

MEMORANDUM OF AGREEMENT

BETWEEN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 5

AND

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

FOR THE

0153/ RIVERSIDE GROUND WATER CONTAMINATION SITE, INDIANAPOLIS, INDIANA

I. PURPOSE

This Memorandum of Agreement (MOA) specifies the plans and expectations of the Indiana Department of Environmental Management (IDEM) and the United States Environmental Protection Agency (EPA) at the Riverside Ground Water Contamination Superfund Site (Site) in order to ensure that the response actions undertaken at the Site are substantially similar to actions that would otherwise be taken under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan (NCP). Once the Site remedial action is successfully completed, it is expected that EPA will have no further interest in considering the Site for final listing on the National Priorities List (NPL) and that the Site will be de-proposed from the NPL.

II. BACKGROUND

The Site is located in Indianapolis, Marion County, Indiana. On February 20, 2013, IDEM staff received notice from Citizens Energy Group (Citizens) that elevated levels of vinyl chloride (VC) and cis-1,2-dichloroethene (cis-1,2-DCE) were being detected in the groundwater prior to treatment ("raw water") at the Riverside Municipal Wellfield. Citizens was concerned that the increasing levels of VC in Well RS29 were approaching the Maximum Contaminant Level (MCL) for VC, which might adversely impact the use of that well to supply drinking water to residents in Indianapolis. Riverside and White River Wellfields supply drinking water to over 17,000 people in Indianapolis.

On May 20 and 21, 2014, IDEM staff conducted a groundwater Site Inspection at the Riverside and White River Wellfields. A total of 25 water samples, taken prior to entry into the treatment facility, were obtained. The samples consisted of 19 groundwater samples, four (4) duplicate samples, and two (2) trip blanks. The ground water samples were collected from 19 municipal wells located in the Riverside and White River Wellfields. All samples were analyzed for volatile organic compounds (VOCs) only. Vinyl chloride, cis-1,2-DCE, trichloroethylene (TCE),

and 1,1,1 trichloroethane were the primary VOCs detected. Although VOCs were detected in some of the municipal wells, none of the concentrations of VOCs exceeded any MCL set by EPA in raw water. All raw water is treated and tested by Citizens prior to distribution and no VOCs have been detected in water leaving the utility (finished water) which is the water sent to customers.

Using the data collected during the Site Inspection, a Hazard Ranking System (HRS) documentation record was submitted to EPA determining that the Site qualified for the NPL. The HRS documentation identified approximately 89 potential sources of VOC contamination to the Riverside and White River Wellfields' five-year time of travel of groundwater. More than fifteen (15) sites are already in one of IDEM's remediation programs, and have either addressed the potential sources at their site or are on track to do so. As described more fully in Section IV B. below, a number of individual sources may be contributing to a commingled volatile organic compound (VOC) groundwater plume, and an undetermined number of individual Potentially Responsible Parties (PRPs) would be held responsible for conducting site investigations and remediation of their sites. For an illustration of the potential Site area, *see Attachment B*.

On August 13, 2015, IDEM's former Commissioner, Thomas Easterly, requested inclusion of the Site on the NPL. In April 2016, EPA proposed to add the Site to the NPL in the Federal Register. IDEM has since determined that it would be in the best interests of the State and City, and responsive to the majority of the public's requests, to address the Site in IDEM's State Cleanup program. IDEM officials, along with members of the City of Indianapolis Mayor's office, and Citizens requested, in letters written in May 2016 and also at a meeting in July 2016, that EPA allow IDEM to manage the investigation and remedial actions at the Site (*Attachment B*). The August 18, 2016 letter from former Commissioner Carol Comier formally withdrew support for including the Site on the NPL.

In October 2016, EPA Region 5 began discussions outlining certain criteria that IDEM would need to satisfy in order for EPA to consider allowing IDEM to manage the Site in lieu of EPA. After taking into consideration community feedback, IDEM has renamed the Site as "Site 0153" and all future documentation from IDEM will reflect the name change. Based on IDEM's strategy plan and commitments made in this agreement meeting the deferral criteria, EPA is allowing IDEM to ensure necessary investigations and response actions are completed at the Site. Once the required response actions at the Site are successfully completed, it is expected that EPA will have no further interest in considering the Site for listing, unless there is a release or potential for release that poses an imminent threat to human health or the environment. In addition, when response actions are completed, the Site may be archived in the Superfund Enterprise Management System (SEMS).

III. IMPLEMENTATION

A. **State Program-** IDEM is authorized under state law to implement a hazardous substances remediation program which should ensure that response actions at the Site are carried out and that these actions are protective of human health and the environment. Furthermore, IDEM has sufficient capabilities, resources, expertise and authorities to ensure that a remediation is

completed to the protective levels required under CERCLA and will coordinate with EPA, other interested agencies, and the public on different phases of implementation.

B. Site Eligibility- The State of Indiana has expressed interest in having the Site listing deferred and in IDEM overseeing the response at the Site under state law. IDEM agrees to pursue response actions at the Site in a timely manner. EPA and IDEM agree that a deferral should address the Site sooner than, and at least as quickly as EPA would expect to respond. The Site is included in the SEMS inventory and has been assessed and scored for listing on the NPL. The State will not request, nor utilize, Superfund trust fund money to implement any portion of the actions required by this Agreement.

C. Community Acceptance- During the public comment period for the proposed NPL listing (published in the Federal Register April 7, 2016, with the public comment period ending on September 5th, 2016), community groups held public meetings to discuss the proposed listing. IDEM and EPA provided outreach to the affected community in at least three (3) public meetings held in April and July of 2016. IDEM and EPA explained to the community the differences between a response action under state law pursuant to the terms of a proposed Deferral Agreement and a response conducted under the NCP and requested feedback from the community. IDEM informed EPA of its outreach efforts and conveyed the general results of the feedback and viewpoints of the community. Comments provided as part of the public comment period showed that community members mostly supported EPA deferral of the Site, but they also requested more involvement in the process. EPA participated in a public meeting with IDEM held on March 25, 2017 to inform the public of the deferral process and to explain IDEM's strategy to address the Site. The response from the community was mixed, with some preferring to list the Site on the NPL while the majority were in favor of EPA deferring the Site to IDEM oversight. The community requests will be addressed as part of the Community Involvement Plan required by IDEM's Site Investigation Strategy (**Attachment C**).

EPA is aware that the Riverside Civic League sent IDEM a list of requests entitled "Requests of the Local Plan Principle" in a letter dated August 23, 2016 (Letter) and that IDEM responded to the requests made in the Letter (Response). IDEM will complete a Community Involvement Plan, as described in **V. Community Participation** of this MOA. Target completion date of the Community Involvement Plan is Fall 2017 (*see IV. Procedural Requirements B. Schedule for Performance*). The Riverside Civic League Letter and IDEM Response will become part of the Community Involvement Plan.

D. Cleanup Levels- IDEM will pursue CERCLA-protective cleanups¹ of the Site that will be substantially similar to a CERCLA response. The response action will be protective of human health and the environment, as generally defined for individual human exposure, by remediating to an acceptable risk level for carcinogens between 10^{-4} and 10^{-6} and for non-carcinogens a Hazard Index of 1 or less; and no significant adverse impacts to ecological receptors. IDEM has proposed using a 10^{-5} risk level as a screening level for determining the need for further remedial investigation and risk assessment, which is within EPA's acceptable risk level range for

¹ The term CERCLA-protective cleanup is defined in OSWER Directive 9375 - 6-11, *Guidance on Deferral of NPL Listing Determinations While States Oversee Response Actions* (May 3, 1995)

carcinogens. The response actions will also address sources of contamination to the extent feasible. IDEM will give preference to solutions that will be reliable over the long term. In addition, IDEM will ensure that any remedy selected at the Site will comply with all applicable or relevant and appropriate² federal requirements and any more stringent applicable or relevant and appropriate State requirements to the maximum extent practicable under IDEM's State authorities. Soils, sediments, subsurface intrusion, surface and groundwater will be investigated and assessed as part of the comprehensive risk assessment that will be conducted at the Site. The comprehensive risk assessment will include the consideration of potential exposure pathways to residents and sensitive populations that might exist in and around the Riverside neighborhood. EPA anticipates that the CERCLA- protective remedy includes the recognition that ground waters of the United States are valued natural resources, and that response actions will ensure the remedies are protective and will not present a threat to the Riverside and White River Wellfields.

E. **Natural Resources Trustees**- IDEM will promptly notify the appropriate State and Federal trustees for natural resources of discharges and releases at the Site that are injuring or that may injure natural resources, and include the trustees, as appropriate, in activities at the Site. The State shall, consistent with CERCLA and the NCP, seek to coordinate necessary assessments, evaluations, investigations, and planning with State, Affected Tribal and Federal Trustees.

IV. **PROCEDURAL REQUIREMENTS**

A. **Roles and Responsibilities**- IDEM has primary responsibility, with minimal EPA involvement, to provide for a timely CERCLA-protective cleanup under state authority and to support the public's right of participation in the decision-making process. EPA's role will generally be limited to review of IDEM semi-annual and annual reports and consultation on the proposed remedy. However, EPA may request reports, data, or other documentation related to the remedial activities at the Site, as it deems appropriate, or arrange for IDEM to provide certain draft documents for EPA review as they are prepared. EPA will not provide financial assistance for site activities to the State, affected Tribes or the community during a deferral.

In the event that community members or affected Tribal governments request that EPA reconsider deferral of the Site or request EPA's intervention in response actions, the EPA agrees to meet with IDEM to discuss the community concerns and to review the response actions in light of this MOA and the EPA's Deferral Guidance, and make a decision regarding whether terminating the deferral is warranted.

The following are the contacts for the agencies (any changes may be made by notice):

² The phrase "applicable or relevant and appropriate requirements" shall be defined by reference to Section 121 of CERCLA, 42 U.S.C. § 9621, the National Contingency Plan (see 40 C.F.R. § 300.5 definitions of applicable requirements" and "relevant and appropriate requirements"), and applicable EPA Guidance.

