



Andover Village
Improvement Society
Andover's Land Trust
Founded 1894

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avis update

Warden Shawn Burke and the Andover Highlands

By Alix Driscoll

“I consider my legacy to be a love for this land and the wish to share it with others. If folks walk the Highlands property and appreciate it, over time they’ll come to care for it,” shares Warden Shawn Burke, its manager for a decade now. The 10-acre AVIS Andover Highlands Reservation is bisected by Puck’s Burn, a muddy seasonal stream crossed by a Scout-built curved boardwalk. Granite erratics scrubbed by glaciers lend texture to the land, along with towering pines and a few yellow birches with shaggy horizontal strips of bark. The land is bordered by and divided by rock walls. Burke shares that hill walking with his wife in Scotland inspired the naming of Puck’s Burn, his favorite spot, as well as the reservation’s name.

The reservation is situated upon undevelopable land east of a proposed cluster subdivision. It is bordered on the south by a swamp, and a large landlocked parcel owned by Phillips Academy. The Andover Highland’s trail system was built by Scouts in the fall of 2013. Owing to access limitations the reservation is largely unknown to AVIS members and to the greater community with most use coming from abutters.

A new trail head and boardwalks should be built in 2024 off the subdivision, near Highland Road. Burke hopes to see more visitors when that entrance is built. He also hopes to create a spot with benches for relaxation or quiet contemplation not far from the new access trail.



Shawn Burke has been the warden of the Andover Highlands Reservation for a decade. A new trail head is being constructed to the reservation off Sellers Farm Road, a subdivision off Highland Road. Courtesy photo.

The property lies between the Ward Reservation and PA’s Moncrieff Cochran Bird Sanctuary. “From our deck we’ve watched small herds of deer walk into the Highlands from the Ward Reservation,” notes Burke. He’s spotted fishers, flocks of turkey, foxes, rabbits, skunks, and all manner of birds there. Some nights he can hear coyotes hunting, or the call of barred owls. “It’s a pocket wilderness with more critters than people right now.”

Goldsmith Habitat Enhancement Project

By Willow Cheeley RLA

The Goldsmith Reservation is one of the most frequently visited AVIS properties and beloved by trail regulars of all ages. After several years of successful invasive species management by the Eco Team and Land Manager, David Dargie, AVIS considered the potential for increasing the number and species diversity of native plants at the Route 28 entrance.

This area encircles visitors in a welcoming hug with a combination of steep upland slope, wetland swale and soaring old pine trees, creating a unique introductory space to the 170-acre property.

Longtime AVIS member Susan Stott was awarded a 2021 Boston Foundation grant with the assistance of a plan by volunteer Willow Cheeley designed to support wildlife, add seasonal beauty, and inspire educational engagement with the landscape.

New native plants were selected based on their food value for pollinators and wildlife. Additionally, the aesthetic appeal of these colorful plants serves as a living example for visitors. Using native plants in backyard design is an easy and critical contribution that every homeowner can make toward addressing Climate Change and habitat loss.

All plants were sited carefully, within the existing plant communities, for optimum growing conditions and visibility by pedestrians either on the main trail or at the proposed wetland observation outlook. Small plant materials like bare root seedlings and landscape plugs were used whenever possible. Small materials are more cost effective for large scale projects, have better root systems and establish more quickly than standard nursery stock. Additionally, small materials require less disturbance of the existing soil during the planting process.

The Boston Foundation and a 2022 Foundation M grant covered the cost of the majority of materials and the local installation services of Samantha’s Gardens and Moriarty Irrigation. Scientist Walter Kirtledge conducted a plant inventory of existing species. Cheeley donated additional plant materials and time planting.

In the wetland swale in 2021 and 2022, about 25 species and 700 landscape plugs were planted. Existing shrubs in the wetland had been pruned in the winter to open views through the swale.



Willow Cheeley is a licensed Landscape Architect specializing in ecological design and has been interested in connecting people and natural landscapes. An active volunteer in Andover, Cheeley’s roles include Tree Committee, Pollinator Pathway, AVIS, Participatory Capital Budget Pollinator Garden and Riparian Buffer Tree Planting, Retelle Reservation interpretive signage and Boloian Reservation. Courtesy photo.

continued on next page ►

Goldsmith Habitat Enhancement Project, Continued

The drought of 2022 negatively impacted the establishment of the plugs; however, blue flag iris, swamp milkweed, marsh marigold, cardinal flower, and others did survive. Cheeley planted more landscape plugs in fall 2022 and will continue to plant more each year as needed.

