

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 XLVI

September 2014

Number 3

ANNUAL HERITAGE HIKE

By Chris Cerniglia for the Program Committee

The Association's annual Heritage Hike will take place on Saturday, October 25. It will feature two hiking options along the towpath, a dinner, and an evening program. The hikes will begin and end in Pearre, Md. Hikers will pass through one of the most remote areas of the park where wildlife, canal history, and breathtaking views of the river abound. Both walks will pass through an area that, for eight years, was the western end of the canal. The evening event will be held at the Orleans Volunteer Fire Department in Little Orleans, Md. and promises a relaxing evening of fellowship.

Hike participants will meet at the Pearre Western Maryland Rail Trail parking area at 10:30 a.m. The hikes will be round trip hikes and a bus will not be provided. All hikers will start at the parking lot, turn right and follow the rail trail a short distance to its current end. Hikers will cross over to the canal at this point, which is Mile 136.2 on the towpath, and turn left to proceed downstream. Lock 56, with its white frame lock house, is here. Note the long wall on the downstream towpath side of the prism below the lock. As hikers proceed downstream, they will pass a concrete foundation for a former swing bridge and cross four stone culverts, two of which have visible wooden floors. At Mile 134.25 hikers will arrive at a 22-foot long spillway and the mouth of Long Hollow. It was at this point that the Polly Pond was formed. Refer to Karen Gray's description of this area in the *Accompanied by the Past* feature in the June 2014 *Along the Towpath*.

Hikers will continue to walk downstream to Dam 6 and Lock 55. Karen Gray will be at this site to provide interpretation of the structures and past activity at Dam 6 in the canal era. Read *Accompanied by the Past* on pages 10 to 12 in this issue for a discussion of the Dam 6 area and history. Hikers will then continue to the Cacapon Junction Hiker-Biker (Mile 133.6) for lunch. A view of a stone railroad bridge, built across the Cacapon River in 1910, can be enjoyed from the camp site.

After lunch, the hikers will split up into two groups. Those choosing the short hike option will turn left on the towpath, retrace their steps to Dam 6, turn right and cross over Lock 55 to an access for the rail trail. There they will turn left and follow the rail trail upstream back to the Pearre parking area. This will make a 5.2 mile round trip for the short hiker participants. They could use their free time after the hike to visit Bill's Place, check out the Fifteen Mile Creek Aqueduct, or investigate St. Peter's Church, on the hill in Little Orleans, with its shamrock window and interesting cemetery.



Hikers will enjoy spectacular Western Maryland fall foliage from the towpath, as seen from the spillway at Long Hollow. Photo by Steve Dean

(Continued on p. 2)

(Continued from p. 1)

The long-option hikers will turn right on the towpath after lunch. They will continue downstream on a route that will cross four more culverts, including Culvert 197 at Mile 132.4, which is the only culvert on the canal with a parapet that actually rises up as high as the towpath. Hikers will also see a visible anticline on the berm near Milepost 133. Hikers will continue to the crossover bridge at the Deneen Road park access at Mile 130.7. There they will cross the canal, turn left on Deneen Road and continue until they reach the yellow bollards that mark the Western Maryland Rail Trail. They will turn left onto the rail trail and follow it back to the Pearre parking area. This will make an 11-mile round trip.



Hikers crossing Culvert 197 will notice the parapet coping stones that are visible from the towpath. Photo by Steve Dean

All walkers must complete the Association liability waiver before hiking. Participants are encouraged to bring a bag lunch and a drink, since these will not be provided.

At 4:30 p.m., we will gather at the Orleans Volunteer Fire Department for a happy hour, followed at 5:30 p.m. by a dinner buffet and evening presentation. The cost of the dinner and happy hour is an all-inclusive \$17. The evening program features a talk and slide presentation by various participants in the 2013 World Canal Conference in France. A highlight of the event was the tour of the Canal du Midi.

To reach Pearre from the east, travel on I-70 towards Hancock, take exit 1A, I-68, towards Cumberland. Stay on I-68 for about five miles and take exit 77. Cross over I-68 to MD-144, turn left on MD-144 East, and turn right on Woodmont Road in 500 feet. Proceed just over six miles on Woodmont Road until you reach a "T" intersection. Turn right onto Pearre Road, and the Western Maryland Rail Trail lot will be on the left in about a mile.

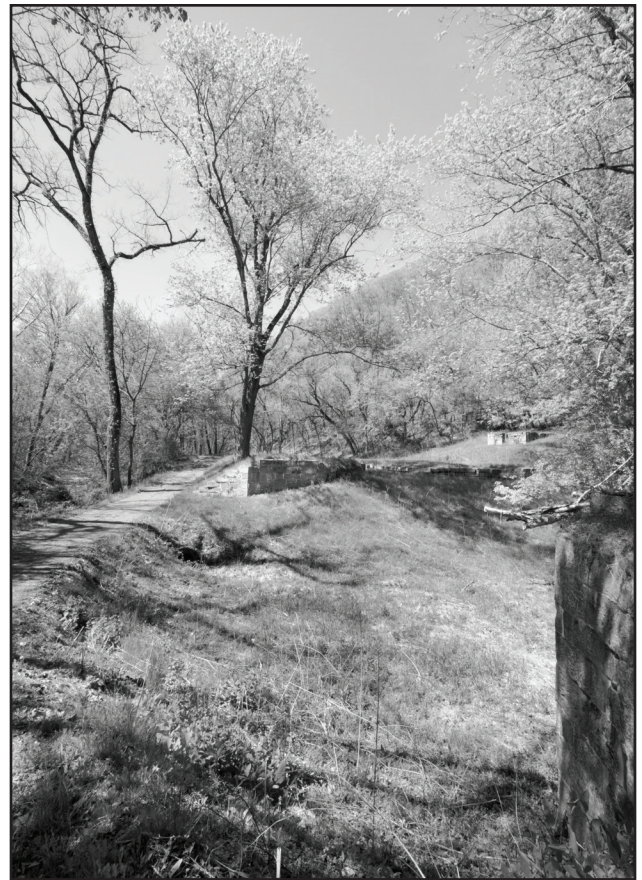
To reach the Orleans Volunteer Fire Department from Pearre, turn left out of the parking lot and proceed just over a mile on Pearre Road. The road becomes Zeigler Road. Continue just over two miles on this road to the junction with High Germany Road. Turn right and proceed on High Germany Road to Orleans Road. Turn right on Orleans Road and proceed three miles; the firehouse will be on the right. Note: Turning left on High Germany Road in above directions will lead to Bill's Place.

The Orleans Volunteer Fire Department can be accessed directly from I-68 by taking exit 68 and turning south on Orleans Road. The fire department will be one-fifth mile on the left.



The wooden frame lock house at Lock 56. Photo by Steve Dean

A dinner reservation form is included in this issue of *Along the Towpath*. The form must be received by noon, Wednesday, October 15, after which no cancellations or additions will be honored for the dinner. Note there are no refunds for prepaid dinners. Please be sure to check for Heritage Hike updates or changes on the calendar on the Association website at www.candocanal.org/calendar.html or Meetup at www.meetup.com/C-O-CANAL-ASSOC/. If you have questions about this event, contact Chris Cerniglia at programs@candocanal.org.



The towpath passes Lock 54 just below Dam 6. The downstream abutment of the mule bridge is in the lower right of the photo, the upstream abutment in the center, and the foundation for the Lock 54 house is to the right. Photo by Steve Dean

Environmental Report

Potomac River Tunnel Project

This past spring, heavy rains led to the dumping of raw sewage into the Potomac River and into the C&O Canal. The Capital Crescent Trail was closed for almost ten days, and bicycle commuters were detoured onto the C&O Canal towpath from Fletcher's Boathouse to Georgetown. In addition, there was a rupture in the sewer across from Sycamore Island, with sewage gushing into the canal.

About a third of the District of Columbia, primarily the older core of the district, has a "combined" wastewater collection system. That means the sanitary and storm sewer systems are combined. As we saw last spring, when rains are heavy, the combined system is overwhelmed and raw sewage is dumped into Potomac River at designated combined sewer overflow (CSO) points. There are permanent signs along the lower portions of the C&O National Historical Park (NHP) – overlooking Milepost 0 and just above the Alexandria Canal Aqueduct, for instance, warning that the waters are polluted when it rains heavily. Obviously, a long-term solution is necessary.

In 2005, D.C. Water entered into a federal consent decree with the district government, the U.S. Department of Justice (DOJ), and the Environmental Protection Agency (EPA) to build a large tunnel under the river, from above Key Bridge to a point between National Airport and Joint Base Anacostia-Bolling. The tunnel would be about a quarter mile wide and five miles long, 100 feet under the river, and cost about \$3.5 billion. The purpose of the tunnel would be to hold the combined flow until the storm waters recede and the Blue Plains treatment plant in Anacostia could process the combined water.

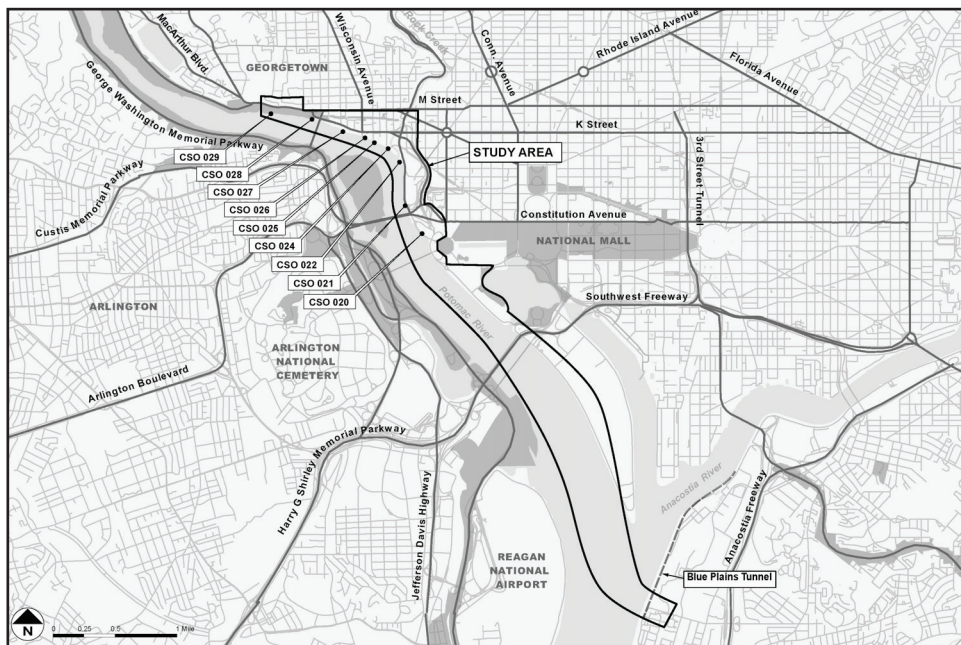
The time line for construction was originally planned for 2015 to 2025. D.C. Water has proposed a modification to the consent decree to build "green infrastructure" above Key Bridge and in the Piney Branch watershed. The modification would have to be agreed upon by the parties to the original agreement: D.C. Water, the district, DOJ, and EPA. The infrastructure would be designed to lessen the amount of storm runoff through mechanisms such as green roofs, permeable pavements, rain barrels and cisterns, and landscaping. The upside of the green infrastructure would be that a reduction in storm runoff would require a smaller tunnel, one starting below the Key Bridge, rather than above it. Thus, the impact on the C&O National Historic Park would be considerably reduced, as the portion of the park along the river begins only at the Alexandria Aqueduct. The downside of the modification would be an extension of the timetable, to the year 2032.

Three national parks – the C&O Canal National Historical Park, Rock Creek Park, and National Mall and Memorial Parks – are in the project's "impact area." The National Park Service is charged with drafting an Environmental Impact Statement (EIS).

