952	
Newport Rd 1144	09-09-19-405-006	1947	
Newport Rd 1145	09-09-19-404-030	1954	
Ninth St 110	09-09-30-101-002	1884	
Ninth St 114	09-09-30-101-001	1895	



Address	Parcel ID	Date Built	PLS Comments
Orkney Dr 1202	09-09-20-202-040	1940	
Orkney Dr 1204	09-09-20-202-049	1988	
Orkney Dr 1206	09-09-20-202-048	1940	
Orkney Dr 1300	09-09-20-202-046	vacant	
Orkney Dr 1310	09-09-20-202-045	1982	
Orkney Dr 1320	09-09-20-202-044	1984	
Park Lake Ave vacant	09-08-25-200-011	vacant	Dolph Park
Pine Tree Dr 1000	09-09-19-404-008	1954	
Sunset Rd	09-09-20-404-002	vacant	
Sunset Rd 211	09-09-20-405-018	vacant	
Sunset Rd 217	09-09-20-405-017	1950	
Sunset Rd 223	09-09-20-405-036	1901	
Sunset Rd 410	09-09-20-320-003	1953	
Sunset Rd 428	09-09-20-320-002	1901	
Sunset Rd 446	09-09-20-320-001	1920	
Sunset Rd 450	09-09-20-202-041	1901	
Sunset Rd 502	09-09-20-204-015	1937	
Sunset Rd 516	09-09-20-204-014	1901	
Sunset Rd 528	09-09-20-204-013	1926	
W Huron	09-09-30-127-900	no info	
W Huron 1014	09-09-30-135-032	1947	
W Huron 1020	09-09-30-135-031	Res-1859, Comm 1999	
W Huron 1100	09-09-30-135-030	Comm-1960	
W Huron 1103	09-09-30-101-003	1874	
W Huron 1111	09-09-30-101-004	1892	
W Huron 1117	09-09-30-101-005	Comm- 1967	
W Huron 1120	09-09-30-135-035	Comm-1960	
W Huron 1123	09-09-30-101-006	1924	
W Huron 1127	09-09-30-101-007	1924	
W Huron 1203	09-09-30-101-008	1875	
W Huron 1210	09-09-30-127-017	1901	
W Huron 1214	09-09-30-127-016	1901	
W Huron 1218	09-09-30-127-015	1901	
W Huron 1300	09-09-30-127-014	1984	
W Huron 1310	09-09-30-127-033	1988	
W Huron 1316	09-09-30-127-043	1966	
W Huron 1320	09-09-30-127-042	1922	
W Huron 1404	09-09-30-127-011	1920	
W Huron 1418	09-09-30-127-009	1910	
W Huron 1422	09-09-30-127-008	1910	

Address	Parcel ID	Date Built	PLS Comments
W Stadium 2449	09-08-25-103-011	Com 1961, 1961, 1961	Westgate Shopping Center
W Stadium 2475	09-08-25-103-012	Com - 1959	bank
W Washington St 1017	09-09-30-102-021	not avail	Ann Arbor Public School
W Washington St 1102	09-09-30-101-022	1920	
W Washington St 1104	09-09-30-101-021	1912	
W Washington St 1106	09-09-30-101-020	1910	
W Washington St 1116	09-09-30-101-019	1918	
W Washington St 1120	09-09-30-101-018	1922	
W Washington St 1124	09-09-30-101-017	1922	
W Washington St 1128	09-09-30-101-016	1914	
W Washington St 1130	09-09-30-101-015	1919	
Wildt St 923	09-09-20-405-019	1953	

## ATTACHMENT B

### ANALYSIS OF NON-SUBDIVISION PROPERTIES

1) 100 Arbana: This is the Salvation Army food bank. It is in the City of Ann Arbor and is a large commercial building. As shown in the 1955 distribution map attached to the Well ID Report (Exhibit 3), there is a water line that runs right up Arbana in front of this property. The property is shown as vacant and undeveloped on the 1955 Ann Arbor assessor map attached to the Well ID Report, so the Salvation Army building was built after that, while in the City limits and with City water available. Therefore, the property would have been required to connect to City water when it was developed.

2) 105 Arbana: This parcel was shown on the 1955 Ann Arbor Assessor map as park. It was in the City limits going back at least to 1941 according to the 1941 water distribution map. Likewise, Arbana has had City water on that frontage going back to at least 1941. The tax records indicate the house was built in 1956, which would mean that it was built well after the parcel was in the City limits and after a water main was put into Arbana. Therefore, the property would have been required to connect to City water when it was developed.

3) 841 Broadway: This parcel is a well known industrial property built near the Broadway bridge over the Huron River. It is owned by MichCon and is a power station. This property was not considered “vulnerable” during PLS’ initial review (summarized in the Well ID Report) because this property has been in the City limits since before 1897 and is shown on the original water distribution maps as being serviced by City water.

4) 230 Brookridge: This is a relatively new street built near Main Street and containing a mutlireidential development built in 1998. The real estate itself, although long undeveloped, has been in the City for nearly 200 years. Therefore, the property would have been required to connect to City water when it was developed.

5) 2040-2041 Charleton: The two apartment buildings were built on this property in 1968. The property has been in the City since at least 1955. There is also, a water main running along Charleton on the 1955 distribution map attached to the Well ID Report. Therefore, the property would have been required to connect to City water when it was developed.

6) Dexter Addresses: PLS previously investigated these non-subdivision properties. As indicated on the spreadsheet, one of these lots is vacant. The other two properties that were not initially identified as potentially vulnerable (and investigated) were developed in 1965 and 1980 respectively as multiple dwelling apartment buildings long after municipal water was available. It is extremely unlikely that the developer would have gone to the expense of installing and permitting a private community water well when municipal water was available. Even if one or both of these properties was initially serviced by a community well prior to connection to City water, such wells are

heavily regulated and it is unlikely in the extreme that it could have been improperly abandoned.

