



Andy Beshear
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

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Rebecca Goodman
SECRETARY

Anthony R. Hatton
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KENTUCKY DIVISION OF WATER
WELLHEAD PROTECTION PLAN
5-YEAR UPDATE FORM

Update Requirements:

This form should be used for the 5-year update submittal requirements of the Kentucky Wellhead Protection Program (WHPP) in compliance with 401 KAR 4:220 and SDWA Section 1428. Once the form is complete, please sign and send to:

Kentucky Division of Water
Watershed Management Branch
Attention: Dale Booth
300 Sower Boulevard, 3rd Floor
Frankfort, Kentucky 40601 or dale.booth@ky.gov

For assistance, contact Dale Booth at (502) 782-6895 or dale.booth@ky.gov

System Information:

PWS Name: **Hickman Water Department**

PWS ID Number: **KY0380193**

AI Number: **1434**

Contact Person/Title: **David Gallagher/City Manager**

Mailing Address: **1812 S. 7th Street Hickman, KY 42050**

Telephone: **270-236-2535** Email: citymanager@cityofhickman.org

System Type*: **Community**

*Community; Non-Transient/Non-Community; Transient/Non-Community

Source*: **3 Wells** *Well(s) or Spring(s) and total number of each

AKGWA #(s): **Well #1: AKGWA#003-3959, Well #2: AKGWA#0003-3960, Well #3: AKWGA#0003-3962**

County: **Fulton**

ADD: **Purchase**

WWD Permit #: **0382** Permitted Amount (mgd):

Population Served: **3190**

Overall Susceptibility Rating*: **Medium** *High, Medium or Low

WHPP Changes Summary: **No change**

Update Form Instructions:

Please complete each section that applies to any system or WHPP updates and submit the supporting documentation. Please indicate if a section is not applicable to this update. **Sections 4 and 6 through 11 are required for every 5-year update.**

Please sign certification on the last page upon completion.

Section Updates:

Section 1: Treatment Plant

If the treatment plant location has changed then provide a new location map below. This can be a county roadmap or a GIS-produced map. Please use the area below to provide relevant details, or to indicate that no change has occurred.

No change

Section 2: Water Withdrawal and Water Quality

If there have been changes in water withdrawal rates or water quality since the last submittal, provide a discussion of the relevant details in the space below (include new Water Withdrawal Permit Number if applicable). Include supporting documentation as an attachment.

No change

Section 3: Change or Modification to Groundwater Source

If the system has changed or modified the wells or springs being used, provide the following: 1) a description of changes/modifications; 2) copies of the relevant form(s) (Kentucky Water Well Record, Well Maintenance & Plugging Record, Well Inspection Form or Spring Inventory Record); and 3) any other information relating to well construction (i.e., installation logs, driller's logs, lithological or geophysical logs), below.

No change

Section 4 (REQUIRED): Planning Team

Effective water supply protection requires community involvement and public awareness. Identify the planning team consisting of a leader and at least two team members, with their respective titles, below.

Leader:

David Gallagher/City Manager

Team Members:

Carrie Schmidt/City Clerk

Danny Pruett/City of Hickman

Section 5: WHPA Delineation

If the system is revising a Wellhead Protection Area (WHPA) delineation, or if a new groundwater source has been added since the last submittal, provide a site-specific description of the local geology and aquifer. Include references for published literature. Provide a summary of any aquifer tests (i.e. pumping tests, slug tests, tracer tests), including data gathering and evaluation methods. Show calculations and supporting data for each WHPA delineated or revised. Include the detailed hydrogeologic report as an attachment.

No change

Section 6 (REQUIRED): WHPA Map

Provide a WHPA map that shows each groundwater source labeled with the appropriate AKGWA #, all protection zones identified and the Contaminant Source Inventory (CSI) point locations. If no changes have occurred since the last submittal, then a copy of the most recent WHPA/CSI map can be resubmitted. To view the most recent delineations for your system, please visit the [Source Water Protection Viewer](#). Please contact program staff for assistance.