<p style="text-align: center;"><u>IDEM Management</u></p> <p>Peggy Dorsey, Assistant Commissioner Ind. Dept. of Environmental Management Office of Land Quality IGCN 11th Floor 100 N. Senate Ave. Indianapolis, IN 46204 317-234-0337 pdorsey@idem.in.gov</p>	<p style="text-align: center;"><u>EPA Management</u></p> <p>Margaret M. Guerriero, Acting Director US Environmental Protection Agency Superfund Division SI-6J 77 W. Jackson Blvd. Chicago, IL 60604 312-886-0399 guerriero.margaret@epa.gov</p>
<p style="text-align: center;"><u>IDEM Project Manager</u></p> <p>Ryan Groves Ind. Dept. of Environmental Management Office of Land Quality IGCN 11th Floor 100 N. Senate Ave. Indianapolis, IN 46204 317-232-3413 rgroves@idem.in.gov</p>	<p style="text-align: center;"><u>EPA Technical</u></p> <p>Katherine Thomas US Environmental Protection Agency Superfund Division SR-6J 77 W. Jackson Blvd. Chicago, IL 60604 312-353-5878 thomas.katherine@epa.gov</p>
<p style="text-align: center;"><u>IDEM Legal</u></p> <p>Tim Junk Ind. Dept. of Environmental Management Office of Legal Counsel IGCN 13th Floor 100 N. Senate Ave. Indianapolis, IN 46204 317-2349581 tjunk@idem.in.gov</p>	<p style="text-align: center;"><u>EPA Legal</u></p> <p>Nola Hicks US Environmental Protection Agency Office of Regional Counsel C-14J 77 W. Jackson Blvd. Chicago, IL 60604 312-886-7949 hicks.nola@epa.gov</p>

B. **Schedule for Performance**- Due to the nature of the Site, including 1) the number of individual sources that may be contributing to a commingled plume; 2) that individual Potentially Responsible Parties (PRPs) will be conducting the site investigations and remediation; and 3) that some PRPs are already managed within a remediation program at IDEM, the parties agree that a Schedule for Performance regarding the Site as a whole will necessarily be broad and speculative. A tentative proposed schedule of events for the Site cleanup is set forth in the following table. The Target Completion timelines in the table are subject to change. EPA shall be notified of a change in a Target Completion as soon as IDEM becomes aware that such a change is necessary or unavoidable.

Task	Target Completion
Complete Community Involvement Plan	Fall of 2017
Begin Phase I Remedial Investigation	Within 3 months of issuance of Notice Letters
Prepare Removal Work Plan as necessary	If any imminent threat is discovered, removal will be expedited.
Complete additional Remedial Investigation as necessary	Following submittal of Remedial Investigation Report and IDEM request for additional RI
Complete Human Health and Ecological Risk Assessment	Six months after final RI information is gathered.
Complete Feasibility Study	90 days post complete RI and HHERA.
Proposed Remedial Action Public Comment Period	30 days from publication of draft Proposed Plan.
Record of Decision	180 days from end of Public Comment Period.
Remedial Design	One year from publication of Record of Decision.
Implement Remedial Action	Six months from final Remedial Design/Technical Specifications

C. **Documentation Submissions to EPA**- IDEM will make available all Site data, reports, and other documentation to EPA upon request.

D. **IDEM Reporting to EPA**- IDEM will provide written reports to EPA at least annually on whether the conditions in this Agreement are being met and on the progress in the investigation, assessment and response actions. In addition, IDEM will report in writing to EPA at least semi-annually on any difficulties that it is having meeting the conditions of this Agreement. Following the submission of a report required or requested, EPA may request a briefing or meeting with IDEM to discuss the report(s).

E. **Proposed Remedial Action**- IDEM will provide a written report to EPA on the proposed remedial action (Draft Record of Decision Staff Report) both before and after soliciting public comment. EPA and IDEM will determine prior to the briefing the appropriate staff to review the proposed remedial action report and attend the briefings.

V. COMMUNITY PARTICIPATION

IDEM will ensure public involvement that is substantially similar to the intent of the NCP and in accordance with the Community Involvement Plan (CIP), which IDEM will have finalized by the fall of 2017. IDEM will ensure the following actions are undertaken as required by the CIP:

- A. Site files will be maintained at the IDEM project manager's office or as required by the CIP.
- B. Site related documents will be made available online in IDEM's Virtual File Cabinet (VFC) at <https://vfc.idem.in.gov/DocumentSearch.aspx> under State Cleanup Site No. 0153 and as required by the CIP. The community groups expressing an interest in the Site will be included in discussions to determine the best and most efficient way to provide information to the groups. This information will become a part of the CIP.
- C. Through the CIP, or other agreement with IDEM, the affected community will be able to acquire technical assistance in interpreting information with regard to the nature of the hazard, investigations, and studies conducted, and implementation decisions at the Site. This technical assistance will be in the form of an appropriate conveyance that can be used to hire a technical expert to explain monitoring reports and decision documents and advise the community.

VI. COMPLETION OF STATE RESPONSE ACTION

Certification and Confirmation- Once IDEM considers the response action at the Site to be complete, it will certify to EPA, any affected Tribal Governments with which it has MOUs, and the affected community that the remedy has been successfully completed and intended cleanup levels achieved. As part of the certification, IDEM will submit for EPA review a response action completion documentation substantially similar to that described in the June 1992 OSWER Direct "Remedial Action Report; Documentation for Operable Unit Completion" (OSWER Directive 9355.0-39FS). EPA will review the certification and supporting information, and may choose to initiate a deferral completion inquiry to confirm the certification; EPA will work with IDEM to address any data deficiencies hindering the confirmation and agree to a time frame for completion of the inquiry. If the response at the Site is confirmed as complete, the Site will not be further evaluated for NPL listing, unless EPA receives information of a release or potential release at the site which poses a significant threat to human health or the environment. Upon completion of response actions and confirmation by EPA, the Site will be archived in SEMS.

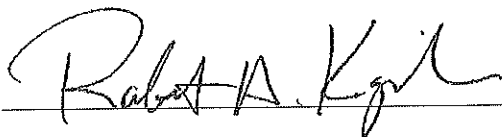
VII. AGREEMENT TERMINATION AND MODIFICATION

EPA may terminate this Memorandum of Agreement at any time after providing 30 days' notice to IDEM which notice shall include the basis for such termination as provided in this paragraph. This Memorandum of Agreement may be terminated: 1) if the response is not CERCLA-protective; 2) is unreasonably delayed; 3) is inconsistent with this Memorandum of Agreement; 4) does not adequately address the concerns of the affected community or affected Tribal governments with whom IDEM has MOUs, or 5) for other reasons constituting a violation of this agreement, such as the State's inability to enforce compliance; or the absence of appropriate funding to complete the response action. IDEM may also choose at any time, after 30 days' notice to EPA, to terminate this Memorandum of Agreement for any reason. During any 30-day notice period required by this paragraph, EPA and IDEM agree to meet to discuss the decision to terminate this Memorandum of Agreement.

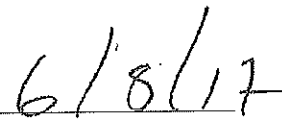
Upon termination of this Memorandum of Agreement, EPA will consider taking any necessary response actions including initiating the rulemaking process to formally list the Site on the NPL. EPA and IDEM will coordinate efforts to notify the community of the termination of this Memorandum of Agreement. These actions will assure the public that EPA will continue to respond at the Site. At EPA's request, IDEM will provide to EPA all information in its possession regarding the Site to the extent permitted by State law.

This Memorandum of Agreement adheres to EPA's "Guidance of Deferral of NPL Listing Determinations While States Oversee Response Actions" (OSWER Directive 9375.6 11) dated May 3, 1995. If there are any conflicting provisions, this Agreement prevails. Furthermore, this Deferral Agreement may be modified at any time upon agreement of both parties. Notwithstanding any provision of this Deferral Agreement, EPA and IDEM retain their respective authorities and reserve all rights to take any and all response actions authorized by law.

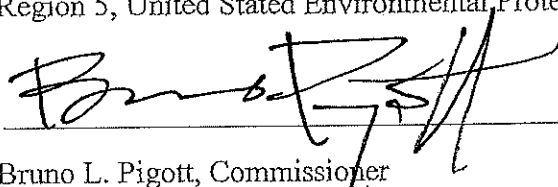
VIII. AGREEMENT APPROVALS



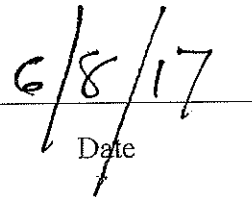
Robert A. Kaplan, Acting Regional Administrator
Region 5, United States Environmental Protection Agency



Date



Bruno L. Pigott, Commissioner
Indiana Department of Environmental Management



Date

ATTACHMENTS

- (A) Letters/Comments Requesting Deferral (Comer, Citizens, Hoggsett)
- (B) Map Showing PRPs and Wellfields
- (C) Site Investigation Strategy

Attachment A



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

August 18, 2016

Mr. Robert Kaplan
Acting Regional Administrator
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Mail Code: R-19J
Chicago, Illinois 60604-3507

Re: Proposed Riverside National Priorities List
Site EPA-HQ-OLEM-2016-0153

Dear Mr. Kaplan:

By this letter, the Indiana Department of Environmental Management (IDEM) withdraws and rescinds the August 13, 2015, letter from IDEM's former Commissioner requesting inclusion of the Riverside Ground Water Contamination site (identified by the U.S. Environmental Protection Agency as Site 0153) on the National Priorities List (NPL) of hazardous waste sites, a copy of which is attached as Exhibit A. IDEM respectfully requests that U.S. EPA not include Site 0153 on the NPL and proposes an alternative approach to protecting public health and the environment by addressing the presence of Chlorinated Volatile Organic Compounds (CVOCs) at Site 0153. IDEM worked with Citizen's Energy Group (Citizens), the City of Indianapolis (the City) and the Marion County Public Health Department (MCPHD) to develop a proposed alternative plan (the Plan) to address Site 0153. Exhibit B outlines the current version of that Plan, which was jointly drafted by IDEM, Citizens, the City and MCPHD.

