

## Highlands Lakes & Trails Committee Annual Report

September 18, 2024, Board Meeting

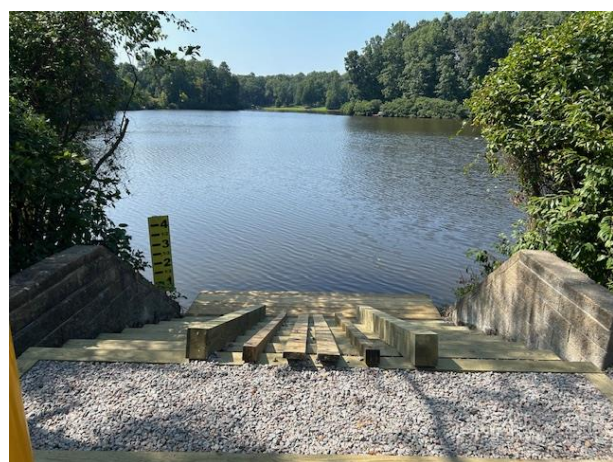
The Lakes & Trails Committee, with support and guidance from Jim Hale, has been actively gathering documents and information, and coordinating with ACS West and others, to help advance several projects. The Committee members to date are Fred Leckie (Chairperson), Rick Stayman, and Mark Fetty.

### Highlands Lake Boat Access Renovation

At the January Board Meeting, the Committee presented their boat slide option for the renovation of the existing access site off Highland Glen Drive; the Board agreed with this concept and requested Sam King move this project forward. The Committee was able to contact the Capital Programs staff at the VA Department of Wildlife Resources and obtain detailed engineer drawings and AutoCad files for a boat slide and two suggested contractors that they recommended for this kind of project in Chesterfield County. This information was forwarded to Sam for his use. Committee members also met on-site with Sam, Jim Hale, and potential contractors to discuss what we had in mind as far as a boat slide construction project, so that they could come back with their draft scope of work and cost estimate documents. Sam received proposal (scope/cost) responses from two contractors, and more information (including revised proposals) was requested and received from each contractor, and the Committee and Sam reviewed and evaluated all documents to make a recommendation to the Board.

At the April Board Meeting, the Committee recommended the Board have Sam King proceed with contracting construction with Harbor Dredge and Dock according to their 4/2/24 revised proposal. The Board did approve this recommendation and Martha Yeager and Sam West of ACS West contracted with Harbor Dredge & Dock to construct a boat slide at the existing Highland Lake boat access site.

Harbor Dredge & Dock proceeded to obtain all necessary permits and were able to begin construction on July 22<sup>nd</sup> and completed all work on August 9<sup>th</sup>, and the new boat slide was officially open to community members. The Committee has also recommended two new signs for the area that will hopefully be ready soon.





### Highland Lake Dam Safety Certification

The Committee has worked to support ACS West as they continue to address required action items found in the 2-year Dam Safety Conditional Certificate, with the goal of obtaining, a Regular (unconditional) Dam Safety Operation & Maintenance Certificate, according to the provisions of the Dam Safety Act administered under the Dam Safety Program of the Virginia Department of Conservation and Recreation (DCR). The Committee coordinated with DCR's Regional Dam Safety Engineer to obtain the most recent list of conditions and action items in the Highland Dam Conditional Certificate, which was shared with ACS West to help them navigate contracts and processes to get required action items (inspections, studies, reports, development of an Emergency Action Plan, needed repairs and renovations) completed by stated deadlines. The Committee participated in several on-site meetings with Sam King and potential contractors to complete necessary work identified in past and recent annual inspections. ACS West (Sam) has contracted with Timmons Group (engineering firm that specializes in dam safety work) to help complete all action items in the two year conditional certificate, Timmons has recently completed the 2024 dam inspection and report, a contracted tree company removed all trees/bushes from the mouth (along the shoreline) of the dam emergency spillway, and ACS West is close to contracting a firm to complete necessary concrete repairs to the principal spillway and this same firm will be evaluating and assessing the existence and functionality of the low-level drain valve and discharge pipe. The Committee will continue to help ACS West any way we can as they take steps and achieve accomplishments that lead toward full dam certification.