See attached

Section 7 (REQUIRED): Contaminant Source Inventory

Provide an updated CSI in table format. This can be created using the spreadsheet template provided, and copied into the space below. If no changes occurred since the last update, the table can be pulled from previous WHPP documents. Each contaminant source listed should have a Contaminant Source ID # that corresponds to the WHPA map in Section 6. The CSI table must show the susceptibility determination ranking for each contaminant source. Include a

brief narrative discussion of the overall system susceptibility. For more information on potential sources of contamination, please visit the DOW's [Web Tools for SWP Planning website](#). Please contact program staff for assistance.

See attached

Section 8 (REQUIRED): Management Strategies

Provide a discussion of the previous and newly proposed management strategies to prevent source water contamination. This discussion must include the previous management strategies that were implemented as well as the goals that were met. Next, include any NEWLY proposed management strategies, associated goals, implementation plans and the party responsible for implementation. For information about wellhead protection strategies please visit the DOW's [Source Water Protection Strategies website](#).

Previous Management Strategy Update:

City continues to work with Tokai Carbon (formally SGL) and reviews the groups Ground Water Protection Plan.

Newly Proposed Management Strategies:

City has developed well management and rehab program to reduce iron levels. City continues taking daily raw water samples to measure iron, ph & turbidity. The city is doing an engineer study to determine feasibility at restoring the old water treatment plant. According to previous engineers – S4 Water Services, Reveal Underground Technologies, Kentucky Rural Water and others have questioned why the original plant was not operational since it is the “Cadillac” system. The current plant has been in place since the 1990’s and is nearing the end of its life expectancy. No increase in permitted withdrawal is needed. Simply every person visiting comments on the old plant being vastly superior to the current plant.

Section 9 (REQUIRED): Contingency and WHP Planning

Provide a description of Contingency and WHP Planning. Complete the Emergency Response Phone List, Procedures for Public Notification, identification of Potential Future Problems and the procedures to establish Alternative Water Supplies. This section must also address how often the WHPP will be reviewed and updated.

Emergency Response Phone List

Fill in all Blanks and Phone Numbers with appropriate information.

Local Emergency Response	Phone Number
Danny Pruett – Plant operator	270-236-2979 or 270-994-6086
Hickman Volunteer Fire Department	270-239-2529
Hickman Police Department	270-236-2529
Fulton County Emergency Management	270-236-3480
Local Emergency Dispatch Click here to enter text.	270-236-3015 or 911

State and Federal Assistance	Phone Number
Kentucky DOW (Frankfort)	502-564-3410
Kentucky DOW Associated Field Office (FO) ENTER FO NAME	270-898-8468
Kentucky Environmental Response Team 24 hour response line	(502) 564-2380 (800) 928-2380
Kentucky State Fire Marshall	(502) 573-0382

Any Other Pertinent Contacts	Any Other Pertinent Numbers
Click here to enter text.	PHONE NUMBER
Click here to enter text.	PHONE NUMBER
Click here to enter text.	PHONE NUMBER

Procedures for Public Notification:

In the event of a water system emergency that would threaten the health or life of the public, use the following procedure. Prepare and broadcast an advisory, including directions for the public. Describe the public notification process and provide contacts for those media outlets. If the system uses methods other than traditional media please list them.

City will contact news and outlet sources including door to door contact if necessary. A brief statement describing the nature of the emergency as well as protective steps to take will be included. Local newspaper, radio, TV, One Call System will be issued notifications for the public.

Newspaper, Television, and Radio Stations	Phone Numbers
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The Current (Newspaper)	270-472-1121
WPSD -TV	270-415-1900

Potential Future Problems:

Describe the *most likely* scenarios that could threaten the water supply.

The most likely scenario that could threaten the water supply would be an accident/fire at SGL Carbon Group facility located within Hickman's WHPA boundary.

Alternative Water Supply (Short and Long Term):

Describe the short term and long-term water supply alternatives that address each of the potential future problems identified above. List all current interconnections with other water systems. Discuss the capacity of each potential alternative water supply to sustain normal operations.

If water production is interrupted, the city will issue a boil water advisory for short term. For long term, the city will purchase water and transport it to Hickman from Fulton water and other communities.

Schedule for Update and Review:

The Wellhead Protection Plan will be reviewed regularly and updated every five years as required by regulation.

