

**Virginia Soil and Water Conservation Board
Tuesday, May 23, 2017
Old Dominion Electric Cooperative
Glen Allen, Virginia**

TIME AND PLACE

The meeting of the Virginia Soil and Water Conservation Board convened at 9:32 a.m. on Tuesday, May 23, 2017 at the Old Dominion Electric Cooperative in Glen Allen, Virginia.

MEMBERS PRESENT

Daphne W. Jamison, Chair
Richard A. Street, Vice Chair
Gray Coyner
Jerry Ingle
Janette Kennedy
Stephen Lohr
Barry L. Marten
Cindy Smith
Clyde E. Cristman, DCR, Ex Officio
David Kriz for John A. Bricker, NRCS, Ex Officio
Dr. Bobby Grisso, Virginia Cooperative Extension, Invitee

MEMBERS ABSENT

C. Frank Brickhouse, Jr.

DCR STAFF PRESENT

Rochelle Altholz, Deputy Director of Administration and Finance
David C. Dowling, Deputy Director of Soil and Water and Dam Safety and Floodplain Management
Michael Fletcher, Board and Constituent Services Liaison
Darryl Glover, Director, Division of Soil and Water Conservation
Wendy Howard Cooper, Business and Administration Manager
Mark Killgore, Region 2 Dam Safety Engineer
James Martin, Conservation Data Specialist
Stephane Martin, Soil and Water Conservation District Liaison
Lisa McGee, Director of Policy and Planning
Gary Moore, Agricultural Incentives Program Manager
Amanda Pennington, District Engineering Services Manager
Eric Surratt, Internal Auditor
Scott Thomas, Region 3 Dam Safety Engineer
Amy Walker, Conservation District Coordinator
Christine Watlington, Senior Policy and Planning Analyst
Matthew Gooch, Office of the Attorney General

OTHERS PRESENT

Suzanne Brown, Loudoun Soil and Water Conservation District
Everett Chadbourne, Timberlake Watershed Improvement District
Ann Jennings, Chesapeake Bay Commission

Katie Frazier, Virginia Agribusiness Council
Martha Moore, Virginia Farm Bureau Federation
George Myrick, Timberlake Watershed Improvement District
George Schrader, Timberlake Watershed Improvement District
Greg Wichelns, Culpeper Soil and Water Conservation District

CALL TO ORDER AND INTRODUCTIONS

Chairman Jamison called the meeting to order at 9:32 a.m. She added an agenda item for a discussion of the FY 2017 Self-Assessment Questionnaire under New Business. She then called for introductions.

APPROVAL OF MINUTES FROM APRIL 20, 2017

Mr. Dowling presented a proposed amendment to the Draft minutes from April 20, 2017. Under the topic "Initiation of a Study of the Appropriateness of Dam Overtopping Protection Product(s) for Use in Compliance with the Virginia Dam Safety Act and Regulations, the following edit (insertion of the underlined language) was recommended to the motion made by Mr. Coyner:

The Board directs the Department to establish a Consulting Committee in accordance with § 4VAC50-20-210 (Virginia Administrative Code) to conduct a study that shall include but not be limited to evaluating the use of HydroTurf™ [synthetic turf with a cementitious infill] in the Commonwealth of Virginia for dam overtopping protection particularly in situations where it is being recommended in order to meet required spillway design flood requirements. Such study shall investigate, at a minimum, whether the product is protective of public safety, durable, and reliable, and if found to be so, under what conditions and engineering protocols it might be properly utilized in the Commonwealth. Such procedures and criteria for use must be proven to be current, sound engineering practices.

Mr. Lohr moved that the minutes of the April 20, 2017 meeting of the Virginia Soil and Water Conservation Board be approved as amended. Mr. Street seconded and the motion carried.

DIRECTOR'S REPORT – *Clyde E. Cristman, DCR Director*

Director Cristman reported that two legislative study committees related to activities of the Board met the preceding week. The first study is looking at the stabilization of the Water Quality Improvement Fund. The second study is considering Resource Management Plan implementation. Mr. Street represents the Board on both committees. The next set of meetings are June 13, 2017 in Richmond.

Director Cristman also noted that DCR is monitoring news regarding the President's budget. The Governor and his Administration are continuing to work with the Congressional Delegation. Substantial changes likely will occur before a final budget agreement is reached.

AUDIT SUBCOMMITTEE REPORT – *Richard Street, Subcommittee Chair*

Mr. Street reported that the Audit Subcommittee met that morning to review the charge given to the Subcommittee and to receive information regarding the audits of the three districts with significant

findings or repeat comments. Those three districts will be asked to attend the next meeting of the Subcommittee on Tuesday, June 27, 2017 at the Department of Forestry in Charlottesville.

Minutes of the Subcommittee meetings will be included as part of the report to the full Board.

TIMBERLAKE WATERSHED IMPROVEMENT DISTRICT REFERENDUM – *David Dowling, Stephanie Martin*

Mr. Dowling advised that the Timberlake Watershed Improvement District (WID) had come before the Board to request authorization to incur indebtedness in the form of a loan not more than \$550,000 for the purposes of dredging Lake Timberlake. The Board's authority is outlined in the Code of Virginia.

§10.1-630 Type of indebtedness incurred or bonds issued.

The type of indebtedness incurred or bonds issued shall be that adopted by the governing body of the watershed improvement district and approved by the Soil and Water Conservation Board.

Ms. Martin directed members to the correspondence from the Robert E. Lee Soil and Water Conservation District to the Board. She then introduced Mr. Schrader from the Timberlake WID for the purposes of making a presentation to the Board.

Mr. Schrader gave an overview of the Timberlake WID Dredging Project.

- Estimated costs are not to exceed \$550,000
- Sediment to be removed – 17,986 cubic yards
- Stakeholders
 - Landowners
 - WID Advisory Committee (Landowners)
 - Robert E. Lee SWCD
 - Campbell County Officials
 - Virginia Soil and Water Conservation Board

The dredging project began in late 2016 and is expected to be completed by October, 2018.

The project criteria are:

- Stakeholders buy-in
- Cost
- Impacts
 - Environmental
 - Landowners
 - Infrastructure
- Construction accessibility
- Sediment transfer from lake to disposal site
- Sediment disposal management and location
- Water return from the disposal site to lake
- Project time

Proposals are being solicited from dredging companies.

The WID is looking at the following terms for financing the loan:

- Loan financing terms (local banks competing)
 - Principal amount to not exceed \$550,000
 - Estimated interest rate 5%
 - Term – 15 years
 - Annual payments - \$49,000

The WID is looking at the following mechanism for loan repayment.

- WID Tax collected through Campbell County
- Total Real Estate Assessed Values - \$33MM
 - Annual Tax Revenue \$171,600 (.52/100)
 - Rate of \$0.15/\$100 Real Estate Assessed Value
 - Additional Annual WID Tax Revenue \$49,500
 - Term 15 Years

The WID envisions the following measures to prevent sediment from reentering the lake.

- Periodic remedial dredging
- Forebays upstream
- Sediment traps inside the inlet tributaries
- Work with VDOT to resolve erosion problem, on-going sediment entering Buffalo Creek cove from VDOT 460 – Timberlake Road Interchange design
- Work with Grant committee to apply for funds to partner with upstream property owners

Mr. Schrader noted that the lake is owned by the Timberlake Homeowner's Association (HOA). There are about 200 properties around the lake. The HOA has partnered with the WID and the SWCD. The referendum will go before the homeowners.

BOARD ACTION

Ms. Kennedy moved that the Virginia Soil and Water Conservation Board approve the request from the Robert E. Lee Soil and Water Conservation District and the Trustees of the Lake Timberlake WID to incur indebtedness in the form of a bank loan in an amount not to exceed \$550,000 with a term of 15 years and an interest rate not to exceed 8 percent. Mr. Coyner seconded and the motion carried.

DAM SAFETY AND FLOODPLAIN MANAGEMENT DIVISION REPORT – David C. Dowling

Division Update; Introduction of New Engineers

Mr. Dowling gave the report for the Division of Dam Safety and Floodplain Management.

New Dam Safety Regional Engineers Hired for Region 2 and Region 3

Today I welcome two new Regional Dam Safety Engineers before the Board. At the March meeting, I shared information regarding Mr. Mark Killgore with you, our new Region 2 engineer. Mark, who joined the Department on February 27th, was not able to join us at the March meeting but he has been able to join us today. Mr. Mark Killgore's bio is presented below.

Mark Killgore, P.E., D.WRE, F. ASCE joined Virginia's Department of Conservation and Recreation as the Region 2 Dam Safety Engineer on February 27th. Previously he served the American Society of Civil Engineers (ASCE) for five years as the staff director responsible for the Society's strategic educational and licensure initiative "Raise the Bar" advancing educational requirements for licensed practice as a Professional Engineer.