A public scoping period was held from July 2, 2014 through August 31, 2014 to gather input from the public. This included a public scoping meeting on July 31, and in my role as the C&O Canal Association environmental committee chair I attended it. Association President Dward Moore sent a letter on August 15, commenting on the proposal and requesting that the C&O Canal Association be designated a consulting party for the Environmental Impact Statement. In his comment, Dward stated that the Association is concerned that construction could disrupt pedestrian and bicycle traffic along the Capital Crescent Trail in the park and that permanent effects could include installation of a tunnel access point and the operation of maintenance vehicles in the park. To minimize that disruption, therefore, the Association supports the green alternative because that would have less direct impact on the C&O Canal NHP.

Information about the EIS and other details of the project as they are updated are available at the NPS Planning, Environment & Public Comment web site. The link for the project home on the site is parkplanning.nps.gov/meetingNotices.cfm?projectID=50548.

- Rod Mackler, Environmental Committee Chair



Potomac River Tunnel Project Study Area Map
Map courtesy of the National Park Service

The Cumberland

In the March 2013 *Along the Towpath*, President Rachel Stewart announced that the Association was in the process of taking responsibility for the repair and maintenance of *The Cumberland* replica canal boat owned by Canal Place Authority and now located at the Cumberland Visitor Center. Several meetings have been held and false starts made on how to proceed.

The Association now has a proposal in hand to: 1) Replace the deck in the aft cargo area with two layers of ¾" plywood, slope the deck towards the outside, and add scoffer drains on each side to help drain rain water off the cargo deck; 2) Custom build two new windows on Captain's Cabin to match existing windows as closely as possible; and 3) Remove and replace the tiller handle and repair some loose boards.

We are awaiting proposals for waterproofing the plywood as soon as it is put down. One proposal will be for Line-X material and the other will be for Duradek. The Line-X material, at least on my pickup truck bed, is sprayed on and provides a durable, slip resistant, waterproof covering. Duradek is a vinyl material applied in sheets, like linoleum, professionally wrapped 6" up the interior sides; a hot-air gun is used to weld the seams together. It too provides a durable, slip resistant, waterproof covering. Cost of waterproofing the plywood is of concern. The deck was replaced in 2012 and painted immediately, but paint was inadequate to waterproof the deck. We want a longer term solution.

The forward cargo deck needs replacement soon, the windows in the mule stable need repair, the raceway needs to be repaired so as to drain rain water over the sides of the boat, and the tiller deck needs to be replaced and sloped so as to drain water over the sides of the boat. We are trying to implement long-term repairs so this boat does not become a "money pit" for the Association. Canal Place Authority, owners of the replica boat, are involved in all the decisions and in fact suggested Line-X and Duradek as possible coverings for the plywood.

The Cumberland has been an ambassador for and an invitation to the C&O Canal NHP for an entire generation of Allegany county residents and students. *The Cumberland* is a vital part of the education and interpretation program at Cumberland. For the last several years, all of the Allegany County 6th grade students have toured the boat as part of their Outdoor School program through Bridging the Watershed. In addition, 4th grade students tour the Visitor Center museum and the boat as part of their Maryland History curriculum. This year, of the 1,639 school children who visited the canal museum and Paw Paw tunnel, 1,331 toured the replica canal boat. The goal is 2,000 to 2,500 visitors per year. Ranger Rita Knox has a group of volunteers on call to don period-appropriate clothing and interpret the boat, railroad and National Road to all visitors, by appointment.



Students tour *The Cumberland* and learn about C&O Canal boat life.
Photo by John Millar

As President Stewart mentioned in March 2013, the Association seeks volunteers to do the interpretation for the general public. The boat resides in an exposed location; it can get very hot some days. Initially, volunteers would participate for two hours on a Saturday morning. Regularity of hours, e.g. 10:00 a.m. to noon, is important so that the Park Service can publicize that the boat is open to the general public and remind the public of this connection to Allegany County history.

The Cumberland Replica Boat Fund has been set up by the Association to receive donations for the repair and maintenance of this national asset. Donations may be made at www.candocanal.org.

– William Bauman

C&O Canal Association Funds Park Planner Printing

Visitors to the park during are provided, on request, a four-page 8½ x 11 inch reference guide to the park. This document is known as the park planner and includes information on park facilities, activities, contact information, and park regulations.

The planner is updated by park staff on an annual basis and a quantity of the planners is printed for the spring through fall visitor season. A local printer is utilized for the printing run. The C&O Canal Association funded the printing of the 2014 version of the planner, as it has in previous years. This is another way that member donations help support the park, and the support of the Association is gratefully acknowledged in the park planner.

– Steve Dean



C&O Canal National Historical Park Handbook 142

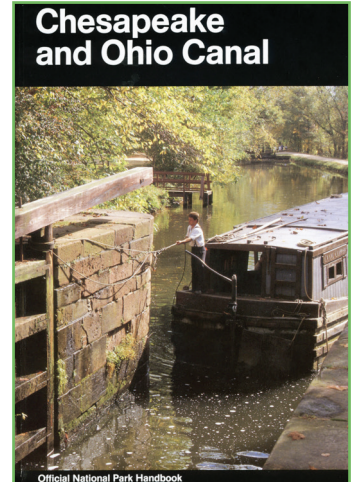
Handbook 142 is the official National Park Service handbook for the C&O Canal National Historical Park. It is available for sale in the park visitor centers, through the Association, and via Eastern National book sales. The book is an informative 112-page guide to the canal park, and includes historical background, visitor information, maps, photos and sketches. It is not a towpath guide. The handbook was originally published in 1991, and is one of the most popular items in the park visitor centers. It needs numerous updates to incorporate changes to the park and facilities, updates to programs, replacement of outdated images, and correction of some historical inaccuracies. Production of the book predates modern desktop publishing software.

Modernization of the book to a digital format, incorporation of comments and updates, replacement of outdated images and other necessary changes presented a high cost that the park's budget could not support. Recovery of the expenses to update the book would have required a per-copy cost of the book that was over double the original sales cost.

The C&O Canal Association offered to provide volunteer support to update and modernize the book at no cost to the NPS. The end product of the volunteer support will be a complete digitized book file ready for printing. With a book draft in modern digital format, the park can directly fund services for reprinting the book at an affordable rate. Additionally, the book files can easily be updated for future updates.

Association volunteers Steve Dean, Karen Gray and Dward Moore are providing the volunteer support for the effort. Dward is coordinating location of historical images and modern artwork, permission for non-park owned images, and organization of documents. Karen is revising text to update historical data and providing editorial comments. Steve is coordinating production of the book files, incorporation of NPS requested updates, and production of modern images. The Association volunteers are working closely with Ranger Dan Filer and other park staff. This is a worthwhile project that will provide significant help to the park.

– Steve Dean



Towpath Breach at Culvert 136

Heavy rains led to a towpath breach on the downstream side of Culvert 136 on June 12, 2014. Culvert 136 is the large (20-foot span) structure that crosses Little Conococheague Creek and is located one-half mile below Dam 5. High waters overran the berm prism embankment over the culvert. The flow of water washed across the prism and swept away a significant amount of earth behind the downstream towpath wing wall, leaving it damaged and exposed. Earth above the culvert abutment was also washed away and partially damaged the abutment wall. The arch is intact. The berm arch and wing walls do not appear to be damaged. The towpath is interrupted in the area, but a quick response by the National Park Service maintenance team provides a safe bypass around the breach. Park visitors are able to travel through the area without leaving the park boundaries.

– Steve Dean



Above – The culvert 136 arch is intact but the downstream wing wall is damaged. The NPS recovered the lost stones for eventual repair of the culvert.

Left – The towpath below the culvert is completely washed out.

Right – The NPS maintenance department built a temporary bypass of the breach that allows uninterrupted park user travel.

Photos by Steve Dean



DONORS TO ASSOCIATION FUNDS

From May 1 to August 1, 2014

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Making On-line Donations to Association Funds

The C&O Canal Association now accepts donations on-line. Go to www.candocanal.org/contributions.html to make a contribution. You can click on buttons for the Kenneth Rollins C&O Canal Fund or the Davies Legal Defense Fund. If you don't have a PayPal account, you can use your credit or debit card. The donation will appear on your credit card statement as PAYPAL*COCANALASSN. There is a \$50 minimum for on-line donations. During the process, you will be able to indicate whether this is a memorial donation. PayPal charges the Association a fee of 2.1% plus 30¢ for on-line donations. So, a \$100 donation nets \$97.60 for the Association and its work. The board feels the convenience of on-line donations is a benefit that outweighs the transaction cost.

C&OCA Welcomes New Members

Stephanie Boss, Hagerstown, Md.
Mary Budarz, Washington, D.C.
Bud Cline, Rockville, Md.
Paul Graunke, Germantown, Md.
Art Holland, Rockville, Md.
Jean Johnson & Fred Mueller, McLean, Va.
John Kochowicz, Rockville, Md.
Mary & Josh Silverman, Silver Spring, Md.
Meg Gardner Skinner, Madison, Wis.
David Tosten, Shippensburg, Pa.
Nancy Watters & Stephen Sayre, Chevy Chase, Md.
Paul Weinberger, Bethesda, Md.

Montgomery County Heritage Days

Rita Bauman and others supported the Montgomery County Heritage Days on the weekend of June 28th and 29th. Karen Gray gave interpretive tours of the aqueduct and surrounding area on Saturday.



Ron Howard and Carol Purcell at the Association booth at Seneca on Sunday, June 29th. Photo by Wendy Poole

ACROSS THE BERM

Susan "Butch" Henley

Susan A. Henley, known to all her friends as "Butch," passed away on May 21, 2014. She was an active member of the C&O Canal Association and served three terms on the board of directors, from 1982 to 1990. She was a level walker and participated in volunteer projects in the park, including the restoration of the cabin at Paw Paw in the early 1980s. She also assisted in the production and distribution of *Along the Towpath*, and the maintenance of an automated membership list in the days before the Association had direct access to a computer.

Butch was widely known as an avid advocate for hiking and backpacking. She served as executive director of the American Hiking Society from the mid-1980s to 1996, when she became membership director of the American Discovery Trail Society. She retired from that position in 2009. Prior to those jobs, she backpacked the Appalachian Trail (1978) and participated in the 4,300-mile, 13-month coast-to-coast Hike-A-Nation in 1980.

John H. Lindt, Jr.

John Lindt, who joined the Association in 1991, passed away on June 18, 2014. He was the Association's VIP program coordinator from the mid-1990s through the early 2000s, and was a member of the board of directors from 2002 to 2005. John attended many World Canals Conferences. When the Association hosted the 1992 conference, he provided valuable assistance on the logistical support committee. He was a dedicated NPS volunteer at the Great Falls Tavern Visitor Center for many years, and a member of Friends of Historic Great Falls Tavern and American Canal Society.

In his professional life, John was an agricultural expert for various agencies, including the World Bank, specializing in rice and wheat research and production. His work assignments took him to Mexico, Taiwan, the Philippines, India, Nepal, Pakistan, and Thailand, where he worked with local farmers in the field.

– Dave Johnson

Williamsport C&O Canal Days

Thanks to a generous contribution from the C&O Canal Association, as in previous years, the Williamsport C&O Canal Days festival was able to provide transport from the Byron Memorial Park down to the Cushwa Basin and Lock 44 on August 23 and 24. This year, however, we hired a school bus from the Sword Company to replace two earlier modes we previously used. Two years ago the trolley which used to carry us down to the canal park gave up the ghost. It was replaced by hay wagons drawn by the vehicles of an antique tractors association, which served for two years, but withdrew from the festival this year.

Another change this year was in the weather – on Saturday we were drenched with continual rain, which greatly reduced the number of participants. Sunday was much better, and ridership improved somewhat. We had fewer riders than previously, but we held informative conversations with many of the festival attendees.

– Tom Perry



Pictured at the bus are the driver, Mr. Sprecher, with Association interpreters Al Shane (Director) and Tom Perry (Past President). Photo by Linda Perry

Tidelock Gate Repairs

Level Walker John Barnett reported that the spring and early summer rains damaged the gate at the tidelock. Jim Heins, Skip Magee and John Wheeler took on the challenge on July 27th to repair the gate. The worst part of the job was fighting the Georgetown traffic.



