

**APPENDIX B**

Public Notice 04-70



**US Army Corps  
of Engineers.**

Nashville District

# Public Notice

Public Notice No. **04-70**

Date: **December 22, 2004**

Application No. **200401779**

Please address all comments to:  
Nashville District Corps of Engineers, Regulatory Branch  
3701 Bell Road, Nashville, TN 37214

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**JOINT PUBLIC NOTICE**  
**US ARMY CORPS OF ENGINEERS**  
**TENNESSEE VALLEY AUTHORITY**  
**AND**  
**STATE OF TENNESSEE**

**SUBJECT:** Proposed Discharge of Fill Material Associated with Impoundment Structure on Unnamed Tributary Mile 0.6, a tributary to Tennessee River Mile 197.4L, McNairy County, Tennessee

**TO ALL CONCERNED:** The application described below has been submitted for a Department of the Army Permit pursuant to **Section 404 of the Clean Water Act (CWA)** for the discharge of fill material into waters of the United States, and a Tennessee Valley Authority (TVA) permit pursuant to **Section 26a of the TVA Act**. Before a permit can be issued, certification must be provided by the state of Tennessee, Department of Environment and Conservation, pursuant to **Section 401(a)(1) of the CWA**, that applicable water quality standards will not be violated. By copy of this notice, the applicant hereby applies for the required certification.

**APPLICANT:** Bill Hawkins  
3405 Pearson Road  
Memphis, Tennessee 38118

**LOCATION:** Unnamed Tributary Mile 0.6, a tributary to Owl Creek, a tributary to Tennessee River Mile 197.4L, in McNairy County, Tennessee (Michie Quad, lat 35-6-40.5360, lon 88-25-30.4480)

**DESCRIPTION:** The proposed work consists of the discharge of fill material into an Unnamed Tributary for construction of an impoundment structure. The impoundment structure would involve placement of fill material into approximately 265' of the Unnamed Tributary. A 36" diameter riser pipe with 24" diameter outfall pipe would be installed at the impoundment structure to release water downstream. The impoundment structure would be constructed with a maximum height of 35', with an upstream slope of 3:1 and downstream slope of 4:1. The water elevation would be Elevation 466.0', for a maximum water depth of 32', which allows 4' free board from the top of the impoundment structure Elevation 470.0'. The impoundment structure

would consist of a 20' crest width and 850' crest length. The normal pool of the structure would consist of a 47 surface-acre reservoir, which would impound approximately 7,625 linear-feet of two unnamed tributaries. The unnamed tributaries are very small during the summer months, with perennial and intermittent sections. The flow of the unnamed tributaries would be relocated through a 12" diameter pipe during construction. Upon completion of construction, this 12" diameter pipe would also serve as an emergency drawdown facility. An emergency spillway would be constructed, at Elevation 468.0, which is 2' below the top of the impoundment structure.

The applicant has proposed mitigation to offset impacts associated with the impoundment of the unnamed tributaries. According to the "Stream Mitigation Guidelines for the state of Tennessee", an impoundment is classified as Type II Degradation, requiring mitigation for 75% of the total length of stream impounded. The applicant has proposed mitigation for 75% of the proposed 7,625 linear-feet of stream to be impounded. Therefore, mitigation would be required for approximately 5,720 linear-feet of stream. The applicant has numerous of other streams/unnamed tributaries on his property that has been impacted in the past through agricultural practices. The applicant proposes restoration to four unnamed tributaries through various measures such as restoring the current channels to natural, stable conditions, replacing or removing undersized culverts, and restoring riparian zones to 50' on both sides of the channels. The restored riparian zones would include planting native vegetation and would be protected under a conservation easement (100' wide, 50' from center of channel) for the length of the mitigated section. The applicant's proposed mitigation plan provides for a total of 7,050 linear-feet of mitigation for the impaired streams. A more detailed mitigation plan can be provided upon request.

The purpose of the proposed work would be to allow the construction of an impoundment structure for a reservoir for recreational and/or agricultural uses by the owner. The reservoir would be for the applicant's private use and closed to the general public.

Plans of the proposed work are attached to this notice.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection

Agency, under authority of Section 404(b)(1) of the CWA (40 CFR Part 230). A permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

An Environmental Assessment will be prepared by this office prior to a final decision concerning issuance or denial of the requested Department of the Army Permit.

The National Register of Historic Places has been consulted and no properties listed in or eligible for the National Register are known which would be affected by the proposed work. This review constitutes the full extent of cultural resources investigations unless comment to this notice is received documenting that significant sites or properties exist which may be affected by this work, or that adequately documents that a potential exists for the location of significant sites or properties within the permit area. Copies of this notice are being sent to the office of the State Historic Preservation Officer.

Based on available information, the proposed work will not destroy or endanger any Federally-listed threatened or endangered species or their critical habitats, as identified under the Endangered Species Act. Therefore, we have reached a no effect determination and initiation of formal consultation procedures with the U.S. Fish and Wildlife Service is not planned at this time.

Other federal, state, and/or local approvals required for the proposed work are as follows:

- a. Tennessee Valley Authority (TVA) approval under Section 26a of the TVA Act. In addition to other provisions of its approval, TVA would require the applicant to employ best management practices to control erosion and sedimentation, as necessary, to prevent adverse aquatic impacts.
- b. Water quality certification from the state of Tennessee, in accordance with Section 401(a)(1) of the Clean Water Act.
- c. The state of Tennessee, Department of Safe Dams, would need to review and approve the proposed impoundment structure.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

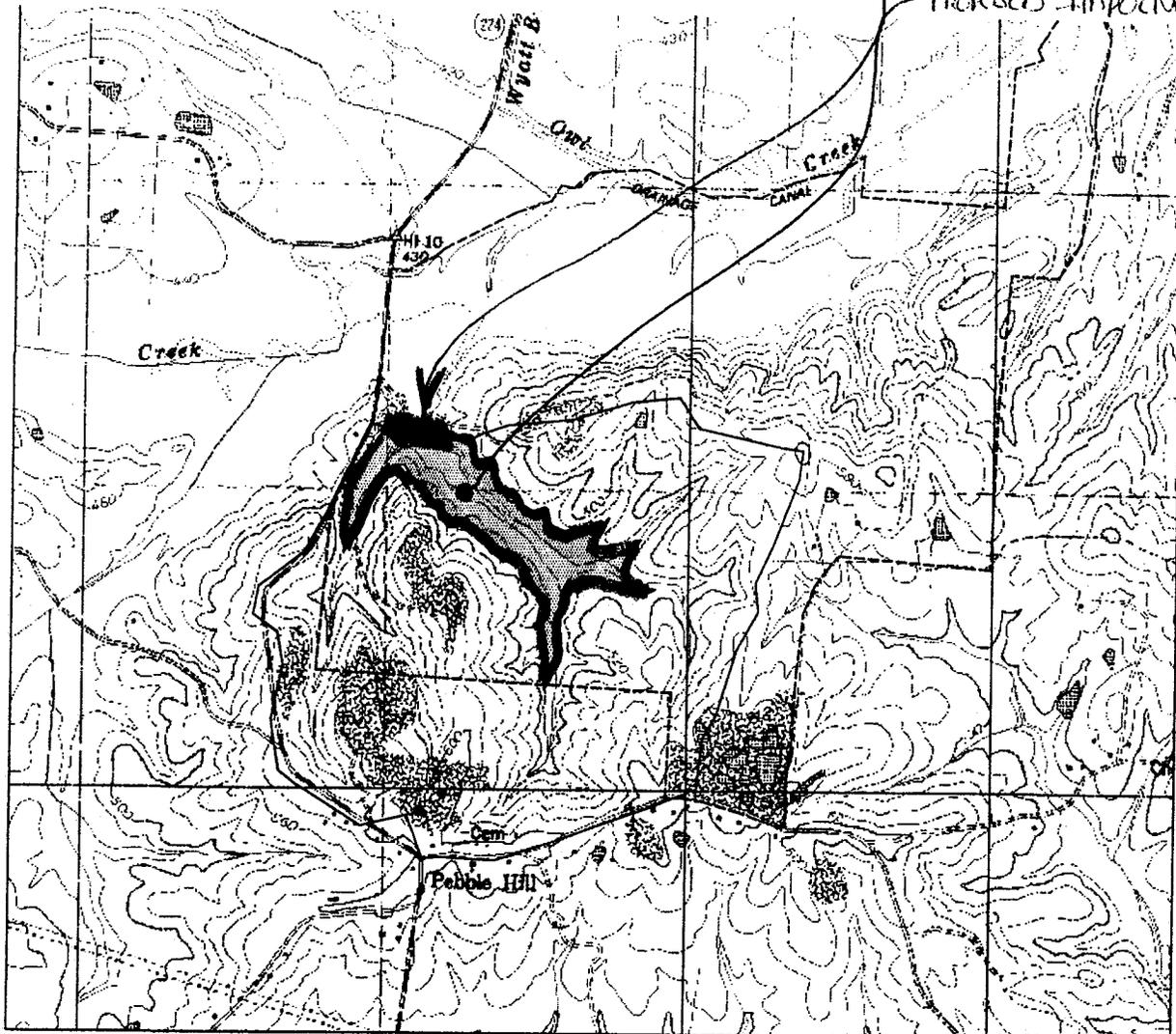
Written statements received in this office on or before January 22, 2005, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attention: Amy Robinson at the above address, telephone (615) 369-7509. It is not necessary to comment separately to TVA and/or TDEC since copies of all comments will be sent to the agencies and will become part of their records on the proposal. However, if comments are sent to TVA, they should be mailed to Mr. Randy Lowe, Tennessee Valley Authority, Kentucky Watershed Team, P.O. Box 280, Paris, Tennessee 38242-0280. Comments can be sent to Mr. Robert Baker, TDEC, Division of Water Pollution Control, 7<sup>th</sup> Floor, L&C Annex, 401 Church Street, Nashville, Tennessee 37243-1534.

MICHIE QUADRANGLE - TENNESSEE  
7.5 MINUTE SERIES (TOPOGRAPHIC) 13-SW  
1972

Photorevised

PROPOSED IMPOUNDMENT  
STRUCTURE

PROPOSED IMPOUNDED AREA



HAWKINS DAM  
McNairy Co., TN

SCALE: 1" = 2000'

LEGEND

- Property Boundary
- Drainage Area
- Reservoir Surface Area

Owner: Mr. Bill Hawkins  
3405 Pearson Road  
Memphis, TN 38118

PROJECT INFORMATION

Height of Dam (ft): 32  
Crest Length (ft): 850  
Crest Width (ft): 20  
Drainage Area (acres): 500  
Reservoir Surface Area (acres/normal pool): 47

Dam center line: Latitude - 35°06'42.8"  
Longitude - 88°25'31.5"

DRAWN BY: MSC

DATE: 8/23/04

DWG. NO.:

APPROVED BY:

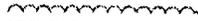
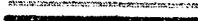
SCOTT ENGINEERING

