EMERGENCY ACTION PLAN

FOR

LAKE VISTA DAM

INVENTORY NUMBER VA 01921

FOREST, BEDFORD COUNTY, VA

COVERS IMPACTED AREAS IN
BEDFORD COUNTY AND THE CITY OF LYNCHBURG

Revision No: 3

Date Issued: September 17, 2019

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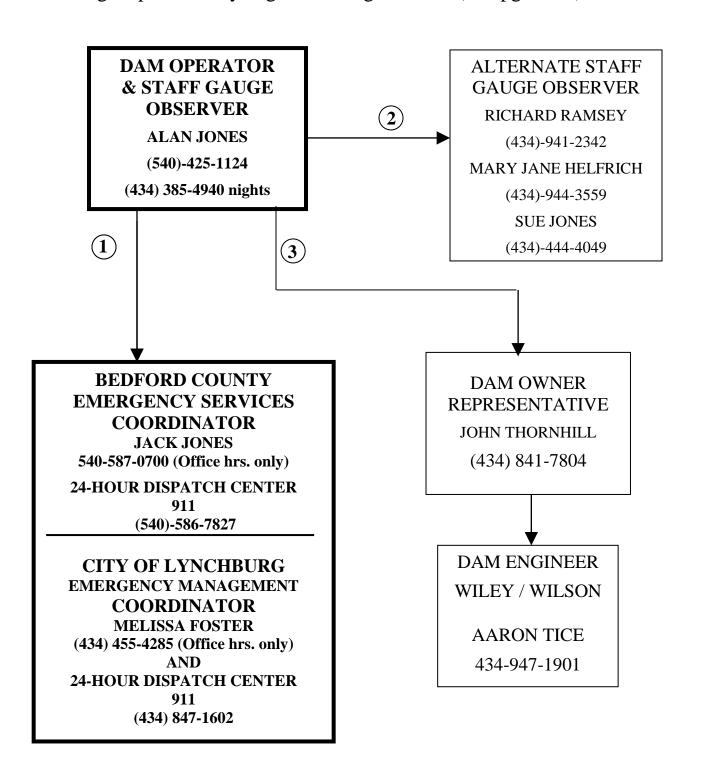
I. Certification by Dam Owner/Operator

I certify that the procedures for implementation of this Emergency Action Plan have been coordinated with and a copy given to both the Emergency Services Coordinator for Bedford County and the Director of Emergency Services for the City of Lynchburg. Also, that a copy of this Emergency Action Plan has been filed with the Virginia Department of Emergency Management in Richmond and a copy of the Dam Break Inundation Map has been provided to the local government office with plat and plan approval authority or zoning responsibilities as designated by the locality for each locality in which the dam break inundation zone resides; that this plan shall be adhered to during the life of the project; and that the information contained herein is current and correct to the best of my knowledge.

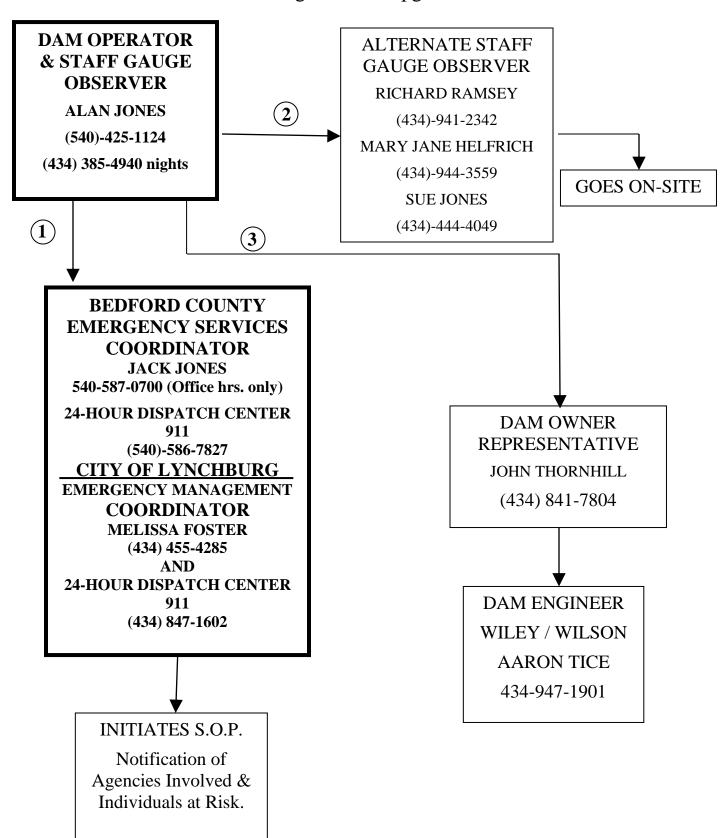
(Signature of Dam Owner/Operator)
This, 20
Printed Name Richard Ramsey, Lake Vista Property Owners' Association President
Certification by Preparer
I certify that the information provided in this report has been examined by me and found to be true and correct in my professional judgment.
(Signature of Preparer)
This, 20
Printed Name Alan Jones Title Lake Committee Chairman
Address_324 Bayberry Cove Drive, Forest, VA 24551_
Phone Number (540)-425-1124

II A. Notification Charts

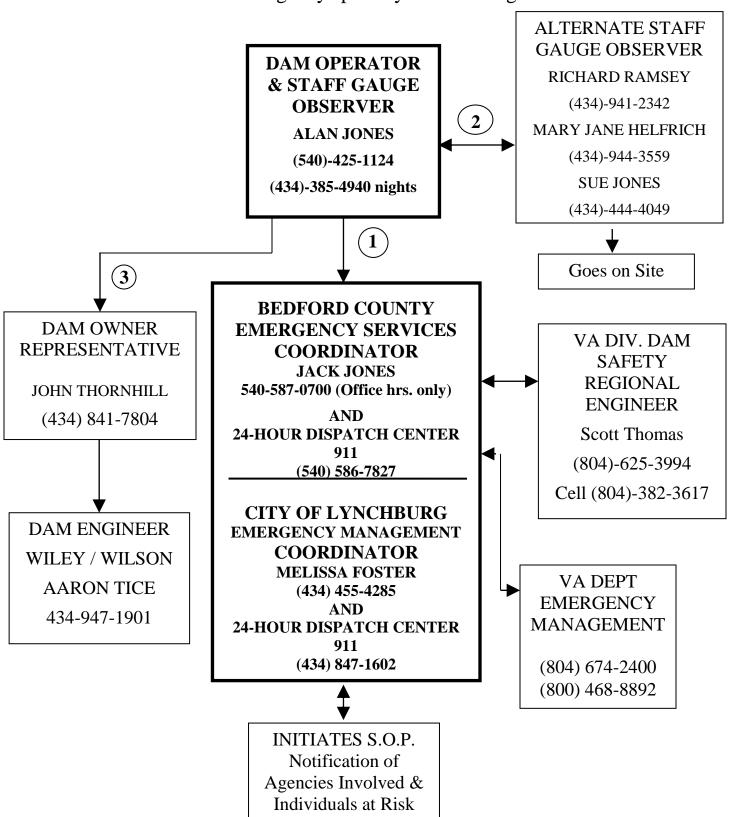
STAGE I – SLOWLY DEVELOPING SITUATION- National Weather Service issues a Flood Warning or a Flash Flood Warning (See pg. 11) Gauge Operator may begin lowering the lake. (See pg. 12-C)



STAGE II – RAPIDLY DEVELOPING SITUATION-When 8 inches or more rain has occurred in the last 6 hours OR depth of flow in emergency spillway is 1.5 feet or greater. See pg.11



STAGE III – IMMINENT FAILURE CONDITION- When 12 inches of rain or more has occurred in the last 6 hours OR the depth of flow in the emergency spillway is 3 feet or greater



II B. Responsible Parties

- A. Name of Impounding Structure: <u>Lake Vista Dam</u> Inventory Number: VA01921
- B. Hazard Potential Classification: Significant
- C. Name of Owner: <u>Lake Vista Property Owners Association</u> Address: <u>200 Lake Vista Drive Forest, VA 24551</u> Telephone: Business (434) 385-7594

Name of Owner's Representative: Richard Ramsey Address: 200 Lake Vista Drive, Forest, VA 24551 Telephone: Office (434) 385-7594

Name of Alternate Owner's Representative: <u>John Thornhill</u> Address: <u>1135 Lake Shore Drive</u>, Forest, VA 24551 Telephone: Home (434) 385-5210 <u>Cell</u> (434) 841-7804

D. Name of Dam Operator: <u>Alan Jones</u>
Address: <u>324 Bayberry Cove Drive Forest, VA 24551</u>
Telephone: Cell (540)-425-1124

Name of Alternate Dam Operator: <u>Richard Ramsey</u> Address: <u>112 Declaration Terrace</u>, Forest, VA 24551 Telephone: Cell (434)-941-2342

Name of Alternate Dam Operator: <u>Mary Jane Helfrich</u> Address: <u>3115 Spinnaker Point, Forest, VA 24551</u> Telephone: Cell (434)-944-3559

Name of Alternate Dam Operator: <u>Sue Jones</u>

Address: 324 Bayberry Cove Dr, Forest, VA 24551

Telephone: Cell (434)-444-4049

E. Name of Rain/Staff Gauge Observer: <u>Alan Jones</u> Address: <u>324 Bayberry Cove Drive Forest, VA 24551</u> Telephone: Cell (540)-425-1124 Name of Alternate Rain/Staff Gauge Observer: Richard Ramsey

Address: 112 Declaration Terrace, Forest, VA 24551

Telephone: Cell (434)-941-2342

Name of Alternate Rain/Staff Gauge Observer: Mary Jane Helfrich

Address: 3115 Spinnaker Point, Forest, VA 24551

Telephone: Cell (434)-944-3559

Name of Alternate Rain/Staff Gauge Observer: Sue Jones

Address: 324 Bayberry Cove Dr, Forest, VA 24551

Telephone: Cell (434)-444-4049

F. Bedford County

Name of 24-Hour Dispatch Center: <u>Bedford County Emergency Dispatch</u>

Address: _1185 Turning Point Rd., Bedford

Telephone: Business (540) 586-7827 or local emergency # 911

Name of Bedford County Emergency Services Coordinator: <u>Jack Jones</u>

Address: 1185 Turning Point Rd., Bedford

Telephone: Business (540) 587-0700 Emergency) (540) 586-7827

G. City of Lynchburg

Name of 24-Hour Dispatch Center: <u>Department of Emergency Services</u>

Address: 3621 Candlers Mountain Road, Lynchburg, VA 24502

Telephone: Business (434) 847-1602

Name of Lynchburg Director of Emergency Services: <u>Melissa Foster</u> Address: 3621 Candlers Mountain Road, Lynchburg, VA 24502