Background

Site 0153 is located on the northwest side of downtown Indianapolis. While Site 0153 is not yet delineated, it is generally comprised of two multi-well wellfields known as the Riverside and White River wellfields. These wellfields, owned and operated by Citizens, provide drinking water to a portion of the City of Indianapolis. Marion County officials indicate that seven private drinking water wells may exist within Site 0153.

Though low levels of CVOCs are present in the raw water drawn from some of the wells in the wellfields, the drinking water provided to Citizens' customers does not contain, and has never contained, CVOCs. The drinking water provided to Citizens' customers is completely safe to drink.

Basis for Withdrawal

Information available to IDEM at the time of the August 13, 2015, letter indicated that certain wells in the wellfields were impacted by CVOCs at levels that caused concern for public health. There was also a concern that the CVOCs could migrate to other wells in the wellfields, and that concentrations could increase, creating the potential for harm to public health. Based on the data provided at that time, IDEM sought inclusion of Site 0153 on the NPL. However, that data reflected only a snapshot in time and is now outdated.

In April of 2016, Citizens provided IDEM additional technical information that had not previously been shared with the agency. That data led IDEM to re-evaluate its initial request for listing Site 0153 on the NPL. Exhibit B contains illustrations of this data, which span the time period from 2006 to 2016 and indicate that the levels of CVOCs in both wellfields are decreasing. In addition, with the exception of one well (WR3), all CVOCs in the raw water supply are below U.S. EPA's Maximum Contaminant Levels (MCLs) for drinking water.

Fifteen sites that may have contributed to the CVOC contamination are currently in one of IDEM's remediation programs. Many of those sites have already addressed their contamination sources, while others are on track to do so. IDEM believes these efforts have contributed, at least in part, to the declining levels of CVOCs in the groundwater.

In light of the new information and greater understanding of activities in the area, IDEM no longer believes Site 0153 is an NPL caliber site that should be addressed by the Superfund program. Had all of these data and factors been known in August of 2015, IDEM would not have proposed Site 0153 for the Superfund program. For these reasons, IDEM respectfully requests that U.S. EPA not include Site 0153 on the NPL.

Alternative Plan

Withdrawing Site 0153 from inclusion on the NPL does not eliminate the need to address the CVOC contamination at Site 0153. Steps must still be taken to protect public health and the environment from the contamination. The proposed Plan is designed for that purpose. Exhibit B is a draft document, and the Plan may evolve over time in response to new information or additional comments from the public, U.S. EPA, and others. As you review the proposed Plan, please consider the following:

1. IDEM fully supports the Plan and will dedicate four project managers and one attorney to this project to ensure its full and complete implementation under the auspices of IDEM's State Cleanup Program.
2. IDEM will also:
 - a. determine whether any private drinking water wells exist within the five year time of travel of groundwater and if so, test those wells for CVOC contamination. If shown to be contaminated, IDEM will devise a plan to ensure an alternate water source is provided.
 - b. conduct a comprehensive search for potentially responsible parties through all reasonably available records, and pursue all identifiable responsible parties to obtain their cooperation in remediating Site 0153, including contributing to the cost of remediation.
 - c. review and scrutinize all sites in reasonable proximity of Site 0153 that are currently being addressed in our State Cleanup Program and Voluntary Remediation Program (VRP) for their possible roles as Responsible Parties.
 - d. collect soil, vapor and groundwater samples through the agency's push-probe drilling equipment (Geoprobe) where no RPs can be found, but sources are suspected.
 - e. identify any completed exposure pathways (including human consumption of groundwater and vapor intrusion) and devise plans to eliminate those pathways.
 - f. delineate groundwater impacts, to the extent feasible.
 - g. address the sources of contamination as necessary and as practical through mechanisms such as, but not limited to, physical removal, institutional controls and monitoring.
 - h. report regularly to U.S. EPA on the progress of implementing the Plan and enter into a Memorandum of Understanding with U.S. EPA to memorialize IDEM's obligations under the Plan.
 - i. ensure that Citizens discharges all of its responsibilities under the Plan, including:
 - i. conducting more frequent sampling in the wellfields,
 - ii. removing WR3 from service and installing aeration equipment to reduce CVOCs before the well is put back in service, and

- iii. removing any other production wells from service that exceed a drinking water MCL, and installing aeration equipment to reduce CVOC concentrations before the well is put back in service.
3. The Indiana Governor's Office has committed to funding the Plan.
4. IDEM has engaged local neighborhood residents and stakeholders and found that many have expressed concerns with the proposal to list Site 0153 on the NPL, and have expressed support for the alternative Plan.
5. The City of Indianapolis supports the Plan. Mayor Hogsett and his Administration have been actively engaged in the Plan's development and prefer the Plan to listing Site 0153 on the NPL.
6. The Marion County Public Health Department supports the Plan and prefers the Plan to listing Site 0153 on the NPL.
7. The Plan is locally driven, which will facilitate its implementation and allow for a quick response to challenges that arise during its implementation.
8. IDEM is confident that the Plan can be completed in less time and with fewer resources than a traditional Superfund investigation and cleanup.
9. IDEM commits to continuing to keep residents and stakeholders informed and up-to-date. IDEM engaged local community members as the Plan was developed to ensure that all stakeholders understood the nature of the Plan as well as to address community members' concerns. IDEM will hold regularly scheduled public meetings, prepare and disseminate materials tracking the Plan's progress, and maintain a dedicated web page to provide the local community with easy access to the materials, the public meeting schedule, and other information related to the implementation of the Plan. IDEM has already established the website and published information at: www.idem.in.gov/Site0153.
10. If IDEM's request is approved, the agency commits to changing the name of the Site from Riverside to Site 0153, pursuant to the concerns and request of the local community.

With regard to a timeline for implementing the Plan, although we are confident that this project can be handled more quickly under the Plan we have proposed than under the Superfund program, IDEM estimates that it will take at least six years to complete, given the magnitude of the work.

As you can see, the Plan has broad, bipartisan support among local stakeholders. IDEM commends Citizens, the City of Indianapolis, the Marion County Public Health Department and the members of the public who have participated in this process for helping develop a proposal that protects the health of Hoosiers in the Riverside community by addressing the CVOC contamination in a cost-effective manner. They have all been partners in the effort to solve this problem, and we welcome their continued dedication to our community and to protecting public health and the environment.

Should you or your staff have additional questions or need further information, my staff and I would be happy to meet with you in person or by teleconference. My administrative assistant, Mary Fields at 317-232-8611, would be happy to coordinate schedules.

Thank you for your consideration. We look forward to working with you on this matter.

Sincerely,



Carol S. Comer
Commissioner
Indiana Department of Environmental Management

cc: Joe Hogsett, Mayor, Indianapolis
Joseph Sutherland, Citizen's Energy Group



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.in.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

August 13, 2015

Ms. Susan Hedman
Regional Administrator
U.S. EPA, Region V, R-19J
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

Dear Ms. Hedman:

Re: Proposed Inclusion of the Riverside
Ground Water Contamination Site
Indianapolis, Marion County, Indiana
on the National Priorities List of
Hazardous Waste Sites

The Indiana Department of Environmental Management (IDEM) is providing this letter to convey its support to the United States Environmental Protection Agency (U.S. EPA) regarding inclusion of the Riverside Ground Water Contamination site on the National Priorities List (NPL) of hazardous waste sites. The Riverside Ground Water Contamination site is a contaminated ground water plume that encompasses an area of approximately 62 acres and affects two wellfields.

The Citizens Energy Group operates the drinking water utility for the city of Indianapolis. Raw water sample results obtained by IDEM from five (5) municipal wells confirmed detections of vinyl chloride (VC) and trichloroethylene (TCE). The VC and TCE levels in two of the wells exceed U.S. EPA Superfund Chemical Data Matrix benchmarks. The impacted wells provide drinking water to more than 10,000 people in Indianapolis. IDEM has identified over 100 potential sources of contamination to the well fields, including sites in the Voluntary Remediation Program, RCRA Corrective Action Program, Brownfields Program, and the State Cleanup Program, but a definitive source of the contamination has not been identified.

This site qualifies for inclusion on the NPL because:

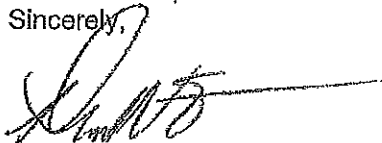
- 1) The site meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) criteria for listing on the NPL, scoring sufficiently high pursuant to the Hazard Ranking System (HRS).
- 2) The site requires a long-term response action.

Ms. Susan Hedman
Regional Administrator
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An NPL listing would allow for proper and timely investigation of the nature and extent of the contamination of the potential sources and enable the U.S. EPA to determine cleanup alternatives for the impacted areas, thereby protecting human health and the environment. The NPL listing appears to be the most viable alternative for addressing the existing environmental problems.

As the Commissioner of IDEM, I am authorized by Indiana Governor Michael R. Pence to act in these matters on his behalf. I have considered my staff's recommendations and I fully support the designation of the Riverside Ground Water Contamination site for inclusion on the NPL. I request that the U.S. EPA assign a Remedial Project Manager and/or On-Scene Coordinator to implement the process. If you require any additional information or have any questions, please contact Mark Jaworski of the Site Investigation Program at 317/233-2407 or via e-mail at mjaworsk@idem.in.gov.