Prior to joining ASCE, Killgore spent three years at Puget Sound Energy in Washington as a hydro manager, where he oversaw such functions as major capital project development related to dam safety, water management, energy production studies, and strategic planning. Mark spent nearly 30 years as a consulting engineer (including flood studies, dam break studies and hydraulic and hydrologic design) and worked for the U.S. Corps of Engineers in hydrology and hydraulics. Mark taught water resources engineering and fluid mechanics laboratory as adjunct faculty at Seattle University. Mark received both a Bachelor of Civil Engineering and Bachelor of Arts in Spanish from Seattle University and a Master of Science in Civil Engineering specializing in water resources and environmental engineering from the University of Washington. He is a licensed Professional Engineer (civil) in the State of Washington and is a Founding Diplomat of AAWRE. He authored the ASCE Publication NAFTA Handbook for Water Resources Managers and Engineers and is also a Research Fellow specializing in transboundary water issues at the University of Texas at Austin.

Mark's past volunteer experience with ASCE includes service as the President of the Seattle Section, Governing Board of the Environmental and Water Resources Institute (EWRI), Vice Chair of the International Activities Committee, EWRI Congress Chair last year, and service on many other local and national committees. He has also been active in water resources and hydroelectric engineering association including AWRA, ASDSO, chairing the Waterpower Conference, and currently serves on the board of the Hydro Research Foundation. He also active in Project Amigo, a project founded by Rotary to promote education in the state of Colima, Mexico.

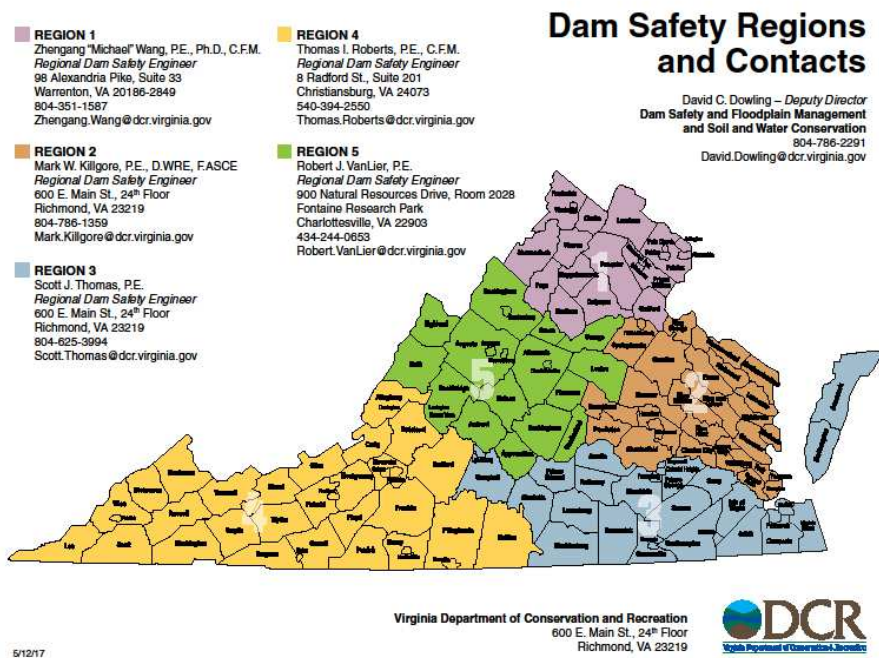
Also with us today is Mr. Scott Thomas who began with the Department on May 10th as our new Region 3 engineer.

Scott J. Thomas, P.E. joined Virginia's Department of Conservation and Recreation as the Region 3 Dam Safety Engineer on May 10th. Scott has nearly 30 years of work experience in civil engineering and water resources, with nearly 12 years of private sector and over 17 years of public sector experience. He was born and raised in coal and steel mill territory in West Central Pennsylvania (Johnstown). Johnstown is famous for its dam breaks and floods of 1889, 1936, and 1977. He moved to Virginia in 1995. Scott is a 1988 graduate of the University of Pittsburgh at Johnstown with a B.S. in Civil Engineering Technology. He is a registered professional engineer in the Commonwealths of Virginia and Pennsylvania.

Scott's experience includes working with mining permit related projects in Pennsylvania and West Virginia and off-site utility work for several cogeneration power plants in Pennsylvania. Early in his career, he specialized in NPDES related erosion and sediment control work. While in the public sector, he became well-versed in municipal planning and engineering including program administration, plan review, compliance inspection, and enforcement for state/local NPS programs including CBPA, VESCP, VSMP, VPDES construction general permit, and MS4 programs. He has expertise in urban stormwater management, low impact development, stream restoration, and watershed management planning.

He lives in Williamsburg with his wife Judith. They have four boys all out of school and one granddaughter Maya and their dog Willow.

I am very pleased that we have been able to add both of these talented and experienced engineers to our dam safety team and am looking forward to their advancing the program further as we benefit from their professional experience and ideas.



Dam Safety Program Overview

At the last meeting, the Board asked DCR to provide a timeline outlining the ability to list all dams in the inventory and how that process could be accelerated.

At that meeting, we noted that out of the 3,550 dams that are in the DCR inventory, 1,973 were currently regulated. We also noted that DCR staff was not pursuing the location of additional dams until such time that the current inventory could be properly assessed. We further noted in a legal sense that, regardless of the DCR inventory, the responsibility for the dam is with the owner.

To take it a step further, all of the 3,550 dams noted are in DCR’s inventory of dams although the level of information for each and their regulatory status varies from dam to dam. A number of these are lawfully exempt from regulation by our program. Our new database that you will be hearing about shortly will provide additional tools to capture and display information regarding our inventory.

The real question, is what would it take to more effectively update and regulate this inventory. That question merits a deeper discussion than time allows for today, but I can provide some initial insight into the matter. First, I must indicate that Virginia does have a sound program when measured against other states. The following table assesses DCR’s program against the national average.

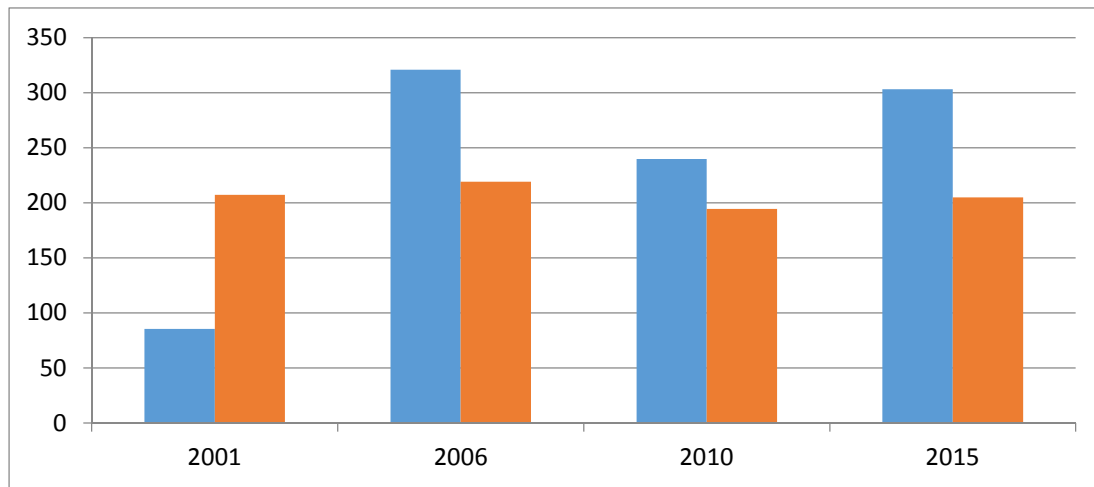
2016

STATE	LEGISLATION	INSPECTION	ENFORCEMENT	EAP & RESPONSE	PERMITTING	EDUCATION/ TRAINING	PUBLIC RELATIONS	WEIGHTED %
National Average	86%	78%	92%	75%	76%	75%	30%	79%
Virginia	94%	97%	100%	100%	94%	89%	92%	96%

Although DCR’s Dam Safety Program today is in much better shape programmatically, fiscally, and staffing wise than in past years, that does not say that there is not room for growth to better deliver our services.

A 2011 Association of State Dam Safety Officials (ASDSO) peer review of the DCR Dam Safety Program found that the program was “dramatically under staffed and underfunded”.

State Regulated Dams per FTE (blue bar) & National Average (red bar) [2016 Report]



For discussion purposes:

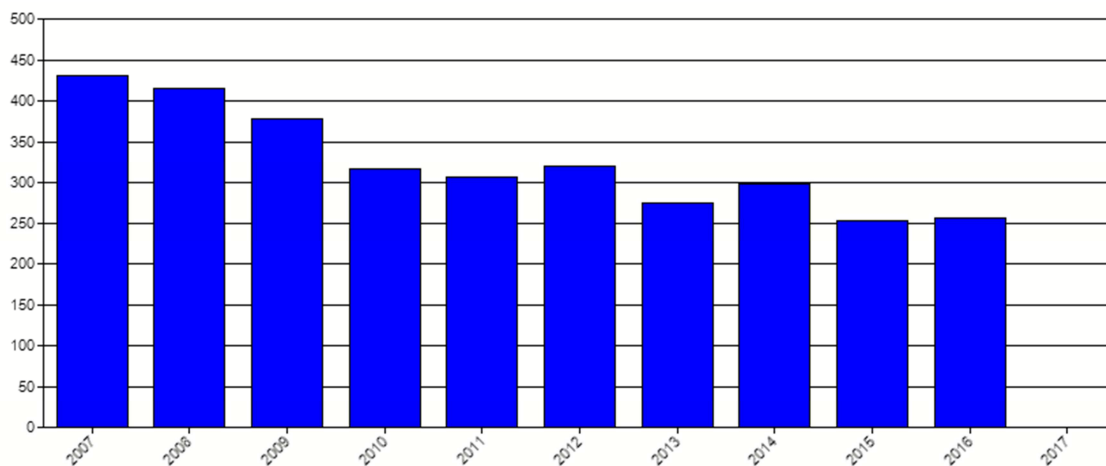
3,550 dams are in the DCR inventory

1,974 of these are currently regulated

Estimate 2,500 (an additional 526) are in need of regulation (could be higher)

Although the national average appears to be around 200 dams per FTE, using the national recommendation of 250-400 dams **per engineer** for state staff levels from the Association of State Dam Safety Officials, it is estimated for 2,500 dams, that a minimum of six to ten regional engineers plus support personnel are required for an effective dam safety program.