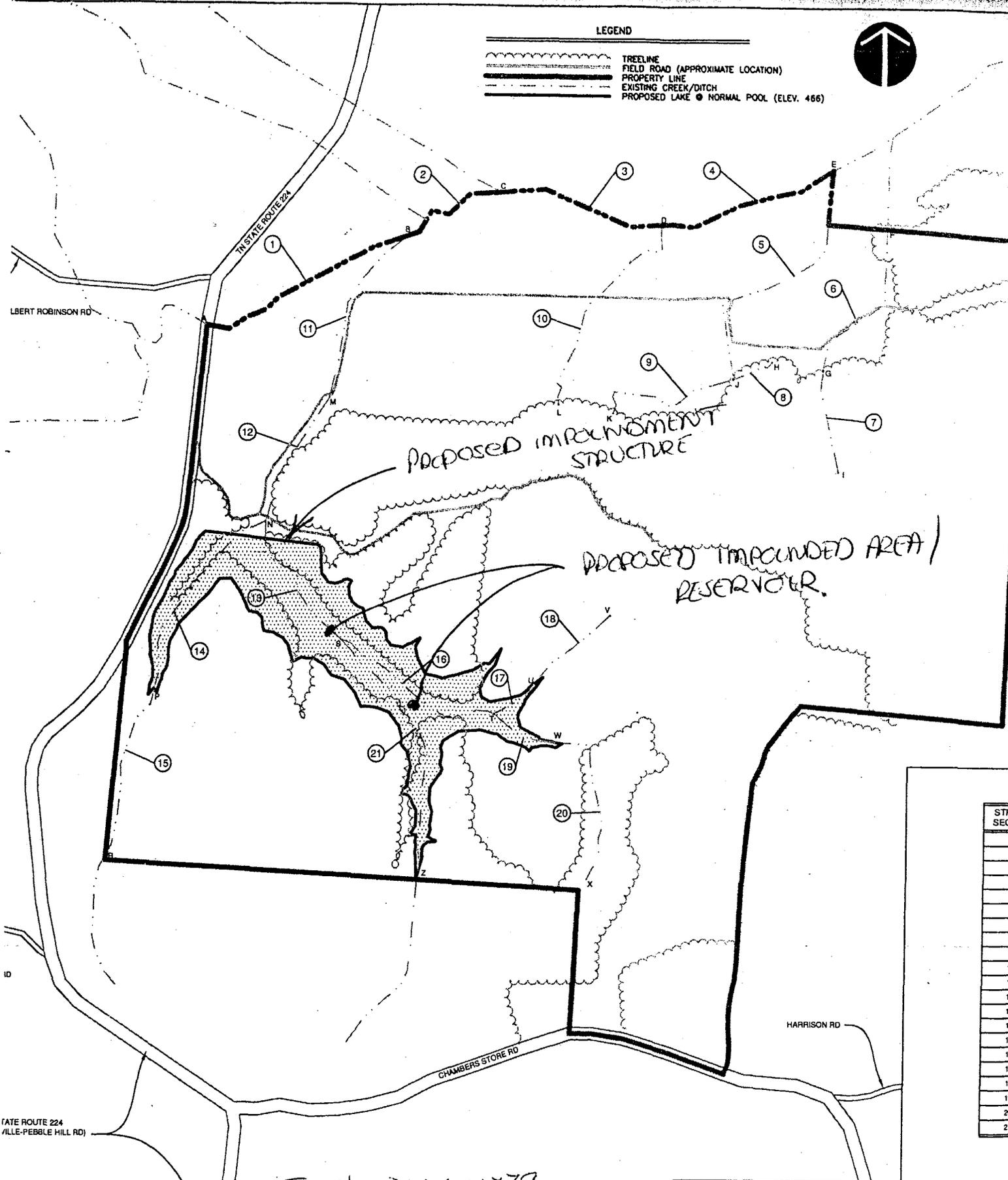
1530 Polk St. Corinth MS 38834 (662) 287-2436



FILE No. 200401779  
PN 04-70

LEGEND

-  TREELINE
-  FIELD ROAD (APPROXIMATE LOCATION)
-  PROPERTY LINE
-  EXISTING CREEK/DITCH
-  PROPOSED LAKE ● NORMAL POOL (ELEV. 466)



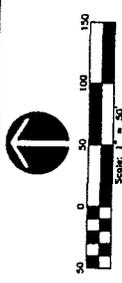
PROPOSED IMPROVEMENT STRUCTURE

PROPOSED IMPROUNDED AREA / RESERVOIR.

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TUE No. 200401779  
 DN 04-70  
 SITE MAP

STREAM MITIGATION AN  
 SCALE: 1"



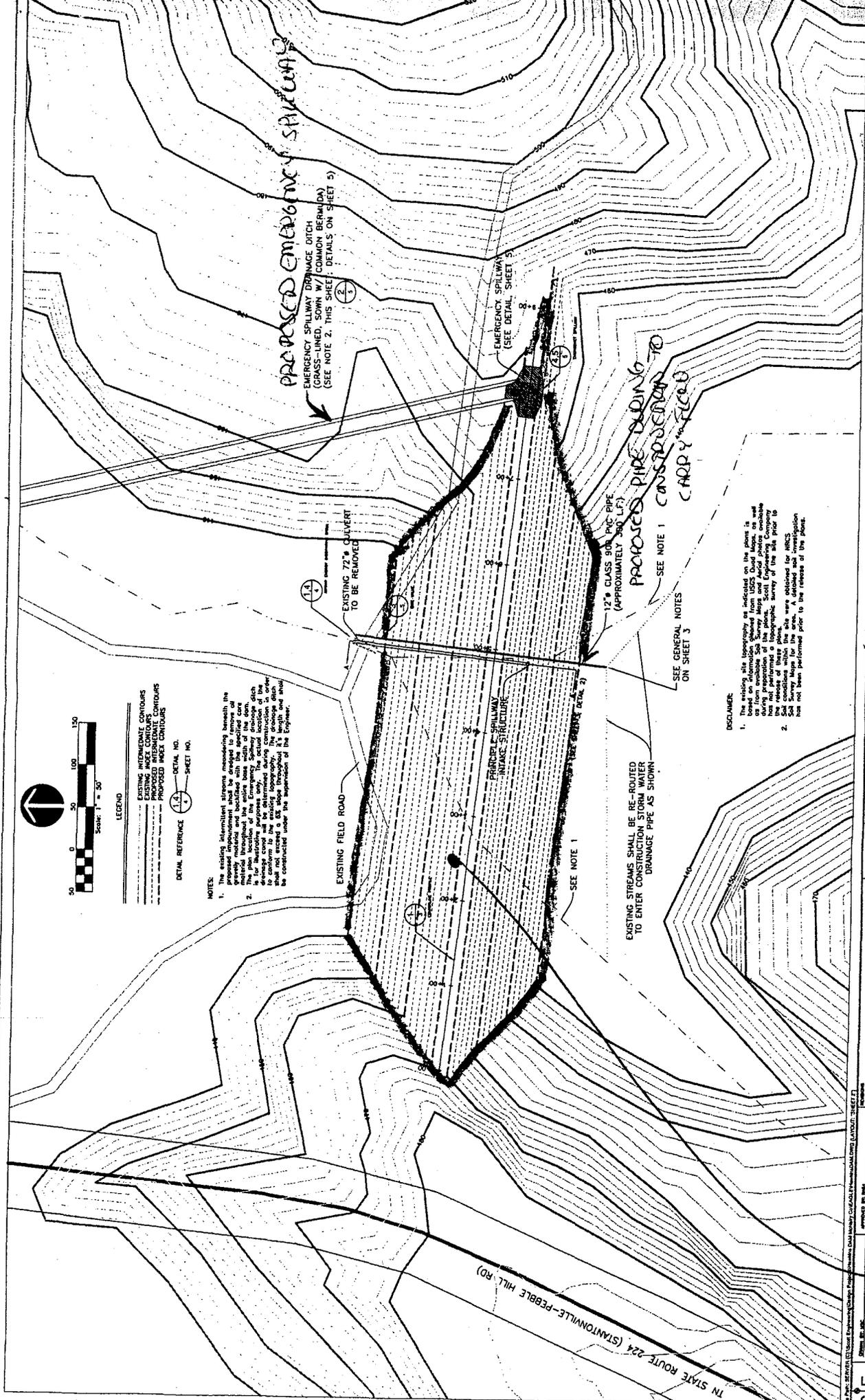
**LEGEND**

- EXISTING INTERMEDIATE CONTOURS
- PROPOSED INTERMEDIATE CONTOURS
- EXISTING INDEX CONTOURS
- PROPOSED INDEX CONTOURS

DETAIL REFERENCE (1, 2) DETAIL NO. SHEET NO.

**NOTES:**

1. The existing intermittent stream meandering beneath the proposed impoundment shall be straightened to remove all obstructions and shall be filled with the specified core material throughout the structure with the specified core material. The location of the Emergency Spillway structure ditch shall be determined during construction of the drainage canal and shall be determined during construction of the spillway structure. The drainage ditch shall be constructed under the supervision of the Engineer.
- 2.



**PROPOSED EMERGENCY SPILLWAY**  
 EMERGENCY SPILLWAY DRAINAGE DITCH  
 (GRASS-LINED, SOWN W/ COMMON BERMAUDA)  
 (SEE NOTE 2, THIS SHEET; DETAILS ON SHEET 5)

EMERGENCY SPILLWAY  
 (SEE DETAIL SHEET 5)

EXISTING 72" CULVERT  
 TO BE REMOVED

12" CLASS 300 PVC PIPE  
 (APPROXIMATELY 300 LF)

**PROPOSED PIPE DRAINING TO  
 CARRY TO FLOOD**  
 SEE NOTE 1, CONSTRUCTION TO  
 CARRY TO FLOOD

SEE GENERAL NOTES  
 ON SHEET 3

EXISTING STREAMS SHALL BE RE-ROUTED  
 TO ENTER CANALS THROUGHOUT WATER  
 DRAINAGE PIPE AS SHOWN

**DISCLAIMER:**

1. The existing site topography as indicated on the plans is based on data furnished by the client. It is the responsibility of the client to verify the accuracy of the data and to provide for the protection of the site prior to the receipt of these plans. Scott Engineering Company does not warrant the accuracy of the data or the results of the investigation.
2. Soil conditions within the site were obtained for HEC-3 analysis. The investigation was performed prior to the release of the plans.

TN STATE ROUTE 224 (STANTONVILLE-PEBBLE HILL RD)

