

ALONG THE TOWPATH

A quarterly publication of the

Chesapeake & Ohio Canal Association

An independent, non-profit, all-volunteer citizens association established in 1954 supporting the conservation of the natural and historical environment of the C&O Canal and the Potomac River Basin.

VOLUME XLIX March 2017 Number 1

2017 Douglas Memorial Hike and Dinner

By Steve Dean on behalf of the Program Committee

The C&O Canal Association will honor the 53rd anniversary of the Douglas Hike on April 29, 2017 with a selection of four hikes of different lengths, a ham and barbecue chicken dinner, and an evening program. Join your fellow Association members to enjoy a fine walk on the C&O Canal, celebrate spring and visit one or two of the canals beautiful aqueducts.

All hikers will meet at the MARC parking lot in Brunswick, the start and end point for the event. Plan on arriving 15 minutes before your bus departure time. The bus for the long- and medium-length hikers will depart at 10 a.m., stopping at two canal access points. The first stop is at the Monocacy Aqueduct. Hikers starting at this point will have a 12.6-mile trek back to Brunswick, and will cross two aqueducts in the process. On their trip upstream, the long-hikers will immediately walk over the Monocacy Aqueduct, and later cross Tuscarora Creek on 16-foot Culvert 71 before they arrive at Nolands Ferry. There the bus will have dropped off the medium-hikers for a 10.1-mile walk back to Brunswick. From Nolands Ferry, both long- and medium-hikers will head upstream toward Point of Rocks, passing Calico Rocks between Mile Markers 47 and 48.

The second bus will depart from Brunswick at 11 a.m., carrying two groups of short-hikers. Those selecting a 6.5-mile walk will be dropped off at Point of Rocks. Their trek upstream will include passing Lock 28, the Point of Rocks and Catoctin railroad tunnels, and several historic culverts before arriving at Lock 29 (Catoctin Lock) at Landers. Those hikers opting for the shortest route will be dropped off by the bus at Landers for a 3.8-mile walk back to Brunswick. All participants will cross the Catoctin Aqueduct, and have a chance to observe the beautifully restored aqueduct that was returned to its past glory, with much thanks to the efforts of current Canal Commission chairman George Lewis.

After the hike, members will meet at the Beallsville Fire Department for a happy hour at 4:30 p.m., followed by dinner at 5:30. Dinner at the firehouse has been well-received by members in the past. Following dinner, Association members who attended the 2016 World Canal Conference in Inverness, Scotland will provide a presentation of the conference and post conference activities in Scotland.

(Details and images on p. 2)

Potomac Heritage NST

The Potomac Heritage National Scenic Trail is a treasure in the national trails system that many of us live right next to or travel on every day and don't even realize it. The C&O Canal is a key feature of this system. Visit page 8 to discover the treasures that can be found in this vast trail network, and even have a chance to help document the features of this wonder.

Deep cut leading to Paw Paw Tunnel north portal – Photo by Monica Larcom, National Park Service



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2017 Douglas Memorial Hike and Dinner Details and Directions

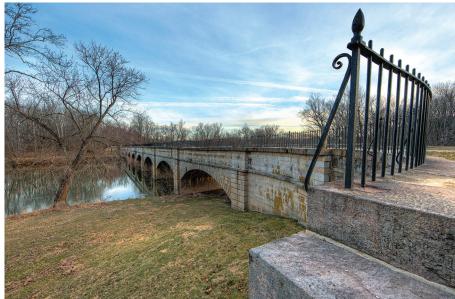
Use the registration form in this issue to register, or find the form online at www.cando-canal.org/calendar.html. The bus for the two long hikes departs at 10 a.m., and the bus for the short hikes departs at 11 a.m. Arrive at least 15 minutes early. The bus is \$6 per person in advance, and \$8 the day of the event. Happy hour is included in the cost of dinner, and is at 4:30 p.m. Dinner is at 5:30 and is \$22 per person. Reservations must be received by Friday, April 7.

Directions to Brunswick MARC station: On US-340 take the exit for MD-180. Turn left on to MD-180 W. After 1.7 miles turn left on MD-79 W/Petersville Road, and proceed 2.7 miles, then take the fourth exit from the traffic circle and stay on Petersville Road. Turn right on to North Maple Ave., then right on to Railroad Square.

Directions from Brunswick to Upper Montgomery County Volunteer Fire Department: Turn left on South Maple Avenue, then left on to Petersville Road. At the traffic circle take the first exit onto Burkittsville Rd/Petersville Road Turn right after a mile on to MD-464 E/Souder Rd, then after another mile turn left on to MD-464 E/Point of Rocks Road Proceed 7 miles, then take the second exit in the traffic circle on to Point of Rocks Road, quickly turning onto Ballenger Creek Pike. Turn left on to MD-28 E after 1 mile. Turn left onto MD-28 E, then after 4.6 miles turn right to stay on MD-28 E. Continue 7 miles to the intersection with MD-109 N; turn left and destination will be on the right.

Directions from Rockville area to Upper Montgomery County Volunteer Fire Department: On I-270 take Exit 6B for MD-28 W/W Montgomery Avenue toward Poolesville/Darnestown. Follow MD-28 W for approximately 15.5 miles to the intersection with MD-109 N; turn right and destination will be on the right.







Top: Brunswick railroad station. Center: Monocacy Aqueduct. Bottom: Catoctin Aqueduct. Photos by Steve Dean

2017 C&O Canal Association President's Day Little Orleans

Our tradition of celebrating the Association presidents and enjoying general fellowship will take place at Bill's Place in Little Orleans on June 3rd. A reservation form is enclosed in this issue. Breakfast will be served at 9 a.m. The cost is \$10 per person. Forms must be received by Wednesday, May 24.

After the breakfast, participants can join Steve Dean for a trek to Oldtown to view dragonflies. The C&O Canal NHP has the most diverse variety of dragonflies in the National Park System, and Oldtown is one of the more active spots on

the canal. Steve will have some extra dragonfly guides. Contact Steve at editor@candocanal.org or 301-904-9068 for more information about the dragonfly walk

Some members enjoy camping the night before at Little Orleans Campground, which is near Bill's. You can make reservations by calling the campground at (301) 478-2325. The campground has a bathhouse and showers. Come and join us!

– Steve Dean



Take time before or after breakfast to visit the rebuilt boat ramp at Fifteen Mile Creek and enjoy this delightful view of the aqueduct – Photo by Monica Larcom, National Park Service



Dragonflies abound on the canal at Oldtown in June – Photo by Steve Dean

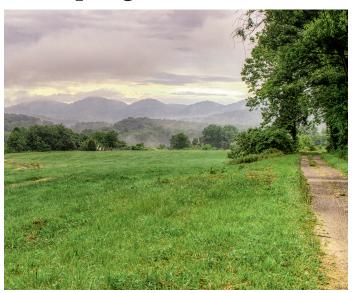
Continuing Hike Series – Spring 2017

The Lock 75 to Evitts Creek Aqueduct hike on Saturday, March 25 is the longest hike ever planned for this series. We will start at the last lift lock on the canal and head 5 miles upstream to the last aqueduct. Along the way we'll pass a family grave site with a memorial to a Confederate soldier, the Mexico Farms subdivision, several culverts, and turning basins that are now marshes.

By comparison, the Monocacy to Woods Lock hike on May 27 will be almost leisurely, at just under 6 miles round-trip. Both hikes will feature some watered sections supporting a variety of flora and fauna.

Details on meeting locations and time are in the calendar. For all hikes, dress for the weather, bring water and lunch or snack. Cancellations will be posted on the Association website, or you can check the status by contacting Pat White at 301-977-5628 or at hikemaster@candocanal.org.

- Pat White



Towpath approaching the Mexico Farms area – Photo by Steve Dean

Allegheny Portage Railroad

National Historic Site

Several Association members took a field trip in November to the Allegheny Portage Railroad National Historic Site in Gallitzin, Pennsylvania. Despite "Railroad" in the name, this is a canal site on the Pennsylvania Mainline Canal. Further information is available at www.nps.gov/alpo/.

The goal of the Pennsylvania Mainline Canal, financed by the state, was to unite Philadelphia and Pittsburgh, creating a viable alternative to the Erie Canal and Chesapeake and Ohio Canal, and bringing prosperity to Pennsylvania. The Alleghenies might have seemed to be an impossible barrier, but not to these canal visionaries. They conquered the mountains by building a series of inclined planes that provided a direct route over the mountain and easy passage for all modes of travel, not just canal boats. The portage opened in 1834 and operated until 1857 when it was bypassed by the New Portage Railroad, using a different route, and ultimately by the Pennsylvania Railroad.

mountain and reassembled at the canal on the other side.

The Summit Visitors Center has many pertinent displays and a nice video of canal times and operations. The video included a brief glimpse of a mule-drawn boat in a lock. Guess whose lock, boat and mules? Hint: which canal in the National Park Service system has working locks and mule drawn boat trips? Next to the Visitors Center, a display at a restored engine house explained the operation. Inclined Planes 6 to 10, now grassy, drop down to the east from the engine house. Inclined Planes 1 to 5, in the western end, are apparently not part of

the historic site, although to the west the Staple Bend Tunnel,

The series of 10 inclined planes (five on each side) was

powered by stationary steam engines that turned endless

ropes. Boats, railroad cars, and other conveyances were loaded on flatbed cars that were attached to the cables. The lon-

gest canal boats could be divided in half for passage over the



Above – restored engine house; Below – inclined plane dips to the east All photos by Pat White





Above – Culvert 1733 beneath Inclined Plane 10 Below – Culvert 1532 on Inclined Plane 8



Along the Towpath, March 2017



Jill Craig surveys the Skew Arch Bridge, which crosses the inclined plane

first railroad tunnel in the U.S., is part of the site. The tunnel was not investigated – good excuse for another field trip. We set out to investigate the inclined planes on the east.

Slightly downhill from the engine house, Inclined Plane 6 crossed a road and the builders did the obvious thing: they built a stone arch bridge over the inclined plane. A trail continues almost 10 miles down the mountain; we drove. About halfway down the mountain, there was a chance to investigate part of the New Portage Railroad route and Inclined Plane 8, which had a beautiful stone culvert. More culverts were found

at the base of the mountain on the Foot of Ten Trail, a short circuit trail to the lowest inclined plane. Plane 10 seemed gentle compared to Plane 6 at the top of the mountain.

A return to visit other Pennsylvania Mainline Canal sites, including the tunnel and the New Portage Railroad route, will occur in the future. If you are interested in these field trips, contact hikemaster@candocanal.org.

Pat White, with Marjorie Richman,
 Jill Craig, and Alice Johnson

The Mystery Stone of the Monocacy Aqueduct

In 1993, March 12th to be exact, a young level walker on Level 16 noticed a seemingly disturbing sight – a loose stone under the first arch of the Monocacy Aqueduct. Sure it was a sign of imminent disaster for the already weakened aqueduct, he rushed home to mail a quick level walker report to the level walker chair, Karen Gray.

The loose stone has a bit of history, and has existed for some time. It is related to a longitudinal crack in the aqueduct, and was documented in *Monocacy Aqueduct on the Chesapeake and Ohio Canal* by Robert J. and Elizabeth Perry Kapsch. During the stabilization of the Monocacy Aqueduct, completed in 2005, the stone was left as it was. It is quite secure in its present state.

The young level walker is now an older level walker chair. Level walkers and other volunteers still dutifully report the loose stone. The level walker chair thanks them for their diligence and advises that "we'll keep an eye on it."

- Steve Dean



Along the Towpath, March 2017

President's Report

As we look back over the past year, we can be proud of the Association's contributions. Among them:

- We helped the Friends of Historic Great Falls Tavern raise \$25,000 to help rehabilitate the Swains Lockhouse.
- We spent over \$9,000 to give the Bowles House, the Hancock visitor center, a badly needed coat of paint.
- We donated \$2,500 to Allegany County Public Schools to enable more school children to make field trips to the canal.
- We made a financial contribution to help address a shortfall in the park's Canal Classrooms program.
- Our volunteers kept Lockhouse 75 open on summer weekends. All those through-hikers and -bikers can stop and get a sense of canal life.

As we look back, we also mourn the recent loss of Bill Burton, a 19-year member of the Association. Many of us began our level-walking careers during Bill's tenure as Level Walker Chair. I first met Bill on the 2004 Thru Hike. I will miss him.

We can honor Bill and those who went before him by remaining true to the Association's mission – working to preserve and maintain the canal. The park's chronic budget crunch is likely to get worse in 2017. We've got a lot of work ahead of us.

- Bill Holdsworth

Hancock Visitor Center Open in 2017

The popular Hancock Visitor Center will be open during the 2017 season. The visitor center is in the Bowles House, which played a significant role in the history of the canal in Hancock. It provides a unique western Maryland interpretive experience.