Telephone: Business (434 455-4285 Emergency (434) 847-1602

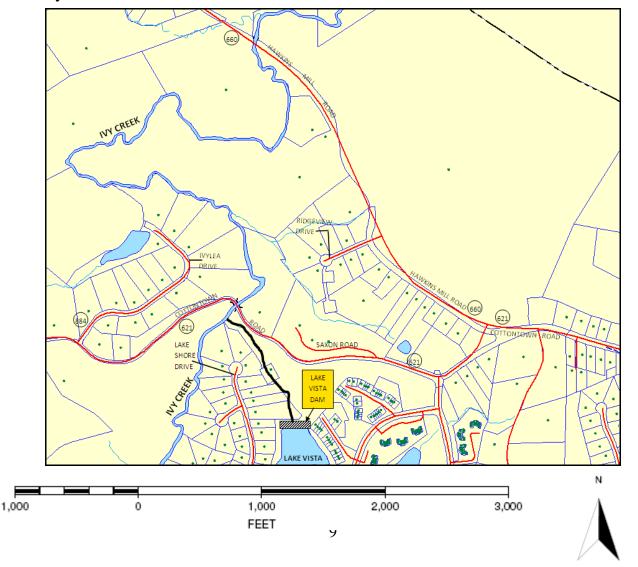
III. Statement of Purpose

The purpose of this emergency plan is to safeguard the lives and minimize damage to the property of citizens of Bedford County and the City of Lynchburg living and working along Ivy Creek in the event of a failure of the Lake Vista Dam, Inventory Number VA01921.

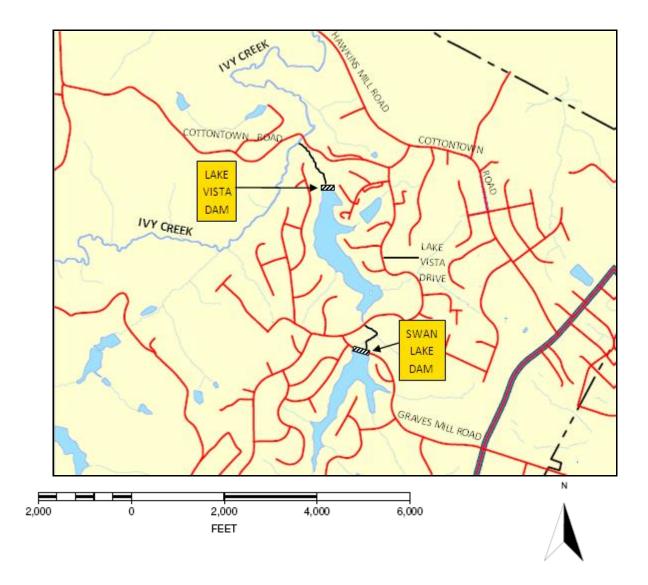
IV. Project Description

The Lake Vista Dam located in Bedford County near Forest. The dam is approximately 0.2 miles above State Route 621, Cottontown Road at Latitude 37° 23′ 40″ and Longitude 79° 15′ 30″. The dam is an earth dam approximately 30 feet in height that impounds a 28 acre recreational lake.

Outflow from the Lake Vista dam enters Ivy Creek approximately 150 feet above where Ivy Creek crosses State Route 621. Areas along Ivy Creek downstream of the dam that could be impacted by a failure of the dam are shown below:



The entrance to Lake Vista is approximately 800' below the Swan Lake dam and the Lake Vista dam is approximately 3500' below the Swan Lake dam as shown below:



A failure of the Swan Lake dam would release enough water to create a major problem for and possible failure of the Lake Vista dam. Lake Vista will rely on Forest Lakes for notification of any problem at the Swan Lake dam and will assume that notification of a Stage II or Stage III condition occurring at the Swan Lake dam will constitute reason to go the corresponding Condition for the Lake Vista dam.

V. Emergency Detection, Evaluation and Classification

A. Excessive Rainfall

The NOAA weather forecast for the area will be monitored daily for prediction of heavy rainfall.

1. A <u>Stage I</u> – condition will be declared if the National Weather Service has issued a Flood Warning or a Flash Flood Warning. Also, when an approaching storm is predicted to produce more than <u>8 inches of rain in the next 12 hours</u>

The Staff Gauge Observer may <u>begin lowering the lake</u> and make <u>observations every **6 hours**</u>

2. A <u>Stage II</u> Condition will be declared if the National Weather Service has issued a Flash Flood Warning with

Rainfall of 8 inches or more has occurred in the last 6 hours OR

The <u>depth of flow in the emergency spillway is 1.5 feet or greater</u>

The Staff Gauge Observer will make observations every **2 hours**

3. A **Stage III** Condition will be declared if

Rainfall of 12 inches or more has occurred in the last 6 hours OR

The depth of flow in the emergency spillway is 3 feet or greater

The Staff Gauge Observer will make observations continuously

Public Roads downstream from Dam:

SR 620 - Cottontown Road located approx. 0.2 mi downstream

SR 660 - Hawkins Mill Road located approx. 1.2 mi downstream

Both of these roads will be impacted by a dam break without flood

In the event of flooding that could overtop these roads the Bedford County EMC will coordinate with the VDOT Administrator for Bedford County to determine when the roads should be closed.

B. Structural Deterioration

The dam face, groins, and primary spillway will be inspected for any evidence of seepage, fissures, burrows or tunnels where water is leaking through or around the dam.

If new seepage areas are detected on or near the dam a Stage I Condition will be declared. Daily inspection of the area will be initiated and the dam engineer will be consulted to determine if remedial action is needed to control or stop the seepage.

If new seepage areas develop with cloudy discharge or rapidly increasing flow rate a Stage III Condition will be declared and continuous monitoring of the seepage will be initiated.

If existing seepage areas start showing cloudy discharge or a rapidly increasing flow rate a Stage III Condition will be declared and continuous monitoring of the seepage will be initiated.

C. Upstream Dam Condition Alert

If notified that a Stage I Condition has been declared for the Swan Lake dam a Stage I Condition will be declared for the Lake Vista Dam and the low-level gate valve will be opened to lower the level of Lake Vista.

If notified that a Stage II Condition has been declared for the Swan Lake Dam a Stage II Condition will be declared for the Lake Vista Dam

If notified that a Stage III Condition has been declared for the Swan Lake Dam a Stage III condition will be declared for the Lake Vista dam.

D. Earthquake

If an earthquake occurs within 50 miles of the dam or is felt at the dam a Stage I Condition will be declared.

The dam will be inspected as quickly as possible to determine if there has been any visible damage to the dam or new or increased seepage flows.

If there is any potential for uncontrolled release of water from the dam a Stage III Condition will be declared.

E. Other Situations

For other situations that might develop the chart below will be used to determine the appropriate Condition Level to be declared for the condition observed.

Event	Situation	Condition Level
Emergency	Spillway flowing with active gully erosion	II
Spillway Flow	Spillway flowing with advancing head cut that is threatening the control section	III
Embankment Overtopping	Any overtopping flow or within 2 feet of the top of the dam, water level rising	III
Sinkholes	Observation of new sinkhole on embankment	Ι
Silikiloies	Rapidly enlarging sinkhole	III
Embankment	New cracks in the embankment greater than 1/4 inch wide without seepage	Ι
Cracking	Cracks in embankment with seepage	Ι
	Cracks in embankment with rapidly increasing seepage	III
Embankment	Visual movement of the embankment slope	I
Movement	Sudden or rapidly progressing slides of the slopes	III
Vortex in Pond	Whirlpool with discharge downstream	III
Security	Verified bomb threat that, if carried out, could result in damage to the dam	I
Threat, Sabotage &	Detonated bomb that has resulted in damage to the dam or it appurtenances	I
Vandalism	Damage to the dam or appurtenances with no impacts to the functioning of the dam	I

Damage to the dam or appurtenances that has resulted in seepage flow	I
Damage to the dam or appurtenances that has resulted in a potential uncontrolled water release	III

VI. General Responsibilities Under the EAP

A. Impounding Structure Owner Responsibilities

- 1. The dam owner/operator will inspect the dam on a regular basis and will inform the ESC when any condition is observed that requires declaring a Stage I Condition.
- 2. The dam owner/operator will initiate dam surveillance under Stage I conditions when a flood warning is issued by the National Weather Service.
- 3. The dam owner/operator will determine when Stage I, II, or III Conditions are met as defined in Section VI of this EAP.
- 4. The dam owner/operator will be responsible for operating the low level gate valve periodically to assure that it is operating properly.

B. Responsibility for Notification

1. The dam owner/operator will notify the local ESC and 24-hour dispatch center as indicated in the Section III Notification Flowcharts when Stage I, II, or III conditions are determined to exist.

C. Responsibility for Evacuation

- 1. The Bedford County and City of Lynchburg ESCs will notify the people on the list in this EAP of the potential emergency or evacuation of residents as appropriate to the Level II or III Condition being declared and their SOP for emergency evacuations.
- 2. The Bedford County will contact the Virginia Department of Transportation (VDOT) or other authorized personnel to set up barricades to close roads within

the inundation zone downstream of the dam that are listed in Section VI A above.

