



Steven L. Beshear
Governor

Leonard K. Peters
Secretary
Energy and Environment Cabinet

Commonwealth of Kentucky
Public Service Commission
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Frankfort, Kentucky 40602-0615
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David L. Armstrong
Chairman

James W. Gardner
Vice Chairman

Linda K. Breathitt
Commissioner

October 28, 2013

John N. Hughes, Esq.
124 West Todd Street
Frankfort, Kentucky 40601

Mr. David Paige
Green River Valley Water District
85 E. Les Turner Road
Cave City, Kentucky 42127

Re: Case No. 2013-00346
Green River Valley Water District

Gentlemen:

The enclosed documents, which Commission Staff received in response to a request to the Kentucky Division of Water, have been filed in the record of the above-referenced case. Any objections to this action should be submitted to the Commission within five days of receipt of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Derouen".

Jeff Derouen
Executive Director

gw
Enclosure

From: [Green, Nancy \(EEC\)](#) on behalf of [DOWOpenRecords \(EEC\)](#)
To: [Wuetcher, Jerry \(PSC\)](#)
Subject: RE: Request for Records UP Kentucky Open Records Act
Date: Friday, October 18, 2013 2:57:05 PM

Mr. Wuetcher,

I have attached an FTP site based on your request which will be available Until October 28th, 2013 at which time it will be deleted.

<ftp://eecdow112944:EDCVfr45TGBN@ftp.cot.ky.gov/EECDOW112944/EECDOWDATA/foia/Raff%207-17/Rio%20Verde%2010-18-2013.zip>

If you have any further questions, please feel free to contact me.

Nancy L. Green

Division of Water

email-DOWOpenRecords@ky.gov

502-564-3410

From: Wuetcher, Jerry (PSC)
Sent: Thursday, October 17, 2013 10:47 PM
To: DOWOpenRecords (EEC)
Cc: Ashley, Stella G (PSC)
Subject: Request for Records UP Kentucky Open Records Act

TO WHOM IT MAY CONCERN:

The Public Service Commission is reviewing Green River Valley Water District's application for a Certificate of Public Convenience and Necessity to remove and reconstruct a portion of Rio Verde Dam. Pursuant to the Open Records Act, the PSC requests all documents related to the Rio Verde Spring Dam Improvements. The project engineer is Kenvirons. The professional engineer who has prepared the final plans is R. Vaughn Williams. The project was assigned WRIS No. WX211099037. DOW Records may identify the project using the following AI No. 1776. Please provide all documents related to the General Water Quality Certifications for Nationwide Permit Nos. 3 and 33 and stream construction permit 20377.

If possible, please provide these records in electronic form. If they cannot be transmitted by electronic mail due to their size or if a temporary FTP site cannot be created to permit the PSC to access the files, the PSC requests that they be placed on a CD-ROM and delivered to the PSC by state government messenger mail. If a charge must be assessed to the PSC for these records, the PSC requests that the charge be by inter-account bill. Please contact Ms. Stella Ashley for authorization to perform the inter-account billing.

I respectfully request that receipt of this request be acknowledged. Please direct any questions regarding this request to me. Thank you for your assistance.

Sincerely,

Gerald E. Wuetcher
Executive Advisor/Attorney
Public Service Commission of Kentucky
gerald.wuetcher@ky.gov
Office: (502) 564-3940
Direct: (502) 782-2590

GREEN RIVER VALLEY WATER DISTRICT RIO VERDE DAM MODIFICATIONS

1.0 Background

The Green River Valley Water District (GRVWD) uses the Rio Verde Spring to supply drinking water to its 6,800 customers. The spring's flow is impounded by a dam that was constructed in 1908. The dam is a concrete buttress structure with a slight arc to the dam alignment and a centrally located spillway with a concrete apron. The dam is approximately 110 feet in length and 21 feet in height at the maximum section.

Over the years, modifications have been performed to the dam structure to accommodate the different capacities the dam has served. Recent modifications included a water outlet, or intake, structure retrofitted to the dam along the right abutment containing two pipes which supply the Water Treatment Plant (WTP). The primary spillway had been raised approximately 15 inches which created more storage space for the reservoir. The spillway now has a depth of only 0.2 feet which allows the dam to be overtopped more frequently causing scouring and erosion at the downstream toe of the dam.

During an inspection of the dam in the Spring of 2012, the District's personnel observed that the seepage around the gravity dam had increased significantly and they were concerned that the water supply was at risk. The Rio Verde Spring is the Water District's primary water supply and withdrawals from Green River are used to supplement the supply. Withdrawals from the Green River are limited since the WTP can not adequately treat the river water during periods when the river's turbidity is elevated. The seepage around the dam must be reduced so the Water District can continue providing its customers a high quality drinking water.

2.0 Description of Work to be Completed

The Green River Valley Water District is proposing to remove and reconstruct a 20 foot section of the Rio Verde Dam due to severe seepage through the dam's foundation. It is recommended that the existing water outlet/intake box and dam section be demolished and removed to better observe the condition of the dam's foundation and underlining geology. These observations will help formulate the exact repairs needed to correct the seepage problems. During replacement of the new section it is recommended that the cutoff trench (i.e. keyway) be

deepened and extended further into the foundation material. The project repairs will remain in the same general footprint as the original design but the new wall section may need to be extended further into the previously undisturbed bank. It is anticipated that the wall extension along the right abutment will be no more than 10 feet beyond the current end-of-wall location. The new section of the dam will require approximately 40 cubic yards (cy) of concrete to complete with 30 cy being placed below the Ordinary High Water Mark (OHWM).

Surface and localized repairs will be required on the upstream and downstream faces of the dam and buttresses. The surfaces of the structure will be pressured washed to remove vegetative growth and allow better observation of the existing surface. The surface deficiencies will be repaired using portland cement, epoxy grout, and sealer.

The downstream foundation of the dam is severely eroded and will require stabilization. The contractor will remove the loose material and install a new concrete splash pad along the dam's base. Stone rip-rap will also be used to stabilize the earthen embankments.

It is proposed that the left and right abutments of the dam be raised approximately 1 foot to minimize future erosion at the interface of the dam and adjoining side slopes. The existing spillway depth is only 0.2 feet deep and the stream flow frequently rises out of the central spillway section and erodes the side slopes. The additional wall height on each side will force most storm events to flow through the central spillway. The normal pool elevation will remain unchanged.

The existing outlet structure at the dam will be removed and replaced with a new a new 20" Pipe and Static Drum Screen that will be installed and connected to the existing 20" and 12" Raw Water lines to the WTP. Valves will be installed at the tie-ins to the existing pipelines allowing each to be shut down while continuing to feed the water plant through the other line.

Water withdrawals from the stream shall be screened using a Drum Screen. Screen openings shall have a maximum width of 1-1/2" and the maximum velocity through the slots shall not exceed 0.5 fps at the maximum withdrawal rate. The screen opening size and slot velocity criteria were established to minimize the volume of debris entering the pumps, limit the amount of screen plugging, and protect aquatic wildlife.

A 24" pipeline will be installed to divert the spring's flow around the dam and construction area. The pipeline will be trenched into the earth and extend from the spring adit and connect to the existing supply line to the WTP. The total

length of the pipeline will be 900 feet and 370 feet will be located upstream of the dam and below the OHWM.

3.0 Best Management Practices (BMP's)

Best Management Practices (BMPs) will be implemented and maintained throughout the construction and reclamation period. BMPs are measures used during construction activities to minimize potential impacts to surrounding environment.

During construction of the improvements at the dam, the flow from Rio Verde Spring will be diverted around the dam to minimize the sediment washed from existing impoundment area and allow the construction crew to make the necessary repairs in the dry. To divert the stream, approximately 900 linear feet of 24" pipeline will be constructed from the spring adit to the existing 20" raw water supply. Sandbags will be placed into the stream channel to direct the flow into the pipeline. The sandbags will be located approximately 370 feet upstream of the existing dam. Under normal follow conditions the sandbags will not create any additional inundation, or increase the size of the existing impoundment, and the sandbags will be removed once the dam improvements are completed.

The diversion pipe will be tied into the existing 20" raw water line so the supply to the WTP is not interrupted. The diversion pipe will also have an overflow assembly to discharge into the tributary downstream of the dam when the WTP withdrawals are less than the spring's flow. The discharge from the overflow shall be arranged to minimize erosion and sediment transport into the tributary downstream of the dam. The diversion pipeline will remain in place after the dam improvements are completed.