The Hancock Visitors Center will be open from 10 a.m. to 3 p.m. on Fridays, Saturdays & Sundays starting on May 26 and ending on September 30, 2017. If you haven't visited it yet, add it to your list of things to do this summer.

– Steve Dean



Bowles House overlooks the canal prism at Lock 52 - Photo by Steve Dean

NPS Approves Georgetown Boathouse Zone Development Plan

By Rod Mackler and Ned Preston

On February 13, the National Park Service issued a finding that gives formal approval to the development plan for the Georgetown nonmotorized boathouse zone that was published in a July 2016 draft Environmental Assessment (EA). The C&O Canal Association views the plan as positive step that accords with our stance against intrusive private encroachment and large scale construction in the C&O Canal NHP. The plan envisions potentially favorable improvements within the canal park, including the welcome rehabilitation of the historic Washington Canoe Club. In addition, the approved version abandons the problematic proposal for a viewing gallery atop the Alexandria Aqueduct Bridge.

Appendix D of the finding provides responses to selected public comments on the draft EA. The C&O Canal Association's comment made clear that the plan should be implemented in a way that protects historical and scenic values. Our letter stated that schools or colleges should not become dedicated tenants of facilities within the canal park, and included specific concerns about the boat rental/storage facility

proposed for Site C, just west of the aqueduct. The Association urged that the facility be operated as a concession truly serving the general public, and that its size and height neither crowd the location nor obstruct scenic views. The NPS responses to these comments about Site C were essentially restatements of the EA's wording.

The development plan is intended to be implemented in phases, a process that may be lengthy. NPS has stated that there will be opportunities for public input when more specific plans for the individual projects are available. (For background, see the ATP September issue, www.savethecanal.org, and the NPS project website parkplanning.nps.gov/project Home.cfm?projectID=54903.)

There has also been a development in another Georgetown related proposal. The Arlington County Board indicated that it does not support further county funding of the proposed Rosslyn-Georgetown gondola because of the significant construction and operating costs. This proposal was reported in the September and December ATP issues.

C&OCA Welcomes New Members

Cheryl Atkins, Murray, Ky.

Ed & Susan Brady, Dayton, Md.

Peter Bridges, Arlington, Va.

Leon Brewer, New Hope, Minn.

Allen & Janice Browne, Silver Spring, Md.

Thomas Burger, Baltimore, Md.

Debra & Trent Carbaugh, Hagerstown, Md.

Chuck Chandler, Ellicott City, Md.

Kenneth Cohen, Arlington, Va.

Alford Cooley, McLean, Va.

Mick & Karen Davies, Smethport, Pa.

Mike & Cindy Davies, Cyclone, Pa.

Craig De Lauder, Hagerstown, Md.

Doug Eshelman, Fulton, Md.

Jan Fitzsimmons, Arlington, Va.

Ann Hawthorn, Germantown, Md.

Larry & Carol Heller, Bethesda, Md.

Kate & Tom Helt, Catonsville, Md.

Jason & Tiffany Henderson, Elkridge, Md.

Carolyn K. Hickerson, Elliott City, Md.

Jack Holman & Theresa Whelan, Germantown, Md.

Sheryl Hudson, N. Bethesda, Md.

Mary Huebner, Cumberland, Md.

Mary Kearney, Bethesda, Md.

John Koenig, Columbia, Md.

Zoe Leoudaki & Athena Swiader, Washington, D.C.

C. Gage Linden, Mt. Ranier, Md.

David London, Potomac, Md.

Sean McCabe, Frederick, Md.

Jeffrey Miller & Lotte Schlegel, Washington, D.C.

Linda Miller, Walkersville, Md.

William Mills, Laurel, Del.

James Moore, Potomac, Md.

Tom Myers, Westminster, Md.

Michael Nardolilli, Arlington, Va.

Angelo & Cynthia Orelli, Mt. Airy, Md.

Angelo & Cynthia Oretti, Mi. Atry, N

Tae & Kathy Pae, Hanover, Md.

Abigail Passeri, Bethesda, Md.

Edwin and Sylvia Reis, Bethesda, Md.

Pat Scully, Burtonsville, Md.

Napier Shelton, Washington, D.C.

Josh & Mary Silverman, Silver Spring, Md.

James Spangenberg, Derwood, Md.

Matt Speiser, Bethesda, Md.

Jim Stickney, Mechanicsburg, Pa.

Amanda Stroud, Ranson, W.Va.

Jeff Tarbert, Falls Church, Va.

Janet Wagner & Theresa Drennan, Brunswick, Md.

Don & Vell Wallinger, Portland, Ore.

Jim & Donna Webb, Frederick, Md.

Jeff White, Silver Spring, Md.

Linda Worthington, Cascade, Md.

Welcome to a new Along the Towpath

The C&O Canal Association is committed to providing a quality newsletter to our members. We often receive comments on the content and quality of *Along the Towpath*. We want to continue to live up to that reputation and even improve on it. With this issue we are moving to a new all-color 28-page format. This larger format will not only accommodate more content; it will allow us to consistently use larger, more legible fonts. Better quality paper and imagery print standards will improve the consistency and reading experience. A new printer, HBP, now prints the newsletter in Hagerstown, Md. HBP has a long relationship with the C&O Canal NHP and recently printed the *Chesapeake and Ohio Canal NHP Official National Park Handbook* and the *Pocket Guide for the Chesapeake and Ohio Canal* for the Association. This issue even features a new writer, Monica Larcom, who provides a look at the Potomac Heritage National Scenic Trail.

We hope you enjoy the revised *Along the Towpath*. Feedback is welcome; please contact me if you have any comments or questions.

Steve Dean, Editor editor@candocanal.org

The Potomac Heritage National Scenic Trail

Expanding on America's Best Idea

By Monica Larcom

Great Allegheny Passage in the snow near Frostburg, Md.

Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life.

- John Muir, Our National Parks

It's January and a crisp fifteen degrees along the snowy path of the Great Allegheny Passage in Frostburg, Maryland. There is a solid chill in the air and an even denser silence. In summer, on the "GAP" trail, you can't go more

than a couple of minutes before seeing someone buzzing past on their bike headed to Pittsburgh, Pennsylvania or Cumberland, Md., but today there are only a few withered winter berries and clouds floating over the path.

It's not always easy to answer the question "What is the Potomac Heritage National Scenic Trail?" If you've done any amount of hiking, biking, or paddling along the Potomac River there is a high likelihood you have been on part of the Potomac Heritage Trail network (PHT) but didn't know it. The PHT is, after all, over 900 miles of existing or planned PHT "segments." It's a network

connected by agreements, easements and partnerships that represent some of the most popular destinations in Pennsylvania, Maryland, the District of Columbia, and Virginia.

Not all of the PHT partners are located on the banks of the river, however. Some are farther away, like Ohiopyle State Park in western Pennsylvania. All partners are connected by their location in the Potomac and upper Youghiogheny watersheds, and on the nearby fringes of the Chesapeake Bay.

A feasibility study for PHT was completed in 1974, motivated by the National Trails System Act of 1968, an effort

A late summer visitor at Occoquan Bay National Wildlife Refuge in Northern Virginia – All photos by Monica Larcom, National Park Service, except as indicated

to create and preserve places for outdoor recreation. The Potomac Heritage Trail was formally authorized on March 28, 1983 as part of the National Trails System. Since then, National Park Service staff have provided coordination and

> partnerships between representatives of state parks, national parks and monuments, county museums and historical cities, as well as volunteers and nonprofit organizations.

> The Potomac Heritage Trail network fits within a rapidly growing niche in the National Park System that combines outdoor recreation in the form of long-distance nonmotorized travel and conservation efforts. Don Briggs, Superintendent of the PHT since 2001, is an avid outdoorsman himself and a passionate collaborator and advocate for trails, outdoor recreational tourism and land conservation. As Briggs states,

"The PHT is part of the same system, like the Pacific Crest or the Appalachian Trail, but is evolving as a braided network of trails, for nonmotorized travel, between the

mouth of the Potomac River and the Allegheny Highlands in Western Pennsylvania, with the C&O Canal Towpath as the spine."

If you follow one of the myriad through-bikers southeast along the GAP through the Big Savage Tunnel (closed from December-April each year) to Cumberland, she will often follow the GAP to mile-marker 184.5 of the C&O Canal, and continue along the Potomac.



Potomac Heritage Trail Network - Courtesy of the National Park Service

When you reach D.C., there is no lack of biking or hiking trails, many of which are segments of the PHT network. If you take the Mount Vernon Trail and swoop down

to Mount Vernon, you can continue on to Woodlawn Manor, the transplanted Pope-Leighey house of Frank Lloyd Wright's Usonian heritage, and Washington's Gristmill and Distillery, which today offers malts and flour.

Continue southwards on the southern Maryland or Virginia side of the river, and you'll encounter many more routes and trails maintained by more PHT partners, as well as historical sites and landmarks.

As a National Scenic Trail and a "national park" in designation, but not necessarily in location, the PHT is a prime opportunity to foster coordination between and among volunteers, nonprofit organizations, business interests and local, regional, state and federal agencies to conserve and promote outdoor recreation, historic, cultural and scenic resources in a national context.

Routes in Stafford and King George counties including the Dahlgren Railroad Heritage Trail were recently designated as part of the PHT; a reroute of a Laurel Highlands Hiking Trail section was completed by a Student Conservation Association crew; new trailhead signs are being produced along the PHT bicycling route in southern Maryland; and the gap between Grist Mill Park and Mason Neck, south of Mount Vernon, is receiving considerable



Four Locks at C&O Canal Mile 108.8 in early fall

attention. The NPS PHT office and others have sponsored numerous projects throughout the PHT network, including an assessment of the C&O Canal Towpath that will be

used in the future to advise repairs and resurfacing efforts.

Recreation and interaction with nature are both important parts of conservation, which also means exposing the younger generations to all that nature holds and can do for us. Recreation, when done in a renewable, considerate way reminds us of the value of the natural resources we possess—and why these forests, rivers, mountains and valleys are worth sustaining.

When hiking a trail, whether it be to your favorite fishing spot or a national scenic trail, it's likely we are more preoccupied by where we'll place our foot next than we are with the question "Who maintains this trail?" or "What do I need to do to keep this trail?" We don't ask ourselves, "What would I do if this view were obstructed by a power plant, or a shopping center?" With the increase of

urbanization in the tri-state area, if you aren't asking these questions, now is a good time to start.

Kayakers on the Potomac River during a Paddle

Potomac! event at Edwards Ferry, near C&O

Canal Mile 30

The National Park Service and partners are repurposing places like the Civil War Defenses of Washington into a green beltway of recreation, history, and cultural and societal revivification. Efforts like those in Piscataway Park and in the Mason Neck region have preserved the same views that George Washington enjoyed in his days at Mount

Vernon, illustrating ways that this trifecta of history, recreation, and conservation can become the norm.

Recently the NPS and partners have been increasing attention to the many scenic resources along the PHT. Through an objective process of inventories and site visits, we're attempting to highlight the "scenic" aspect of the Potomac Heritage National Scenic Trail. Partners, other stakeholders, and many volunteers are helping to highlight local scenic views along the trail.

This grassroots approach to conservation is helpful in a lot of ways: It helps to inform and engage, and it helps to get people outside. This is why we are asking for your help. If you go over to the NPS Potomac Heritage Trail website at nps.gov/pohe/learn/enjoy-the-view.htm, you can

take a look at the list of scenic views identified to date. You'll notice that this list is nowhere near complete, and there may be a few obvious (at least to you!) views that are absent.

Next time you are at a PHT-related place (you can check out all the sites under our Get Involved; "Partners" page), whether it be on the Northern Neck of Virginia or in western Pennsylvania, keep an eye out for a scenic view that you want to see preserved. Snap a picture, and send us the location, picture, and directional orientation of the view, and compare it to our list.

You can email us directly at pohesocialmedia@nps.gov, or mail your information and photo to:

Potomac Heritage NST Office P. O. Box B Harpers Ferry, WV 25425

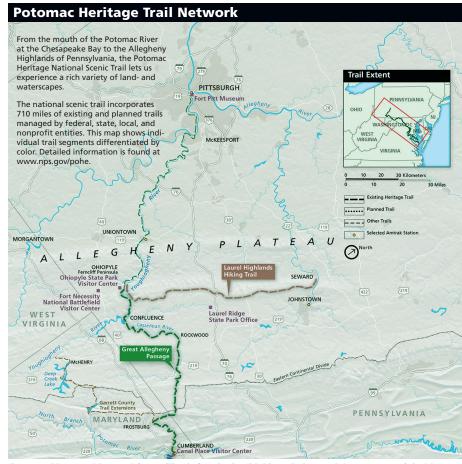
Happy trails!