D. Responsibility for Termination and Follow-Up

- 1. If a Stage III Condition is declared the staff gauge observer will remain on site and continue providing the ESCs with information concerning water level rise, erosion in the emergency spillway and/or dam overtopping. A log will be kept of all communications with the ESCs either declaring an emergency exists or that the emergency no longer exists.
- 2. The dam owner's representative or dam operator will determine when the emergency no longer exists at the dam and will notify the ESC. The ESC will be responsible for termination of disaster response activities.
- 3. At the earliest practicable time following termination of the emergency the ESCs and dam owner/operation will meet to review the actions taken during the emergency and determine changes needed to the EAP to correct any weaknesses in the plan

E. EAP Coordinator Responsibility

The dam owner's EAP coordinator is responsible for preparing revisions to the EAP as needed and coordination of training and EAP exercises. The Coordinator for this EAP is

Richard Ramsey

Address: 112 Declaration Terrace, Forest, VA 24551

Telephone: Cell (434)-941-2342

F. Methods of Notification and Warning

- 1. The dam owner/operator will use land line and cell phones for notification of the ESCs and other individuals/agencies as indicated on the Section III flowcharts.
- 2. The ESCs will use the methods of communication and notification designated in the warning and evacuation SOP.

G. Evacuation Procedures

- 1. Following notification of a problem at the dam the ESC will take actions in accordance with the ESC's established Emergency Operations Plan, Standing Operations Procedures and this EAP.
- 2. The ESC will provide Situation Reports to the State Emergency Operations Center (804-674-2400 or 800-468-8892).

VII. Preparedness

A. Surveillance

This dam is unattended under normal operating conditions

The dam owner/operator will monitor NOAA/NWS forecasts to determine if advancing storms are likely to produce large amounts of rainfall. As storms progress the amounts of rainfall recorded and forecasts for additional rainfall will be used to determine if and when a Stage I condition should be declared.

The dam owner/operator will conduct regular inspections of the dam face, groins, primary spillway and emergency spillway to ascertain if any new seepage has occurred or if change in existing seepage has taken place.

B. Staff Gauge Operator Response

The principal and alternate staff gauge operators will live within one hour's drive from the dam.

Either the principal or alternate staff gauge operator will be on call at all times (24/7) to respond to an emergency at the dam.

C. Access to the Site

Routes that provide the best access to the dam and the impacted properties on the west side of the lake in the event of heavy flooding are detailed in the Site Specific concerns Section X Appendix B.

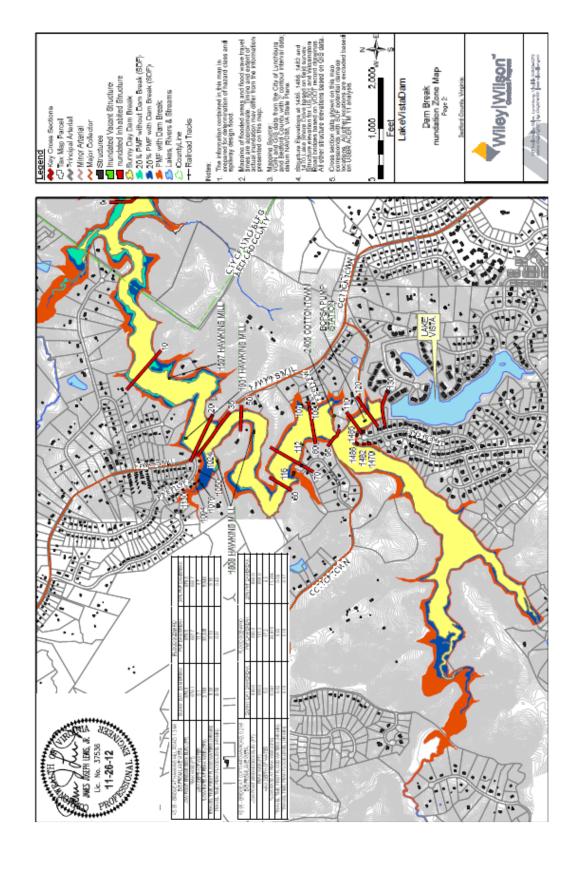
D. Darkness and Adverse Weather Response

Hi-intensity hand held light will be provided to enable the staff gauge operator to read the staff gauge during hours of darkness

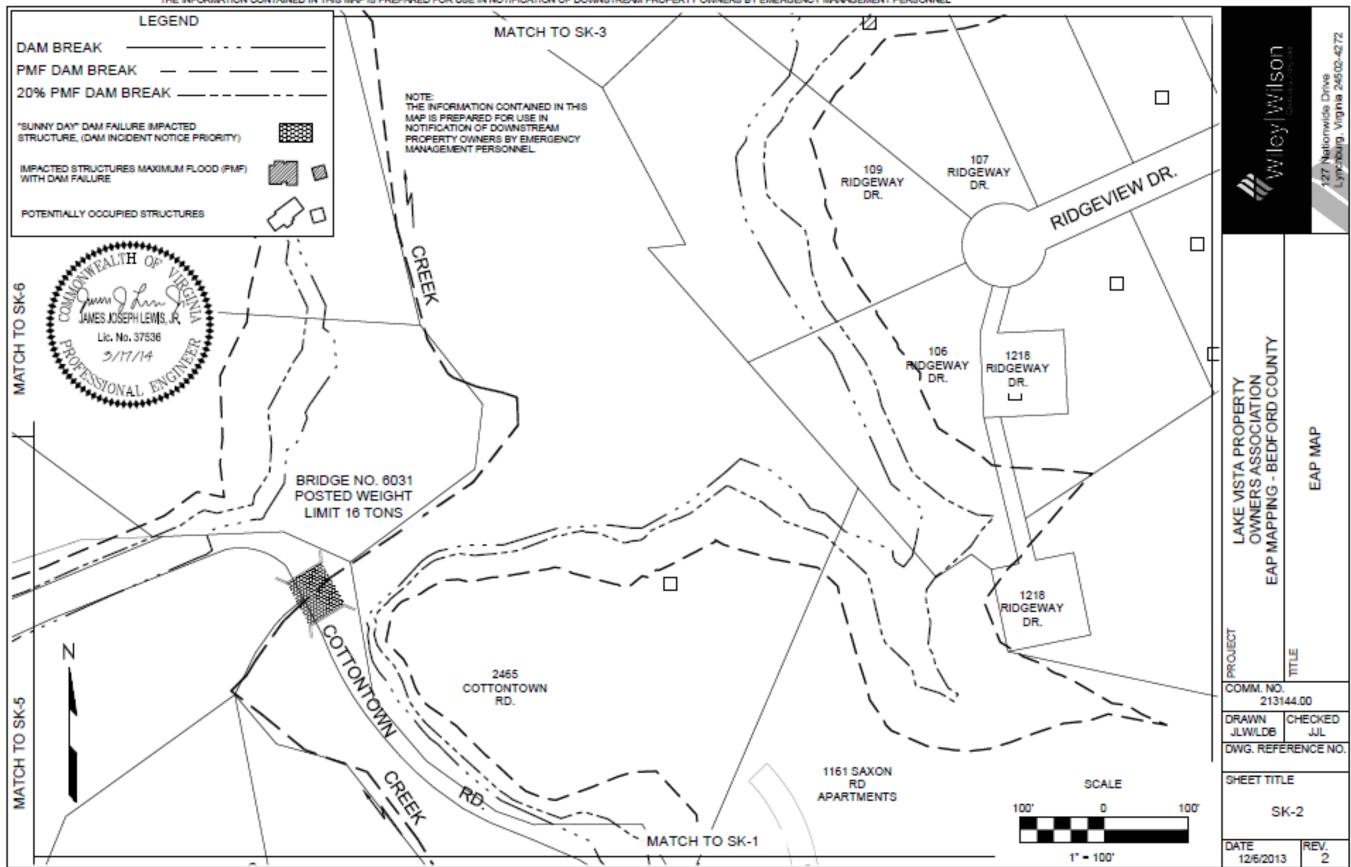
Appropriate protective clothing will be provided for staff gauge operators as required for observations to be made during severe weather conditions.

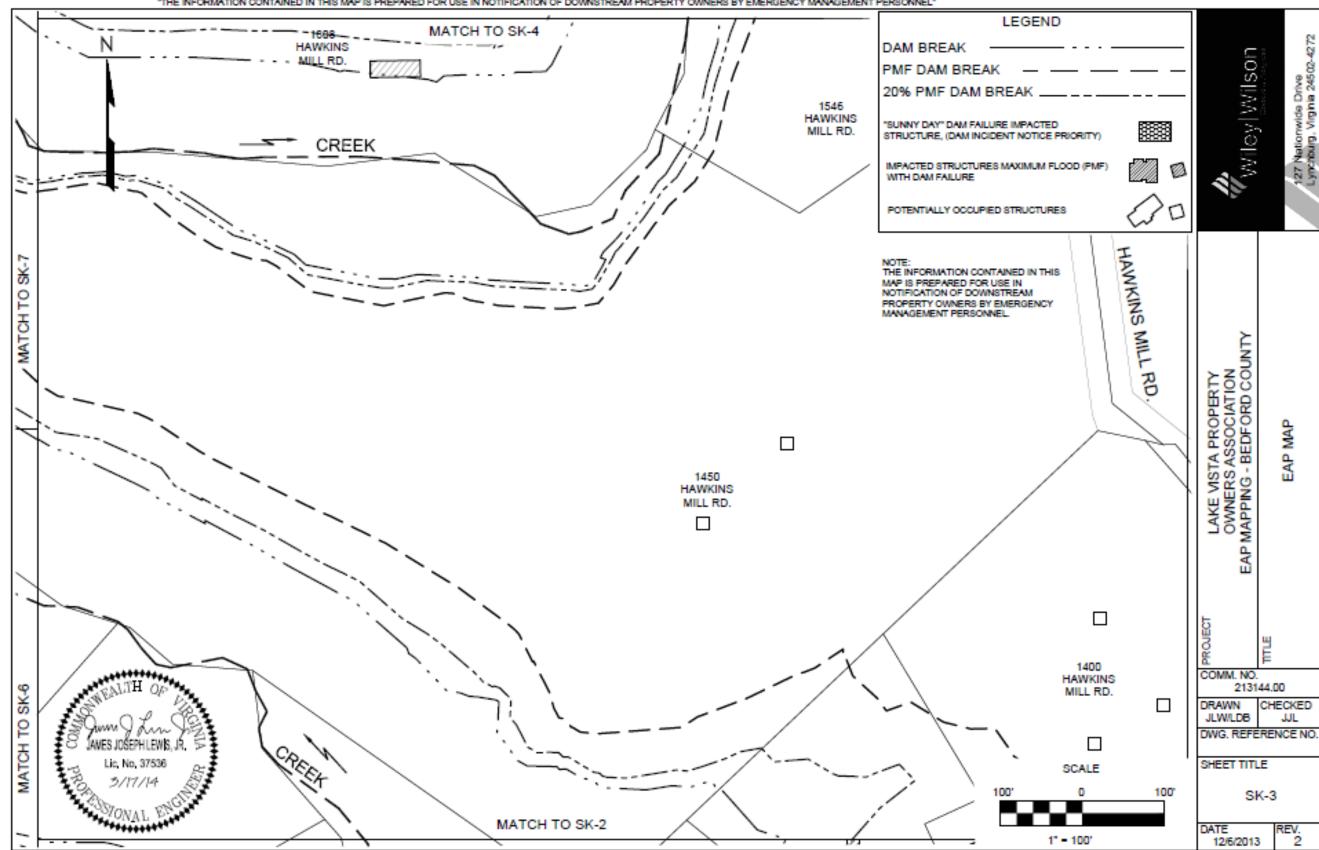
VIII. Inundation Maps & Properties in Dam Break Inundation Zones A. Bedford County