Jim and John align replacement boards.



Jim calls out measurements to Skip.



Finished project. Photos courtesy of Jim Heins.

Volunteers in Parks Activity - Swains Lock Stewardship

Although there was a blip in the operation of maintaining the area around Swains Lock as a result of Rachel Stewart's untimely passing, it is now getting new life. Pat White has agreed to take over the reins and continue the upkeep of that area.

Swains Lock has been the flagship of the Canal Steward program due to Rachel's dynamic drive and interest, and should continue now that Pat has stepped in to keep this program strong.

On June 6, there was a massive clean-up involving members of the C&O Canal Association and some volunteers from the United States Public Health Service. This year, that organization selected Swains Lock to be on its national list of selected opportunities for its members to support for National Trails Day.

All together there were 18 volunteers who contributed 72 hours of work that day including cleaning and painting picnic tables, cleaning out fire pits, spreading stone dust as a base for each table, mowing, weeding and removing garlic mustard.

The lockhouse itself is currently being given some new life as well, as staff from the National Park Service begins work on doing some basic and very much needed work on the roof, windows and other areas desperately in need of repair.

Pat will need support from the Association in providing the stewardship required to continue to maintain that area to the level maintained the past few years. Future work parties will be held at Swains Lock on 9 a.m. of the second Friday of each month. Work party updates will be posted on the Association calendar at www.candocanal.org/calendar.html. For more information, contact Pat White at hikemaster@candocanal.org or 301-977-5628.

– Jim Heins, VIP Coordinator



Left - Volunteers trim foliage from the lock walls at Swains Lock.

Below left - Tom Lightfoot saws a log while Jim Heins stabilizes it.

Below - Tom Lightfoot and Skip Magee load up another wheelbarrow full of stone dust.

Photos by Ned Preston.



2014 Garlic Mustard Challenge

The 2014 garlic mustard season came and went with a bang. Over 50 volunteers amassed around 300 volunteer hours and collected the equivalent of 125 large garbage bags of garlic mustard at ten sites. Many of the participants noted that the "crop" was less than it was two years ago. The garlic mustard growth is compared at two year intervals because it is a biennial plant.

Efforts in 2014 included the annual C&O Canal Association garlic mustard day at Carderock, a coordinated effort by Pat Hopson's team at Edwards Ferry, and a full scale assault on garlic mustard at Spring Gap by Nasra Sakran and a corps of enthusiastic volunteers.

Join us in 2015 for another garlic mustard season! Contact Jim Heins or Steve Dean at gmc@candocanal.org.

–Steve Dean



Left - Nasra Sakran and young assistant Henry Yost at Spring Gap. Photo by Cheri Yost
Right - Garlic mustard team at Edwards Ferry. (l to r) Pat Hopson, Carol Ivory, Janet Kegg, Ron Wise, Larry Broadwell, Frank Wodarczyk, and Margaret Neuse. Photo courtesy of Pat Hopson



Hunting Invasive Weeds at Great Falls

On July 2, I was one of more than thirty volunteers assembled near the Great Falls Tavern for a Weed Scavenger Hunt organized by Mark Frey, program manager of the regional Exotic Plant Management Team (EPMT). The EPMT serves all units of the National Park Service in the National Capital Region. Mark explained that the event's objective was to create a better overview of the quantity, kind, and distribution of invasive plants in this biologically rich section of the canal park. The data will assist NPS in planning strategies to protect threatened native species.

Our primary hunting tool was a smart phone application for making reports to the Mid-Atlantic Early Detection Network (MAEDN). A user of this cost-free app can compare plants sighted in the field to a library of images of invasive species. He or she can then take a photo of the plant, which the app automatically tags with geographic coordinates. The user then enters an estimate of the species' density in the surrounding terrain, and saves the data. Once in a location with available wireless or wi-fi service the user can submit the report through the MAEDN app to the non-profit EDDMaps.org.

Divided into small groups, we volunteers dispersed to our assigned quadrants on a grid map of the irregularly-shaped search zone. The area stretched

more than two miles from north to south, from above the Great Falls parking lot to just below the Widewater lagoon. On the east, it included the Gold Mine Tract, and on the west the Olmsted Island walkway and Billy Goat Trail A. Since my own skill at plant identification is rudimentary, I was lucky to join a group that included two NPS biologists. With their coaching, I was able to make reports on locations of five invasives: common mullein, garlic mustard, Japanese barberry, Japanese stilt grass, and wine raspberry.

The photos accompanying the reports allow experts to verify their accuracy. On the day following the hunt, Mark Frey found that among the first 50 reports that he reviewed, all but one correctly identified an invasive plant. Care is required, nevertheless,

because some invasives closely resemble native species. Volunteers should not remove any plants unless they have NPS authorization to do so.

Participants in the July 2 event were able to visit only about 40 percent of the Great Falls quadrants, so further day-long hunts may be scheduled. Volunteers also are welcome to participate on an individual basis, and readers are encouraged to use the MAEDN app and EDDMaps website. Please contact Mark Frey at mark_frey@nps.gov for more information and/or to join Mark's email list.

— Ned Preston



*Weed hunters identifying plant species in the Gold Mine Tract.
Photo by Michelle Carter, NPS biologist*

Call for Candidates for C&O Canal Association Offices

The Nominating Committee of the C&O Canal Association is seeking a few good men and women to run for office in 2015. There are positions available on the Executive Committee (President, 1st Vice President and Information Officer) and also several Directors positions are open. Any C&O Canal Association member in good standing is eligible to serve on the board. Executive Committee members are elected to serve for a term of one year and directors are elected to serve a term of three years or until their successors are elected.

Executive Committee positions have specific duties. The President has numerous duties, including presiding at meetings, appointing committees, and representing the Association in a variety of forums. The 1st Vice President performs the President's duties during his or her absence and performs other duties as assigned by the President. The Information Officer duties include distribution of information about the Association as the board of directors, the president, or other officers of the Association shall request to be circulated. Director positions do not have specific duties, but directors are encouraged to participate in the various committees.

Further details about the Association, the individual Executive Committee positions, Director positions and committees are available in the Leadership Directory at www.candocanal.org/Leadership-Directory-2012-11-12.pdf. Information about the Association bylaws and business rules is available at www.candocanal.org/BylawsAsAmnd2012.pdf. The officers and the directors constitute the Board of Directors. Regular meetings of the Board of Directors are held on the first Sunday of February, April, June, August, October and December. The annual meeting, with elections, is held on the first Saturday in March.

Serving on the board is an enlightening and rewarding experience. New ideas and fresh perspectives are encouraged and welcomed. Please take the time to consider seeking a position on the board as we strive to help preserve and protect the historical and natural resources of the C&O Canal National Historical Park.

Please contact Barbara Sheridan at bsheridan411@gmail.com for further information or to confirm your availability to serve on the board.

— Barbara Sheridan, Nominating Committee Chair

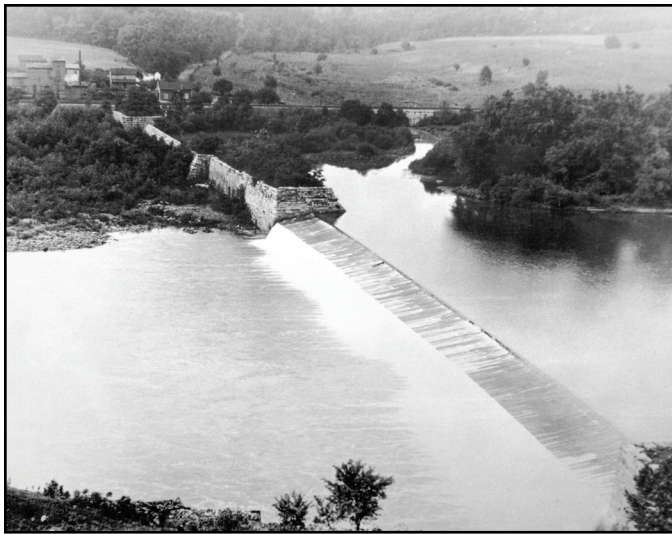
Accompanied by the Past *by Karen Gray*

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

Dam 6 and its Associated Structures

The gem of this year's Heritage Hike is without a doubt Dam 6 and its associated structures, located in a relatively remote part of the canal at Mile 134.06. Each of the C&O Canal dam sites is a collection of structures that meet the always-unique engineering challenges of each location, and Dam 6 is a superb example of this.

Several things merit emphasis. As the dams exist to create a reliable pool of water from which to feed the main stem of the canal, their associated inlet locks are necessarily set six or more feet deep into the median level of the river behind the dam — and being at river level makes them uniquely vulnerable to high water. The standard solution is a high guard wall around these structures that can only be breached by the upstream end of the inlet lock. This design requires that the upstream gate of the lock be a guard gate, as high as the guard wall, in order to close off the opening for the lock when high waters threaten. Once past the dam, the canal is once again some distance above the river which is, of course, significantly lower below the dam than the level of the pool behind the dam. In the case of Dam 6 the difference is 16 feet in typical river conditions.¹



*Dam 6 view into West Virginia –
Photo courtesy of the NPS, C&O Canal NHP*

Dam 6 has some similarities to the complex of structures at Dams 2 and 5. In all three cases the inlet locks are immediately beside the Maryland end of the dam and are integrated into the high abutment and its guard wall. At Dams 2 and 6 a lift lock is beside each inlet lock. But at Inlet 6 there is a feeder channel 0.12 miles long that brings water back into the main stem of the canal. In the case of Dams 1 and 2, the inlets feed directly into the mainstream of the canal at their downstream gates. The situation at Dam 1 is somewhat different as it had a long inlet channel from the dam to a unique quasi-lock impoundment, the lower gate of which fed directly into the canal's main stream.

In the case of all the dams for the C&O Canal except 6, both sides of the river allowed the engineers to anchor the abutments against high river banks. However, the location at Dam 6 has only a substantial flood plain on the now-West Virginia side of the river. Seeming to make the situation even worse, Long Hollow Run drains a nearby mountain valley and flows into the Potomac at that location. The solution was a substantial, free-standing stone abutment with an impressively large masonry guard wall running from the abutment across the flood plain back to where the land begins to rise. Long Hollow Run, on its upriver (western) side, fed into the pool behind the dam. Today the B&O mainline (now a CSX Baltimore Division line) passes very near the landward end of the guard wall and can be seen from Amtrak's Capitol Limited in the winter when leaves are off the trees and brush that have grown up along it.

The dam itself was by no means a simple series of cribs. It is best described by Harlan Unrau in his Historic Structure Report:

Dam No. 6 stretched 475 feet in length across the Potomac and had a fall of nearly 16 feet. The dam was built of heavy timber cribbage securely fastened to the natural rock of the river bed. The cribbage was tightly pinned together and braced, and the voids were filled with stone rubble. The upstream face, much like [the original] Dams Nos. 4 and 5, was protected by vertical, heavy planking. The top surface sloped slightly upward in the direction of the river's flow and had a heavy plank deck. On its downstream side, the slope of the dam was much less than that of Dams Nos. 4 and 5. From the apex of the dam, the downward inclination was only 5 feet in a distance of 25 feet, at the end of which it assumed a perpendicular shape.²

The Maryland abutment was, as always, partially guard wall and thus extremely high, continuing as a guard wall through which the inlet lock passes. Because of the lock's proximity to the dam, an additional guard wall was built downstream along the river side of the inlet lock that adds protection against floods that significantly raise the river level immediately below the dam.

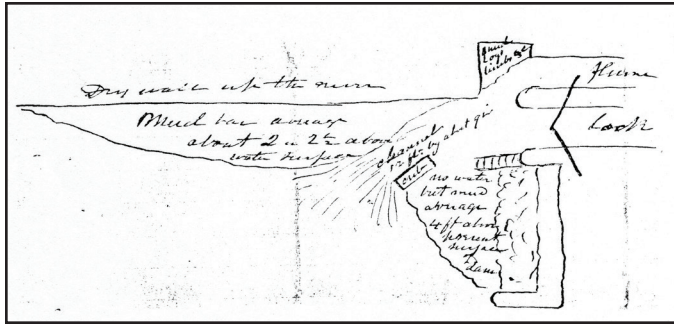


Dam 6 rubble construction – Photo courtesy of the NPS, C&O Canal NHP

The inlet lock has a unique and very large bypass culvert built into its land-side wall. When the lock's gates were closed, water could continue to be passed down to the inlet channel through this culvert. The upstream end of the bypass culvert is located in a large rectangular indentation in the guard wall beside the pool on the land side of the entrance to the inlet lock. At the downstream end of the lock, the bypass culvert emptied into the inlet channel.

