LAKE ACCOTINK PARK MASTER PLAN REVISION

LAKE SUSTAINABILITY UPDATE MEETING

Sept 19, 2019
WELCOME

- INTRODUCTIONS
- PARK MASTER PLANNING PROCESS
- LAKE MANAGEMENT OPTIONS PREVIOUSLY PRESENTED
- PUBLIC INPUT SUMMARY
- ADDITIONAL LAKE MANAGEMENT STUDY
- STAFF RECOMMENDED OPTION
- BUDGET PROCESS
- NEXT STEPS
## THE MASTER PLAN PROCESS

<table>
<thead>
<tr>
<th>Dates</th>
<th>Master Plan Steps</th>
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<tbody>
<tr>
<td>Spring, 2016</td>
<td>• Research / Site Analysis</td>
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<td>• Public Information Meetings and Workshops Including Lake Sustainability</td>
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THE MASTER PLAN PROCESS

DEVELOPMENT OF MASTER PLAN TO DATE

• 5 public meetings/workshops held with community
  • Facilities, Programming & Usage
  • Natural and Cultural Resources
  • Trails
  • Lake Management

• Natural resource studies were conducted to inventory critical plant and wildlife species

• Lake Management Study Completed
The Lake Accotink Watershed encompasses 19,626 acres or 30 square miles with 60.5 miles of streams.

The current size of the lake is approximately 55 acres.
Lake Accotink has been dredged three times over the past 40 years.

Previous dredging was completed in May 2008 ($10 Mil.) and removed 193,000 CY of sediment.

An average of 20,000 CY of sediment is deposited in the lake per year.

The estimated average depth of the lake is 4 feet and will continue to decrease over time without intervention.
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<td>OPT A NO DIRECT MANAGEMENT</td>
<td>Allow lake to continue to fill with silt.</td>
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<tr>
<td>OPT B INITIAL DREDGE WITH MAINTENANCE DREDGING</td>
<td>Initial dredge to restore lake to average 8 ft depth with maintenance dredging program to maintain lake depth.</td>
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<tr>
<td>OPT C INITIAL DREDGE WITH FOREBAY &amp; MAINTENANCE DREDGING</td>
<td>Initial dredge to restore lake to average 8 ft depth and the creation of a forebay.</td>
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<td>OPT E STREAM WITH RECLAIMED LAND</td>
<td>Restoration of Accotink Creek to its form prior to being dammed.</td>
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<tr>
<td>OPT F STREAM WITH SMALLER LAKE</td>
<td>Existing dam would be modified to form a single stream channel and the landscape would be sculpted to retain a smaller lake for recreational purposes.</td>
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*Option D “Beaver Dams” was previously removed from consideration due to a one-time limited sediment removal benefit.*
Lake Management Outreach

April 30, 2018 - The lake management options were shared with the community and a questionnaire was circulated to solicit input on the lake management options.

Community Input

• 1,310 responses were received via the questionnaire. 90% of respondents favored having a lake with 65% in favor of retaining the existing footprint of the lake through dredging.

• Additionally Save Lake Accotink, a non-profit organization, collected 4,168 signatures on a petition in favor of dredging the lake and constructing a forebay.

• Cardinal Forest HOA which adjoins Lake Accotink submitted a letter in support of a dredging option.
Wet Dredge - Permitting Requirements, Logistical Considerations For Full Dredge & Maintenance Dredge of Forebay

Dry Dredge – Explore Feasibility Including Construction of a Possible Permanent Access Road

Dredging Access Routes – Explore Accotink Park Road, Hemming Avenue, Rolling Road, Ravenel Lane, Inverchapel Road, CCT Head of Lake to Braddock Road, CCT Ravensworth Farm Swim Club, Railroad Spurs and Other Options.


Spoil Handling & Processing – Explore Options for Drying Wet Dredge Material Prior To Final Disposal Including Potential Processing Locations Including Lake Accotink Park, Wakefield Park, Virginia Concrete Plant, Howrey Field.


