Blackstone Needs Assessment—March 11, 2020 Meeting

Crosswalk of Priority Action Categories from 2004 and December 2020

Categories for Today's Break-out Exercise	Blackstone Needs Assessment December 2019 Kick-Off Meet	2004 Blackstone River Watershed Five-Year Action Plan
(1) Watershed Coordination	Watershed Coordination (Highest Priority)	Water Quality Improvement and Protection (Highest Priority)
(2) Field Projects—Restoration, Protection, and Recreation Access	Flexible Capacity Funding	Water Quantity and Stream Flow Protection (High Priority)
(3) Capacity Building	Field Projects—Restoration and Protection	Habitat Improvement and Protection (High Priority)
(4) Public Outreach	Outreach - Education and Recreation	Open Space Acquisition and Protection
(5) Monitoring	Monitoring	Recreational Use and Access
(6) Sustainable Development		Sustainable Development
		Local Capacity Building
		Public Outreach and Education

Blackstone Needs Assessment Kick-off Meeting, December 11, 2019
Most Common Needs Recorded

1. Greater Watershed Coordination
    - Create an inclusive network—existing and new partners
    - Help with technical transfer
    - Enable resource/capacity pooling
2. Additional and Flexible Capacity Funding That Works
    - For town/regional planning—wastewater, stormwater
    - For student education programs
    - For capacity for the many small local NGOs—outreach and monitoring programs
3. Completion of More On-the-Ground Projects
    - Implement more and prioritized restoration work
        - Stormwater BMPs
        - Septic repair/replacement
        - Fish and eel passage/dams' removals
        - Remove trash in and around waterways
        - Improve bikeway/public access
    - Pursue permanent land protection
        - Easement/purchase of riparian lands and new public access
4. More Strategic Outreach
    - Educational signage at road/river crossing and public access points
    - Family educational programs for kids and adults—river adventures
    - Celebrate and share the good
5. More Coordinated Monitoring
    - Baseline monitoring
    - More monitoring at small tributaries
    - More citizen data submitted under MA QAPP that can be added to 303d
    - Effectiveness of existing stormwater/MS4 efforts—is it working
    - Monitoring targeting—DO and bacteria are priority

Summary of *2004 Blackstone River Watershed Five-Year Action Plan*

Goal A: Water Quality Improvement and Protection

OBJECTIVE 1: **Improve bacteria and toxicity monitoring.**

Action #1: States implement bacterial and toxicity criteria for assessment of river impairment.

Action #2: States and Blackstone River Coalition volunteer monitoring activities should emphasize bacteria and toxicity.

OBJECTIVE 2: **Improve watershed planning through modeling.**

Action #1: Collaborate with the States to develop a basin-wide water quality model developed using appropriate parameters, State and volunteer monitoring data, and is calibrated against public health indicators. See Goal B, Obj 1.

OBJECTIVE 3: **Construct wetlands for water quality improvement.**

Action #1: Install a constructed wetland adjacent to the Grafton municipal wastewater treatment plant to improve water quality, habitat, and educational opportunities.

OBJECTIVE 4: **Promote enforcement of strong water quality regulations.**

Action #1: Each municipality adopt a strong erosion and sedimentation control bylaw.

Action #2: States should rigorously enforce Stormwater Phase II permitting, particularly in areas that drain to impaired waters.

OBJECTIVE 5: **Repair leaking sewers.**

Action #1: States should prioritize use of federal state revolving funds for municipal sewer improvements.

OBJECTIVE 6: **Septic assessment.**

Action #1: Modeling should be used to aide identification of septic problem areas.

OBJECTIVE 7: **Improve scale and coordination of water quality monitoring.**

Action #1: Continue SMART Monitoring program and extend into RI.
Action #2: States should coordinate sampling and TMDLs bi-state watersheds according to the same time schedule.

Goal B: Water Quantity and Streamflow Protection

OBJECTIVE 1: **Identify low-flow problems and set minimum flow standards for rivers.**

Action #1: Develop a bi-state hydrogeologic simulation model. The model should (1) assess "gaining" and "losing" reaches, (2) establish reliable instream flow projections, (3) incorporate water use and recharge projections, and (4) be developed in cooperation with the ongoing Rhode Island hydrogeologic study. See Goal A, Obj 1.

Action #2: Establish and regulate minimum flow standards for high priority stream reaches. Priorities include study on Blackstone Gorge to estimate minimum flow standards to sustain fisheries and review and amend FERC licenses as necessary to require flow modulations to minimize river flow fluctuations.

Action #3: State and volunteer monitoring should collect and assess sub-watershed flow data, including baseline and event data for small stream systems that are more vulnerable to changes in land use and water use.

Action #4: Ensure public processes for approval of water withdrawals and interbasin transfers.

OBJECTIVE 2: **Protect and restore natural hydrology.**

Action #1: Restore natural site hydrology at priority areas through LID, such as infiltration/groundwater recharge BMPs, urban tree planting, and constructed wetlands.