### Community Lakes Management, Protection, and Responsive Use Guidance Document

The Committee put together a guidance document that has important information, covenants, and state and county laws and regulations pertaining to the dos and don'ts of shoreline and water habitat management, fish and wildlife management, fishing, and boating, to help all lakefront landowners and all members using our Lakes meet our obligation to become good stewards of these important natural resources. Our Highland Community Lakes offer members a variety of outdoor recreational opportunities, including fishing, boating, wildlife viewing, and just plain relaxing and enjoying the outdoors. Our lakes, their shorelines, and surrounding terrestrial habitat are home to dozens of species of plants, fish, wildlife, and aquatic life that depend on clean water and adequate habitat to live and thrive. Because of the recreational opportunities and critical fish

and wildlife habitat found in our Highlands Community, it is essential that all of us do what we can to manage and protect these valuable water, plant, and wildlife resources. For those of us that are lucky enough to live on the Lakes and those that want to enjoy recreating on the Lakes, it is essential that you read through this guidance document. The document is attached to this report and can be found on the Highlands website under Lakes & Trails Committee and under Resources – The Highlands Lakes and Trails. The Committee is also working to get a copy delivered to all lake front property owners.

#### Lake Margaret Easement/Access Road to the Dam Area

Currently there is a gravel road that leads from the cul-de-sac on Lake Margaret Terrace down toward Lake Margaret and the Dam. There is also an easement through private property for access to the Lake and Dam in this same area, but it was unclear whether the road was within the easement and the exact boundaries of the easement. Sam King was requested to contract a boundary survey to answer those questions, and he invited the Lakes and Trails Committee to meet on-site to observe the survey conducted 2/6/24. Sam subsequently found that the easement was deeded to the Highlands Community Association in 2017.

The survey revealed that most of the existing gravel road leading from Lake Margaret Terrace toward Lake Margaret and the Dam is within the Association's easement boundaries, but there is one section (1<sup>st</sup> curve to the left) that is outside the easement. At some point the Association will need to "fix" the gravel access road so that it is entirely within the easement boundary. Also, the easement does lead down toward the lake, but the easement does not include a) the shoreline area where people are able to launch small boats (old concrete ramp and breaks in brush along the shoreline) and b) the Lake Margaret Dam; that whole shoreline area and Dam are owned by Lake Margaret LLC. So, the Association easement provides a way to get close to the lake, but the area along the shoreline of the Lake and Dam is still private property.

Another consideration involves access to the Dam through our easement. In the very near future, Lake Margaret LLC will need access to the Dam to bring the Dam into compliance with state Dam Safety laws and regulations. The Committee contacted Brenton Payne (Regional Dam Safety Engineer for a large area of the state that includes Chesterfield County) and Lake Margaret LLC was recently issued a 2-year Conditional Certificate (1/31/24 to 1/31/26); during that 2-year period the owner, contracted engineering firm, and DCR will be taking necessary steps to conduct annual and owner inspections, develop an Emergency Action Plan (EAP), and make repairs and renovations as deemed necessary to bring the Dam into compliance with the provisions of the Dam Safety Act administered under the Dam Safety Program of the Virginia Department of Conservation and Recreation (DCR).

Because the lake shoreline and Dam area are privately owned and the owner is currently working through the State Dam Safety certification process, the Lakes and Trails Committee recommended that the Board table any further actions or activity with our easement, until the owner of the Dam has completed all work requirements and received a Regular ("clean") Dam Safety Operation and Maintenance Certificate from DCR.

#### Bridge over Second Branch Connecting Woodpecker Trails

Several sources have stated that Chesterfield County was going to build a pedestrian bridge over Second Branch connecting the two trails that run along Woodpecker Dr. in front of the Lake Margaret Development (one trail runs along Woodpecker from Cattail Dr. northwest, across Lake

Margaret Dr., and ends near Second Branch; there is a sister trail that runs southeast along Woodpecker from Killycrom Dr. down to Second Branch). The Lakes and Trails Committee wanted to find out more details so they could answer questions from members of the Association. The Committee contacted County Planning first, was sent to County Transportation, and ended up at County Parks and Recreation. Parks does have the lead on this project, and we finally received a response from Stuart Connock, Assistant Director, Parks and Recreation. The good news: Parks did fund an engineering study of options for the bridge and construction approach, and “finalized bridge type, scope, and budget for the project”. The bad news: This project is much more expensive than the County originally thought, the County does not currently have enough funds for construction, “trail work outside of the park system, as this project, is a second-tier priority”, and the County “will be placing this project in their FY30 (Funding July 2029) Trail Improvements Plan”. Since construction could take 2-3 years, completion could be 7-8 years out.

### Swift Creek Hiking Trail

Jim Hale asked the Lakes & Trails Committee to investigate the current condition of the Swift Creek Hiking Trail, in the Sundial Farms Subdivision, and make a recommendation to the Board concerning future management of this hiking trail. When the Lakes & Trails Committee was formed in 2023, the list of responsibilities in the Charter included the Swift Creek Trail that runs from the cul-de-sac on Amara Dr. south to the cul-de-sac on Fedora Dr. The Charter also included a statement that the trail had not yet been deeded to the HCA; however, since that time it has been determined that the trail was deeded to the HCA in 2023; according to the County Property records found by the Committee, the upper section of land along Swift Creek off Amara Dr. is 13.38ac and was deeded to the HCA 6/23/23 and the lower section, which includes Highland Pond, is 26.29ac and was deeded 9/23/23.