Number of dams with Regular Operation and Maintenance (O&M) Certificates



273 are currently under a Regular O&M Certificate.

At the end of the day, what we are seeking to accomplish is to move all known regulated dams to regular certificates.

Virginia Dam Safety, Flood Prevention and Protection Assistance Fund (DSFPPAF)

At the Virginia Soil and Water Conservation Board (Board) meeting on Wednesday, December 7, 2016, the Department reported that it was conducting a substantial update to the Dam Safety, Flood Prevention and Protection Assistance Fund (DSFPPAF) grants program.

It was noted that the Division had been working to revamp the grant program manual including application and administrative processes. This included adding more structure and fiscal accountability to the grant process and to address significant internal audit issues.

As part of the grant clean-up process, staff recommended that older grants (pre-2015) be closed and that money be returned to the fund for future use. It was anticipated that there could be as much as \$800,000 in additional funds that could become available to be added to future grant rounds. It was also recommended that a blanket extension be offered for those awarded 2015 grants.

The Board approved the offering of a blanket extension until May 1, 2017 to all of the remaining recipients of 2015 Dam Safety, Flood Prevention and Protection Assistance Fund grants. After such time, no additional extensions were to be granted and any outstanding grants were to be cancelled and the funds were to be de-obligated. For older grant rounds, where there had been no activity or extensions requested or approved, the Board approved that funds from all such projects be de-obligated. Remaining funds from closed out projects were also to be de-obligated.

Following that meeting, in accordance with Board direction, DCR notified grant holders of pre-2015 grants that their funds were subject to rescission and provided a period of time to submit for reimbursement. Additionally, DCR notified 2015 grant holders that their funds were automatically extended until May 1, 2017.

Current grant status includes the following:

Since 2011, DCR has awarded \$5,523,398 and reimbursed \$3,974,516.40 to dam owners.

- \$910,167.30 has been or will be deobligated from unspent and completed projects.
 - GY 2011 \$167,444.28
 - GY 2012 \$318,080.52
 - GY 2013 \$125,010.00
 - GY 2014 \$179,332.94
 - GY 2015 \$137,417.00

- \$294,003.00 of grants awarded are pending finalization.
 - GY 2011 \$ 12,000.00
 - GY 2012 \$ 62,250.00
 - GY 2013 \$ 8,350.00
 - GY 2014 \$ 73,986.00
 - GY 2015 \$137,417.00

- During FY 2017, \$344,711.30 of unspent grant funds from a single completed project was returned to the state for mandatory budget reductions.

New Grant Round

Regarding the FY 2017 grant issuance:

February 15, 2017 - Funding announcement release; \$1.2 M available

March 31, 2017 - Application deadline

May 23, 2017 - Funding recommendations to the Board for approval

The 2017 grant round yielded the following and will be before you today for approval:

- Total Number of Applications Received: 87
- Total Amount Requested from the Fund: \$1,640,574.21
- Total Recommend for Award: \$1,154,302.24
- Difference Requested but not Awarded: \$486,271.97

Under Item G of the Agenda, Ms. Wendy Howard Cooper our Business and Administration Manager for Dam Safety and Floodplain Management and Soil and Water Conservation Divisions will present the grant round results to the Board for consideration.

Program Priorities and Dam Safety Database Development

As I noted in my March briefing to the Board, one of our focuses this year, has been on beginning a multi-year Dam Safety Database/ Information System development effort.

In early 2016, we began discussions of the development of a new DCR Dam Safety Data Information System. With the leadership of the Soil and Water Conservation Division’s data management group, by September, this had turned into a thorough list of database requirements. Through October and November, a proposal and Statement of Requirements (SOR) was refined and in December a Statement of Work (SOW) was released and a Contingent Labor Contract through Computer Aid, Inc. was awarded to WorldView Solutions Inc. On January 26, 2017, a project kick-off meeting was held and on February 28, 2017, the first product designs were reviewed by the DCR project team. The project remains on schedule with a Phase 1 completion date of August 7, 2017. Paralleling this effort, is an ongoing clean-up of the data in our current system for migration to the new system.

Under Item H of the Agenda, Mr. James Martin, a Conservation Data Specialist in our Soil and Water Conservation Division who is leading our application development efforts, will provide a presentation on the development of our new Dam Safety Information System.

Approval of Grants from the Dam Safety, Flood Prevention and Protection Assistance Fund

Ms. Howard Cooper reviewed the 2017 Grant Round Summary.

Total Number of Applications Received	87
Total All Project Costs per Applicant	3,329,348.51
Total Amount Requested from the Fund	1,640,574.21
Total Funding Available from the Fund	1,200,000.00
Total Requests Exceeding Available Funds	(440,574.21)
Total Denied Projects	(403,523.70)
Projects Awarded but at Decreased Amount	(82,748.27)
Total Funding Available from the Fund	1,200,000.00
Total Recommended for Award	(1,154,203.24)
Total Funds Not Awarded and Remaining Available	45,697.76

Ms. Howard Cooper noted that there were multiple levels of review on the projects. The process is very detailed and each application is evaluated by a Regional Dam Safety engineer utilizing a set of standardized scoring criteria. The DCR central office provides a secondary review.

A list of the approved applications is included as Attachment A.

Ms. Howard Cooper also reviewed the 2017 General Assembly Appropriations to specified localities which will be managed and distributed through the Dam Safety, Flood Prevention and Protection Assistance Fund.

<u>Dam Name</u>	<u>County</u>	<u>Project Type</u>	<u>Funding Recommendation</u>
Hearthstone Lake Dam	Augusta County	Dam Rehabilitation	633,100.00
Lake Pelham Dam	Culpeper County	Dam Rehabilitation	2,942,490.00
Mountain Run Dam	Culpeper County	Dam Rehabilitation	3,575,590.00

BOARD ACTION

Mr. Lohr moved the following:

In accordance with its responsibilities pursuant to §10.1-603.16 et seq. (Article 1.2) of the Code of Virginia, the Virginia Soil and Water Conservation Board (Board) approves the projects for funding from the Dam Safety, Flood Prevention and Protection Assistance Fund (DSFPPAF) (Fund) in the amounts specified in the attached spreadsheet. The Department received 87 applications requesting \$1,640,574.21 from the Fund, however only \$1.2M was available for award. Fourteen applications totaling \$403,523.65 were denied due to ineligibility or insufficient documentation. Seventy-three applications totaling \$1,154,302.24 are being advanced for approval by the Board. In addition to other terms and conditions as specified in the 2017 DSFPPAF Grant Manual, the Grant Agreement, and as will be determined by the Virginia Resources Authority (VRA), this approval is conditioned upon the following:

1. All grants are made on a reimbursement basis and will be governed by a Grant Agreement developed in consultation with the Virginia Resources Authority. All applicants will be given a period of 90 days to enter into a Grant Agreement following the Agreement being sent. The Department of Conservation and Recreation (Department) is authorized to further extend this date in its discretion and following consultation with VRA.
2. All grant agreements will require that projects be completed within 12 months of the date of execution of the Agreement. Upon receipt of a written request for a project extension with a specified completion date by the Grantee to the Department with a copy to VRA, the Department is authorized to consider such request and may amend the terms of the Agreement and allow a specified extension upon the Department's and the Authority's written approval. Extension requests must be received by the Department not later than 90 days prior to the expiration of the original agreement or grant funds are subject to rescission at the Department's discretion. No extensions shall exceed an additional year without specific Board approval.
3. In the event that any of the above applicants fail to execute a Grant Agreement with VRA within 90 days of such an Agreement being sent to the applicant, the Department, in consultation with VRA, is authorized to rescind those grant funds and allocate in subsequent grant rounds. *Any funds unawarded may be returned to the grant fund.*
4. Special Grant Funds in the amount of \$633,100 for Hearthstone Lake Dam in Augusta County and \$2,942,490 for Lake Pelham and Mountain Run Dams in Culpeper County will be disbursed

by VRA after the funds are received by the Department and transferred to VRA pursuant to Item 364 I.1. of Chapter 836 of the 2017 Virginia Acts of Assembly (2017 Appropriations Act), and other Agreement terms have been satisfied.

