COVER: The 2017 Vision Study for the Delaware Canal State Park shifted the public paradigm for its stewardship—from a focus on traditional historic and recreation resources—to multi-functional, naturalized waterway as resilient 21st Century environmental infrastructure.
Welcome to the Delaware Canal Vision Study
You are part of a growing community who seek a sustainable Delaware Canal. Use this report to understand the issues and become a steward of the Delaware Canal in the 21st Century.

Overview
Project: The Delaware Canal Vision Study is the first step in a comprehensive partnership strategy to assist PA Department of Conservation and Natural Resources (DCNR) with the complexities of Delaware Canal stewardship.
Partners: The study was conducted by Delaware & Lehigh National Heritage Corridor, Inc. (D&L, Inc.) in partnership with Delaware Canal 21 (DC21) and in cooperation with the PA Department of Conservation and Natural Resources (DCNR). Multiple organizations and agencies participated in the process. Refer to acknowledgements.
Funding: The William Penn Foundation funded the study and DCNR dedicated critical staff support. D&L, Inc. was the grant recipient.
Scope: The “visioning” process included gathering, organizing, and presenting public ideas for sustaining the Delaware Canal.

Process
Steering Committee: D&L, Inc. and DC21 retained Simone Collins Landscape Architecture (SC) and Harris Steinberg, FAIA to conduct the study tasks, working closely with DCNR.
Project Committee: Representatives from state and federal agencies, the Friends of the Delaware Canal, and other non-profit partners met periodically to review progress and provide guidance to the team.
Meetings: Six public and five stakeholder meetings were conducted across the 60-mile corridor during the process. Additional local and agency meetings were conducted.
Synthesis: Comments and research were recorded, assessed, and formatted for re-presentation. Seven major “Principles” were distilled from the findings that represent the core values of the community vision for the Delaware Canal. A link to the “Principles” can be found in the appendix.

Products
Public comments: A record of public / stakeholder comments was published, as recorded and collated, within the study appendix.
Mapping / Graphics: GIS databases from DCNR and various sources were used to create new mapping for the corridor. Other data were developed as pictorial graphics by SC.
Website: D&L, Inc. created and maintained a website with all project information. www.delawarecanalvision.org

Report
The study was created as an idea document, not a technical report. It is presented in a web-based format for ease of review. The report is divided into sections: Summary, Details, and Backstory (where all supporting documents can be accessed.) Study details and navigation are described in this summary. An acronym glossary is provided for agencies and programs. Comments are solicited.

Guiding Principles
1. It’s Our Delaware Canal
2. It’s About the Water
3. Conserving Our National Historic Landmark
4. A Network of Trails and Connections
5. Stewards of the Canal and River
6. A Park of Many Users
7. We’re All in This Together

Next Steps
The Vision Study doesn’t provide all the answers, but identifies multiple opportunities to advance a sustainable Delaware Canal.
A list of vision opportunities are included in this summary section. Most of these opportunities demand dedicated partnerships with DCNR to solve the complex issues that cannot be achieved by any single agency.
Federal, state, municipal, county, non-profits, resident, and visitor support are all needed to assist DCNR to restore, maintain, and operate a watered Delaware Canal.
Next steps include “early action” projects; feasibility studies to identify technical and cost details; and programming / administrative improvements. DCNR professional staff provides technical, cost estimates and administrative changes.
The project partners look forward to continued collaboration with DCNR.
The 2031 Bicentennial anniversary was identified as an achievable target to complete the sustainability strategy for the Delaware Canal. Much will need to be decided in the short-term to reach that goal.
BRISTOL BOROUGH

History

Bristol Borough is the southern terminus of the Delaware Canal where canal boats were unloaded and water flowed through the canal boat basin to return to the Delaware River. Local cargo was off-loaded in Bristol and cargo headed to the cities was towed in canal boats. Canal boats were lashed together and towed down river by steamboat. Mile 1 of the Delaware Canal in Bristol was severely disrupted after World War II, including obstructions to towpath—now the D&L Trail, and a complete obliteration of the watered prism.