Layout design of this article and all photographs, except as indicated, by Monica Larcom, National Park Service.



Meadow Mountain north trailhead in Garrett County, Md.

Monica Larcom is a writer and photographer who graduated from the University of Arizona. She recently moved to Maryland to become the SCA Digital Media Coordinator Intern for the Potomac Heritage National Scenic Trail and the C&O Canal National Historical Park. Contact her at mklarcom@gmail.com or view a sampling of her work at monicalarcom.journoportfolio.



Potomac Heritage National Scenic Trail, Cumberland Md. and above – Map courtesy of the National Park Service



Above - Bikers on part of the Potomac Heritage NST -Photo by Don Briggs, National Park Service

Below - View from C&O Canal of Amtrak train crossing the Cacapon River – Photo by Steve Dean



Along the Towpath, March 2017

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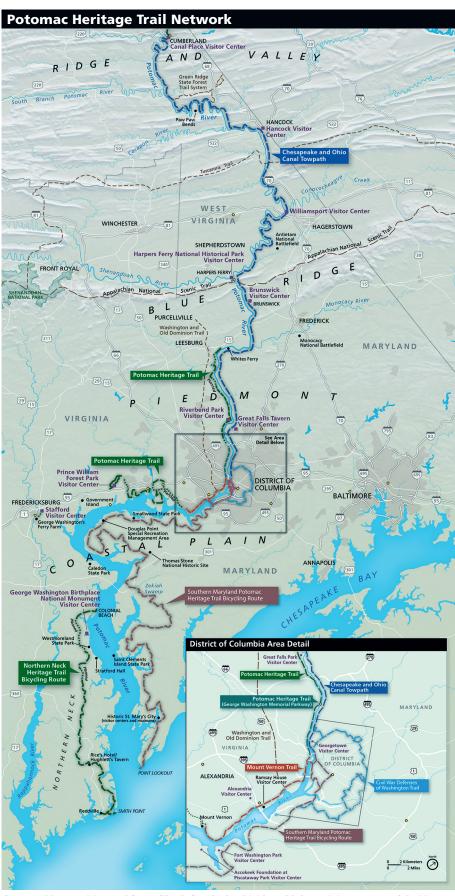
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Top – Potomac River near Antietam Creek Center – Fifteen Mile Creek Aqueduct Bottom – Great Allegheny Passage bridge over the Youghiogheny River



Potomac Heritage National Scenic Trail, Cumberland Md. and below – Map courtesy of the National Park Service

On The Level By Level Walker Chair Steve Dean

Level Walkers are C&O Canal Association volunteers who are assigned a section, or "level" of the canal, and periodically walk it and perform light trail maintenance, assessments, and cleanup. The program is popular because the walks can be performed by an individual or family, and on their own schedule. Please contact me if you are interested in joining us.

The winter months have been relatively quiet. Fortunately, the canal wasn't hit by any damaging winter storms, which is always good news. Unfortunately, for those of us who like to level walk and take photographs in the snow, there were few opportunities for snow walks. You can't always get what you want.

With the National Park Service budget ever shrinking, our roles as volunteers continue to provide real value to the park. I will continue to work with the NPS to find ways that we can help, and you will soon hear from me about improved communications and reporting criteria to enhance how we support our park.

Many level walkers started their service while Bill Burton was the chair. Bill was still an active level walker, on Level 60. I always find my walks on the canal a time to contemplate those who walked before us or with us, and I'm sure many of us will think about Bill when we are out there. Have a great spring on the towpath!

- Steve Dean, levelwalker@candocanal.org

Level 1 Tidelock to Incline Plane: John Barnett, occasionally with Mary Budarz, reports Feb. 5: It looks as if sometime last fall someone whacked all the growth on the bottom of the canal basin at Tidelock, as well as the one side of the lock which does not have a stone wall. While I was on the site, at least 10 visitors came around to look the place over. And this was winter! The aqueduct was very clean and freshly mowed. It looked great. I just picked a few items in the area next to the aqueduct where the brush had also been removed. Construction has started on Lock 4, and it's not possible to walk through the area from Thomas Jefferson Street to 30th Street. That whole section is closed off to thru-traffic. It's hard to recognize the place.

Level 3 Lock 5 to Cabin John Creek: Hugh Robinson and Marilyn Stone report Dec. 20: We did not encounter any trash along towpath, but picked up trash in parking lots for Sycamore Island, Lock House 6 and Lock 5. Nearly the entire canal covered with a thin layer of ice.

Level 4 Cabin John Creek to Lock 14: Larry Heflin reports November through February: The towpath was monitored over numerous walks, through all conditions. Nothing unusual was reported.

Level 5 Lock 14 to Bridge at Cropley: John N and Frances M. Maclean report Feb. 4: The walk was pretty much trash free. A good citizen award to all. One large bloodhound was off its leash, and despite a remark to owners remained so. The water level remains low and the canal is muddy in spots where it should be filled with water. There's only rainwater, it appears. I wish some of these billionaire entrepreneurs would put on a pair of hiking boots, get wise to the outdoors, and help fix the problem – with a check. The canal is a gift - I have cherished it for nearly half a century and mourn its current lack of a vigorous water supply.

Level 6 Bridge at Cropley to Lock 20: Jan Kuhl reports Dec. 5, Jan. 28, and Feb. 2, 4, 11 and 15: Generally, the level was free of trash. The December report also included some November walk time. There were kayakers on two of the February days, and a bridal photo shoot near the visitor center Feb. 11. On one walk I saw a blue heron that remained motionless as I walked past. Such beautiful birds, such squawky sounds. The new benches on the level look great.

Level 7 Lock 20 to Lock 21: William James reports Dec. 22: Fallen branches were moved off the towpath. The pot holes at Swains Lock are about 4 inches deep. A canoe is apparently being cached at a creek along the level. Jim and Lisa Goheen report Nov. 28 and Feb. 8: The towpath looked great on both dates. In November NPS Maintenance was cleaning debris from the lock gates at Swains Lock. In February Swains Lock had three tents and some trash. One tent was disassembled and looked abandoned, with pillows and sleeping bags scattered around the area. We reported site to park ranger at Great Falls. Nancy Benco and Kay Miller report Jan. 12: The amount of trash was greater than usual, with bottles, dog waste bags and tissues most common. Swain's Lock picnic grounds on the south side were especially trashy. Aside from the previously mentioned tree fall in the prism a few hundred feet south of Swain's, there were no other obstructions. The canal by Great Falls had very little water, apparently due to the closure upstream. There were spectacular sheets of cracked ice along the canal shoulders.

Level 8 Lock 21 to Lock 22: **Jack and Karen Forster report Jan. 1:** We took advantage of the mild weather to do our winter walk on New Year's Day. It was a pretty routine walk except we broke our record for walkers observed. Birds were quite active.

Level 9 Lock 22 to Seneca Aqueduct: **John McGraw reports Dec.** 7: I walked three times, with the last Dec. 7. On that day was 60 degrees and "awesome" as one hiker said. Towpath use was light and



Canal prism on Level 5 - Photo by John N Maclean

Along the Towpath, March 2017

there was very little trash. There are two trees down in the canal at Mile 20, which will impede canoeists. The road in to Pennyfield is in very poor condition. Seeing two whistling swans near Violettes lock was a highlight.

Level 10 Seneca Aqueduct to Milepost 25: Paul Graunke reports Dec. 22: Most trash was at the picnic ground. Culvert 35 was dry. Several small branches and sticks were removed from the towpath. Carol Purcell reports Jan. 12: Condition of the parking lot remains poor with lots of large pot holes. Many were full of water from the recent rains. There was no debris field in front of or under the aqueduct. Trees have been trimmed. The lock house, lock and aqueduct all looked OK. The wooden bridge over the missing section of the aqueduct appeared to have a couple of new boards in place.

Level 13 Lock 25 to Harrison Island: Liz Wagner reports Jan. 16: The tow path remains in good condition. There are some areas (about four) between Mile Markers 31 and 32 that have some rutting dues to the frequent bicyclists and remain about the same as October. It looked like new gravel had been put down in some areas. As usual, several small and medium sized branches were removed along the length of the level. All the structures and the areas around them are in good condition, with no vandalism. The bridge at the Broad Run Trunk has one plank with 3 nails well above the plank. They are near the rail so will not be an issue for the bicyclists. Two trees have been removed from the prism at Culvert 46.

Level 15 Whites Ferry to Lock 26: Jon Wolz reports Dec. 2 and Jan. 27: It was cloudy and a little chilly in December. An extensive cleanup was conducted on the level during a level walk that was nearly six hours. Many branches were removed from the towpath. There is generally a lot of trash on this level.

Level 16 Lock 26 to the Monocacy Aqueduct: Jon Wolz reports Dec. 27 and Jan. 31: This level has had the tree clearing by the NPS from on top of the canal prisms where trees were growing. I think there are a few more they need to get to. The canal sprung a few leaks near Culvert 68 and the canal prism from Dickerson to Lock 27 was drained in late September. The water has accumulated back in the prism. Up until the time the canal was drained, I often saw people fishing in the canal. A few people have questioned me regarding when the canal will have water again. I pick up a lot of trash along this level. Most of the trash is from behind the lock house from Culvert 68 to the waste weir as result of river flooding and at the aqueduct area. The parking areas at the aqueduct seem to have become a party area during 2016. Mike Cian**coisi reports Feb. 11:** The water level in the prism from Lock 27 to Lock 26 was extremely low – there was almost no water at all. This phenomenon also happened back in the spring of 2014. I did not find any evidence of a leak or sink hole that would have caused the low water. The logjam behind the Monocacy Aqueduct looks like it's shrunk slightly since my last level walk (Sept. 2016), or at least gotten less dense. There were some small flowers in bloom along the road near the Monocacy parking lot. These might have been snowdrops.

Level 17 Monocacy Aqueduct to Nolands Ferry: Earl Porter reports Dec. 13 and Jan. 12: Both walks resulted in moderate amounts of trash. Arches 6 and 7 were clear on the Monocacy Aqueduct, and in January arch 2 was open. The broken grill at the Indian Flats hiker-biker camp was removed.

Level 19 Point of Rocks to Catoctin Aqueduct: Lynn and Jim Walker report Dec. 5 and Jan. 15: Assessments were conducted of Culverts 75, 76, 78 and 79. During the past summer, trees and brush were cleared over the barrels of the culverts. In January, I collected and removed 10 very full bags of trash and recycle, from along the towpath, near the aqueduct, and at the Lander Boat Ramp area. I did not finish removing trash from the Lander Boat Ramp area because I ran out of bags and my back hurt too much from all that bending over. Lynn retired as a level walker in January; she provided great support on Level 19 for several years, and her service was much appreciated. June Miller and Linda Miller report Dec. 28: It was an amazingly mild day for end of December! It was my first-time level walking. I didn't notice anything alarming, and I took photos so I can compare for next report.

Levels 19 through 21 Point of Rocks to Lock 31: Don Peterson reports November through February: Towpath was monitored over numerous walks. Conditions are generally good on all three levels, and no significant issues were reported. Local dog walkers are seen on a regular basis, and occasional horseback riders are observed.

Level 22 Lock 31 to Lock 33: Karlen Keto reports Jan. 1 and 15: It was a fantastic, beautiful first day – perfect for welcoming the new year! I expected to see more people out than I did. I found a dilapidated hand-cart; I tied the trash bag to the cart to ease removal of both. Noisy, but effective! On the later walk, it was quiet; 10 walkers, no dogs or bikes.

Level 23 Lock 33 to Dam 3: **Karlen Keto reports Jan. 18 and Feb. 6:** It was quiet, and there was only light trash in January. In February, there was more people and more trash, including bags of dog waste. Erosion continues the towpath on the river side close to Maryland Heights.

Level 25 Dargan Bend to Lock 37: **Don Juran reports Dec. 27:** The towpath was almost completely dry. The erosion around Culvert 97 at Mile 65 has not worsened, and the vegetation covering the bank is still holding. There was recent extensive tree-cutting along much of the level. Two trees were observed that had emerald ash borer damage. Someone left a beer bottle, a cigarette lighter, and a plastic pill container placed neatly under the bag dispenser at Lock 37, even though the dispenser was well stocked. At least he/she had good taste: Flying Dog 90-minute IPA. I saw a sizable four-footed animal around mile 65.4 lumbering across the towpath toward the river. Thinking it might be a bear, I kept my distance.

Level 26 Lock 37 to Antietam Aqueduct: Jack and Karen Forster report Nov. 25: The river water level was low and Culvert 100 was dry. Most towpath users were bikers. Lynn and John DiCarlo report Feb. 4: No trash on the towpath. Some dumped tires were visible on the berm. There were survey markers near Mile 67.3 where AT&T was running cable under the river and the canal.

