

COULD RAIL BE USED TO HAUL SEDIMENT?

- Dredging options will require that sediment be hauled from the park.
- Possible impacts to surrounding communities of truck traffic are a factor to consider.
- The County has reached out to the railroad to discuss the possibility of utilizing the adjacent railroad.
- This is an ongoing discussion.



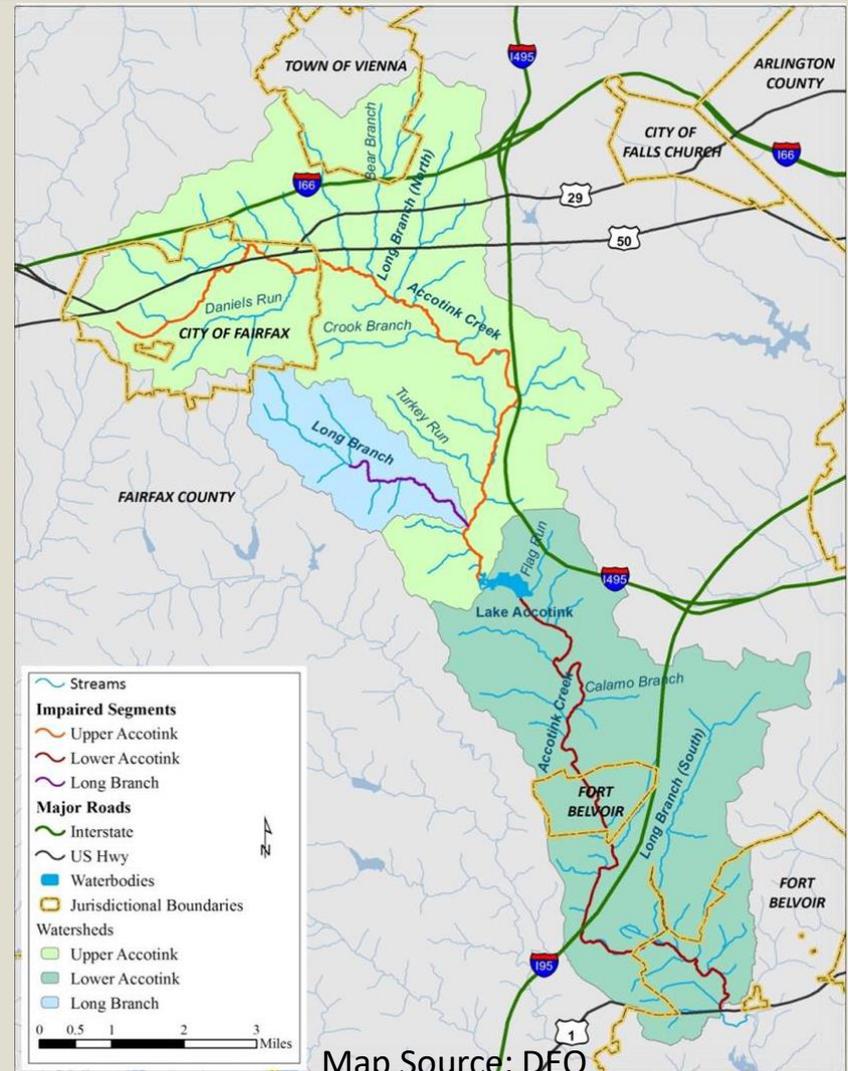
CAN A SEDIMENT FOREBAY BE LOCATED NEAR BRADDOCK ROAD AND CAN THE COUNTY GET SEDIMENT REMOVAL CREDIT FOR IT?

- ❑ The County will evaluate various locations for a forebay, including options closer to Braddock Road to enhance truck access.
- ❑ Additional study and engineering will be required to determine the best location and options for how forebay dredging could be done.
- ❑ The County could claim credit for sediment removal from a forebay under the Chesapeake Bay Total Maximum Daily Load (TMDL) Requirements.



WHERE DOES ACCOTINK CREEK SEDIMENT COME FROM AND WHERE DOES IT GO?

- ❑ Accotink Creek is listed as an impaired stream by the Virginia Department of Environmental Quality (DEQ).
- ❑ Most of that impairment is due to excessive sediment eroding from stream banks as a result of stormwater rushing off of impervious surfaces.
- ❑ Lake Accotink removes about 50% of the sediment that arrives at the lake.
- ❑ Fairfax County is required to improve Accotink Creek and must maintain or replace the sediment trapping ability of the lake as part of its Municipal Separate Storm Sewer System (MS4) Permit.
- ❑ The amount of sediment removal Fairfax County must achieve is dictated by DEQ as part of the Accotink Creek TMDL.