People

Bristol Borough’s population is 9,657. The median age is 38 years. Median household income is $41,446 and the percentage of residents below the poverty level is 15.6%. 3.3% of commuters take public transportation to work and 10% of households have no availability to a personal vehicle. A SEPTA Regional Rail station is one block from the Delaware Canal, across from the Grundy Tower.

Priorities

Canal priorities in Bristol include: removing obstructions and restoring the D&L Trail; developing the southern approach of the East Coast Greenway trail; upgrading the boat basin area as a visitor Portal; creating safe trail crossings at local streets; restoring the towpath as a thru-trail; linking the SEPTA station to the Canal as a major trailhead—with public-private partnerships and concessionaires; possibly daylighting Mile 1; and employing the Delaware Canal as a stormwater BMP.

(SITE PLAN) Bristol Borough is the southern terminus and Delaware River seaport. Demographics and urban character make it a priority for major infrastructure restorations—where “improvements” after WW2 included filling the Canal prism and obliterating the towpath in Mile 1.
MP 10.3 ACCESS: Portal – East Coast Greenway Portal

Place
The East Coast Greenway Trail enters Pennsylvania via the Calhoun Street Bridge from Trenton, NJ and connects to the D&L Trail through a Morrisville park site adjacent to the Delaware Canal. This location is a cultural hub and is poised to serve as a major Portal where the interstate trail connects to the D&L Trail.

Existing Assets
- Public access to the Canal – from Delmorr Avenue
- Crosswalks – from Calhoun Street Bridge
- Delaware River loop walking trail – on adjacent levee and historic Calhoun Street Bridge
- Public parking – across Delmorr Ave
- Public toilets – adjacent to the Canal,
- Community playhouse – adjacent
- East Trenton Ave Bridge – historic concrete structure with sidewalks that spans Canal and towpath
- River overlook public deck – across Delmorr Avenue

Opportunities / Potential Partners
This location can be re-envisioned as a major Portal entry into Pennsylvania – and a strategic place to welcome residents and visitors with facilities that support public access to the Delaware Canal and the Morrisville business community. Morrisville can act as the central local catalyst to organize multiple partners ensure that these improvements are realized:
- Structure maintenance / repair – East Trenton Ave Bridge (PennDOT)
- Sidewalk repair – East Trenton Ave Bridge (PennDOT)
- Towpath – sidewalk connections (PennDOT, DCNR)

Image 4
The East Coast Greenway enters Morrisville, Pennsylvania via a River bridge and runs south on the towpath. The LA emphasized the need to address the vulnerability of the Delaware Canal to flooding in this location where the River becomes tidally-affected.
**MP 32.7 STRUCTURES: Aqueduct – Repairs to Tohickon Aqueduct**

**Place**

The Tohickon Aqueduct carries the Canal and towpath over the Tohickon Creek just south of Byram Road.

**Existing Assets**

The Aqueduct was completed in 2001. It is a traditional Burr Arch timber structure that uses modern timber technology and geotextiles to seal the prism. The Aqueduct was the recipient of numerous awards, including the National Timber Bridge Award given by the U.S. Forest Service and the Transportation and Historic Preservation Award given by the Federal Highway Administration.

**Opportunities / Potential Partners**

Due to its age, the Tohickon Aqueduct should undergo an assessment to determine if there are any deficiencies with all of its components. DCNR can partner with groups like the Timber Framers Guild to conduct an assessment to ensure that this aesthetically-pleasing and functionally-efficient superstructure and the hidden liner remain in peak condition.

Image 5

The Tohickon Aqueduct – a partnership restoration between DCNR and the local community, was also designed by the Vision Study landscape architect. As a renewable/modular timber superstructure, it is an early resiliency model for increasing flood-impact damages to the Delaware Canal.
MP 58.9 STRUCTURES: Dam – Lehigh River Dam

Place
The Lehigh River dam at the Delaware confluence remains a central cultural feature of the Easton landscape and is a major element in the City’s focus on re-imagining its two river waterfronts.