The Department is authorized to communicate this approval to the Virginia Resources Authority (VRA) so that VRA's review of applications may proceed. The Department is also authorized to take any action necessary to proceed with the closing and administration of grants subsequent to VRA's approval of the application.

Mr. Street recommended that the motion be amended (as shown above) to clarify that unawarded funds may be returned to the grant fund.

Mr. Lohr accepted the friendly amendment and the amendment was approved.

Mr. Coyner seconded the motion and the motion was approved as amended.

Presentation on Dam Safety Database – James Martin

Mr. Martin gave an overview of the ongoing development of the new Dam Safety Database. A copy of his presentation is included as Attachment B.

SOIL AND WATER CONSERVATION DIVISION REPORT

Mr. Dowling noted that, while a number of the Board members additionally serve a District, they do have slightly different responsibilities to this Board. He noted that have farming and/or District experience is a great asset to the Board and helps strengthen the Board's bond with the Districts, but that the responsibilities as members of this Board vary from those of a District Director. He encouraged Board members to please remember that their statewide responsibility is to oversee Districts and to employ their statewide fiduciary responsibilities in properly protecting the Commonwealth's funding and protecting the Department's bonding of the Districts by putting procedures in place that greatly, but reasonably, reduce the chances for fraud, loss, and other fiscal problems.

Mr. Dowling also reminded the Board regarding the appropriate protocols regarding member e-mails and noted that communications should be routed through Mr. Fletcher.

Approval of Board Policy on Soil and Water Conservation District Administration and Operations Funding Allocations for Fiscal Year 2018

Mr. Dowling reminded the Board that initial discussions regarding the *Policy on Soil and Water Conservation District Administration and Operations Funding Allocations for Fiscal Year 2018* began at the December 2018 meeting. Drafts were presented at the March and April meetings and the document before the Board is for final approval. Mr. Dowling reviewed several minor technical updates with the Board as outlined in the May 20th version of the document.

BOARD ACTION

Mr. Lohr moved and Mr. Coyner seconded that the *Policy on Soil and Water Conservation District Administration and Operations Funding Allocations for Fiscal Year 2018* be approved as submitted by staff. Motion carried unanimously.

Approval of Administration and Operations Contract and Deliverables

Mr. Dowling reviewed the May 20th version of the Administration and Operations Contract and Deliverables.

BOARD ACTION

Mr. Coyner moved that the Board approve the Administration and Operations Contract and Deliverables as presented by staff. Mr. Lohr seconded and the motion carried.

Approval of Board Policy and Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Funding Allocations (Fiscal Year 2018)

Mr. Dowling reviewed the Board Policy and Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Funding Allocations for Fiscal Year 2018. He noted that the version before the Board was the May 9th version provided to members by mail. Mr. Dowling noted that the numbers were updated to reflect the acreage misalignment that was noted to the Board at their April meeting.

BOARD ACTION

Mr. Street moved that the Board approve the Board Policy on Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Funding Allocations for Fiscal Year 2018. Mr. Lohr seconded and the motion carried unanimously.

Approval of Cost-Share and Technical Assistance Contract and Deliverables

Mr. Dowling reviewed the Cost-Share and Technical Assistance Contract and Deliverables and noted that this was the May 9th version sent to the Board.

BOARD ACTION

Mr. Coyner moved that the Board approve the Cost-Share and Technical Assistance Contract and Deliverables as presented by staff. Ms. Kennedy seconded and the motion carried.

Approval of Desktop Procedures for District Fiscal Operations

Mr. Dowling referred members to the May 20th version of the Desktop Procedures for District Fiscal Operations. He noted that changes had been made to address Board comments from the April meeting.

BOARD ACTION

Ms. Kennedy moved that the Board approve the Desktop Procedures for District Fiscal Operations as presented by Mr. Dowling. Mr. Lohr seconded and the motion carried.

Division Update – Darryl Glover

Mr. Glover gave the following written report.

Madam Chairwoman, members of the Virginia Soil and Water Conservation Board, please accept this Soil and Water Conservation Division Report.

Stakeholder Groups

Development work on the BMP Verification application is nearly completed. Scoping work on both the financial database and nutrient management database upgrades are also close to completion. The next phase for these two applications will be development.

Nutrient Management

On May 10th, Dr. Wade Thomason, professor and grain extension specialist at Virginia Tech, presented to the Nutrient Management Leadership Team during a webinar about how Virginia Tech developed a system to estimate crop yields by the soils contained in the field called the Virginia Agronomic Land Use Evaluation System (VALUES). Nutrient management plans are developed using crop yields specific to each field of the farm. However, when a farmer does not have yield records, the VALUES system can be used to establish crop yields of the fields, so a plan can still be developed. This system was originally developed in 1992 and then updated in 2006. There have been some questions asked of DCR in recent months as to the relevance of VALUES in today's agriculture with the advancement of higher yielding seed. Dr. Thomason presented several scenarios based on research and field studies which validated that overall, VALUES is still a dependable system to estimate potential yields. However, he also stated that DCR needs to increase efforts to obtain farmer yield records with which to develop nutrient management plans using those records. As part of the process of verifying nutrient management plans, DCR is working with farmers to keep better written records, including yields.

Shoreline Erosion Advisory Service

DCR staff recently met with Virginia Institute of Marine Science (VIMS) staff from the Center for Coastal Resource Management (CCRM) in Gloucester Point. CCRM staff demonstrated their online suite of coastal management decision tools (<http://ccrm.vims.edu/ccrmp>). These include decision trees for undefended and defended shorelines, GIS data and interactive maps, shoreline inventory maps, shoreline assessment maps, and shoreline best management practices training modules. DCR Shoreline Erosion Advisory Service (SEAS) staff will evaluate these new online tools, along with other resources, in evaluating eroding shorelines and providing advisory assistance to waterfront property owners and provide suggestions to CCRM staff on improvements.

Bruce Pfirrmann has been selected for the Shoreline Erosion Advisory Service (SEAS) internship. This graduate student intern will begin working in early August. As previously reported, Bruce will be located in the Department's Tappahannock Office, under the daily supervision of SEAS Shoreline Engineer, Mike Vanlandingham. He will work with the Virginia Institute of Marine Science, Virginia Marine Resources Commission, and the Virginia Department of Environmental Quality, on the Chesapeake Bay Watershed Implementation Plan project to field verify and prepare data pollution reduction credits for shoreline stabilization projects that were installed over a number of prior years, for submission to the

Environmental Protection Agency Chesapeake Bay Program. Virginia Sea Grant is funding this internship via its inaugural 2017 Commonwealth Coastal and Marine Policy Fellowship.

District Director Resignations and Appointments – Stephanie Martin

Ms. Martin presented the District Director Resignations and Appointments.

Lake Country

Resignation of Samuel D. Piercy, Jr. due to his death, Mecklenburg County, effective April 2017, elected director position (term of office expires 1/1/20).

Appointment of Mark B. Warren, Mecklenburg County, to fill the unexpired term of Samuel D. Piercy, (term of office to begin upon qualifying* through 1/1/20).

Prince William

Resignation of Sandra McLean, Prince William County, effective May 4, 2017, elected director position (term of office expires 1/1/20).

Appointment of Stephanie Cornnell, Prince William County, to fill the unexpired term of Sandra McLean (term of office to begin upon qualifying* through 1/1/20).

*Note: To qualify, an appointed Director shall complete and file the Oath of Office prior to assuming the title and responsibilities of District Director. An appointed Director may not act in the office or function before taking the Oath.

BOARD ACTION

Mr. Lohr moved that the Board approve the District Director Resignations and Appointments as presented by staff. Mr. Street seconded and the motion carried.

District Engineering Services Update – Amanda Pennington

Ms. Pennington gave an update regarding District Engineering Services.

DCR has been working to move job approval authority forward. Staff have met with the Department of Professional and Occupational Regulation (DPOR) and plan to make a presentation to the DPOR Board. DCR also has been recertifying District staff who previously had NRCS job approval authority. Review of twenty-one districts has been completed. Eight more are scheduled through the end of June.

Ms. Pennington advised that staff would give a more detailed and updated report at the next Board meeting.

OLD BUSINESS

There was no old business.

NEW BUSINESS

Chairman Jamison expressed a concern regarding the FY 2017 Self-Assessment sent to Districts. She noted that the document seemed more extensive than in the past.

Mr. Dowling advised that the document was created and based on the grant deliverables and was designed to be a volunteer self-assessment that allows Districts to evaluate their work that is measured against the deliverables. He noted that it looked considerably different from last year's as the form had been changed from Word to Excel format.

Mr. Street requested that the Subcommittee be provided the list of deliverables and the self-assessment for review and consideration of future products.

PUBLIC COMMENT

Virginia Association of Soil and Water Conservation Districts

Dr. Tyree reported that the Envirothon was completed the day before. Nineteen teams, competed. All were winners at their respective area competitions. The Ft. Defiance team from the Headwaters SWCD will advance to the national competition.

The Association's quarterly Board meeting will be held on June 20 and 21, 2017. The first day will include training from the Association's Attorney General contact, as well as a review of the operations guide and personnel management guide. VSWCB members are encouraged to attend.

The Association Annual Meeting will be held December 3-5, 2017 at the Portsmouth Renaissance hotel in Portsmouth, Virginia.

