

Appendix A

Joint Application and Plans

JOINT APPLICATION FORM
Department of the Army/TVA

Short code - 0017KDD

RLR# 100330

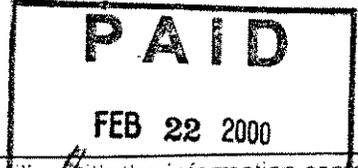
The Department of the Army (DA) permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (P.L. 95-217). These laws require permits authorizing structures and work in or affecting navigable waters of the United States and the discharge of dredged or fill material into waters of the United States. Section 26a of the Tennessee Valley Authority Act, as amended, prohibits the construction, operation, or maintenance of any structure affecting navigation, flood control, or public lands or reservations across, along, or in the Tennessee River or any of its tributaries until plans for such construction, operation, and maintenance have been submitted to and approved by the Tennessee Valley Authority (TVA).

Name and Address of Applicant <i>Hallsdale-Powell Utility District</i> <i>374.5 Gunningham Road</i> <i>Knoxville, Tenn. 37918</i> Telephone Number Home _____ Office <u>947 922-7547</u>	Name, Address, and Title of Authorized Agent <i>Robert G. Campbell</i> <i>ENGINEER</i> Telephone Number Home <u>922-7976</u> Office <u>947-7556</u>
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Location where activity exists or will occur (include Stream Name and Mile, if known) <i>Bull Run - Mile 2±</i> <i>XMR-80PT Clinch</i> <i>OPP. Clinch R.V. 46.3 L</i> <i>Anderson County 9-B</i>	Application submitted to DA <input type="checkbox"/> Yes <input type="checkbox"/> No TVA <input type="checkbox"/> Yes <input type="checkbox"/> No Date activity is proposed to commence <u>June 2000</u> Date activity is proposed to be completed <u>June 2001</u>
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Describe in detail the proposed activity, its purpose and intended use (private, public, commercial, or other). Describe structures to be erected including those placed on fills, piles, or floating platforms. Also describe the type, composition, and quantity of materials to be discharged or placed in the water; the means of conveyance; and the source of discharge or fill material. Please attach additional sheets if needed.

This project involves the construction of a new raw water intake to supply the Hallsdale Powell Utility District serving the North section of Knox County and some areas of Anderson County. The District presently serves 22,000 customers. The facility is required due to the phenomenal growth in the area



Application is hereby made for approval of the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I agree that, if this application is approved by TVA, I will comply with the attached terms and conditions and any special conditions that may be imposed by TVA at the time of approval. Please note the U.S. Army Corps of Engineers may impose additional conditions or restrictions.

2-22-2000
Date

Robert Campbell
Signature of Applicant

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 by any trick, scheme, or device 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 statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both. The appropriate DA fee will be assessed when a permit is issued.

Names, addresses, and telephone numbers of adjoining property owners, lessees, etc., whose properties also join the waterway.

Thomas Duncan
345 Emory Road
Clinton, Tenn. 37716
Ph. 945-1210

Anderson County Tennessee
Road & Park Area
457-5400

List of previous DA/TVA permits/approvals DA _____ Permit Number _____ TVA _____ Date _____

Is any portion of the activity for which authorization is sought now complete? Yes No

If answer is "Yes" attach explanation. Month and year the activity was completed _____

Indicate the existing work on the drawings.

List all approvals or certifications required by other federal, interstate, state, or local agencies for any structures, construction, discharges, deposits, or other activities described in this application.

<u>Issuing Agency</u>	<u>Type Approval</u>	<u>Identification No.</u>	<u>Date of Application</u>	<u>Date of Approval</u>
Tenn. Dept. Environment & Conservation		Not Submitted		
U.S. Army Corps of Engineers		Not Submitted		

Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein?
 Yes No (If "Yes" attach explanation)

Two sets of original drawings on 8" x 10-1/2" tracing paper or good reproducible copies that show location and character of the proposed activity must be attached to this application (see sample drawings) and be submitted to the appropriate U.S. Army Corps of Engineers and TVA offices at the addresses listed below. An application that is not complete will be returned for additional information. Information in the application is made a matter of public record through issuance of a public notice if warranted. Disclosure of the information requested is voluntary; however, the data requested are necessary in order to communicate with the applicant and to evaluate the application. If necessary information is not provided, the application cannot be processed nor can a permit/approval be issued.

U.S.A.C.E. Offices

U.S. Army Corps of Engineers
Eastern Regulatory Field Office
P.O. Box 465
Lenoir City, Tennessee 37771-0465
(423) 986-7296

U.S. Army Corps of Engineers
Savannah District
3485 N. Desert Dr., Bldg 2, Suite 102
Atlanta, Georgia 30344
(404) 763-7949

U.S. Army Corps of Engineers
Nashville District
P.O. Box 1070
Nashville, Tennessee 37202-1070
(615) 736-5181

U.S. Army Corps of Engineers
Western Regulatory Field Office
2042 Beltline Road, SW, Bldg C, Suite 415
Decatur, Alabama 35602
(256) 350-5620

U.S. Army Corps of Engineers
Norfolk District
P.O. Box 338
Abingdon, Virginia 24212
(540) 623-5259

U.S. Army Corps of Engineers
Wilmington District
151 Patton Avenue, Room 143
Asheville, North Carolina 28801-5006
(828) 271-4855