1. Maps



"THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL" LEGEND Wiley|Wilson DAM BREAK PMF DAM BREAK 20% PMF DAM BREAK "SUNNY DAY" DAM FAILURE IMPACTED STRUCTURE, (DAM INCIDENT NOTICE PRIORITY) 127 Nation Lynchburg. IMPACTED STRUCTURES MAXIMUM FLOOD (PMF) WITH DAM FAILURE POTENTIALLY OCCUPIED STRUCTURES ANTEN OF THE WEALTH OF JAMES JOSEPH LEWIS, JR. LAKE VISTA PROPERTY OWNERS ASSOCIATION MAPPING - BEDFORD COUNTY SK-9 THE MAPPING CONTAINED IN THIS SET OF DRAWINGS HAS BEEN MAP SK-8 PREPARED BASED ON GIS DATA PROVIDED BY THE BEDFORD COUNTY PLANNING DEPARTMENT AND DOES NOT REPRESENT A FIELD SURVEY OF LOCATIONS. THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL. THIS MAPPING IS INTENDED TO ASSIST WITH EMERGENCY RESPONSE PLANNING ASSOCIATED WITH OPERATION OF LAKE VISTA DAM #1. SK-3 A CURRENT LIST OF PROPERTY OWNER CONTACTS IS PROVIDED ON DRAWING SK-10 & SK-11. SK-6 THIS MAPPING SET CONSISTS OF 9 DETAIL SHEETS SHOWING INUNDATION ZONE BOUNDARIES FOR LAKE VISTA'S DAM #1 213144.00 DRAWN CHECKED JLW/LDB DWG. REFERENCE NO. SK-5 SHEET TITLE SCALE G-1 12/6/2013 1" - 500"





[&]quot;THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL"

"THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL" LEGEND MATCH TO SK-9 Wiley|Wilson DAM BREAK HAWKINS MILL RO. PMF DAM BREAK 20% PMF DAM BREAK "SUNNY DAY" DAM FAILURE IMPACTED STRUCTURE, (DAM INCIDENT NOTICE PRIORITY) IMPACTED STRUCTURES MAXIMUM FLOOD (PMF) WITH DAM FAILURE POTENTIALLY OCCUPIED STRUCTURES BRIDGE NO. 6081 NON-POSTED WT. LIMIT MATCH TO SK-8 20 TONS LAKE VISTA PROPERTY OWNERS ASSOCIATION MAPPING - BEDFORD COUNTY CREEK NO HILLAS EAP MAP NOTE: THE INFORMATION CONTAINED IN THIS JAMES JOŠEPH LEWIS, JR MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM Lic, No. 37536 PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL. 3/17/14 OYONA). MATCH TO SK-1808 COMM. NO. HAWKINS 213144.00 MILL RD. DRAWN CHECKED 1546 JLW/LDB JJL HAWKINS DWG. REFERENCE NO. NOTE: TWO UNOCCUPIED MILL RD. OUTBUILDINGS ON THIS PROPERTY ARE WITHIN THE INUNDATION ZONES SHEET TITLE SCALE 100° SK-4 MATCH TO SK-3 DATE 1" - 100" 12/6/2013

[&]quot;THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL"

REV. 2

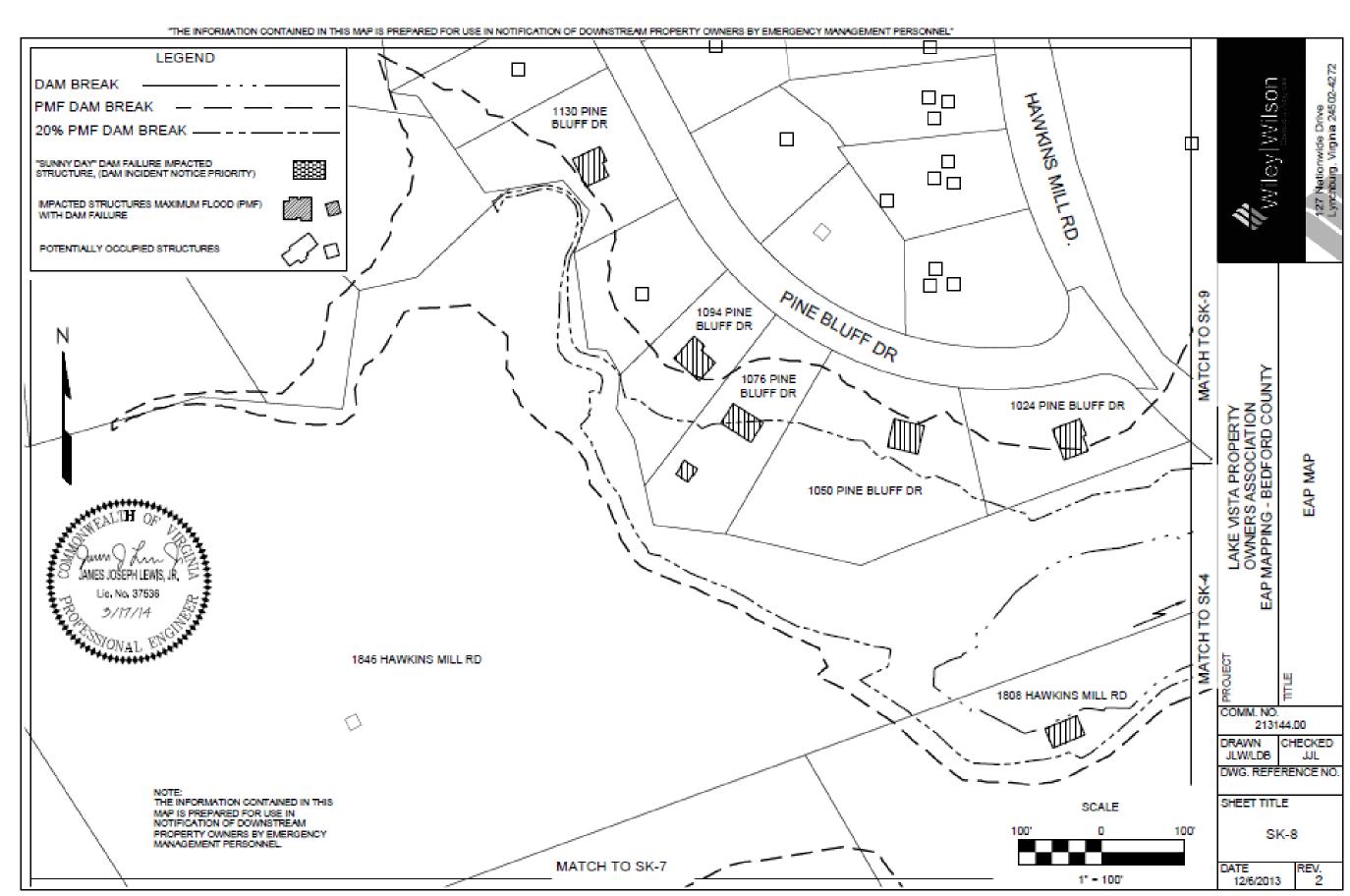
12/6/2013

1" - 100"

1" - 100"

12/6/2013

"THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL" LEGEND MATCH TO SK-8 127 Nationwide Drive Lynchburg, Virginia 24502-4272 Wiley|Wilson DAM BREAK PMF DAM BREAK 20% PMF DAM BREAK "SUNNY DAY" DAM FAILURE IMPACTED STRUCTURE, (DAM INCIDENT NOTICE PRIORITY) IMPACTED STRUCTURES MAXIMUM FLOOD (PMF) WITH DAM FAILURE POTENTIALLY OCCUPIED STRUCTURES NOTE: THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN MATCH TO SK NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL. LAKE VISTA PROPERTY OWNERS ASSOCIATION EAP MAPPING - BEDFORD COUNTY EAP MAP 1812 HAWKINS MILL RD. ÍAMES JOŠEPH LEWIS, JŔ. JONAL EL MATCH TO SK-3 COMM, NO. 213144.00 DRAWN CHECKED JLWILDB JUL DWG. REFERENCE NO. SHEET TITLE SCALE 100' SK-7 MATCH TO SK-6 REV. 2 DATE 1" - 100" 12/6/2013



2. Properties

Bedford County Structures in Inundation Zone with Non-Storm Related Lake Vista Dam Break