SCOTT ENGINEERING COMPANY  
 1590 Polk St. Corinth MS 38834 (662) 287-2436

SCOTT ENGINEERING

HAWKINS' DAM - McNAIRY CO., TN

PROPOSED 47-ACRE IMPOUNDMENT

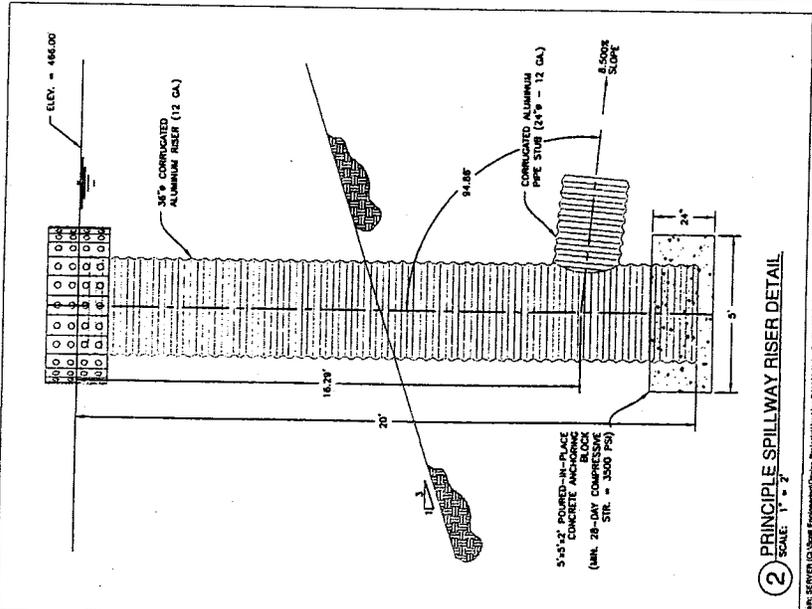
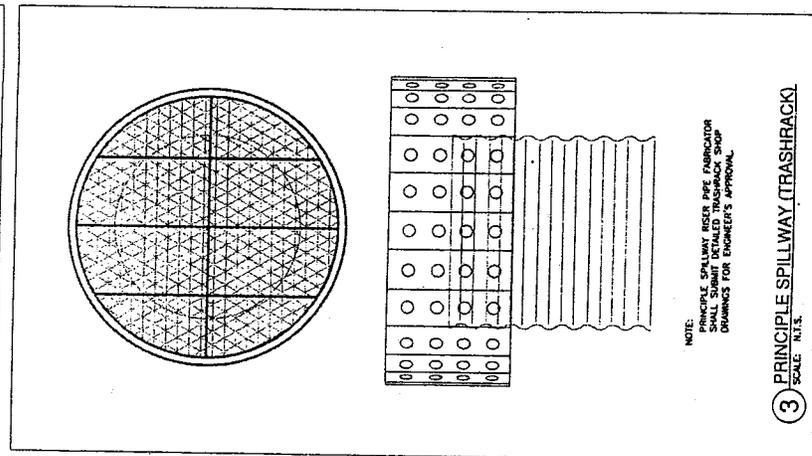
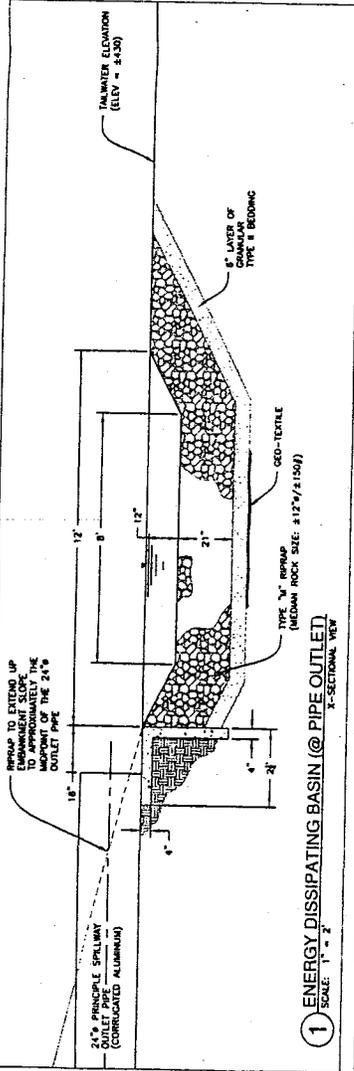
PROPOSED LAYOUT PLAN

2

**PROPOSED IMPOUNDMENT STRUCTURE**

File No. 200401779  
 PN 04-70





SCOTT ENGINEERING  
 1530 Polk St. Corinth MS 38834 (662) 287-2436  
 PROJECT: HAWKINS' DAM - McNAIRY CO., TN  
 PROPOSED 47-ACRE IMPOUNDMENT  
 SHEET NO. 4  
 DATE: 11/20/01  
 DRAWN BY: JLS/ML  
 CHECKED BY: JLS/ML

File No. 200401779  
 PN 04-70



**APPENDIX C**

**Water Quality Certification**



STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division Of Water Pollution Control  
7<sup>th</sup> Floor L & C Annex  
401 Church Street  
Nashville, TN 37243-1534

July 18, 2006

Bill Hawkins  
3405 Pearson Road  
Memphis, Tennessee 38118

**Subject: §401 Water Quality Certification**  
State of Tennessee Application **NRS04.303**

Dear Mr. Hawkins:

We have reviewed your application for the proposed dam and impoundment. Pursuant to §401 of the Federal Clean Water Act (33 U.S.C. 1341), the state of Tennessee is required to certify whether the activity described below will violate applicable water quality standards.

Subject to conformance with accepted plans, specifications and other information submitted in support of the referenced application, the state of Tennessee hereby issues certification for the proposed activity (enclosed). Failure to comply with the terms of this permit or other violations of the *Tennessee Water Control Act of 1977* is subject to penalty in accordance with T.C.A. § 69-3-115.

It is the responsibility of the permittee to ensure that all contractors involved with this project have read and understood the permit conditions before the project begins. If you need any additional information of clarification, please contact Robert Baker at 615-532-0710 or by e-mail at [Robert.D.Baker@state.tn.us](mailto:Robert.D.Baker@state.tn.us).

Sincerely,

Robert Baker,  
Natural Resources Section

Cc: Amy Fritz, Jackson Environmental Field Office  
Amy Robinson, U.S. Army Corps of Engineers, Nashville District  
Ronald Mikuliak, U.S. Environmental Protection Agency, Atlanta, GA  
Lee Barclay, U.S. Fish and Wildlife Service, Cookeville, TN  
Rob Todd, Tenn. Wildlife Resources Agency, Nashville, TN  
Randy Lowe, Tennessee Valley Authority, P. O. Box 280, Paris, TN 38242-0280  
File copy



## NRS 04.303

Pursuant to §401 of the Federal Clean Water Act (33 U.S.C. 1341), the state of Tennessee is required to certify whether the activity described below will violate applicable water quality standards. Accordingly, the Division of Water Pollution Control requires reasonable assurance that the activity will not violate provisions of *The Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) or of § § 301, 302, 303, 306 or 307 of *The Clean Water Act*.

Subject to conformance with accepted plans, specifications and other information submitted in support of the application, the state of Tennessee hereby certifies the activity described under authorized work below pursuant to 33 U.S.C. 1341. This shall serve as authorization pursuant to §T.C.A. 69-3-101 et seq.

**PERMITTEE:** Bill Hawkins  
3405 Pearson Road  
Memphis, Tennessee 38118

**AUTHORIZED WORK:** Construction of an earthen dam and impoundment of surface streams to form a 47 surface acre reservoir.

**LOCATION:** unnamed tributaries to Little Owl Creek in McNairy County.  
(Michie Quad, lat 35.1122°N, lon 88.4252°W)

**EFFECTIVE DATE:** July 18, 2006

**EXPIRATION DATE:** October 31, 2010

### **SPECIAL CONDITIONS:**

1. The work shall be accomplished in conformance with the accepted plans, specifications, data and other information submitted in support of the above application and the limitations, requirements and conditions set forth herein.
2. Chapter 1200-4-4 of the Department's rules classifies waters for certain uses. To maintain the classified uses of the stream downstream of the impounded waters, normal or ordinary flow shall be maintained during the construction phase, the impoundment phase, and after the reservoir has filled.
  - a. During construction and before filling, all flow shall be released downstream.
  - b. During regular operation, outflow from the impoundment shall be maintained to approximately equal the normal or ordinary base flow of the creek. This shall be accomplished as described in the May 26, 2006 plan for maintaining flow. Specifically, a 2¾-inch diameter orifice shall be installed in the principle spillway riser pipe at a depth of 8 feet below the top of the structure. This is calculated to deliver about 0.5 cfs base flow when the lake level drops below the top of the principle spillway riser.

3. The permittee shall provide compensatory mitigation for the conversion of stream habitat. The compensatory mitigation shall be completed in accordance with the approved compensatory mitigation plan associated with the application. The Division must approve deviations or refinements of the existing plan in writing.
4. No impacts to any waters of the state by this project, other than those specifically addressed in the plans and this permit, are allowed. All streams, springs and wetlands shall be fully protected prior, during and after construction until the area is stabilized. Any questions, problems or concerns that arise regarding any stream, spring or wetland either before or during construction, shall be addressed to the Division of Water Pollution Control, Jackson Field Office, 731-512-1300. Wetlands outside of the proposed area of impact shall not be used as storage or staging areas for equipment.
5. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Rule 1200-4-3-.03 of the Rules of The Tennessee Department of Environment and Conservation. This includes but is not limited to the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of waters of the state for any of the uses designated by Rule 1200-4-4. These uses include fish and aquatic life, livestock watering and wildlife, recreation, irrigation, industrial water supply, domestic water supply, and navigation.
6. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state. All spills must be reported to the appropriate emergency management agency, and measures shall be taken immediately to prevent the pollution of waters of the state, including groundwater.
7. Adverse impact to formally listed state or federal threatened or endangered species or their critical habitat is prohibited.
8. This permit does not authorize adverse impacts to cultural, historical or archeological features or sites.
9. It is the responsibility of the applicant to convey all terms and conditions of this permit to all contractors. A copy of this permit, approved plans and any other document pertinent to the activities authorized by this permit shall be maintained on site at all times during periods of construction activity.

This does not preclude requirements of other federal, state or local laws. In particular, work shall not commence until the applicant has received the federal §404 permit from the U. S. Army Corps of Engineers, a §26a permit from the Tennessee Valley Authority or authorization under a Tennessee NPDES Storm Water Construction Permit where necessary. This permit also serves as a Tennessee Aquatic Resource Alteration Permit pursuant to the Tennessee Water Quality Control Act of 1977 (T.C.A. § 69-3-101 et seq.).

The state of Tennessee may modify, suspend or revoke this permit or seek modification or revocation should the state determine that the activity results in more than an insignificant violation of applicable water quality standards or violation of the act. Failure to comply with permit terms may result in penalty in accordance with T.C.A. §69-3-115.

An appeal of this action may be made to the Water Quality Control Board. In order to appeal, a petition requesting a hearing before the Board must be filed within 30 days after

receipt of the permit. In such petition, each contention should be stated in numbered paragraphs that describe how the proposed activity would be lawful and the action of the state is inappropriate. The petition must be prepared on 8½" x 11" paper, addressed to the Water Quality Control Board and filed in duplicate at the following address: Paul E. Davis, Director, Division of Water Pollution Control, 6<sup>th</sup> Floor L & C Annex, 401 Church Street, Nashville, Tennessee 37243-1534. Any hearing would be in accordance with Tennessee Code Annotated Section 69-3-110 and 4-5-301 et seq. Questions concerning this certification should be addressed to Robert Baker at 615-532-0710.

Daniel C. Egan

Paul E. Davis, P.E.  
Director, Division of Water Pollution Control

12 July 2006

Date

**Robinson, Amy M LRN**

---

**From:** Robert.D Baker [Robert.D.Baker@state.tn.us]  
**Sent:** Friday, July 28, 2006 9:37 AM  
**To:** Robinson, Amy M LRN  
**Subject:** Re: Bill Hawkins

Amy, the certification is based upon the flow data and discharge mechanism from the May 06 flow data report for the in stream flow issues. For stream mitigation it is based on the October 2005 revised mitigation plan. I referred to email correspondence of November 17, 2005 from Robbie Sykes and Nov 18, 2005 from Rob Todd and the revised mitigation plan that was referenced in those emails. Robby

Robert Baker  
Tennessee Water Pollution Control Division  
401 Church Street  
7th Floor L & C Annex  
Nashville, Tennessee 37243-1534  
615-532-0710

>>> "Robinson, Amy M LRN" <Amy.M.Robinson@lrm02.usace.army.mil> 9:16:47 AM Friday, July 28, 2006 >>>  
Robbie - I just received the water quality certification for Bill Hawkins. So, did you permit this based on their last mitigation and data submittal to you on May 26, 2006 (this was the flow data)? I have the latest mitigation submittal as October 2005 - Or, did they submit any new mitigation information to you? I want to make sure that I include the latest and greatest mitigation proposal in the EA and permit.

This is going to be a whooper EA to write.

Thanks,  
Amy Robinson

# SCOTT ENGINEERING COMPANY

1530 POLK STREET - HIGHWAY 45 NORTH - CORINTH, MS 38834 - (662) 287-2436

May 26, 2006

Mr. Robert Baker  
Tennessee Water Pollution Control Division  
401 Church Street  
7<sup>th</sup> Floor L & C Annex  
Nashville, TN 37243-1534

RE: Bill Hawkins' Proposed Impoundment

Dear Mr. Baker,

In accordance with your request during our telephone conversation of last week, I am forwarding our rainfall and flow measurement data within the proposed impounded stream for your use and information.