TVA Office Location

Tennessee Valley Authority
Resource Stewardship
Melton Hill Watershed Team
Melton Hill/Watts Bar Reservoirs
2009 Grubb Road
Lenoir City, Tennessee 37771-7121
Phone: 423-988-2440
Fax: 423-988-2450

FIELD INSPECTION CHECKLIST

Section 26a and Land Use

<input checked="" type="checkbox"/> On reservoir or regulated stream <input type="checkbox"/> Off reservoir - go to EDR process	TVA Tract No. <i>XmHR-80 PT</i>	Project No. <i>100330</i>
Applicant: <i>Hillsdale Powell Utility Dist.</i>		Project Description: <i>Raw Water Intake</i>
<input type="checkbox"/> 26a Category I	<input type="checkbox"/> 26a Category II	<input checked="" type="checkbox"/> 26a Category III
		<input type="checkbox"/> Minor Land Use
<input type="checkbox"/> Other		

- ◆ Has the site been previously reviewed such that the proposed action is environmentally cleared?
 Yes; reference document: _____ Date: _____
 No; inspect site
- ◆ For requests that require *environmental concurrence or coordination*, attach D-stage map; portion of quadrangle map (and acquisition map if No. 15, 16 or 17 are marked) and at least 2 site photographs. Maps should show boundaries of proposed work area(s). Photos should include one of impact areas (close up) and one broader view (impact area + site). Indicate date pictures taken and take level. If possible, indicate line of site for pictures using an arrow on the map(s).

SITE COMPATIBILITY (Section 26a reviews only)

1. Will the proposed facility(ies) extend beyond 1/3 of the cove or slough? yes (modify plans) no
2. Will the proposed facility(ies) affect existing facility(ies) or any potential future facility(ies) such as in an outlet situation? yes (modify plans) no

NAVIGATION (Section 26a reviews only)

3. Will the proposed facility(ies) be located near the following yes (coord. w/Bob Buchanan, WT 10C-K) no
 - a navigation marker
 - a light
 - a safety harbor
 - shoreline which requires navigation review

If the site needs review by a navigation specialist, indicate any shoreline characteristics that may affect navigation's approval of the facility

- rock outcroppings
- bank erosion
- other Line going to Bridge

TRANSMISSION SYSTEM

4. Is there a TVA transmission line crossing at the site (lot)? yes (coord. w/Tom Wojtalik, MR 5K-C) no

SITE INFORMATION OBSERVATIONS

5. Adjacent/backlying land use:

<input checked="" type="checkbox"/> no development	<input type="checkbox"/> commercial
<input type="checkbox"/> residential	<input type="checkbox"/> industrial
<input type="checkbox"/> recreational	<input type="checkbox"/> agricultural
6. Natural shoreline features:
 - undercut bank
 - rock outcroppings
 - height of bank in feet ~ 1' - 2'
7. Shoreline erosion:
 - none (stabilized, rock outcrop, bluff)
 - minimal (adequate vegetative cover, grass/shrub cover)
 - moderate (<2' vertical bank and/or limited vegetative cover)
 - severe (>2' vertical bank and/or limited vegetative cover, bank sloughing, rills and gullies)
8. Manmade shoreline features:
 - riprap
 - seawall
 - other None
9. Topography / percent (%) slope:

<input checked="" type="checkbox"/> gentle / (0-5%)	<input type="checkbox"/> medium / (6-20%)	<input type="checkbox"/> steep / (>20%)
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10. What is the visible soil type or parent material at or below pool?
- sand
 - clay
 - rubble or cobble stones
 - bed rock (solid rock underlying surface material)
 - silt
 - gravel

11. Indicate vegetation cover on TVA property (S=at shoreline; B=backlying TVA property):
- bare soil
 - hardwood/grass
 - hardwood/undercover
 - trees fallen into water
 - grass/forb
 - lawn/maintained field *B/S*
 - shrub/grass
 - shrub/brush
 - pine/grass
 - pine/undercover
 - pine/cedar
 - pine/hardwood

RESOURCE INDICATOR OBSERVATIONS

12. Are any of the following impacted?
- streams
 - several submerged stumps
 - springs/seeps
 - fish attractor (brush pile)
13. Are any of the following observed?
- caves (endangered bats, etc.)
 - nests greater than 3' in diameter or several large nests (eagle, osprey)
14. Are any of the following four conditions present?
- emergent wetland (cattail, bulrush; i.e., plants in the water along water's edge)
 - scrub/shrub wetland (buttonbush, black willow, river alder, silky dogwood; i.e., bushes along water's edge)
 - aquatic bed wetland (watermilfoil, naiads, pondweeds; i.e., plants in the water)
 - forested wetland (willow, sycamore, silver maple, river birch; i.e., trees along shore)
15. Any of the following observed or on acquisition map (include submerged features)?
(If yes, provide copy of the appropriate portion of the acquisition map to reviewers)
- spring
 - sinkhole(s)
 - other
 - house foundation
 - orchard
 - barn
 - outhouse
 - roadbed(s)
 - pumphouse
16. Are any structures 50 years old or greater present or visible from impact area?
17. Are any archaeological materials observed?
(Such as flint chips, pot sherds, bones, old mussel shells, bricks, etc.)
18. Did ALIS Database check indicate potential to affect protected species?