COIA/FOIA TRAINING – *Matthew Gooch, Office of the Attorney General*

Mr. Gooch presented the annual overview of the Freedom of Information Act (FOIA) and the Conflict of Interest Act (COIA).

Mr. Gooch noted that questions regarding FOIA should be directed to Mr. Fletcher as the DCR FOIA Officer. Questions regarding COIA should be directed to the Office of the Attorney General.

NEXT MEETING

The need for a September Board meeting is to be determined.

The Board will meet on Wednesday, December 6, 2017 at the Portsmouth Renaissance Hotel, following the Annual Meeting of the Virginia Association of Soil and Water Conservation Districts.

ADJOURN

There was no additional business and the meeting adjourned at 2:00 p.m.

Respectfully submitted,

Daphne W. Jamison
Chair

Clyde E. Cristman
DCR Director

Attachment A

Department of Conservation and Recreation
 Dam Safety, Flood Prevention and Protection Assistance Fund
 2017 Grant Round Funding Recommendations of Approval to Soil and Water
 Conservation Board
 May 23, 2017

Project #	Inventory No.	Dam Name	County	Project Type	Requested From Fund	Reduction Applied	Funding Recommendation
DSFP-01-17	12703	Diascund Creek Dam	New Kent County	Geotechnical Analysis for Dam/Spillway Stability	19,650.00	-	19,650.00
DSFP-02-17	15303	Lake Montclair Dam	Prince William County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	35,350.00	-	35,350.00
DSFP-03-17	00926	Tusculum Dam	Amherst County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	25,000.00	-	25,000.00
DSFP-04-17	00907	Lower Izaak Walton Dam	Amherst County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	6,449.00	-	6,449.00
DSFP-05-17	00907	Lower Izaak Walton Dam	Amherst County	Emergency Action Plan Development	2,655.00	-	2,655.00
DSFP-06-17	00932	Upper Izaak Walton Dam	Amherst County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	6,449.00	-	6,449.00
DSFP-07-17	00932	Upper Izaak Walton Dam	Amherst County	Emergency Action Plan Development	2,655.00	-	2,655.00
DSFP-08-17	17907	Little Lake Arrowhead Dam	Stafford County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	3,600.00	-	3,600.00
DSFP-09-17	17907	Little Lake Arrowhead Dam	Stafford County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	11,570.00	-	11,570.00
DSFP-10-17	17908	Lake Arrowhead Dam	Stafford County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	9,150.00	-	9,150.00
DSFP-11-17	17908	Lake Arrowhead Dam	Stafford County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	17,702.00	-	17,702.00
DSFP-12-17	14383	Lewis and Clark Dam	Pittsylvania County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	7,500.00	-	7,500.00
DSFP-14-17	03702	Roanoke Creek Dam #72A	Charlotte County	Spillway Capacity Analysis	12,565.00	-	12,565.00
DSFP-15-17	01936	Eagle Eyrie Lake	Bedford County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	12,090.00	-	12,090.00
DSFP-16-17	01936	Eagle Eyrie Lake	Bedford County	Emergency Action Plan Development	12,090.00	-	12,090.00
DSFP-17-17	16304	Moore's Creek Dam	Rockbridge County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	47,800.00	27,800.00	20,000.00
DSFP-18-17	16304	Moore's Creek Dam	Rockbridge County	Emergency Action Plan Development	14,250.00	8,750.00	5,500.00
DSFP-19-17	16304	Moore's Creek Dam	Rockbridge County	Spillway Capacity Analysis	5,975.00	2,475.00	3,500.00
DSFP-21-17	01509	South River Dam #6	Augusta County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	15,000.00	-	15,000.00
DSFP-22-17	01514	South River Dam #19	Augusta County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	15,000.00	-	15,000.00
DSFP-23-17	01522	South River Dam #7	Augusta County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	15,000.00	-	15,000.00
DSFP-24-17	05106	Laurel Lake Dam	Dickenson County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	18,550.00	-	18,550.00
DSFP-25-17	05106	Laurel Lake Dam	Dickenson County	Alternatives Analysis for Spillway Capacity and Stability	12,550.00	-	12,550.00
DSFP-26-17	05106	Laurel Lake Dam	Dickenson County	Probable Maximum Precipitation Impact Analysis and Certification	500.00	-	500.00
DSFP-27-17	05106	Laurel Lake Dam	Dickenson County	Spillway Capacity Analysis	3,400.00	-	3,400.00
DSFP-28-17	00503	Clifton Forge Dam	Alleghany County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	95,000.00	-	95,000.00
DSFP-29-17	00503	Clifton Forge Dam	Alleghany County	Geotechnical Analysis for Dam/Spillway Stability	37,500.00	-	37,500.00
DSFP-30-17	01922	Ivy Hill Dam	Bedford County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	29,496.00	-	29,496.00
DSFP-31-17	01515	Camp Shenandoah Dam	Augusta County	Gate Valve Evaluation and Repair; Includes Other Water Elevation Control Mechanisms	12,000.00	1,750.00	10,250.00
DSFP-32-17	03102	Timberlake Dam	Campbell County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	7,220.00	-	7,220.00
DSFP-34-17	06113	Barr Dam	Fauquier County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	9,700.00	-	9,700.00
DSFP-35-17	13505	Hamilton Dam	Nottoway County	Probable Maximum Precipitation Impact Analysis and Certification	175.00	-	175.00
DSFP-36-17	13505	Hamilton Dam	Nottoway County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	1,000.00	-	1,000.00
DSFP-37-17	09502	Horne's Lake Dam	James City County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	6,000.00	-	6,000.00
DSFP-38-17	06706	Jones Dam	Franklin County	Spillway Capacity Analysis	3,000.00	-	3,000.00
DSFP-39-17	06706	Jones Dam	Franklin County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	7,500.00	-	7,500.00
DSFP-40-17	06706	Jones Dam	Franklin County	Graded Filter Drain and/or Toe Drains/Underdrains	10,000.00	-	10,000.00
DSFP-41-17	00353	Hollymead Dam	Albemarle County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	114,400.00	29,200.00	85,200.00
DSFP-44-17	04906	Pearsall Dam (Old Name:Garrett)	Cumberland County	Spillway Capacity Analysis	935.71	-	935.71
DSFP-45-17	04906	Pearsall Dam (Old Name:Garrett)	Cumberland County	Probable Maximum Precipitation Impact Analysis and Certification	3,664.93	-	3,664.93
DSFP-46-17	04906	Pearsall Dam (Old Name:Garrett)	Cumberland County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	7,617.39	-	7,617.39
DSFP-47-17	04906	Pearsall Dam (Old Name:Garrett)	Cumberland County	Incremental Damage Analysis for Reduction of Required Spillway Design Flood	1,880.71	-	1,880.71
DSFP-48-17	04906	Pearsall Dam (Old Name:Garrett)	Cumberland County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	12,217.50	-	12,217.50
DSFP-49-17	06123	Winslow Dam	Fauquier County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	18,000.00	-	18,000.00
DSFP-50-17	06123	Winslow Dam	Fauquier County	Hazard Classification Analysis and/or ACER TM-11	10,000.00	5,000.00	5,000.00
DSFP-51-17	06123	Winslow Dam	Fauquier County	Emergency Action Plan Development	3,000.00	-	3,000.00
DSFP-52-17	Not Assigned	Glen Lochan Dam	Albemarle County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	4,700.00	750.00	3,950.00
DSFP-53-17	Not Assigned	Glen Lochan Dam	Albemarle County	Probable Maximum Precipitation Impact Analysis and Certification	2,250.00	-	2,250.00
DSFP-54-17	Not Assigned	Glen Lochan Dam	Albemarle County	Emergency Action Plan Development	1,100.00	-	1,100.00
DSFP-55-17	Not Assigned	Glen Lochan Dam	Albemarle County	Hazard Classification Analysis and/or ACER TM-11	1,240.00	-	1,240.00
DSFP-56-17	05909	Lake Anne Dam	Fairfax County	Hazard Classification Analysis and/or ACER TM-11	7,295.00	-	7,295.00
DSFP-58-17	00310	Smiths Dam	Albemarle County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	7,833.27	33.27	7,800.00
DSFP-64-17	00310	Smiths Dam	Albemarle County	Alternatives Analysis for Spillway Capacity and Stability	3,000.00	-	3,000.00
DSFP-65-17	72001	Lower Norton Reservoir Dam	City of Norton	Repair of Erosion or Deterioration of Dam and/or Appurtenant Structures	16,100.00	-	16,100.00