Sincerely,



Thomas W. Easterly
Commissioner

cc: Denise Boone, U.S. EPA
Nuria Muniz, U.S. EPA
Mark Jaworski, IDEM
Rex Osborn, IDEM

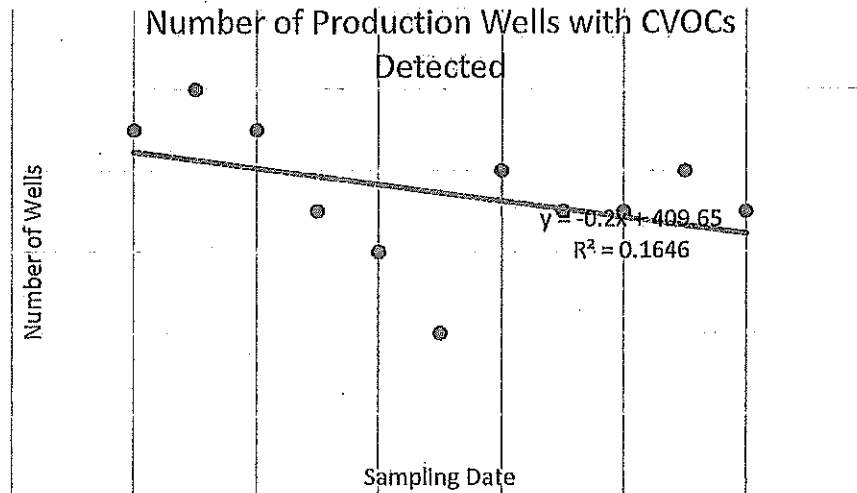
Exhibit B

Proposed Alternative to U.S. EPA Proposed Rule
“Riverside Groundwater Contamination Site”

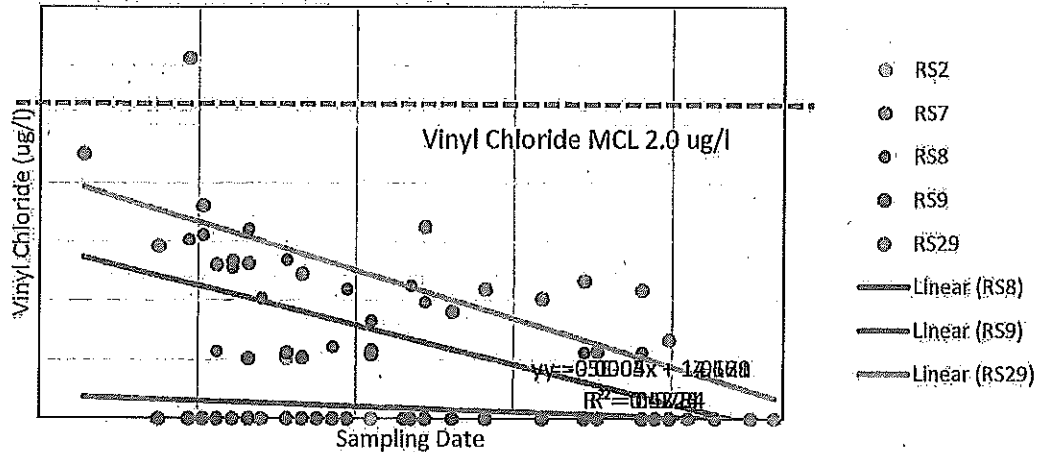
August 18, 2016

Trace levels of certain chlorinated solvents (also called “chlorinated volatile organic compounds” or “CVOCs”) have been detected in some of the groundwater production wells in the Riverside and White River Groundwater Production Well Fields owned and operated by Citizens Water in Indianapolis (collectively, the “Well Fields”). These detections have led the U.S. Environmental Protection Agency (U.S. EPA) to propose to list the “Riverside Groundwater Contamination Site” as a federal Superfund Site.

Sampling data initially provided to the Indiana Department of Environmental Management (IDEM) by Citizens Water, and forwarded to EPA as part of the Superfund scoring process, is outdated. Citizens has recently provided additional sampling information to IDEM, and with the exception of one production well, “White River 3” (WR-3), trace detections of CVOCs in these wells are currently below U.S. EPA’s drinking water standards that apply to finished drinking water. In addition, as the following graphs demonstrate, overall concentrations of CVOCs in the Well Fields are declining:



Citizens Riverside and White River Well Field Vinyl Chloride Detections



Notwithstanding these detections, no CVOCs have ever been detected in the drinking water supplied to Citizens Waters' customers. In addition, five Citizens' production wells and a geothermal well in the Riverside Well Field are planned to be removed and relocated as part of a planned redevelopment project in the area called "16 Tech." The closure and abandonment of these wells will alter groundwater flow and CVOC distribution and concentrations in the Well Fields.

Various state and local stakeholders have developed a proposed alternative to a Superfund listing to address CVOCs detected in area groundwater and to ensure human health and the environment are protected. The elements of this alternative proposal are described below.

Citizens Water Plan to Ensure Continued Safety of Public Water and to Assist in Source Assessment & Mitigation

Despite the current safety of the drinking water supplied to customers and the declining CVOC trend, Citizens Water would be willing to take the following measures as an alternative to a Superfund listing to ensure the continued safety of its drinking water and to assist State and local governmental agencies with assessing and mitigating potential contaminant source areas in the vicinity of the Well Fields:

1. Citizens would take production well WR-3 out of service, install an aeration treatment system to reduce CVOC levels, and then test the water post-treatment to ensure levels are below EPA's drinking water standards. Upon receipt of satisfactory test results, Citizens would return WR-3 to service. At that point, all "raw water" being produced by Citizens'

production wells would be below EPA's finished water standards before it is mixed with surface water and treated in Citizens' treatment process.

2. Citizens would take the same measures at any production well in the future if verified sample results exceed drinking water standards, thus ensuring that water produced from Citizens' production wells – even before mixing and treatment – would continue to be below EPA's standards.
3. Citizens would increase the frequency of its voluntary sampling for VOCs from the production wells and monitoring wells in the Well Fields from semi-annual to quarterly, and would share those results with IDEM as they are received.
4. Citizens would develop and implement a Groundwater Quality Monitoring Plan required by the recently adopted Indianapolis/Marion County ordinance to track CVOC concentrations in the Well Fields, and would develop a plan to address those detections to ensure continued safety of drinking water. The results of this sampling program would be shared with U.S. EPA, IDEM, and the four local agencies identified in the ordinance to help determine if further measures are warranted.
5. Citizens would support State and local governmental agencies, including IDEM, the City of Indianapolis, and the Marion County Public Health Department (MCPHD), in their efforts to assess and, if necessary, mitigate impacts associated with potential CVOC source areas in the general area identified by EPA in its proposed listing rule. Citizens would support the MCPHD in connection with its review of any requests to install any new private groundwater wells in the area of concern, and support efforts to connect any existing, impacted private groundwater wells to water supplied by Citizens. Citizens would also review environmental remediation proposals submitted to or developed by IDEM for any source area located with the then-current Five-Year Time-of-Travel, and provide comments to IDEM and the Responsible Party(ies) regarding the effectiveness of the proposal to protect the Well Fields. Finally, Citizens would use the results of its on-going Groundwater Quality Monitoring Plan described above to help evaluate these proposals.

Citizens would be willing enter into an agreement with U.S. EPA and IDEM that includes these commitments.

State and Local Government Plans for Assessing and Mitigating Potential CVOC Source Areas

Various governmental agencies and other stakeholders have developed the following multi-pronged plan to identify and address potential CVOC source areas that could adversely impact area groundwater, the Well Fields, or other receptors (e.g., private wells, vapor intrusion issues) that they would be willing to implement in lieu of a Superfund listing:

1. IDEM, the City and MCPHD have substantial information about various potential source areas of CVOCs in and around the Well Fields, including soil and groundwater data, some of which are currently in IDEM programs such as the Voluntary Remediation Program, State

Clean-Up Program or Leaking Underground Storage Tank program. The City and MCPHD would provide information in their possession relating to these source areas to IDEM. IDEM would then review and assess all relevant information and data to identify those sites currently in IDEM programs that warrant additional investigation, given their potential contribution to CVOC impacts in the area of the Well Fields.

2. IDEM would review its existing soil and groundwater data, and any information from the City and MCPHD, to determine what data gaps exist in the area of the Well Fields, and to identify the existence of sites potentially impacting groundwater in that area that are not currently in one of IDEM's programs, and which might be a source of CVOCs.
3. To fill these data gaps and identify potential CVOC sources, property owners and/or other responsible parties would conduct investigations on properties under their ownership or control, at their own cost. As necessary and appropriate, IDEM would exercise its regulatory authority to require the performance of those investigations. Further, IDEM could also conduct its own investigations as needed utilizing funding sources such as monies from known responsible parties. All such investigations would be focused on those areas in which existing data and information indicates a reasonable likelihood of CVOCs. The purpose of these investigations would be to generate meaningful soil and groundwater data to identify potential source areas that would then be the subject of further investigation and/or IDEM enforcement.
4. The City and MCPHD would work collaboratively with IDEM to develop IDEM's priority list for further investigation, identify property owners, and obtain access agreements. To the extent necessary, Citizens Water would work alongside these entities to engage with the public with regard to this effort. The City would also direct Brownfield grant money to assist in performing environmental assessments for "orphan share" sites in the area of the Well Fields.
5. MCPHD would work with IDEM, Citizens Water, and the City to identify potential private wells in the area, to sample those wells for which access is granted, and to evaluate options to connect any impacted private wells to public water. MCPHD would also use its existing authority to evaluate requests to install new private drinking water wells within the area of concern, and to work with all interested stakeholders in connection with any such requests.
6. With information supplied by Citizens regarding current and future pumping scenarios, IDEM will determine the appropriate boundaries for the area to be evaluated.
7. In order to assist the local community's efforts to monitor the development and implementation of the Plan, IDEM, the City, and MCPHD will secure funding that will allow the local community to engage the services of its own consultant with the technical expertise to facilitate meaningful community involvement.



Comment submitted by Joseph H. Hogsett, Mayor, City of Indianapolis

This is a Comment on the Environmental Protection Agency (EPA) Proposed Rule: [National Priorities List](#)
For related information, [Open Docket Folder](#)

Site Data
Regulatory
Agency
Agency
Report

Comment Period Closed
Sep 5 2016, at 11:59 PM ET

Comment

SUBJECT: Docket EPA-HQ-OLEM-2016-0153 Comment

FROM: The Consolidated City of Indianapolis and Marion County, Indiana

TO:
--OLEM via Regulations.gov
--Mr. Robert Kaplan
Acting Regional Administrator
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Mail Code: R-19J Chicago, Illinois 60604-3507
--Terry Jeng
jeng.terry@epa.gov

The Consolidated City of Indianapolis and Marion County, Indiana ("City") fully supports the proposed alternative plan ("Plan") to address the Riverside Ground Water site (identified by the U.S. Environmental Protection Agency as Site 0153.)