Completed by Resource Stewardship: (if no additional coordination is required, action may be approved without further review)

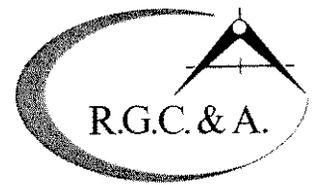
<input type="checkbox"/> No resource indicators were observed (For 26a Category 1 facilities no further coordination is required) (For 26a Category 2 facilities coordinate with block 1, 2, & 3 below) (For Minor Land Use Permits no further coordination is required)	Project Initiator:	Date:
<input type="checkbox"/> Some resource indicators were observed (Coordinate below as required for 26a Category 1 facilities) (Coordinate with block 1, 2, & 3 below for 26a Category 2 facilities) (Coordinate below as required for Minor Land Use Permits)	TVA address and telephone:	
	<i>Scott Leford</i>	<i>11-1-2000</i>
	<i>LMIA-MHH</i>	<i>988-2443</i>

Completed by specialist only if necessary			Date:
1	<input type="checkbox"/> Concur with approval <input type="checkbox"/> EDR required	Watershed Team Biologist:	
2	<input type="checkbox"/> Concur with approval <input type="checkbox"/> EDR required	Cultural Resources Specialist:	
3	<input type="checkbox"/> Concur with approval <input type="checkbox"/> EDR required	Aquatic Biologist (Category II dredging or if special or unique conditions exist):	

cc: Draper, Harold M., WT 8C-K
 (Environmental Scientist)

Determined to be a Categorical Exclusion in accordance with 5.2 26 of TVA's NEPA Procedures.

JUN 18 2001



ROBERT G. CAMPBELL & ASSOCIATES, L.P.

June 14, 2001

7523 TAGGART LANE
KNOXVILLE, TN 37938
(865) 947-5996
FAX (865) 947-7556
e-mail: rgcampb@aol.com

Scott Ledford
Tennessee Valley Authority
Melton Hill Management Office
2009 Grubb Road
Lenoir City, TN 37771

Dear Mr. Ledford

I have responded to questions that you raised to the proposed intake for Hallsdale Powell Utility District.

1. Number of gallons per day will be used.
Initially there will be 6 - 7 million gallons per day. The projections for the intake at the maximum withdrawal will be 20 million gallons per day. The existing intake will be taken out of active service, but will be used once every two months or so for to exercise the pumps. It will be used as a back-up should something happen to the new intake
2. Size of screen at the end of pipe.
The screen is 4 feet in diameter and 6.5 feet long. The length includes a bullet nose protector to keep debris from fouling the screen
3. The amount of suction that this pump will create.
The pump should create no suction. There will be a draw-down of 1 foot in the wet well, but in the channel there will be little discernable difference. The reason for this is the volume of the reservoir vs. the volume that is being withdrawn.
4. Warning Signs - Size and placement.
Those will be placed in accordance with your specifications. We are planning warning signs at the intake itself along with a buoy over the screen location. In order to clean the screen, a manual backflush operation will be performed. A warning horn as well as outside spotlights illuminating the screen area will be installed.
5. Power Source
Power will come from Clinton Utilities Board. The 3 - 1000 HP motors will use a 2300 volt service. We are also investigating TVA as a secondary source of power or an emergency generator.
6. Hours of operation.
Operation will be twenty four hours, not continuously, but whenever demands occur at the treatment plant
7. Minimum water depth pump can function.
The low pool for the reservoir is elevation 790 MSL. The suction of our pump will be at nearly elevation 783.7. This gives our pumps 6.3 feet of water and allows us to meet the minimum submergence as well as the Net Positive Suction Head requirement recommended by the pump manufacturer to avoid vortex and suction problems
8. Length of pipe
There will be a total length of 270 feet from our property line. Of that, 87 feet will be out of the ground and exposed in the channel

9. Method of Anchoring pipe.

Pipe will be anchored with concrete supports placed every 20 feet apart in the exposed section. These anchors will have foundations that extend into the lake bottom at sufficient depth to provide support. Each support will be secured by threaded bolts and a plate over the top of the pipe section

10. Operation signs of schedule of suction.

Because of the passive nature and indeterminate demand schedules from the plan, we will have no set schedule. We do plan to have warning signs posted in accordance with TVA specifications regarding the location of underwater intake structures.

I hope this answers the questions that you may have regarding the new intake. We believe this to be a vital project for the long-term success of the district as it will improve the ability of Hallsdale Powell to serve its customers with the quantity and quality of water that the future requires.