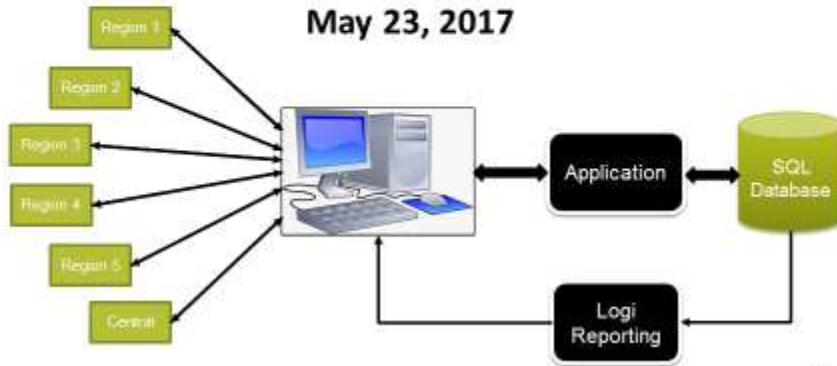
DSFP-66-17	01915	Ramsey Dam	Bedford County	Emergency Action Plan Development	2,375.00	-	2,375.00
DSFP-67-17	01915	Ramsey Dam	Bedford County	Repair of Erosion or Deterioration of Dam and/or Appurtenant Structures	450.00	-	450.00
DSFP-68-17	01915	Ramsey Dam	Bedford County	Spillway Capacity Analysis	2,500.00	-	2,500.00
DSFP-69-17	01915	Ramsey Dam	Bedford County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	10,000.00	-	10,000.00
DSFP-70-17	05705	Cheatswood Mill Dam	Essex County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	30,000.00	-	30,000.00
DSFP-71-17	09315	Smithfield Lake Dam	Isle of Wight County	Hazard Classification Analysis and/or ACER TM-11	11,990.00	6,990.00	5,000.00
DSFP-72-17	09315	Smithfield Lake Dam	Isle of Wight County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	6,125.00	-	6,125.00
DSFP-73-17	09315	Smithfield Lake Dam	Isle of Wight County	Emergency Action Plan Development	5,290.00	-	5,290.00
DSFP-74-17	12701	Woodhaven Dam	New Kent County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	7,500.00	-	7,500.00
DSFP-75-17	17902	Potomac Creek Dam #1	Stafford County	Alternatives Analysis for Spillway Capacity and Stability	65,000.00	-	65,000.00
DSFP-76-17	17902	Potomac Creek Dam #1	Stafford County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	135,000.00	-	135,000.00
DSFP-77-17	(blank)	Floodplain Project	Christiansburg	Community Outreach, Information and Educational Programs	75,000.00	-	75,000.00
DSFP-78-17	01906	Springhill Lake Dam	Bedford County	Emergency Action Plan Development	1,180.00	-	1,180.00
DSFP-79-17	01906	Springhill Lake Dam	Bedford County	Gate Valve Evaluation and Repair; Includes Other Water Elevation Control Mechanisms	5,000.00	-	5,000.00
DSFP-80-17	01906	Springhill Lake Dam	Bedford County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	6,065.00	-	6,065.00
DSFP-81-17	01906	Springhill Lake Dam	Bedford County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	17,000.00	-	17,000.00
DSFP-84-17	19901	Harwood's Mill Dam	York County	Alternatives Analysis for Spillway Capacity and Stability	17,500.00	-	17,500.00
DSFP-85-17	19901	Harwood's Mill Dam	York County	Principle and/or Emergency Spillway and/or Trash Rack Repair/Replacement	65,000.00	-	65,000.00
DSFP-87-17	01915	Ramsey Dam	Bedford County	Dam Break Inundation Zone Analysis, Mapping, and Digitization	7,750.00	-	7,750.00
Total Approved					1,237,050.51	82,748.27	1,154,302.24

ATTACHMENT B



**Virginia Department of Conservation and Recreation:
 Dam Safety Inventory System
 Virginia Soil and Water Conservation Board Meeting**

May 23, 2017



1

Dam Safety Regions and Contacts

REGION 1
 Zhengang "Michael" Wang, PE., Ph.D., C.F.M.
 Regional Dam Safety Engineer
 96 Alexandria Pike, Suite 33
 Warrenton, VA 20186-2849
 804-351-1587
 Zhengang.Wang@dcr.virginia.gov

REGION 2
 Mark W. Kilgore, PE., D.WRE, F.ASCE
 Regional Dam Safety Engineer
 803 E. Main St., 24th Floor
 Richmond, VA 23219
 804-786-1369
 Mark.Kilgore@dcr.virginia.gov

REGION 3
 Scott J. Thomas, PE.
 Regional Dam Safety Engineer
 600 E. Main St., 24th Floor
 Richmond, VA 23219
 804-625-3994
 Scott.Thomas@dcr.virginia.gov

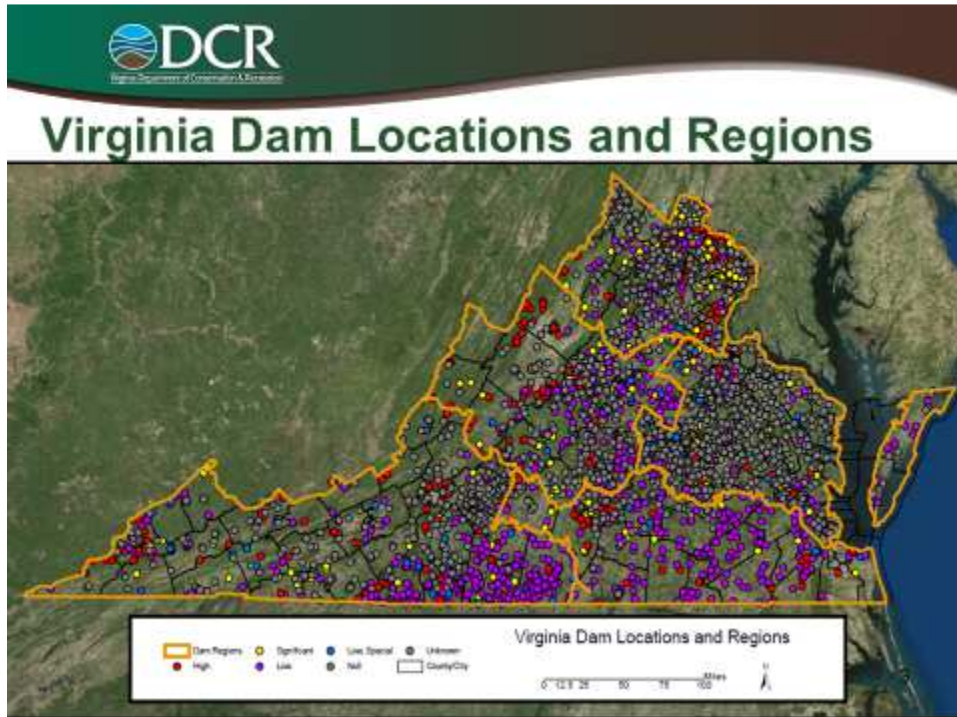
REGION 4
 Thomas I. Roberts, PE., C.F.M.
 Regional Dam Safety Engineer
 8 Radford St., Suite 201
 Christiansburg, VA 24073
 540-394-2550
 Thomas.Roberts@dcr.virginia.gov


REGION 5
 Robert J. VanLier, PE.
 Regional Dam Safety Engineer
 900 Natural Resources Drive, Room 2028
 Fontaine Research Park
 Charlottesville, VA 22903
 434-244-0653
 Robert.VanLier@dcr.virginia.gov

David C. Dowling – Deputy Director
 Dam Safety and Floodplain Management
 and Soil and Water Conservation
 804-786-2291
 David.Dowling@dcr.virginia.gov

Virginia Department of Conservation and Recreation
 600 E. Main St., 24th Floor
 Richmond, VA 23219


M/16/17





Where are we now?

- Citric Server
- Access Database
- General Data Storage
- No Outputs
- No Spatial Data (Lat/Long)
- No Individual Documents or Attachments
 - Permits
 - Inspections
 - Certificates
 - EAPs
- File Cabinets
- Paper Reports
- Scattered Electronic Files



Dam ID	Dam Name	County	Location
00001	Ball Lake Dam	Allegheny County	Allegheny County
00002	Ball Lake Dam	Allegheny County	Allegheny County
00003	Ball Lake Dam	Allegheny County	Allegheny County
00004	Ball Lake Dam	Allegheny County	Allegheny County
00005	Ball Lake Dam	Allegheny County	Allegheny County
00006	Ball Lake Dam	Allegheny County	Allegheny County
00007	Ball Lake Dam	Allegheny County	Allegheny County



 **Program Challenges**

- Too Much Paper!
- Multiple Storage Locations
- Tracking Compliance
- Finding Data
- Sharing Data
- **Responding to Emergency Requests**