After the spring's flow is diverted around the impoundment, the water level behind the dam will be lowered by opening the drain valve located at the base of the dam. The release rate will be controlled to minimize the transport of sand and sediment downstream of the dam. Silt fencing and/or straw bales will be installed at the dam's base to capture the sand and sediment washed from the reservoir. A portion of the accumulated sediment located upstream of the dam will need to be removed to examine the dam's foundation. The volume of sediment to be removed is estimated to be less than 750 cubic yards and the material will be disposed of at a location outside the 100 year floodplain. The preferred sites for disposal of the material are the Water Treatment Plant or upland site located in close proximity to the Rio Verde Spring.

Concrete and rock removed from the dam will be used to stabilize the embankment along the access road to the dam.

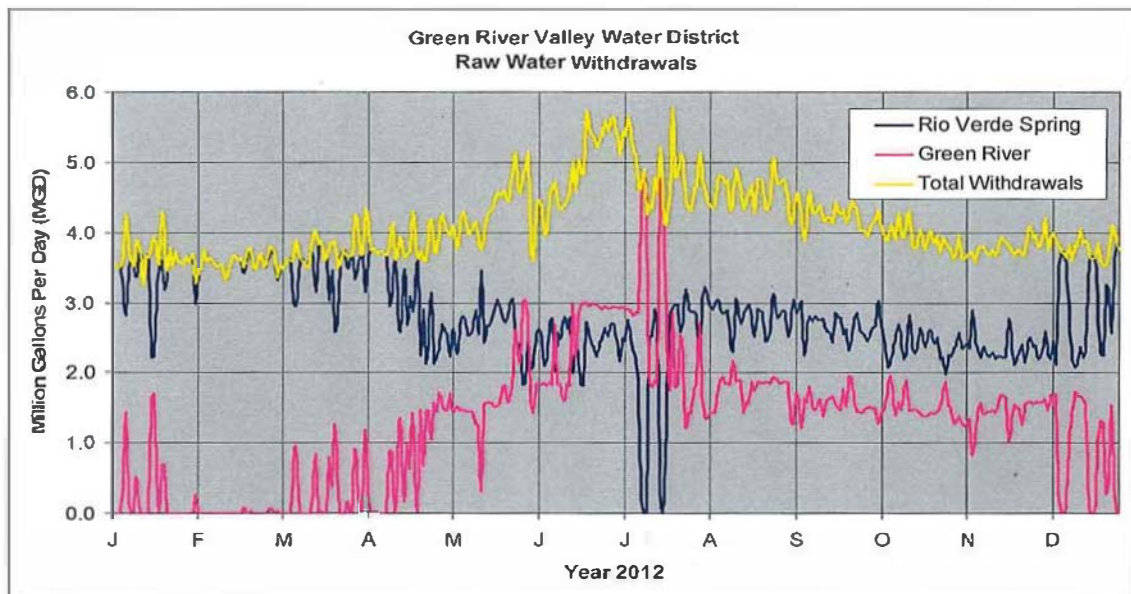
BMPs commonly used for construction activities include:

- Perform equipment maintenance and refueling away from streams, waterbodies, and ditchlines. Fuel storage areas shall be contained.
- Minimize the area to be disturbed.
- Seed and mulch disturbed areas in a timely manner.
- Install silt fence/straw bales to contain sediment transport from disturbed areas.
- Install riprap and/or erosion control blankets on steep slopes.
- Constructing diversion ditches, silt checks, check dams, and/or sediment traps where needed to minimize the transport of sediment into water bodies.
- Stabilize soil embankments using vegetative cover or riprap.

4.0 Alternatives Analysis

4.1 No Action

During 2012, the Rio Verde Spring accounted for 69% of GRVWD's raw water supply. Green River is used to supplement the water supply and accounts for 31% of the total demand. The following graph quantifies the water withdrawals from both sources and the total during 2012. Early in the year from January to March, almost all of the District's water came from Rio Verde Spring, but in March the withdrawals had to be reduced due to the seepage around the dam.



If the seepage through the dam's foundation is not corrected, or reduced, then the channeling through the dam's foundation will continue to increase along with the seepage volume. Any reduction in flow from Rio Verde Spring must be offset by increasing the withdrawals from Green River. The River could supply all of the water needed by the Water District's customers, but the water pumped from the River can be difficult to treat.

After rain event, the turbidity level of Green River increases drastically and the Water Treatment Plant can not consistently produce a high quality drinking water. Additional sedimentation basins and backwash waste lagoons will be needed at the WTP in order for Green River to become the sole water supply. Design, permitting, and construction of these facilities could take as long as 24 months. Therefore, the No-Action alternative is not a viable consideration for the continued supply of safe drinking water for the District's customers.

4.2 Replace Existing Dam with New Dam

This alternative would consist of a constructing a new dam downstream from the existing structure. The top elevation of the dam would be the same as the existing to provide enough energy for the water to gravity to the Water Treatment Plant. The new structure would inundate approximately 100 feet of additional stream and impound an additional 0.5 acres. A new water withdrawal system will be built at the dam and connected into the existing 20" and 12" raw water lines to the WTP. The new water withdrawal system shall be fitted with a Drum Screen to reduce the amount of debris from entering the water system.

The existing dam shall remain in place after completion of the new dam. The existing dam will act as a silt trap reducing the amount of silt that flows through the new dam to the water plant.

This option was eliminated from further consideration due to the financial feasibility and environmental concerns. The probable cost for the project would be in excess of \$10,000,000 and would require the District to raise their rates.

4.3 Use Green River as the Primary Water Supply

Green River Valley Water District could increase its water withdraws from the Green River but the Raw Water Intake located at the river and the Water Treatment Plant would require improvements. GRVWD is currently planning to improve the Intake. The improvements need at the Water Treatment would include additional Sedimentation Basins and Sludge Holding Lagoons. The facilities are needed to handle the higher turbidity storm events and the additional solids loading at the WTP.

This option was eliminated from further consideration due to the financial feasibility and additional environmental concerns. The probable cost for the project would be in excess of \$8,000,000 and would require the District to raise their rates.

5.0 Environmental

The proposed project will require the removal of approximately 50 trees covering an area of 0.5 acres, or less. The trees range in size from 1.5" to 24" in diameter. It is preferred that the trees be removed between October 31 to March 31. Removal of trees outside of this time may require mitigation measures.

The project area includes an unnamed tributary which feeds the reservoir and continues into the Green River. According to the National Wetlands Inventory System, there are no identified wetlands within the project area. Kenvirons believes the area located immediately downstream of the dam and between the dam's access road and unnamed tributary contains a wetland.

6.0 Adjoining Property Owners


Property Owner	Address
Michael Schneider	1076 Shelbyville Road Taylorsville, KY 40071
Joseph Michael Rigdon & Patrick Rigdon	5692 Boiling Springs Road Munfordville, KY 42765
Kimberly A. Fortney & Gretchen L. Fortney	3946 Loch Highland Pass Roswell, GA 30075
Troy Clopton & Trevor Clopton	290 Charlie Ragland Road Magnolia, KY 42757
Glen Knight	7372 North Jackson Hwy Magnolia, KY 42757
Barry Locke	P.O. Box 14 Hardyville, KY 42746
Kimberly Dawn Lile	82 Curry Road Summersville, KY 42782
Winford Horton	84 John Logsdon Road Munfordville, KY 42765
Hart County Foundation	P.O. Box 579 Munfordville, KY 42765

7.0 Photo's

See Attached Photo's for the existing dam and the proposed area of construction.