Although we lack actual flow measurement data for the entire year, it is evident by project photos and onsite visits that the stream does not flow all year long. According to the information that we do have on record, the stream begins having significant surface flow beginning in October and continues through May. During June through September, a measurable base flow does not exist. Also, the previously assumed base flow of 0.25 cfs presented in the Permit Application is actually underestimated. A more realistic base flow of 0.5 cfs is evident by the flow readings obtained during the months of December through February.

As you indicated during our telephone conversation, the Tennessee Water Pollution Control Division is willing to issue a permit for construction of the dam provided that a means of maintaining base flow is achieved. Thus, we are proposing that an orifice approximately 2¾ inches in diameter be installed within the wall of the principle spillway riser pipe at a depth of 8 feet below the top of the structure. Should the level of the lake fall below the top of the principle spillway riser, a base flow discharge of approximately 0.5 cfs will be maintained.

Please let me know if you have any questions or comments about this or the enclosures. We greatly appreciate your assistance and cooperation during this project, and we look forward to receiving the required permit so that construction may commence.

Sincerely,



Shane Cardwell, E.I.

MSC:sc

CC: Mr. Bill Hawkins  
File

Encl: Rainfall and Flow Data

## MONTHLY RAINFALL DATA & FLOW OBSERVATIONS



12/30/05 [PC300001.JPG] – Top view of "V"-notch weir.



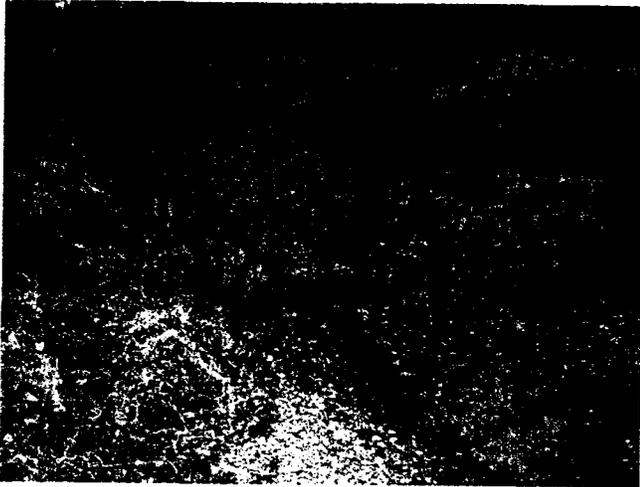
12/30/05 [PC300004.JPG] – Flow observation ("V"-notch weir flow measurement  $\approx$  13.5gpm).

# December

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				<b>1</b> 0.03 in.	<b>2</b> 0.67 in.	<b>3</b> 0.11 in.
<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b> 0.47 in.	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b> 0.67 in.	<b>14</b> 0.31 in.	<b>15</b>	<b>16</b>	<b>17</b>
<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b> 0.99 in.	<b>24</b> 0.27 in.
<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b> 25.4 gpm 0.057 cfs	<b>30</b> 13.5 gpm 0.030 cfs	<b>31</b>

# 2005

## MONTHLY RAINFALL DATA & FLOW OBSERVATIONS



1/09/06 [P1090007.JPG] – Looking upstream at the convergence of the two primary streams to be impounded (Location “N” as shown on Sheet 1 of the plans).



1/09/06 [P1090009.JPG] – Looking downstream along stream section 12 through 60-inch culvert (“V”-notch weir flow measurement ≈ 3.7gpm).

# January

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>8</b> 0.14 in.	<b>9</b> 1.05 in. 3.7 gpm 0.008 cfs	<b>10</b>	<b>11</b> 78.7 gpm 0.175 cfs	<b>12</b> 1.13 in.	<b>13</b>	<b>14</b>
<b>15</b> 0.35 in.	<b>16</b> 1.39 in.	<b>17</b> 0.01 in.	<b>18</b>	<b>19</b>	<b>20</b> 0.04 in. 201 gpm 0.447 cfs	<b>21</b> 1.79 in.
<b>22</b> 0.10 in.	<b>23</b> 0.01 in.	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b> 0.77 in.	<b>28</b> 0.23 in.
<b>29</b>	<b>30</b>	<b>31</b>				

# 2006

## MONTHLY RAINFALL DATA & FLOW OBSERVATIONS



2/09/06 [P1010005.JPG] – Top view of “V”-notch weir  
(Flow measurement ≈ 217 gpm).



2/09/06 [P1010007.JPG] – Looking upstream at the convergence of the two primary streams to be impounded (Location “N” as shown on Sheet 1 of the plans).

# February

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			<b>1</b> 0.38 in.	<b>2</b> 0.75 in.	<b>3</b> 0.04 in.	<b>4</b>
<b>5</b> 0.14 in.	<b>6</b>	<b>7</b> 0.10 in. 282 gpm 0.629 cfs	<b>8</b>	<b>9</b> 0.20 in. 217 gpm 0.483 cfs	<b>10</b> 0.21 in.	<b>11</b> 0.04 in.
<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b> 0.03 in.	<b>16</b> 0.50 in.	<b>17</b> 0.03 in.	<b>18</b>
<b>19</b> 0.13 in.	<b>20</b>	<b>21</b>	<b>22</b> 315 gpm 0.702 cfs	<b>23</b>	<b>24</b>	<b>25</b>
<b>26</b>	<b>27</b>	<b>28</b>				

# 2006



TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION  
DIVISION OF WATER POLLUTION CONTROL  
7<sup>TH</sup> FLOOR L & C ANNEX  
401 CHURCH STREET  
NASHVILLE, TN 37243-1534

December 12, 2005

Mr. Bill Hawkins  
3405 Pearson Road  
Memphis, Tennessee 38118

Subject: Proposed Impoundment, unnamed tributary to Owl Creek, McNairy  
County

Dear Mr. Hawkins:

We have reviewed the latest revision to the permit application, dated 10/28/2005. Most of the compensatory mitigation issues seem to have been addressed. However, fundamental water quality concerns remain.

These concerns have been previously discussed in on site meetings and via email to your agent, Scott Engineering. Attached is email correspondence from October of 2004 that demonstrates our previous discussions regarding water quality concerns. The concerns deal fundamentally with the quality and quantity of water discharged downstream from the dam. Primary water quality concerns that have not been adequately addressed include flow maintenance, temperature, dissolved oxygen, and dissolved metals, minerals, and nutrients.

**Flow Maintenance.** Rule 1200-4-3 establishes that surface waters in Tennessee are classified for certain uses that must be maintained with the issuance of a permit. These uses include livestock watering and wildlife, fish and aquatic life, recreation, and irrigation. Since dams retain water, in order to maintain these uses downstream of the dam post construction, a method must be devised to ensure that flow is sustained in equal amounts that exist prior to impoundment.

The revision states that an assumed year-round base flow of 0.25 cubic feet per second (cfs) will be maintained following construction. In addition, the revision proposes to measure flow beginning November 1, 2005 and extend throughout the construction period in order to determine a seasonal base flow with which to later adjust the amount of flow under direction of the permitting agencies. However, no basic information exists regarding hydrology of the stream in its present state nor how precisely that adjustments to flow would be accomplished (a specific principle spillway mechanism that would allow constant, adjustable outflow). Therefore it is not possible to determine whether or not the classified uses of the tributary would be maintained.

**Temperature.** The revised application asserts that temperature criteria would be maintained by the ability of the dam to intake from the emergency drawdown facility. We question reliance on this concept for two reasons. First and most importantly, the bottom stratum of the water column, from which this water would be drawn, is typically

DEC 20 2005

polluted. Anoxic conditions at the bottom result in a chemically reduced environment that affects the solubility of metals, minerals, and nutrients found in the sediment underlying the impounded waters and that washes into the lake from the surrounding land.

Secondly, it seems impractical to rely upon the emergency drawdown facility to adjust and control the mixture of waters leaving the lake. If the water surface elevation were below the principle spillway device, then only waters from the bottom, polluted stratum would be released downstream.

In order to maintain the water quality criteria for temperature downstream of the dam post construction, a method must be devised to ensure that the maximum water temperature change shall not exceed  $3\text{C}^\circ$  relative to an upstream control point. The temperature of the water shall not exceed  $30.5\text{C}^\circ$  and the maximum rate of change shall not exceed  $2\text{C}^\circ$  per hour.

**Dissolved Oxygen.** Dissolved oxygen in the tailwaters is controlled primarily by the depth from which the waters are discharged. Because of photosynthesis and wind mixing, the warmer surface waters usually possess ample dissolved oxygen to meet standards. However, since the revised application relies upon the discharge of water from the bottom stratum through the emergency drawdown facility during certain seasonal conditions, anoxic or hypoxic waters would be released downstream and dominate water quality within the tailwaters. As the waters are aerated in the tailwaters, dissolved ions are cycled to their oxidized state, creating additional adverse impact.

In order to maintain the water quality criteria for dissolved oxygen downstream of the dam post construction, a method must be devised to ensure that the dissolved oxygen shall not be less than 5.0 mg/l.

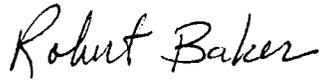
**Dissolved Metals, Minerals, And Nutrients.** The change in oxidation state of metal ions and some nutrients is defined as redox or reduction-oxidation potential. Again, anoxic conditions at the bottom result in a chemically reduced environment that affects the redox potential and hence the solubility of metals, minerals, and nutrients found in the sediment underlying the impounded waters and that washes into the lake from the surrounding land.

The proposal calls for borrowing the earthen material with which to build the dam from within the area to be impounded. This will expose the non-weathered sub-soils that have a much greater concentration of metals and minerals to chemically reduced water environment, causing significantly greater chemical cycling of these inorganic nutrients. Nutrients and metals of concern include N, P, S, K, Mg, Ca, Fe, Mn, Si, B, Mo, Zn, Cu, Co, and Na.

In order to maintain the water quality criteria for nutrients downstream of the dam post construction, a method must be devised to ensure that the waters shall not contain nutrients in concentrations that stimulate aquatic plant and/or algae growth to the extent that aquatic habitat is substantially reduced and /or the biological integrity fails to meet regional goals.

The revised proposal does not provide the needed assurances that water quality standards and classified uses of surface waters will be maintained. The circumstances described above must be adequately addressed before a permit can be issued. Please contact me if I can clarify or provide more information. Thank you very much for your consideration.

Sincerely,



Robert Baker  
Natural Resources Section  
615-532-0710

Cc: Shane Cardwell  
Scott Engineering Company  
1530 Polk Street  
Corinth, MS 38834

Amy Robinson, Nashville District Corps of Engineers

**Robert.D Baker - RE: Hawkins Dam - File No. 200401779**

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**From:** Robert.D Baker  
**To:** Cardwell, 'Shane'; Robinson, Amy M LRN  
**Date:** 10/22/2004 10:56 AM  
**Subject:** RE: Hawkins Dam - File No. 200401779

---

Dear Mr. Cardwell:

I'll try to answer your questions about the proposed dam. First, the permit for which Mr. Hawkins is applying is pursuant to The Water Quality Control Act of 1977, not the safe dams act. This means that the standards that you seek are all about water quality as opposed to dam safety. In fact, I suspect that Mr. Hawkins proposed dam will be considered a farm pond under that statute and exempt from dam safety standards. Now, I will try to address each question:

1. Since flow measurements within the stream cannot be ascertained at this time due to little or no flow within the stream, what volume of flow will be recommended to be maintained (such as a particular rainfall event) or is there a minimum size pipe typically used by the Corps of Engineers during the construction of similarly-sized watershed lakes?

Under the water quality act, one cannot impair classified uses of surface waters. In this case, an impairment would result if the background flows were significantly diminished. This means that flow maintenance is based upon the actual flow in the stream that must be emulated by the regulated discharge from the dam. This means one would need a hydrograph of measured flow from that stream or a reliable model that is calibrated to that particular physiographic region that could provide some indication of seasonal flows. With evaporation and seepage, one cannot assume that outflow will equal inflow, so then a discharge mechanism must be provided that will allow flows that emulate background seasonal base flows. In the case of zero background flows, then flow would not need to be maintained.