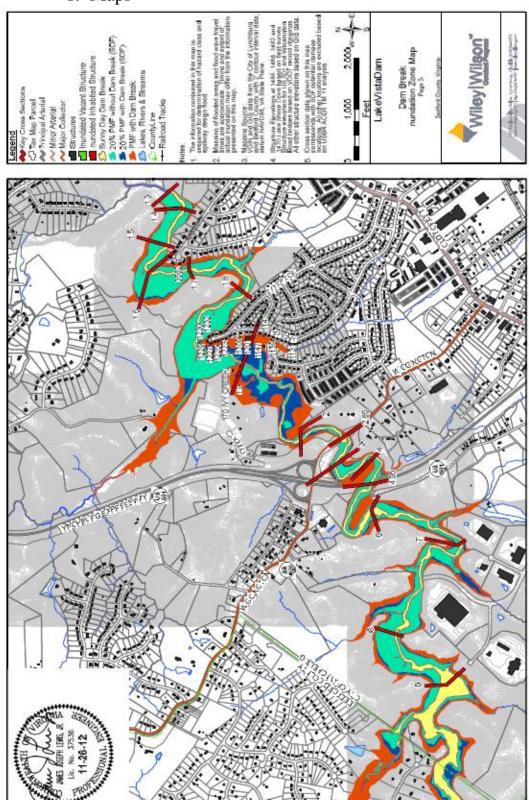
Route #	Street Name	Street #	Last Name	First Name	Phone Number	Parcel ID	City, State	Comments
621	Cottontown Road	Br # 6031	VDOT	Bridge over Ivy Creek		Br # 6031	Bedford County	Bridge
099	Hawkins Mill Road	Br #6081	VDOT	Bridge over Ivy Creek		Br # 6083	Bedford County	Bridge
621	Cottontown Road		BRWA	Sewage Pump Station	(540) 586-7679	100A 30A	Bedford County	Pump Station

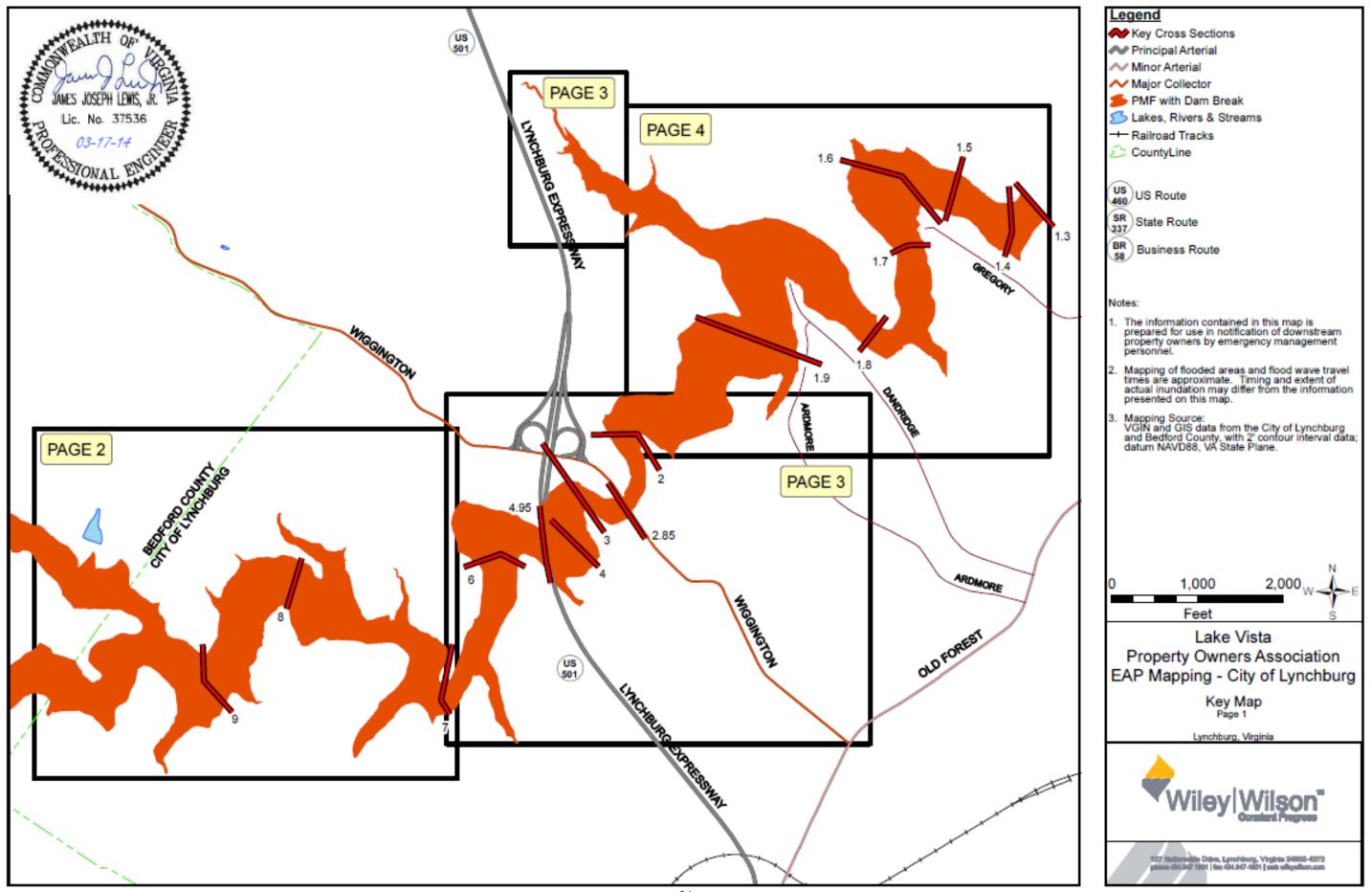
Bedford County Structures in Inundation Zone with Full PMF Storm and Lake Vista Dam Break

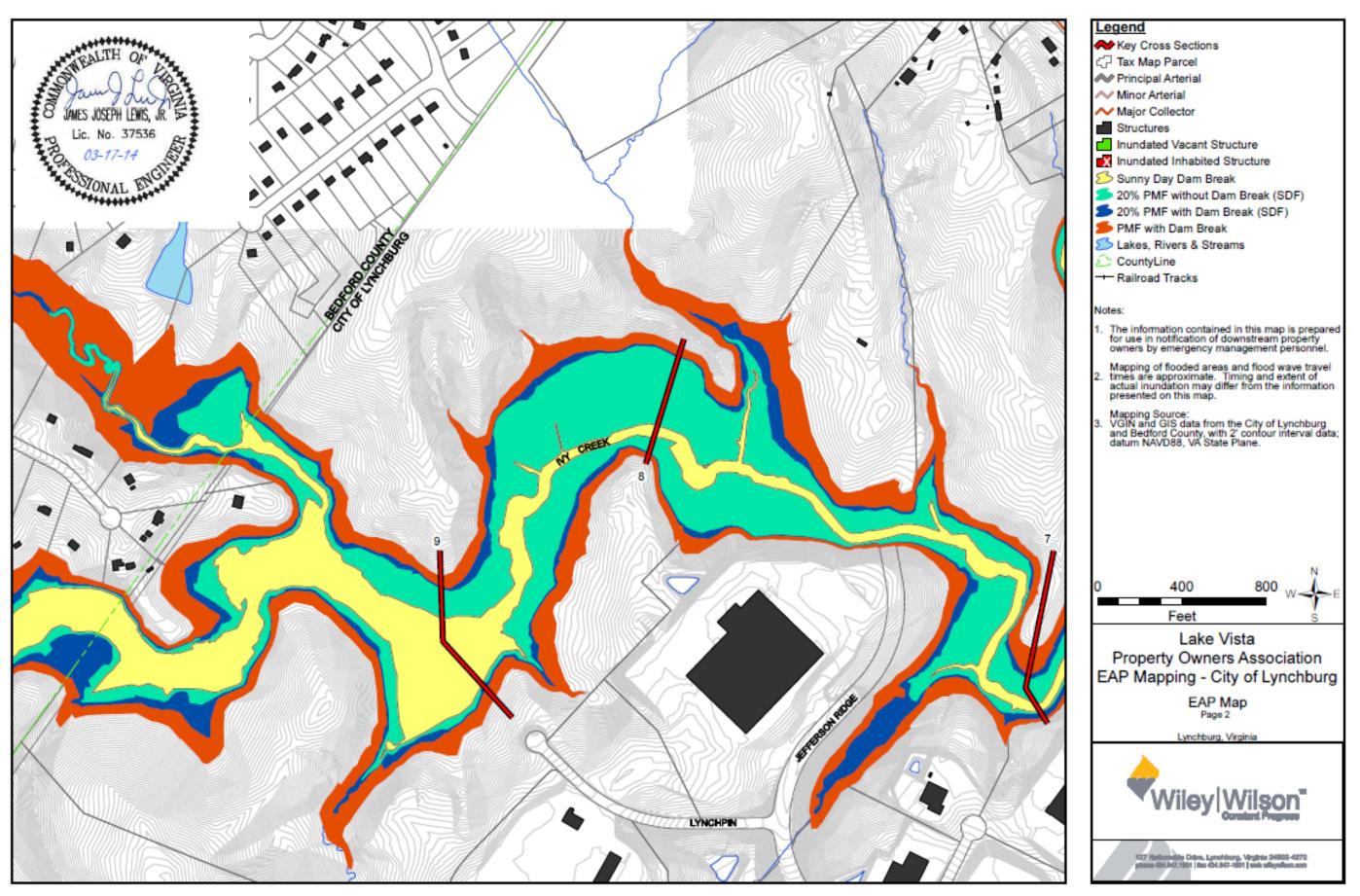
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o opinio	egouge	Bridge	Pump Station		Residence	Residence	Residence	Residence	Residence	Residence	Residence	Residence	Residence	Residence	Residence	Out Building
Dodford County	begrord County	Bedford County	Bedford County		Forest, VA	Forest, VA	Forest, VA	Forest, VA	Forest, VA	Forest,VA	Lynchburg, VA	Lynchburg, VA	Lymchburg, VZ	Lyncchburg, VA	Lynchburg, VA	
B. 4 CO34	Br # 5031	Br # 6083	100A 30A		100E 3 31	100E 3 32	100E 3 33	100E 3 34	100E 3 35	100A 1 7	82E 1 11	82E 2 12	82E 2 14	82E 2 15	82E 2 17	100 A 28
			(540) 586-7679	•	(434) 385-5252	(434) 660-7225	(434) 321-4620	(434) 525-39886	(434) 851-9712	(434) 385-9535	(434) 316-5266	(434) 316-9889	(434) 316-9388		(434) 385-0390	
Decides assess to Const.	Bridge over IVy Creek	Bridge over Ivy Creek	Sewage Pump Station		Mathew W & Christene	Mclean & Ashley	Bedford Jr & Stephanie	Karen S	Ernest W IV	James & Patricia	Cindy M & Granville Reed	Craig	Mark A & Dana M	Michael D & Deanna	Michael A & Kristi L	Whitaker R & Abbev G
FOCA	NDOI	VDOT	BRWA		Ales	Machut	Luck	Jackson	Adams	Hylton	Harris	Collins	Horsley	Kaprow	Cobb	Johnston
D. M. CO.34	Br # 6031	Br #6081		•	1481	1485	1486	1482	1470	116	1024	1050	1076	1094	1130	2465
Land ministered	Cottontown Road	Hawkins Mill Road	Cottontown Road		Lake Shore Drive	Lake Shore Drive	LakeShore Drive	Lake Shore Drive	Lake Shore Drive	IvyLea Drive	Pine Bluff Drive	Pine Bluff Drive	Pine Bluff Drive	Pine Bluff Drive	Pine Bluff Drive	Cottontown Road
604	179	099	621	•	1281	1281	1281	1284	1281	884	1250	1260	1250	1250	1250	621