8.0 Plans & Vicinity Maps

See Attached Drawings and Vicinity Maps


R. Vaughn Williams, P.E. 3/13/13

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601



Rio Verde Reservoir and Dam



Downstream View of Rio Verde Dam



Buttresses and Toe of Rio Verde Dam



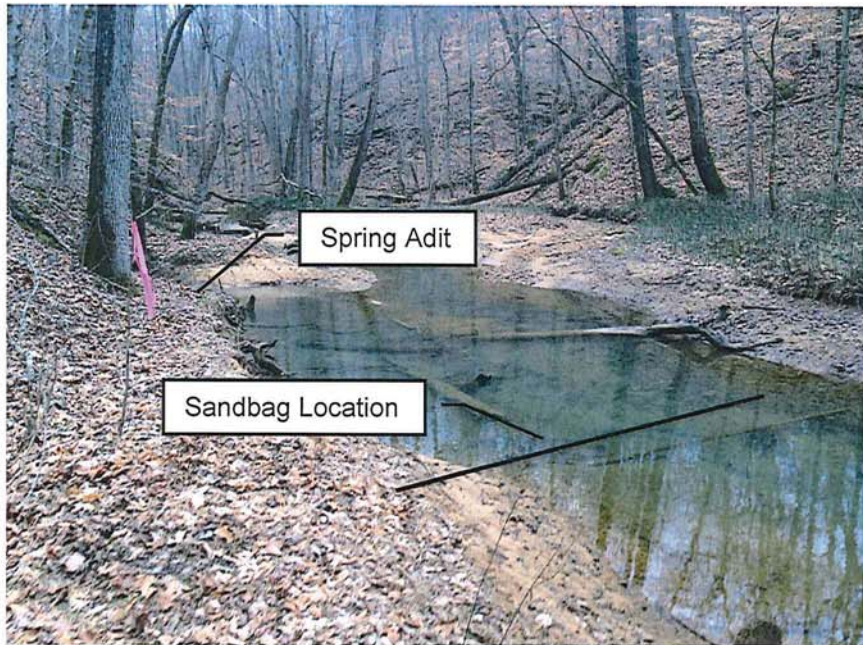
Buttresses and Toe of Rio Verde Dam



Buttresses and Toe of Rio Verde Dam



Spring Adit into the Rio Verde Reservoir



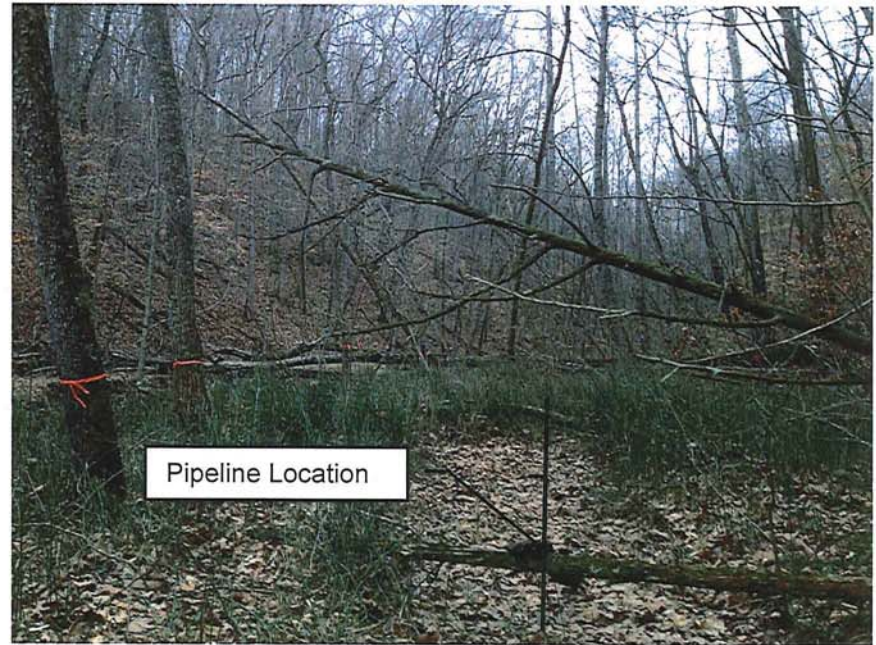
Approximate Location of Sandbags