2. At what point (height of the dam) is it recommended that the above-mentioned pipe be capped off and abandoned, and what is typically the preferred method of maintaining flow once the impoundment of the water within the basin begins?

We do not have a preference or recommendation as to how flow is maintained. It would seem logical to use a principle spillway riser pipe as the means to provide flows during fill-up. It can be regulated such that storm flows and other flows in excess of base flow can be stored, while the (minimum) base flows are maintained. This is a little difficult because we do not have a clear measure of how long the stream is usually dry, but it can be adjusted to allow for no flow during no flow circumstances.

3. Are guidelines available regarding the depth at which intake of the impounded water must take place to maintain water quality standards, and as the level of the lake drops during summer months, must we switch to intake points at deeper depths?

No guidelines. Very complex question because there is no magic depth at which water quality is best. Stratification varies with season and the water quality varies with depth. During late spring, summer and fall months, the surface waters would likely be too warm to meet thermal standards, while the sub-surface waters may be hypoxic or anoxic, which would violate dissolved oxygen standards as well as containing much higher concentrations of dissolved minerals and metals and organic oxygen demand. The better water quality is probably found in the lower portion of the epilimnion (top strata). One may be able to situate an orifice on the stand pipe that would remain in the epilimnion while the lake surface moves up and down.

4. By "maintaining flow downstream", are we required to evacuate water from the dam at all times, and what volume of flow must we maintain so that an appropriately-sized orifice may be incorporated into our principle spillway riser pipe?

Same answer as # 1.

Hope this is helpful. Thanks for you consideration.

Robert Baker  
Tennessee Water Pollution Control Division  
401 Church Street  
7th Floor L & C Annex  
Nashville, Tennessee 37243-1534

## APPENDIX D

TVA email and Safe Dam Info

**Robinson, Amy M LRN**

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**From:** Lowe, Randall E [relowe2@tva.gov]  
**Sent:** Thursday, August 31, 2006 8:52 AM  
**To:** Robinson, Amy M LRN  
**Subject:** RE: Bill Hawkins Impoundment

Send us a copy of the draft EA and we will review and adopt. Our review is complete

Randy Lowe, Land Use Representative  
TVA Kentucky Watershed Team  
2835-A East Wood Street  
Paris, Tennessee 38242-5948  
Bell - (731) 641-2022  
Fax - (731) 642-0754  
Email - [relowe2@tva.gov](mailto:relowe2@tva.gov)

-----Original Message-----

**From:** Robinson, Amy M LRN [mailto:[Amy.M.Robinson@lrn02.usace.army.mil](mailto:Amy.M.Robinson@lrn02.usace.army.mil)]  
**Sent:** Wednesday, August 30, 2006 2:07 PM  
**To:** Lowe, Randall E  
**Subject:** Bill Hawkins Impoundment

Randy - I am preparing the EA for Bill Hawkins impoundment – just checking on TVA's status of the project.

Thanks,  
Amy Robinson

**Robinson, Amy M LRN**

---

**From:** Lowe, Randall E [relowe2@tva.gov]  
**Sent:** Wednesday, August 09, 2006 8:49 AM  
**To:** Robinson, Amy M LRN  
**Subject:** FW: Off-Reservoir Dams  
**Attachments:** tennessee classification of dams.pdf; tennessee safe dams.pdf

I wanted to confirm with Roger M. that I did not need to list him in our formal review process for this request. He responded with this info. Perhaps it will help in writing the flood/floodplains section of the EA.

**Randy Lowe, Land Use Representative****TVA Kentucky Watershed Team****2835-A East Wood Street****Paris, Tennessee 38242-5948****Bell - (731) 641-2022****Fax - (731) 642-0754****Email - [relowe2@tva.gov](mailto:relowe2@tva.gov)**

-----Original Message-----

**From:** Milstead, Roger A  
**Sent:** Wednesday, August 09, 2006 8:19 AM  
**To:** Lowe, Randall E  
**Subject:** RE: Off-Reservoir Dams

Randy, we generally use the information provided by the State of Tennessee regarding dam classification to determine the dam category. I have attached copies of the Tennessee Classification of Dams and Tennessee Safe Dams information.

<<tennessee classification of dams.pdf>> <<tennessee safe dams.pdf>>

Based on the dam classification information, the dam proposed by Mr. Hawkins would be classified as a small dam because of the height and storage. Unless there is an expected loss of life, I would expect the dam to be classified as Low or Significant based on downstream property damage. I would respond to the 26a request with a response similar to the one I sent you yesterday.

If you need anything else, please let me know.

Roger

-----Original Message-----

8/9/2006

**From:** Lowe, Randall E  
**Sent:** Tuesday, August 08, 2006 3:51 PM  
**To:** Milstead, Roger A  
**Subject:** RE: Off-Reservoir Dams

Ok.....I don't know your criteria for "large dams and reservoirs" but this reservoir would impound 47 acres of surface water, have an earthen dam 35 feet in height and several hundred feet in length.....what say you regarding any comments for RLR-162207? TDEC and the applicant have been trying to work out a stream mitigation plan for a couple of years.

**Randy Lowe, Land Use Representative**

**TVA Kentucky Watershed Team**

**2835-A East Wood Street**

**Paris, Tennessee 38242-5948**

**Bell - (731) 641-2022**

**Fax - (731) 642-0754**

**Email - [relowe2@tva.gov](mailto:relowe2@tva.gov)**

-----Original Message-----

**From:** Milstead, Roger A  
**Sent:** Tuesday, August 08, 2006 2:18 PM  
**To:** Lowe, Randall E  
**Subject:** Off-Reservoir Dams

Randy, for small, private off-reservoir dams, I use a standard response such as the one attached.

<< File: 170342whe.doc >>

We would only need to review requests for large dams and reservoirs that could result in impacts to one of TVA's reservoirs.

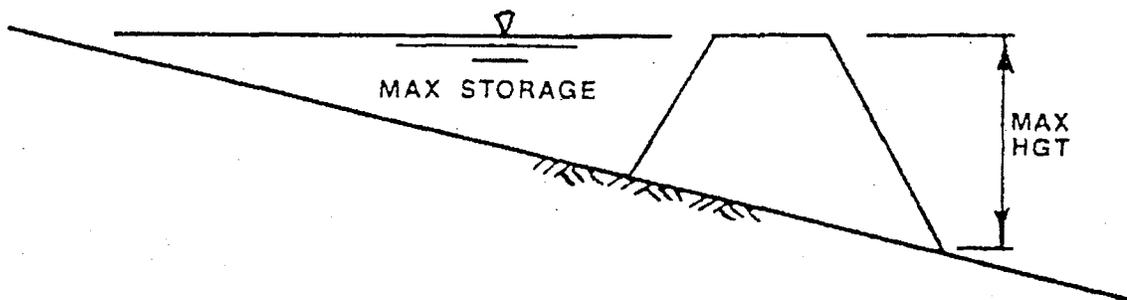
If you have any questions or want to discuss, let me know.

Roger

# TENNESSEE CLASSIFICATION OF DAMS

(SIZE CLASSIFICATION)

CATEGORY	STORAGE (AC-FT)	HEIGHT (FT)
SMALL	30 TO LESS THAN 1000	20 TO LESS THAN 41
INTERMEDIATE	1000 TO 50,000	41 TO 100
LARGE	GREATER THAN 50,000	GREATER THAN 100



# TENNESSEE CLASSIFICATION OF DAMS

(DOWNSTREAM HAZARD POTENTIAL CATEGORY)

HAZARD POTENTIAL  
CATEGORY

DOWNSTREAM  
CONDITION

---

1. (LOW)

NO EXPECTED LOSS OF LIFE;  
DAMAGE LIMITED TO DAM  
OWNER'S PROPERTY

2. (SIGNIFICANT)

REMOTE POSSIBILITY OF LOSS  
OF LIFE;  
DOWNSTREAM PROPERTY  
DAMAGE

3. (HIGH)

PROBABLE LOSS OF LIFE;  
EXCESSIVE ECONOMIC LOSS

# TENNESSEE STORMS FOR EXISTING AND NEW TENNESSEE DAMS

HAZARD POTENTIAL CATEGORY	SIZE CLASS	DESIGN STORM
3 (LOW)	SMALL	100 YR
	INTERMED.	1/3 PMP
	LARGE	1/2 PMP
2 (SIGNIFICANT)	SMALL	1/3 PMP
	INTERMED.	1/2 PMP
	LARGE	PMP
1 (HIGH)	SMALL	1/2 PMP
	INTERMED.	PMP
	LARGE	PMP

CORPS OF ENGINEERS PHASE I DAM INSPECTION PROGRAM\*

HYDROLOGIC EVALUATION GUIDELINES

RECOMMENDED SPILLWAY DESIGN FLOODS

HAZARD	SIZE	SPILLWAY DESIGN FLOOD (SDF)
LOW	SMALL	50 TO 100 YR FREQ
	INTERMEDIATE	100 YR TO 1/2 PMF
	LARGE	1/2 PMF TO PMF
SIGNIFICANT	SMALL	100 YR TO 1/2 PMF
	INTERMEDIATE	1/2 PMF TO PMF
	LARGE	PMF
HIGH	SMALL	1/2 PMF TO PMF
	INTERMEDIATE	PMF
	LARGE	PMF

\* Guidelines for Safety Inspection of Dams, Department of the Army, OCE, July 1974.

## **SAFE DAMS PROGRAM**

### **TENNESSEE DEPT. OF ENVIRONMENT AND CONSERVATION**

The Tennessee Safe Dams Program (SDP) started when the Safe Dams Act of 1973 was passed. This occurred in the wake of failures in 1972 of a coal tailings dam on Buffalo Creek in West Virginia, which killed 125 people, and Canyon Lake Dam in Rapid City, South Dakota, which contributed significantly to the 236 deaths during heavy flooding there. Renewed interest occurred after the failures of Teton Dam (Idaho-1976), Laurel Run Dam (Pennsylvania-1977), and Toccoa Falls Dam (Georgia-1977), all of which killed people. Since 1983, when the SDP was moved to the Health Dept., over 150 dams have undergone major repairs to achieve current safety standards. Over 300 more have had minor repairs performed to achieve compliance.

The Safe Dams Act can be found on the web at  
<http://198.187.128.12/tennessee/lpext.dll?f=templates&fn=fs-main.htm&2.0>

#### WHAT IS THE GOAL OF THE SAFE DAMS PROGRAM?

The primary goal of the Safe Dams program is to protect the public from dam failures.

#### WHAT DOES THE SAFE DAMS PROGRAM DO?

We inspect dams for safety and require that they meet stability and spillway standards in order to get an operating permit. Dams are inspected every 1, 2, or 3 years depending on whether they are high hazard, significant hazard, or low hazard, respectively. When dams are found to be unsafe, we review plans for repairing them and issue alteration permits for such repairs.

We also review plans for new dams and require that they meet strict standards in order to get a construction permit.

Unregulated dams are reviewed every five years for changes in ownership and hazard category. The requirements for obtaining permits, safety standards, etc., are contained in our regulations, which can be found at <http://www.state.tn.us/sos/rules/1200/1200-05/1200-05.htm>

#### WHAT IS A DAM?

**Any structure that can impound at least 30 acre-feet of water or is least 20 feet high.** An acre-foot is an acre of water one foot deep, a 1/2 acre two feet deep, etc., or 43,560 ft<sup>3</sup>. Height is the difference between the elevation of the downstream toe and the elevation of the low point of the dam crest.