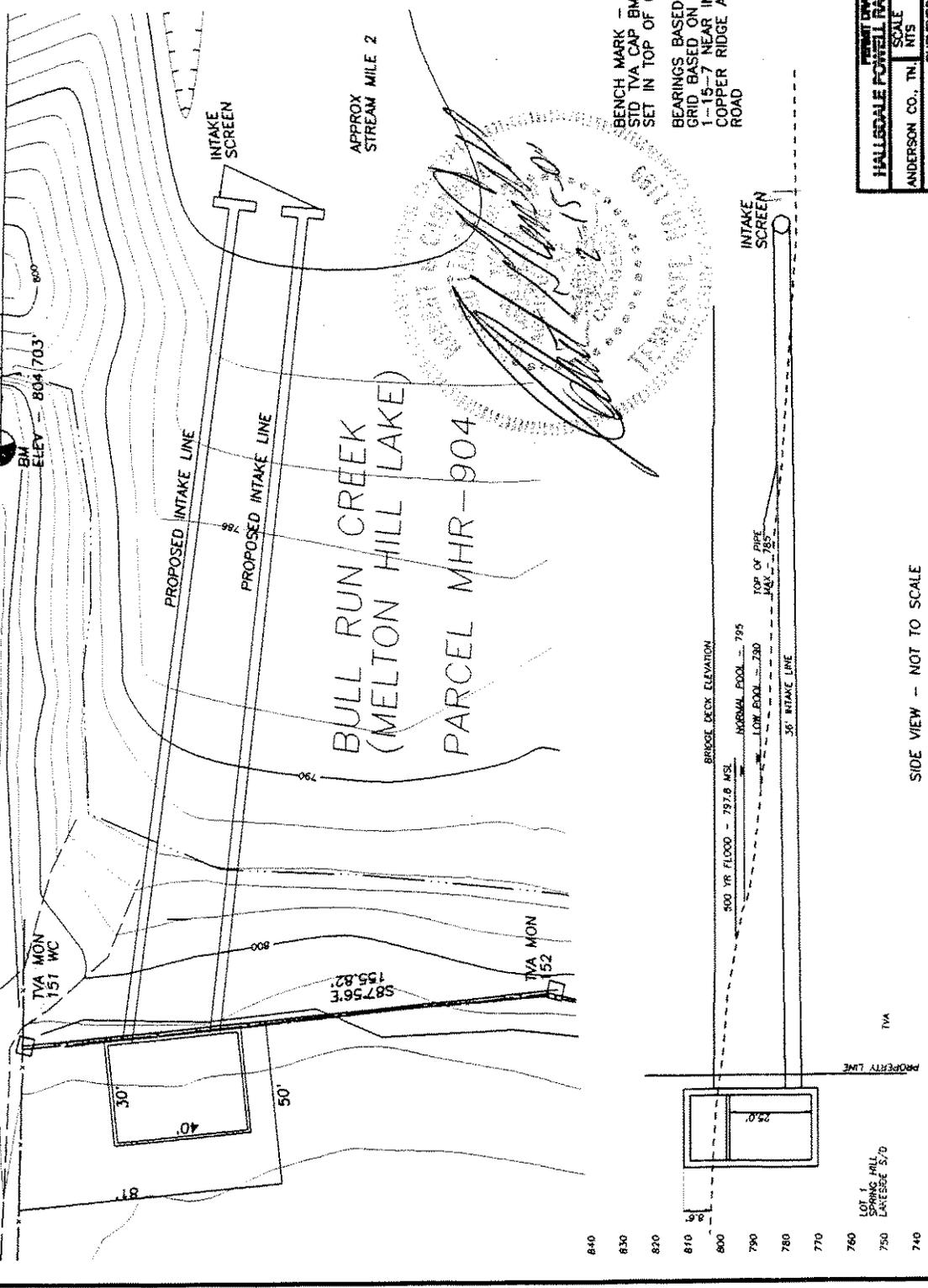
Sincerely,

A handwritten signature in cursive script that reads "Robert G. Campbell".

Robert G. Campbell, PE

NEW HENDERSON ROAD (TVA PROJ. 2216)

TVA GRID



BULL RUN CREEK
(MELTON HILL LAKE)
PARCEL MHR-904

APPROX
STREAM MILE 2

BENCH MARK - ELEV 804.703
STD TVA CAP BM-MH-63
SET IN TOP OF CURB GUARD
BEARINGS BASED ON LAMBERT
GRID BASED ON WPA MARK
1-15-7 NEAR INTERSECTION OF
COPPER RIDGE AND HENDERSON
ROAD



840
830
820
810
800
790
780
770
760
750
740

LOT 1
SPRING HILL
LAKESIDE S/D

SIDE VIEW - NOT TO SCALE

4+00

3+00

2+00

PROJECT NUMBER	
HALLSdale POWELL RAW WATER INTAKE	
SCALE	DRAWN BY
ANDERSON CO., TN	RGC, II
SURVEYED BY	
ROBERT G. CAMPBELL & ASSOC. L.P.	
DATE	PROJECT NUMBER
2-15-00	98820