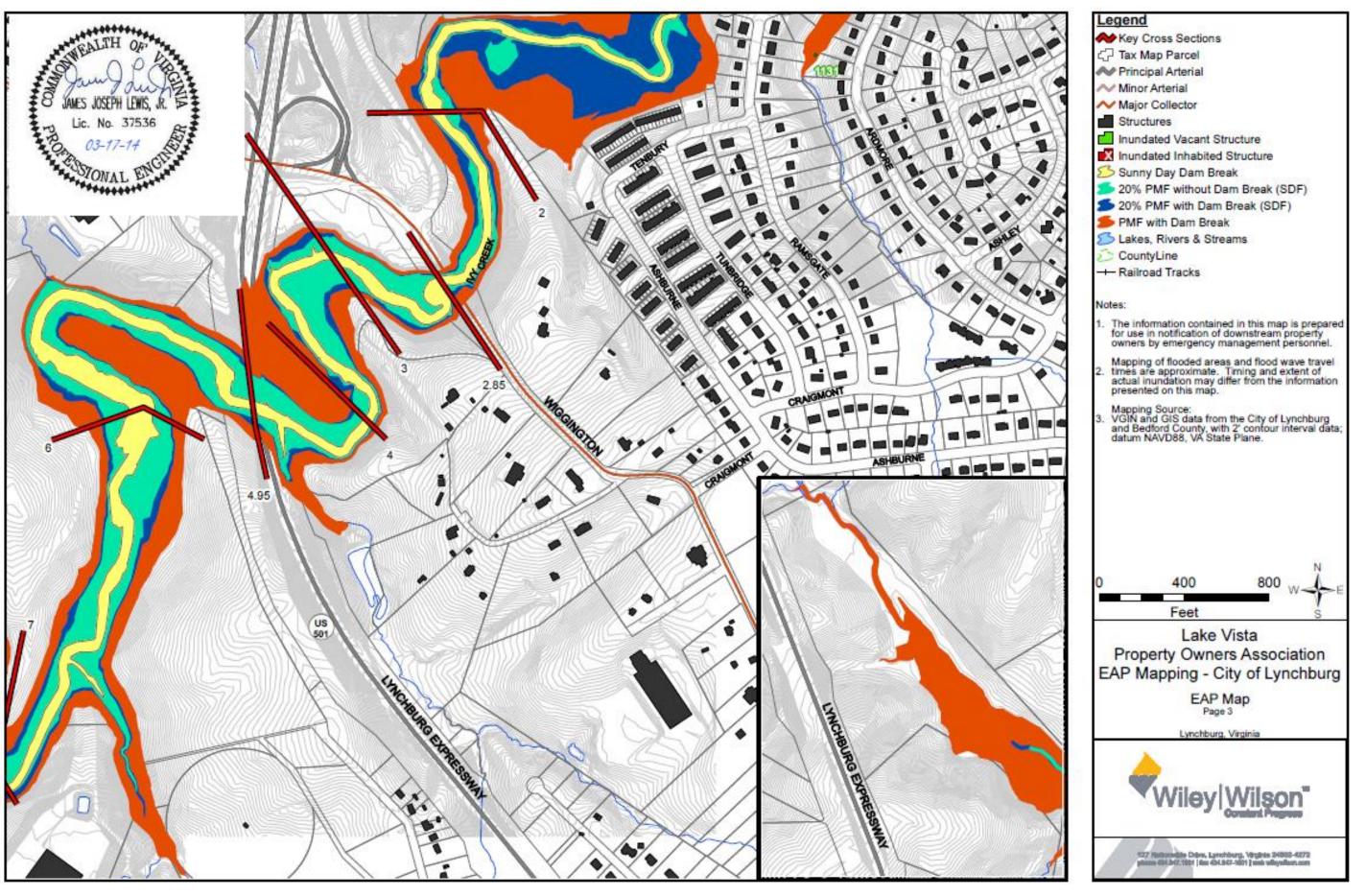
621	Cottontown Road	2465	Johnston	Whitaker R & Abbey G		100 A 28		Out Building
884	IvyLea Drive	116	Hylton	James & Patricia	(434) 385-8263	100A 1 7	Forest,VA	Out Building
1216	Ridgeview Drive	107	Lester	Samuel R & Patricia	(434) 385-8741	100A 2 4	Lynchburg, VA	Out Building
1216	Ridgeview Drive	109	Nolan	Kenneth E & Sharon	(434) 385-9474	100A 2 S	Lynchburg, VA	Out Building
099	Hawkins Mill Road	1597	Brown	Thomas A	(434) 385-6289	82 A 43A	Lynchburg, VA	Out Building
099	Hawkins Mill Road	1808	Green	Delbert I & Diane M	(434) 385-8263	82 A 43	Lynchburg, VA	Out Building
099	Hawkins Mill Road	1808	Green	Delbert I & Diane M	(434) 385-8263	82 A 43	Lynchburg, VA	Out Building
099	Hawkins Mill Road	1931	Gilman	Richard D & Mckenzie Julie D	(434) 316-9118	8288	Lynchburg, VA	Out Building

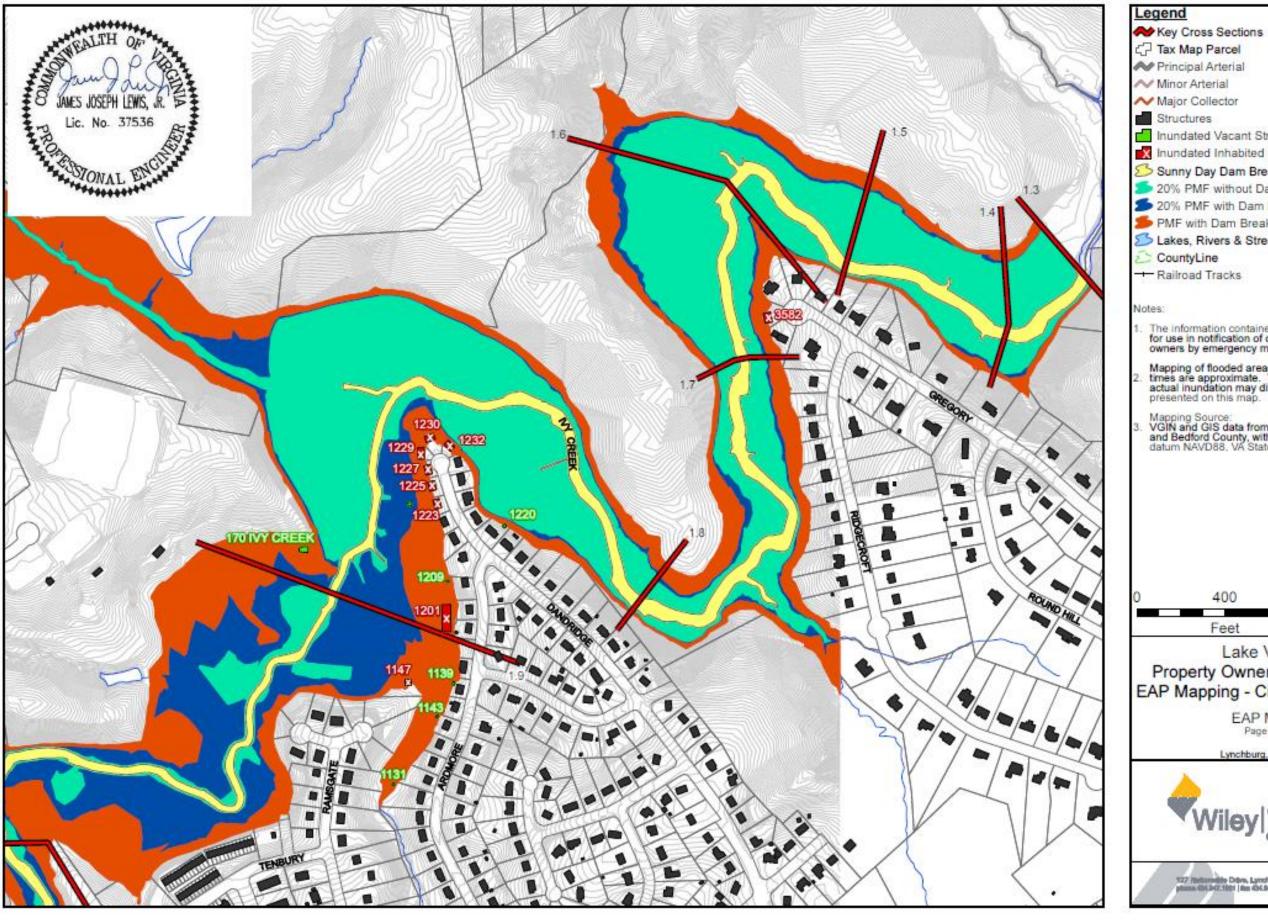
B. City of Lynchburg 1. Maps

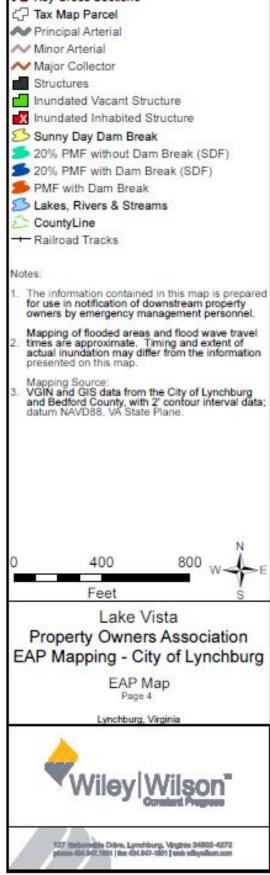












2. Properties

City of Lynchburg Structures in Inundation Zone with Non-Storm Related Dam Break

NONE

City of Lynchburg Structures in Inundation Zone with Full PMF Storm and Lake Vista Dam Break