#### **EXEMPTIONS**

1. Any dam owned or operated by the federal government, such as TVA and the Corps of Engineers.
2. Any dam licensed by the Federal Energy Regulatory Commission (FERC).
3. "Diversion weirs", "roadbeds", "water tanks", and "wastewater impoundment barriers" as defined in the Act.
4. "Farm Pond": any dam that is used for conservation, recreation, or agriculture only by the owner and which is closed to the general public. "Farm Pond" status is based on use of the lake. Farm Ponds can be any size or hazard category.

## WHAT KINDS OF DAMS ARE THERE?

There are more than 1100 dams in Tennessee, more than 600 of which are regulated. Over 500 are exempt from regulation.

Most dams in the state are earth dams, 50 feet or less in height.

About 30 dams are concrete, the tallest being 50' high.

There are eight dams larger than 100', the tallest being a coal tailings dam in Marion County which is 315' high.

Currently, 98% of high hazard dams and 96% of all dams in Tennessee are in compliance.

## CLASSIFICATION OF DAMS

Dams are classified by size and Hazard Potential Category (HPC).

The size classification is based on dam height or storage volume, whichever is greater, as shown in the following table.

Category	Storage (Ac-ft)	Height(ft)
Small	30 to 999	20 to 40
Intermediate	1,000 to 50,000	41 to 100
Large	greater than 50,000	greater than 100

The HPC is determined by the downstream damage that could result if a dam failed, based on the following definitions.

High hazard (HPC-1) dams would probably cause loss of life in the event of failure.

Significant hazard (HPC-2) dams would cause property damage or temporary loss of roads or utilities with a remote chance of loss of life.

Low hazard (HPC-3) dams would have little or no effect downstream if they failed.

**The size of a dam is fixed** by its physical dimensions and can change only if physical changes are made to the structure or its impoundment. On the other hand, **the hazard category can and does change** when new houses or businesses are built or old ones are torn down in the flood plain.

**NOTE:** The Safe Dams Act was amended in 2001 regarding construction of new homes or businesses downstream of dams. In cases where such construction might raise the hazard category of a dam located upstream of the new construction, the owner of the new structure is required to submit a dam failure analysis to the Safe Dams program. The analysis must be performed by a professional engineer licensed in Tennessee and show the flood elevations that would occur downstream if the dam failed under certain scenarios. Furthermore, city and county offices that issue building permits are required to advise the applicants for such permits of the above obligation. To help builders, local governments, and others comply with this law, the Safe

Dams program created a web site showing the locations of all significant (HPC-2) and low hazard (HPC-3) dams in Tennessee at <http://gwidc.gwi.memphis.edu/website/dws/>. High hazard dams are not shown for security reasons and because they already are classified in the highest hazard category.

### HAVE DAM FAILURES EVER HAPPENED IN TENNESSEE?

55 known dam failures that caused release of water have occurred in Tennessee this century. An additional 21 dams have had partial failures which could have resulted in release of flood waters had remedial action not been taken.

The most disastrous failure in the state occurred in 1916 when the John Thompson dam failed and killed 24 people. The dam was located on the Barren Fork River in Claiborne County, and its failure caused the failures of five smaller dams downstream. The dam overtopped during a rainfall of 12-15 inches in five hours. (This is approximately a 1/2 Probable Maximum Precipitation (PMP), which small, high hazard dams and intermediate, significant hazard dams now have to pass without failing.)

**Since 1973, 37 dams in Tennessee have failed, of which 33 were unregulated.**

Most dams fail when excessive rain causes the lake to rise and overtop the dam, washing it out. A smaller number fail due to excessive seepage of water through the dam leading to the dam caving in and failing.

### WHAT SHOULD I DO IN CASE OF A DAM EMERGENCY?

Any time a serious problem is detected and there is eminent danger of dam failure, the person identifying the problem should immediately contact the Tennessee Emergency Management Agency (TEMA) by dialing **1-800-262-3300**. TEMA will contact the local authorities and the Tennessee Safe Dams Section. Alternatively, the person may notify the local sheriff or police department, who should in turn notify TEMA.

Further measures that might be taken in emergencies are listed under "**POTENTIAL PROBLEMS AND IMMEDIATE RESPONSE ACTIONS**" and depend on the specific problem encountered. A dam owner may also choose to contact an engineer, a lawyer, or other parties whom he chooses.

If a dam is exhibiting problems but is not in danger of failure, notify the Tennessee Safe Dams Section. A professional engineer may also be called at the owner's discretion.

### PROBLEM IDENTIFICATION

Detection of the following problems will require implementation of emergency procedures.

1. The dam is overtopping.

2. Internal erosion is occurring in the dam. This is usually indicated by water flowing out of a hole in the dam or by a sinkhole appearing somewhere on the dam.
3. A large slide occurs on either the upstream or downstream slope of the dam.
4. A crack or cracks appear in the dam.
5. Appurtenant structures such as spillways or risers fail.
6. A large area of the downstream slope becomes saturated (becomes soggy or muddy), particularly if the saturated area develops on the upper 2/3 of the slope.

### REPORTING REQUIREMENTS

The person reporting the emergency situation to state or local officials should provide the following information to those agencies.

1. Name of person making the report and his telephone number.
2. The name and location of the dam.
3. A description of the problem (for example, excessive leakage, cracks, boils, slides, wet spots, etc.)
4. The location of the problem area on the dam relative to various parts of the dam. For example, "about 1/3 up from the toe and about 100' to the right of the spillway". The part of the dam which is actually affected, such as the toe, crest, upstream slope, downstream slope, etc.
5. A description of the extent of the problem area.
6. An estimate of the quantity of flow, if applicable.
7. An estimate of the lake level relative to the level of the principal spillway and whether the lake is rising or falling.
8. An indication of whether the situation is worsening and whether it can be contained.
9. Weather conditions and any other information that seems important.

### POTENTIAL PROBLEMS AND IMMEDIATE RESPONSE ACTIONS

It is important to know what type of emergency repairs should be attempted. The following is a list of possible actions to take to avoid or delay a dam failure. **REMEMBER: NOTIFY THE PROPER AUTHORITIES IMMEDIATELY IF THE DAM HAS ANY OF THE PROBLEMS LISTED UNDER PROBLEM IDENTIFICATION.**

**NOTE:** Extreme caution should be exercised when working around a dam during emergency conditions. If the structural integrity of the dam is in doubt, or if attempting repairs to the dam would endanger the lives of those making the attempt, only authorized emergency personnel should be allowed on or below the dam.

#### OVERTOPPING BY FLOOD WATERS

- . If available, open drawdown valve or use pumps or siphons to lower the lake level.
- . Place sandbags along the crest to increase freeboard, if possible.
- . An additional spillway or small breach may be cut into a short area of the dam or adjacent area only with approval of the Tennessee Safe Dams Section!

LOSS OF FREEBOARD DUE TO STORM WAVE EROSION OR PARTIAL EMBANKMENT FAILURE

- . If available, open drawdown valve or use pumps or siphons to lower the lake level.
- . Place sandbags or other suitable material in damaged areas to prevent further embankment erosion and/or to restore freeboard.

SLIDES ON THE UPSTREAM OR DOWNSTREAM SLOPE OF THE EMBANKMENT

- . If available, open drawdown valve or use pumps or siphons to lower the lake level.

SINKHOLES, PIPING, OR BOILS APPEARING ON THE DAM

- . If available, open drawdown valve or use pumps or siphons to lower the lake level.

FAILURE OF APPURTENANT STRUCTURES SUCH AS OUTLETS OR SPILLWAYS

- . If available, open drawdown valve or use pumps or siphons to lower the lake level.
- . Close off outlet or spillway if possible.

MOVEMENT OF THE DAM OR CRACKING IN THE DAM

- . If available, open drawdown valve or use pumps or siphons to lower the lake level.
- . Use sandbags or other suitable material to block flow of water through cracks.

EXCESSIVE SEEPAGE OR HIGH-LEVEL SATURATION OF THE EMBANKMENT

- . If available, open the drawdown valve or use pumps or siphons to lower the lake level.

**APPENDIX E**

**Public Notice Responses**

July 17, 2005

Nashville District Corps of Engineers  
Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

Attention: Amy Robinson

RE: Application No. 200401779

Applicant - Bill Hawkins  
3405 Pearson Road  
Memphis, TN 38118

Proposed Discharge of Fill Material Associated  
with Impoundment Structure on Unnamed  
Tributary Mile 0.6, a tributary to Tennessee  
River Mile 197.4L, McNairy County, TN

JUL 18 2005

Dear Ms. Robinson

Pursuant to our recent telephone conversation, I would like to address the issue of the application of Mr. Bill Hawkins' proposal for construction of an impoundment structure for a reservoir for recreational and/or agricultural use by the owner. It was stated in the "PUBLIC NOTICE". (which I have just recently acquired a copy ) that the reservoir would be for the applicant's private use and closed to the general public.

I would like to go on record as to several "concern" issues, and I would appreciate it, if these issues would be addressed by an in depth reply.

The area in question is presently surrounded by a small community made up mostly by senior residents. It is feared that the impact of the proposed construction would be detrimental to the quiet neighborhood that is now enjoyed by all.

Will the residents have to endure the noise of All Terrain vehicles running everywhere?

Would there be damage to the adjoining wooded areas?

Is it the intention of turning this area into a possible hunting preserve; thereby endangering our domestic animals, as well as the residents and their personal property? (Not too long ago, in the field (located on the property involved in this Proposal) below the barn area, a hunter shot towards Hwy. 224 and the bullet hit a resident's truck - of course the hunter ran.) This could be a dangerous situation to the surrounding residents.

July 17, 2005

What guarantee is there that the property would not be open to the public, or resold for public recreational use, turning this area into a party type atmosphere?

A few residents have flowing stream beds on their property, which ensure adequate drainage for our properties. By diverting, through construction, what impact would this have on the existing streams that have been here for years and years?

What restrictions would be placed on this property, and how long would this person have to adhere to the restrictions? Could the restrictions be undone with a zoning change later filed by the owner?

Yes, there is concern about this Proposal. Most of the residents in this community have enjoyed the peace and quiet of these surroundings for many years. We hope that consideration of the residents will be taken into account before extreme measures are taken.

Thank you for your time and attention to this matter.

Very truly yours,



Mary Schallhorn  
2544 Old Chambers Store Road and daughter  
Michie, TN 38357



Rita K. Jones  
209 Maydie Lane  
Michie, TN 38357

cc: Mr. Randy Lowe, Tennessee Valley Authority  
Kentucky Watershed Team  
P.O. Box 280  
Paris, TN 38242-0280

Mr. Robert Baker, TDEC, Division of Water Pollution Control  
7th Floor, L & C Annex  
401 Church Street  
Nashville, TN 37243-1534

January 18, 2005

Nashville District Corp of Engineers  
Attn: Amy Robinson  
Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

RE: Public Notice No. 04-70

Dear Amy,

I am in receipt of Public Notice No. 04-70 describing a proposed discharge of fill material associated with an impoundment structure on an unnamed tributary, mile 0.6, a tributary to Tennessee River Mile 197.4L, McNairy County, Tennessee. The notice describes a proposed 47-acre surface water impoundment with the impending loss of 7,625 feet of stream channel. I cannot discuss readily the impacts associated with the impoundment since I am not familiar with the biology of the unnamed tributaries, but I am sure the Corps and TDEC have fully required the applicant to discuss water quality issues. However, I would like to enquire about the permit process and alternatives analysis for such a large impoundment.