Section 10 (REQUIRED): Copies of Public Notices and Education Materials

Provide copies of wellhead protection public notices and education materials distributed.

Click here to enter text.

Section 11 (REQUIRED): Public Meeting Documentation***

Provide the record of WHPP public meeting attendance, minutes and comments.

NA

***Non-Community Water Systems are not required to have public meetings for 5-year updates, but must post a public notice in a conspicuous place. A public notice template is provided as a separate document. However, public input and associated documentation are encouraged. Please contact program staff if you have any questions.

Certification Signature (TO BE COMPLETED BY PLANNING REPRESENTATIVE):

"I certify that this document and all attachments were prepared under my direction or supervision. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete."

Signature:  Date:  Click here to enter text

Printed Name/Title: David Gallagher/City Manager

Assistance:

For any assistance, please contact Wellhead Protection Staff:

Dale Booth
(502) 782-6895
Dale.Booth@ky.gov

Allan Shingleton
(502) 782-6907
Allan.Shingleton@ky.gov

Please sign and return completed form to:

Kentucky Division of Water
Watershed Management Branch
Attention: Chip Zimmer
300 Sower Boulevard, 3rd Floor
Frankfort, Kentucky 40601
or Dale.Booth@ky.gov

Contaminant Source Inventory and Susceptibility Analysis for

Hickman Water Department/KY0380193

Instructions (section may be deleted on submission):

Use the following table to list and rank potential contaminants identified during the contaminant source inventory.

Include Lat/Lon or addresses when possible. Enter the WHPA in which the contaminant occurs.

Multiple, similar sources that are clustered can be listed once with the Quantity identified.

The Proximity Ranking is based on the WHPA in which the contaminant is located (WHPA 1=3; WHPA 2=2; WHPA 3=1).

Contaminant Value is on a 1-3 scale, based upon its potential threat; consult the Contaminant Source Types_Values guide.

Hydrologic Sensitivity: The physical, chemical, geological, hydrological, and biological characteristics of the area over which, or through which, the contaminants move to the aquifer have various capabilities to detain or attenuate contaminant releases. Consult the Hydrologic Sensitivity tab.

The spreadsheet will use the values entered to calculate the Numeric Rating for each contaminant source.

o $\text{Numeric Rating} = (\text{Proximity Value} \times 2) + (\text{Contaminant Value} \times 3) + (\text{Hydrologic Sensitivity Value})$

This will determine the Susceptibility Ranking: Numeric Rating less than 10 = Low; 10-15 = Medium; greater than 15 = High.

Please contact SWP/WHPP staff if you have any questions.

Contact:

Dale Booth; Dale.booth@ky.gov; 502-782-6895

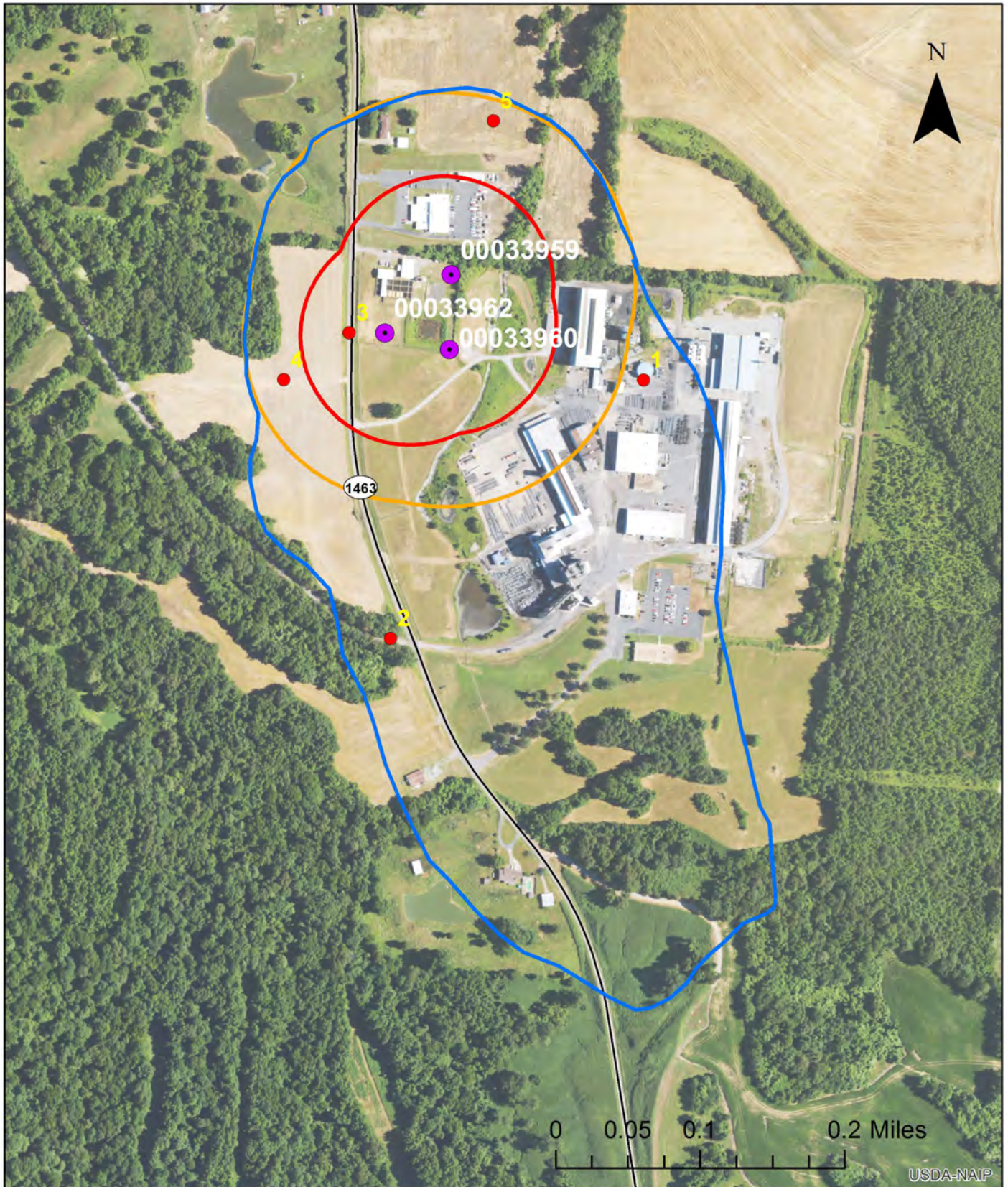
Ryan Parks; Ryan.parks@ky.gov; 502-7824039

CSI Map ID #	Site ID	Contaminant Source Type	CS CODE	Name	Address	Lat	Lon	Quantity	Zone	Proximity Value	Contaminant Value	Hydrologic Sensitivity	Numeric Rating	Susceptibility Ranking	Contaminant Notes
1		Other Industrial Sources	I-16	SGL Carbon LLC, 14 AST; 1 Solid Waste	2320 Myron Cory Rd, Hickman, KY 42050	36.5481	-89.1806	15	3	1	3	2	13	MED	14 ASTs, Solid waste
2		Railroad Lines	C-32	Rail Line	Hickman, KY 42050	36.5454	-89.1837	1	3	1	3	2	13	MED	
3		Major Roadways	M-7	HWY 1463	Hickman, KY 42050	36.5484	-89.1843	1	1	3	3	2	17	HIGH	
4		Crops : Corn, Soybean, Wheat	A-5	Row Crops	Hickman, KY	36.5479	-89.1851	1	2	2	2	2	12	MED	
5		Crops : Corn, Soybean, Wheat	A-5	Row Crops	Hickman, KY	36.5506	-89.1826	1	2	2	2	2	12	MED	

