



**ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION**

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

**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: Allan Shingleton
300 Sower Boulevard, 3rd Floor
Frankfort, Kentucky 40601 or allan.shingleton@ky.gov

For assistance contact Allan Shingleton at (502) 782-6907 or allan.shingleton@ky.gov

System Information:

PWS Name: **Gallatin County Water District (Wellfield A)**

PWS ID Number **0390130**

AI Number: **33880**

Contact Person/Title: **Willie Harmeling**

Mailing Address: **4500 HWY 455, Sparta KY 41086**

Telephone: **859-643-5200** Email: **gallatin.water@fuse.net**

System Type*: **Community**

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

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

County: **Gallatin** ADD: **NKY**

WWD Permit #: **1509** Permitted Amount (mgd): **0.37**

Population Served: **5900**

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

WHPP Changes Summary: **No significant changes**

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 road map or a GIS-produced map. Please use the area below to provide relevant details, or to indicate that no change has occurred.

There has been no change to the Gallatin County Water District Well A treatment facility.

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.

There has been no modification to the water withdrawal or change in the water quality for Gallatin County Water District's Well A.

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, lithologic or geophysical logs), below.

No changes or modifications have been made to Gallatin County Water district's Well A.

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:

Willie Harmeling

Team Members:

Mike Garrett

Tammy Hendron

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.

There is no alteration in the WHPA delineation for Gallatin County Water District's Well A.

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. Please contact program staff for assistance.

A WHPA Map depicting the source and protection zones and CSI points has been 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 discussion of the overall system susceptibility. Please contact program staff for assistance.

A new CSI table listing each individual contaminant source has been attached.

Section 8 (REQUIRED): Management Strategies

Provide a discussion of the previous and newly proposed management strategies. 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.

Previous Management Strategy Update:

The Gallatin County Wellfield A contains one production well which is located southwest of downtown Warsaw on land adjacent to the Ohio River, surrounded by high value and productive Agricultural land. The contaminant sources can be directly controlled through existing regulatory programs and the encouragement of proper agricultural practices. On an annual basis Gallatin County has both its wellfields inspected and performance testing done on the wells. As part of public education efforts Water Supply Protection road signs are in place to inform drivers they are entering a sensitive area. The Consumer Confidence Report has been made available to the public annually with a good discussion about source water protection and the quality of their groundwater included in it.

Newly Proposed Management Strategies:

A Groundwater Protection Plan (GPP) is required by Kentucky State Law 401 KAR 5:037, for all facilities and homeowners that operate activities that have the potential to contaminate groundwater. A GPP will be prepared for this facility. All homeowners located in the wellhead protection area will be notified of this requirement and assisted in developing a GPP by the Utility management. Owners of all potential contaminant sources within the wellhead protection area are requested to notify the management of the Water District in the event of a spill or release of potential contaminants.

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
Plant Operator	859-634-5200
Warsaw Fire Dept	859-567-5001
Gallatin Co Judge Executive	859-567-5691
Gallatin Co Office of Emergency Management	859-567-7021
Local Emergency Dispatch Click here to enter text.	911

State and Federal Assistance	Phone Number
Kentucky DOW (Frankfort)	(502) 564-3410
Kentucky DOW Associated Field Office Florence	859-525-4923
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
National Response Center	800-424-8802
KY Rural Water Association	270-843-2291
Click here to enter text.	

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.

In the event of an emergency situation the Gallatin County Water district will issue a boil water advisory via WIKI radio.

Newspaper, Television, and Radio Stations	Phone Numbers
The Gallatin County News	859-567-5051
WIKI Radio	800-953-9454

Potential Future Problems:

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

The most likely scenario of contamination is by nitrates from agricultural areas or failing septic systems in the area. Implementation of certain types of treatment processes (reverse osmosis, bio-reactor) would be costly for the Utility, therefore an alternative water supply may be necessary if such a catastrophic event occurred.

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.