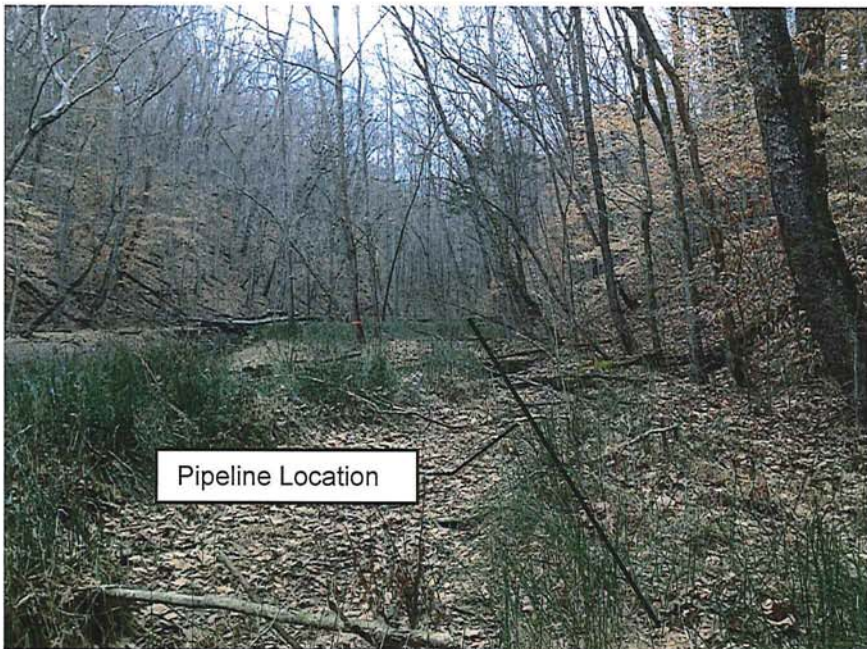
Approximate Location of Sandbags



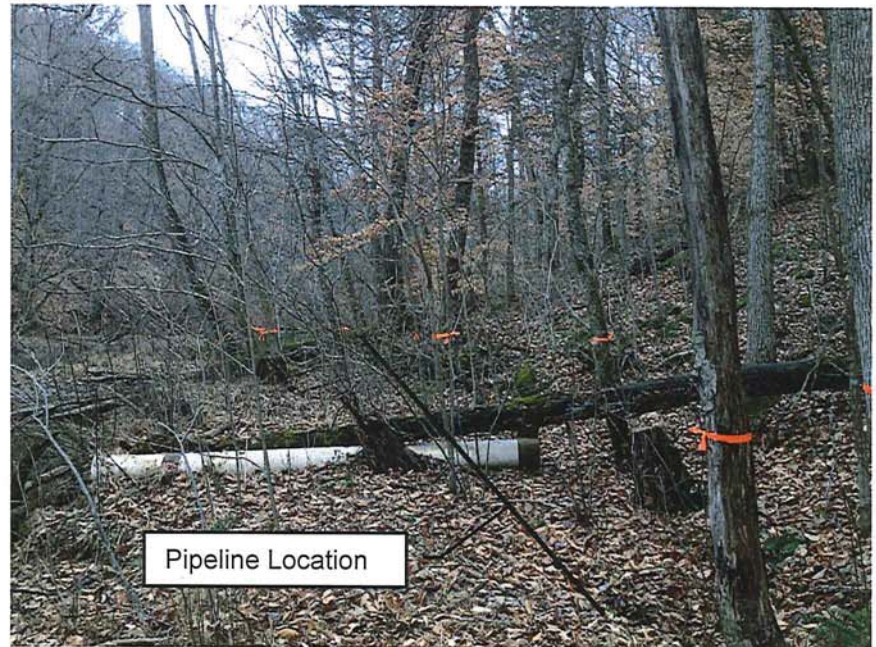
Approximate Location of Sandbags



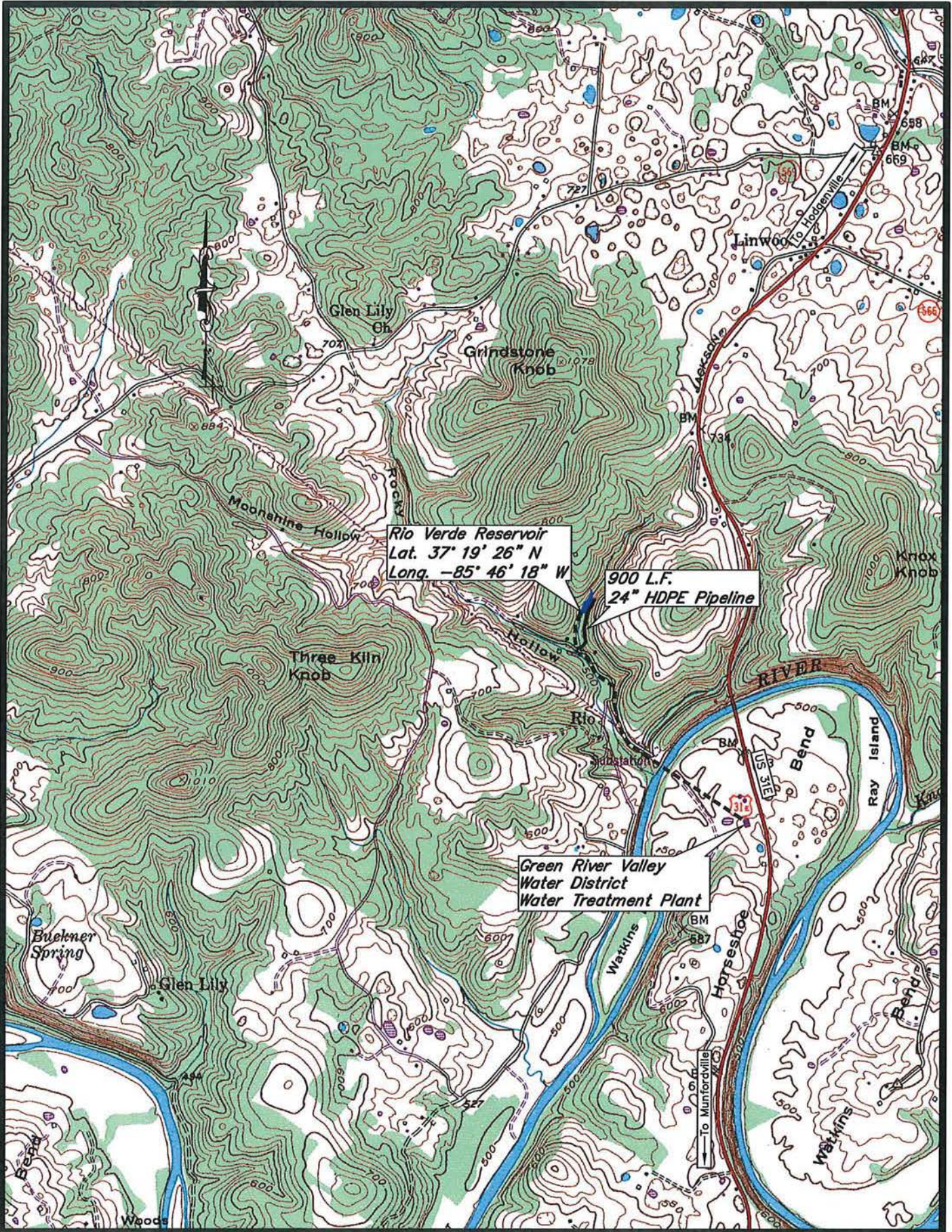
Beginning of Pipeline Corridor



Pipeline Corridor

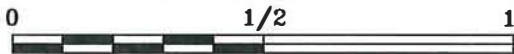


Pipeline Corridor

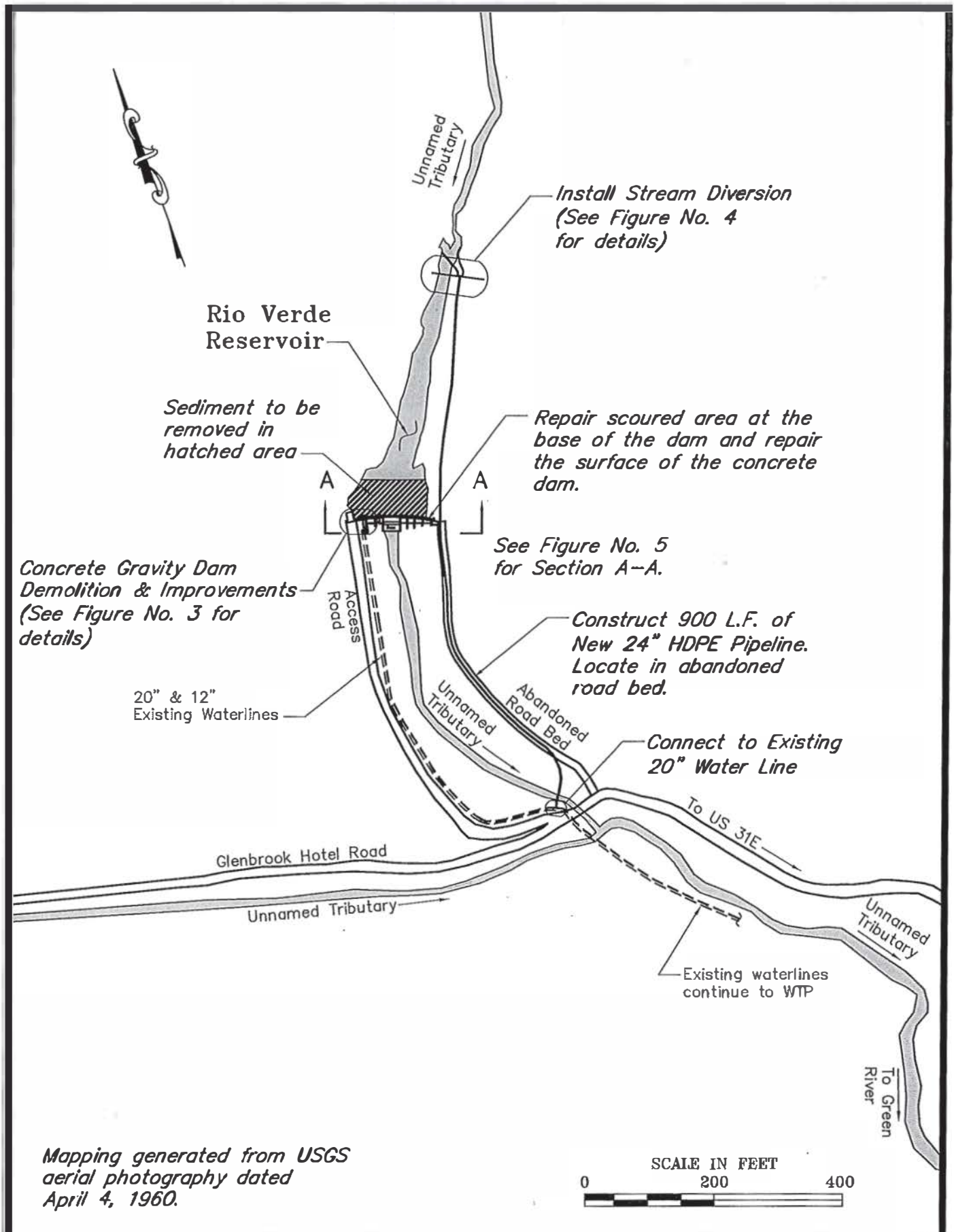


CANMER, KY. QUADRANGLES

SCALE IN MILES

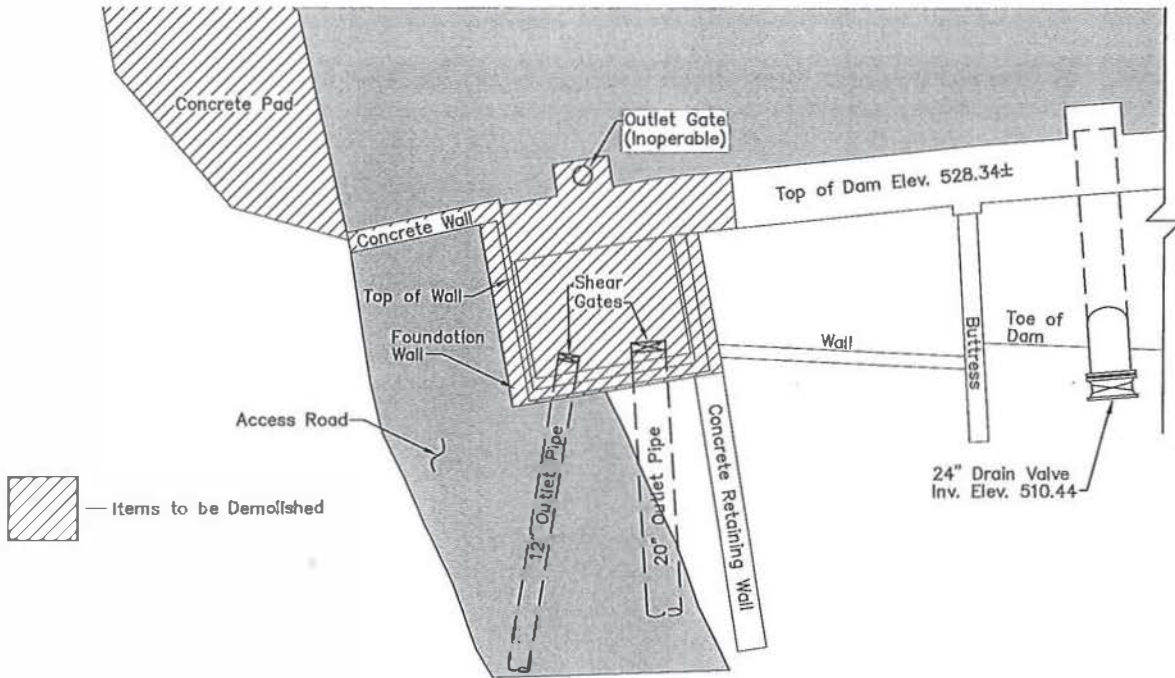


Green River Valley Water District
 Rio Verde Dam Improvements