- 9-91 — S67°03'W-150'
- 92 — N8°08'W-148'
- 93 — S46°11'W-189'
- 94 — S2°57'E-220'
- 95 — S62°15'E-269'
- 9-96 —

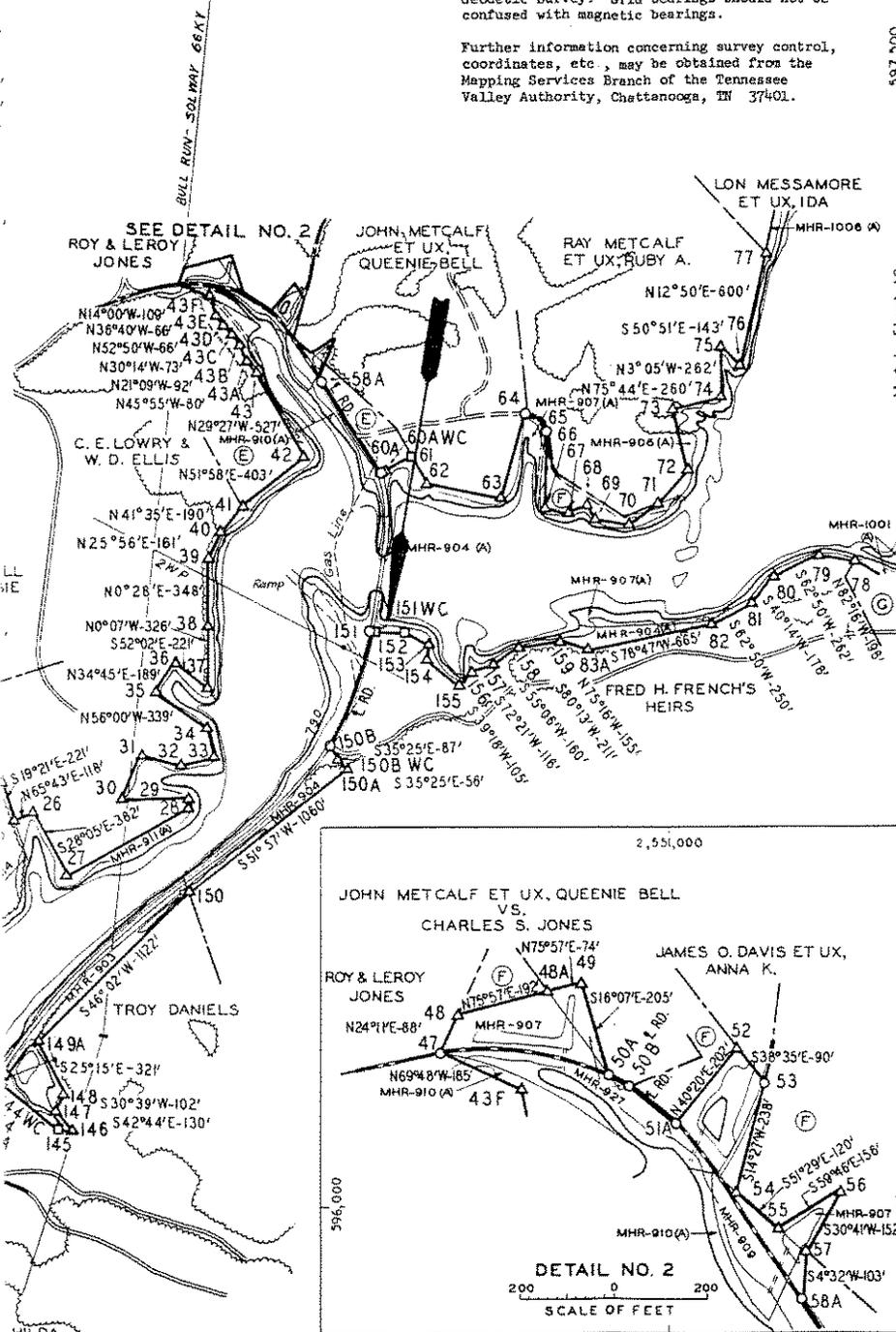
Information about outstanding interests in lands owned in fee by TVA and rights TVA holds in other lands is contained in the records of the Land Branch.

All bearings, distances, and coordinates refer to the appropriate State Coordinate System, or grid, as established by the U.S. Coast and Geodetic Survey. Grid bearings should not be confused with magnetic bearings.

Further information concerning survey control, coordinates, etc., may be obtained from the Mapping Service Branch of the Tennessee Valley Authority, Chattanooga, TN 37401.