On the upland slope in the spring of 2022, project implementation included temporary drip irrigation, compost, approximately 25 species and 200 trees, shrubs and perennials. Additionally, 4' high fencing was installed around vulnerable plants to protect against deer and rabbit damage. The majority of the upland slope plants, including flowering dogwood, serviceberry, bush honeysuckle, azaleas, asters and more, survived and bloomed. Monitoring will continue as all the plants mature.

A wetland observation outlook area and educational signage are being developed to link with future parking improvements and trail.

Traversing the Bay Circuit Trail in Andover

Hiker Meg Holmes has a unique perspective on the Andover part of the trail as she has trod it many times. She dovetails her decades of experience on this circumferential trail with a lifetime of hikes in many countries and continents. Meg will acquaint you with the 16.5 miles of Andover's slice of the Bay Circuit Trail around Boston and discuss the differences hiking in Massachusetts versus some other countries.

Traversing the Bay Circuit

Meg Holmes and her friend, Margot Lindau, hiked the Bay Circuit Trail from the northern terminus at Plum Island to the southern terminus at Kingston Bay during the height of Covid in 2020. As a longtime Andover resident, she was familiar with the approximately 17 miles of the route that goes through the town, and she wanted to experience the BCT in its entirety.

The Bay Circuit Trail is a series of local trails linked together to form a semi-circle, some 230+ miles in length, around Greater Boston. Walking the entire length provides a unique perspective of this region that most of us call home. The walker learns to appreciate and respect the local history, the diversity of flora and fauna, and the variety of terrain and environments.

The logistics of a 230 mile walk can be challenging, which is why not many have walked it completely, but Meg has done several long distance treks in the past. She walked various Caminos de Santiago including the Camino Frances and the Camino Ingles in Spain, and the Le Puy chemin in France. She has also hiked across northern England from east to west on the Hadrian's Wall National Path as well as from west to east on Wainwright's Coast to Coast walk.

At the AVIS annual meeting, Meg will introduce us to the ups and downs of the Bay Circuit Trail in Andover and beyond. Hopefully, she will inspire many of you to learn more about it by walking the BCT yourselves!



Meg Holmes points the way under a Bay Circuit Trail blaze. Courtesy photo

President's Letter

By John Hess



I continue to be amazed by how people step up and volunteer to care for AVIS lands, these lands that were inhabited by indigenous populations long before the Europeans came to settle here. It truly takes a village to care for the more than 1,200 acres for which AVIS is responsible.

The latest example is the excellent work that wardens and other volunteers performed to remove the tremendous number of trees that blocked paths and streams after the September micro-burst. Wow! What a job they did.

That was on top of the more than 675 hours of the Eco Team volunteer work in 2023 to remove invasive species from AVIS properties. The Eco Team has become an important part of what AVIS does to preserve and protect the land. The Team is planning to resume work in late April.

And, of course, where would we be without the ongoing efforts of volunteer wardens to clear trails and keep their reservations safe for the community.

There are still trees in dangerous positions. There will continue to be new challenges in the years ahead. We have had to deal with beavers, encroachments, storms, and even larger than normal usage due to COVID. The invasive plants will continue to be there and now we are seeing invasive jumping worms. Look them up and see what effect they will be having on soils and plants.

Thanks to all our volunteers and to our many donors/members who make it possible.

AN INVITATION TO THE AVIS ANNUAL MEETING

Tuesday, April 9, Old Town Hall, Main Street.

Cocktails at 6 p.m.

Dinner at 6:30 p.m.

Business Meeting at 7 – 8:30 p.m. Election of trustees,

AVIS Financial Report, Land Management, Land Stewardship, and special projects.

Guest speaker: Meg Holmes, *Traversing the Bay Circuit Trail in Andover*.

Please sign up at AVISAndover.org



Andrew Santos of the Enterprise Bank has joined the AVIS Board as its Treasurer.

List of AVIS Donors 2023

We can never thank our supporters, volunteers and donors enough! Through the **Bessie P. Goldsmith Fund**, the Boston Foundation made a significant donation to enhance a wetland viewing areas as well as continuing their annual \$5,000 for equipment, improvements and maintenance on the Goldsmith Woodlands property.

Annual Appeal Donors: your financial support enables AVIS to keep our reservations safe and open to the public to enjoy. Thank you!