Existing Assets
The dam was originally constructed in 1831 and still serves its purpose to pool Lehigh River water for diversion to the Delaware Canal. Without some form of dam in this location there is no consistent source to sufficiently water the entire northern half of the Delaware Canal. The dam and a shad “ladder” built in the early 1990’s are both owned by the Commonwealth.

The Easton Comprehensive Plan update of 2016 includes a priority recommendation to create a new Waterfront District and Master Plan for Riverfront Development to spur green revitalization. A re-envisioned Lehigh Dam is at the heart of this goal.

Opportunities / Potential Partners
Multiple public expectations have emerged regarding the future of this Lehigh Dam. The visioning process suggests the opportunity to unite the interests of multiple partners – beginning with a feasibility study that assumes the dam structure will require major repair or replacement in the foreseeable future.

A vision sketch combines several ideas from the public that deserve a comprehensive technical analysis to prepare Easton, DCNR, and partners for the inevitable eventuality of rebuilding the dam – as an alternative to waiting until the dam fails to prepare for the contingency. In 2017, ACOE reached out to partners with the possibility of including the Lehigh Confluence Dam on its list of projects for multipurpose study – including improved fish migration.

The Lehigh River is not designated as part of the Lower Delaware National Wild & Scenic River, however the proximity of the dam to the Delaware River and the dam’s ecological and water quality and quantity impacts to the river would trigger NPS involvement with the US Army Corps of Engineers. The dam is located within the

½-mile Wild & Scenic River boundary and water resource projects that require a federal permit could potentially trigger NPS review and approval. NPS has expertise related to hydropower and FERC relicensing projects that could be applied to addressing ecological and recreational issues as part of modifications to the Lehigh Dam.

A synthesis of visions for the Lehigh Dam includes modifying the existing structure as partial “wing” dam configuration that will:

• Maintain a Lehigh River pool level to feed the Delaware Canal
• Design the free flowing river channel section on the north side of the Easton Lehigh waterfront to:
  • Re-establish a modern shad / herring passageway
  • Create a whitewater recreation attraction in downtown
• Stabilize existing river edges
• Adapt the existing shad ladder structure to a low-head hydropower system, that can:
  o Generate power / income dedicated toward the Delaware Canal
  o Demonstrate modern and sustainable hybrid river management systems

Comments, concerns and experiences about the details of advancing a modern, multi-purpose dam are addressed in this study appendix by stakeholders, including: National Park Service, American Rivers, PA Fish and Boat Commission, Wildlands Conservancy, and Appalachian Mountain Club.

The sketch depicts a partial “wing” dam concept on the Lehigh at Easton – similar in function to the existing Delaware River wing dam at New Hope that feeds the Delaware Canal.
MP 58.9 ACCESS: Portal – Head of the Canal

Place
The distance between the north and south banks of the Lehigh River at the head of the Delaware Canal is approximately 300 feet as the crow flies. Currently, the only pedestrian route between the Delaware Canal head and the downtown Easton waterfront is a 3-foot sidewalk along Route 611. This is path is daunting for pedestrians, does not meet transportation standards, and is not safe for bicycle travel.

Existing Assets
At least three alternative routes require study to determine their feasibility as a future, modern pedestrian-bicycle link for resident and visitor populations in Easton with the 60-mile Delaware Canal greenway, including:

- Widen the Route 611 corridor to accommodate safe, modern ped-bike facilities.
- Adapt a ped-bike grade through the freight station site to reach the Lehigh Canal towpath
- Build a 300-foot ped-bike bridge as a modern Portal structure between downtown and the Delaware Canal

Opportunities / Potential Partners
The Vision Study process revealed a great need to create a safe and inviting pedestrian/bicycle connection between downtown Easton and the Delaware Canal. Major improvements to the precarious existing conditions will be required for any of the three alternatives. In the process of designing this connection, Easton and its partners can envision and create a major “Portal” between Easton downtown and the “head” of Delaware Canal

The existing Delaware Canal trailhead in Easton is an under-realized node on the D&L Trail system. The site is accessed from Route 611 and is physically limited to approximately 30 parking spaces.

