



**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, 3<sup>rd</sup> Floor  
Frankfort, Kentucky 40601 or [allan.shingleton@ky.gov](mailto:allan.shingleton@ky.gov)

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

**System Information:**

PWS Name: **Green River Valley Water District**

PWS ID Number: 0500166

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

Contact Person/Title: **James Nunn**

Mailing Address: **PO Box 460 1180 East Main St Cave City, KY**

Telephone: 270-528-2081 Email: [GRVWP@scrte.com](mailto:GRVWP@scrte.com)

System Type\*: **Community**

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

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

County: **Hart**

ADD: **Barren River ADD**

WWD Permit #: **0168** Permitted Amount (mgd): **4.0 mgd**

Population Served: **25,000**

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

WHPP Changes Summary: **The GRVWD purchased approx. 141 acres of land within the WHPA that was previously being logged.**

### **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.

[Click here to enter text.](#)

#### **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.

[Click here to enter text.](#)

#### **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.

[Click here to enter text.](#)

**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:**

**James Nunn – Water Plant Superintendent**

**Team Members:**

**David Page – General Manager**

**David Matthews – Water Plant operator**

**Matt Glass – Kentucky Rural Water Association**

**Section 5: WHPA Delineation**

There are no changes to the delineation of the WHPA since the previous submittal. A WHPA map is attached.

**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.

[Click here to enter text.](#)

**Section 7 (REQUIRED): Contaminant Source Inventory**

There have been no changes to the contaminant source inventory since the previous submittal. A CSI map along with a corresponding table are 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.