PROPERTY CORNER COORDINATES

CORNER	X	Y	CORNER	X	Y
8-1	2,547,173	590,058	9-65	4 Road	Tenn. Grid
8-2	2,547,473	589,861	9-66	2,552,464	595,132
9-4	2,547,470	594,610	9-67	2,552,587	595,107
9-4	4 Road		9-68	2,552,676	595,148
9-5	2,547,540	594,610	9-69	2,552,719	595,077
9-5	4 Road		9-70	2,552,908	595,050
9-6	2,547,738	594,558	9-71	2,553,058	595,163
9-6	4 Road		9-72	2,553,214	595,341
9-7	2,547,816	594,475	9-73	2,553,136	595,656
9-7	4 Road		9-74	2,553,388	595,720
9-13	2,548,432	593,317	9-75	2,553,374	595,282
9-14	2,548,551	593,361	9-76	2,553,485	595,893
9-14	4 Road		9-77	2,553,618	596,477
9-16	2,548,611	593,290	9-78	2,554,207	594,871
9-16	4 Road		9-79	2,553,910	594,898
9-16 WC	2,548,629	593,302	9-80	2,553,677	594,778
9-17	2,548,756	593,372	9-81	2,553,566	594,642
9-18	2,548,739	593,641	9-82	2,553,340	594,528
9-19	2,548,669	593,767	9-83A	2,552,687	594,359
9-20	2,548,606	593,906	9-84	2,549,415	591,774
9-21	2,548,598	593,997	4 Road		
9-22	2,548,962	594,292	9-84 WC	2,549,395	591,770
9-23	2,549,398	594,197	9-84A	2,549,484	591,947
9-24	2,549,574	593,699	9-84A		
9-25	2,549,647	593,490	9-85	2,549,291	591,912
9-26	2,549,754	593,939	9-86	2,549,049	591,867
9-27	2,549,934	593,202	9-87	2,548,282	591,513
9-28	2,550,574	593,557	9-88	2,548,226	591,202
9-29	2,550,568	593,614	9-89	2,547,965	591,271
9-30	2,550,224	593,607	9-90	2,547,770	591,248
9-31	2,550,336	593,848	9-91	2,547,740	591,144
9-32	2,550,540	593,791	9-92	2,547,602	591,085
9-33	2,550,721	593,830	9-93	2,547,581	591,232
9-34	2,550,680	593,985	9-94	2,547,445	591,101
9-35	2,550,399	594,175	9-95	2,547,445	590,881
9-36	2,550,507	594,330	9-96	2,547,694	590,756
9-37	2,550,681	594,194	9-97	2,548,166	590,186
9-38	2,550,680	594,320	9-97		
9-39	2,550,683	594,868	9-102	2,545,713	594,112
9-40	2,550,753	595,013	9-104	2,549,563	592,119
9-41	2,550,880	595,155	9-104	4 Road	
9-42	2,551,197	595,404	9-104 WC	2,549,595	592,095
9-43	2,550,938	595,863	9-105	2,549,505	591,868
9-43A	2,550,886	595,710	9-106	2,549,961	591,859
9-43B	2,550,847	596,004	9-107	2,549,874	591,954
9-43C	2,550,810	596,067	9-108	2,549,926	592,042
9-43D	2,550,758	596,107	9-109A	2,549,789	592,332
9-43E	2,550,718	596,160	9-110	2,550,597	593,111
9-43F	2,550,692	596,266	9-150A	2,551,431	593,764
9-47	2,550,518	596,330	9-150B	2,551,348	593,881
9-47	4 Road		9-150B WC	2,551,399	593,810
9-48	2,550,554	596,410	9-151	2,551,548	594,495
9-48A	2,550,741	596,457	9-151	4 Road	
9-49	2,550,812	596,475	9-151 WC	2,551,576	594,494
9-50A	2,550,869	596,270	9-152	2,551,734	594,488
9-50A	4 Road		9-153	2,551,859	594,416
9-50B	2,550,912	596,259	9-154	2,551,846	594,344
9-50B	4 Road		9-155	2,552,022	594,195
9-51A	2,551,011	596,178	9-156	2,552,088	594,276
9-52	2,551,142	596,332	9-157	2,552,199	594,311
9-53	2,551,198	596,262	9-158	2,552,390	594,402
9-53	4 Road		9-159	2,552,537	594,438
9-54	2,551,138	596,032	BR 3-18	2,548,235	593,943
9-55	2,551,232	595,957	4 Road		
9-56	2,551,368	596,035	BR 3-19	2,548,339	593,784
9-57	2,551,290	595,903	4 Road		
9-58A	2,551,282	595,803	BR 3-20	2,548,346	593,773
9-58A	4 Road		BR 3-20	4 Road	
9-60A	2,551,598	595,318	BR 3-25	2,548,247	593,706
9-60A	4 Road		BR 3-26	2,548,339	593,246



JAMES MONEYMAKER ET UX, SUE
 E.L. MONEYMAKER ET UX, LUCY MAE
 ALBERT COWARD ET UX, DORTHY
 COX CEMETERY
 ALVIE L. ROBERTS ET AL
 JOHN METCALF ET UX, QUEENIE BELL
 VIOLET WALTERS ET AL

NAME Hallsdale Powell Utility Dist
 TRACT MHR-80 PT
 RIVER MILE 46.3 L

100330 - RLR#
 Anderson
 MELTON HILL
 RESERVATION

SHEET
 9
 D

MELTON HILL RESERVOIR
 TENNESSEE VALLEY AUTHORITY
 MAPPING SERVICES BRANCH

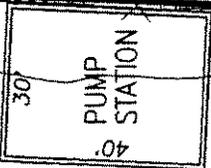
SCALE OF FEET
 0 500 1000 1500 2000

CHATTANOOGA MAR. 1965 43 1M S 421B511-D-9 R.2.

MELTON HILL LAKE
(BULL RUN EMBAYMENT)

NEW HENDERSON ROAD (TVA PROJ #2216)