Level 27 Antietam Aqueduct to Lock 38 Jonnie and Joyce Lefebure report Jan. 25: Dead ash trees have been cut down except for one at around Mile 70.5 that towers over the towpath. The towpath was remarkably clear considering this section's popularity. In the campground, many hazardous hedge apple trees had been sawed into fireplace size and stacked or set up for "settin' on" – if large enough for "settin' on" – around a fire ring.

Level 33 Dam 4 to McMahons Mill: Dick Stoner reports Nov. 12: The condition of all towpath components was very good. I found no damage and no limbs on the path or in culverts or on walkways.

Leaves have begun to fall but it had not been very windy yet so they are deep in the woods and not much in the way. This level is in very good condition and I very much enjoyed the quiet views of the river on this sunny Sunday morning.

Level 34 McMahons Mill to Opequon Junction Hiker Biker: Trent Carbaugh reports Jan. 7: There was a slight overcast with some sun later in the afternoon with a light dusting of snow. There is a large piece of metal lodged 15 to 20 feet up in a tree, on the cliff side 3/10 of a mile upstream from the mill. This could be a problem at some point. Beavers are cutting small trees down in this area, one of which fell on the towpath, a bicyclist moved it early in the day (tracks told me this) but could not get it over far enough. I cut the top off the tree to allow it to be moved off the towpath.

Level 36 Lock 43 to Falling Waters: Dick Ebersole reports Feb. 11: The towpath was in great condition for the time of the year, Lock 43 and the lock house were in stable condition. There was water in the lock and in the canal in front of the lock house, so I couldn't cross the canal to get a close look at the lock house.

Level 42 Four Locks to McCoys Ferry: Jack and Deborah Ebersole report Jan. 1: A level walk was a wonderful way to spend New Year's Day. The towpath was in good condition with some mud in a few areas. The Canal Quarters Lock House 49 was occupied.

Level 44 Fort Frederick to Ernstville: Jim Biasco reports Jan. 4: Nobody was seen on the towpath. There is one major pothole still needing repair. The major pothole is at Mile 113.8, is deep and is a serious safety hazard to bikes. Ducks and a few Canada geese were on Big Pool. And most interesting, for most of the time I was hiking along Big Pool, were the two adult and four juvenile Bald Eagles flying around over Big Pool. The juveniles seemed to chase each other and fly the thermals while the adults seemed to watch by moving from tree to tree around the lake. The juvenile eagles from time to time dived at the ducks on the water surface and got them disturbed and airborne. They never went after them in the air or seemed to go after them seriously.

Levels 47 (upper) and 48 Lock 51 to Round Top Cement Mill: Phillip M. Clemans reports Nov. 28 and 29: I picked up the most trash I have ever seen on the level; the equivalent of five full size bags over the two days. This was mostly in town, around the U.S. 522 bridge, and along the berm road. Towpath use was light. I noted someone who was either an ill-prepared biker or a homeless person at the White Rock hiker-biker camp. It looks like some tree cleanup had been done at the camp. I noted cardinals, gnat-catchers, hairy woodpeckers and belted kingfishers.

Level 55 Lock 59 to Culvert 208: Paul Petkus reports Feb. 11: This was my 25th walk on the level. I'm glad that I volunteered to check on Level 55. It's an interesting and very pretty part of the park. It is very lightly visited in the winter. In fact, of the four winter level walks I've taken so far on Level 55, I didn't see anyone on the level during three of them. The towpath is in good condition overall. The amount and the sizes of the sticks that littered the towpath were consistent with what would be expected from the wind that accompanied some of the winter storms. Culvert 208 has not degraded from previous assessments. An unexpected sight was a pair of bowling balls on the side of the towpath on Mile 145. I left them there rather than try to carry one back to Little Orleans. Birds were the most common animal sighting, but I also spotted turtles, red spotted newts and an eastern comma butterfly.

Levels 56 and 57 Culvert 208 to Lock 63 1/3: Barbara Sheridan and Pat White report Nov. 25: The canal was watered the entire distance, though water was low in places. The Twigg Hollow stream was completely dry but new footbridge across stream bed was very nice. We spotted six turtles and fresh beaver signs on some trees. We hauled some large metal objects out of the canal. A biker thanked us for our efforts to maintain the towpath.

Level 60 Opposite Little Cacapon to Town Creek Aqueduct: Trent Carbaugh reports Jan. 21 (with Debra Carbaugh) and Feb. 4: In January, we noted some minor puddles, but overall the towpath is in good shape on this level. There was a very large number of downed limbs, not bicycle friendly size, over the entire level. The NPS is also felling ash trees in this area; most are on the river side of the towpath. The waste weir at Mile 160.26 is in fairly good shape but the spillway on the river side is deteriorating with some extensive damage to some of the structure. Looks like freeze/thaw shattering of stones as well as the shifting of some stones. In February, I cleaned copious amounts of trash, mostly from the canal prism and hill on the Town Creek side of the parking area. I collected 10 large garbage bags and some loose refuse drywall material. Some of the trash was quite old. I saw two dog walkers with three leashed dogs (boxer rescue folks, nice dogs), and one hiker as well as a runner. I also observed one male red tail hawk, some crows and a downy woodpecker. Level 63 Lock 70 to Kellys Road Culvert: Steve Dean reports Jan. 27: I took a short level walk to see how the locks and lock houses were doing. The NPS Maintenance team had installed new bridges at Locks 70 and 71; they look great.

Level 65 Spring Gap to Lock 74: Dan Filer and Rita Knox report Dec. 28: It was a very good day for a walk. The towpath was great condition and there was very little trash. All structures were in good condition. The NPS Maintenance team has done a great job keeping vegetation clear of structures.

Levels 65 and 66 Spring Gap to Mexico Farms: Jim Lyons reports Dec. 21: The towpath was basically ice-encrusted, although a late autumn thaw was beginning to turn the towpath to mud. Downstream from Lock 73, the towpath was impassible due to ice, therefore my walk was cut short. Many small branches were down on the towpath. The new railroad bridge over Lock 73 is quite unsightly, really obscures the view of the lock.



The National Park Service Maintenance team uses the colder months to perform upgrades and structure maintenance when funding allows. This year they built new canal crossover bridges in many locations, as shown here at Lock 70 in Oldtown. Thanks, Maintenance, for the great work! – Photo by Steve Dean

Across the Berm - Bill Burton

It is with great sadness that we report the death of Bill Burton, a member of the board of directors for the C&O Canal Association. Bill died on February 2 at George Washington University Hospital, Washington, DC.

Bill was well known to members of the Association. He joined the Association in 1998, and immediately signed up to be a level walker. During his time as a level walker he walked Level 58 near the Paw Paw Tunnel, and later Level 60 near Town Creek. In

2002 he was elected 2nd vice president and spent five years in that position, serving as the level walker chair. Bill also served five years as a director, being elected to his current term in 2015. He was a permanent fixture on the Association's paddle trips, leading at least three of them himself every year. Those who knew Bill will miss his quiet, good nature and willingness to help wherever needed.

Bill was born in Richmond, Va. He retired from both AT&T and the General Services Administration. He is survived by his wife Sara L. Burton and his children, Rene Bryant of Richmond and Daryl Burton of Warrenton, Va. Also surviving are his grandchildren, Ava, Cole and Will Burton.

A graveside service will be held at a later date at Bright View Cemetery in Warrenton. Bill's family has suggested that memorial donations be made to your favorite charity in his name.



Remembering Bill Burton

Anthony "Tony" Laing

They say that one of the saddest days is the day when someone who makes good memories becomes a memory. Such was February 2 when Bill died. I had the pleasure of knowing Bill for the past six years.

While I had been a member of the C&O Canal Association for several years, I had not participated in any of the activities. In the spring of 2010 I purchased my first kayak and I called Bill about participating in a paddling trip for which he was the point of contact in the newsletter calendar. I met up with him at the appointed time and thoroughly enjoyed the outing. For the next six years, the paddling trips were to become some of the highlights of my summers. I tried to not miss a trip. From the paddling on the canal, the Potomac River day trips, to the overnight Paw Paw Bends trip, all of the participants had such fun and left with such good memories. On all of those trips, Bill was the stalwart leader or co-leader who always demonstrated courtliness, kindness, and patience as well as an ample dose of humor.

I was also happy when Bill decided to serve on the board of directors during the same time as me. It was always a pleasure to participate in the meetings with him. I hope Bill is enjoying many wonderful paddling trips across the berm.

Vicki Dodson and Pat Sainsott

Bill was a true gentleman who had much love for his family. He also happened to be a top notch paddle trip leader. Whether he was hauling charcoal in his canoe, setting shuttles while everyone else was hitting the "snooze," scouting lines, hauling coolers, or collecting campfire wood in a mosquito-choked ditch, Bill's actions proved that he cared about the comfort, happiness, and safety of others. His gentle spirit, dry humor, patient nature, and calm leadership will be very greatly missed.

Barbara Sheridan

Bill Burton was a fixture in the C&O Canal Association for the past 19 years. He was always there when you needed help with something; be it something small like helping to load a canoe or kayak on someone's vehicle to storing all of the Association-owned thru-hike camping and cooking gear.

Bill was usually there, doing the long hikes on the springtime Douglas Hike and the Heritage Hike in the Fall. He didn't miss many of the Continuing Hikes either, as he was very fond of hike-leader Pat White's home baked cookies. I remember one winter hike near Dam 4. There were at least 12 inches of snow on the ground and Bill (along with Howard McGowan) volunteered to lead the way and tamp down the snow for everyone else since they had the largest feet.

Bill was also an avid paddler. He led many paddle trips in the canal and on the Potomac River for the Association and participated in those led by others. Bill could always be counted on to help out with shuttling paddlers back to their vehicles at the end of the trip and he usually brought along enough extra gear to fill in when others forgot to bring something.

Bill was quiet, good-natured and one of the nicest people I have ever met. He will be missed by so many. Rest in peace, my friend.

Steve Dean

I respected and admired Bill's soft spoken manner - he was quiet but when he had something to say it was worth hearing. As a previous level walker chair he was a great source of advice for me, and I enjoyed our chats during the hikes. Bill joined Barbara Sheridan and me for our tradition of an Indian dinner, Hagerstown style, on the night of the President's breakfast – I don't think he was much for spicy food, but he was very brave about testing various dishes. We'll miss him.

Accompanied by the Past by Karen Gray

History is the witness that testifies to the passing of time; it illumines reality, vitalizes memory, provides guidance in daily life, and brings us tidings of antiquity. Marcus Tullius Cicero (106–43 BCE), Pro Publio Sestio

The Second Watered Section Of the Canal: Miles 22.12 to 62.27 And the 2017 Douglas Memorial Hike

By 1832, the shallow-draft boats and rafts navigating the often rocky Upper Potomac (i.e., above tidewater) were able to use the first section of the C&O Canal to open to navigation. Entering by Dam 2's inlet channel and lock that waters the 22 miles to Rock Creek, the boats could finally bypass, on a calm waterway, three major falls: the Seneca, Big and Little Falls—as well as some of the major rapids on the river. In many ways those lower 22 miles constituted one of the most challenging sections of the canal to construct, as it must climb from tidewater up onto the Piedmont Plain, which required an average of one lock per mile (i.e., Locks 1 thru 22, with the first 20 built in the first 14.3 miles).

Lock 23 (now known as Violettes Lock), like Locks 24 through 34 above it, was not watered until the canal from Dam 3's inlet and all the structures downstream to the first watered section, were ready in the 1834 boating season. The 2017 Douglas Reunion Hike occurs along the 13 miles between the Monocacy Aqueduct and Brunswick, of the second section of the canal to open to navigation that encompassed Mi. 22.12 to 52.27.

Although the 40 miles between Dams 2 and 3 required only a dozen locks (Nos. 23 through 34), it required three aqueducts, two river locks (the latter at Edwards Ferry and Harpers Ferry), and culverts originally numbered from 70 through 95 (although not all can be documented today). This section did not, however, require building the dam that creates the pool tapped by the inlet structures at its upper end. Dam 3 (as it was known to the canal company), was the Government or Armory Dam that provided water on the then-Virginia side of the river to the Harpers Ferry Armory canal. It was never the property of the C&O Canal Company. The Dam 2–3 section also includes the four narrow areas that led to the dramatic legal battle with the B&O Railroad lasting from June of 1828 to January of 1832.

The contract for the Monocacy Aqueduct, let in August of 1828, appears to be the canal company's first construction contract. The expedient issuance of that contract reflected everyone's recognition that it was a work of unique size and importance at the time when a tunnel was not yet seen as a necessity in the mountainous region east of Cumberland.