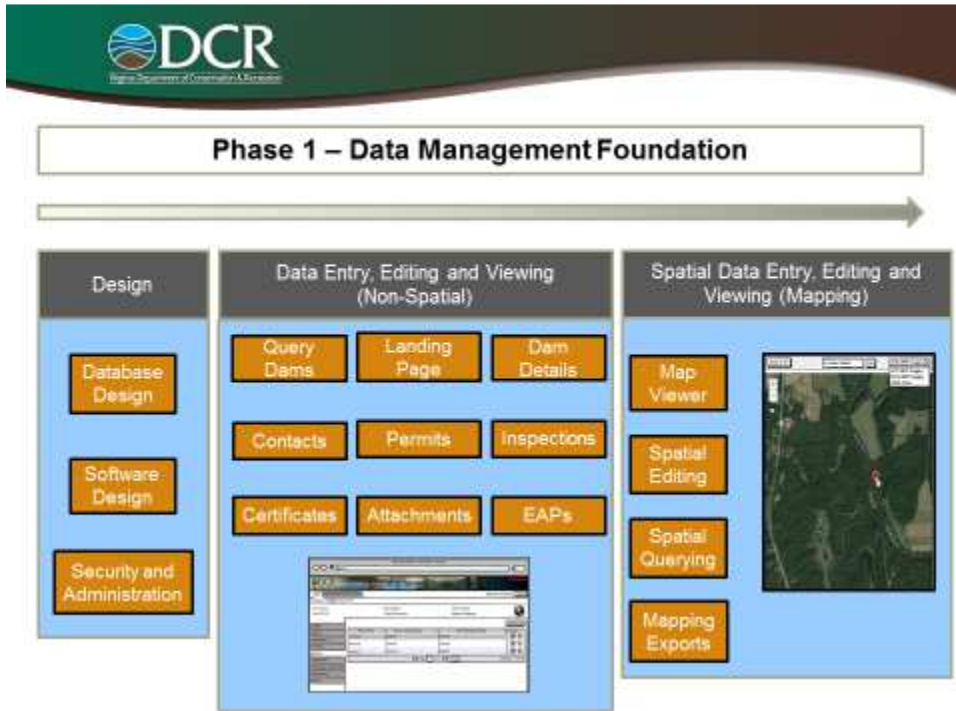
5

 **Program Goals**

- Digital Files and Attachments
- Centralized Database
- Simplified Tracking
- Quickly Find Data
- Export Reports and Files for Sharing
- Public Facing
- Quickly Respond to Emergency Requests



6



Record Querying

Id Number	Dam Name	Dam Other Name	Damlet Name	Dam Region	City/County	Regional Engineer	Hazard Classification	Dam Size	Dam Type
03101	Little Felling River Dam #1			3	Campbell County	Regional Engineer	Significant	3	Earth
03102	Little Felling River Dam #2			3	Campbell County	Regional Engineer	Significant	3	Earth
03104	Little Felling River Dam #3			3	Campbell County	Regional Engineer	Significant	1	Earth
03105	Lakewood Dam	Lynch Dam		3	Campbell County	Regional Engineer	Significant	3	Earth
03106	Brookline Dam	PHILIPS GREEN DAM		3	Campbell County	Regional Engineer	Significant	0	Earth
00804	Walker Mason Dam	0190201003		2,4	Bedford County/City of Lynchburg	Regional Engineer	Significant	1	Earth
01913	Rainey Dam	Edgum Dam 00586, Huntington Dam		2,4	Bedford County/City of Lynchburg	Regional Engineer	Significant	1	Earth

The screenshot shows a user interface for a dam management system. At the top, there are navigation links for 'Home', 'Administration', and 'My Account', along with a 'Welcome, [username]' message and a 'Logout' button. Below this, the 'Dam Name' is 'Dam ID: 101'. The main content area is divided into three sections:

- Recent Inspections:** A table with columns for 'Inspection Date' and 'Overall Condition Assessment'. It lists three inspections with dates 5/21/17, 1/21/16, and 2/15/16. A yellow callout box says 'Click on a record to jump to that record's details page.' Below the table is a pagination control showing 'Page 1 of 1' and 'Viewing 1 - 3 of 3'.
- Upcoming Inspections:** A table with a single column for 'Inspection Date' listing 1/21/18, 1/21/19, and 1/21/20. Below the table is a pagination control showing 'Page 1 of 1' and 'Viewing 1 - 3 of 3'.
- Upcoming Expirations:** A table with columns for 'Document Type' and 'Expiration Date'. It lists three items: 'Permit' (2/27/17), 'Certificate' (2/1/18), and 'Permit' (3/31/18). Below the table is a pagination control showing 'Page 1 of 1' and 'Viewing 1 - 4 of 4'.

On the left side, there is a vertical navigation menu with items: 'Details', 'Events', 'Inspections', 'Documents', 'Contacts', 'Permits', 'Certificates', 'Emergency Action Plans', 'Attachments', and 'History'.

Record Dashboard

10

The screenshot shows a 'General' form for a dam record. At the top, there are navigation links for 'Home', 'Administration', and 'My Account', along with a 'Welcome, [username]' message and a 'Logout' button. The 'Dam Name' is 'Actuator Gate Dam' and 'Dam ID' is '0000'. The 'Dam Region' is 'Unknown' and the 'Owner Name' is 'Regional Engineer - Regional Engineer'. The left sidebar has a red box around the 'General' menu item. The main form fields include:

- Dam Name:** Actuator Gate Dam
- Other Dam Name:** Habitat Park Pond
- Hazard Classification:** Unknown
- Dam Size:** Small (15-1,000 ac. @ 6-40')
- Dam Constructed:** (empty field)
- Is Date Estimated:** Yes No
- Reason or Purpose:** Purpose: Recreation, Level of Importance: Primary
- Dam Type:** Type: Earth, Level of Importance: Primary
- Regional Engineer:** (empty field)
- Comments:** (empty text area)

At the bottom of the form are 'Save' and 'Cancel' buttons.

11

The screenshot shows the 'Technical Basics' section of the system. The dam information is as follows:

- Dam Name: Martha Jefferson Retention
- Dam Region: Hazar
- Hazard Classification: Significant
- Owner Name: Regional Engineer, Regional Engineer
- Dam ID: 00026

The 'Technical Basics' table contains the following data:

Field	Value
Length (Feet)	0
Normal Pool Area (Acres)	1.52
Normal Pool Capacity (Acre-Feet)	8.4
Normal Pool Elevation (Feet)	441
Normal Pool Height (Feet)	25.5
Top Capacity (Acre-Feet)	20.4
Top Elevation (Feet)	451.1
Top Height (Feet)	30
Top Surface Area (Acres)	3.28
Maximum Discharge (CFS)	
Hydraulic Height (Feet)	
Structural Height (Feet)	

Dam Data Entry, Editing, and Viewing - Contacts

The screenshot shows the 'Contacts' section of the system. The dam information is as follows:

- Dam Name: Martha Jefferson Retention
- Dam Region: Hazar
- Hazard Classification: Significant
- Owner Name: Regional Engineer, Regional Engineer
- Dam ID: 00026

The 'Contacts' table contains the following data:

Contact Type	Contact Name	Email	Phone Number	Primary
Owner	janebow	fake@fake.com	555-555-5555(Office)	yes
Owner Professional Engineer	TedPerson	fake@email.com	555-555-5555(Mobile)	no
Dam Representative	janebow	email@email.com	555-555-5555(Mobile)	no

DCR Virginia Department of Conservation & Recreation

Home Administration My Account Welcome, "Administrator" Logout

Demo > 00026 > Contacts > Jane Doe

Dam Name: Martha Jefferson Retention Basin Dam
 Dam Region: Hazard Classification: Significant
 Owner Name: Regional Engineer, Regional Engineer

General Registered Watched Technical Basics Technical Hydraulics Technical Structure Technical Systems **Contacts** Inspections Permits Certificates Emergency Action Plans Attachments

First Name: Jane
 Last Name: Doe
 Organization:
 Active: No
 Primary Contact: No
 Contact Type: Owner Representative
 Owner Type:
 VA PE License Number:
 Emails:
 Email Address: email@email.com Primary: Yes
 Address:
 Address(es): 123 Fake St, Richmond, VA 23218 Primary: Yes
 Phone:
 Phone Number(s): 555-555-5555 (Mobile), 555-555-5577 (Home) Primary: Yes, No
 Federal Involvement Owner: Not Applicable

Edit



Inspections

DCR Virginia Department of Conservation & Recreation

Home Administration My Account Welcome, "Administrator" Logout

Demo > 00026

Dam Name: Martha Jefferson Retention Basin Dam
 Dam Region: Hazard Classification: Significant
 Owner Name: Regional Engineer, Regional Engineer


General Add Inspection

Registered None. Right click to view actions

Inspection Date	Condition	Inspection Type	Organization	Inspector Name
05-01-2015	Satisfactory	Owner	(John Doe)	Jane Doe
05-02-2016	Satisfactory	Engineer	(John Doe)	John Doe
05-01-2017	Unsatisfactory	Owner	(John Doe)	Jane Doe


1 2 3 4 5 10

General Registered Watched Technical Basics Technical Hydraulics Technical Structure Technical Systems **Inspections** Permits Certificates Emergency Action Plans Attachments

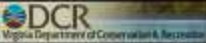


Inspections

Intake Structure	Yes
Deterioration of concrete?	
Exposure of rebar reinforcement?	No
Is there a need to repair or replace the trash rack?	No
Any problems with debris?	Yes
Comments: Intake is completely clogged. Dam can not drain.	
Was the drawdown valve operated?	No



16



Virginia Department of Conservation & Recreation

Virginia Dam Safety Inventory System

Home Administration My Account Welcome, "username" Logout

▼ Dams 00026

Dam Name: Martha Jefferson Retention Dam Region: Basin Dam Hazard Classification: Significant Owner Name: Regional Engineer Regional Engineer