The City also concurs with the Indiana Department of Environmental Management's (IDEM's) letter dated August 18, 2016, withdrawing its request regarding Site 0153. IDEM indicates that due to new data and additional investigation, IDEM no longer believes Site 0153 is an NPL caliber site and should not have been proposed as such.

Since becoming aware of this situation earlier this year, City efforts have been dedicated to obtaining an outcome that protects the public's health and the safety of our drinking water supply. At the urging of local civic leaders, City representatives have convened and participated in community discussions centered on creating a local alternative that could achieve these critical public health results in a way that would be more beneficial to the interests of the affected neighborhoods than an NPL listing of this site.

It is significant that the development of that Plan engaged all sectors of the community - neighborhood residents, area businesses, the water utility, as well as both state and local agencies including the local health department. The City believes that under the proposed Plan, state and local agencies are uniquely positioned to obtain and react to new data, respond to community concerns, and implement remediation in a timely manner.

The City's primary concern is the health and safety of its citizens. Based on the most up-to-date information made available by IDEM and Citizens Energy Group, the City is convinced that the City's drinking water supply and the health of its residents will be thoroughly protected by the Plan proposed by IDEM. While the City appreciates the ongoing role that the EPA will play as a regulatory agency, the City believes that a local solution in this instance will be successful and provide an efficient, responsive effort to address public health and environmental concerns within the affected area.

Respectfully,

Joseph H. Hogsett
Mayor of Indianapolis, Indiana

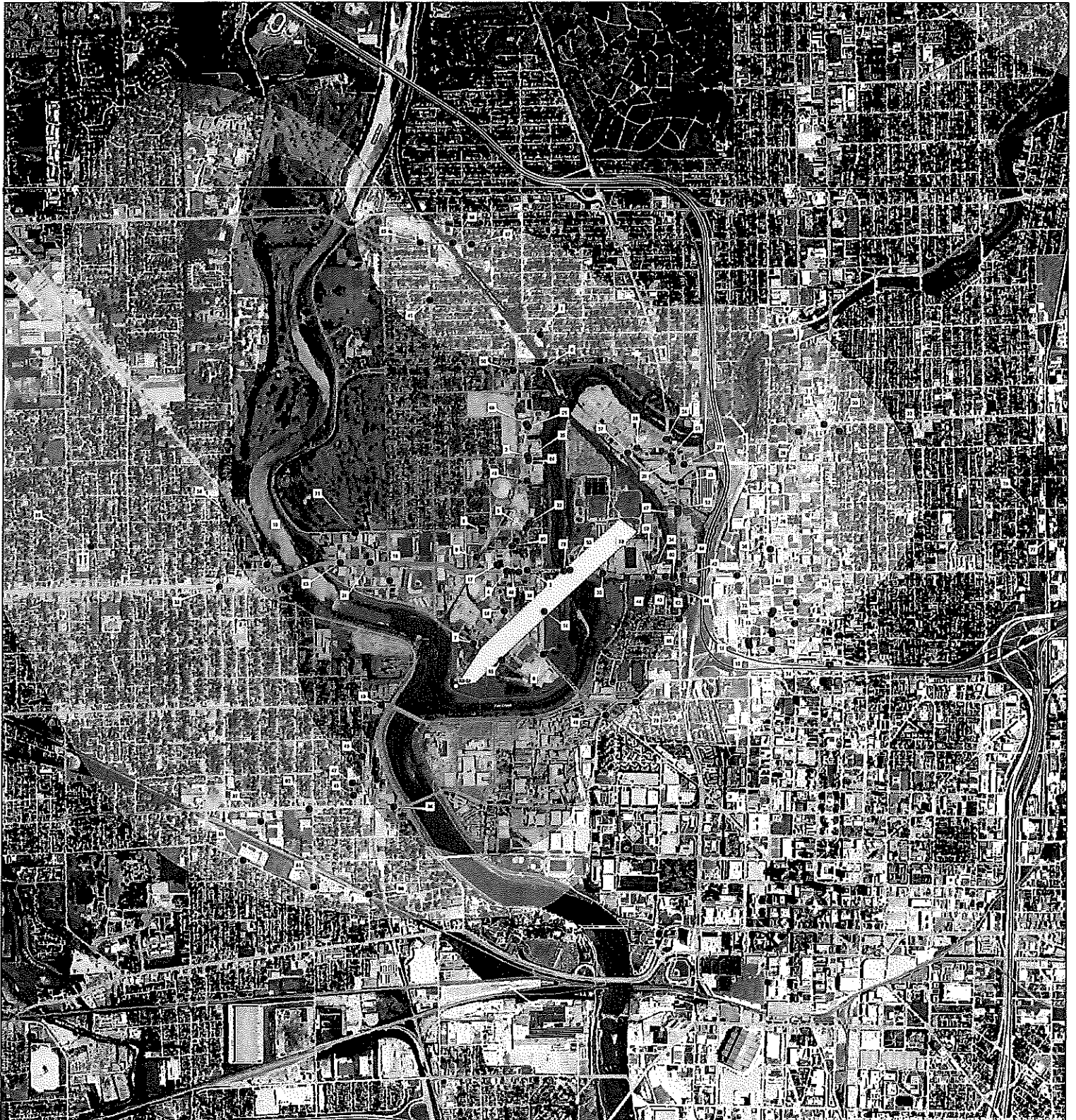
ID: EPA-HQ-OLEM-2016-0153-0135
Tracking Number: 1k0-87q-d10

Document Information

Date Posted:
Sep 12, 2016
RIN:
Not Assigned
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Possible Contamination Sources.
 Within the 5 Year Time of Travel Wellhead Protection Area
 Site 0153 (formerly Riverside) Groundwater Contamination

Attachment B



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Mapped By:
 Shane Moore, Office of Land Quality
 Date: 10/19/2015
 Sources:
 Non Orthophotography
 Data - Obtained from the State of Indiana Geographical Information Office Library
 Document - Potential Sources of Chlorinated Solvents Reference 4 (table on pages 381-385)
 - Well Head Protection Area Reference 60
 - RS 29 Reference 4, pages 71-74
 - Plume created based on results in Reference 4, page 119
 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83

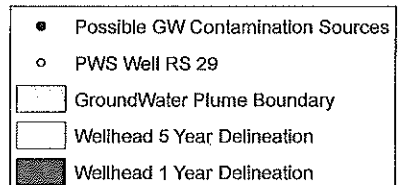
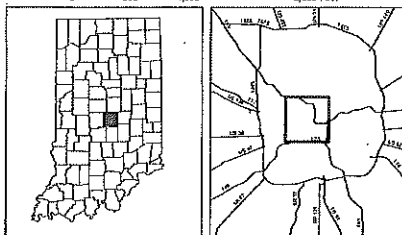
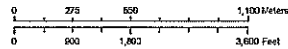


Table 1: Riverside Potential Sources

Label	Name	Address	Distance (ft)	Distance (m)	AI ID	Other IDs	Reported	R	Documented	Take Sampl	Type	Notes	M	Label
0	DPW/Merrs Corp	1021 Burdsall	7124.96589	2171.689534	22656	8FD 4980024	Y	N	N	0	Maintenance	MCHD Violations for salt and solid waste		0
1	Northside Trucking/Pallent Repair	1037 W 25th St	7870.690845	2398.986493	16605	IND058477936	N	Y	Y	1	haz waste hauler	Haz waste Notice lists F001-F012, etc see VFC 42785550		1
2	Chevron Chemical Co./Saint Clair Properties Limited Warehouse (Carrier/Bryant)	1100 W 21st	5275.528258	1607.981266	15981	IND982219107	Y	Y	Y	1	manufacturing	Brownfields/ City of Indy Phase1 Report is VFC 66905974 /Andrea R. new wells planned by Dec 2013		2
3	Industrial Coatings / United Coatings/ IU Methodist & Neuropsych Center	1102 W 16th	3044.156364	927.858890	17130 / 16168	IND984956888/ IND984866202	Y	N	N	0	manufacturing	conditionally exempt generator - no groundwater impacts, release to soil only		3
4	Benham Press / Disc Graphics / Awning Partners / Sign Group	1160 W 16th	2793.303994	851.3990302	22076	IND006066641 / 8FD 4030010	Y	?	?	?	printer, etc.	RCRA violations, paint waste violations VFC 62498373 Has an ERC, part of Brownfields? Has MW's too		4
5	Central Soya	2235 Montcalm / 1102 - 1160 W 18th	3813.330067	1162.302967	16021	IND006413272 / FID 18135	Y	N	N	0	Grain facility, LUST	Releases of soybean oil		5
6	Aero Industries / Fruehauf Corp / Mayflower/ Lincoln Technical Institute	1201 Stadium Dr	2194.383977	668.8482147	16396	IND150600344	N	Y	Y	1	maintenance	F002 (spent CVOCs) / F004 ; MCHD Violations		6
7	Indianapolis Water Company	1220 Waterway	1058.077666	322.5020624	13668	IND0069388351 / FID 011510	Y	N	N	0	water company	diesel LUST has NFA; has a maintenance shop. Conditionally exempt F001		7