Comparing the three aqueducts on the section of the canal between inlets 2 and 3 is illuminating:

Aqueduct	Length & Arches	Construction Years	Cost
Seneca	116 ft. between abutments; 3 arches	October 1828 – Early spring, 1832	\$24,340.25
Monocacy	438 ft. between abutments; 7 arches	Aug. 20, 1828 – May 1833	\$128,859.23
Catoctin	92 ft. between abutments, 3 arches	Feb. 25, 1832 – Feb. 1834	\$33,325.92

A rarely-recognized fact about the Seneca Aqueduct: It's waterway is only 15 feet wide due to the fact that it is connected to Lock 24 at its downstream end. On the other hand, the Monocacy and Catoctin had waterways that were 25 ft. wide.

The construction of the Monocacy involved two remarkable men. The first is Charles Ellet, Jr. of Bucks County, Pennsylvania, who was hired as one of the original assistant engineers on the canal when construction began in late 1828. Only 18 years of age at the time, he had little formal education and probably no substantive engineering experience when he applied for work on the C&O. However, he arrived with a letter of recommendation from his work assisting surveyors on Pennsylvania's new canal to be built along the North Susquehanna, and almost certainly that alone got him that entry-level engineering job.¹

Ellet appears to have been a brilliant mathematician with a mind naturally gifted for the dramatic engineering challenges he took on with remarkable self-confidence in his later career. On the C&O, at the beginning of his professional life, he found himself, for much of the time the sole engineer on the fifth Residency of the canal when his Resident Engineer, Herman Böye, became ill and was confined in Georgetown. That fifth residency included the great Monocacy Aqueduct with all its early troubles, and it appears that none of the other assistant engineers faced anything comparable to the challenges Ellet confronted.

When Ellet left the C&O in early February 1830, it was to travel widely in France, studying bridges as well as railroad and canal structures. That Ellet was an autodidact (self-educator) of the first order is demonstrated by the fact that he rapidly became America's foremost wire-cable suspension bridge engineer. Ultimately, Ellet designed suspension bridges that cross the Schuylkill in Philadelphia, the Ohio at Wheeling, and Niagara Falls (a pedestrian bridge). His fame extended to

his Civil War ram ship design and proposals for using reservoirs to lessen the devastating floods on the Midwestern rivers. He might well have received the Brooklyn Bridge contract had he not died of gangrene after being injured while aboard one of his ram ships in the Battle of Memphis in June 1862.

The other significant individual was Michael Byrne, who, with William Byrne and a Mr. LeBaron, became the third contractor on the Monocacy, taking over the troubled project on Aug. 7, 1830 and completing it in the winter of 1833-34. While nothing is known of LeBaron, and William Byrne's name soon disappeared from the company's C&O contracts, Michael became one of the most successful contractors on the canal and a prominent citizen of Frederick, Maryland, where he made his home with his wife and mother.²

Michael Byrne—who was born in Ballynascreen, Derry, Ireland in 1792—is the C&O's best example of an Irish immigrant who made good. His initial appearance in this country's records is in 1825 with William Byrne and another man named Provest, when the three had a contract for quarrying and masonry on Pennsylvania's Schuylkill and Susquehanna Canal (begun in 1792 and, after a hiatus, finished as the Union Canal in 1828). He was clearly a skilled rather than unskilled immigrant unlike most of his compatriots on the canal.

Although the original diagrams have been lost, the design of the Monocacy is that of the C&O Canal's first Chief Engineer, the great Benjamin Wright, who gained experience and fame as senior engineer on the middle section of the Erie Canal (the first version of which was finished in 1825), and became known as the father of American engineering. In the Ellet correspondence collection at the University of Michigan is an invaluable and detailed letter from Wright to Ellet concerning the construction of the Monocacy.

Today the Monocacy Aqueduct is likely best known for the efforts of Confederates in September 1862—first under the command of Major General D. H. Hill and later under Major General John G. Walker—to do major damage to canal structures just downstream of the aqueduct and then to the aqueduct itself. This is a story well told in the waysides near the aqueduct and elsewhere.³ Of interest also with regard to the Monocacy is the often found but largely incorrect information that its stone came from a quarry on Sugarloaf Mountain, a monadnock that dominates the surroundings. As discovered by National Park Service historian Robert Kapsch in his research on the aqueduct, the Sugarloaf stone proved to be unsatisfactory and ultimately stone from two nearer quarries was used.⁴ Thus the historic sign on nearby Rt. 28 is incorrect as concerns the source of the Monocacy's stone.

Between Point of Rocks and the Monocacy, walkers will want to watch for the outcropping of the "calico rocks" at Mi. 46.8, one of the locations in the state where one can find

what is also known as Potomac Marble or Potomac Breccia. This multicolored conglomerate of Triassic age is attractive in appearance but was never widely used as a building stone because of the inconsistent hardness of the pebbles and matrix of which it is composed.

Although little remains to indicate where the short-lived mid-1830s Tuscarora Feeder connected with the C&O Canal at Mi. 45.10, it was said by some historians to have been intended for use in watering the section of canal below it to the Dam 2 inlet at Mi. 22.12 in the face of possible delays in building above Point of Rocks due to the legal battle with the B&O RR. However, the feeder was constructed between February and November, 1833—a full year after that legal contest was settled in the canal company's favor. More likely therefore, it was built in anticipation of problems with maintaining water levels in this more than 40-mile-long section that otherwise relied only on the inlet and feeder canal at Dam 3 for water.

Also of note is the Kanawha spring at Mi. 47.57. On the night of March 25, 1954, Supreme Court Associate Justice William O. Douglas and his fellow hikers were accommodated at the nearby Camp Kanawha. A mere quarter of a mile upstream, at Mi. 47.79, is the junction of the B&O RR mainline from Baltimore and its Metropolitan Branch down to Washington that was opened in 1873. At the split is the classic station designed by the B&O's famous architect E. Francis Baldwin, which was completed in 1876. It is regarded as one of the most painted and photographed railroad stations in the country.

A short distance up the canal in Point of Rocks at Mi. 48.2 is the so-called pivot bridge (that only briefly actually pivoted on its pier in the canal prism). Just beyond it at Mi. 48.4 is the beginning of the narrows that so challenged the B&O and C&O and ultimately resulted in the two railroad tunnels and the current half-width canal prism in those sections. The latter results from the fact that in 1938, when the C&O Canal Company assets (including its land) were sold by court-appointed receivers, the B&O was allowed to purchase strips of canal land at the narrows and in Georgetown for \$100,000. Those strips allowed the railroad to widen the space for the tracks on the outside of the tunnels and to fill in a significant amount of canal prism.

Locks 28 (Mi. 48.93), 29 (Mi. 50.89 at Lander), and 30 (Mi. 55 at Brunswick) are included in the longest version of this year's Douglas Hike. But the major structure in this part of the canal is the three-arch Catoctin Aqueduct. It was known as the "crooked aqueduct" by the boatmen due to the significant curves in the line of the canal at both ends that confronted them with a navigational challenge due to the some-200 ft.-long towline between the mules and the boat.

The Catoctin Aqueduct, having lost its two upstream arches in a local flood the end of October 1973, likely would never have been rebuilt but for the initiative and organizational skills of Lander area resident and retired Army colonel George Lewis, who was joined early in the project by Point of Rocks historian Pepper Scotto and—as he began fundraising in 2006—the Community Foundation. In the end, the \$4.5 million project was a remarkable example of public-private funding that began with small donations from caring individuals, matching grants and corporate donors.

The reconstructed aqueduct was dedicated Oct. 15, 2011, and although it appears to be a reconstruction of the original masonry structure and uses some of the original stones on parts of the exterior, it now has (among other changes designed to protect it during major floods), a frame of concrete, fiber and steel. As much as possible of the downstream arch (which did not collapse in 1973) was saved.

Upstream from the Catoctin Aqueduct that spans the Catoctin Creek is the heavily damaged remains of Culvert 82. Its 16-ft. span puts it among the canal's largest culverts and its generous size was required by the substantial waters of the Little Catoctin Creek that passes through it. Currently most of the culvert is exposed and a bridge carries the towpath across the creek.

Of course the hike route between Point of Rocks and Brunswick not only takes walkers along the river side of those two historic Potomac towns, but also through two of the four narrow passages at the center of the famous legal battle for right of way. Because it was settled just days after the New Year's 1832 and before construction of the canal below Point

of Rocks was completed, work on the canal never ceased during the legal battle. However, with the ruling in favor of the canal, the railroad's situation was less sanguine, as it continued to be blocked at Point of Rocks until the latter part of 1833.

A compromise agreement, finalized in early May by both companies, in the face of the Maryland legislature's threat to withhold any future financial assistance, resulted in the engineers finding a solution that involved the blasting of stone from the end of the offending ridges and using some of it for the line of the two works. The two tunnels (located at miles 48.40–48.55 below Lock 28 and 49.99–50.11 above it), were constructed after the Civil War and opened in 1868 to provide double tracks.

The two narrows directly above Point of Rocks were known as the Lower and Upper Narrows and each was 1.5 Mi. long. The other two were up the canal at South Mountain and Harpers Ferry and were treated as a single, 2-mile long stretch by the compromise. Those walking between Brunswick and Point of Rocks will walk through the two lower narrows.

Notes:

- 1. See Gray, Karen M. "Charles Ellet Jr. on the C&O Canal", Pp. 41–68, Canal History and Technology Proceedings, Vol. XXX (2011, Canal History and Technology Press, 2011)
- 2. See the September 2012 *Along the Towpath* for Karen Gray's "Accompanied by the Past" column on Michael Byrne.
- 3. See especially Snyder, Timothy R. *Trembling in the Balance: The Chesapeake and Ohio Canal during the Civil War.* (Blue Mustang Press, 2011)
- 4. Kapsch, Robert J. and Elizabeth Perry Kapsch. P. 26 ff. *Monocacy Aqueduct on the Chesapeake and Ohio Canal*, (Medley Press, 2005).



The Association presented a framed NPS Centennial poster of the C&O Canal to the Williamsport Town Council on December 12. The poster was a thank you to the council for allowing the Association to use the council chambers for its boards meetings. Donald Stotelmyer, Dustin Byers, Alan Redding, James G. McCleaf II, Bill Green, Bill Holdsworth, James Kalbfleisch, Joan E. Knode, and Scott Bragunier. — Photo courtesy of Bill Holdsworth



Canal travelers and volunteers know that in Williamsport, Desert Rose is the place to go for weary, hungry, thirsty, cold or hot canal people. What some may not know is that just under 20 miles downstream from Williamsport is Roses Culvert – Culvert 114 to be exact. Although the culvert predates Rose by a number of years, it's a great name. On January 13, Steve Dean presented Rose a photo of the culvert. – Photo courtesy of Steve Dean

Along the Towpath, March 2017

Donors to Association Funds - November 1, 2016 to January 31, 2017

Funds are identified as follows:

Ken Rollins C&O Canal Fund - R

Davies Legal Fund – **D**

Rachel Stewart Swains Lock Area Fund – **S**

James Alden – **R, D, S**William & Alice Alkire – **S**

Wayne Anderson – **D**

John Beck – R

Mary Bell – **D**

John & Janice Belz - R, D, S

Barbara B. Berg – R

Bethesda Friends Meeting – **R**

James R. Biasco - R, S

Kathleen A. Bilton – **D**

David & Barbara Biser – R, D

G.N. Bloom - R

Marguerite A. Bradley – \mathbf{R}

William N. Brown – \mathbf{D}

Michael & Judith Bucci – R, D, S

Richard T. Busch $-\mathbf{D}$

John & Renee Butler - D

Derek & Laura Byerlee – R

Cabin John Memorial VFW Post 5633 – R

Forest Cahill – R

Ashby & Kathryn Chamberlin - D

Galen & Sandra Clipp – **S**

Chris Colgate – **S**

Drs. Jack and Rita Colwell - R

Jerome A. Conlon - S

Joseph M. D'Amico – **S**

Sylvia Diss – **S**

Jo Ann Condry - R

Jerome A. Conlon – **R, D**

Norman J. Cook - D

James W. Corbitt Jr. - D

John & Miriam Crook – D

Dianne I. Crosby – **D**

Lynn DeForge - R

Ruth Dudgeon - R

Bruce & Linda Dwyer – R

Jack M. Ebersole – R

Sharon G. Elliott – R, D

David & Audrey Engstrom - R

Chiara Ferraris – D

Johathan & Linda Field – **D**

John Fragale – R

Jude & Mary Franklin – **S**

John & Janice Frye – R, D, S

Anne W. Gale – R

Along the Towpath, March 2017

Steven Garron – **D**

Craig Gillian – **D**

Karen M. Gray – **S**

Anya Grundmann – R

John & Elin Haaga – R

Douglas M. Hackett – **R**

Marc & Nancy Hafkin – **S**

Shirley Haigh - S

Theresa E. Hallquist – R, D, S

Don & Liz Harrison – **S**

Martin Heavner – **S**

Jim & Janet Heins – **S**

C. K. Hickerson – S

William & Christine Holdsworth – R

John & Shizue Howe Jr. − **R**

William C. Howell - R, D

Jeffery Hritz – D

George Huhn – R

Dorothy Ipavec – R

Carol Ivory - S

Elizabeth B. James – \mathbf{R}

David M. Johnson – **R**

Ms. Carolyn W. Johnson – R

Sandra B. Kahn – **S**

George T. Keller – **R, D, S**

Harry M. Kemstedt – **R, D, S**

Karlen Keto - R, D, S

Ray C. Kinsey – **R**, **S**

Jonathan Klugman – R

Thomas Knoerzer – **R**

Sara B. Kochenderfer – R

Sara B. Kochenderfer –

John W. Kochowicz – **S**Paul Kovenock – **S**

Janice Kuhl – **S**

janice Kun – 3

Steve Kover – \mathbf{R}

E.S. & H.J. Krafsur – \mathbf{D}

Dennis J. Kubicki – R

Louis & Phyllis LaBorwit Ph.D. - R, D, S

Laurence & Ellen Langan – R

Paul T. Langevin – R

Peter Laugesen – R

John & Joyce Lefebure – S

Dr George & Pamela Lewis Jr. – R

Jane & Norman Liebow – R, S

Kristine Marames – **D**

Francis Denis & Elisabeth Light – R, D, S

David & Katie Long – **R**

Bert & Patricia Lustig - R, D

Merritt Magee - S

Linda & Michael Marmer - R, D, S

Paul & Rita Marth Jr. - R, S

J.C. & M.C. Marziani – **R, D, S**

Robert & Marie Masincup – R, D, S

Thomas & Dorothy Mathieson - R

William & Susan McAllister – D, S

McLean Garden Club - R

Robert & Jane Melchoir - R

Daniel Mick – R

Forrest & Lorraine Minor – **S**

David & Nicole Mitchell - R

Barbara Mobley – **S**

Mark & Sue Moessinger - D

Dward & Jeanine Moore - R, D, S

James & Barbara Moore – R

 $Moreau - \mathbf{R}$

Ronald & Pamela Morith - D, S

Diana K. Niskern – R, S

Thomas E. Odea – **D**

Mark D. Pankin – **R**

Charles Pekow – **R**

Jeanette M. Penner – **S**

Paul A. Petkus Jr. – **R**

Thomas & Linda Perry – **S**

Patricia M. Pickering – **R, D**

Dell Pillers-Cline – **S** Mark W. Podvia – **S**

Katherine L. Poore – **R, D, S**

Richard Poremski – R, D, S

Ned & Leni Preston – **R**, **S**

Carol Purcell – R, D, S

Caron runcen – R, B, S

William Ravenscroft – R

Farnum & Gayle Reid Jr. – S

Craig A Reynolds – **R, D, S**

Ed & Linda Rhodes – **S**

Hugh T. Robinson – **R, D**

Edward & Patricia Rogers – **D**

Richard & Ruth Rooney – **R** M.G. & C.F. Ryschkewitsch – **R**

Nasra Sakran – **S**

I : C 1 : C D

Lois Schiffer – **D**

Cory Schlegel – **S**

Jan Schoonmaker – **S**

Kurt Schwarz – **R, D**Jan V. Sengers – **S**

Michael Shallenberger – **S**

Joe & Martha Shannon – R

Elias Roy Shilling – **D**

Sierra Club Potomac Region Outings – R

Rima Silenas – **R, D, S**

Robin Sue & Malcolm Skiver – **S**

(Continued on p. 20)

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Volunteers in Parks

This is the 13th year of projects since the reorganization of the Volunteers in Parks (VIP) program in 2004. After hibernating for the winter months, the head of the VIP group, Potomacky Pill, sometimes referred to as "Jim," didn't see his shadow on the prescribed February date, so he is planning on an early spring and is getting some projects lined up.

Our agenda includes the annual river and canal cleanup, more benches to be installed, more waysides to be installed, more painting to be done and more picnic tables to be repaired. In addition, we now have a new on-going project.

The VIP program is assuming the responsibilities for the Swains Lock canal stewardship. Pat White is passing the torch to us on this one, with the hope that those who have done such a great job of maintaining that facility will continue to help out. There will be more to come as we get organized.

The first big project of the year will be the annual Alice Ferguson Foundation sponsored Potomac River Watershed Cleanup, which is scheduled for Saturday, April 8, from 9 a.m. to noon.

As our schedule of projects fills in, the activities and dates will appear on the association calendar and emails will be sent out. At any time, you can get in touch with Jim Heins or Skip Magee at vip@candocanal.org for further information.

– Jim Heins, VIP Coordinator

Garlic Mustard

Don Quixote fighting windmills – the C&OCA fighting garlic mustard. Are we too idealistic and perhaps not operating with a full deck? We are not Cervantes but we are serious and we need more than Sancho. We need <u>you</u>.

The Garlic Mustard Challenge (GMC), although not completely under the VIP program, is headed up by VIP members (Jim Heins and Steve Dean). It is looking for a shot in the arm as production and interest was down somewhat last year. You will be hearing more information about this important effort. Contact Jim or Steve at gmc@candocanal.org.

-Jim Heins



Skip Magee, Jim Heins and Craig Roberts after a lock sign installation. Join the fun in 2017! – Photo by Monica Larcom, National Park Service



At first glance it looks like one of "Steve Dean's culverts" but it's actually a crop of "Jim Heins' garlic mustard." Culvert 114 is shown. – Photo by Steve Dean

Donors to Association Funds - Continued

Leonard & Joyce Skoglund – **R**, **D**Susi Slocum – **R**Dennis & Donna Sloppy – **R**, **D**, **S**Howard & Dolores Solomon – **R**Arthur Spitzer – **D**Bruce Staskiews – **R**John N. Sterling – **R**Robert & Jody Stevens – **R**Sally C. Strain – **R**Russell & Alice Strasser – **R**Lowell & Jean Swank – **R**George M. Swisko – **R**, **D**, **S**Richard S. Thompson – **S**C. Jean Toleman – **R**, **D**Bill & Caroline Triplett – **D**

Arthur Tsien – R

Sam & Grace Tucker – R, D

W. Karl Vannewkirt – R

James P. Waite III – R

Hilary Walsh – R

Katrinka Westendorf – R, S

John Wheeler – R

Louise J. Wideroff– R

John & Anne Wisniewski – R, S

Francis John Wodarczyk – R, D, S

George & Julie Wyeth – R

Ed Wojtaszek – D

John & Marjorie Ziegler – D

Douglas Zveare – R, D, S

In Memory of Marilyn Stearns
Barbara B. Berg – R
In Honor of Ann & Jamie
Gayle Blansett – R
In Memory of Jon Dean
Steve Dean – R
In Memory of Hal & Jane Larsen
Shirley Haigh – R
In Memory of Brad Haigh
Shirley Haigh – D
In Memory of Carl Linden
Leonard & Joyce Skoglund – R
In Memory of Rachel Stewart
Adrian R. Stewart – S

Along the Towpath, March 2017

C&O Canal Association Annual Meeting

The 2017 C&O Canal Association annual meeting was held in Williamsport, Maryland on March 4. President Bill Holdsworth opened the meeting. He reported on the Association's accomplishments over the past year, including continued support of *The Cumberland* restoration and funding of the Bowles house repairs. He presented a check to support Swains Lock House renovation to Don Harrison of the Friends of Historic Great Falls Tavern.

All committee chairs provided reports on their activities. All committees reported successful progress in 2016 in their various support efforts. The volunteer activities of the Associ-



Bill Holdsworth presented Don Harrison a check for support of the Swains Lock House restoration project – Photo by Steve Dean

ation, including the Volunteers in Parks program led by Jim Heins, the Lock House 75 support led by William Bauman and the Level Walkers led by Steve Dean, are all providing valuable support to the park. Of note was the project led by Jim Heins in 2016 to replace all of the park's lock signs; additional signs will be replaced in 2017.

The bylaws committee chair presented the proposal to separate the functions of the Level Walker Chair from the second vice president. This proposal was approved by the assembled membership.

Kevin Brandt, superintendent of the C&O Canal National Historical Park, warmly thanked the Association for the volunteer support provided in 2016. He stressed that with the constantly dwindling park budget, volunteers and financial support are increasingly significant to keep the park operating and maintain a quality experience for visitors. The C&O Canal Park Advisory Commission was re-established in 2016 and will play a prominent role in the continued protection of the canal park. C&O Canal Association member George Lewis is the chairman of the commission.

The list of candidates for officers and directors that was published in December was presented to the assembled group of members for vote. The members unanimously elected the candidates. The 2017 officers, board and committee chairs are listed on p. 27.

Steve Dean



Bill Holdsworth presented Ben Helwig, C&O Canal NHP, a check at the December board meeting. The funds cover the costs of repair to the Bowles House, which is the visitor center in Hancock. The house will be open during the spring and summer. Refer to the article on page 6. — Photo by Barbara Sheridan

Sweatshirts, jackets & polo shirts with the Association logo are once again available. Size, color, and price are found on the Association website at www.candocanal.org or you can contact Rita Bauman at 540-888-1425.



Michael and Linda Marmer, long-time members of the Association, allowed the Washington County Free Library to digitize two of their most recent C&O Canal Company acquisitions. While the larger document held by Michael Marmer states that the canal boat Isaac Motter owned by Owen Ardinger and built at Williamsport, Md., was duly enrolled at the port of Georgetown on October 29, 1857, the smaller document is the Boat's Register stating that the Class C canal boat was registered in the Office of the Chesapeake and Ohio Canal Company and is permitted to navigate the Chesapeake and Ohio Canal. Digitized versions of these rare documents will be placed on the library's and the Association's websites. (l-r) Linda Marmer, John Frye, Michael Marmer, and William Bauman. — Photo by Rita Bauman

Along the Towpath, March 2017

Tow Boy

Tow Boy is an excerpt from Joseph R. Stonebraker's *A Rebel of '61*, the memoirs of a Confederate cavalryman originally published in 1899 – Reprinted by the Washington County Historical Trust in 2016 with annotations.

Some time before the War, an uncle, Daniel S. Rentch, of Shepardstown, Virginia, had been operating several boats on the Chesapeake and Ohio Canal.

After Virginia seceded, to prevent the boats from being confiscated he transferred them to his brother-in-law, John Eckert Knode, who had always been a Whig, and was now considered a Union man.

Knode was married to father's sister, and in the following fall he and father put the boat "Ellen Rentch" in order, purchased wheat from the farmers, taking the first load from near the old Buchanan place, south of Downsville, and freighted it to Georgetown, District of Columbia.

It might as well be recorded here that Knode was a farmer, and resided on the old Michael Stonebraker's homestead, adjoining Bakersville, near the Potomac River.

Being a Whig, he may have been a "Union man," but he had married a Stonebraker, and all the world knew where they stood as long as their tongues could wag.

However, in the following winter, some of his enemies—and they were not Southerners, either—set fire to his barn, destroyed all his crops, many of his horses and cattle, and all his farming implements. It cost something in those days to be joined to a Southern woman in wedlock.

They employed Captain Wade to steer the boat. He was an industrious but a very stubborn man; this latter trait proved to be very unfortunate for them, as we shall hereafter see.

The farmers hauled the wheat to the landing in wagons, and I helped to carry, weigh and empty it into the boat. When the boat was loaded, we started on our journey, I driving the team which consisted of three horses, and they pulled the loaded boat at the rate of two miles an hour. Fourteen to sixteen hours was a day's work; to accomplish this, we had to be up early in the morning and go late into the night.

I soon discovered it to be a very disagreeable occupation. The men that followed the canal for a living did not hesitate to steal anything they could get their hands on, and the one who could use the foulest language was considered the most accomplished boatman.

When near our destination the boat sprung a leak, but we kept her afloat by pumping until we reached the two-mile level, had the water drawn off and corked up the leak, the cargo being but little damaged.

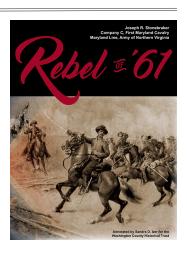
It was Sunday when we reached Georgetown. As the dome of the Capitol looked as though it was but a short distance away, I hurried up the avenue only to find that it was miles instead of blocks before reaching that majestic pile of marble. While here I went to the theatre for the first time. They were playing the "Colleen Bawn." What a grand and imposing sight for a country boy.

We made several trips from various points along the canal before cold weather closed navigation. The next spring we took the boat on the Virginia side, two miles above Dam Number 4, which was in big slack water. We received the farmer's wheat at Harrison's Landing, and took them on our return trips groceries, etc.