Dam ID: 00026

General Add Permit

Regulated

00026	Permit Type	Approval Date	Expiration Date	Issued By
Approved	Construction Permit	05-01-2015	04-28-2017	
Approved	Alteration Permit	05-01-2017	05-01-2018	

Note: Right click to view actions

Technical: Safety

Technical: Hydrology / Hydraulics

Technical: Structure

Technical: Spillway

Contact

Inspection

Permits

Permits

17

Permits

Permit Details

Status: Approved

Permit Type: Alteration Permit

Permit Approval Date: 2017-05-01

Permit Expiration Date: 2018-05-01

Date entered: 5/17/2017

Issued By: [blank]

Proposed Construction/Alteration: **increase spillway capacity to meet new FERC standards.**

Designed By: John Doe

Constructed By: Jane Doe

Federal Involvement Design: Not Applicable

Federal Involvement Construction: Not Applicable

18

DCR
Virginia Department of Conservation & Recreation

Home Administration My Account Welcome, "jarsadmin" Logout

► Dams ► 00026

Dam Name: Martha Jefferson Retention Dam Region: Hazard Classification: Significant Owner Name: Regional Engineer Regional Engineer

Dam ID: 00026 [Add Certificate](#)

Regulated	Status	Certificate Type	Approval Date	Effective Date	Expiration Date
Waterfall	Approved	Regular Operation and Maintenance Certificate	05-01-2015	04-01-2015	04-28-2017
Technical Basin	Development	Conditional Certificate	05-01-2017	05-01-2017	05-01-2018

Technical Hydrology / Hydraulics

Technical Structure

Technical Spillway

Contacts

Inspections

Permits

Certificates

Certificates



Certificates

Hazard Designation

Is the hazard classification for the impounding structure appropriate? false

Additional Comments: New development has increased hazard class to "High"

Is additional work needed to make appropriate hazard designation? true

Description of any needed additional work: Spillway design needs to be increased to meet new hazard classification.

[Edit](#)



Home Administration My Account Welcome, "msadmf" Logout

▼ Dam 00026

Dam Name: Warho Jefferson Retention Dam Region: Hazard Classification: Significant Owner Name: Regional Engineer Regional Engineer

Basin Dam Dam ID: 00026

General Add EAP

Regulated

Approved

Status	EAP Type	Approval Date	Expiration Date
Approved	EAP	05-01-2017	07-01-2019

Technical Overview

Technical Hydraulics / Hydrology

Technical Structure

Technical Spillway

Contacts


Inspections

Permits

Certificates

Emergency Action Plans

Emergency Action Plans



Emergency Action Plans

Amount Of Rainfall That Will Initiate

Stage I Emergency

Inches per 6 hrs	1
Inches per 12 hrs	2
Inches per 24 hrs	3

Stage II Emergency

Inches per 6 hrs	4
Inches per 12 hrs	5
Inches per 24 hrs	6

Stage III Emergency

Inches per 6 hrs	7
Inches per 12 hrs	8
Inches per 24 hrs	9

Frequency Of Observations For

Stage I	12 Hour
Stage II	6 Hour
Stage III	Continuous

Multiple Associated Roads Including


Route Number	15
Length of Route Affected	2
Route Number	30
Length of Route Affected	1.5

Downstream Impact Summary (Count)

Occupied Residential Dwelling	10
Schools	4
Hospitals	1
Business	10
Railroads	1
Utilities	1
Parks	1
Golf Courses	1
Public Trails	0
Critical Emergency Infrastructure	2



[Exit](#)


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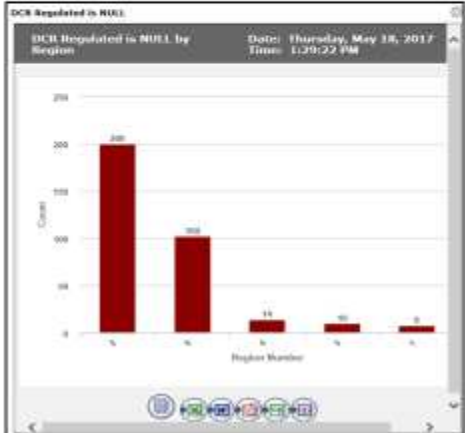


Leveraging Logi

- Summary Reports
- QAQC Reports
- Data Visualizations









DCR Regulated in NREI by Region
 Date: Thursday, May 18, 2017
 Time: 1:29:22 PM

Region	Count
1	200
2	100
3	10
4	10
5	5



ID	Region	County	Regulation Type	Regulated By	Size	Qualification
1234	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1235	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1236	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1237	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1238	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1239	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1240	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1241	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1242	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1243	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1244	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1245	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1246	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1247	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1248	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1249	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100
1250	1	Stafford County	Private Well/Structure	Private Well/Structure	100	100

DCR
Virginia Department of Conservation & Recreation

Virginia Dam Safety Inventory System

Welcome, "jrusadmin" | Logout

Dams > 00026

Dam Name: Martha Jefferson Retention Dam Region: Hazard Classification: Significant Owner Name: Regional Engineer, Regional Engineer
 Basin: Dam
 Dam ID: 00026

Attachments

Preview	File Name	Attachment Name	File Size	Attachment Type	Document Date
	Book1.xlsx	test	0.01 MB	Miscellaneous	Remove
	DCRlogo.jpg	test	0.01 MB	Miscellaneous	Remove
	Presentation1.pdf	test	0.02 MB	Miscellaneous	Remove
	Presentation1.png	test	0.10 MB	Miscellaneous	Remove
	Presentation1.pptx	test	0.11 MB	Miscellaneous	Remove
	Presentation1.zip	test	0.01 MB	Miscellaneous	Remove
	Test file.docx	test	0.01 MB	Miscellaneous	Remove

Notes

The maximum file size is 100 MB
 Only file types (.jpg, .jpeg, .png, .gif, .pdf, .doc, .docx, .xls, .xlsx, .ppt, .pptx, .zip, .rar, .zip) are allowed

DCR
Virginia Department of Conservation & Recreation

Spatial Data Querying and Mapping Interface

DCR Dam Safety - Dam Name - Location

Map Administration My Account Welcome, Workbook Logout

Dashboard > Dams > Dam #02 > Location

Dam Name: Dam ID: 02 Dam Region: Dam Description: Owner Name: Regional Engineer

Dam Location: [Full Screen](#) [TOC](#)

Tools: Map Export Location Search Go DCR VMAP Imagery EDPA VMAP Imagery USGS Topo

Zoom to XY

Select Units: **Decimal Degrees**
 Latitude: Degrees, Minutes, Seconds
 Longitude: Degrees, Decimal Minutes
 UTM (Planned) [Go](#)

Map Export

Export As: **PNG**
 ZIP
 PDF
 Standard
 Medium
 Best

Resolution Quality: Sliver Overlay

Width:
 Height: [Export](#)

Identify Features

SRID: 3147
 WKID: 3147
 Invulsion Area: YES
 FEMA Floodplain: NO
 Sole: NO
 VA House District: 14
 VA Senate District: 14
 US Congressional District: 11
 County: Loudoun

Spatially Related Information

Dam Location: 37.786424, -78.228443

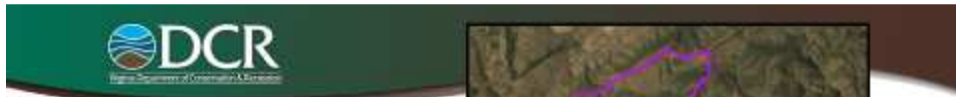
Municipality:
 HUC12 Watershed Code:
 HUC10 Watershed Code:
 HUC02 Watershed Name:
 DWCD:
 VA House District:
 VA Senate District:
 US Congressional District:
 Dam Safety Region:
 USGS Type Code:



Core Spatial Data Example Leatherwood Creek Dam #5 – Dam Point and Waterbody



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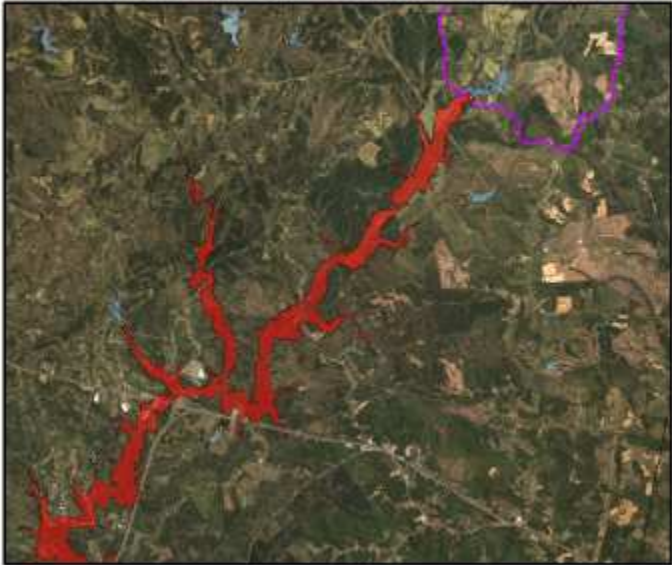
Leatherwood Creek Dam #5 - Watershed



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Leatherwood Creek Dam #5 - Inundation Zones



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Homes at Risk



Development and Businesses at Risk





Virginia Department of Conservation and Recreation

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