Water in the inlet channel flowed under a towpath bridge and into the main stem of the canal at the downstream end of Lift Lock 54. This lock raises the canal to a short level and Lock 55 raises it again to the same level as the top of the guard wall. It will maintain that level for 2.16 miles up to Lock 56 at Pearre.

Note that, as at Dam 6, there are always two or more locks in rapid succession at locations where an inlet or outlet opens to the river (Inlet Locks 4 and 5, where the main stem terminates at slackwater navigation sections, being excepted of course). These lift locks serve to quickly raise the main stem of the canal to as high a level above the Potomac as was affordable and practicable at that location.



*Drawing from canal report that illustrates relationship of Dam 6 -
Courtesy of the NPS, C&O Canal NHP*

Dam 6 History and Lore

There were unique issues relative to the location of Dam 6, as the original plan placed it half a mile downstream below the mouth of the Cacapon River — a location that would have allowed boats on that river to access the canal via the Dam 6 slackwater pool and inlet lock. However, as the B&O Railroad rapidly built its line from Martinsburg to Cumberland along the then-Virginia shore, it became apparent that a dam at that location would have backed up and raised the level of the Cacapon, creating flood issues for the railroad and its Cacapon viaduct. As a consequence, the canal company was forced to build the dam upstream above the village of Great Cacapon, with plans to later construct a dam on the Cacapon



*Guard Lock 6 upstream end and culvert -
Photo courtesy of the NPS, C&O Canal NHP*

above the railroad's bridge, and a short canal that would carry boats from that dam's pool to the pool behind Dam 6 and the inlet lock. Needless to say, neither the Cacapon Dam nor its branch canal was ever built.³

Contracts were let for Dam 6 and its abutments in the fall of 1836, with construction beginning on the abutments shortly thereafter, and on the dam in the spring. The contract for the abutments was completed in September 1838, but the contract for the dam was abandoned at that same time and the remaining work on the dam was done by canal company employees, who finished it in February 1839.⁴



*Guard Lock 6 interior from West Virginia side in 1938 -
Photo courtesy of the NPS, C&O Canal NHP*

The inlet lock was built between October 1836 and October 1838.⁵ Work on Lock 54 was begun in May 1836, but its contract was abandoned in December 1839 when it was 40% completed. It was not completed until 1849 after a new contract had been issued in 1847 to Hunter, Harris and Co., who subcontracted it to Moyle, Randal and Jones. Work on Lock 55 was begun in 1836 under a contract with Henry Smith, the same contractor as for Lock 54, but he completed this lock in October 1840.⁶

Dam 6 is well known as the canal terminus during the period from 1839 to 1850 when construction stopped or proceeded sporadically along the final 50.44-mile stretch of the canal below Cumberland. In the summer of 1843 a preliminary agreement was made with the B&O to carry coal to a wharf on the then-Virginia side of Dam 6 from which it could be transhipped to boats. However the site selected for the railroad turnout and switches also required a 600 ft. trestle that would cost nearly \$1,000 — which the railroad engineer said could not be covered with the money budgeted for the other necessary work. The canal's chief engineer, Charles B. Fisk, replied by urging the railroad to complete "the track and trestle work...so far as [the money] will go," which he assumed would be sufficient for them to "start business."⁷

The Dam 6 railroad depot was ready on April 20, 1844, but in May 1845 the railroad abruptly terminated its arrangement for the transportation of coal from Cumberland to Dam No. 6 at two cents a ton per mile, raising its rates to four cents a ton per mile for coal and six cents for iron. Combined with other acts in opposition to the canal, it likely ended the brief period of "cooperation." Whatever

er the case subsequently, any coal or iron cargo shipped on the canal via the Dam 6–B&O connection does not appear in official records and was apparently inconsequential.

Dam 6 suffered serious damage in many of the great floods, but incurred only minor damage to its abutments in the flood of November 24, 1877. In 1884 a coffer dam was built to allow the company to assess the condition of the base of the dam, and significant repairs were made that reduced serious leaks that had developed, making it difficult to impound enough water behind the dam to maintain navigational levels of water in the canal. Then, as a result of extensive damage in the flood of April 1, 1886, the dam was largely rebuilt during June and July of that year.⁸

In mid-March 1936 — a dozen years after the canal had closed to navigation — the worst flood to date in the Potomac valley washed away approximately one-half of Dam No. 6 and the sheeting on the remaining half. It also destroyed the lockhouse on the berm side of Lock 55, having over-topped the guard wall and flooded across both the inlet lock and the lift lock to the adjacent hillside.⁹

Tom Hahn had famously called Dam 6 “the only dam which burned,” supposedly as a result of a fire started “on the wood-covered structure” on August 31, 1936 by fishermen.¹⁰ However, this report is problematic, based on Unrau’s description of the damage to the dam earlier that year. If the Unrau report is correct, we can assume that the only wood left to burn was some of the cribbing beams, and that even if the fire did spread to those, there was little damage left to be done to the ruins.

The lockhouse on the berm side of Lock 54, which had survived all the great floods and was documented by the Historic American Building Survey,¹¹ burned in 1981, according to Hahn.¹² The construction dates for that lockhouse and the one at Lock 55

are unknown. Records show only that an 1836 contract to build the house for Lock 54 was declared abandoned in 1839. It appears the company may have built a temporary shanty in 1839 and, in 1842, improved it or constructed a more substantial structure to serve the tender for the inlet lock that had been put into service in late 1839.¹³ As Locks 54 and 55 were not put into operation until 1850 with the watering of the last 50 miles, and as construction in the 1840s was so restricted financially, it is assumed that the construction of these lockhouses was deferred until the 1850s.

Notes:

1. At Dam 4 where the inlet lock serves as the beginning of a new section of the main stem of the canal that continues down to Lock 41, it is the case that not just the inlet, but the entire 1.22-mile section of the canal downstream to the guard gate at Dam 4 is below the surface level of the river.
2. Unrau, Harlan D., *Historic Structure Report: Dam No. 6 and its Associated Structures*. Department of Interior, (original version 1974), digitized version 2014.
3. Ibid, p. 18.
4. Unrau, Harlan D., *Historic Resource Study: Chesapeake and Ohio Canal*. Department of the Interior, 2007 electronic version p. 242.
5. Unrau, *Historic Resource Study*, Ibid. p. 239
6. Ibid. pp. 234–235.
7. Unrau, *Historic Structure Report*, Ibid. p. 21.
8. Ibid. p. 31.
9. Ibid, p. 32.
10. Hahn, Thomas F., *Towpath Guide*, Fifteenth Edition, Harpers Ferry Historical Association, 1999, p. 182
11. See www.loc.gov/pictures/collection/hh/item/md0599/ for the digitized information and photographs from this survey, number: HABS-MD 747.
12. Hahn, *ibid.* p. 181.
13. Unrau, *Historic Resource Study*, Ibid. P. 249.

2014 Paw Paw Bends Paddle Trip



A group of 12 paddlers participated in the Association's annual three-day paddle trip through the beautiful Paw Paw Bends area. The group paddled over 38 miles during August 15 - 17 from Paw Paw, W.Va. to Hancock, Md.

Pictured from left to right are: Bill Burton, Pat Sainsott, Vicki Dodson, John Betting, Diane Seery, Bruce Staskiew, Pat White, Neil Gilliam, Nancy Hafkin, Marc Hafkin, Anthony Laing and Barbara Sheridan.

(Photo courtesy of Anthony Laing)

On The Level By Level Walker Chair Steve Dean

This report includes level walker activity for May 1 through August 15. Level walkers are C&O Canal Association members who volunteer on the C&O Canal National Historical Park. The walkers periodically visit their levels and monitor conditions and use, perform light trail maintenance, and observe flora and fauna. There are 69 levels and they range from 1.2 miles to over 5 miles. If you are interested in becoming a level walker please contact Steve Dean at levelwalker@candocanal.org. Please welcome our newest Level Walkers Lynn and Janie DeHart, Paul Graunke, John Kochowicz, David Tosten and Paul Weinberger.

Our level walkers covered 56 of the 69 levels during this period, which is an impressive level of effort over the entire canal. Many of them conducted post-weather event assessments during a summer that has seen record rains at times, moderate flooding, and another towpath breach. One comment that was repeated often in reports was that the National Park Service maintenance team did an outstanding job keeping the towpath clear and safe after the storms. One storm in early July downed over 200 trees, yet the NPS had the majority of the towpath reopened within a day. We all extend our thanks to the NPS for a job well done!

Enjoy the rest of the summer and early fall on the towpath.

Level 1 Tidelock to Incline Plane John Barnett reports May 17 and 26; June 18, 15, 28 and 29; July 18 and 28; August 15 (So much for John backing off this year!) Conducted several cleanups of the usual trash around the aqueduct and tide lock. Rains had a significant impact in this area and damaged the gate at the tide lock. On May 17th it was reported that the river was flowing at a rate unsurpassed for over 70 years. Removed much of the wood debris from the tide lock floor in June. Neighbor Mary Budarz assisted with some of the walks in June and July. **John Wheeler reports July 18 and 26** Most of the trash was from the Alexandria Aqueduct. The beer drinkers showed better taste than usual. The aqueduct is being overgrown by mulberry, Japanese honeysuckle, porcelain berry, and clematis. This is causing damage to the walls of the aqueduct. **Kathryn Powers reports August 9** I tried to remove all the cigarette butts from Locks 2 and 3. The graffiti under the Key Bridge and near the aqueduct is awful. Towpath conditions were good.

Level 2 Incline Plane to Lock 5 Jude and Mary Fran Franklin report April 28 and August 11 The towpath was relatively clean both times. A small gas engine was on the towpath below Lock 5 in April, but when we returned it was already picked up. There was water in the canal but it was very shallow from Lock 5 to Fletcher's Cove. There was no serious erosion. **Susan VanHaften and Rod Mackler report May 26 and June 3** The recent rains had washed the canal clean. There was not too much garbage on or near the towpath, in comparison to previous walks. The canal was full throughout the level. There is a new set of wooden stairs from the towpath to the railroad bridge on the Capital Crescent Trail. The graffiti on the original, historic Milepost 4 is starting to fade.

Level 3 Lock 5 to Cabin John Creek Susan VanHaften and Rod Mackler report May 25 The canal was full from Lock 7 down to the Sycamore Island Ferry. At that point, there was a bit of a dam, and a shallow flow about two or three inches deep and four feet wide in the canal prism. The canal was again full at Locks 5 and 6. Lockhouse 6 was sandbagged, but the waters had receded out of danger. **Hugh and Marilyn Robinson report May 27** The entire level was in great shape, with no trash to report. Weather was pleasant with lots of use by joggers, hikers and cyclists. There was no evidence that recent high water affected the towpath.

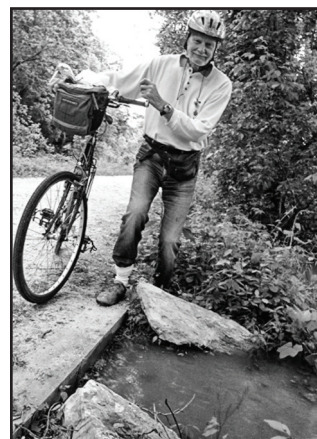
Level 4 Cabin John Creek to Lock 14 Larry Heflin reports May through July Towpath is monitored over numerous walks. The water levels remain irregular from full canal to small enough to step across. On May 17 river level was within one inch of crossing towpath near Lock 8. Found a gizmo (technical term for 12-inch iron lock part) and put it inside the shed at Lock 8.