_			Ш				Ш	Ш		1	Ш				_
Comments	Residence	Residence	Residence	Residence	Residence	Residence	Residence	Residence	Residence		Out Building	Out Building	Out Building	Out Building	Out Building
City, State	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA		Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA	Lynchburg, VA
Parcel ID	21805001	21808001	21801020	21801019	21801018	21801017	21808001	21801016	21905008		22102003	21801031	21801029	21801024	20891924
Phone Number	(434)847-1602	(434)847-1602	(434) 385-0574		(434) 385-5956	(434) 385-5260	(434) 846-7649	(434) 385-0199					(434) 385-8302	(434) 385-6999	(434)847-1602
First Name	City of	City of	Paul w & Sandra K	Julie L	William LJr	Matthew B	Alon J Jr	Henry Jr & Aldora D	Stephen B		Evelyn M	Mary Ann	Julian P & Liwayway L	Ronald D & Hilds	City of
Last Name	Lynchburg	Lynchburg	Elmore	Rossignol	Burton	Foster	Coleman	Rucker	Dolin	•	Spencer	Campbell	Esguerra	Hayes	Lynchburg
Street #	1147	170	1223	1225	1227	1229	1230	1232	3582		1131	1139	1143	1209	170
Street Name	Ardmore Dr	lvy Creek Ln	Dandridge Dr.	Dandridge Dr.	Dandridge Dr.	Dandridge Dr.	Dandridge Dr.	Dandridge Dr.	Gregory		Ardmore Dr	Ardmore Dr	Ardmore Dr	Ardmore Dr	lvy Creek Ln
Route #															

APPENDIX A

Investigation and Analysis of Dambreak Floods

Since it was constructed in 1986 there have not been any instances of failure of the Lake Vista Dam that have caused any downstream flooding.

Analysis of Lake Vista dam failure with no flooding and with PMF flood along with inundation zone mapping required by DCR were included in the Wiley|Wilson report dated June 5, 2009 entitled <u>Investigation and Analysis of Impounding Structure Failure Floods</u>. This report was forwarded to the DCR Dam Safety Regional Engineer October 23, 2009. It was the basis for our **prior EAP**.

This EAP revision is based on the Wiley Wilson reanalysis of their June 5, 2009 report using the Dam Safety Regulations as they were revised in October, 2012. This reanalysis report is titled <u>Investigation and Analysis of Impounding Structure Failure Floods</u>, Revised and is dated November 26, 2012. It resulted in our dam classification being reduced to Significant Hazard, some modifications to the list of impacted properties, and the inclusion of for The City of Lynchburg in this EAP.

The updated inundation zone mapping in the November 26, 2012 Wiley|Wilson report is the basis for the inundation maps contained in this EAP. Copies of the November 26, 2012 Wiley|Wilson reanalysis report, along with relevant GIS mapping information, were provided to Bedford County, The City of Lynchburg, and our Regional Dam Safety Engineer.

For Bedford County, two sectional maps were added to cover the area from the Hawkins mill crossing of Ivy Creek to the Lynchburg City Limits and the area along Pine Bluff Drive where a number of homes were impacted. While the initial study showed the difference between the Ivy Creek flood elevation and dam break flood elevation was 1 foot or less at the Hawkins Mill Road crossing, it rose again prior to the Lynchburg City Limits. Additional homes along Pine Bluff Drive, which were out of the original study area, were found to be impacted in the Reanalysis.

For the City of Lynchburg, the reanalysis was conducted along Ivy Creek to the location past Gregory Lane where the difference between the proposed SDF and dam break with SDF was less than one foot. For the PMF conditions, the difference drops to one foot or less just at the US 501 crossing of Ivy Creek. The reanalysis showed no Lynchburg residences in the flood plains for SDF or Sunny Day Lake Vista dam break study conditions. However, it should be remembered that one or dam breaks

upstream from the Lake vista Dam or a major rainfall event upstream in the Ivy Creek Basin could significantly impact the City of Lynchburg.

Following completion of the November 26, 2012 reanalysis report titled <u>Analysis of Impounding Structure Failure Floods</u> Revised, engineering was completed for spillway alterations to meet current Virginia Dam Safety Regulations. An Alteration Permit has been obtained and a contractor selected. Alteration work is targeted for completion by July 1, 2014.

APPENDIX B

Plans for Exercising, Updating and Posting

1. Training

The dam owner will hold training sessions with its EAP-designated personnel annually in conjunction with the Drill exercise. The sessions will include review of the specific duties of each of the owner's personnel designated in the EAP with that individual to assure understanding of what is required of that person in event of an emergency.

2. Exercises

- a. Drill The dam owner will conduct a Drill annually except those years when a Table Top exercise is conducted. The exercise will involve dam owner personnel training, verification of inundation zone impacted property owners names and phone numbers where possible, and meeting with local emergency management agencies to review procedures for notification and evacuation where feasible.
- b. Table Top Exercise The dam owner will coordinate with the Bedford County and City of Lynchburg Emergency Management Services officials and with state dam safety and emergency management officials as feasible to conduct a Table Top exercise in the year that certification of the dam is required. In a conference room setting a specific dam emergency scenario will be followed. The EAP procedures for responding will be discussed in detail to assess their adequacy and effectiveness in dealing with the emergency. Revisions of the EAP and emergency response procedures as needed to correct any deficiencies noted will be detailed and implemented.

3. Updating

This emergency action plan will be checked each year as part of the designated drill or table top exercise to determine if the names and phone numbers of impacted properties are accurate. Following an exercise any needed revisions to the EAP that were identified will be made and revised pages or a new document furnished to the designated holders of copies of the EAP. The

document also will be updated and revised pages distributed when any designated personnel or other major change has occurred.

4. Posting

This Emergency Action Plan will be on file with the below named organizations and updated pages will be provided to all copy holders whenever a change is made.

Lake Vista Property Owners Association

200 Lake Vista Drive Forest, VA 24551

Bedford County Emergency Services Coordinator – Jack Jones

1185 Turning Point Rd Bedford, VA 24523

<u>City of Lynchburg, Dept. of Emergency Services Director</u> – Melissa Foster 3621 Candlers Mountain Road Lynchburg, VA 24502

DCR Division of Dam Safety

Regional Engineer Region 4 – *Temporary- check back 11/2019*Dam Safety Central Office
600 East Main Street, 24th Floor
Richmond, VA 23219
804-371-6095 dam@dcr.virginia.gov

VA Department of Emergency Management

10501 Trade Court Richmond, VA 23236

^{*} two copies of EAP sent to *

APPENDIX C

Site-Specific Concerns

In the event of heavy flooding entry into Lake Vista from Graves Mill Road may not be possible as the road is likely to be overtopped by water from Swan Lake. Entry routes to the Lake Vista dam and to the homes on Lake Shore Drive that will be impacted are shown below.

1. Access to Lake Vista Dam in Heavy Flooding

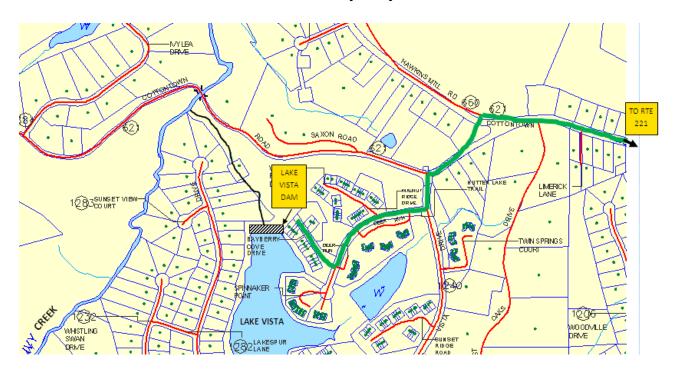
The access route to the Lake Vista dam that is least likely to be affected by severe flooding is -

Route 221 – Forest Road to Route 621 - Cottontown Road Cottontown Road to left onto Route 1240 - Lake Vista Drive

Lake Vista Drive 50 yards to right onto Hutter Lake Trail

Hutter Lake Trail 200 yards to right onto Bayberry Cove Drive

Bayberry Cove Drive to end of street – dam is to left past end townhouse, address 331 Bayberry Cove Drive



Access to Occupied Lake Shore Drive Dwellings in Flood Inundation Zone
 Route 221 to Gumtreee Road

Gumtree Road approx 1mile to right onto Spring Lake Road

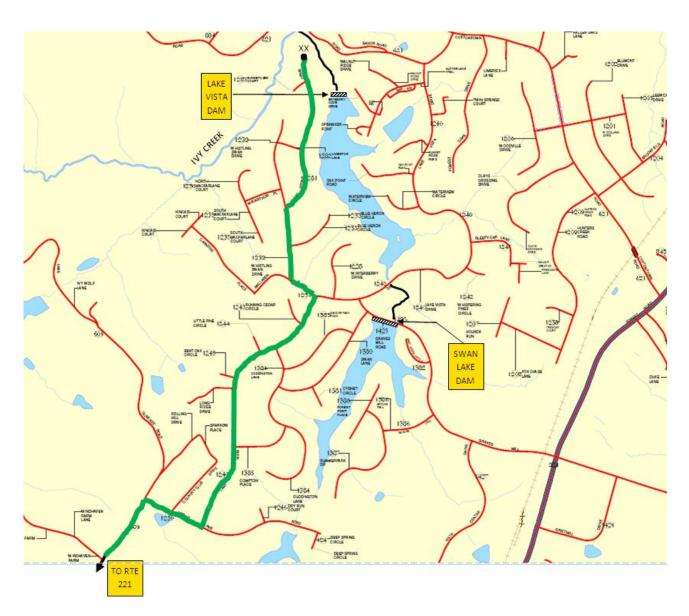
Spring Lake Road approx 0.2 mi to left onto Lake Vista Drive