# Green River Valley Water District

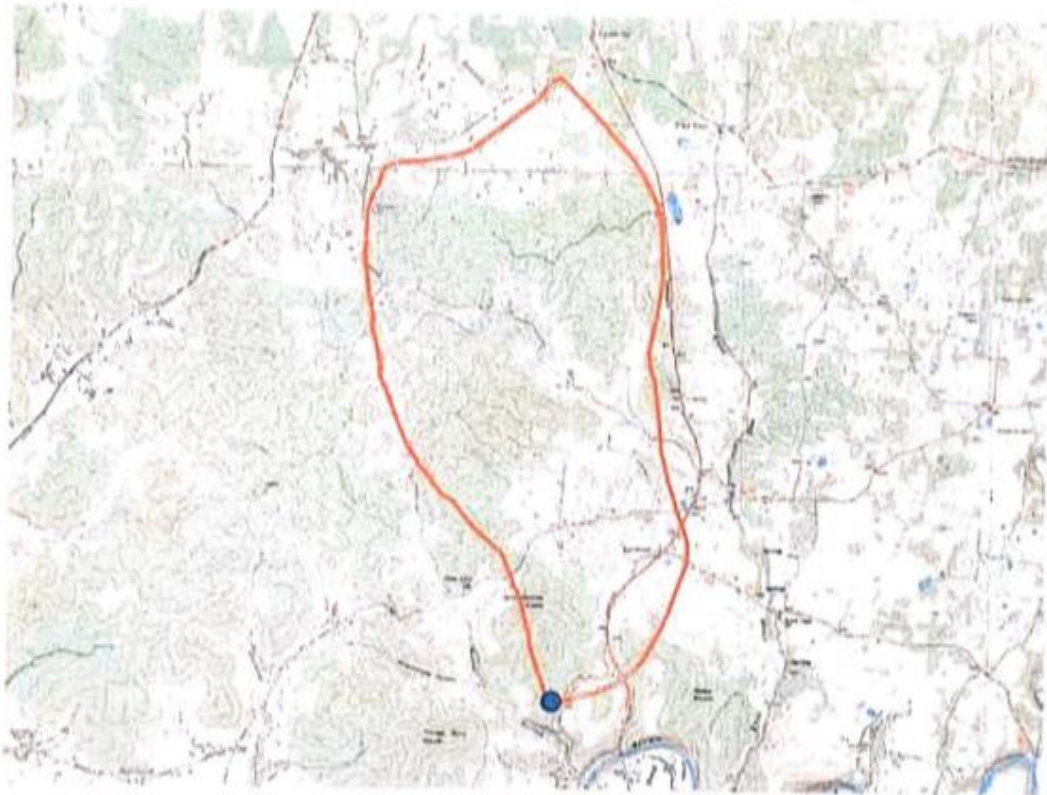


# KENTUCKY SPRING INVENTORY FORM

<b>(1) AGENCY NUMBER:</b> <div style="font-size: 2em; font-weight: bold; margin-left: 20px;">9000-0115</div>		
<b>(2) GENERAL INFORMATION:</b> Spring Owner's Name: <u>GREEN RIVER VALLEY WATER DIST.</u> ( ) unknown Mailing Address: ( ) unknown City: State: Zip: ( ) unknown Phone: ( ) ( ) no phone ( ) unknown		9000-0115
<b>(4) SPRING LOCATION:</b> Spring Name: <u>RIO VERDE SPRINGS</u> ( ) unnamed USGS Quadrangle Name: <u>CANMER</u> County: <u>HART</u> Elevation: <u>600</u> map ( ) altimeter ( ) Abney level Latitude: <u>37° 19' 30" N</u> Longitude: <u>85° 46' 17" W</u> Physiographic or Hydrologic Region: ( ) Blue Grass ( ) Ohio River Alluvium ( ) E. Coal Field ( ) Mass. Plateau ( ) Jackson Purchase ( ) W. Coal Field	<b>(8) SPRING USE:</b> ( ) domestic ( ) public supply ( ) irrigation ( ) industrial ( ) livestock ( ) monitoring ( ) unregulated public access ( ) unused ( ) other <u>AQUACULTURE</u> PWSID #: _____ Water Withdrawal Permit #: _____	<b>(10) TYPE OF TREATMENT SYSTEM:</b> ( ) none ( ) water softener ( ) ultraviolet ( ) chlorination ( ) aeration ( ) charcoal filter ( ) sand filter ( ) ion inhibitor ( ) settling tank ( ) other  Is a treatment bypass available? ( ) yes ( ) no Describe water quality problem requiring treatment:
<b>(5) SPRING CHARACTERISTICS:</b> Spring type: ( ) seep ( ) gravity ( ) blowhole (artesian) ( ) other ( ) unknown Is the spring the headwaters of a surface stream? ( ) yes ( ) no Which side of the stream is the spring (when facing upstream)? ( ) left ( ) center ( ) right ( ) not applicable Type of flow: ( ) perennial ( ) seasonal ( ) intermittent Spring discharges from: ( ) cave ( ) rock ( ) fracture ( ) soil ( ) alluvium ( ) mine adit ( ) unknown ( ) other <u>SPRING HEAD IS IMPOUNDMENT</u> Spring discharges into: ( ) stream ( ) soil ( ) swamp ( ) pond or lake ( ) sinkhole ( ) other	<b>(9) SPRING SERVICE:</b> Number of people served: <u>N.A.</u> Number of service connections: Any quality problems? ( ) yes ( ) no ( ) unknown Any quality problems? ( ) yes ( ) no ( ) unknown Describe:	
<b>(6) WATER (DYE) TRACE INFORMATION:</b> Have any water (dye) traces been run to/from this site? ( ) yes ( ) no ( ) unknown If yes, who conducted the trace? ( ) unknown ( ) unknown Address: ( ) unknown City: State: Zip: Date of trace: Month Day Year Trace #:	<b>(11) INSPECTION INFORMATION:</b> Date of inspection: <u>03 02 87</u> Check one: ( ) original inspection ( ) re-inspection Was a water quality sample taken as part of this inspection? ( ) yes ( ) no Reason for inspection (check all that are applicable): ( ) general water quality analysis requested ( ) specific complaint investigation ( ) general survey ( ) ambient groundwater monitoring ( ) other  Specify: <u>SURVEY FOR WFO FOR WATER WITHDRAWAL PERMIT</u>  Permit/Program Name:	
<b>(7) SKETCH MAP:</b> 	<b>(12) OPTIONAL USE:</b> Will spring owner allow state monitoring? ( ) yes ( ) no ( ) unknown Extent of monitoring allowed: ( ) collect sample ( ) modify spring ( ) measure discharge ( ) access to spring or spring house ( ) other Monitoring feasibility: <u>GOOD, EASY ACCESS TO AVERAGE FLOW IN CREEK CHANNEL &amp; DIVERSION DITCH</u>	
<b>(13) COMMENTS:</b> <u>GRAVITY FLOW TO G.R.V.W.D. INTAKE LOCATED AT DAM.</u> <u>GRAVITY FLOW THROUGH DIVERSION DITCH (APP. 15 x 3 x 2 FT.) TO PIPELINE SUPPLYING TROUT FARM</u>		
<b>(14) INVESTIGATOR IDENTIFICATION:</b> Name: <u>TAYLOR CHUCK</u> Agency: ( ) CHR ( ) DOW ( ) DWM ( ) KGS ( ) SOAP Signature of Inspector: <i>[Signature]</i> Date: <u>03 02 87</u> Number of Attached pages: <u>1</u>		