Levels 5 and 6 Lock 14 to Lock 20 John N Maclean reports August 5 As usual, the section between Carderock and the bridge at Cropley was more lightly used than the section west of Cropley. I had an interesting encounter with two men on bikes who stopped to ask questions and chat. They were

from Los Angeles, visiting friends here, and had hired bikes at Fletcher's. "We have nothing like this in LA!" one said excitedly. They were having a wonderful time, they said, and thought the canal was absolutely beautiful. After we all enthused about the canal and the beautiful day they went on their way, two more satisfied visitors. There's a new stretch of gravel on the towpath right at Carderock that's very welcome. That spot was getting rutted and muddy when wet.

Level 6 Bridge at Cropley to Lock 20 Carol Galaty and Ken Shuck report June 2 It was amazingly clean along the towpath for a Monday after a nice weekend. The towpath was mostly dry and in excellent condition. The vegetation was not mowed alongside the towpath but wasn't unruly. The canal along Level 6 had water the entire way. Prior to the Widewater area the water was brown and cloudy. The water in the Widewater area was more clear due to having some current flowing.

Level 7 Lock 20 to Lock 21 William James reports June 19 and 26, July 21 There is usually not a lot of trash but most is found around the picnic area at Swains. On June 26 I removed an abandoned inflatable raft that was an eyesore near Milepost 16 for a long time. Using my kayak, I towed it to Swains lock and left it for the NPS to pick up. **Nancy Benco reports July 11 and August 15** The towpath was eroding in July at three places on west side at about 100 feet north of River Trail sign. In August it was noted that the erosion was filled in. This erosion was from the summer heavy rains. In addition, the towpath had many large puddles as result of recent rains. Japanese stiltgrass and garlic mustard are prevalent along this level. (Note: The photo of the deer on the frozen canal in the June report was improperly credited; it was taken by Nancy Benco – Editor) **Bridget Sisson and Oren Swain report July 16** Trash was light.



Larry Heflin monitors peak floodwaters near Lock 8 on May 19. Photo courtesy of Larry Heflin

Two sycamore trees are leaning across the canal just above Milepost 15 and may fall into the canal after the next big storm. We encountered several long distance bikers. **Paul Weinberger reports June 16 and 23; July 6, 16 and 28; August 4** I conducted English ivy clean-up on the area between Great Falls and Swains Lock.

Level 8 Lock 21 to Lock 22 Steve and Karen Appleton report May 4 and July 11 Heavy rains have caused more erosion above the Swains Lock area and it now extends farther into the towpath. Even though it is marked by an orange fence it is still hazardous. Other than the erosion things look

good on the level. It's great to see people out there enjoying the beauty of the canal. **Jack and Karen Forster report July 5** There were too many cars for us to park at Swains Lock and there was barely enough room left to park at Pennyfield. We encountered 129 bikers and one unicycle. This is our record number of bikers. Swains lockhouse continues to look much better. Pennyfield lockhouse was closed but looked great and a guide told us it was booked for residence that night.

Level 9 Lock 22 to Seneca Aqueduct Paul and Rita Marth report June 1 and August 9 There was minimal trash in June. We would like to attribute this to the cleanup in early April, but realistically we're sure there is trash concealed by the lush plant growth. The watered canal section was completely clear. There was a tree in the watered section below Mile 21 but the canal is still passable there. The area around Mile 21.5 seems to be a popular place to leave trash. In August we found six unopened beer cans there, which is a bit odd. **Sylvia Diss reports July 5** The weather was fair and light trash was found. Encountered a scout troop traveling from Pittsburgh to Georgetown. Plant mesh is in place beside the lockhouse at Pennyfield to help reestablish plant life to control erosion and should be avoided by walkers. **John McGraw reports August 7, 8 and 9** The level was very clean. August 7 was a camp day at Rileys and there were around 100 youngsters in the area. I always find it interesting to talk to people on the towpath. One biker said he had biked from Oregon and was headed to the Outer Banks of North Carolina.

Level 10 Seneca Aqueduct to Milepost 25 Carol Purcell reports April 10 and July 4 Towpath rutting is bad in this area, especially between Mileposts 23 and 24. There is one very bad pothole at the upper end of the boat basin. Gravel resurfacing is needed along this level. There are lots of areas that are only dirt with no gravel surface visible. Other hikers reported that work was being done upstream, so I can only hope. The clean aqueduct as I drove in for my July walk was a happy sight. The lock and aqueduct look good. The clearing that the Volunteers in Parks team performed is marred by some new Virginia creeper growth in the aqueduct. **Paul Graunke reports July 16** A lot of youth outings were in the picnic areas. All the tables were occupied. In the course of the walk, saw about two dozen hikers and bikers on the towpath. There was evidence of recent mowing along towpath. I noted graffiti on the southwest side of Seneca Aqueduct.

Level 11 Milepost 25 to Sycamore Landing Pat Hopson reports June 14 To my amazement there was no trash at the Sycamore Landing parking lot. The water at Culvert 38 is so high that it comes to the top of the hole in the canal prism. The NPS has either installed a new picnic table at the Hiker-Biker campsite or sanded off the graffiti and repainted the table. In any case, the graffiti that I noted on my last two visits is gone. Thank you, National Park Service! That looks so much better.

Level 12 Sycamore Landing to Edwards Ferry Pat Hopson, Larry Broadwell, Carol Ivory, Janet Kegg, and Dan Mick report June 15 This was a multiflora rose clean-up trip. Two families had stayed in the lockhouse on Saturday night. They told us that a group of about 10 teenagers had been drinking beer and partying there the night before, and that the teenagers had left a cooler, which we removed. **Pat Hopson, Carol Ivory, Janet Kegg, and Frank Wodarczyk report July 5** The towpath on this level was only a little muddy from the rain the previous week. Three pieces of heavy equipment were parked along this level a bit upstream from Sycamore Landing. It appears they are being used to resurface the towpath here. This is welcome news, since the new surface should mitigate the mud holes that notoriously form here after it rains and that considerably hinder both foot and bicycle travel. A group was staying the weekend at the lockhouse; they had kayaks and bicycles and were having a great time. They said they did not have to endure any wild parties the night before, and that a policeman came by about 11 p.m. and checked the area.

Levels 13 and 14 Edwards Ferry to Whites Ferry Bob Robinson reports May 31 and August 7 The level was in good condition, except trashy conditions are a constant problem at Edwards Ferry. Boaters commented that they were disgusted with the conditions there. Other than the trash at Edwards Ferry this area is a blessing to have so close to the Nation's Capital.

Level 14 Harrison Island to Whites Ferry Bill and Chris Holdsworth report 30 July It was a comfortable July day. The towpath was generally in good shape, with only a few muddy spots. There seemed to be less water in the prism than usual.

Level 15 Whites Ferry to Lock 26 William James reports June 11 and 23 I removed many tree branches and limbs from the towpath. The gravel was eroding at the edge of the towpath in several places. The erosion near Whites Ferry road had been marked with a metal CAUTION sign. There was a large amount of overgrowth protruding into the towpath and I returned on June 23 to trim it back.

Level 16 Lock 26 to Monocacy Aqueduct Mike Ciansiosi reports July 19 There was very little trash on the towpath. Most of it was from four or five plastic grocery bags full of trash that people had left in various out-of-the-way places rather than bringing their trash out with them. The water level was almost back up to normal in the watered section between Lock 27 and the Dickerson power plant access. I had reported the water level about 2 to 3 feet below normal in my April report. I noticed that a spot at approximately Mile 41.2 had some sand bags in the canal prism along the bank, and was leaking a little bit of water, so I assume that is where the breach was.

Level 17 Monocacy Aqueduct to Nolands Ferry Marion Robertson and Laura Gilliam report June 8 We cut a large amount of honeysuckle that was beginning to dislodge rocks on the granary structure at Monocacy. Monocacy Aqueduct arches 3 through 6 are blocked with debris. There is growth on upper outside level of the aqueduct on Potomac River side, including a small sapling and poison ivy, which is also coming up on railing. **Harry DeMoll reports June 10** Towpath is in good shape with very few muddy spots considering recent rains. Grass along the side of the towpath had been mowed. Saw one cyclist, one horseback rider, several people hiking the trail and two couples fishing from the aqueduct on a very humid, hot day. **Earl Porter reports June 25 and July 31** The level is in good condition but with the usual high amount of trash. As previously reported, arch blockage conditions continue at the Monocacy Aqueduct. Culvert 71 has lost some stones from the wing wall but this has not worsened from earlier conditions. **George Kennett and Mary Wheeler report August 3** The towpath was in good shape. Most trash collected was bottles.

Level 18 Nolands Ferry to Point of Rocks John Anderson reports June 2 It was a beautiful day for a walk on the C&O Canal. The canal has water in it from the recent rains. The water is black from lots of organic material existing there. There are many downed trees in the prism. **Pat White reports June 4** The towpath was in good condition with only a few muddy spots. The Calico Rocks Hiker Biker was quite swampy in spots. There were swarms of bloodthirsty mosquitoes. **George Kennett and Mary Wheeler report August 3** There was an excessive amount of trash at Point of Rocks. The towpath was recently resurfaced in the area around Miles 45 and 46.

Level 19 Point of Rocks to Catoctin Aqueduct Lynn and Jim Walker report May 3, June 3 and 28, July 4 and 10 A large grapevine was hanging near Milepost 49 and was a potential hazard to towpath users. Sinkholes were noted near Milepost 50. Repairs were performed to the steps and fence at the Lander lockhouse. A logjam blocks all of the Catoctin Aqueduct arches. **Kevin Shaner reports June 24** The towpath was dry and in good condition during this pleasant trip through the level.

Level 20 Catoctin Aqueduct to Lock 30 Don Peterson reports May 5 and 26; June 2 and July 30 Conducted frequent cleanups at the Brunswick boat ramp. There were 740 people (close to a record) at the Brunswick campground on Memorial Day. I found a pile of dead carp in the Brunswick parking lot in July that was left by bow hunters. I reported it to Maryland Department of Natural Resources. **Doug Zveare reports May 11 and June 29** Water is pouring into the prism from Culvert 85, which is clogged. Sinkholes at Culvert 84 are much worse after recent heavy rains. I cleaned up around the C.F. Wenner's Choice Family Flour mill ruins in Brunswick. The ruins have been in the same condition for years. In June the area around Culvert 82 was damaged by storm water. Of first concern

is the towpath wooden walkway above the towpath arch. The dirt is washed out from underneath it and another few feet would have caused it to breach. There was serious damage on the west side of the nearby railroad culvert that has already been addressed by CSX. They have dumped quite a large amount of rocks and gray colored material into the washout to fix it. Some of this material is resting up against Culvert 82 berm portal. A significant amount of debris washed through the railroad culvert and is now piled up across the Culvert 82 berm portal.



Flood damage over Culvert 82. The wooden walkway at the top of the photograph carries the towpath over the culvert arch. Photo by Doug Zveare

Level 21 Lock 30 to Lock 31 Ed Rhodes reports June 12 The towpath had very little trash. I collected a large amount at the Werverton parking area. I trimmed back overhanging brush.

Level 24 Dam 3 to Dargan Bend Karlen Keto reports June 1 There was only light trash. There is erosion at the culvert near Sandy Hook. Numerous bikers were out, including a large Boy Scout group. **Ed Rhodes reports June 11** The towpath was in good shape, but wet. I trimmed back brush.

Level 27 Antietam Aqueduct to Lock 38 Steve Dean reports July 19 There was moderate trash on the level. I inspected Culverts 103, 104, and 105 and found all in good condition with normal water flow. A previously reported missing stone on the berm wall of the Antietam Aqueduct was replaced. **John Lefebure reports July 26** All grassy areas had been mowed in the previous week or two. The towpath was in good shape other than a few muddy spots. Antietam Aqueduct was in great shape. There was very little trash.

Level 28 Lock 38 to Lock 39 Bill Warren reports May 4 The weather was very cool, and I made it a brisk walk. Most trash was in the Lock 38 area, which is a frequent problem. Park use was light.