Long-term contingency plans include modification of their treatment process, drill new water supply wells, or purchasing water. Short-term contingency plans include boil water notification to customers and blending water from different wells.

Gallatin County Water District has interconnections to Warsaw.

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.

[Click here to enter text.](#)

***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: [Click here to enter text.](#)

Assistance:

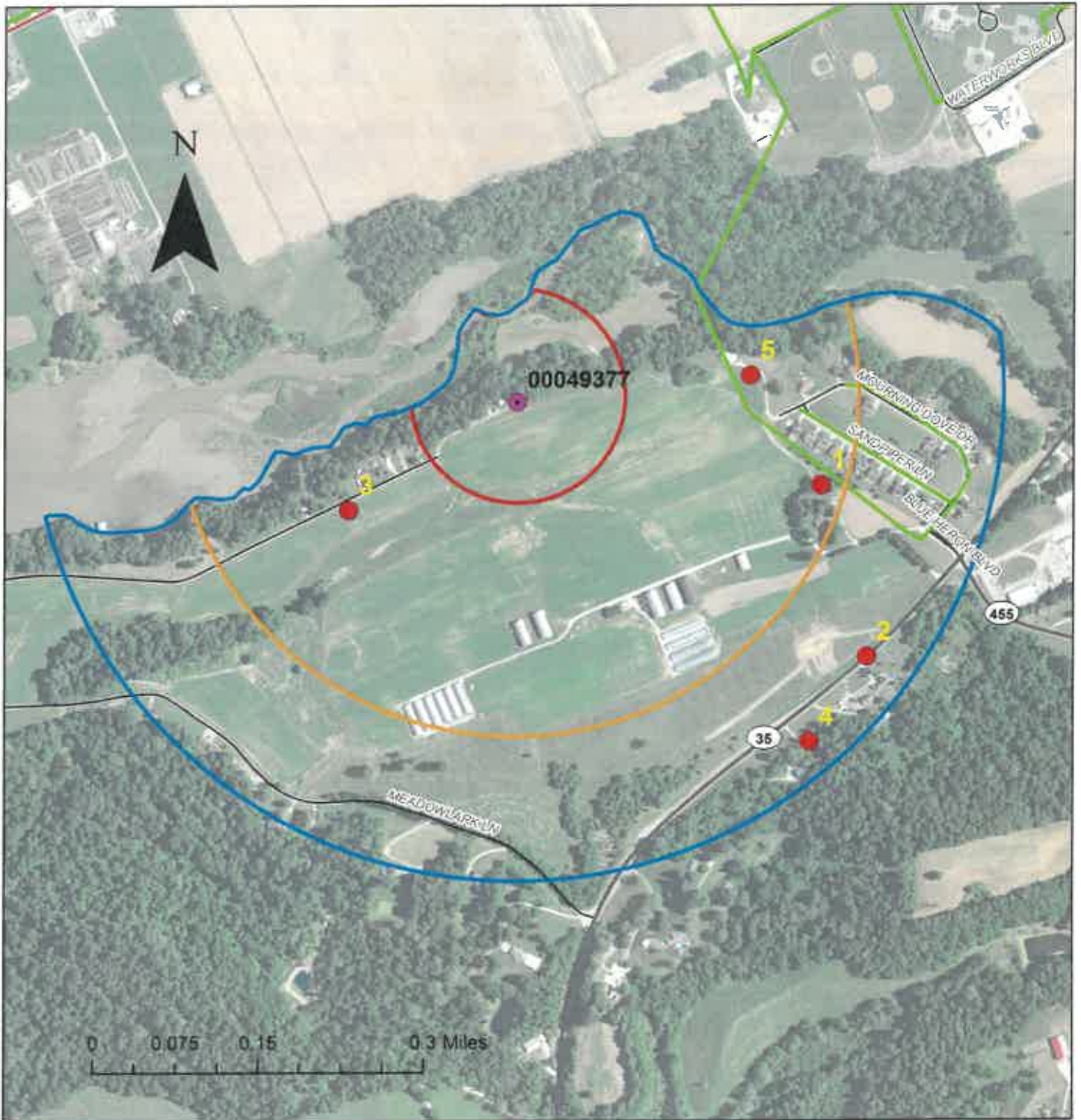
For any assistance please contact Wellhead Protection Staff:

Rob Blair
(502) 782-6893
Robert.Blair@ky.gov

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

Please sign and return completed form to:

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Watershed Management Branch
Attention: Allan Shingleton
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Frankfort, Kentucky 40601
or allan.shingleton@ky.gov



Gallatin Co. WD Wellfield "A" WHPA Map

- Contaminants
- Water Well (PWS)

DOW Wellhead Protection

- Zone 1: 180 day time of travel for potential contaminants
- Zone 2: 5 year time of travel
- Zone 3: Hydrologic Boundary

- Sewer Lines
- State Roads
- Local Roads

Contaminant Source Inventory and Susceptibility Analysis for

Gallatin Co. Water District Well A

PWSID
0390130

Contaminant Source ID #	Contaminant Source/Land Use	Address	Lat	Lon	Quantity	WHPA	Proximity	Contaminant Value	Hydrologic Sensitivity	Numeric Rating	Susceptibility Ranking
1	AST's		38.770101	-84.903864	2	2	2	3	4	17	HIGH
2	HWY	HWY 35	38.767839	-84.903129	1	3	1	3	4	15	MED
3	Septic		38.769842	-84.911798	5	2	2	2	4	14	MED
4	Septic		38.766725	-84.904101	10	3	1	2	4	12	MED
5	Residential Well	136 Mourning Dove Ln, Warsaw, KY 41095	38.771561	-84.905041	1	2	2	2	4	14	MED
Totals:									High	Med	Low
									1	4	0

Use the table above to list and rank potential contaminants identified during the contaminant source inventory, include addresses when possible. Multiple, similar sources that are clustered can be listed once with the **Quantity** identified (e.g. 50 Domestic Septic Systems in one neighborhood). Enter the **WHPA** in which the contaminant occurs. 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 Risk Values Guide on Sheet 2. **Hydrologic Sensitivity** is on a 1-5 scale, determined by local geology (consult the map on Sheet 2). The spreadsheet will use the values entered to calculate the **Numeric Rating** for each contaminant source. 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.



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System Information:

PWS Name: **Gallatin County Water District (Wellfield B)**

PWS ID Number 0390130

AI Number: **33880**

Contact Person/Title: **Willie Harmeling**

Mailing Address: **4500 HWY 455 Sparta, KY 41086**

Telephone: **859-643-5200** Email: gallatin.water@fuse.net

System Type*: **Community**

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

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

County: **Gallatin** ADD: **NKY**

WWD Permit #: **1575** Permitted Amount (mgd): **0.25**

Population Served: **5,900**

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

WHPP Changes Summary: **No significant changes**

Update Form Instructions:

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Section 1: Treatment Plant

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

There has been no change to the Gallatin County Water District Well A treatment facility.

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.

There has been no modification to the water withdrawal or change in the water quality for Gallatin County Water District's Well B.

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, lithologic or geophysical logs), below.

No changes or modifications have been made to Gallatin County Water district's Well B.

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:

Willie Harmeling

Team Members:

Tammy Hendron

Mike Garrett

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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.

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Previous Management Strategy Update:

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Gallatin Co Judge Executive	859-567-5691
Gallatin Co Office of Emergency Management	859-567-7021
Local Emergency Dispatch Click here to enter text.	911

State and Federal Assistance	Phone Number
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Kentucky DOW Associated Field Office Florence	859-525-4923
Kentucky Environmental Response Team 24 hour response line	(502) 564-2380 (800) 928-2380
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Any Other Pertinent Contacts	Any Other Pertinent Numbers
National Response Center	800-424-8802
KY Rural Water Association	270-843-2291
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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.