8	Perry Manufacturing / Overbay-Tehan Corp.	1233 W 18th / 1244 W 16th (& 2535 Burton??)	3439.662543	1048.409109	18377	FID 10100	N	N	N	?	manufacturing	gas/diesel UST's, large old building along tracks, make scaffolding now	8
9	West 16th Garage / Loyd L & Louis L Shonkwiler / Microtel Inn & Suites	1244 W 16th	2855.068742	870.2249247	18506	FID 10100 / 200804504	Y	N	N	1	Truck Maintenance	adj. to south of Perry / only BTEX+MTBE sampling	9
10	Johnson Controls	1255 N Senate	6631.647237	2021.326013	17486	IND964976381	N	Y	N	?	manufacturing	small generator F002, D001, D005; Part of 14th St Corridor CVOC plume	10
11	Stewart Manufacturing	1280 N Senate	6630.146539	2020.8686	n/a	n/a	Y	Y	Y	1	n/a	part of Co-mingled 14th St Corridor CVOC plume	11
12	Henley's Cabinets / Custom Printing / Chemcraft Satron / Finishes Inc.	1310 N Capitol	7164.748709	2183.815337	16911	IND 982616112	N	Y	N	?	furniture refinishing	small generator F003, F005, D007, D008, D018, D035, D039, D040 listed PCE and TCE - Within the 14th St Corridor Plume	12
13	H-N Advertising & Display Co / Bowes Industries	1324-1334 N Capitol	7152.405368	2180.053086	23884	IND006035968 / FID 21455	N	N	N	0	printing/ manufacturing	UST (unknown)	13
14	Sherwin William distributor	1401 Milburn	2651.273252	808.1080612	n/a	n/a	N	N	N	0	distributor	no data on VFC, etc.	14
15	Karstadt-Reed Dry Cleaners	1449 N Illinois	7800.715192	2377.657915	n/a	n/a	Y	Y	Y	1	dry cleaner	Top of the 14th St Corridor Co-mingled CVOC plume	15
16	Stromberg Sales / Paradigm Group	1525 Riverside	2613.773254	796.6780624	21138	FID 22445	N	N	N	0	car sales	diesel, gasoline and fuel oil releases	16
17	Component Machine	1631 N Gent Ave	2830.787449	862.8239868		200412100	Y	Y	Y	1	manufacturing	State Cleanup Documented TCE/PCE in groundwater Jerry O. & Scott Johanson	17

18	ITT Hoffman / Kindred Hospital / Vencor	1700 W 10th	1513.261015	461.2419426	16313	IND0032921	Y	N	1	manufacturer	water violation 1986, removed contaminated soil w/Cr Ni & Pb in 1990 (made plumbing fixtures)	18
19	Gardner Mirror Corporation / Wallace Expanding Machines	1705 Lafayette / W 19th Street	4752.040298	1448.421836	16850	IND98490467 / FID 16834	N	N	0	manufacturing	diesel UST removed	19
20	Indiana Retirement Home	1731 N Capitol	7620.183089	2322.631731	n/a	n/a	N	N	0	nursing care?	listed as a "landfill" for medical/solid waste per 2007 WHPA	20
21	Southeastern Trailways	1810 W 16th	3165.631437	964.8844312		FID 000274 / INDR000016873	Y	Y	0	buses	Documented part of Flexidar plume (non-contributor)	21
22	Harold Richards	1825 Montcalm	3951.188357	1204.322173	n/a	n/a	N	N	0	central soya	Fuel storage for Central Soya? Nothing in VFC	22
23	Peerless Pump / Sterling Fluid Manufacturing	2005 Dr MLK Jr	6726.549613	2050.252256	11493	IND980734873	Y	N (?)	1	manufacturing	State Cleanup (Nilla) LUST diesel, gas and stoddard (BTEX+ MTBE only) verbal report that CityofIN may have Ph2 data showing CVOCs	23
24	Citizens Coke Langsdale	2150 Dr MLK Jr	7147.645689	2178.602336	n/a	VRP	Y	N	?	Coal MGP	Bill Holland is PML Full YOCs on Groundwater??	24
25	White Metal Manufacturing / Rexall Drug & Chemical Co / DART Industries / Draft-Kraft / Wheeling Stamping (*part of Rumpke now??)	2099 Montcalm	5247.574699	1599.460717	25759	IND980606396	n/a	?	1	manufacturing	PA/VI in 1984 no samples taken MCHD records	25

26	Rumpke / Republic Recycling / United Brake Systems / Heavy Duty Friction Service Group	2235 Montcalm	5878.553654	1791.783096	24663	VRP 6030103 / FID 1570 / IND006062616	Y	N	?	recycling/former manufacturing	possible asbestos/ UUST for diesel&waste oil / Small quantity generator of D001 / VRP included north&south of 21st / residual were metals & PAHs& TMBS / Damon R. VFC# 62825015	26
27	Industrial Heat Treating / BodyCote Thermal	2131 Dr. MLK Jr. / 500 W 21st St	7028.999468	2142.438969	11491	IND006417315	Y	Y	1	manufacturing	Complaint (VFC 38838458) re: drums, fire, release Small generator of F001, F010, F011, & F012 & P030 MCHD had PA/MSI from 1992 TWO VAPOR DEGREASERS	27
28	Dorothy Shamrock Coal	2110-2112 Dr. MLK Jr.	6895.780734	2101.8339	20624	4960013	Y	N	0	coal yard	PAHs, oil staining, see VFC 14540029, MCHD files	28
29	Excelsior Laundry and Cleaners	2179 N Illinois 2179 N	9408.696645	2867.770646	15994	IND016405854	N	Y	1	dry cleaner	active dry cleaners	29
30	45 Minute Cleaners	Pennsylvania	10137.22308	3089.825495	16751	IND981783475	N	Y	1	dry cleaner	closed dry cleaners active? As recent as 2009	30
31	Sparkie Cleaners	2198 N Merician	9944.458007	3031.070703	17902	IND0000481325	N	Y	1	dry cleaner	nothing in IDEM file but the name? No documents	31
32	Sparkie Cleaners	2119 Central	11624.45728	3543.134464	?	?	N	?	1	dry cleaner	inspection in 2001 not sure if active now	32
33	Jim's Dry Cleaners	2605 W 16th	5445.400131	1659.757907	26751	IND000204065	N	Y	1	dry cleaner		33

34	Reuas Engineering	555 W 16th	5014.922147	1528.548221	15986															small generator FO12 (quenching wastewater solids w/cyanide)	34
35	McBroom Electric Co.	800 W 16th	4162.822778	1268.828342	17874															F001 (spent chlorinateds) and D040 (TCE)	35
36	McFarling Foods	333 W 16th	6742.281683	2055.047391	18336															Brownfield; within the 14th St Corridor Plume / UST's, diesel fuel, etc.	36
37	Schuchman Metals / Langsdale Metals / Republic Services	829 Langsdale	6381.719104	1945.147921	20353 / 26312															Site investigation VFC 5983115 / Rosy H. Is PM / mostly BTEX data any full VOCs?? Aluminum smelting refractory brick	37
38	Republic Services / SMI Recycling / Circle City	832 Langsdale	6592.625368	2009.432148	14525															combined w/above property? Legal Survey VFC 63589110, asbestos/air permits	38
39	Prototype/ PCG Pump & Engine	1125 W 16th	2907.468732	886.1964413	na															print shop? No RCRA - listed in WHPA list, not in VFC	39
40	Capitol Tool & Dye Executive 1 Hour Cleaners	1141 W 16th	2883.277885	863.5830717	n/a															not in VFC	40
41	Martin Luther King Corridor	MILK & W 16th	8371.348688	2551.586999	n/a															not in VFC	41
42	Universal Sign	507-545 W 16th	5652.83534	1722.984157	22740															MLK Corridor Plume Andrea Robertson	42
43	Parker Properties	524-570 W 16th	5295.846747	1614.174037	22740															MLK Corridor Plume	43
44	Parker Properties	524-570 W 16th	4943.641074	1506.821751	22740															MLK Corridor Plume	44

45	Challenge Machine Republic Creosoting	506 N Elder	3139.651731	956.9658171	15984	IND0006066906	N	N	?	machine shop	vacant, west of White River, reported no hazmat	45	
46	Company	738 Milley	2413.405927	735.6061029	25775	IND980606511	N	N	?	creosoting	west of river, inspections only no samples	46	
47	B&W Constructors	560 N Elder	2957.353515	901.4013224	n/a	n/a	N	N	0	metal fab	west of river, not in VFC	47	
48	Addie's 45 Minute Dry Cleaners /Forty Five Minute Cleaners	960 Indiana Ave	3510.188754	1069.905498	n/a	INR000007419	N	Y	1	dry cleaners	South of Fall Creek, MCHD violations	48	
49	Meadors Tool & Dye / Perry Manufacturing / Sanitec of Indiana	2020 Montcalm	4764.470015	1452.210414	21973 / 19818	INR000104935 / SW 49-54	N	N	0	manufacturer / medical waste disposal	D001, D002 Large quantity generator "waste oxidizing solid"	49	
50	Treatment Facility	1133 Burdsall	6981.689131	2128.013779	18260	INR000103101	N	N	0	signs/paints	D001, F003, F005 conditionally exempt (no chlorinated)	50	
51	Stanley Signs	2122 Dr. MLK Jr	6960.634406	2121.601299	16164	IND0006065536	N	N	1	machine shop	conditionally exempt D001 HISTORICAL CONCERNS??	51	
52	Hittle Tool & Dye Bredenstein	1922 Dr. MLK Jr	6309.375088	1923.097465	n/a	n/a	N	N	?	printer, etc.	not in VFC	52	
53	Printing	Michigan Auto / U Pull & Pay	940 W 16th St	3662.760462	1116.409353	39533	INR000124114	N	N	1	salvage yard	D001 minor violations, no CVOs listed, MCHD mosquito violations	53
54	American 1 Hour Cleaners / Morleys Cleaners	1901 Lafayette / 1901 N Belleview Place	5916.811727	1803.444157	24157	IND984898528	N	Y	1	dry cleaners	F002, D039	54	
55	Service Labs / Servaas Laboratories	1200 Waterway	1299.380653	396.0512104	20412	IND981090749	N	N	0	lab for water co	F005, U159 (spent petroleum-solvents)	55	
56	Laboratories Vector Pool (Stadium)	1448 Stadium	2035.013254	620.2720201	n/a	n/a	N	N	0	vehicle storage	not in VFC	56	