Levels 28 and 29 Lock 38 to Snyders Landing Elliot Krafur reports May 23 Much of the prism is watered from Lock 38 to Lock 40 after recent heavy rainfalls. Fresh springs filled the prism with sediment and water at Snyders Landing and just above Lock 39. Water debouching from the prism to the Potomac chronically scours the towpath at Snyders.

Level 29 Lock 39 to Snyders Landing Steve and Joni Bittner report June 29 We only found light trash. A large group of bikers was stopped along the towpath. One of the riders went over the bank of the towpath, injuring her arm and bending the tire rim. The group indicated they were OK.

Level 30 Snyders Landing to Lock 40 Marg Knott reports June 1 and July 20 The towpath was in good condition, with some mud in places from recent rains. Trash was light. The washout in the Snyders Landing area remains a concern.

Levels 30 and 31 Snyders Landing to Marsh Run Culvert Elliot Krafur, with Edwin and Julia Krafur, reports May 23 Locks 39 and 40 walls are collapsing inward and may require stabilization. Water was flowing through most culverts.

Level 31 Lock 40 to Marsh Run Culvert Bill Warren reports July 30 I carried one bag, but saw no trash anywhere along the towpath. Some trash is visible along flood plains around Horseshoe Bend, and still more lies hidden beneath undergrowth, and among the poison ivy, snakes and ticks in that area. I decided to forgo searching the underbrush for trash till after the first frost. There are some serious mud holes around Horseshoe Bend.

Level 32 Marsh Run Culvert to Dam 4 Catherine Fenselau Cotter reports July 13 The towpath was in good condition. It appeared they might have had to plow the towpath clear in some places. Most trash was in the fishing area by Dam 4.

Level 34 McMabons Mill to Opequon Junction HBO Tom Perry, with grandson Sammy Gardner, reports July 21 Towpath was in excellent shape and had been cleared of fallen debris. We found two places of serious erosion at the grotto near Mile 88.3, down from the towpath to the river.

Level 35 Opequon Junction HBO to Lock 43 Stephen Williams reports May 12 The level was in good condition on a pleasant day before the rain and floods hit. Lock 43 was in good condition although the sign is faded and needs painting.

Level 36 Lock 43 to Falling Waters Dick Ebersole reports May 28 and July 11 The access road that runs from the end of Falling Waters Road to the canal towpath is washed out. The towpath is in good condition, but the grass was not mowed. Lock 43 and its lockhouse seem to be in stable condition. There was a good deal of water in the canal from all the recent rain. In July a Civil War tour group visited the Falling Waters pontoon site.

Level 37 Falling Waters to Lock 44 Jim Tomlin reports June 22 (with Andy Harbert) and July 30 Trash was moderate for this level and in June a barrel that washed up on the towpath was removed. There were no obvious issues with canal structures. Level 37 was clear, litter-free, and was in good shape for walking and cycling.

Levels 38 through 40 Falling Waters to Dam 5 George Kennett and Mary Wheeler report August 10 and 11 The towpath was in good condition. We observed six young men in their 20s hitting golf balls into the river at Dam 5; they stopped when they saw us. Most trash was at the fishing areas around the Cushwa Basin and Dam 5. Oddest sight was an elderly man counting stacks of cash at a table at the Cushwa Basin.

Level 39 High Rock Quarry to Nettle RR Bridge Piers Stefanie Boss reports July 23 There was very little trash and the towpath was in good condition. The level had been recently mowed.

Level 41 Dam 5 to Four Locks Roxanne and Rafi Krigman report May 5 This was our first time on the trail as Level Walkers. The day was beautiful! The towpath was relatively free from litter and we were surprised to see graffiti. Overall we had a wonderful time walking our level.

Level 42 Four Locks to McCoys Ferry Steve Dean reports June 1 The towpath was clean and dry. There was a lot of camping activity at McCoys Ferry as expected for a late spring weekend.

Level 43 McCoys Ferry to Fort Frederick Karen Gray reports May 26 Irresponsible campers left a still warm fire and trash near the boat ramp at McCoys Ferry. Culvert 147 continues to deteriorate badly. The holes in the prism above the vault of this masonry culvert have grown much larger. For some reason I was struck on this walk by the height of the canal and towpath above the lowland between the river and the canal (now covered by floodplain forest and lush undergrowth but possibly farmed during canal operating days) along the Mile 110 stretch. Once past Milepost 111, the forest area between the canal and the river is not much lower than the towpath. I remember that one or both of the 1996 floods nearly reached the towpath, as a line of deposited plant debris marked its limit.

Levels 44 through 47 Fort Frederick to Hancock George Kennett and Mary Wheeler report August 4 The towpath was in good condition along these levels but needed mowing in many places. Light trash was collected. Park information signage directing to the Visitors Center at the Bowles House is misleading since it is closed.

Level 45 Ernstville to Licking Creek Aqueduct Dennis Kubicki reports May 27 I was surprised by how clean the towpath was from Fort Frederick to the aqueduct. As reported previously, the problem is that there are homeowners along the canal who discard trash onto the far side of the canal.

Level 49 Round Top Cement Mill to Lock 53 Paul Petkus reports April 19, May 17 and July 26 Flooding due to a recent storm was the story along the towpath during the May visit. The impact of the rain on Level 49 was not as great as it was in other areas of the park. The river level at Hancock was elevated, but never reached flood stage. A muddy area at the Leopards Mill Campground was physical confirmation that the water level in the Potomac River had receded by a foot or two from its peak. In July I chatted with two bicyclists who were on the final stretch of a cross-country bike trip. They started in San Diego on June 15. They need to complete their journey by August 1. They also didn't plan on biking to the Atlantic, but rather stopping at Annapolis. They were very appreciative of the towpath. In late July someone defaced the park signs at nearby Cohill Station. **Kristin Zimet reports June 19** Although it was a Thursday afternoon, not near a holiday weekend, and storms were predicted and threatening to break at any moment, a great number of bicyclists of all ages were enjoying the path. The trees growing between un-mortared stones along the top of the Round Top Cement Mill are getting big. If this aggressive growth is not addressed soon, I believe the wall above the kilns will collapse. The walls of Lock 53 are still laden with plants. Poison ivy, ailanthus, box elder, Virginia creeper and honeysuckle are large; they will eventually ruin the walls. Garlic mustard and Japanese knotweed are increasing on this level.

Level 50 Lock 53 to Dam 6 Steve Dean reports June 20 The towpath was in good condition and the resurfacing from three years ago is holding up well. Culverts appeared to be clear with flowing water. Careless campers left a large amount of trash and a still-glowing fire at the Cacapon Junction Hiker-Biker camp.

Level 51 Dam 6 to Sideling Hill Aqueduct Bill and Chris Holdsworth report May 31 and August 14 We followed up the Association President's Day Hike in May with a level walk. Conditions were good on the level and visitation was light. Visitation was also light in August and we enjoyed a late summer hike. Towpath conditions were good, but Milepost 136 has been knocked down.

Level 52 Sideling Hill Aqueduct to Fifteen Mile Creek Aqueduct Tom Aitken reports July 6 Aside from an above-average amount of people in the park this was a relatively mundane walk. I'm not sure whether to attribute the lack of trash to responsible visitors or simply not being able to see it because of the high summer-time grass. **Tom and Marsha Dulz report July 6** Towpath conditions were good, with minimal trash. We encountered a biker who had ridden 4,700 miles on Rails to Trails.

Level 53 Fifteen Mile Creek Aqueduct to Lock 59 Tom and Marsha Dulz report July 4 and 25 Trash was light and towpath conditions were good on both occasions. There is some puddling in places on the level.

Levels 53 and 54 Fifteen Mile Creek Aqueduct to Lock 60 Dennis Kubicki reports July 24 The levels were clean. An unusual find was two pairs of childrens' size shoes together in the middle of the towpath near Milepost 146. It's hard for me to imagine the scenario that would result in such a loss. The Potomac River was surprisingly low. The depth of water between Lock 58 and the Devil's Alley campground was so shallow that one might have walked from one bank to another. Rock and sand banks extended well into the river at that point and elsewhere.

Level 55 Lock 60 to Culvert 208 Paul Petkus reports June 21 Aside from a few puddles, the towpath was in good condition. A few branches were moved off of the towpath, but nothing noteworthy. Lock 60 was in good condition. In August it was evident that the level is well maintained. The area along the towpath has been mowed and the brush has been cut back. It doesn't appear that the July 8th storm that brought down many trees throughout the park had a much of an impact on this level. Concrete over the berm arch of Culvert 208 appears to be falling off.

Level 58 Lock 63 1/3 to Tunnel Parking Area Tom Aitken reports July 20 The towpath was pretty clean, but there was a significant amount of trash in the prism at both ends of the tunnel. The "waterfall" at the downstream end of the tunnel is down to a damp stain on the rocks. The protective fence below the rock-slide area is still holding the rocks. There was an antique car gathering at the tunnel parking area.

Level 59 Tunnel Parking Area to Opposite Little Cacapon Tom Aitken reports July 27 It was a very hot day but I enjoyed the hike. The level was recently mowed. Work on MD Route 51 to add the hiker/biker lane across the bridge into Paw Paw is evident.

Level 60 Opposite Little Cacapon to Town Creek Aqueduct Jonnie Lefebure reports May 31 There was a downed immovable tree partially blocking towpath at Mile 161.5. I found a sinkhole right beside towpath on canal side at Mile 160.7. I put some branches in to mark it. The hiker biker campsite was mowed and in good shape. Culvert 215, Lock 67 and the spillway at Mile 160.3 were all in good condition.



The concrete placed over the berm abutment of Culvert 208 is starting to fall off. Photo by Paul Petkus



Above - The deep hole in the prism at the site of the washout near Mile 181.2 is now filled in and a drain vault is in place.

Below - The finishing touches on the culvert outflow to the river are shown in progress. Photos by Bob Mischler



Level 62 Lock 68 to Oldtown Tom and Marsha Dulz report June 5 The towpath was clean and in good condition. We observed numerous fishermen. Most trash was at the Oldtown parking lot. **Jim Lyons reports June 10** I cleaned up fishing-related trash around Locks 69 and 70. **Tom Aitken, Candee Schneider and Steve Dean report June 21** We cleaned up fishing-related trash at various points. A very deep sinkhole that undermined the towpath was found and reported. The NPS quickly repaired it.

Level 64 Kellys Road Culvert to Spring Gap. Nasra Sakran reports July 22 I scouted out the towpath for 1st year garlic mustard. I found several patches and pulled some. There was very little trash.

Level 68 Evitts Creek Aqueduct to Wiley Ford Bridge Bob and Joan Mischler report May 9 and July 25 Most trash is between the sports complex and the sewer plant. In May repairs to the culvert under the CSX line were still evident. By July the repairs were nearly complete and the towpath was restored.

Level 69 Wiley Ford Bridge to Cumberland Terminus Bob and Joan Mischler report June 6 The towpath was in good condition, with minor puddling and light trash. We encountered three bikers from the Netherlands, one carrying a 3-year old on a child trailer.

Level Walker Nature Observations

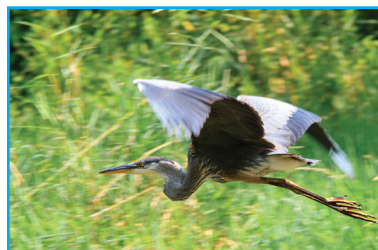
Summer is always an exciting time on the canal. Some days it's hard to believe there is life on the canal beyond mosquitoes, but there is. If it crawls, runs, flies, swims, hops, or jumps, it's probably been seen on the canal by a level walker at some point. We haven't had a report of a black bear, bobcat or timber rattlesnake lately, but they are all possible in the Western Maryland part of the towpath. We have had reports of great white egrets by many level walkers in August and that is a seasonal treat. Butterfly watchers and dragonfly hunters delight in the variety on the towpath. Fans of paw paw fruit are carefully watching this year's crop. Wildflowers are transitioning from the beauties of summer to the subtle fall flowers.