This trailhead is also an important connection to the Easton City-owned Hugh Moore Park, the National Canal Museum and the Josiah White, one of the nation’s only mule-drawn Canal boat rides. It is one of the few places where all historic transportation modes - river, canal, railroads, road, trail - come together.

Easton resident and visitor demographics suggest that a new safe and attractive link between downtown and the 60-mile Delaware Canal greenway will support Easton’s sustainable and economic goals as a riverfront community with enviable assets to meet this modern economic imperative. Easton’s commitment to its waterfront revitalization makes it a likely partner to catalyze this feasibility study in cooperation with DCNR, D&L, Inc., and other partners as soon as possible. A vision graphic depicts a new pedestrian-bicycle bridge Portal as a new alternative access between the Easton downtown waterfront and the Head of the Delaware Canal.

"You can't get there from here...safely" was a public sentiment about the route between the Delaware Canal and downtown Easton. The LA identified three alternatives to improve the linkage—including a concept sketch of a new Lehigh River ped-bike bridge.
2.6 Stormwater

Context

The geographic location of the Delaware Canal – much of it built parallel to and directly above the elevation of the Delaware River doom it to receive stormwater from state and local roads, upstream properties and many local watersheds. An increase in the volume of recent stormwater runoff has precipitated significant stormwater impacts to the Delaware Canal that originate outside the state park jurisdiction. Under the current regulatory environment each property owner is becoming responsible for stormwater management within his or her individual property. This change in policy poses opportunities to help relieve DCNR from solely managing stormwater impacts that originate beyond the Delaware Canal State Park boundary.

Challenges

In many locations, the impact of stormwater runoff threatens the integrity of Delaware Canal structures and increases risks to public safety – such as undermining highways, walls, towpath, as well as local flooding in areas adjacent to the State Park.

District stormwater management partnerships need to be explored as an alternative to DCNR continuing to assume a “default” liability and costs of serving as an unfunded stormwater manager for the collective 40,000-acre watershed area that contributes directly into the Delaware Canal.

Partnership Opportunities

Preliminary Stormwater Study

A preliminary stormwater study for the Delaware Canal was funded by the William Penn Foundation and DCNR, and was completed during the course of the Vision Study process. The goal of the stormwater study is to identify critical locations where stormwater is currently impacting the Delaware Canal, and to suggest model best management practices (BMPs) to address typical types of impacts. Project partners include DC21, Heritage Conservancy, PennDOT, and Bucks and Lehigh Conservation Districts. Stormwater management jurisdictions include BMPs within the state park; BMPs within the state highway rights-of-way; and BMPs on properties that contribute stormwater to the Delaware Canal. The City of Philadelphia has adopted stormwater management as a utility function of its municipal water department, and this model may have applicability for managing the Delaware Canal stormwatershed. Further study will be required with DCNR partnership.

• Future Stormwater Management initiatives – partners involved in the Preliminary stormwater study need to be the catalysts to advance the opportunities identified in that study – including: additional planning; partner negotiations; funding development; and execution of model BMPs.

• Municipal Stormwater Plans - Municipalities whose watersheds drain into the Canal should include a description of the operation of the Canal in any update of their Storm Water Plans. In many locations the Canal receives and discharges stormwater and by “operation” the Canal is already a “storm water management facility.” Municipalities should recognize the critical role of the Canal in providing environmental and recreational benefits. Municipal stormwater management plans should provide a guide for stormwater facility designs that will protect the historic, structural and operational integrity and benefits of the Canal and, where appropriate, provide a guide for designs that will recognize the advantage of the Canal as part of their municipal stormwater management system.