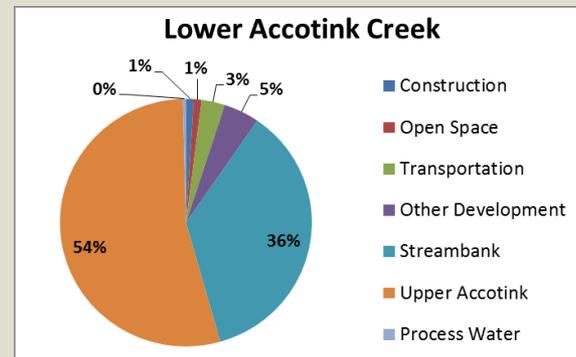
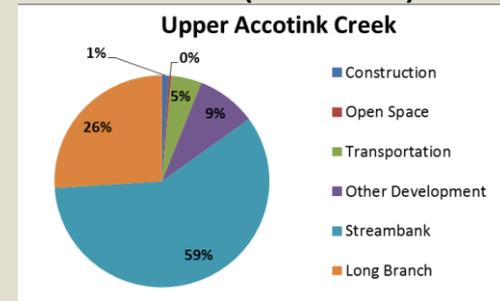
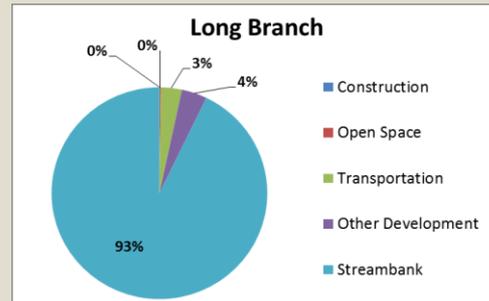
WHAT MUST BE DONE TO MEET THE ACCOTINK CREEK TMDL?

- Fairfax County is assigned a Waste Load Allocation under the Accotink Creek TMDL. This is the amount of sediment the County must remove from the system.
- With Lake Accotink in place, Fairfax County will need to restore about 7.5 miles of stream channel upstream of the lake at a cost of \$50 million, and 8.5 miles downstream of the lake at a cost of about \$60 million. All of this restoration must occur even with the lake in place and will take about 20 years to implement.
- If Lake Accotink did not exist, Fairfax County might need to restore an additional 8.5 miles **downstream** of the lake at a cost of another \$60 million in order to address the sediment load no longer captured by the lake in order to address an increased waster load allocation under the Accotink Creek TMDL. This number will likely go down significantly as the upstream restoration required under the Accotink Creek TMDL reduces sediment arriving downstream.

Accotink Creek Waste Load Allocations (VA DEQ)

Impairment	Remaining Allocation (tons/yr)	Percent of Remaining Allocation	Jurisdiction	Aggregate WLA (tons/yr)
Upper Accotink Creek	2,589	24%	City of Fairfax	634
			Fairfax County	1,282
			Town of Vienna	174
Lower Accotink Creek	3,621	55%	Fairfax County	2,457
			Fort Belvoir	235
Long Branch	1,031	27%	City of Fairfax	42
			Fairfax County	880

Accotink Creek Sediment Sources (VA DEQ)



WHAT WOULD IT TAKE TO STOP THE SEDIMENT FROM COMING TO THE LAKE?

- ❑ In order to stop the sediment coming to the lake, 65 miles of stream would need to be restored upstream of the lake at a cost of \$460 million. This would take about 40 years to implement.
- ❑ To replace the removal of sediment currently provided by the lake would require restoration of 33 miles of stream at a cost of \$230 million. This number is a rough estimate that assumes you have to restore half of the stream miles above the lake in order to reduce the sediment load by 50%.

What would happen to the sediment if Lake Accotink was not there and no streams were restored?

- ❑ 80% of the sediment generated in the Accotink Creek watershed would be captured in the stream floodplains and never make it to the Potomac River or Chesapeake Bay.



HOW WOULD REMOVAL OF THE LAKE AFFECT WILDLIFE HABITAT?

- ❑ Accotink Creek is impaired because most invertebrate animals that live in the beds of healthy streams (benthic macroinvertebrates) cannot survive in Accotink.
- ❑ The insect populations of benthic macroinvertebrates are equally poor above and below Lake Accotink and would not be affected by lake removal.
- ❑ Lake removal may negatively impact mussel populations found below Lake Accotink, but sediment load reductions from required stream restoration may offset this impact, and access to areas above the dam by host fish species could help support habitat expansion for the mussels.
- ❑ Bald eagle populations in the region are healthy, and eagles living near the lake subsist on many food sources including road kill. Dredging operations would not significantly disrupt eagle food availability due to their diverse food sources and the overall poor quality of the lake fishery. A smaller lake would be cleaner and support better fish populations than the current lake, thus providing more food for predators.



Image Source: VA DEQ



Image Source: Friends of Accotink Creek



Image Source: Rich Hoeg, 365DaysOfBirds.com