CONSTRUCT
10' SLOPE ESM



NOTE 1

BULL RUN CREEK
(MELTON HILL LAKE)
PARCEL MHR-904

DUNCAN PROPERTY LINE

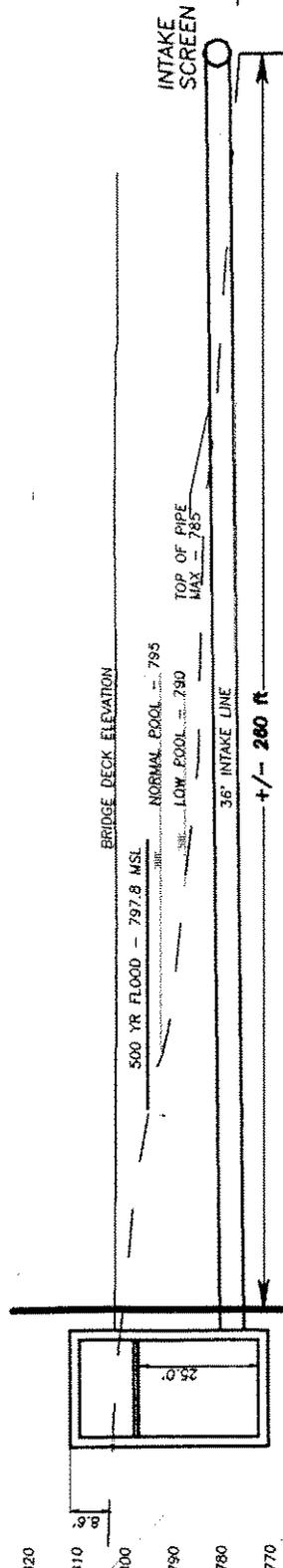
PROPOSED INTAKE LINE

INTAKE SCREEN

APPROX
STREAM
MILE 2

BENCH MARK - ELEV 804.703
STD TVA CAP BM-MH-63
SET IN TOP OF CURB GUARD

BEARINGS BASED ON LAMBERT
GRID BASED ON WPA MARK
1-15-7 NEAR INTERSECTION OF
COPPER RIDGE AND HENDERSON
ROAD



LOT 1
SPRING HILL
LAKESIDE S/D

TVA

NOTE 1: PROPERTY ACQUIRED FROM THOMAS
AND ASPACIA DUNCAN IN COURT BOOK 1167
PAGE 158. ORDER NO. IS AOLA0264

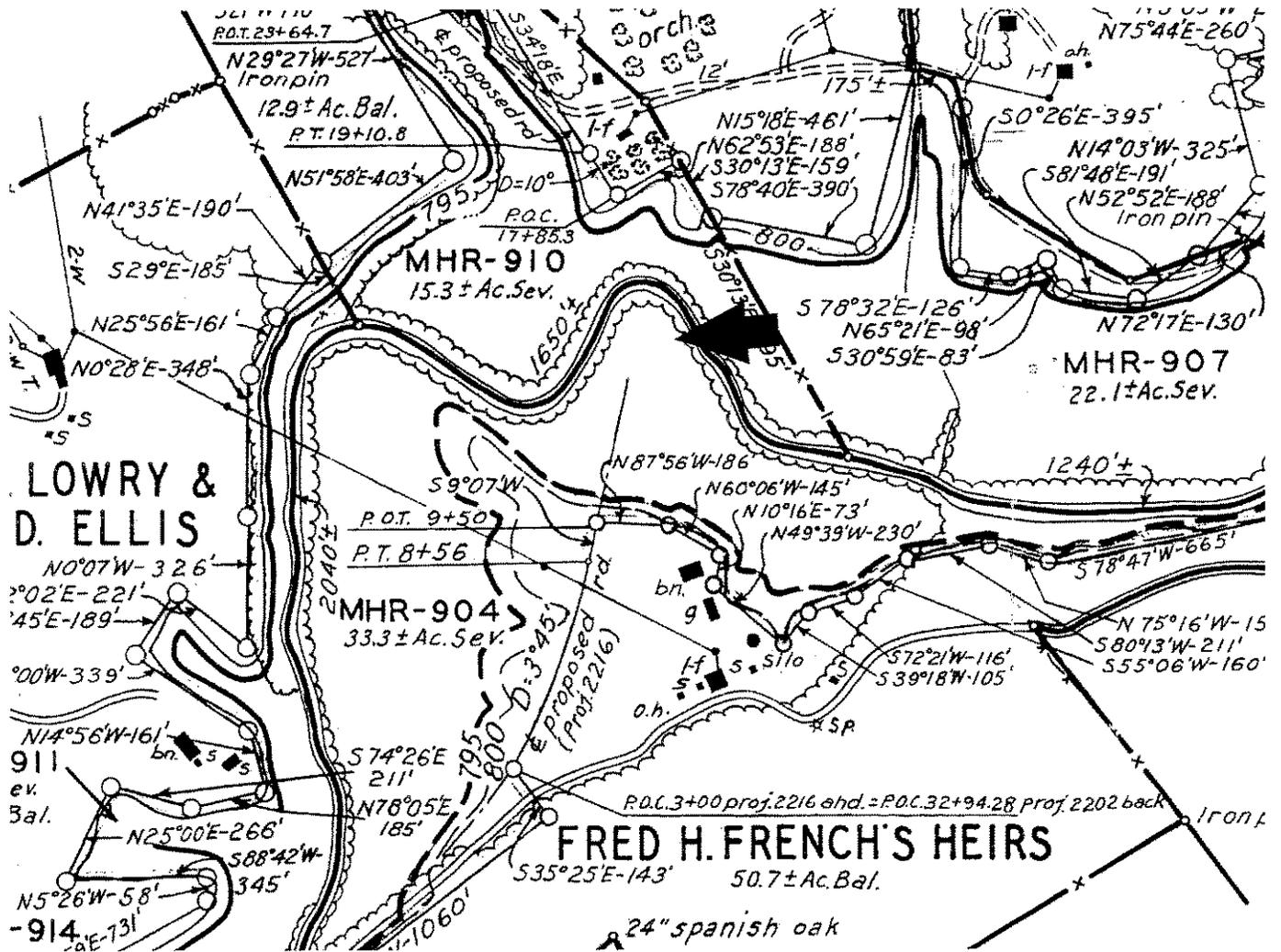
2+00

3+00

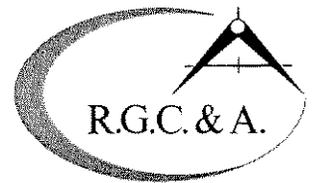
4+00

PERMIT DRAWING	
HALLSDALE POWER RAW WATER INTAKE	
SCALE	DRAWN BY
H: 1"=40'	RGC, II
V: 1"=4'	
ANDERSON CO., TN.	SURVEYED BY
	ROBERT G. CAMPBELL & ASSOC., L.P.
DATE	PROJECT NUMBER
2-15-00	02200

Melton Hill Reservoir



NOV 20 2000



ROBERT G. CAMPBELL & ASSOCIATES, L.P.