7) 1 Edmund Place: This is a glorified driveway that goes north off of Huron Street a few houses east of the intersection of Revena and Huron Streets. This property was not considered vulnerable for several reasons. First, the area was within the City limits going back to 1912 (although the street is not shown on the early maps). Since it is right off of Huron Street, it would have been serviced by City water since the early interations of the City's distribution system, and in any event was well within the boundary that generally did not warrant further investigation as explained in the original Well ID Report. Second, after looking at this more closely, it does not appear that Edmund Place was even a "real" street until after 1955, since it is not identified on early maps of the City. It was never identified as a township island. Therefore, the property would have been required to connect to City water when it was developed.

8) Huron View: Huron View is located just south of what is now M-14, north of Sunset. The 1955 assessor's map shows this area (but not the road) as inside the City limits (apparently undeveloped). Notwithstanding the purported dates of construction, the proximity to M-14 and the 1955 map suggest that the houses were likely built later than 1955, and in any event, appear to have been built inside the existing City limits when built with City water available. Therefore, the property would have been required to connect to City water when it was developed.

9) Jackson Avenue (west of Maple): These are all relatively recently developed commercial parcels where City water was available. It is extremely unlikely that a developer would have gone to the expense of installing a private well with City water available.

10) Lake Shore Dr. These parcels are a City park.

11) Maple Road addresses: These parcels comprise the Maple Village Shopping Center and nearby commercial parcels, which were developed in the 1970's or more recently. City water was available in this area as early as 1951 (*See*, Well ID Report, Exh. 3, p. 7). As noted in the Well ID Report, private wells in this area would not have been built. *Id.* It is also extremely unlikely that a developer would have gone to the expense of installing a private well with City water available even if allowed to do so.

12) Mark Hannah/Miller: These parcels comprise a City park.

13) 1120-1146 Miller: It is not clear without investigating further when these properties were built. PLS will inquire with the City to determine this date and, if appropriate, take further steps consistent with its Well ID Work Plan.

14) North Main Street (all): This area was considered as part of the initial Well ID Report. In particular, the town boundaries, water distribution maps, and City ordinances would have required all buildings in this area to be hooked up to City water,

probably by 1912, when water mains appeared to extend over the whole of North Main as it existed at that time (to Whitmore Lake Road bridge). (*See*, Well ID Report, p. 5, for general narrative). Maps attached to the report that show this are the 1941 distribution map, and the 1912 distribution map. The Well ID Report also includes text references to the extent of the distribution system, which are cited in the footnotes and on the Reference pages. Since North Main was within the City limits going back at least to 1912, it seems that these textual references that stated all properties within City limits by particular dates (which would have included the buildings on Main) had municipal water.

Legally, also, as noted in the Well ID Report, a certificate of occupancy was required for all new or existing buildings commencing in 1930, and in 1945 an ordinance specifically required as a condition for such occupancy that the building be supplied with municipal water. Looking at the dates of the buildings on North Main, it is likely all had City water (going back to 1912), and all should have had municipal water by 1930 (it was affirmatively required by 1945).

15) Newport Road: PLS analyzed all of the occupied Newport addresses separately, because they are not in subdivisions that were incorporated into the City at the time the houses appeared to have been built. Areas like this should be “white” on Sybil’s map for this reason. It does not mean they were not considered. PLS’ September 15, 2006 response reviewed this area extensively (Exhibit 7, pp. 3-4.) None of these properties was considered “vulnerable”.

16) Ninth Street: The two addresses on Ninth Street (110 and 104) were initially constructed in the 19<sup>th</sup> century. This section of Ninth Street (between Huron and Washington) was in the borders of Ann Arbor (it was part of the westernmost boundary) in 1912, according to the map we provided with the initial Well ID Report (Exhibit 3). Accordingly, for the reasons discussed in that report, PLS did not do a parcel by parcel review. Although these parcels do not appear to be within a subdivision, there is no reason to consider any of the properties that were historically within the City boundaries of this vintage as vulnerable whether they were in a subdivision or not.

17) Orkney Orkney Street: This street appears to have been constructed in approximately 1942. As can be seen from the map attached to the Well ID Report for the 1941 water distribution system (before Orkney Street was built), the area north of Sunset and east of Fountain where Orkney now exists was already inside the City limits (although undeveloped). Since it was inside the City limits before any houses were constructed, the law would have required provision of public water supplies by the time the streets were laid out and the houses built. Therefore, Orkney was not considered separately.

18) Sunset Road: Sunset road from its origins near downtown to Brooks Street to the west was part of Ann Arbor since 1912 or earlier. As noted above and in the Well ID Report, there is no reason to consider these properties separately.

19) West Huron: The addresses that are part of the DEQ's "white areas" start from the Huron / Dexter Road split and go east toward downtown. All of these addresses were in the City limits (which extended down Huron) and were provided with City water when the system was initially set up (*See* 1912 water distribution map attached to Well ID Report). As described in the Well ID Report, there is no reason to consider these parcels separately.

20) West Stadium: These commercial properties (the Westgate Shopping Center and a bank) were developed in the 1960's when City water was available. As discussed above, there is no reason to believe that these properties would have been serviced by a well prior to connection to City water.

21) West Washington Street: The properties on West Washington Street were investigated and the results summarized in PLS' initial Well ID Report. (*See* Well ID Report, pp. 4-11).

22) 923 Wildt Street: This street is located near Sunset and N. Main. As a result, it would have been part of Ann Arbor since 1912 or earlier. As noted above and in the Well ID Report, there is no reason to consider these properties separately.