Kristin Zimet takes wonderful notes when she walks her level, and her narratives always provide a great snapshot of life on Level 49 (Round Top Cement Mill to Lock 53). Here's what she saw in June:

Dame's rocket was putting on a fine show — purple, white, and even in one place striped purple-and-white. Honewort's delicate white flowers were abundant, and the elderberry had huge flowers. Indian strawberry was full of bright red fruit—too bad that to human tongues they taste like dust. Leaves of moonseed were abundant, and in the canal prism, leaves of pickerelweed and lizard's tail. Nice surprises were three hairy ruellia in bloom, and the leaves of pipevine.

Birds were in full voice: especially prominent were wood pewees, pileated woodpeckers, northern parula warblers, black-throated green warblers, indigo buntings, least flycatchers, and song sparrows. Red-shouldered hawks cried out in four places. There were fewer woodpeckers, though, than I am used to hearing.

I got within six feet of a great blue heron. It was leaning intently over the canal prism, no doubt hoping to spear a chorus frog. These frogs were clicking away madly, a mating party in full swing. In another pool I heard the twang of several green frogs.



Photos from top to bottom:
Monarch butterfly - Paul Petkus
Northern water snake crossing towpath - Ken Shuck
Early paw paw fruit - Nancy Benco
Great blue heron - Steve Dean

John N. Maclean reported an interesting encounter with a hawk:

I was approaching the stop gate at Mile 13.8, just below Great Falls, when I saw a group of teenagers ahead with long sticks poking at a large bird barely in the water on the edge of the canal. There were some adults watching from the towpath. The adults reported that the bird, which they thought was an eagle or hawk, seemed to be stuck and the young people were trying to free it. Perhaps its legs were caught in fishing line.

The teenagers were making free with their sticks, poking at the bird, and I decided to see what I could do and I went down the bank. I asked the teenagers to stand back, which they readily did. Throughout the whole episode, which lasted over a half hour, the bird never became hostile to me or the other people, though it would have been justified in doing so. I had a walking staff with me and probed under the hawk, trying to snag whatever was holding it. When I moved enough brush to see under the bird, however, there in its talons was a long, fat snake — the hawk wasn't stuck; it was hungry and determined to keep its kill.

I backed off and asked the teenagers to also do the same, which they did quickly and without complaint. We then stood on the towpath watching the hawk: groups and individuals would come by, join us, take a few pictures, and move on. The hawk hauled itself a couple of feet up the bank, keeping a tight grip on the snake, and began to dine. This went on for maybe 15 or 20 minutes. It finally got all the snake down. After it preened and digested for another 10 minutes or so it flew off, roosting on a snag on the far side of the canal.

The event ended happily for everyone, except of course the snake.



Mealtime for a hawk.

Upper left - The hawk rests on the edge of the canal, unconcerned about the gathering audience.

Lower left - The hawk gets the last bit of the snake down.

Lower right - The satisfied hawk prepares to fly off.

Photos by John N. Maclean



From Earlier Days of "Along the Towpath"

The earliest newsletters associated with the C&O Canal Association were published by and for the Level Walkers and titled *The Level Walker*. The next attempt at a newsletter for Level Walkers was in March 1970. This newsletter was renamed *Along the Towpath*. The article below is from Volume 1 Number 5 of *Along the Towpath*, November 5, 1970. The editor was Captain Thomas Hahn, U.S. Navy retired, thus the name of the column. – Dward Moore

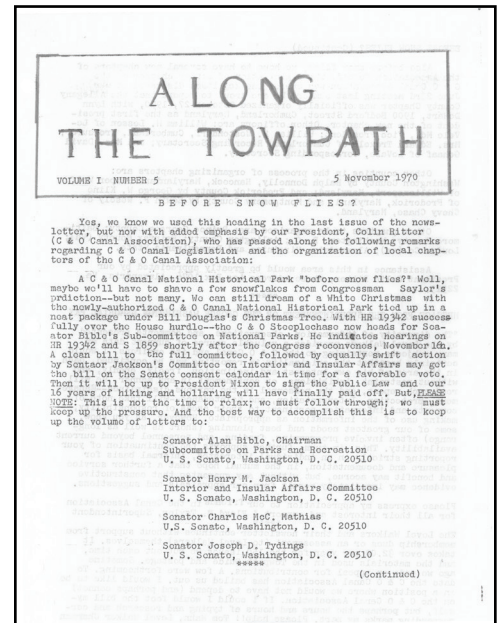
CAPTAIN'S COMMENTS

By the time you receive your copy of *Along the Towpath*, we should be just at about that "magic" day of 16 November when the Congress reconvenes – hopefully to consider the legislation at hand concerning the C&O Canal National Historical Park. With some luck (and a lot of support) to the interested (and uninterested) legislators, our next issue will announce the accomplishment of that legislation and the approval of the President.

Already a great amount of interest and concern is being generated by various local factions as to what is to happen to their areas as a result of the pending legislation if successful. One such area is Cumberland, the western termination of the canal. There are those who are concerned that the plan, "does not include Cumberland at all and lists the western terminus of the canal at North Branch, Maryland." The City of Cumberland has passed a resolution which in part reads, "...that the Senate of the United States be urged to adopt legislation that will designate the Chesapeake and Ohio Canal Monument [sic] and that an Historical Park mark its existence for a distance of approximately 185 miles from Washington, D. C. to Cumberland, Maryland, and that suitable facilities be constructed at its western terminus near the confluence of the North Branch and Wills Creek." (The Mayor of Cumberland, Tom Conlon is a Level Walker on the Spring Gap Culvert to North Branch section.)

The Executive Officers and the Board of Directors of the Allegany Chapter of the C & O Canal Association have stated that, "[We] would like to take this opportunity to express our complete support for the C & O and National Historical Park [sic]. The Officers and Directors feel the primary reason for the C & O Canal National Historic [sic] Park Bill should be passed by the U. S. Senate is that this issue is not a local, regional nor even a state-wide issue but a question of national priorities. The C & O Canal must be preserved as a national historic site that will enrich the lives of future generations. We strongly hope the U. S. Senate Committee on Interior and Insular Affairs, and eventually the Senate itself, will pass this bill during this session of Congress. And in doing so will preserve this site forever." (Emphasis was added by your editor to the two above paragraphs.)

We like the view of the Allegany Chapter. Let's not get divisive in local issues too early in the game. There are things in the legislation and plans that many of us don't like, primarily ones of emphasis as to how to proceed with an effective plan. These objections can and should be worked out with firmness and yet with a sense of fairness and balance for the good of all, at least to the maximum extent possible.



November 1970 "Along the Towpath"

Back Issues of Association Newsletters Are Now On-Line

If you enjoy reading the excerpts from the earlier days of *Along the Towpath*, you'll be delighted to know that the archive of C&O Canal Association newsletters is now posted on the Association website. Newsletters date back to March 1960, when the seven typewritten pages were called *The Level Walker*. You can use the Google search bar on the web page, candocanal.org/atp/atp.html, to locate information that interests you.

You can trace many notable events in the newsletter pages, including the creation of the C&O Canal National Historical Park (February 1971), the collapse of Catocin Aqueduct (December 1973), and the Association's first through hike celebrating the 20th anniversary of Justice William O. Douglas's famous hike (May 1974). Be prepared to spend a few hours browsing past issues!

The back issues are on line due to the efforts of Rita Bauman, Jill Craig and Bill Holdsworth.

ON THE BOOKSHELF

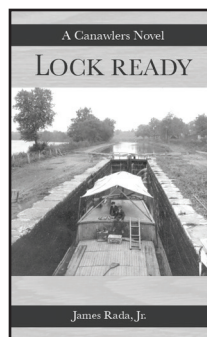
Lock Ready by James Rada, Jr.

Gettysburg, PA: Legacy Publishing, 249 pp., \$18.95

This third novel in the Canawlers series deals with life along the C&O Canal during the last years of the Civil War. Alice Fitzgerald, a widow, is trying to make a living on the canal boat *Freeman* with the help of her sons. War damage to the canal has caused delays and rising tolls. Cumberland is a city under martial law with active Southern sympathizers plotting to help the South. Miners and boaters both want more money, but getting the coal to Washington is the only way anyone gets paid and the journey is perilous with the threat of armed conflict and robbers.

Descriptions of canal life are historically accurate. I'd never thought much about how the boats were filled with coal, but the description of the process had me saying "Of course, how else could it be done!" and I could easily visualize the boats queuing up to take

on their cargo. Readers of recent issues of *Along the Towpath* will recognize a particularly hazardous section of the canal and worry along with the family as it is negotiated in a strong current.



A side story follows the Fitzgerald daughter, Elizabeth, who has chosen to stay in Washington with family friends and work as a nurse in an Army hospital. Post-traumatic stress syndrome is not a recent development.

Bottom line, I enjoyed the book and intend to read the first two in the series: *Between Rail and River* and *Canawlers*. The signed copy of *Lock Ready* that I have will be a door prize at the Heritage Dinner in October.

– Patricia White

The Sixth Extinction, An Unnatural History

by Elizabeth Kolbert

Henry Holt and Co., 336 pp., \$28.00

This book is meant to be a wake up call, an attempt to direct attention to the fact that native species are disappearing at an alarming rate. Scientists and scholars have offered many reasons over the years, but the finger of responsibility often points to the actions of our own species. The author asks that we accept this fact and work together to come up with solutions. She uses her skills as a journalist to explain complicated concepts clearly and succinctly in a way the general public (i.e., non-scientists) can easily comprehend.

The subject of the book is mass extinction, not the disappearance of several species, but a cataclysmic event that causes a vast loss of life. Mass extinctions are rare. They have occurred only five times in the history of our planet. The "Big Five", as geologists call them, took place during five different geologic periods. There is no definite agreement as to what caused any of these extinctions, although it is generally thought that the impact of an asteroid was the reason for the disappearance of most life forms during the Cretaceous period. As for the other Big Four, there are as many theories as there are studies.

The author sets out to make the case that the planet is currently undergoing a sixth mass extinction. She validates this claim based on the results of monitoring projects and current research. Among scientists there is continuing debate as to why some species survive while others perish in times of crisis. Contrary to common belief, extinction was not immediate in each of the Big Five events. Geologic records show that individuals of a variety of species survived in various locations. The conclusion is that survival under stress is a combination of luck, the ability to reproduce rapidly, and mobility. If given enough time between events, species can adapt. Otherwise, reproduction cannot keep up with the rate of population loss.

As the author points out, no other species other than ours in the history of the planet has had the ability to alter the environments of so many areas of the planet so quickly and continuously. As a result of development, animals are prevented from moving to more suitable terrain if local living conditions become inhospitable. Similarly, either by accident or design we transport animals and plants from place to place, often causing stress on native species. Such actions create a constant wave of change that prevents recovery.

But there is good news, according to the author. If we are the cause of the problem, we should be able to meet the challenge and avoid a sixth mass extinction. As she points out, our intelligence, adaptability, and problem solving skills have been proven for thousands of years. Our species survived the ice age, innovated the use of tools to perfect the technology we enjoy today, and outsmarted the megafauna that preyed on our ancestors. With all this going for us, the author suggests, we can find solutions. The book concludes on a positive note.

Although dealing with a complicated topic, Elizabeth Kolbert manages to keep the text lively and even humorous at times. She alternates factual text with stories of field trips to remote, exotic places with teams of dedicated scientists. Their discussions and experiences are a combination of serious reflection and great adventure.

I recommend this book to anyone interested in the subject matter as well as the complex and often contentious history of scientific inquiry.

Data collection by volunteers is extremely important to the efforts of scientists to document endangered species. Interested observers have seen relatively few monarch butterflies along the towpath in recent years; others are involved in monitoring the health of the Potomac River. There are many opportunities to help monitor native species in the Washington area. One particular organization, the Audubon Naturalist Society in Chevy Chase, Md., sponsors several on-going projects. Volunteers are always welcome.