 Figure No. 1 - Vicinity Map



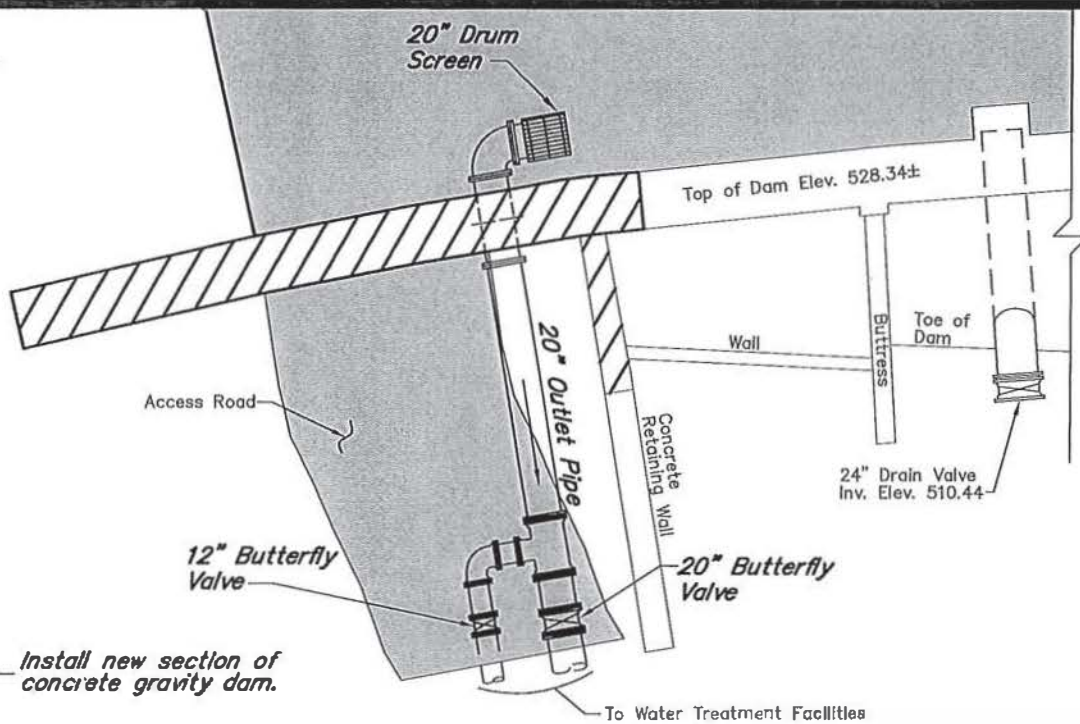
KENVIRONS, INC.
FRANKFORT, KENTUCKY

Green River Valley Water District
Rio Verde Dam Improvements
Figure No. 2 - Site Plan



RIO VERDE DAM DEMO PLAN

SCALE: 1"=10'



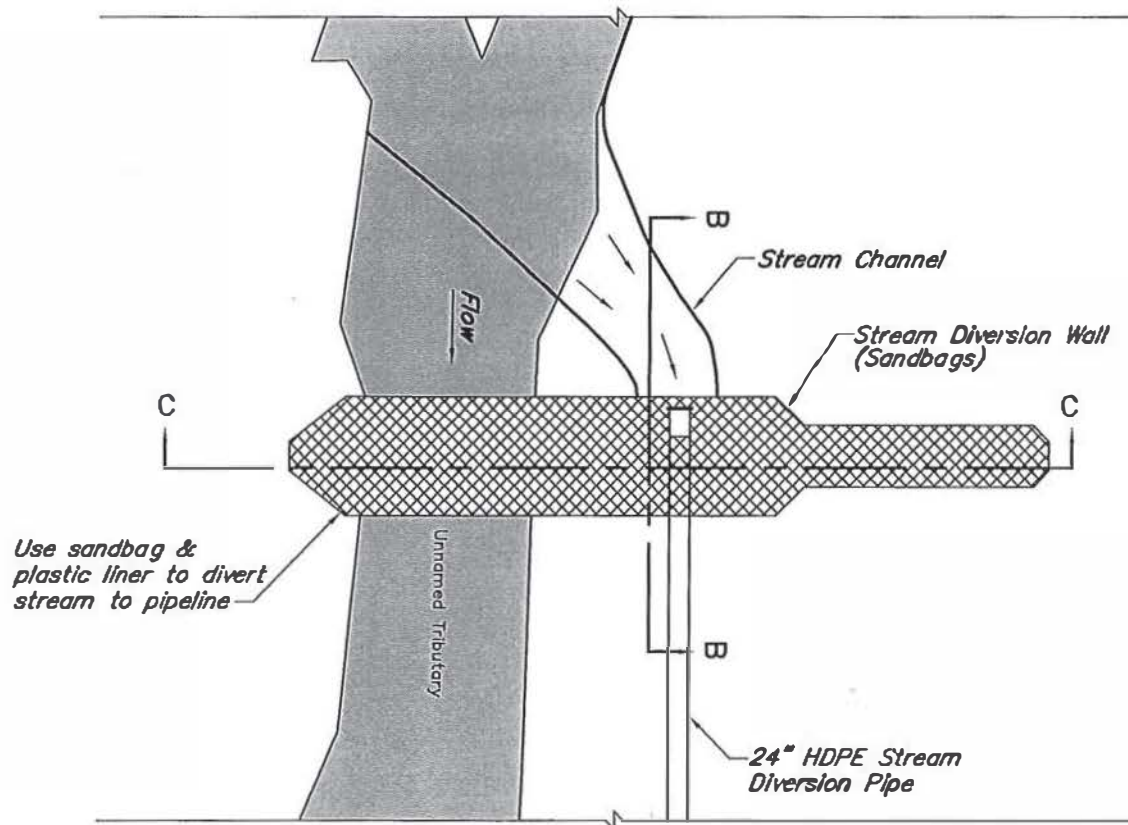
RIO VERDE DAM IMPROVEMENTS

SCALE: 1"=10'



KENVIRONS, INC.
FRANKFORT, KENTUCKY

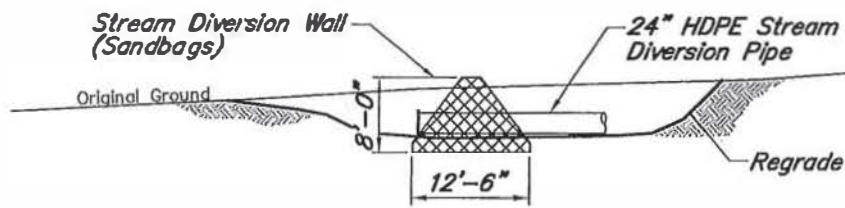
Green River Valley Water District
Rio Verde Dam Improvements
Figure No. 3 - Dam Demo & Improvements