Lake Vista Drive approx 0.8 mi to left onto McLaren Place

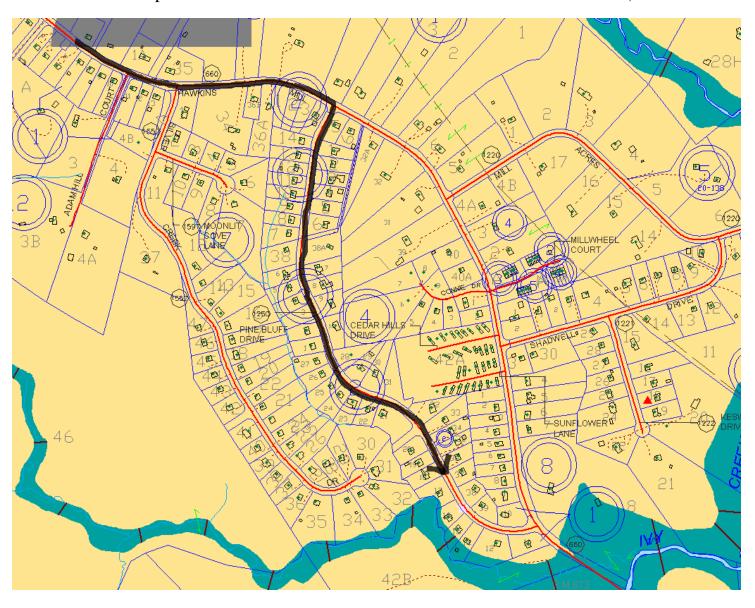
McLaren Place approx 500 feet to right onto Whistling Swan Drive

Whistling Swan Drive approx 0.25 mile to right onto Lake Shore Drive

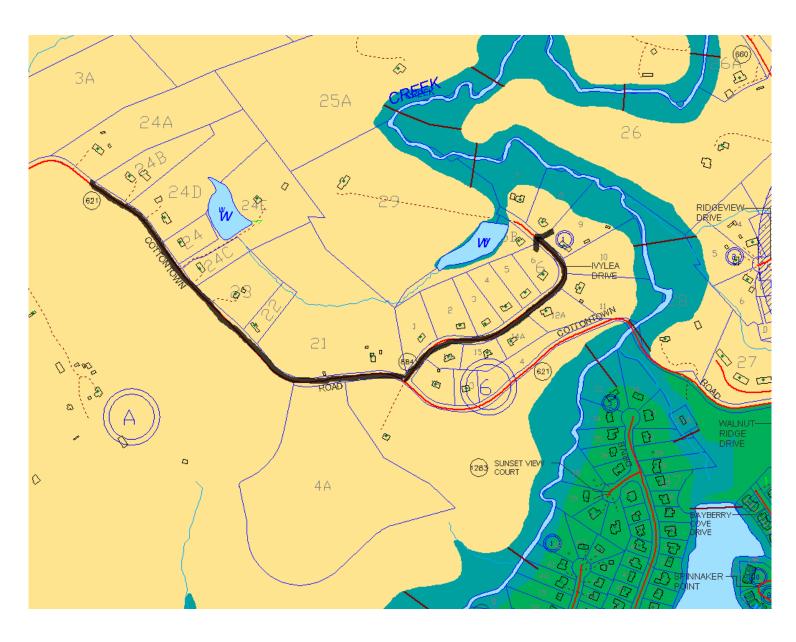
Lake Shore Drive approx 0.5 mile to listed houses at end in cul de sac



1. Access to Occupied Pine Bluff Drives Dwellings in Inundation Zones Hawkins Mill at Ivy Creek is likely to be flooded Approach Ivy Creek Area on Hawkins Mill from the North Note that Pine Bluff intersects Hawkins Mill at two points Turn Right onto Pine Bluff (Impacted properties are between the arrow point and the second Pine Bluff intersection with Hawkins Mill)



2. Access to Occupied IvyLea Dwelling in Inundation Zones Cottontown Road at Ivy Creek is likely to be flooded Approach Ivy Creek Area from the West Turn Left onto IvyLea Lane



3. Access to Occupied Ardmore and Dandridge Occupied Dwellings in Inundation Zones

Take Old Forest Road to either Ardmore or Dandridge

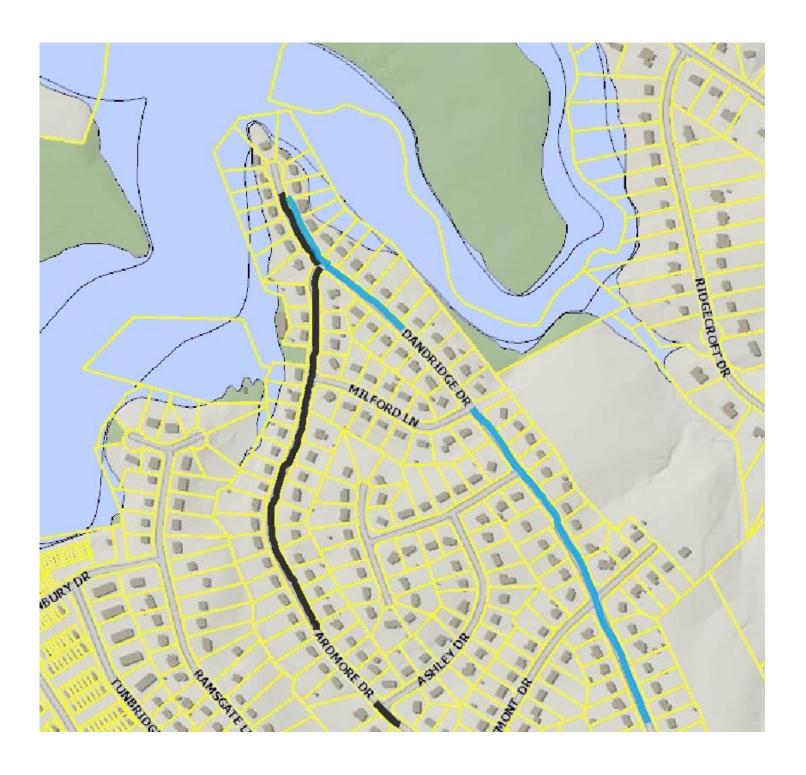
Take Ardmore or Dandridge to their intersection

Impacted properties are near this intersection

MAP 1 of 2 Ardmore & Dandridge Properties



MAP 1 of 2 Ardmore & Dandridge Properties

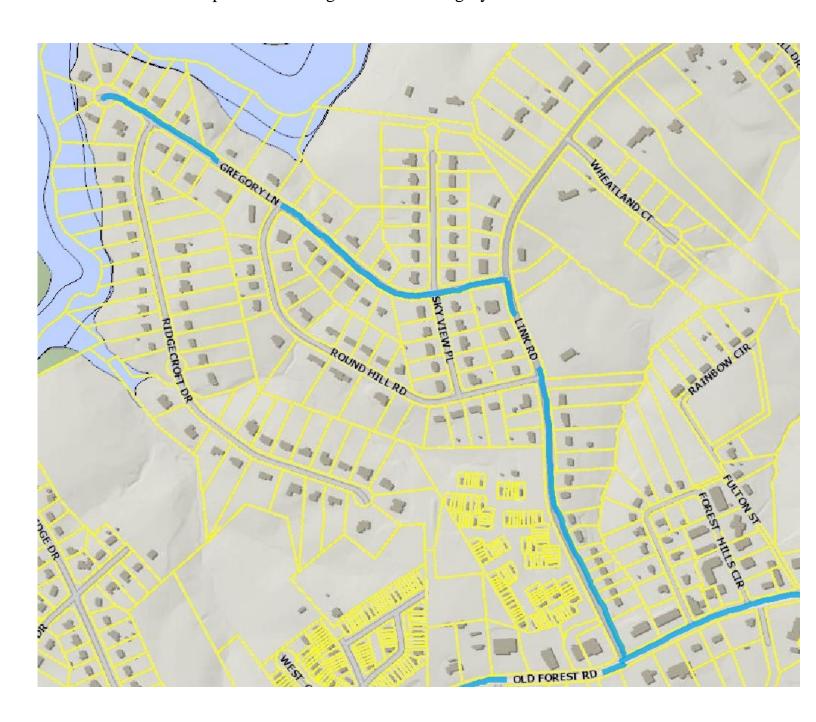


4. Access to Occupied Gregory Ln Occupied Dwellings in Inundation Zones Link Road likely to be flooded at Ivy Creek

Take Old Forest Road to Link Road

Turn Left from Link Road onto Gregory Lane

Impacted Dwelling is at end of Gregory



APPENDIX D Additional Resources

Personnel

Personnel with experience in dam safety, design and construction that might be consulted in an emergency in addition to those shown in the Stage III flowchart of this EAP are:

Cameron Smith and Austin Bander with Bander Smith LLC (804) 212-2898

Materials and Equipment

No materials or equipment are stored on-site at the Lake Vista dam.

Possible local sources for material and equipment that might be needed in an emergency situation are listed below:

<u>Earth Moving Equipment</u> – Laughon and Johnson, Inc. (540) 586-8417

- Best GC Inc. (434) 528-4725

- Counts and Dobyns, (434) 821-2774

Rip-Rap / Sand & Gravel – Scott's Mulch & More (434) 237-5844

- Boxley Materials Co. (434) 239-9249

- JMJ Landscaping Company (434) 239-5311

Sandbags/Pumps/Lighting Equipment -True Value Hardware (434) 385-5150

(Rental equipment) - Pearson Equipment Company (434) 845-5981

- United Rentals (434) 846-7368

<u>Pipe</u> – Ferguson (434) 385-6600

<u>Laborers</u> – Manpower (434) 832-0266