Many local watersheds drain directly into the Canal, resulting in regular stormwater-related structural impacts – in addition to the impacts from periodic Delaware River catastrophic flood events. The LA conducted a related Delaware Canal Stormwater Study concurrent with the Vision Study.
The Delaware Canal State Park is both a land and water trail – although with past state practices of dewatering the Canal during construction – the unreliability of the Canal as a watered system has severely reduced its use as a water trail and recreation resource. Boating needs to be considered a priority recreation use for the Delaware Canal.

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Challenges

The lack of a reliably watered Delaware Canal has direct and quan-
tifiable costs to the economies of the Commonwealth, the counties, and local municipalities. During the Vision Study, kayakers noted that they changed their recreation patterns to avoid the Delaware Canal and use the D&R Canal which is always watered. There is a need for kayak and canoe launch facilities up and down the Canal.

Multiple economic studies including the DVRPC and the LVPC “Return on Environment” reports show clearly the values of open space and recreation assets to the surrounding economies. Not maintaining the Delaware Canal as a watered navigation route has calculable negative economic impacts, in addition to increased future maintenance costs, and loss of habitat.

The Delaware Canal as a water trail has the unique ability to serve recreation travel in both directions, due to its gentle current, a feature that most natural water trails do not enable without motorized crafts. When watered, the Delaware Canal creates “loop” excursion options, including canoeing downriver and paddling the Canal back upstream to the start—an excursion that also reduces the need for vehicular shuttling of users. When the Canal is not watered, this opportunity / public service is lost.

Hybrid water-land trail loop excursions include canoeing the Canal in one direction and biking or hiking the return trip on the towpath. Local users are most familiar with the recreation opportunities of a watered Delaware Canal, but these options can be easily marketed as attractions by private canoe outfitters, chambers of commerce, Canal supporters, and even DCNR itself – if the Canal remains consistently watered.

A well-maintained system of waterway access features is important to serve this type of low-impact, ecotourism attraction. In multiple lock locations, DCNR has constructed and maintained ramps and platforms in the Canal, above and below locks, to provide ADA-accessibility to portage around the historic structures. The primary challenge to capitalize on these investments is to maintain water in the Canal. A secondary challenge is to address the potential NR/ NHL impacts form such new structures.

Solebury Township designed, but never constructed, one of the boat launch structures for users to embark and disembark the waterway at its Canal Park. A public commitment to a watered Canal will increase the effectiveness of these important access water facilities.

The Vision Study process also revealed the need to identify existing public access locations where water trail users can connect between the Delaware River and the Delaware Canal. Locations where the public has direct access between the Canal and River include: Wy Hit Tuk Park, Giving Pond; Tinicum Park; Golden Pheasant Bridge; Bucks County parks property at Bridge 2 in Point Pleasant; Virginia Forest access area; Roosevelt Recreation Area; the Delaware River intake in New Hope; and Washington Crossing State Park. River access from Lambertville is much preferable and more accessible than the New Hope intake, particularly when the Gateway to New Hope project is completed.

The Vision Study process also identified the need to increase river-Canal access locations where possible. In 2009, the Delaware River Greenway Partnership (DRGP) completed a Trails Signage plan for the Delaware River from Hancock, NY to Trenton, NJ – including the entire parallel alignment of the Delaware Canal. This plan includes signage recommendations for multiple jurisdictional public access partners and may be updated and modified to support the Delaware Canal water trail.

One prominent private location that has been used informally but not officially by the public to access the Delaware Canal and River is the Mountainside Inn at Mile 30 in Point Pleasant. DCNR and partners should consider securing a public easement to the Canal and river at this location a priority.

Partnership Opportunities

- Water Trail Loops – The concept for canal-river loop land trails can be similar to the bi-state loop trail routes on both sides of the Delaware River. Water loop trails using the Delaware Canal and Delaware River can be developed and promoted – only if the Canal is consistently watered, and loops will only be viable if easy ways to portage are provided. An assessment of existing and potential water trail loops can be developed by strategic partners working with DCNR. The assessment can identify possible locations where access to the water trail can be expanded by agreement, acquisition, or easement with public and private owners. The execution of access improvements can be accomplished by DCNR or in partnership with county and local governments and/or with strategic NGO partners.