Use sandbag & plastic liner to divert stream to pipeline

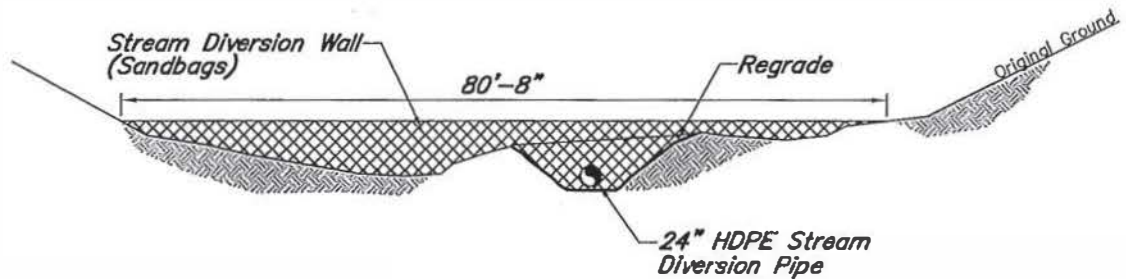
DIVERSION WALL & PIPE PLAN

Scale: 1"=20'



SECTION "B"

Scale: 1"=20'



SECTION "C"

Scale: 1"=20'



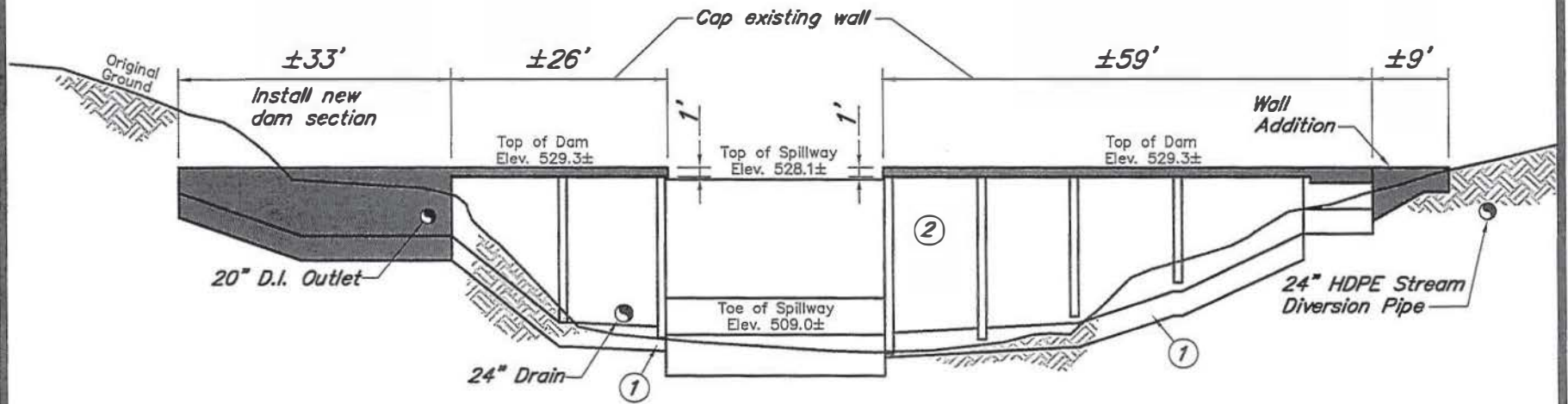
KENVIRONS, INC.
FRANKFORT, KENTUCKY

Green River Valley Water District
Rio Verde Dam Improvements
Figure No. 4 - Diversion Wall Plan



KENVIRONS, INC.
FRANKFORT, KENTUCKY

Green River Valley Water District
Rio Verde Dam Improvements
Figure No. 5 - Section "A-A"

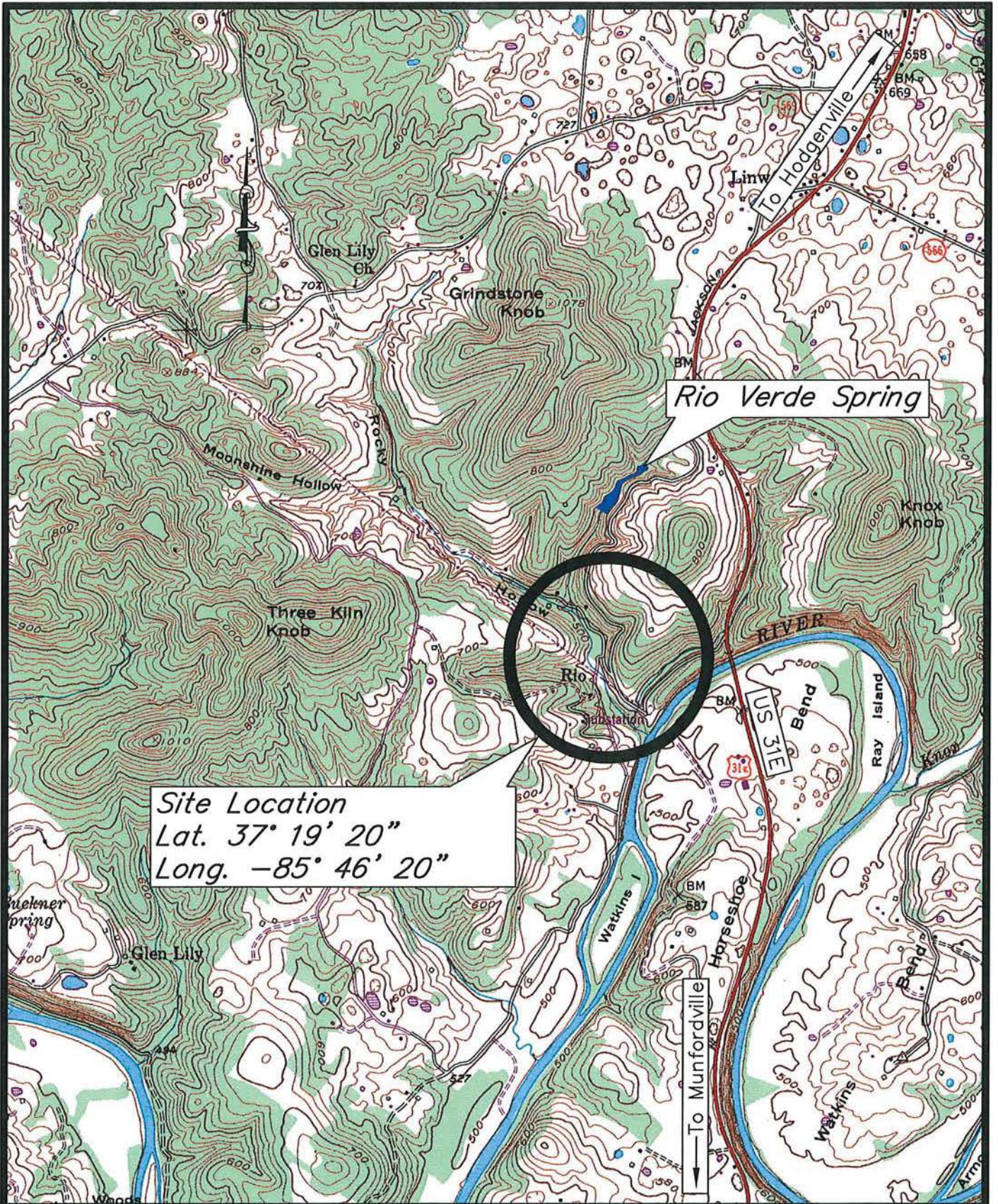


 Install new section of concrete gravity dam.

SECTION "A-A"

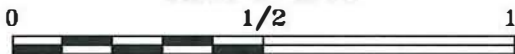
SCALE: 1"=20'

- (1) Repair scoured area at base of dam using concrete fill.
- (2) Repair & seal surface of concrete gravity dam.