7523 TAGGART LANE
KNOXVILLE, TN 37938
(865) 947-5996
FAX (865) 947-7556
e-mail: rgcampb@aol.com

November 20, 2000

Tennessee Valley Authority
Melton Hill Land Management Office
2009 Grubb Road
Lenoir City, TN 37771

Re: Hallsdale Powell
Raw Water Intake
Melton Hill Reservoir
Bull Run Mile 2+
Parcel MHR - 904

Gentlemen:

Per your recent request enclosed please find an updated copy of the site plan for the proposed installation. As shown 2-36 inch diameter line will extend approximately 260 feet into the reservoir, at elevation 785.0.

If further information is required please advise.

Sincerely,

Robert G. Campbell

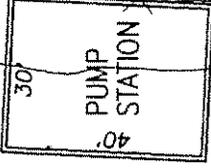
RGC:md

Enclosure

MELTON HILL LAKE
(BULL RUN EMBAYMENT)

NEW HENDERSON ROAD (TVA PROJ #2216)

CONSTRUCT 10' SLOPE ESM



NOTE 1

DUNCAN PROPERTY LINE

BULL RUN CREEK
(MELTON HILL LAKE)
PARCEL MHR-904

APPROX
STREAM MILE 2

PROPOSED INTAKE LINE

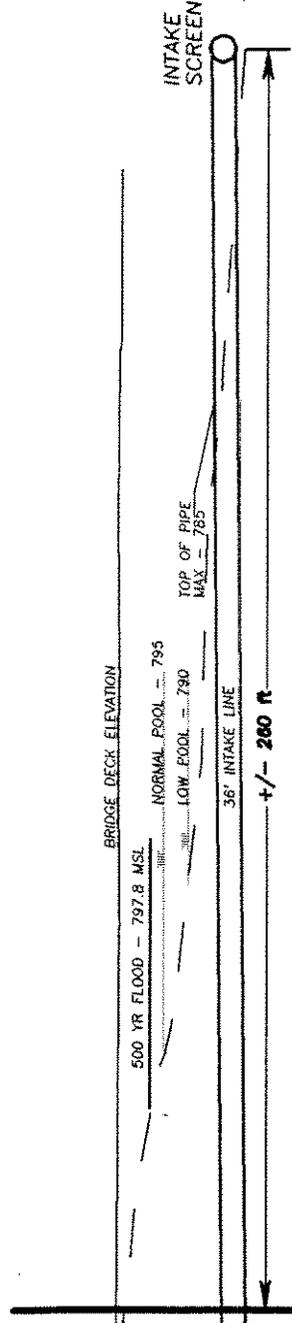
PROPOSED INTAKE LINE

INTAKE
SCREEN

INTAKE
SCREEN

BENCH MARK - ELEV 804.703
STD TVA CAP BM-MH-63
SET IN TOP OF CURB GUARD

BEARINGS BASED ON LAMBERT
GRID BASED ON WPA MARK
1-15-7 NEAR INTERSECTION OF
COPPER RIDGE AND HENDERSON
ROAD



+/- 260 ft

LOT 1
SPRING HILL
LAKESIDE S/D

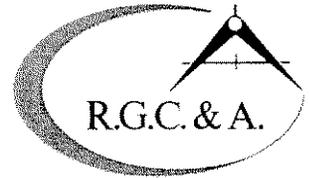
NOTE 1: PROPERTY ACQUIRED FROM THOMAS
AND ASPACIA DUNCAN IN COURT BOOK 1167
PAGE 158. ORDER NO. IS AOLA0264

2+00

3+00

4+00

PERMIT DRAWING	
HALLSDALE POWELL RAW WATER INTAKE	
SCALE	DRAWN BY
H: 1"=40'	RCC, II
V: 1"=4'	
SURVEYED BY	
ROBERT G. CAMPBELL & ASSOC., L.P.	
DATE	PROJECT NUMBER
2-15-00	08000



ROBERT G. CAMPBELL & ASSOCIATES, L.P.

February 5, 2003

7523 TAGGART LANE
KNOXVILLE, TN 37938
(865) 947-5996
FAX (865) 947-7556

e-mail: Robert.Campbell@rgc-a.com

Scott Ledford
TVA
Melton Hill Management Office
2009 Grubb Road
Lenoir City, TN 37771

Mr. Ledford,

I am forwarding additional information per your request of February 5, 2003. Enclosed please find two 11 X 17 color copies of the intake drawing. Also I have included a chart detailing the entire District's growth plan for water usage. It takes into account a new facility on Norris Lake as well as standard growth for the next thirty (30) years.

The other issue that was raised was the amount of water that would be returned to the Melton Hill Reservoir via treatment. Due to the fact that the water system is a closed one, the only water not making the return trip is due to leakage, irrigation, etc. Currently that number is around 20% of the potable water produced at the Melton Hill plant. Using this assumption, the amount of water to be returned (via Beaver Creek and Bull Run Creek) is 17.6 MGD.

This number is actually conservative as most of the line loss and some of the irrigation water would return via the ground water table to the above mentioned streams and to Norris Reservoir. As you know, this reservoir also goes into Melton Hill Reservoir. The only water not making the return trip would seem to be that amount lost by transpiration and evaporation. Some estimates of this are available, but they include the amount of rainfall into a given area.

I trust this answers the remaining questions for the Environmental Assessment. Please let me know if there are further questions or if I can clarify something written in this letter.

Sincerely,

Robert G. Campbell

Hallsdale Powell Utility District Projected Water Usage From Melton Hill Source