The pre-industrial Delaware Canal was constructed as a trapezoidal-shaped landform - with a watertight clay liner. The LA used the stakeholder process to educate about keeping the “prism” watered to prevent the clay material from drying, leaking and structural failure.
The Delaware Canal began operating in 1832. Towns grew along the corridor and still describe those original relationships to the water “road.” Essential character-defining features of the Canal include its brilliant landscape alignment and its primary purpose—to hold water.
8.1 Habitat

Context

The naturalized, human-made watered environment of the Delaware Canal is of greatest concern. Terrestrial and many bird species use the Delaware Canal corridor regardless of its watered status. The same is not possible for aquatic species. Portions of the Canal are habitat to red-bellied turtles (Pseudemys rubriventris), a federally listed endangered species that is a contributing ecological value to the Lower Delaware National Wild & Scenic River.

Challenges

Over the decades, there have been many fish kills in the Delaware Canal due to unanticipated breaches in the prism or structural failures. DCNR and volunteers attempt to rescue and migrate fish to other sections or to the Delaware River when breaches or dewatering for construction has occurred in the past. These emergency interventions are not always completely successful. The loss of aquatic habitat limits the viability of aquatic species in the Canal, which affects other species that use the Delaware Canal as habitat and food source.

According to NPS, stocking non-native fish in/near rivers is considered controversial in some geographic areas and by some wildlife management agencies. Fish stocking should be carefully considered or reconsidered as to its ecological impacts to the Delaware River and the actual economic and recreational benefits should be identified.

Since the floods of 2004, 5, and 6, the stocking of trout in the Delaware Canal was stopped for years by PA F&BC because the Delaware Canal was an unreliable watered habitat. Fish stocking resumed in sections in 2010. In April 2016, DCNR had completed repairs from the three floods, plus repairs of issues caused by the extended period of a dewatered Canal. Water began to fill the northern section of the Canal.

In 2016, there was a fish kill below and above the Conrail obstruction, just south of Morrisville in Falls Township. DEP responded and determined that there was almost no dissolved oxygen in the Canal water. Reasons for the lack of dissolved oxygen were not given, but the location is where the Conrail obstruction restricts water flow in the Canal.

The incident illuminates the multiple demands on DCNR – not to just keep the Canal filled with water, but to ensure its flow and water quality for all species.

Partnership Opportunities

- Fish Stocking – DCNR, Delaware Canal supporters and sports fishing organizations should meet with representatives of PA F&BC to seek partnership from the agency with DCNR for maintaining a watered Canal. A DCNR Watered Canal Policy is needed to reduce the risks and emergency staff response costs to fish kills in the Canal.
- Red Bellied Turtles – DCNR and partners can work to ensure the survival and protection of red bellied turtle habitats and nesting areas within the Canal. This threatened species makes its home in the Canal waters and can hibernate here in the winter months. If water levels drop due to Canal projects or low rainfall, they and their nests are at risk. Partners and community groups can help DCNR only under supervision, direction and approval of the appropriate wildlife authorities, in this case US Fish and Wildlife Service and Pennsylvania Fish and Boat Commission.

The LA emphasized the civic needs and benefits for the former industrial waterway to continue to serve multiple cultural and environmental functions as a naturalized, fully-watered, human-made aquatic habitat—and green infrastructure.
3.3 Towpath

A D&L, Inc. goal is for the Delaware Canal to be free of obstructions and serve as a completely continuous trail for hikers, bikers and horseback riders between Easton and Bristol. Mile 1 in Bristol was altered and filled in after World War II, but the right-of-way remains generally not built upon. This towpath segment could and should be re-established as thru-trail at some point. This step can be in partnership by Bristol Borough, catalyst partners and DCNR.