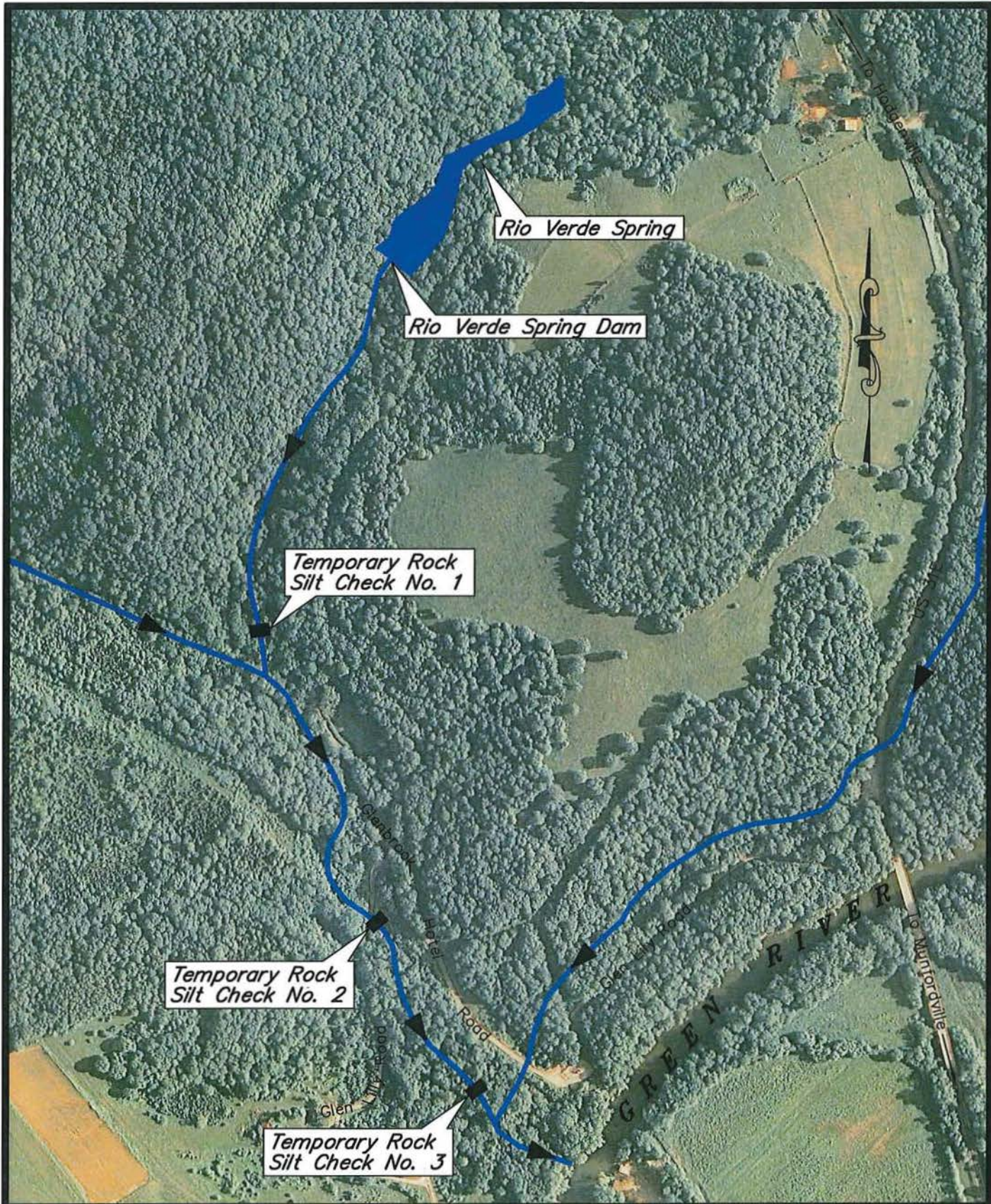


CANMER, KY. QUADRANGLES

SCALE IN MILES



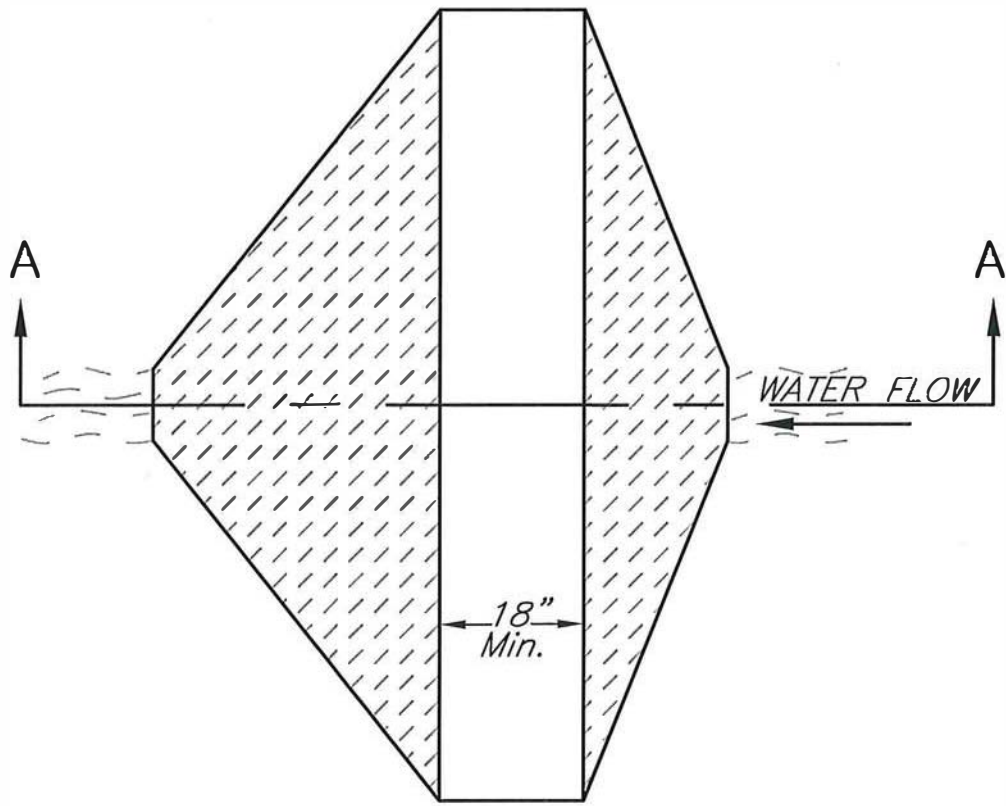
TEMPORARY ROCK SILT CHECKS
 GREEN RIVER VALLEY WATER DISTRICT
 FIGURE No. 1 - VICINITY MAP



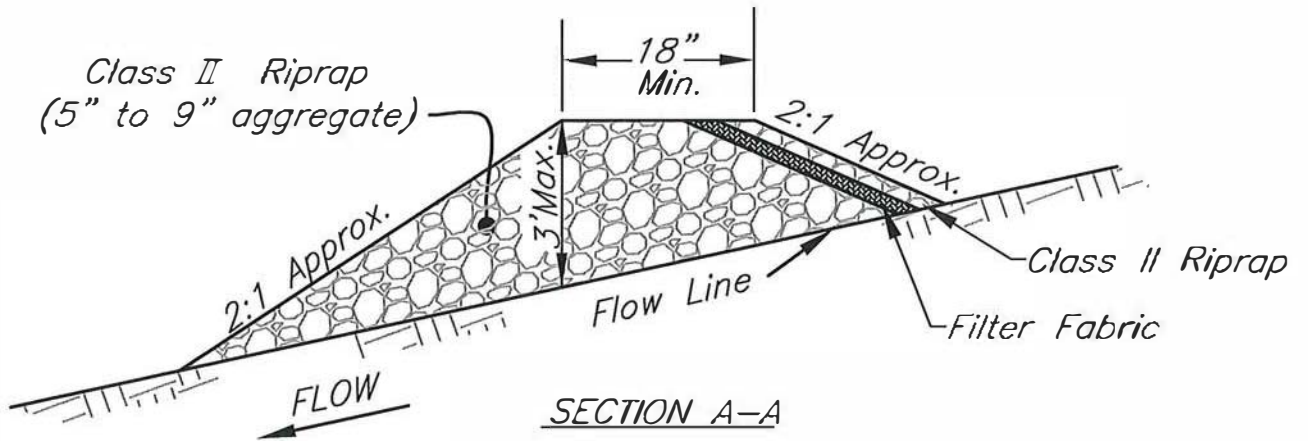
GRAPHIC SCALE
SCALE IN FEET



TEMPORARY ROCK SILT CHECKS
GREEN RIVER VALLEY WATER DISTRICT
FIGURE No. 2 - PLAN VIEW



PLAN



SECTION A-A

ROCK SILT CHECK

NTS

TEMPORARY ROCK SILT CHECKS
 GREEN RIVER VALLEY WATER DISTRICT
 FIGURE No. 3 - TYPICAL DETAIL

**U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
(33 CFR 325)**

OMB APPROVAL NO. 0710-0003
EXPIRES: 31 AUGUST 2012

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - David Middle - Last - Paige Company - Green River Valley Water District E-mail Address - grvwd@srtc.com			8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - R. Middle - Vaughn Last - Williams, PE Company - Kenvirons, Inc. E-mail Address - vwilliams@kenvirons.com		
6. APPLICANT'S ADDRESS: Address- 85 E Les Turner Road City - Cave City State - KY Zip - 42127 Country - USA			9. AGENT'S ADDRESS: Address- 452 Versailles Road City - Frankfort State - KY Zip - 40601 Country - USA		
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 270-773-2135 270-773-5261			10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 502-695-4357 502-695-4363		