As you may be aware, I assisted the City of Portland, TN in acquiring the appropriate State (NRS 99.111) and Federal (Corps Permit No. 990003820) permits for an approximate 160 acre impoundment that would impact approximately 9,000 ft. of stream. As part of the process the City had to go through an extensive alternatives analysis to meet the Section 404(b)(1) guidelines that state that restrict discharges into aquatic areas where there are less environmentally damaging, practicable alternatives. The options that the City evaluated included the following:

1. **No Build Option** – This alternative was not a viable option since the City could not meet the growth demands for the City water needs.
2. **Groundwater Supply** – The City spent over \$50,000 exploring the option of using groundwater wells to supply the water supply needs. This likewise was not a viable option since none of the wells drilled around the city could supply enough volume to meet the needs. Also, groundwater quality was an issue as many of the wells had high sulfur and/or iron content.
3. **Raw Water Pipeline to Old Hickory Lake** – The City explored the option of running a raw water pipeline to Old Hickory Lake in which this option proved to be cost prohibitive to the City.
4. **Impoundment** – The fourth and final option for the City of Portland was the construction of a surface water impoundment on Caney Fork Creek in northeastern Sumner County. This option was the Cities final option for supplying the growth demands for the people of Portland, Tennessee.

As part of the Corps evaluation process for the above described project or for any future proposed project, the following criteria must be considered:

- a. The relative extent of the public and private **need** for the proposed activity,
- b. The practicability of using reasonable **alternative locations** and methods to accomplish the objective of the proposed activity,
- c. The extent and permanence of the beneficial and/or detrimental effects which the proposed activity is likely to have on public and private uses to which the area is suited.

I am not necessarily opposed to impoundments, as I have been part of several smaller, private, tributary impoundment permitting projects as well as the large public water supply impoundment for Portland. Furthermore, I have advised municipalities recently that permitting an impoundment would be very unlikely in this state under the current regulatory framework and that other options must be evaluated prior to considering an impoundment. To this end, for future reference in assisting municipalities with water supply needs evaluations, the procedure used in evaluating this proposal will be viewed as precedent. If private impoundments are permitted of the size and magnitude of the current proposed project without the proper alternatives analysis and public needs analysis, such that the City of Portland was required to provide, then the process must and will change for future water supply impoundment projects. One potential water supply issue that readily comes to mind is the Cumberland County/City of Crossville water supply project, in which the Nashville District Corps of Engineers has prepared a preliminary environmental assessment and needs analysis.

Thanks for your consideration of these comments and for the diligent work on this project.

Sincerely,

*Jeff Duke*

Environmental Consultant



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

446 Neal Street  
Cookeville, TN 38501

31 JAN 2005

January 27, 2005

Lt. Colonel Byron G. Jorns  
District Engineer  
U.S. Army Corps of Engineers  
3701 Bell Road  
Nashville, Tennessee 37214

Attention: Ms. Amy Robinson, Regulatory Branch

Subject: Public Notice No. 04-70. Bill Hawkins, Proposed Impoundment on an Unnamed Tributary to Owl Creek, McNairy County, Tennessee.

Dear Colonel Jorns:

Fish and Wildlife Service (Service) personnel have reviewed the subject public notice. The applicant (Bill Hawkins) proposes to construct an earthen dam and impound the waters of two unnamed tributaries to Owl Creek in McNairy County, Tennessee. The proposed dam would be approximately 35 feet high, 265 feet wide, and 850 feet long. The proposed dam would impound approximately 7,625 linear feet of two unnamed tributaries, forming a reservoir of 47 surface-water acres in size. The applicant proposes on-site compensatory mitigation for the loss of stream length by restoration and enhancement of 7,050 linear feet of stream. The following constitute the comments of the U.S. Department of the Interior, provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Endangered species collection records available to the Service do not indicate that federally listed or proposed endangered or threatened species occur within the impact area of the project. We note, however, that collection records available to the Service may not be all-inclusive. Our data base is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitat and thus does not necessarily provide conclusive evidence that protected species are present or absent at a specific locality. However, based on the best information available at this time, we believe that the requirements of section 7 of the Endangered Species Act of 1973, as amended, are fulfilled. Obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of the action that may affect listed species or critical habitat in a manner not previously considered,

(2) the action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the action.

We are concerned with some of the proposed mitigation measures and the lack of detail in the applicant's proposed stream mitigation plan. The applicant's proposed stream mitigation involves restoring stream channels to natural, stable conditions, replacing undersized or failed culverts and adding riprap, and restoring the riparian zone to a width of 50 feet from the center of the channel on both sides of the stream. Proposed stream enhancement would involve riparian restoration and cattle exclusion at the upstream areas of the lake and within the areas of the emergency and principal spillway outfalls. We have the following concerns regarding the applicant's mitigation proposal:

1. It is unclear as to whether the 265 feet of fill that would be placed in the stream for the dam construction were included in the applicant's assessment of stream impacts. If not, the 265 feet of fill must be added to the impacts and mitigated at a 1:1 ratio.
2. The mitigation plan does not indicate how the applicant intends to restore the impaired channels to natural, stable conditions. Without a detailed plan, we can not comment as to whether the proposed restoration is adequate to offset project impacts. The plan should describe the type of bioengineering techniques, if any, that would be incorporated in the plan and the location within the stream reaches where they would be used.
3. Restoring and/or replacing culverts and adding riprap are maintenance activities and should not be considered as mitigation. Therefore, the linear feet of culverts and riprap should not be allowed as mitigation credit.
4. The Stream Mitigation Guidelines for the State of Tennessee indicate that the riparian buffer width should be measured from the stream's bankfull elevation, not from center of the channel, as proposed by the applicant.
5. The proposed 4,080 linear feet of stream enhancement involves riparian restoration and cattle exclusion at the upstream areas of the lake and within the areas of the emergency and principle spillway outfalls. It would appear from the description given in the mitigation plan that the riparian restoration and cattle exclusion are for the most part protecting the impoundment and spillway structures. If this is the case, mitigation credit should not be allowed because the impoundment is the impact itself.
6. There is no mention in the mitigation plan about a monitoring plan. Monitoring must be part of the mitigation process in order to quantify the success, or lack thereof, of a mitigation project.

Based on the above concerns, we recommend that the subject public notice be placed in abeyance until the applicant provides the resource and regulatory agencies a detailed mitigation plan with the appropriate amount of mitigation for the proposed impacts. The plan should include stream profiles,

bioengineering techniques that would be used to restore the streams and where these structures would be installed, appropriate riparian buffer widths with tree plantings (spacing and species), and a monitoring plan. If the applicant does not agree to resolve the above issues, we recommend that the subject permit be denied.

Thank you for this opportunity to review the subject notice. Please contact Robbie Sykes of my staff at 931/528-6481 (ext. 209) if you have questions about these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Lee Barclay". The signature is fluid and cursive, with the first name "Lee" and last name "Barclay" clearly distinguishable.

Lee A. Barclay, Ph.D.  
Field Supervisor

xc: Robert Todd, TWRA, Nashville, TN  
Dan Eagar, TDEC, Nashville, TN  
Darryl Williams, EPA, Atlanta, GA



## TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER  
P. O. BOX 40747  
NASHVILLE, TENNESSEE 37204

January 20, 2005

Amy Robinson  
Nashville District Corps of Engineers  
Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

26 JAN 2005

Re: Public Notice #04-70  
Applicant: Bill Hawkins  
Proposed Fill of Approximately 265 feet of an Unnamed Tributary to Owl Creek and  
Impoundment of Approximately 7,625 feet of Two Unnamed Tributaries  
Unnamed Tributary Mile 0.6, a Tributary to Owl Creek, a Tributary to the Tennessee  
River Mile 197.4L  
McNairy County, Tennessee

Dear Ms. Robinson:

The applicant proposes to discharge fill material in 265 feet into an unnamed tributary to Owl Creek in McNairy County for the purpose of constructing an impoundment structure. The applicant also proposes to impound 7,625 linear feet of two unnamed tributaries for the purpose of creating a 47 surface-acre reservoir. The applicant proposes to mitigate for these resource value losses by restoring and enhancing 5,720 linear feet of stream.

It is the position of the Tennessee Wildlife Resources Agency that the mitigation plan is inadequate. In the plan entitled "Stream Section 5", the applicant requests mitigation credit for replacing an existing 36 inch diameter culvert of unknown length with a culvert of unknown diameter and unknown length and applying riprap on an unknown length of stream channel to both ends of the culvert. The applicant should not receive mitigation credit for these activities and depending on the length of the existing culvert and the length of the replacement culvert and area that riprap is applied, the applicant may need to mitigate for these activities. Also the buffer zone should be 50 feet from the bankfull elevation and not 50 feet from the center of the stream channel. There is no information on how the applicant intends to restore the current channel to a natural, stable condition for this section of stream.

In the plan entitled "Stream Section 6", the applicant requests mitigation credit for applying riprap on an unknown length of stream channel to both ends of the existing 36 inch diameter culvert and for applying riprap on an unknown length of stream channel to both ends of the existing 48 inch diameter culvert. The applicant should not receive mitigation credit for these activities and depending on the length of the area that riprap is applied, mitigation may be necessary for these activities. Also the buffer zone should be 50 feet from the bankfull elevation and not 50 feet from the center of the stream channel. There is no information on how the

**The State of Tennessee**

AN EQUAL OPPORTUNITY EMPLOYER

applicant intends to restore the current channel to a natural, stable condition for this section of stream.

In the plan entitled "Stream Sections 8&9", the applicant proposes to restore the current channel to a natural, stable condition for this section of stream but provides no information in the plan on how he intends to do so. Also the buffer zone should be 50 feet from the bankfull elevation and not 50 feet from the center of the stream channel.

In the plan entitled "Stream Section 10", the applicant requests mitigation credit for the applicant requests mitigation credit for applying riprap on an unknown length of stream channel to both ends of an existing 48 inch diameter culvert of unknown length. The applicant should not receive mitigation credit for these activities and depending on the length of area that riprap is applied, the applicant may need to mitigate for these activities. Also the buffer zone should be 50 feet from the bankfull elevation and not 50 feet from the center of the stream channel. There is no information on how the applicant intends to restore the current channel to a natural, stable condition for this section of stream. Finally, the applicant proposes to enhance 4,080 feet of stream to mitigate for 1,020 feet of stream impacts by livestock exclusion and riparian zone restoration which will be focused in the upstream areas of the lake and within the areas of the emergency and principle spillway outfalls. It cannot be determined from the information in the mitigation plan how the livestock exclusion will be applied and if there will be sufficient buffer between the fence and the reservoir to reduce impacts from livestock activities. There is no information on how riparian zone restoration activities will be conducted or the nature of those activities in this stream section.

We also are interested to know if jurisdictional wetlands will be impacted by this project. There is no mention of them in the public notice.

The Tennessee Wildlife Resources Agency requests that this permit be held in abeyance until an adequate detailed mitigation plan is received, reviewers have an opportunity to review and comment on the proposed mitigation for this impact, and our concerns addressed.

Thank you for the opportunity to comment.

Sincerely,



Robert M. Todd  
Fish and Wildlife Environmentalist

cc: Steve Seymour  
Jerry Strom  
USFWS, EPA, WPC



**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

December 28, 2004

Ms. Amy Robinson  
U.S. Army Corps of Engineers, Nashville District  
Regulatory Branch  
3701 Bell Road  
Nashville, Tennessee 37214

RE: COE-N, PN# 04-70/IMPOUNDMENT/TRM 0.6, UNINCORPORATED,  
MCNAIRY COUNTY

Dear Ms. Robinson:

The above-referenced undertaking has been reviewed with regard to National Historic Preservation Act compliance by the participating federal agency or its designated representative. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

In order to complete our review of this undertaking, this office will need to receive from you a detailed archaeological survey report on the area of potential effect. Enclosed please find a list of individuals and organizations which have indicated a desire to work in Tennessee. This list is solely for the convenience of persons or firms seeking archaeological services. It does not indicate nor imply any sanction, certification, or approval by the State of Tennessee.

Upon receipt of the survey report, we will complete our review of this undertaking as expeditiously as possible. Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met. Please inform this office if this project is canceled or not funded by the federal agency. Questions and comments may be directed to Jennifer Barnett (615) 741-1588, ext. 17.

Your cooperation is appreciated.