Transport By Rail – Explore Use of Existing Railroad Line and Rail Transportation For Disposal of Dredged Material Lake Dredge & Maintenance of Forebay Feasibility Including Construction of a Possible Permanent Access Road.
ADDITIONAL LAKE MANAGEMENT CONSIDERATIONS

- Truck Transportation – Explore Feasibility of Disposal of Dredged Material Locally By Truck.
- With Each Option – Develop Permitting Requirements, Detailed Costs & Any Time Constraints
**Description**

- Dredge to restore lake to average 8 ft depth
- Pump sediment to Wakefield Park for dewatering and disposal
- Haul sediment to closed quarry using Braddock Road to Capital Beltway.
- Fund maintenance dredging program to maintain lake
- Retains aesthetic and recreation value of the lake

**Dredging Cost:** $30,500,000  
**Periodic Maintenance Cost Annualized:** $2,013,000  
**30 Year Lifecycle Dam Repair:** $4,700,000
The lake currently removes sediment equivalent to restoring 33 miles of stream at a cost of $230 million.
COUNTY CIP PROCESS

- Extensive public process conducted as part of Park Master Plan
- Community input supports maintaining lake as a recreational facility
- The park is visited by over 300,000 patrons annually
- FY 2020–FY 2024 Adopted Capital Improvement Program identifies $50 Million order of magnitude estimate for lake dredging
- April 30, 2019 Board of Supervisors FY 2020–FY 2021 Budget Guidance Item directed staff to update CIP recommendations to refine options, timeline, and appropriate funding mechanisms to address Lake Accotink.

• Virginia Clean Water Revolving Loan Fund (“Fund”)
  • Department of Environmental Quality (DEQ) program administrator of the Fund; Virginia Resources Authority (VRA) is financial manager of the Fund
  • DEQ indicated in March 2019 the Lake Accotink project is eligible for funding; all qualifying projects receive an interest rate reduction of 1% below municipal market rates
  • DEQ confirmed the County’s dedicated source of stormwater revenue ($3.25 per $100 of Assessed Value) provides for an additional interest rate reduction of 1% below municipal market rates
  • Flexibility in debt service repayment through project completion
  • Loan would be subject to the approval of the State Water Control Board
  • Full year debt service for the entire $30.5m estimated at $1.5M/year per current market conditions
  • Anticipated debt service would begin in FY 2025/2026, and will be included in future STW service district budgets
• Fairfax County Economic Development Authority
  • Fallback option to pursue project financing
  • Previous examples of projects financed include Merrifield Center, Public Safety Headquarters, and Lewinsville Center
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<td>Oct 29, 2019</td>
<td>BOS Meeting Scope and Funding Strategy for Approval</td>
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<tr>
<td>Jan 31, 2020</td>
<td>Award Consultant Contract for Design &amp; Permitting</td>
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<td>March 31, 2020</td>
<td>Submit Request for VCWRLF Loan</td>
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<td>June 30, 2020</td>
<td>Park Authority Complete Master Plan</td>
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<td>Sept 30, 2020</td>
<td>State Approve VCWRLF Loan</td>
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<td>Jan 31, 2021</td>
<td>Award Dredging Contract</td>
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<td>March 1, 2025</td>
<td>Complete Dredging</td>
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<td>March 1, 2029</td>
<td>Complete Permit Compliance Monitoring</td>
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MASTER PLAN NEXT STEPS

CURRENT APPROVED MASTER PLAN
WRITTEN REPORT

- Establishes Park Purpose and Classification
- Describes Existing Conditions and Constraints
- Describes the Desired Visitor Experience
- Describes the Park Features
- Identifies Design Concerns to Be Addressed at Development Stage
MASTER PLAN NEXT STEPS

CONCEPTUAL DEVELOPMENT PLAN

- CONCEPTUAL SITE LAYOUT
- GRAPHICALLY SHOWS GENERAL LOCATION OF RECOMMENDED FACILITIES & USE AREAS
- CONCEPTUAL SITE DESIGN,
  NOT AN ENGINEERED SITE PLAN
CONTACT INFORMATION

parkmail@fairfaxcounty.gov

Please visit the project website:
https://www.fairfaxcounty.gov/parks/planning-development/lakeaccotink