Challenges

DCNR responded to past public requests to improve the towpath surface for biking by experimenting with a different specification for the towpath surface. Unfortunately, the system of shallow excavation with a new surface of compacted gravel fines, did not withstand flooding or protect the structure below. Since that time, DCNR engineers have modified the towpath trail specification to re-employ stabilized turf surface materials with a hidden geogrid growing matrix and mix of surface stone fines. Some sections of the towpath remain modified as red stone wearing surfaces, instead of the historic grassed travel surface. DCNR will need to continue monitoring heavily-used sections of the towpath to determine if the new structurally modified grass towpath surface holds up under increasing modern traffic volumes.

The substructure of the towpath was constructed with mixed rubble and covered with a friable soil skin to grow grass. Where the towpath is adjacent to the Delaware River, the structure is either a graded embankment or a wall down to bedrock below the waterline. Towpath breaches can result from river side or canal side damages. In places where the towpath structure becomes damaged, a future repair program needs to continue to include provisions to invest in DCNR-specified gabions or concrete walls constructed within the finished towpath structure – as a hidden structural “backbone.” This investment will prevent future repeated damage in the same location.

The Delaware Canal works as a living structural system. A watered prism and a grassed towpath protect the integrity of the towpath structure below – that in many places is the first line of defense against Delaware River flooding doing damage to the adjacent River Road state highway. The importance of the Delaware Canal towpath as the structure of the D&L Trail and a cultural amenity is addressed in element 4.5 Access – Pedestrian and Bicycle.

Each attempt to improve the usability and longevity of the towpath system needs to address National Historic Landmark concerns and must include a period of monitoring – with the most stringent tests occurring during unpredictable flooding events.

A DCNR contingency plan for towpath repairs should include construction-ready standard designs; escrow funding in place; backup or bypass watering provisions; and emergency repair response teams under pre-approved contracts so that DCNR can respond with expediency to towpath failures. These critical strategies may require DCNR policy changes and in some cases require state legislators to take actions to fund such investments that may exceed a minimum project program – that would not typically include smart structural improvements.

Memoranda of Agreements should be developed between DCNR and partner agencies so that permitting, execution, and monitoring of emergency repairs can be expedited when an inevitable event occurs. Previous memoranda exist for the Delaware Canal. Without such a proactive “expedited repair” program, future failures to the Delaware Canal towpath will continue to result in costly delays and avoidable direct costs, including: increased DCNR maintenance and historically inconsistent repairs.

Partnership Opportunities

- Towpath Expedited Repair Strategy – Breaches in the towpath occur periodically due to aging structures, but the likelihood of failures is increased by not maintaining a watered Canal prism. Towpath failure needs to be addressed by DCNR as an inevitable contingency – and DCNR response to towpath and river wall breaches can capitalize on these adverse opportunities to repair the damaged sections with greater built-in resiliency in the new sections of structure. An upgraded, hidden structural backbone beneath the towpath should be installed incrementally with each breach repair. This is a prudent investment while crews are on the job and reduces the chance of future disruptions in the most vulnerable stretches of towpath.
During the Vision Study process, a public consensus emerged to support fully watering the Canal. The LA also identified a "stealth watershed" (over 40,000 acres) that is intercepted by the Canal—making the State Park the de facto stormwater manager.
The labyrinth of government agencies with overlapping jurisdictions over the Delaware Canal was researched and graphically presented by the LA to help the public comprehend the complex network of its resource protection stewards—that one participant described as “mind-blowing.”
The LA incorporated layers of historic data in a compelling graphic to visualize the Canal "era" within context of world-wide changes. The Delaware Canal was the last towpath-era canal to be built and last to cease commercial operations in 1931.
The LA-lead team encouraged the public to tell their personal stories about the Delaware Canal at public meetings. The LA recorded the oral recollections and mapped them geographically. “It’s our Canal” was a common sentiment along the entire 60-mile alignment.