Sincerely,

Herbert L. Harper  
Executive Director and  
Deputy State Historic  
Preservation Officer

HLH/jmb

24 JAN 2005

# CONSULTING ARCHAEOLOGISTS WORKING IN TENNESSEE

## LIST MAINTAINED BY THE DIVISION OF ARCHAEOLOGY, UPDATED AUGUST 2004

This list is provided for the convenience of persons or firms seeking archaeological services and does not indicate nor imply any sanction, certification, or approval by the State of Tennessee. This list may not be all-inclusive; however, all consultants who request inclusion will be listed. The Division of Archaeology does not accept responsibility for the performance of any consultant.

Those persons procuring archaeological services are advised to independently verify that the archaeologist that will be in direct (day-to-day) charge of the project is qualified and experienced in the type of work to be performed. Permits for work on federal or state property have specific, but different, professional requirements.

AMEC Earth and Environmental, Inc.  
[Anne Bader]  
690 Commonwealth Center  
11003 Bluegrass Parkway  
LOUISVILLE, KY 40299  
(502) 267-0700 FAX (502) 267-5900

University of Alabama  
Office of Archaeological Services  
[Eugene Futato]  
13075 Moundville Arch. Park  
MOUNDVILLE, AL 35474  
(205) 348-7774 FAX (205) 371-2494

Alexander Archaeological Consultants  
[Lawrence Alexander]  
Post Office Box 4441  
CHATTANOOGA, TN 37405  
(706) 820-4344 FAX (706) 820-4076

Archaeological Services, Inc.  
[Noel Stowe]  
2120 C.F. Ward Road  
LUCEDALE, MS 39452  
(601) 947-4050 FAX (601) 947-6882

Gary Barker, Consultant  
1085 Flicker Court  
KINGSTON SPRINGS, TN 37082  
(615) 952-5759

Barr and Associates  
[William Barr]  
2452 Irvin Risinger Road  
LEESVILLE, SC 29070  
(888) 532-0392 FAX (803) 532-0392

Joseph L. Benthall  
Consultant and Illustrator  
531 Ball Play Road  
MADISONVILLE, TN 37354  
(423) 442-2887

Charles Bentz, Consultant  
4815 W. Sunset Road  
KNOXVILLE, TN 37914-5050  
(865) 523-9271

BHE Environmental, Inc.  
[Frank Cowan]  
11733 Chesterdale Road  
CINCINNATI, OH 45246  
(513) 326-1500 FAX (513) 326-1550

BHE Environmental, Inc.  
[Bruce Bauer]  
7039 Maynardsville Pike  
KNOXVILLE, TN 37918  
(865) 922-4305 FAX (865) 922-8495

Bland & Associates, Inc. (BAI)  
[Myles Bland]  
Chrysalis Building  
761 Poplar Street, Suite B-10  
MACON, Georgia 31201  
(800) 605 4478 FAX: (877) 735 7402

Brockington and Associates, Inc.  
[Paul Brockington]  
6611 Bay Circle, Suite 200  
NORCROSS, GA 30071  
(770) 662-5807 FAX (770) 662-5824

Burns and McDonnell  
[Clete Rooney]  
9400 Ward Parkway  
KANSAS CITY, MO 64114  
(816) 333-9400 FAX (816) 822-3515

CRC, Int'l Archaeology & Ecology  
[Robert d'Aigle]  
19700 Hickory Twig Way, Suite M76  
SPRING, TX 77388-6250  
(281) 350-6133 FAX (281) 350-9250

Cultural Resource Analysts, Inc.  
[Charles Niquette]  
151 Walton Avenue  
LEXINGTON, KY 40508  
(859) 252-4737 FAX (859) 254-3747

Cultural Resource Services  
[Gerald P. Smith]  
Post Office Box 281401  
MEMPHIS, TN 38168  
(901) 358-4767 FAX (901) 358-8549

Cumberland Research Group  
[Dan Allen]  
1626 Locerbie Drive  
MURFREESBORO, TN 37128  
(615) 476-7342 FAX (615) 890-0260

DuVall & Associates, Inc.  
[Glyn D. DuVall]  
137 Alpha Drive  
FRANKLIN, TN 37064  
(615) 791-6450 FAX (615) 791-5833

DuVall & Associates, Inc.  
[Robert A. Pace]  
9040 Executive Park Drive, Suite 209  
KNOXVILLE, TN 37923  
(865) 531-9170 FAX (865) 531-9149

Environment and Archaeology, LLC  
[David Breetzke]  
8106 Wiebelo Drive  
KNOXVILLE, TN 37931  
(865) 560-1601 FAX (865) 560-1601

GAI Consultants  
[Patrick Trader]  
3412 Chesterfield Avenue  
CHARLESTON, WV 25304-2610  
(304) 926-8100 FAX (304) 926-8180

R. Christopher Goodwin & Associates  
[William P. Athens]  
309 Jefferson Highway, Suite A  
NEW ORLEANS, LA 70121  
(504) 837-1940 FAX (504) 837-1550

Greenhouse Consultants, Inc.  
[John Matthews]  
280 Palmer Road  
LEXINGTON, TN 38351  
(901) 967-9466 FAX (901) 967-9466

**APPENDIX F**

**Applicant Responses**

U.S. CORPS OF ENGINEERS

AMERICAN ELECTRICAL CONTRACTORS INC.  
3405 PEARSON ROAD  
MEMPHIS, TENNESSEE 38118  
901-743-5120 FAX 901-743-4839

FAX

To: <i>Ms Amy Robinson</i>	From: <i>BIZU HAWKINS</i>
Fax:	Pages:
Phone:	Date:
Re:	cc:

Comments:

William A. Hawkins  
3405 Pearson Rd.  
Memphis, TN 38118

August 15, 2005

Nashville District Corps of Engineers  
Regulatory Branch  
3701 Bell Rd.  
Nashville, TN 37214

Attention Ms. Amy Robinson

Dear Ms. Robinson:

This letter is in response to questions and concerns from Mary Schallhorn and Rita K. Jones regarding Application No. 200401779.

**Q** "Will the residents have to endure the noise of All Terrain vehicles running everywhere?"

**A** The application is for Proposed Discharge of Fill Material Associated with Impoundment Structure on Unnamed Tributary Mile 0.6, a tributary to Tennessee River Mile 197.4L, McNairy County, TN. The proposed construction will not impact the riding of all terrain vehicles. This property was purchased for my children, grandchildren and close friends to enjoy. We have ridden these types of vehicles on the property and will continue to do so. We do not plan to ride on the lake, nor will we be running everywhere, only on our own property.

**Q** "Would there be damage to the adjoining wooded areas?"

**A** If there is any damage to any woodlands it will be on my property. We will respect our neighbors property.

**Q** "Is it the intention of turning this area into a possible hunting preserve; Thereby endangering our domestic animals, as well as the residents and their personal property? (Not too long ago..."

**A** My family and friends will hunt on this property as some former owners have done in years past. There are more domestic animals on this property now than any of the adjacent property. The incident of someone firing a gun at Highway 224 was committed by some local person who was trespassing on my property. I wish someone would step forward and identify this person.

**Q** "What guarantee is there that the property would not be open to the public or resold for public recreational use, turning this area into a party type atmosphere?"

**A** This property was purchased for private use only and I can guarantee it will not be used by the public. If the property is ever sold, I will have no authority or influence on

how it is used.

Q "A few residents have flowing stream bed on their property, which ensure adequate drainage for our properties. By diverting, through construction what impact would this have on the existing streams that have been here for years and years?"

A The construction of the lake does not encroach on any other property or impede any drainage on any other property. Any damage that would occur by the dam breaking would be on my property and will not affect any other property.

Q "What restrictions would be placed on this property, and how long would this person have to adhere to the restrictions. Could the restrictions be undone with a zoning change later filed by the owner?"

A This is private property and there should not be any restrictions placed on it that are not placed on my neighbors property.

We have owned the property almost 2 years and have not had any complaints from our neighbors. My wife and I hope to build a home soon and eventually retire to this property. All we want to do is to enhance the property and enjoy the peace and quiet of the community and share our remaining years with family and friends.

I hope we have addressed all the concerns of Mrs. Schallhorn and Ms. Jones.

Sincerely yours,

William A. Hawkins

cc: Mary Schallhorn  
Rita K. Jones

# SCOTT ENGINEERING COMPANY

1530 POLK STREET - HIGHWAY 45 NORTH - CORINTH, MS 38834 - (662) 287-2436

August 16, 2005

U.S. Army Engineer District, Nashville  
Corps of Engineers  
Attn: Ms. Amy Robinson  
3701 Bell Road  
Nashville, TN 37214

AUG 2005

RE: Public Notice No. 04-70. Bill Hawkins, Proposed Impoundment on  
Unnamed Tributary to Owl Creek, McNairy County, Tennessee.

Dear Ms. Robinson,

I am submitting this letter on behalf of Mr. Bill Hawkins in an effort to address the concerns that were forwarded to you by Mr. Jeff Duke, Environmental Consultant, by letter dated January 18, 2005. His inquiry involved the evaluation of practical alternatives to construction of the dam. Mr. Duke did not include any contact information within his letter so that we could discuss these issues personally. Please regard this submittal as Mr. Hawkins' official response to the inquiry made by Mr. Duke.

The intent or need of constructing the 47-acre impoundment is strictly private in nature to be enjoyed by Mr. Hawkins, his wife, family and friends. Mr. and Mrs. Hawkins are anticipating building a home and retiring to the ±900-acre farm, and the impoundment will simply be an enhancement to the property to be enjoyed by the couple and their family. The size of the impoundment is a result of the height and location of the dam as preferred by Mr. and Mrs. Hawkins and the entire lake will be located entirely within their property.

If alternatives must be explored, we must identify the reason for constructing such an impoundment and the impacts that will be realized. As mentioned above, the impoundment is for private recreational use by the owner and their family and friends. Personal preference based on the accepted site plan is the only justification for constructing the proposed impoundment. The site plan is very specific in establishing the location of the residence, the access driveway, and the location and elevation of the lake so that all these elements harmonize. The impoundment will reside completely within the owner's property and will be classified as a low hazard dam according to the Safe Dams Section of the Division of Water Supply. The impacts of having such an impoundment include the elimination of approximately 6,000 linear feet of existing intermittent stream and the elimination of the aquatic life present in these streams. On the other hand, new aquatic life will be introduced to the area common to watersheds of this size. In addition, the regulatory branches of the permitting agencies will require compensatory stream mitigation to offset the impacts, which Mr. Hawkins will be providing in accordance with the standards established for this type of

work. In essence, Mr. Hawkins will be eliminating 6,000 linear feet of stream but will be significantly enhancing and/or restoring approximately 15,000 linear feet of impaired streams. Construction of the dam will not commence until this compensatory work on approximately 15,000 linear feet of impaired streams has been determined to be equitable by the regulating agencies (which is the purpose of submitting the Aquatic Resource Alteration Permit application).

If we must consider alternatives, only three scenarios exist:

1. **No Build Option** – This option is not viable because construction of the lake is integral with the plans for the residence and landscaping effects.
2. **A significant reduction in the scope of work** – This would include lowering the normal pool elevation of the lake, thus decreasing the amount of streams impacted. However, this option would not be considered viable by the owner due to the lack of harmonization with the overall landscaping concept.
3. **Relocation of the dam** – This option is not viable because there is not another location for the dam that will be practical and suitable to the owners' desires.

Since a maximum amount of stream length that may be eliminated has not been established by the State of Tennessee, it seems that if Mr. Hawkins wants to build a 47-acre lake and is willing to provide compensatory mitigation to offset the impacts of such a lake, he should not be forced to resort to some alternative, just for the sake of doing so.

Sincerely,



Shane Cardwell, E.I.

MSC:sc

CC: Mr. Bill Hawkins  
File