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Three Scouts completed their Eagle Scout Projects at four AVIS reservations

By Buzz Stapczynski

Buzz Stapczynski reported that the following Boy Scout Eagle Projects were completed this fall and early winter: Owen Finley, Troop 76, constructed three boardwalks in the Sunset Rock Reservation and Robert Rumson, Troop 79, constructed a boardwalk in the Stanley Reservation and moved a trail there to a better location. Eric Rumson, Troop 79, constructed a boardwalk in the Vale Reservation along the Shawsheen River and improved the High Trail in the Goldsmith Woodlands.



This photo was taken at the Sunset Rock Reservation in the fall during the South Church Weekend of Service. Left to right: Lucy, Sunset Rock Reservation Warden Ben Green, Taylor Graffium, Juliette Sellers, Sean, Luke, Gavin, Paige, Lucy, Hazel, Jackson, Gary Gearin and Mo. Photo by Stefanie Aude, South Church parent volunteer. .



At Ballardvale Day, in the fall, AVIS Trustee and Select Person Annie Gilbert explains the history of AVIS. Photo by David Yachnin,

As you head north on the Deer Jump Trail along the Merrimack River, you may notice a newly cleared segment between Jillian Way and Furnari Farm Lane. AVIS has completed the first year of a planned 3-5-year habitat restoration project, and the initial results are lovely.



Thank you to Matt Strong, owner, and to his men from Forever Green Lawn and Landscaping who got the kiosk moved from the Sakowich Garage and installed in the fall. The kiosk is the Eagle Scout project of Brody Candela of Troop 79. His dad, Rob, is a warden of Deer Jump Reservation. The kiosk will serve the Sanborn and the Town's Lightning Tree reservations. In the photo are the Forever Green crew, and Warden Burt Batcheller of the Sanborn Reservation, on the right. Photo by Buzz Stapczynski.



At the Farmers Market in August are AVIS president John Hess and Trustee Mark Kaluzny sharing information about AVIS. Photo by David Yachnin.

Seeking the Deer Jump Falls

By Mike Timko, AVIS Trustee



The Andover Village Improvement Society, a conservation land trust established in 1894, owns more than 30 reservations. Among the largest, at more than 170 acres, and most important because it conserves three miles of riverfront, is Deer Jump Reservation. It is named for a feature on the Merrimack River now submerged behind the Great Stone Dam (GSD) in Lawrence and referred to in historical documents as Deer Jump Falls or just Deer Jump but also possibly as Deare's Jump and The Gulf.

In 1956, Harold Rafton, chairman of the new AVIS Land Committee, was keenly aware that the new Interstate Highway System was going to change the character of Andover from a largely rural community to a suburb of metropolitan Boston and he wanted to preserve as much open space as possible. There was enough in the bank to acquire land at rural prices before the coming land boom.

One of the primary pieces of land that Rafton sought was the shoreline of the Merrimack River in Andover. Much of that land was owned by the Essex Company, the operator of the GSD in Lawrence, to protect their water rights. The pool formed in the river by the dam had been used, through a pair of canals, to power all of the mills in Lawrence.

But by the 1950s, most of the mills had shut down. Rafton set out to purchase that Andover waterfront land with some adjacent land owned by farmers for AVIS. By 1956, Deer Jump, whatever and wherever it was, had been submerged for more than 100 years.

A poem by Oliver Wendell Holmes recalls fun adventures he had while a student at Phillips Academy in 1825,

Where legendary name recalls

The forest's earlier tenant, "Deer-Jump Falls".

A map in the Andover Center for History and Culture shows "The Deer Jump Falls". with Lawrence including the North Canal, which was built at the time of the Great Stone Dam in 1848, This map was drawn after Deer Jump Falls was no longer visible, having been submerged by the mill pool formed by the GSD. It shows the falls on the Andover side of the Merrimack about 1/4 to 1/2 a mile downstream from the Middlesex/Essex County line.

What is the Deer Jump Falls

Deer Jump Falls has now been submerged for 175 years. Is it possible to find the location using technology? After studying 29 maps on an app used by fishermen, I concluded that one shows Deer Jump Falls.