CSI Totals	Low	0
	Med	4
	High	1

Overall Susceptibility Ranking	Med
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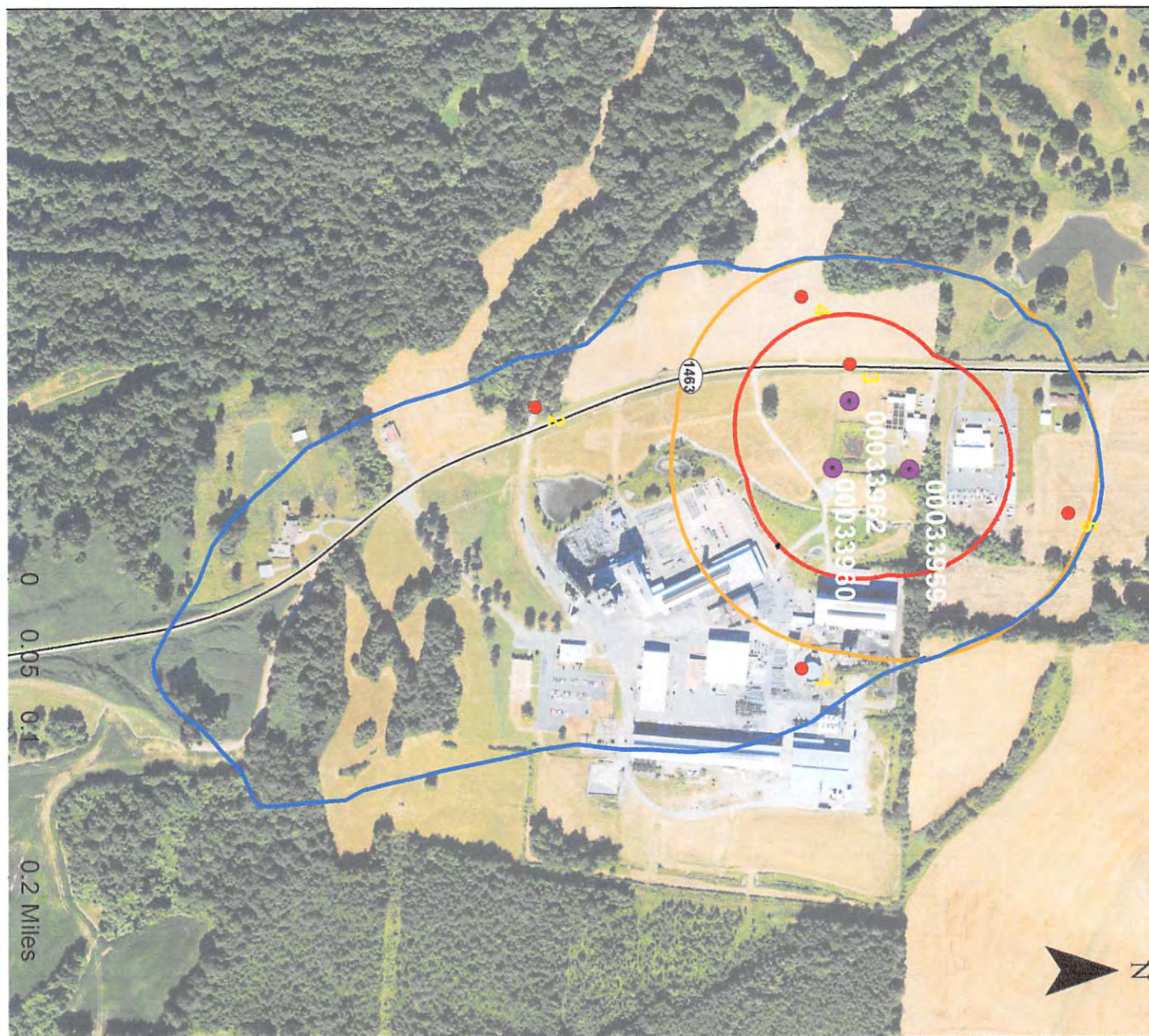
Contaminant Source Inventory



- Potential Contaminant Sources
- Water Wells (PWS)

- Zone 1: 180 Day time of travel for potential contaminant
- Zone 2: 10 year time of travel
- Zone 3: Hydrologic Boundary

Contaminant Source Inventory

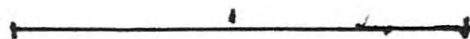


- potential contaminant source
- water wells (CPWS)