In May 2024, Rick Stayman and Fred Leckie walked the trail to evaluate the condition and help make a recommendation to the Board at their June 6<sup>th</sup> Meeting. Rick had a walking App that indicated they walked 1.26 miles in just over 47 minutes. Overall, the trail is not a “formal” trail like other trails in the Highlands; there are no paved or mulched sections (other than the very short sections at both ends) and most of the trail consists of a natural forest floor, “cleared” path through the woods. The trail is not marked at all, there are no signs at the “entrances” to the trail, there are downed trees/logs across the trail in several places, and there are no trail-specific parking spaces at either end. And it is clear that a 4-wheeler(s) and possibly a dirt bike(s) are coming into the woods from housing sections along the trail and appear to be helping keep the trail “open” and not growing over. Neither Rick or Fred has any idea how many people are using or want to use this trail, or what the “demand” is for the Board to maintain this trail, but assuming the Board wants to keep this trail as an asset, the Committee offered the following recommendations and suggestions to the Board on June 6, 2024:

- 1) The trail should be maintained in its current state, meaning it should continue to be a “rustic” trail through the woods.
- 2) The trail needs to have HCA Hiking Trail entrance signs at each end (cul-de-sacs on Amara and Fedora).
- 3) The trail must be clearly marked with trail signs or painted wooden stakes, so people can be confident they are on the trail.
- 4) At least once a year, a crew should walk the entire trail with brush cutters and chain saws to make sure downed trees/logs and vegetation growth are cleared from obstructing the trail.

- 5) With the Board's approval, in the near future, the Committee would like to meet on-site with a rep from the Landscape Committee, Dave Thomas of Estate Care, and a rep from ACS West, to collectively decide what needs to be done (marking the trail, developing and installation of signs, annual or ongoing maintenance clearing and structure repairs, mulch at trail entrances, etc.) and who will be responsible for getting it done.
- 6) The Committee would like some help to find a person that regularly uses the trail and can be a Trail Watch to help report maintenance needs in a timely fashion. Perhaps a member of the Board has been contacted about the trail condition and would be interested in becoming part of the solution.

After some discussion about the current condition and future of this trail, the Board directed the Lakes and Trails Committee to come up with further recommendations to "improve" the trail, specifically suggesting this may make a good Boy Scout project. The Committee subsequently voted to have Mark Fetty become a member of the Committee and Mark has worked with his local Scout contacts (Mark has extensive Scout Leadership experience with the local Scout Troop) to see if there is an interest to take this on as a Scout project. Currently, Mark is still in conversations with the Scouts and is working with the current local adult leaders to have an on-site meeting (hopefully in early September) to walk the trail, to help develop scopes of potential projects. Action Recommendations will hopefully be presented to the Board in coming weeks.

#### Professional Biological and Water Quality Evaluation of Highland Lake and Lake Margaret

The Committee is working with a professional aquatic biological lake management consultant to develop a proposal (with cost estimate) that can be brought to the Board for their approval at a future meeting. Both lakes need evaluations of numerous water quality, aquatic habitat, and aquatic plant management issues associated with lake water stagnation, possible future dredging, and water lily abundance.

Stagnation occurs when in-flow is greatly reduced to the point where there is no water going over the principal spillway (Highland Lake) and over the concrete dam (Lake Margaret). Lake stagnation can lead to unwanted algal blooms, depleted oxygen levels, die-offs of fish and other aquatic life, increased bacteria levels, fowl appearance and odor, and long-term negative effects on the overall health of these lakes.

There are currently Capital Expenditures proposed during 2027 in the Capital Reserve Study for dredging Highland Lake and Lake Margaret. Dredging can be very expensive, cause extensive damage to the existing aquatic habitat, and may not be a long-term fix to whatever problem dredging is intended. However, there are situations where dredging can help mitigate for a lake "filling-in" over time, particularly in the upper ends.

There is an overabundance of water lilies in the upper end of Lake Margaret, to the point of "choking-off" several areas; there is no need to eradicate all water lilies, but there are several sections that could use controlled thinning.

Again, the Committee feels that we need a professional look at these problems and some potential options to better manage these problems and provide for a healthy, productive aquatic environment in our community lakes. Action Recommendations will hopefully be presented to the Board in coming weeks.