DWA entry completed 03/02/87

# Green River Valley WD WHPA Map



-  WHPA-1
-  9000-0115



# Contaminant Source Inventory Map for Green River Valley Water District PWSID # 0500166



-  Row Crop Lands
-  Potential Contaminant Source
-  Spring Location
-  Spring Groundwater Basin



# Wellhead Protection Plan Summary Sheet

System Name:

PWSID:

### Contaminant Source Inventory

After the Wellhead Protection Area is delineated the system performs an inventory of all of the potential contaminant sources within the designated area. The aquifer is assigned a hydrologic sensitivity ranking and each source is assigned a proximity ranking and contaminant value. All rankings use a scale from 1-3 (1 represents the lowest hydrologic sensitivity ranking, WHPA-3, and the lowest contaminant value). The numeric ranking is determined using the equation  $\text{Numeric Ranking} = (\text{Proximity Ranking} \times 2) + (\text{Contaminant Value} \times 3) + \text{Hydrologic Sensitivity}$ . The susceptibility ranking is assigned to each source based on the numeric ranking: < 10 = Low, 10-15 = Medium, > 15 = High.

ID#	Source	Latitude	Longitude	Quantity	Proximity Ranking	Cont. Value	Hydrologic Sensitivity	Numeric Ranking	Susceptibility Ranking
1	UST Gasoline	37.329587	-85.765481	1	3	3	3	18	High
2	AST Gasoline	37.337001	-85.777510	1	3	3	3	18	High
3	US Hwy 31			1	3	3	3	18	High
4	Row Crops				3	3	3	18	High



**Previous Management Strategy Update:**

In the previous submitted WHPP the GRVWD added approximately 141 acres that were being logged within the WHPA as a potential source of contamination. The water district contacted Master Logger Frankie Froggett and worked to implement a runoff protection zone and direct runoff away from the Rio Spring reservoir. The water district also installed road signs on HWY 31E and Glen Lily Road. Gates, fences and signs were installed to discourage any illegal dumping or other activities that could impact the watershed area.

**Newly Proposed Management Strategies:**

In 2018 the GRVWD was able to purchase approximately 141 acres within the WHPA that was previously being logged. The land was acquired to ensure that the Rio Spring reservoir was not impacted by any runoff associated with logging activities. The Water District will continue to comply with groundwater protection planning regulations by renewing or updating their current GPPs when available. The Water District will report any illegal dumping or spills identified to the regional DOW office. The GRVWD will continue its public education objective to promote protection of their water resource to their residents.

**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	(270) 528-2081
Local Fire Department	(270) 528 5353 or 911
Hart Co. Police	(270) 524-3378 or 911
State Police	(270) 766-5078 or 911
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 Louisville	(502) 425-4671
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
Kentucky Rural Water Association	(270) 843-2291
Click here to enter text.	PHONE NUMBER
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.

Click here to enter text.

Newspaper, Television, and Radio Stations	Phone Numbers
News Enterprise	(270) 769-1200
WBKO 13	(270) 781-6156

**Potential Future Problems:**

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

The most likely scenario of contamination to the spring would be a potential spill occurring on HWY 31E within the WHPA. Potential problems could occur from residential growth along the primary and secondary roads in the WHPA, especially HWY 31E.

**Alternative Water Supply (Short and Long Term):**

GRVWD operates a conventional water treatment plant. Any water quality or quantity problems that occur at the Rio Spring can be offset by withdrawing from the Green River. Short term contingency plans include boil water notification.

**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: James Nunn Date: Click here to enter text.

12/08/2020

Printed Name/Title: Click here to enter text.

JAMES NUNN  
SUPERINTENDENT

**Assistance:**

For any assistance please contact Wellhead Protection Staff:

Rob Blair  
(502) 782-6893  
[Robert.Blair@ky.gov](mailto:Robert.Blair@ky.gov)

Allan Shingleton  
(502) 782-6907  
[Allan.Shingleton@ky.gov](mailto:Allan.Shingleton@ky.gov)

**Please sign and return completed form to:**

Kentucky Division of Water  
Watershed Management Branch  
Attention: Allan Shingleton  
300 Sower Boulevard, 3<sup>rd</sup> Floor