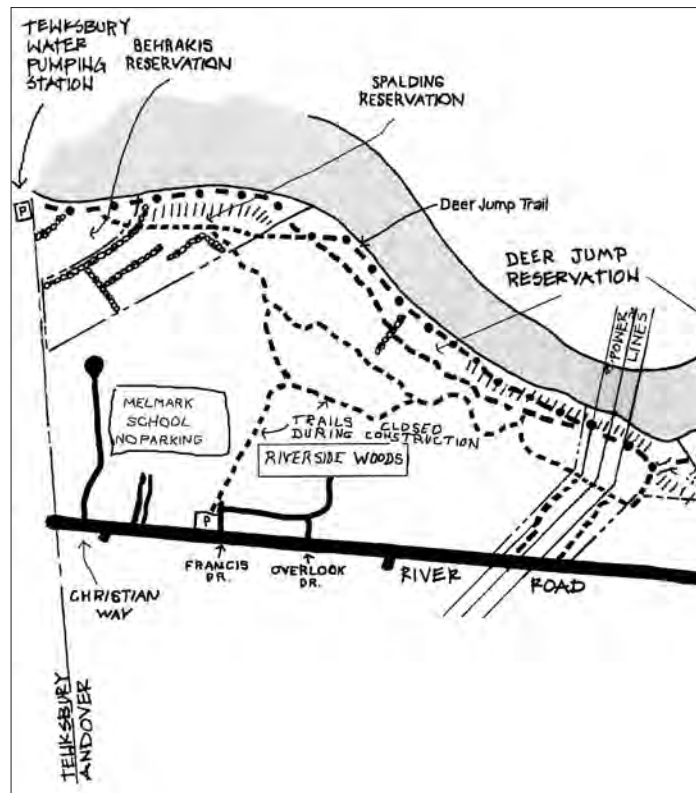
The Merrimack is flowing from left to right. The lines indicate contours of constant depth below the surface of the river. For a waterfall, I should expect a place where the depth across the whole width of the river is shallower than anyplace downstream. The difference between this minimum depth and the next minimum downstream would be the height of the falls. This particular map starts on the left near the Tewksbury/Andover line and extends about 1/2 a mile downstream near Merrimack Drive in Tewksbury. The maximum depth of the river at the point indicated is between 5 and 6 feet. The depth then falls to almost 30 feet.

There appears to be a natural dam with relatively deep pits in the bottom both upstream and downstream. Erosion over literally thousands of years would have washed away a prominence like this if it were not made of ledge. Before the GSD was built and the area flooded, heavy flows of water during the spring melt in New Hampshire would have created turbulent eddies before and after the obstruction, washing away softer soil or small rocks.

The "falls" would not have been very steep, I think it would have looked somewhat like Pawtucket Falls in Lowell with water flowing over visible rock. During dry seasons, the water probably would have been shallow enough with irregularities in the rock, for deer as well as humans to ford the river or jump from rock to rock.

Here is the AVIS map of Deer Jump, Spalding and Behrakis reservations near the Tewksbury/Andover line. Using the curve of the river as a guide, the high point of the Deer Jump Falls "dam" falls within the Spalding Reservation riverfront near the Behrakis Reservation line. The point at which the Falls leveled out to a pool, shown on the map, would have been within a few hundred feet of the crest.

I am sure that Harold Rafton intended for his reservation to start at the town line. It took AVIS a few more years to complete AVIS acquisitions along the Merrimack River to the town lines.



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The AVIS Update is a biannual publication of The Andover Village Improvement Society. The mission of AVIS is to acquire and preserve Andover land in its natural state. More than 1,200 acres of land are managed by AVIS and are open to all for passive recreation.

Volunteer Opportunities

AVIS relies on volunteers for all its responsibilities. Best known are the Wardens and Eco Team. There are many other tasks that require assistance. If you or someone you know would be interested in helping, please let us know at volunteer@avisandover.org. In addition to trail work or invasive species removal here are some of the areas where help is welcome:

- Write grants, newsletter articles, or news releases
- Help prepare the next edition of the Andover Trails Guide
- Help organize events such as hikes, Andover Day, or Annual Dinner
- Check kiosks for accuracy and wear & tear
- Assist in the archiving/cataloging of AVIS materials

Eco Team Work Parties

Watch for the start of the Eco Team projects in late April. Contact Lynn Landry, project manager at hamletoflynn@gmail.com.

AVIS Annual Meeting

Tuesday, April 9, 2024. Old Town Hall, Main Street. Cocktails 6:00 p.m., dinner 6:30 p.m., AVIS Business 7:00 - 8:30 p.m. and speaker Meg Holmes Traversing the Bay Circuit Trail in Andover. Please see AVISandover.org.

Hikes

There will be hikes on the third Saturday of each month. 3/16; 4/20; 5/18; and 6/15. See the schedule on the website AVISandover.org for further details. Led by Mark Kaluzny.



Warden Shawn Burke usually sees this fisher cat on the Andover Highlands Reservation climbing up a rock walk.

Courtesy photo.



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