STATEMENT OF AUTHORIZATION

11. I hereby authorize, R. Vaughn Williams, PE, to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.


 SIGNATURE OF APPLICANT 7/24/2012
 DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see Instructions) Temporary Rock Silt Checks			
13. NAME OF WATERBODY, IF KNOWN (if applicable) Unnamed Tributary into Green River		14. PROJECT STREET ADDRESS (if applicable) Address	
15. LOCATION OF PROJECT Latitude: +N 37d 19' 20" Longitude: +W 85d 46' 20"		City -	State - Zip -
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Section - Township - Range -			

17. DIRECTIONS TO THE SITE
 From the Hart County Courthouse in Munfordville head southwest on South St toward Main St for 82 feet. Then take the 1st left onto KY-88 E/US-31W S/S Dixie Hwy/Main St and continue to follow KY-88 E/US-31W S/S Dixie Hwy for 1 mile. Turn left onto KY-88 E/Hardyville Rd for 3.2 miles. Turn left onto KY-1854/Boyd's Knob Rd for 3.8 miles. Then turn left onto US-31E N/N Jackson Hwy and proceed for 2.1 miles. Then turn left onto Glen Lilly Road E and proceed 0.5 Miles. Turn Right onto Glenbrook Hotel Road and proceed for 0.2 miles. Destination will be on your right.

18. Nature of Activity (Description of project, include all features)
 The Green River Valley Water District proposes to install three (3) temporary rock silt checks. The three (3) checks will be made up of: Class 2 Riprap and Filter Fabric. The purpose of the rock checks is to minimize the transport of silt and sand down stream without disrupting the flow of the stream. The checks will be installed in three (3) different locations along the stream as shown in Figure No. 2 - Site Plan and the method of construction for the checks is displayed in Figure No. 3 - Typical Detail.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)
 See attached sheet labeled "Block 19 - Project Purpose"

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge
 Temporary Rock Silt Checks will be installed in the stream to minimize the transport of silt and sand to the Green River.

21. Type(s) of Material Being Discharged and the Amount of Each Type In Cubic Yards:

Type Amount In Cubic Yards	Type Amount In Cubic Yards	Type Amount in Cubic Yards
Aggregate <10	N/A	N/A

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres .01 Acres
 or
 Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The checks are being installed to minimize the amount of sand and silt from entering the Green River. The checks will be regularly maintained for sediment build up. The District will use a backhoe and a truck to remove the accumulated sediment and move it to an area outside of the floodplain.

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

The three (3) checks have been installed. The amount of aggregate and filter fabric in each location is less than 10 cubic yards.

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

David Paige
SIGNATURE OF APPLICANT

7/24/12
DATE

R. V. [Signature]
SIGNATURE OF AGENT

7/24/12
DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Block 19 – Project Purpose

The Green River Water District (GRVWD) uses the Rio Verde Spring to supply drinking water to its 6,800 customers. The spring's flow is impounded by a concrete dam that was constructed in 1908, and the water gravity feeds from the Spring to the District's water treatment plant. During a recent inspection of the dam, the District's personnel observed that the seepage around the gravity dam had increased significantly and they were concerned that the water supply was at risk.

On July 9, 2012, GRVWD began corrective work, i.e. grouting, to reduce the seepage around the dam. In order to reduce the seepage through the karst dam foundation and prevent the repair grout from washing out, the water level of the impoundment was lowered. As a result of the water level being lowered, a significant amount of silt and sand was discharged from the Rio Verde Spring impoundment into the connecting stream which feeds into the Green River.

The Green River Valley Water District has installed three (3) temporary rock silt checks to minimize the volume of silt and sand from reaching the Green River. GRVWD will inspect the rock silt checks and remove the sediment captured by the structures on a routine basis. The rock checks will be removed once the stream's quality has improved to an acceptable level.



STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

LEONARD K. PETERS
SECRETARY

STREAM CONSTRUCTION PERMIT

For Construction In Or Along A Stream

Issued to: **Green River Valley Water Dist**
Address: **85 E. Les Turner Road**
Cave City, KY 42127

Permit expires on
June 25, 2014

Permit No. **20377**

In accordance with KRS 151.250 and KRS 151.260, the Energy and Environment Cabinet approves the application dated **February 14, 2013** for **removal and reconstruction of a portion of Rio Verde Dam in an unnamed tributary of Green River, with coordinates 37.323889, -85.771667, in Hart County.** AI: 1776

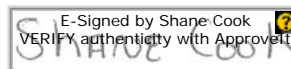
There shall be no deviation from the plans and specifications submitted and hereby approved unless the proposed change shall first have been submitted to and approved in writing by the Cabinet. This approval is subject to the attached limitations. **Please read these limitations carefully!** If you are unable to adhere to these limitations for any reason, please contact this office prior to construction.

This permit is valid from the standpoint of stream obstruction only. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal and local agencies. Specifically if the project involves work in a stream, such as bank stabilization, dredging, relocation, or in designated wetlands, a 401 Water Quality Certification from the Division of Water will be required.

This permit is nontransferable and is not valid unless actual construction of this authorized work is begun prior to the expiration date noted above. Any violation of the Water Resources Act of 1966 as amended is subject to penalties as set forth in KRS 151.990.

If you have any questions regarding this permit, please call Mr. Shane Cook at (502) 564-3410.

Issued June 25, 2013.



Shane Cook, P.E., Supervisor
Dam Safety Section
Water Infrastructure Branch

TAP/SC/nm

pc: Bowling Green Regional Office
Kenny Isenberg- City of Mumfordsville Floodplain Coordinator
R. Vaughn Williams, P.E. (by email)
File



STEVEN L. BESHEAR
GOVERNOR

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LEONARD K. PETERS
SECRETARY

STREAM CONSTRUCTION PERMIT

For Construction In Or Along A Stream

Issued to: **Green River Valley Water District**
Address: **PO Box 399**
Cave City, KY 42127

Permit expires on **August 9, 2013**

Permit No. **19902**

In accordance with KRS 151.250 and KRS 151.260, the Energy and Environment Cabinet approves the application dated **August 2, 2012** for **installation of three (3) temporary rock silt checks in the floodplain of an unnamed tributary to Green River beginning at about stream mile 0.1, with coordinates 37.317861, -85.769311, and ending at about stream mile 0.5, with coordinates 37.322466, -85.772049, in Hart County.** AI: 1776

There shall be no deviation from the plans and specifications submitted and hereby approved unless the proposed change shall first have been submitted to and approved in writing by the Cabinet. This approval is subject to the attached limitations. **Please read these limitations carefully!** If you are unable to adhere to these limitations for any reason, please contact this office prior to construction.

This permit is valid from the standpoint of stream obstruction only. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal and local agencies. Specifically if the project involves work in a stream, such as bank stabilization, dredging, relocation, or in designated wetlands, a 401 Water Quality Certification from the Division of Water will be required.

This permit is nontransferable and is not valid unless actual construction of this authorized work is begun prior to the expiration date noted above. Any violation of the Water Resources Act of 1966 as amended is subject to penalties as set forth in KRS 151.990.

If you have any questions regarding this permit, please call Mr. Jim Oerther at (502) 564-3410.

Issued August 9, 2012.

Todd Powers, P.E., Supervisor
Floodplain Management Section
Surface Water Permit Branch

TAP/JO/nm

pc: Bowling Green Regional Office
Kerry McDaniels- Hart Co. Floodplain Coordinator
R. Vaughn Williams, P.E., (by email)
File