57	Quality Linen Service / Quality Products Inc.	1277 W 29th	9574.788013	2918.395293	17350													1	Industrial	violations w/PCE handling, same owner as Master Wear in Martinsville, Gasoline LUST, D005, D007, D008 Contaminant list did NOT include CVOCs (BTEX/TPH/PAH only) (*Aid is mixed w/Portage Co. site) F005, D035, D001, Ph1 ESA in Dec. 2012 VFC 67345008;	57
58	D-A Lubricant Company	1340 W 29th	9602.08112	2926.714232	11500 / 23836 / *14562*													1	lubricant manufacturing	VRP 6020701 / IND006065296 / BFD 4130103	58
59	Tri-State Bearings / "Vacant Building"	1640 Alonso Watford Sr Dr	5188.278764	1581.387317	n/a													?	?	historically industrial area / MLK Plume / address in VFC but no records	59
60	One Stop Salvage Co.	502 W 16th Place	5450.079404	1661.184149	n/a													?	salvage yard	MCHD found complaint unjustified	60
61	Star Service Station	502 W 16th Street	5468.470352	1666.783771	21590													0	service station	LUST	61
62	D&M Auto Parts	505 W 16th St	5425.207608	1653.603226	n/a													?	salvage yard	MCHD complaints waste oil tank removed pre-1986 PCE in groundwater sample	62
63	Speedway Volkswagen / Speedway International Inc.	1930 W 16th	3557.254863	1084.251247	24974													1	dealership	MCHD complaint - drums of PCE from Morley's Cleaners on a vacant lot near 16th & MLK; Part of MLK Plume??	63
64	Parcel 1099990 ? ("not sure")	1600 Dr. MLK Jr	5682.9698	1732.169139	n/a													1	?		64

65	Site Oil Company / Abandon Site	1402 Dr. MILK Jr	5249.936808	1600.180688	25135	BFD 4030001 / FID 22845	Y	N	0	service station	USTs and a "pit" Brownfield NFA 21823335 complete scan; no CVOCs encountered	65
66	M&L Auto Repair	1520 Dr. MILK Jr	5450.992343	1661.462413	n/a	n/a	N	?	1	truck & bus repair	not in VFC	66
67	Bock Equipment Company / American Block	1900 Dr. MILK Jr	6245.121897	1903.513093	n/a	n/a	Y	Y	1	contractors	MLK 16th Street Plume MCHD documented TCE in soil	67
68	National Sand Blasting	2278 Montcalm	5928.057557	1806.871886	n/a	n/a	N	Y	1	sand blaster	MCHD complaints, PERC listed in MCHD inspection; issues w outdoor chemical storage - paint room ventilation. No VFC	68
69	Reynolds Recycling	2089 Montcalm	5187.208557	1581.061117	n/a	n/a	N	N	0	recycling	MCHD complaint; probably part of another address?	69
70	Fall Creek and 16th Park	?	4534.655831	1382.163053	n/a	n/a	N	N	1	former dump	city dump on 1915 Sanborn Map; aerial photographs in State Cleanup. Source of "Flexdar Plume"	70
71	Flexdar	1825 W 18th	3884.81138	1184.090471		SCP 200404159	Y	Y	1	manufacturer		71
72	S. Cohn and Sons / Suron	1402 N Capitol	7219.727315	2200.572815	28328	SCP 6070101	Y	Y	1	former manufacture	Within the 14th St Corridor plume; contributor; State Cleanup Jeff K.	72
73	Michaels / Fame Laundry	1352 N Illinois	7678.383245	2340.371138	23287	BFD 4091202	Y	Y	1	dry cleaner	Within the 14th St Corridor plume; contributor; State Cleanup; Jeff K	73

74	Greater Diversified Supply	1234 N Capitol	7105.892105	2165.875844	n/a	SCP 200606202	Y	Y	1	dry cleaner	Known to have PCE in groundwater; State Cleanup Kevin H.	74
75	Stewart Manufacturing	1280 N Senate	6630.146539	2020.8686		6040306	Y	Y	1	manufacturer	VRP; within the 14th St Corridor plume; contributor; Jeff K	75
76	19th St Corridor Plume	19th and Cornell	13253.09327	4039.5427	?	?	Y	Y	1	?	State Cleanup ; known to have PCE & VC	76
77	Wash Rite Company Inc	1720 Alford St	13613.79537	4149.484697	n/a	200803020	Y	Y	1	dry cleaner	part of 19th St Corridor Plume; Jerry C.	77
78	Courtsey Cleaners	805 W 10th St	4102.339736	1250.393112	n/a	n/a	N	Y	1	dry cleaner	in VFC w/no records	78
79	Printing Partners / Vacant Commercial	925 W 16th St	3547.854148	1081.38591		INR000135772	N	Y	1	printer	D001, D002, D011, D018 & D039 (PCE) see VFC 69611483	79
80	Rex Metal Craft	1716 Rembrandt	3338.377005	1017.537279	16694	IND981002348	N	N	0	metal fab	F003 (waste non-halogenated)	80
81	CSX/Moorefield Yard	250 N Belmont	5249.447301	1600.031486	n/a	n/a	?	?	?	former rail yard	Several sites are now on top of here at Belmont & New York	81
82	Shell Oil	Belmont	4038.030296	1230.791595	22624	BFD 4980013	Y	Y	1	bulk station	Former bulk facility, was part of/next to? CSX yard, has TCE in H2O	82
83	Dickey & Sons Tool	2450 Turner Ave	5856.294618	1784.998543	17386	BFD 4090205	Y	Y	1	machine shop	TCE extends off-site	83
84	Herff Jones	1411 N Capitol	7269.422505	2215.719909	18857	BFD 4040007	Y	N	0	class rings	Sampled full scan, no CVOCs detected	84
85	Indy Parks	1426 W 29th	9628.949194	2934.90362	19673	BFD 4020002	Y	N	0	garage	former parks maintenance garage / some full scan VOCs no CVOCs detected (A) id is mixed w/ SCP cleaners in Peru??	85

86	Goodwill Industries	1635 W Michigan	2873.251611	875.767063	20195	IND006938278	Y	Y	1	industry	F002 and D001 small generator/ former CSX yard??	86
87	EMP Corporation / American Metals Industries	413 N Tremont	5028.455232	1532.673106	16851	IND984890475	N	N	0	metals	waste type not listed; out of business	87
88	Thomas L Green Co.	202 N Miley	4835.26133	1473.787606	19941	IND006066450	N	N	0	manufacturer	made biscuit plant equipment F005 kicked out of VRP	88
89	Dewercs One LLC / Tuchman's Cleaners	30th & Kessler	8354.95763	2546.591004	23805	VRP 6051002	Y	Y	?	dry cleaner	last sampled in 2010	89

Site Investigation Strategy
Site 0153 Plume (formerly Riverside Groundwater Contamination)
Indianapolis, IN
EPA ID# INN000510936

This document presents the Site Investigation Strategy (SIS) for the Site 0153 (formerly Riverside) groundwater contamination plume located in downtown Indianapolis, IN. The purpose of this document is to present the strategy for addressing the contamination present in the Riverside and White River wellfields, including: identifying Potentially Responsible Parties, delineating the nature and extent of contamination, determining the potential risk of the contamination and any completed exposure pathways, and selecting an appropriate remedial action to mitigate that risk or exposure.

Background

Site 0153 is located in Indianapolis, Marion County, Indiana. On February 20, 2013, IDEM staff received notice from Citizens Energy Group that elevated levels of vinyl chloride (VC) and cis-1,2-dichloroethene (cis-1,2-DCE) were being detected in their Riverside municipal wellfield. Citizens Energy was concerned that the increasing levels of VC in Well RS29 are approaching the Maximum Contaminant Levels (MCL) for VC, which may adversely impact the use of that well to supply drinking water to residents in Indianapolis. The MCL for VC is 2.0 µg/L. The Riverside/White River Wellfield supplies drinking water to over 17,000 people in Indianapolis.

On May 20 and 21, 2014, IDEM staff conducted a site inspection at the Riverside Groundwater Contamination site. A total of 25 raw water samples were obtained. The samples consisted of 19 ground water samples, four (4) duplicate samples, and two (2) trip blanks. The ground water samples were collected from 19 municipal wells located in the Riverside and White River Wellfields. All samples were analyzed for volatile organic compounds (VOCs) only. Vinyl chloride, cis-1,2-DCE, trichloroethylene (TCE), and 1,1,1 trichloroethane were the primary VOCs detected. Although VOCs were detected in some of the municipal wells, the concentrations of the VOCs did not exceed any MCL set by the EPA in raw water. All raw water is treated and tested by Citizens Water Utility prior to distribution and no VOCs have been detected in finished water sent to customers. Results of water system tests can be found on the State Drinking Water Information System (SDWIS) website at <https://myweb.in.gov/IDEM/DWW/index.jsp>.

The Hazard Ranking System (HRS) documentation record submitted to EPA currently has identified upwards of 89 potential sources of VOC contamination to the White River and Riverside Wellfields' five-year time of travel of groundwater. More than fifteen (15) sites are in one of IDEM's remediation programs, and have either addressed their potential sources or are on track to do so. For an illustration of the site area, including potential identified site sources, see Attachment A.

On August 13, 2015, IDEM's former Commissioner, Thomas Easterly, requested inclusion of the Site on the National Priorities List (NPL). However, IDEM has since determined it would be in the best interests of the site, and responsive to citizen requests, to address the site in IDEM's State Cleanup program. Commissioner Carol Comer sent a letter to EPA on August 18, 2016, formally withdrawing support for the Riverside Groundwater Contamination Site (now known as Site 0153) to be included on the NPL (Attachment B).