In the event of an emergency situation the Gallatin County Water district will issue a boil water advisory via WIKI radio.

Newspaper, Television, and Radio Stations	Phone Numbers
The Gallatin County News	859-567-5051
WIKI Radio	800-953-9454

Potential Future Problems:

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

The most likely scenario of contamination is by nitrates from agricultural areas or failing septic systems in the area. Implementation of certain types of treatment processes (reverse osmosis, bio-reactor) would be costly for the Utility, therefore an alternative water supply may be necessary if such a catastrophic event occurred.

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.

Long-term contingency plans include modification of their treatment process, drill new water supply wells, or purchasing water. Short-term contingency plans include boil water notification to customers and blending water from different wells.

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.

Click here to enter text.

***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: Click here to enter text.

Assistance:

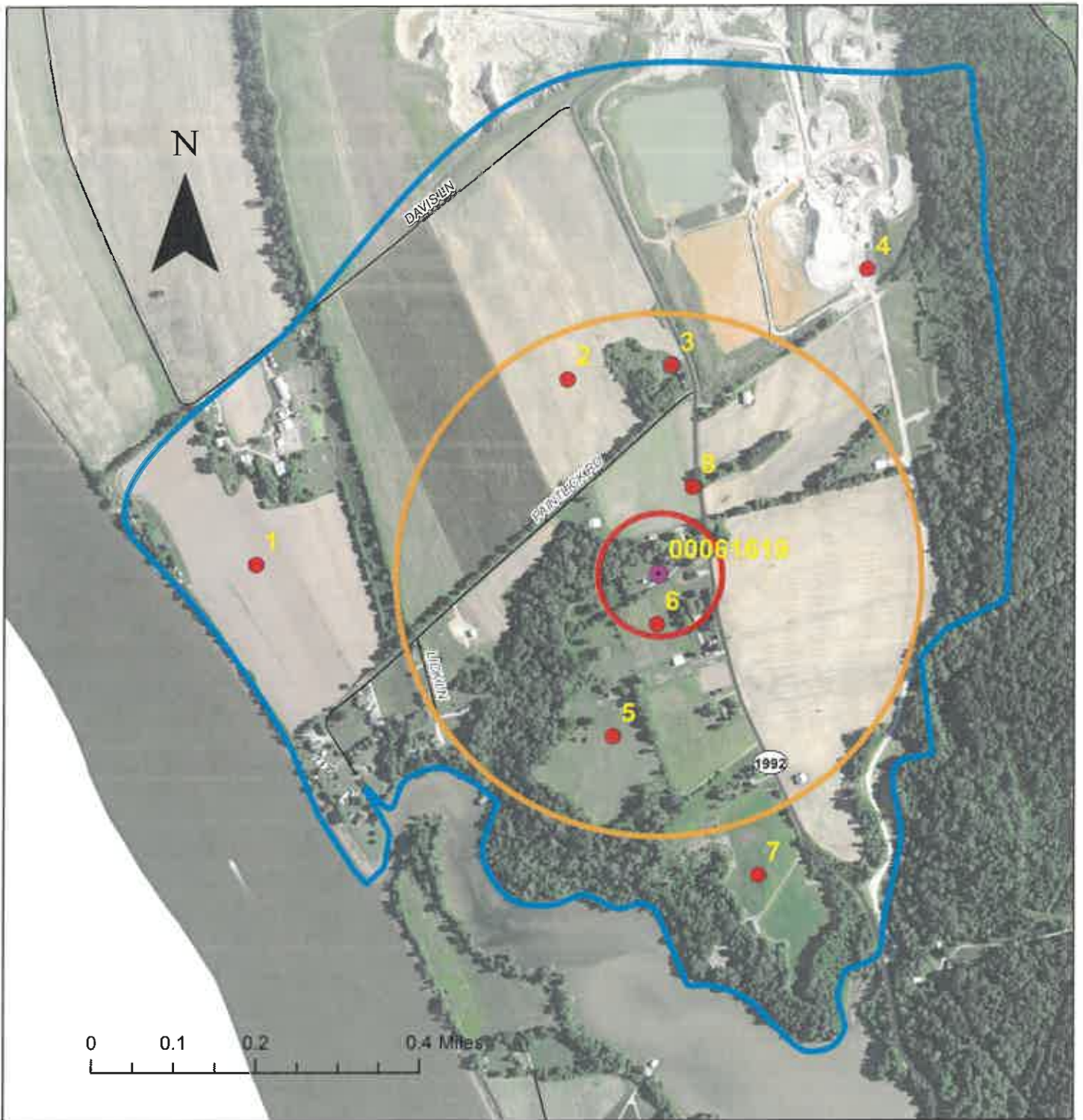
For any assistance please contact Wellhead Protection Staff:

Rob Blair
(502) 782-6893
Robert.Blair@ky.gov

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

Please sign and return completed form to:

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Attention: Allan Shingleton
300 Sower Boulevard, 3rd Floor
Frankfort, Kentucky 40601
or allan.shingleton@ky.gov



Gallatin Co. WD Wellfield "B" WHPA Map

- Contaminant Source
- Water Wells (PWS)
- State Roads
- Local Roads

DOW Wellhead Protection Areas

- Zone 1: 180 day time of travel for potential contaminant
- Zone 2: 5 year time of travel
- Zone 3: Hydrologic Boundary

Contaminant Source Inventory and Susceptibility Analysis for

Gallatin Co. Water District Well B

PWSID
0390130

Contaminant Source ID #	Contaminant Source/Land Use	Address	Lat	Lon	Quantity	WHPA	Proximity	Contaminant Value	Hydrologic Sensitivity	Numeric Rating	Susceptibility Ranking
1	Agriculture (Row crops; corn and soybeans)		38.81266	-84.815524	1	3	1	3	4	15	MED
2	Agriculture (Row crops; corn and soybeans)		38.81589	-84.808454	1	2	2	3	4	17	HIGH
3	Residential well (AKGWA 00000950)	Eugene Doolin Residence	38.81611	-84.806111	1	2	2	2	4	14	MED
4	Gravel and sand pit	Nugent Sand Company, 718 HWY 1992, Warsaw KY	38.81778	-84.801666	1	3	1	2	4	12	MED
5	Agriculture (Row crops; corn and soybeans)		38.80953	-84.807498	1	2	2	3	4	17	HIGH
6	Agriculture (Row crops; corn and soybeans)		38.81151	-84.806482	1	1	3	3	4	19	HIGH
7	Agriculture (Row crops; corn and soybeans)		38.80703	-84.804229	1	3	1	3	4	15	MED
8	HWY	HWY 1992, Steele Bottom Road	38.81394	-84.805649	1	1	3	3	4	19	HIGH
9	Septic				2	1	3	3	4	19	HIGH
10	Septic				5	2	2	3	4	17	HIGH
11	Septic				5	3	1	3	4	15	MED
								Totals:	High	Med	Low
									6	5	0

Use the table above to list and rank potential contaminants identified during the contaminant source inventory, include addresses when possible. Multiple, similar sources that are clustered can be listed once with the **Quantity** identified (e.g. 50 Domestic Septic Systems in one neighborhood). Enter the **WHPA** in which the contaminant occurs. 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 Risk Values Guide on Sheet 2. **Hydrologic Sensitivity** is on a 1-5 scale, determined by local geology (consult the map on Sheet 2). The spreadsheet will use the values entered to calculate the **Numeric Rating** for each contaminant source. This will determine the **Susceptibility Ranking**: **Numeric Rating** less than 10 = Low; 10-15 = Medium, greater than 15 = High. Please contact SWP/WHP staff if you have any questions.