

Hidden Lake Dam Upgrades and Service District

Rappahannock/Rapidan Regional
Commission

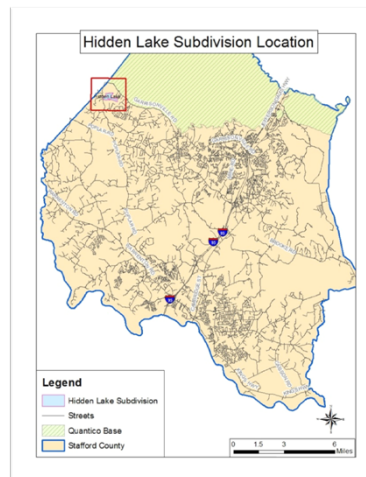
November 18, 2014

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Background

- Hidden Lake
 - Located in NW corner of Stafford County
 - 1960's era recreational community
 - Weekend homes transition to permanent residences
 - Approximately 100 residences



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Dam Background

- Hidden Lake Dam
 - Constructed in 1952 as a recreational lake
 - Drainage Area=0.67/sq miles
 - Size=8.7 acres
 - Normal Pool=13.8 feet
 - Dam height=20 feet
 - Storage=120 acre feet
 - Hazard classification = Significant
 - Subdivision street crosses dam, necessary for access



Regulatory Background

- 2002- VA amends Dam Safety regulations; Hidden Lake becomes regulated and upgrades are needed
- 2006-Hidden Lake adopts neighborhood service district to provide a finance mechanism for dam repairs and other neighborhood maintenance
- 2007-VA SWCB approves alteration permit based on design plans
- 2008-Dam upgrades begin and are completed
- 2009-Regular O&M certificate issued on January 30



Required Upgrades

- Dam Upgrades
 - Replace earthen spillway and install concrete spillway to increase SDF (spillway design flood) with improved plunge pool
 - Re-grade dam slopes and armor both sides with Class I Riprap
 - Clear and remove trees within 25 feet of downstream embankment

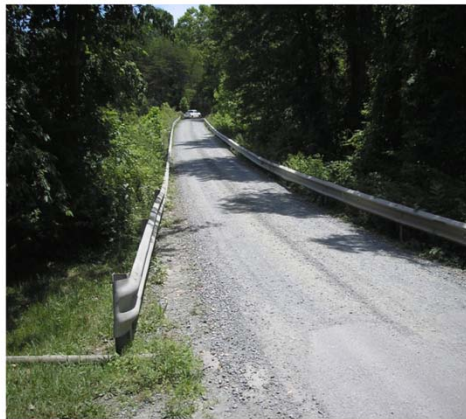


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Spillway Upgrades



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Slope Upgrades



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Completed Project



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Service District Background

- A Service District was created pursuant to the Code of Virginia to fund dam upgrades and road maintenance in the community (private roads)
- A petition was received from 60% of the property owners and submitted to the Board of Supervisors; the Board adopted the District on January 3, 2006
- The bylaws require an Advisory Board for the Service District which is comprised of 3 neighborhood residents which are appointed by the Community Association and 2 County staff members; all members must be appointed by the Board of Supervisors



Service District Background

- The Service District levies an additional tax to all property owners in the Hidden Lake Subdivision
- This tax results in the collection of approximately \$100,000 in revenue annually
- This revenue is utilized to repay the cost of the financing of the dam repairs (\$60,000 annually), annual road and dam maintenance (\$35,000) and offsets the cost of County staff time (\$5,000)



Dam Upgrade Financing Background

- Financing for the dam project was provided by the Virginia Resources Authority in the amount of \$800,000 for construction, construction engineering inspections etc.
- 20 year loan term
- Loan secured with a County owned park property



Acknowledgements

- Barry Fitz-James, Assistant Director of Public Works (Retired)
- Mike Claud, Timmons Group (Design Engineer)
- Shelley Carmichael, Assistant Director of Finance (Retired)
- Resident Members of Hidden Lake Service District Advisory Board



Questions/Discussion?

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