Path Forward

The Site exhibits unacceptable levels of groundwater contamination from multiple sources, and threatens municipal drinking water supplies. Additional information regarding the nature and extent of VOC contamination, any possible sources of contamination, and potentially completed exposure pathways must be collected. IDEM commits to following a CERCLA-like strategy to evaluate the contamination at Site 0153 as outlined below:

Preliminary Data Gathering/Conceptual Site Model Development

There are currently 15 potential contamination source sites in the Site 0153 five-year time of travel for groundwater that are in one of IDEM's remediation programs. The information collected for these sites to date is valuable to building a conceptual site model (CSM). IDEM staff will ask the programs for these sites to submit their most recent groundwater, soil, and vapor intrusion data sets as well as monitoring well construction data as electronic records to IDEM's SAMPDB sample database. IDEM's GIS section will use that information to build a site overview map and base conceptual site model. These sites will be asked to perform a data gap analysis to determine whether they need additional investigation and monitoring wells to evaluate potential contributions to the wellfield.

- **Immediate Impact Mitigation:**

As part of this preliminary data gathering activity, IDEM staff will determine whether any private drinking water wells exist within the five-year time of travel of groundwater to the Riverside and White River Wellfields, and if so, test those wells for VOC contamination. If shown to be contaminated, IDEM will devise a plan to ensure an alternate water source is provided.

PRP Search

Using the preliminary CSM as a guide, IDEM will conduct a comprehensive search for potentially responsible parties (PRPs) through all reasonably available records, and pursue all identifiable potentially responsible parties to obtain their cooperation in investigating and remediating Site 0153. IDEM staff will attempt to create a cooperative approach, wherein all identified PRPs work together to investigate both their own potential site-specific contamination issues as well as their potential contribution to the plume affecting the Riverside and White River wellfields (PRP Cooperative). IDEM staff will work with the responsible parties to develop a multi-party Agreed Order on Consent to

complete this work. If a site is identified but no Responsible Parties can be found, IDEM will undertake the work to address that site. Due to the density of sites and the nature of the contamination, there is a potential for commingled plumes. Other sources and responsible parties do not preclude delineation of on-site sources. IDEM will use all available enforcement authority to ensure all potentially responsible parties participate in this process.

Site Investigation

IDEM staff will take a tiered approach to understanding the nature of the contamination at Site 0153:

- Site-specific investigation of the nature and extent of impacts on individual properties will be completed by PRPs with oversight by IDEM project managers and Science Services staff, using the principles outlined in the Non-Rule Policy Documents "Remediation Closure Guide" and "Remediation Program Guide - State Cleanup Program" (Attachment C).
- Vicinity-wide evaluation of the entire project area, including understanding how the sites are connected, multiple plume behavior analysis, and identification of sources to the Riverside and White River Wellfield contamination will be undertaken by the PRP Cooperative, with oversight and input from the Lead IDEM Project Manager and Lead IDEM Geologist. The Lead Project Manager and Lead Geologist will review all site investigation work plans and reports to ensure each investigation is conducted with the overall goal of determining potential contribution to Site 0153 in mind.

Sampling on all sites will include soil, vapor, and groundwater samples. Initial samples will be analyzed for the full suite of potential contaminants in order to determine the correct list of contaminants of concern. Each site will be delineated horizontally and vertically until groundwater and soil impacts are below the RCG Residential Tap Water/Residential Soil standards. All sites must coordinate to gauge and sample wells on a regular basis. This information will be valuable to determining the potential source of contamination. Because of the toxicity of the contamination and the drinking water receptor, the delineation must be confirmed with repeatable groundwater data (wells). All data will be submitted to IDEM's SAMPDB database.

Risk Assessment/Cleanup Goals

IDEM staff will evaluate all Site Investigation-generated data against the IDEM Residential standards for soil, groundwater, and soil vapor. Those standards are derived using EPA Region 5 standards and calculated to be protective at a level of 1×10^{-5} , which is within the Superfund acceptable risk range of 1×10^{-6} to 1×10^{-4} .

Site Technical Decision Points

Once an individual site has been delineated to residential levels and all data and information has been submitted to the satisfaction of the site Project Manager, the site will be directed to mitigate any source areas, vapor intrusion, or other local, on-property impacts. This remedial decision, including all supporting information, conclusions, risk evaluations, and impact to local communities, will be detailed

in a Site Decision Document submitted to IDEM for review and approval by the Site Project Manager, Site Technical Staff, Lead Project Manager, Lead Geologist, and the State Cleanup Section Chief.

When the majority of sites have determined their nature and extent impacts and all data has been collected and evaluated, the PRP Cooperative, with comment from the IDEM Lead Project Manager and Lead Geologist, will draft a document that provides an overview of all relevant site-wide data and the conclusions regarding the nature of the groundwater contamination affecting the wellfields, all relevant source areas, and potential risk for future contamination to the wellfields. The PRP Cooperative will also draft a feasibility analysis of potential cleanup strategies that will protect the existing wells and reduce or eliminate impacts to the wellhead protection area.

Decision Document

IDEM staff will evaluate the results of the Site Investigation and Feasibility Analysis documents and will draft a Decision Document that will summarize the results of the investigations, risk evaluations, and feasibility analysis (including potential 30-year cost evaluations) of all potential cleanup actions for the Site 0153 plume. This document will evaluate the potential cleanup actions using the Superfund Nine Criteria, which include:

Threshold Criteria

1. Overall protection of human health and the environment
2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

Primary Balancing Criteria

3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility or volume
5. Short-term effectiveness
6. Implementability
7. Cost

Modifying Criteria

8. State (EPA) acceptance
9. Community acceptance

The draft Decision Document will be presented to the public as a proposal at a public meeting, and any written or oral comments will be gathered and responded to before the Decision Document is signed by the Assistant Commissioner of the Office of Land Quality. The PRP Cooperative will also be presented a copy of the draft Decision Document and given the opportunity to comment.

Site 0153 Responsible Party Agreement

All parties/property owners that are shown to have a plume source or contributing areas will be asked to come to an agreement to fund the remedial action chosen in the Decision Document. This agreement will include each site's cost contribution and future financial assurances, as well as the structure of the

collective group's responsibility to implement the remedial action, the role of IDEM staff to approve remedial design and remedial action activities, and future operations and maintenance responsibilities.

Site 0153 Public Participation Plan

IDEM staff commit to holding at least a quarterly meeting in the Site 0153 area to update the public regarding progress at the site. In addition, links to publicly available site documents will be placed on the Site 0153 website. The documents will also be placed in an information repository that will be established in a local library or other public location. The draft site Decision Document will be presented to the public for input and comment before the document is final. IDEM staff are committed to communicating with the public in an open and transparent way in order to keep them informed of the site activities in their area. IDEM staff will also determine if any other methods of communication are preferred by the community and will revise this approach as necessary to ensure the needs of the community are being met. IDEM will ensure that both Spanish and English translations of outreach information are available. In addition, financial assistance to citizens groups to be able interpret any site-related technical documents will be made available either through PRPs or IDEM itself if no PRPs are identified.

Citizens Water Utility

Citizens Water has stated it would be willing to take the following measures to ensure the continued safety of its drinking water and to assist State and local governmental agencies with assessing and mitigating potential contaminant source areas in the vicinity of the Wellfields:

- Citizens would take production well WR-3 out of service, install an aeration treatment system to reduce VOC levels, and then test the water post-treatment to ensure VOC levels are below EPA's maximum contaminant limits (MCLs) for drinking water. Upon receipt of sustained satisfactory test results, Citizens would return WR-3 to service. At that point, all "raw water" being produced by Citizens' two production wells would be below EPA's standards before it is mixed with surface water and treated in Citizens' treatment process.
- Citizens would take the same measures at any production well in the future if verified sample results exceed MCLs, thus ensuring that water produced from Citizens' production wells, even before mixing and treatment, would continue to be below EPA Safe Drinking Water Act Maximum Contaminant Level (MCL) standards.
- Citizens would increase the frequency of its voluntary sampling for VOCs from the production wells and monitoring wells in the Wellfields from semi-annual to quarterly, and would share those results with IDEM as they are received.
- Citizens has developed and implemented Groundwater Quality Monitoring Plan, dated January 17, 2017 as required by a recently adopted Indianapolis/Marion County ordinance, to track CVOC concentrations in the Wellfields. The results of this sampling program will be shared with EPA, IDEM, and the four local agencies identified in the ordinance to help determine if further measures are warranted.

IDEM Commitments

IDEM understands that the nature and complexity of Site 0153 will require a large allocation of resources to complete successfully. Therefore, the Governor's Office and IDEM commit to hiring an additional three project managers, a geologist, and an attorney to be dedicated to the project. In addition, state funding has been secured in the amount of \$1 million per year to ensure work is completed in a timely manner.

IDEM staff believe this strategy will result in a complete and thorough evaluation of the contamination affecting the White River and Riverside wellfields, will be protective of human health and the environment, be responsive to the concerns expressed by local agencies, and will be acceptable to the citizens who live in the area.

List of Anticipated Deliverables

Site 0153 Remedial Investigation

A comprehensive evaluation of the nature and extent of contamination affecting the Riverside and White River Wellfields, including groundwater, soil, and vapor intrusion evaluations as well as source identification.

Site 0153 Risk Assessment

Evaluation of all data generated in the Remedial Investigation to determine if the site poses a risk to human health or the environment. This document will clarify contaminants of concern, compare concentrations against IDEM's Residential and Industrial closure values, and will determine the appropriate cleanup criteria for the site.

Site 0153 Feasibility Analysis

This document will determine potential remedies for any unacceptable risk associated with Site 0153. The document will also list potential Applicable or Relevant and Appropriate Requirements as well as cost evaluations for the potential remedies.

Site 0153 Decision Document

This document will summarize the results of the Remedial Investigation, the Risk Assessment, and the Feasibility studies, as well as summarize all ARARs for the site. The document will then outline the remedy preferred by IDEM and the PRPs. This document will be then made available in draft for public comment. All written public comments will be responded to as an addendum to the Decision Document.

Community Involvement Plan

This document will outline the ways in which IDEM intends to communicate with the public, including primary contacts, strategies for email and print communications, commitments to public meetings, location of a public information repository, how to find public records, availability sessions, and any other methods of communication and location of information relevant to the site. The public will be solicited for their input into this plan before it is drafted to ensure the plan meets the community's needs.