– Marjorie Richman

Evergreens Along the Towpath

As you walk along the towpath in late fall when trees have lost their leaves, anything that adds color to the landscape gets your attention. On a walk with Carol Ivory last November, I noticed splashes of vibrant green scattered among the predominant color of gray tree bark and rock. This variation in color is the contribution evergreen trees make to the local landscape. When deciduous trees are in full leaf, we hardly notice the evergreens, but once the leaves are off the trees, we can hardly not notice them.

The evergreen trees in our area are typically members of either the pine or cypress families. There is no mistaking one of these trees for a deciduous tree. They differ in shape, leaf configuration, and type of fruit. The shape of these trees is pyramidal or Christmas-tree like, the leaves are needles, either in bundles or compressed, and the seeds are encased in a cone rather than in the colorful pulp of many deciduous trees. In the spring they can't compete with their neighbors' variety of leaf shapes, flowers and aromas. In the fall they pale in comparison with the colorful leaf displays of deciduous trees.

At one point on Carol's November walk, across the canal from where we were standing, one particular tree looked like an intruder. It appeared to have claimed its space within a circle of taller, leafless trees. Blown by the wind or dropped by a bird, the seed of this tree fell by chance into a gap in the canopy. Chances of survival are slim in any environment, but especially so if the newcomer is surrounded by tall, well established trees that capture sunlight before it reaches the forest floor. One can only wonder how the tree was able to win the competition for sunlight and space to grow.

Although the evergreen across the canal was too far away to identify, we did note that the tree seemed to be thriving in a rocky,

cliff-like habitat. It could be an eastern red cedar, a hardy species that grows well in this type of environment. We will never know for sure, since no one volunteered to ford the canal and bushwhack up the hill.

Although the trees of the cypress and pine families are not as widespread along the Potomac as deciduous trees, their presence lends a great deal of diversity to the nature of the towpath all seasons of the year. This mixture of species illustrates the constant renewal capabilities of a natural environment left alone without human interference.

To learn about the trees in our area be sure to join Carol Ivory on her late fall tree walk at the Carderock Recreation Area.



*Evergreen trees along the towpath stand out in late fall and winter.
Photo by Steve Dean*

Fall 2014 Continuing Hikes

On Sunday, September 28, we'll visit the Dam 5 inlet lock and investigate why it was called "The Most Dangerous Place on the Canal," then continue upstream along Little Slackwater to Four Locks and possibly even McCoys Ferry if the weather and hikers cooperate. Other items of interest along this stretch are the piers for the mule crossover bridge at Lock 46, the schoolhouse and road culvert at Four Locks, and a rather beautiful deep cut just beyond Four Locks. See the recent December and March issues of *Along the Towpath* for articles on the Dam 5 inlet lock problems and canal hydraulics in general.



*Towpath view near Mexico Farms -
Photo by Steve Dean*

Our final hike of the year is just nine miles downstream from Cumberland at North Branch/Lock 75 on Sunday November 23. CSX is rebuilding the railroad bridge at North Branch and all parking has been moved to a lot at Lock 75 a tenth of a mile upstream, but be alert for changes. We'll walk upstream toward Cumberland and investigate a Confederate soldier's grave, then continue upstream to Mexico Farms.

As usual dress for the weather, bring water and lunch or a snack. Directions to Dam 5 and Lock 75, along with links to Google maps, are on our website.

– Patricia White, 301-977-5628, hikemaster@candocanal.org



Dam 5 area - Photo by Steve Dean

2014 Dragonfly Walks

The Association hosted two dragonfly walks in 2014. The first, on June 21, was the traditional walk in Oldtown, Md. A second walk was held for the first time at Pennyfield, Md. on August 9. The intent of this walk was to provide an experience closer to home for those who did not want to make the trek to Western Maryland.

The day of the Oldtown walk started off cloudy, rainy, and unseasonably cool, with no sunshine in the forecast. Unfortunately, dragonflies are not big fans of cloudy and rainy days. Despite the gloomy weather, nine walkers showed up, including a very worried nature walk organizer. The rain stopped and it turned out to be a fine walk in the beautiful Oldtown area, with the occasional tease of a damselfly and glimpse of a dragonfly. After the group took a break at Lock 68, more dragonflies and damselflies appeared. An exact count wasn't taken, but about eight species of dragonflies were noted. Most of the group went to the Schoolhouse Kitchen in Oldtown for lunch afterwards.

The weather was much more cooperative for the Pennyfield walk, and 12 walkers showed up. The original plan was to walk the towpath and then loop through the Dierssen

Cobra clubtails were hoped for at Pennyfield but only one was seen. Photos by Steve Dean

Wildlife Management Area. The water in the ponds was almost non-existent, so the group opted to stay on the towpath. Dragonfly sightings were plentiful, although the species sighted were mostly limited to widow skimmers and slaty skimmers. Only one of the hoped-for cobra clubtails was sighted, and that sighting was brief.

We'll continue our dragonfly searching next year!

– Steve Dean



Above - Ebony Jewelwings were plentiful at Lock 68 in Oldtown.

Below - Numerous slaty skimmers were seen at Pennyfield.



Above - Meadowhawk observed late in the walk at Oldtown.

Below - Widow skimmer at Pennyfield.



Fall Nature Walks

Be sure to mark your calendar for the Association's autumn nature walks. Bird expert Kurt Schwarz of the Maryland Ornithological Society will lead a hike in the Sycamore Landing area on September 27. Kurt's walks always turn up a lot of birds and are enjoyed by all bird watchers. Carol Ivory will lead another of her very popular tree identification walks on November 1 at Carderock. This will be the third walk of three seasonal tree walks for the year.

Participants should bring appropriate footwear, water and a snack. The tree walks will be on some non-level ground and a walking stick may be needed. Be sure to bring your binoculars and favorite nature guide to all walks. Photography is encouraged.

Check the calendar on page 22 of this issue, the calendar on the Association web site at www.candocanal.org/calendar.html, or at Meetup www.meetup.com/C-O-CANAL-ASSOC/ for further details of the walks and for any possible changes.

Calendar of Events - 2014

Sep. 27, Sat., Nature Walk focusing on birds, 8 a.m. to about 11 a.m., Sycamore Landing. Kurt Schwarz of the Maryland Ornithological Society will lead the group. For more information, contact Marion Robertson (morobertson@verizon.net or 301-657-8992).

Sep. 28, Sun., Continuing Hike Series: 10:30 a.m., Dam 5 (mile 106.8) upstream. Follow MD 68 from Williamsport northwest to left on MD 56 to left onto Dam 5 Road and small parking lot at Dam 5. Contact Pat White (301-977-5628 or hikemaster@candocanal.org).

Oct. 5, Sun., Board Meeting, 1 p.m., at Williamsport Town Hall, 2 North Conococheague St.

Oct. 8-13, Wed.-Mon., Through bike ride, Cumberland to Georgetown. No sag wagon provided. Reservations required. Limited to 20 riders. Contact: Pat Hopson, 703-379-1795 or phopson727@verizon.net.

Oct. 25, Sat., Annual Heritage Hike. Hikes of varying lengths will be offered, starting from Pearre, followed by an evening dinner and program. See article on page 1 and the enclosed reservation form. Contact Christine Cerniglia at programs@candocanal.org.

Nov. 1, Sat., Nature Walk focusing on tree identification at Carderock Recreation Area, 10 a.m. Last in a series of three walks in the same location to observe seasonal differences. Bring water and a snack. Upon entering the recreation area, turn right and park in the second parking lot on the left. Walk will be off the towpath with a little non-level walking. Bring a walking stick and wear sturdy shoes. Optional equipment: binoculars and your favorite tree ID book. For more information, contact Carol Ivory at carolivory@verizon.net or 703-869-1538.

Nov. 23, Sun., Continuing Hike Series: 10:30 a.m., North Branch (mile 175.5) upstream. From Cumberland, MD 51 toward Oldtown, about 9 miles, right at C&O Canal signage (Pittsburgh Plate Glass Road), left turn just after crossing railroad on bridge, follow road to canal. Contact Pat White at 301-977-5628 or hikemaster@candocanal.org.

Dec. 7, Sun., Board Meeting, 1 p.m., Glen Echo Town Hall, 6106 Harvard Ave.

Dec. 13, Sat., Frostbite Hike: 10:30 a.m., Meet at Great Falls Tavern and walk to five fine viewing points along the canal. Contact Bill Holdsworth (301-762-9376 or website@candocanal.org).

Liability waivers are required for many of these Association activities. The event leader will provide the forms. Hikes require proper footwear. For updates on any of the above events visit www.candocanal.org, or visit www.meetup.com and search for "C&O Canal Association."



Changing Conditions at the Catoctin Aqueduct

Above left - Catoctin Creek is up to the water table at the Catoctin Aqueduct on May 17, 2014. Above right - The debris pile at the inflow of the aqueduct in August 2014. Below - The clear aqueduct in January 2014. Photos by Doug Zveare.



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 | Ed Wenschoff, Acting |
| Superintendent's Secretary | 301-714-2201 | Annette Martin |
| Chief Ranger | 301-714-2222 | Brad Clawson |
| Administrative Officer | 301-714-2204 | Connie Hufford |
| Chief of Resource Mgmt. | 301-714-2210 | Chris Stubbs |
| Community Planner | 301-745-5817 | John Lampard |
| Chief of Maintenance | 301-714-2239 | John Adams, Acting |
| Chief of Interpretation, Education and Partnerships | 301-714-2238 | John Noel |
| Partnerships Coordinator | 301-491-2465 | Daniel Filer |
| Volunteer Coordinator | 301-491-7309 | Emily Hewitt |
| Chief of Preservation & Project Management | 301-714-2239 | TJ Stottlemeyer, Acting |
| Historian | 301-714-2236 | Ahna Wilson |
| Librarian | 301-714-2220 | Karen Gray |
| Safety Officer | 301-745-5804 | John Adams |
| IT Specialist | 301-745-5817 | John Lampard, Acting |

Palisades District Milepost 0 (Tidelock) to Mile 42.19 (Monocacy River)

| | |
|----------------------------------------|--------------------------------|
| 11710 MacArthur Blvd, Potomac MD 20854 | |
| District Manager | 301-491-6265 Catherine Bragaw |
| Park Ranger Law Enforcement | 301-491-6279 Joshua Cunningham |
| Supervisory Visitor Use Assistant | 301-767-3703 Betsy Buchanan |

Georgetown Visitor Center 202-653-5190

1057 Thomas Jefferson St, NW, Washington DC 20007

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)

| | | |
|------------------------|--------------|--------------|
| District Ranger | 301-722-0543 | Todd Stanton |
| Cumberland Subdistrict | 301-722-0543 | |
| Hancock Subdistrict | 301-678-5463 | |
| Ferry Hill Subdistrict | 301-714-2206 | |

Williamsport Visitor Center 301-582-0813

205 West Potomac St., Williamsport MD 21795

Supervisory Park Ranger Ben Helwig

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 |

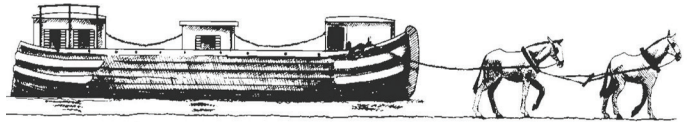
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Along the Towpath is published in March, June, September, and December by the C&O Canal Association (C&OCA), P.O. Box 366, Glen Echo, MD 20812-0366. Material for consideration may be submitted to the Editor at that address, for receipt by the 15th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

Editor: Steve Dean

Associate Editors: Dave Johnson, Don Juran, Nancy Long, Ned Preston, and Marjorie Richman



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 extent 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.

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First Vice President: Barbara Sheridan, 11550 Farm Dr., La Plata, MD 20646-4402, 301-752-5436, firstvp@candocanal.org.

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

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

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CHESAPEAKE & OHIO CANAL ASSOCIATION INC.

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Along The Towpath

Chesapeake & Ohio Canal Association

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The old maple tree at Lock 26. Take a break there soon!
Photo by Steve Dean

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Email – C&OCA members may receive our periodic updates by mail. If you haven't been getting those and would like to, please send your request to communicator@candocanal.org.

C&O Canal Association



Founded in 1954

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