Father had been informed that some of the Unionists had threatened to give him trouble if he continued to trade with the people. We finished loading the boat about five o'clock, but father had left some time before to attend to some business, expecting to meet us the next morning further down the river. Before leaving he instructed Wade to take the boat over on the Maryland side of the river, as soon as she was loaded. This Wade failed to do for no other reason than to have his own way. Some time during the night a squad of Yankee soldiers, led by a citizen, came and ordered us to get up and put on our clothes, go back into Maryland, and not come to Virginia until the War was over.

After we left they untied the boat, pushed her out into the current, when she floated down the river and over Dam Number 4 and broke in half. Part of the wreck drifted down the stream and lodged against an island, just opposite where father had agreed to meet us. I shall never forget his distress and the sight of the big tears that rolled down his cheeks when we explained to him how it occurred. The money loss to him was about \$4,500.00.

Excerpt from *Rebel of '61*: Joseph R. Stonebraker, Company C, First Maryland Cavalry, Maryland Line, Army of Northern Virginia, annotated and edited by Sandra D. Izer. Washington County Historical Trust, 2016. For more information about the book, or to order a copy, see washingtoncountyhistoricaltrust.org/publications/rebel-of-61/



Along the Towpath, March 2017

Across the Berm - Randy Astarb

On December 27, the C&O Canal NHP lost an irreplaceable treasure, Randall (Randy) Astarb, a master mason and engineer with our park for the past 19 years. Only 55, Randy died following a brief illness. His masonry career included work on the National Cathedral, and there is no masonry project for the past two decades in the canal park that is not now a memorial to his very special skills and knowledge.

From the time I became a volunteer in the library in 2005, Randy was one of my "go to" people when I needed an explanation on some structure's function or design, changes made to it, or work being done on it. Randy always quickly grasped the nature of my inquiry and responded eagerly and patiently. His occasional visits to the library always meant a chance to discuss aspects of my recent research on canal history or engineering, and his comments were always of value. His own interest in the canal's history, as well as its structures and design, was insatiable.

Among the praise and memories coming from others subsequent to Randy's death are those from engineers emphasizing his practical approach to engineering and his technical advice for all kinds of masonry and construction issues. From other NPS personnel came comments on his exceptional work ethic, outgoing nature, and love of sharing stories and jokes.

Dan Copenhaver, the C&O Canal's engineer for many years until he moved up to the regional level, memorialized Randy as "the most talented stone mason ever ...[and] the most trusted guardian of its vast stone history." I remember

an engineer working on one of the park's major projects commenting: "You know, Karen, the stones talk to Randy." I have no doubt but that he was right. And Randy, for his part, always spoke for the stones. When stones from the Catoctin and Conococheague Aqueduct failures were retrieved from their rivers, Randy was ecstatic. And one of the few things that would make him unhappy was not being able to replace them in those structures.



Randy Astarb (center, with green cap) at the Catoctin Aqueduct Dedication - Photo courtesy of the NPS

Randy was a rarity in so many ways, but perhaps the most important are the ways in which his life left a mark on both the human hearts and the stones that make the C&O Canal what it is today.

—Karen M. Gray

National Park Service Staff Updates

Several new staff assignments have been made at the C&O Canal NHP. Brendan Wilson, Supervisory Georgetown District Park Ranger, comes to the C&O Canal from Flight 93 National Memorial in Pennsylvania. Pete Peterson, Supervisory Palisades District Park Ranger, comes all the way from Grand Canyon National Park. Matt Graves, Supervisory Western Maryland District Park Ranger, was most recently stationed at the Appalachian National Scenic Trail, but years ago he was a "canawler" on the C&O at Great Falls. Carrie Wittmer is the new Western Maryland District Interpreter, Volunteer and Media Coordinator, replacing Kelly Fox. Carrie has worked for a wide range of organizations in National Park Service. If you see any of these new

rangers in the field, please say hello and let them know what projects you are working on!

Becca Jameson has departed the park to move on to the Fredericksburg & Spotsylvania National Military Park. Becca started at the park in the SCA program and moved on until she became an interpretive ranger in Great Matt Graves - Photo by Monica Falls. Joshua Nolen will replace Becca Larcom, National Park Service at Great Falls.





Pete Peterson – Photo courtesy of Pete Peterson



Brendan Wilson – Photo courtesy of the National Park Service

At Headquarters, Jeri DeYoung is the new Chief of Resources Management. Jeri has an background in park resources management and was recently at Cape Lookout National Seashore in North Carolina. Kristofer (Kris) Butcher is the park's new Chief of Business Management. He was previously in the U.S. Small Business Administration, Eastern Pennsylvania District where he served as an Economic Development Specialist/Administrative Officer.

- Dorothy McQuaid, National Park Service

Nature Programs Begin in April

By Marjorie Richman

Nature walks this year will feature old favorites, new venues for old favorites, and a new walk focusing on the world of butterflies.

Kurt Schwarz will once again lead his very popular bird walks, this year at Rileys Lock and Sycamore Landing. Kurt is a member of the Maryland Ornithological Society and a long time leader for the Association. We are also fortunate to have Steve Dean offer another dragonfly walk this year, this time at the Dickerson Conservation area. Both Steve and Kurt need no introduction to all of us who have participated in their walks for the past several years.

Flower walks will continue this year in two new locations, Shepherdstown and Paw Paw, with two new leaders. Champ Zumbrun will share his knowledge of flowers and natural history at Paw Paw, and Tom Aitkin will lead a walk in Shepherdstown. Champ, a long time member of the Association, before retiring worked as a forester for the Maryland Department of Natural Resources. Tom Aitken, also a long time member of the Association and a level walker, has been monitoring blooming dates of Virginia bluebells along the towpath for a citizen science project. While collecting data, Tom developed an interest in identifying native flowers and the impact of invasive species.

Many of our members have enjoyed identifying trees along the towpath with Carol Ivory. Although Carol is taking a well deserved rest this year, we are fortunate to have a new leader, Ralph Buglass, taking over for Carol. Ralph's walks will focus on trees in spring and fall in the Carderock Recreation Area. Ralph grew up cycling along the towpath (which he admits spoiled him for biking on hillier terrain). He describes himself as a nature enthusiast with a special affinity for trees and the C&O Canal. He is a member of the Association and the Maryland Native Plant Society. His special interest is champion trees, which are trees recognized as the largest of their species within a geographical jurisdiction, such as a county or state, or nationally. Ralph leads tours of champion trees in Maryland for the Maryland Native Plant society.

- 1. Silver maple tree
- 2. Eastern comma
- 3. Cedar waxwing
- 4. Rough blazing star
- 5. Eastern pondhawk (f)
- 1, 3, 5 Steve Dean
- 2 Paul Petkus

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4 - Champ Zumbrum



For the first time we will offer a walk focusing on butterflies. Our leader is Paul Petkus, a long time Association member and level walker. Paul became interested in observing nature from the time his grandfather introduced him to the TV show, "Wild Kingdom." His particular hobby is identifying butterflies, which he learned while taking part in butterfly surveys in Howard County. He recommends the Howard County Bird Club's butterfly page as an excellent reference for species commonly seen in the area. It includes photos of different species, when they typically can be seen and their favorite habitats. The website can be found at: www.howardbirds.org/butterflies/HC_Butterfly_photos.htm. Paul's walk will take place in the Carderock Recreation area.

In closing I would like to thank our recently retired chair of the Nature Committee, Marion Robertson, for her hard work and dedication in forming the committee for the Association. The idea was born during the 2009 C&O Canal through hike when we were fortunate enough to experience the towpath at the peak of the spring flowers. As we walked from Cumberland to Georgetown, we saw an amazing number of species. Marion decided to take on the task of recruiting leaders and developing a series of nature walks. She felt the experience of seeing these flowers should be shared with all Association members.

Dates and contact information for the nature walks can be found on the Association's calendar in our newsletter and online. Be sure to mark your calendar.









Along the Towpath, March 2017

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Nature Notes

By Marjorie Richman

Tom Aitken, who will be leading nature walks for the Association this year, also volunteers for a citizen science program sponsored by the National Park Service that takes place along the towpath. Since this program involves the C&O Canal, I asked Tom for information about the project. The result is the article shown below by Jim Webb, the point of contact for the program. The selection of the C&O Canal to be a part of this program is due to NPS ranger Kelly Fox. Her interest in phenology led her to help launch the project under NPS sponsorship. Jim's article explains the goals of the program and describes the data collection process that already is contributing to our understanding of the influence of climate and weather. As noted at the end of the article, new volunteers are welcome.

Phenology Studies Along the Towpath By Jim Webb

Phenology is the study of the timing of life history events among plants and animals. Life history events can be the migration of birds, the hibernation of some animals, such as bears, or the flowering of wildflowers. Life history events can be influenced by the photoperiod (change in daylight hours), temperature, or some combination thereof. Writer and naturalist, Henry David Thoreau, author of *Walden*, recorded the

first flower dates at Walden Pond in Concord, Massachusetts from 1852 to 1858. In 2001-2002, two Boston University professors, Miller-Rushing and Primack, using a subset of 43 plant species from Thoreau's notes, found that some plant species were flowering, on average, seven days earlier since Thoreau recorded the first flower days. The results may suggest that plants can be an indicator of climate change.

Our study is a citizen science program that was started with the National Capital Region of the National Park Service in 2015 with four locations along the

C&O Canal. The purpose of the study is to record the first bloom or first flower day. A group of volunteers started recording the first bloom for *Claytonia virginica* (spring beauty), *Lindera benzoin* (northern spicebush) and *Mertensia virginica* (Virginia bluebells) in 2015. In 2016, the program was expanded to seven locations and modified to record the initial growth, leaves, buds, and first flower for only the Virginia bluebells. At some locations, soil temperature measurements were taken to record when such life history events occur, such as initial growth, leaves, buds, and first flowers take place. The



Virginia bluebells – Photos by Marjorie Richman

seven locations are: the Ford Mine trail near Great Falls, Md., Swains Lock, Rileys Lock, Nolands Ferry, Lock 38, Cushwa Basin, and Fifteen Mile Creek.

Last year, the volunteers found that the average first flower day for all seven sites was approximately 92 days (starting with January 1st as day 1). The data shows that the emergence of first flowers occur at Day 78 at Ford Mine (161 ft. elevation) on the canal towpath and then at Day 101 at Fifteen Mile Creek (454 ft. elevation), suggesting that first flowers occur at lower elevations and gradually emerge at higher ele-

vations later. Other interesting observations from the data are that the average number of days from initial growth to full flower is approximately 20 days, and initial growth seems to appear when soil temperatures reach between 47 and 53 degrees F.

My role in this program is to serve as a point of contact and lead volunteer, and to help new volunteers get started, resolve issues, secure the permit from the National Park Service, monitor two sites, and compile each volunteer's data into a meaningful report for the National Park Service. We also conduct training

sessions to ensure that volunteers know what they are looking for and when to report the results.

Unlike Thoreau, who used a notebook and pencil to make his observations of full flower days, volunteers today are far more high-tech, using global position satellite (GPS) coordinates to accurately record observation points and an easy-to-use computer program to record the data. Volunteers who would like to be part of this citizen science program can contact Jim Webb at sirjameswebb@msn.com for more information.



Calendar of Events - 2017

Mar 25, Sat, Continuing Hike Series, 10:30 a.m., North Branch (Lock 75, mile 175.6) to Evitts Creek Aqueduct. Contact Pat White at 301-977-5628 or hike-master@candocanal.org.

Apr 2, Sun, Nature walk focusing on wildflowers, 10:00 a.m., Shepherdstown. Meet at the larger parking lot below Lock 38: follow Canal Rd. downhill, turn left at the sign for Antietam campground, follow the road about 0.4 miles to the parking lot on the left. Contact Tom Aitken at 304-279-0521 or at thomasaitken01@comcast.net.

Apr 2, Sun, Board Meeting, 1:00 p.m., at Glen Echo Town Hall, 6106 Harvard Ave.

Apr 8, Sat, Potomac Watershed Cleanup, 9:00 a.m. to noon. The Association will be operating or coordinating various sites. Contact Jim Heins at 301-949-3518 or vip@candocanal.org.

Apr 15, Sat, Nature walk focusing on tree identification, 1:00 to 3:00 p.m., Carderock Recreation Area. Semi-brisk pace and a few semi-steep hills. Meet at the eastern parking lot (turn left after the tunnel). Contact Ralph Buglass at 617-571-0312 or rbuglass@verizon.net.

Apr 22, Sat, Canal Pride Day at Great Falls. Register at www.canaltrust.org/programs/canal-pride-days/

Apr 29, Sat, Annual Douglas Hike and Dinner. Hikes of four lengths between Monocacy and Brunswick, with dinner and program. See article on page 1 of this issue and enclosed registration form. Contact Steve Dean at 301-904-9068 or programs@candocanal.org.