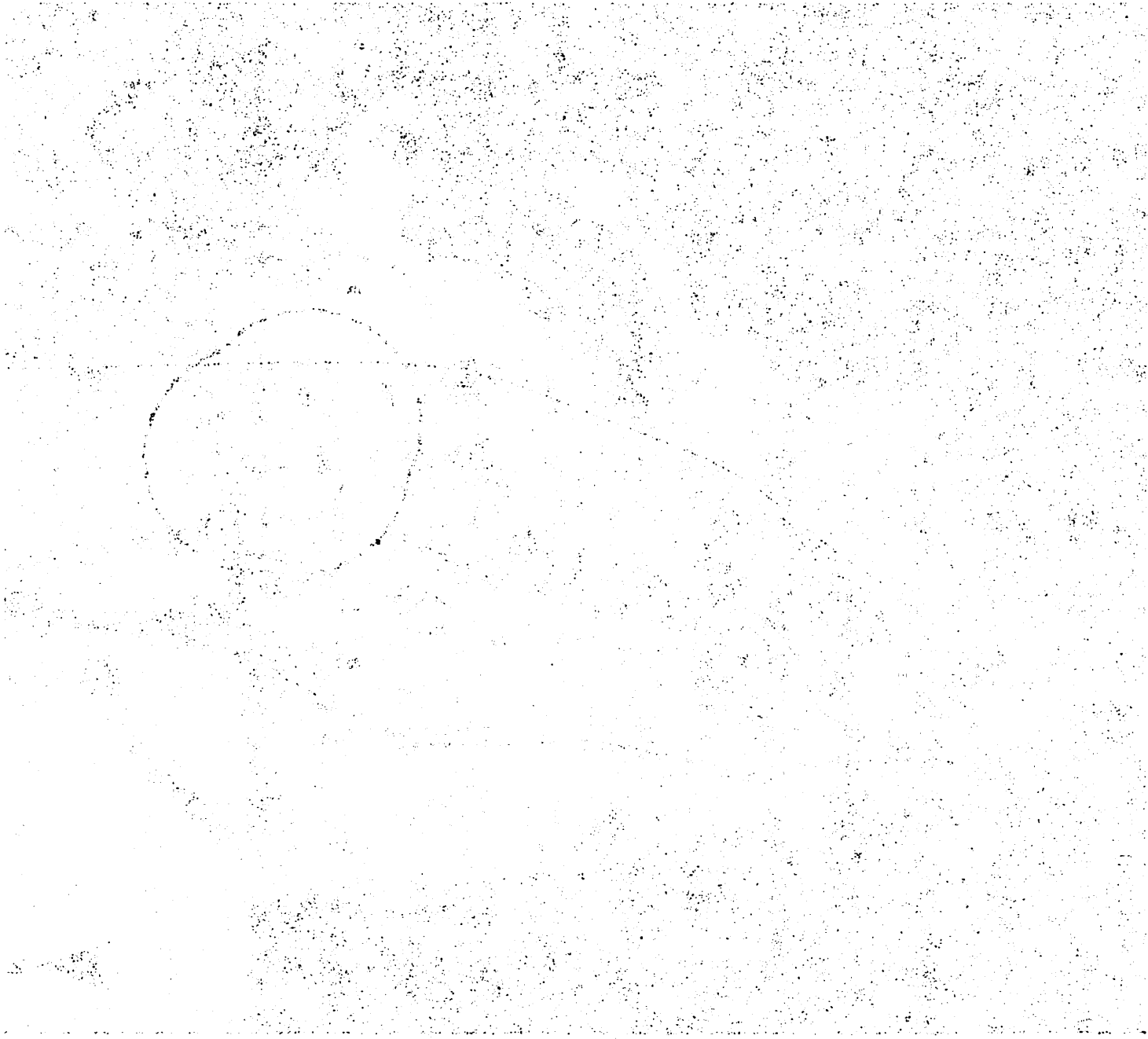
- Zone 1 180 day time of travel for contaminants
- Zone 2 10 year time of travel
- Zone 3 hydrologic boundary

0.125

0.25 miles



Continued Basic Inventory



Point to west of 180 feet from
 Expected surface of
 Point to west of 180 feet from
 Point to west of 180 feet from

Point to west of 180 feet from
 (2000) 2000 2000

0.100 0.100
 1 1 1