Apr 29, Sat, Nature walk focusing on wildflowers, 10:00 a.m. Four-mile round trip hike over the Tunnel Hill Trail and through the tunnel. Bring a flashlight for the tunnel trip. Contact Champ Zumbrun at 301-729-4452 or champzumbrun@gmail.com.

Apr 29, Sat, Canal Pride Day at Cushwa Basin at Williamsport. Register at www.canaltrust.org/programs/canal-pride-days/

May 6, Sat, Canal Pride Day at Brunswick Boat Ramp. Register at www.canaltrust.org/programs/canal-pride-days/

May 20, Sat. Paddle trip on the Potomac from Brunswick to the Monocacy Aqueduct (approx. 13 miles). This trip takes the entire day with much of the paddling in slow water and several stops along the way. Reservations are required and paddlers must provide their own canoe/kayak and gear. Contact canoemaster@candocanal.org.

May 20, Sat, Canal Pride Day at Spring Gap Campground. Register at www.canaltrust.org/programs/canal-pride-days/

May 27, Sat, Continuing Hike Series, 10:30 a.m., Monocacy Aqueduct to Woods Lock. Contact Pat White.

May 27, Sat, Nature walk focusing on birds, Rileys Lock, 8:00 a.m. Rileys Lock, 8 a.m. to about 11 a.m., heading upstream from Rileys Lock. Kurt Schwarz of the Maryland Ornithological Society will lead the group. Contact Kurt at krschwal@verizon.net or 443-538-2370.

May 28, Sun, Joint Picnic, C&OCA and Friends of the Historic Great Falls Tavern, 5:30 p.m., aboard *Charles F. Mercer* at Great Falls. Reservations required. Contact Don Harrison (donh811@verizon.net).

June 3, Sat, Presidents' Day Breakfast at 9:00 a.m. at Bill's Place in Little Orleans, Md. Steve Dean will lead a dragonfly walk at Oldtown after the breakfast. Contact Steve Dean.

June 4, Sun, Board Meeting, 1:00 p.m., at Williamsport Town Hall, 2 North Conococheague St.

June 10–11, Sat–Sun, 48th Annual Heritage Days Festival in Cumberland. Historic Washington Street. Saturday 10:00 a.m. - 6:00 p.m., Sunday 11:00 a.m. - 5:00 p.m. www.heritagedaysfestival.com/

June 10, Sat, One-day paddle trip on the Monocacy River. Reservations required. Contact Barbara Sheridan at 301-752-5436 or canoemaster@candocanal.org.

June 18, Sun, Nature walk focusing on butterfly identification, 11:00 a.m., Carderock Recreation Area. Meeting place at Carderock: After entering the recreation area, turn right after the tunnel under the canal, then take an immediate left into the first parking lot. Contact Paul Petkus at papetkus@gmail.com or 773-450-6039 (cell).

June 21, Wed, Federal Advisory Commission, C&O Canal NHP, 9:00 a.m. - 3:00 p.m., at park headquarters, 1850 Dual Highway, Hagerstown, Md.

July 15, Sat, Paddle trip in the C&O Canal from Violettes Lock to Great Falls with portage around two locks. Reservations required. Contact canoemaster@candocanal.org.

Aug 5, Sat, Paddle trip from Rileys Lock through the old Potowmack Canal in Virginia to Pennyfield Lock. Reservations required. Contact canoemaster@candocanal.org.

Aug 6, Sun, Board Meeting, 1:00 p.m., at Glen Echo Town Hall, 6106 Harvard Ave

Aug 12, Sat, Nature walk along the towpath to view dragonflies. 10:00 a.m. at the Dickerson Conservation area. Contact Steve Dean.

Aug 25–27, Fri–Sun, Paw Paw Bends paddle trip from Paw Paw, W.Va. to Little Orleans, Md. Reservations required. Contact Barbara Sheridan at 301-752-5436 or canoemaster@candocanal.org.

Aug 26–27, Sat–Sun, Williamsport C&O Canal Days. Contact: Tom Perry, 301–223-7010.

Sep 23, Sat, Nature walk focusing on birds, 8:00 a.m. at Sycamore Landing. Contact Kurt Schwarz.

Sep 24–28, Sun-Thu, *World Canals Conference*, Syracuse, NY. For more information, see wcc2017syracuse.com/.

Oct 4–9, Wed–Mon, Through bike ride, Cumberland to Georgetown. Reservations required. No sag wagon provided. Contact Pat Hopson, 703-379-1795 or phopson727@verizon.net.

Oct 7, Sat, Nature walk focusing on tree identification, 1:00 - 3:00 p.m., Carderock Recreation Area. Contact Ralph Buglass.

Oct 8, Sun, Board Meeting, 1:00 p.m., at Williamsport Town Hall, 2 North Conococheague St.

Oct 18, Wed, Federal Advisory Commission, C&O Canal NHP, 9:00 a.m.-3:00 p.m., at park headquarters, 1850 Dual Highway, Hagerstown, Md.

Oct 28, Sat, Annual Heritage Hike and Dinner. Details will be published in September newsletter. Contact Steve Dean.

Nov 19, Sun, Continuing Hike Series, 10:30 a.m., Fort Frederick (mile 112.4) downstream. Contact Pat White.

Dec 3, Sun, Board Meeting, 1:00 p.m., at Glen Echo Town Hall, 6106 Harvard Ave.

Dec 10, Sun, Frostbite Hike: Washington City Canal, 10:30 a.m., Contact Bill Holdsworth (301-762-9376 or website@candocanal.org).

Liability waivers are required for many of these Association activities. Hikes require proper footwear.

For all nature walks bring your favorite identification book, water, and a snack; a walking stick is optional.

Contact information is provided for the earliest event coordinated by the contact. Additional event details will be included in the newsletter prior to the event.

C&O CANAL NATIONAL HISTORICAL PARK Telephone Numbers and Personnel

C&O Canal National Historical Park Headquarters

1850 Dual Highway, Suite 100, Hagerstown, MD 21740

Superintendent	301-714-2202	Kevin Brandt		
Deputy Superintendent	301-714-2200	John Noel		
Assistant to the Superintendent	301-714-2201	Linzy French		
Chief Ranger	301-714-2222	Ed Wenschhof		
Chief of Business Management	301-714-2204	Kris Butcher		
Chief of Resource Mgmt.	301-714-2225	Jeri DeYoung		
Chief of Maintenance	301-714-2211	Greg Kniesler		
Chief of Interpretation,		_		
Education and Volunteers	301-714-2238	Catherine Bragaw		
Partnerships Coordinator	301-714-2218	Ben Helwig		
Grants Management Specialist	301-714-2205	Allan Brambila		
Volunteer Coordinator	301-491-7309	Emily Hewitt		
Cultural Resources				
Manager/Historian	301-491-2236	Sophia Kelly		
Librarian	301-714-2220	Karen Gray		
Safety Office	301-745-5804	John Adams		
IT Specialist	301-745-5817	John Lampard		
D-1:1 D::- M:1 0 (T:1-11-) M:1- (2.10 (M D:)				

Palisades District Milepost 0 (Tidelock) to Mile 42.19 (Monocacy River) 11710 MacArthur Blvd, Potomac MD 20854

Interpretive Supervisor 301-767-3702 Pete Peterson
District Ranger Law Enforcement 301-491-6279 Joshua Cunningham
Supervisory Visitor Use Assistant 301-767-3703 Shaun Lehmann
Georgetown Interpretive
Supervisor 240-291-8466 Brendan Wilson

Great Falls Tavern Visitor Ctr 301-767-3714 11710 MacArthur Blvd, Potomac MD 20854

Western Maryland District, mile 42.19 (Monocacy River) to Milepost 184.5 (Canal Terminus, Cumberland, MD)

(Canal Terminus, Cumberland, MD)				
District Ranger Law Enforcement	1 301-722-0543	Todd Stanton		
Cumberland Subdistrict	301-722-0543			
Hancock Subdistrict	301-678-5463			
Ferry Hill Subdistrict	301-714-2206			
Williamsport Visitor Center 205 West Potomac St., Williamsp				
Supervisory Park Ranger	240-625-2931	Matt Graves		
Hancock Visitor Center	301-745-5877			
439 East Main St., Hancock MD 21750				
Supervisory Park Ranger		Rita Knox		

Cumberland Visitor Center 301-722-8226 Western Maryland Station, Cumberland MD 21502

Supervisory Park Ranger Rita Knox

OTHER USEFUL TELEPHONE NUMBERS:

Great Falls Boat Operation	301-767-3714
Boathouse at Fletcher's Cove (concessionaire)	202-244-0461
Carderock and Marsden Reservations	301-767-3731
Canal Quarters Program	301-714-2233

24-HOUR EMERGENCY (TOLL FREE): 1-866-677-6677 HAZARDS CHOH_Hazards@nps.gov



Along the Towpath is published in March, June, September, and December by the C&O Canal Association (C&OCA), P.O. Box 366, Glen Echo, MD 20812-0366. Material for consideration may be submitted to the Editor at that address, for receipt by the 15th of the month prior to publication. Electronic submission is preferred: editor@candocanal.org.

Editor: Steve Dean

Associate Editors: Tom Aitken, Dave Johnson, Don Juran, Nancy Long, and Ned Preston.



C&O CANAL ASSOCIATION

Membership in C&OCA is open to all persons with an interest in the C&O Canal, the C&O Canal National Historical Park, and the Potomac River Basin. Annual membership dues are: \$15 individual, \$20 family, and \$25 patron, assessed on a calendar-year basis, and include subscription to the newsletter. Dues should be mailed in to the C&O Canal Association, P.O. Box 366, Glen Echo, MD 20812-0366. C&OCA is a non-profit organization as defined by section 501(c)(3) of the Internal Revenue Code, and all contributions are tax deductible to the fullest extend of the law. A copy of our current financial statement is available upon request by writing to C&OCA at the address above or calling 301-983-0825. Documents and information submitted to the State of Maryland under the Maryland Charitable Solicitations Act are available from the Office of the Secretary of State for the cost of copying and postage.

C&OCA maintains a home page at www.candocanal.org. The webmaster is webmaster@candocanal.org. C&OCA also maintains a telephone number for recorded information and inquiries: 301-983-0825.

2017 Association Officers

President: Bill Holdsworth, 10 Radburn Ct., Rockville MD, 20850, 301-762-9376, president@candocanal.org.

First Vice President: Rod Mackler, 944 N. Potomac St., Arlington VA 22205, 703-536-1737, firstvp@candocanal.org.

Second Vice President: Steve Dean, P.O. Box 132, Saint Leonard MD 20685-0132, 301-904-9068, levelwalker@candocanal.org.

Secretary: Susan VanHaften, 944 N. Potomac St., Arlington VA 22205, 703-536-1737, secretary@candocanal.org.

Treasurer: Richard Radhe, 8902 Skyrock Court, Columbia MD 21046, 410-302-2721, treasurer@candocanal.org.

Information Officer: Pat White, 66 Oak Shade Road, Gaithersburg MD 20878, 301-977-5628, inquiries@candocanal.org.

Board of Directors: (terms expire in 2020): Chris Cerniglia, Jill Craig, Jonnie Lefebure, Bert Lustig, Doug Zveare. (terms expire in 2019): Tom Aitken, Nancy Benco, Barbara Sheridan, William R. Stewart, Jim Tomlin. (terms expire in 2018): Dick Ebersole, Kerry Gruber, Jim Heins, Christine Holdsworth, Anthony Laing.

Committees (contact at C&OCA address/tel. no. above): Archives, Susan Van-Haften; Auditing, John Wheeler; By-laws, Dave Johnson; Editorial Review, Steve Dean; Environmental, Rod Mackler; Festivals, Rita Bauman; Finance, Richard Radhe; Legal Advisory, John Wheeler; Level Walkers, Steve Dean; Membership, William R. Stewart; Nature, Marjorie Richman; Nominating, Steve Dean; Programs, Steve Dean; Sales, Jill Craig; Special Projects, Bill Holdsworth; Volunteers in the Park (VIP), Jim Heins; Youth, vacant.

CHESAPEAKE & OHIO CANAL ASSOCIATION INC.

P.O. Box 366

Glen Echo, MD 20812-0366

Along The Towpath

Chesapeake & Ohio Canal Association www.candocanal.org

FIRST CLASS MAIL



Culvert 215 is a well preserved culvert located just below Town Creek. The 16-foot brick arch and barrel have held up well and the wing walls of rough cut stone are intact. The culvert carries Big Run, which drains from Green Ridge. The downstream arch is shown here; the upstream end of the culvert is extended under the abandoned Western Maryland Railway and Md. Route 51. – Photo by Steve Dean

C&O Canal Association



Founded in 1954

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