Goal C: Habitat Improvement and Protection

OBJECTIVE 1: **Implement high priority wetland and aquatic habitat restoration projects.**

Action #1: Focus wetland restoration on sites listed as "high priority" in the 2003 Army Corps of Engineers "Blackstone River Feasibility Study," the "Upper Blackstone River Watershed Wetlands Restoration Plan" (MA EOEA, 2003), and a future RI wetland restoration study.

Action #2: Pursue enforcement and proper mitigation for wetland filling based on evidence from DEP aerial photo analysis and Conservation Commission information.

Action #3: Identify and fund restoration of degraded streams. High priorities include:

- Streambank restoration at Coal Mine Brook (Worcester)
- Daylight culverted sections of Beaver Brook (Worcester)

Action #4: Restore ponds that are high priority, including:

- Restore and remediate Rice City Pond (Uxbridge)
- Restore Fisherville Pond (Grafton)

Action #5: Implement fish passage on the four lowest dams on the Blackstone River in Rhode Island.

Action #6: Remove/breach priority dams:

- Wilkinsonville Dam in Sutton.
- Remove/breach the MassElectric Dam in Millbury

Action #7: Conduct a study to identify high priority locations for fishways or dam/other barrier removal in the MA.

Action #8: Certify (MA) and identify (RI) vernal pools.

OBJECTIVE 2: **Use BioMap and Living Waters to guide protection and restoration of unique habitats.**

Action #1: Develop regulations that allow state/local agencies to implement rare species habitat protection—both proactive (identify habitat and protect it) and reactive (allow development, but with precaution) protection.

OBJECTIVE 3: **Increase regulatory protection of cold water fisheries.**

Action #1: Upgrade the water quality classification of stream reaches known by the MADER to support cold water fisheries resources from "Class B" to Class B-Cold Water Fishery" in the next re-issuance of state water quality standards. Pursue a similar effort for RI.

OBJECTIVE 4: **Promote urban forestry.**

Action #1: Support the Worcester Urban Forestry Program

Goal D: Open Space Acquisition and Protection

OBJECTIVE 1: Protect and steward high priority open space parcels.

Action #1: Target permanent protection of source water watersheds.

Action #2: Acquire high priority open spaces for recreation, including:

- Canoe access plan for Rt. 16: Mendon Street property just south of Stanley Woolen Mill would make good picnic area and paddler access point.
- Lake Manchaug Greenway (to Douglas State Forest).
- Blackstone Heritage State Park acquisition list.
- Trust for Public Land – Bikeway parcels to secure right of way. (Millbury/Sutton/Grafton and Millville/Blackstone)
- Worcester Visitor Center – trails and canoe access.

Action #3: Identify priority parcels and fund land acquisitions and improvements to connect and sustain the following state parks:

- River Bend.
- Purgatory Chasm.
- Blackstone Gorge Bi-State Park.
- Rolling Dam Bi-state Park.

Action #4: Protect priority greenway parcels, including:

- Fisherville Pond, northwards from east bank.
- Millbury branch rail line.

Action #5: Land trusts and other non-profits should develop partnerships with municipalities for greenway/riverway protection. In areas contiguous with State lands, priority should be placed on parcels that the State is not able to acquire.

Summary of *2004 Blackstone River Watershed Five-Year Action Plan*

Goal E: Recreational Use and Access

OBJECTIVE 1: Promote "riverway" connections including greenways, bikeways, trails and habitat corridors.

Action #1: Implement the following bikeway projects:

- Blackstone River Bikeway
- Bikeway spur at Rice City Pond.
- Sagatabskot Ridge Trail.
- Southern New England Trunkline Trail (SNETT)

Action #2: Identify a comprehensive listing and description of grant sources for riverway/greenway protection.

OBJECTIVE 2: Promote and support surface water recreation.

Action #1: Promote recreation at the following priority locations:

- Wallum Lake (Douglas/Burrillville).
- Tri-Centennial Park (Sutton).
- Branch River (Burrillville).
- Stanley Woolen Mill (Uxbridge).
- Fisherville Pond Flyway (Grafton).
- Rice City Pond (Uxbridge).
- Coes Pond (Worcester).
- Leesville Pond (Worcester).

OBJECTIVE 3: Promote recreational fishing opportunities.

Action #1: Promote "catch and release" fishing tournaments

Action #2: Develop partnerships between the organizations listed above to sponsor "learn how to fish" events.

OBJECTIVE 4: Improve canoe access.

Action #1: Implement recommendations for canoe access improvements from the Blackstone River Valley National Heritage Corridor (BRVNHC) River Access Plan. The River Access Plan includes recommendations across four phases.

Action #2: Develop the Fisherville Portage or a navigable sluiceway at the Fisherville Dam in Grafton, to enhance canoeing between the Quinsigamond River and the mainstem of the Blackstone River.

Goal F: Sustainable Development

OBJECTIVE 1: Promote sustainable approaches to residential development.

Action #1: Promote LID and other environmentally sensitive design approaches to site design through modification of planning bylaws and ordinances and pilot projects.

Action #2: Assess wastewater capacity held by municipalities to address the feasibility and costs of both centralized and decentralized wastewater management alternatives.

Action #3: Municipalities should place a greater emphasis on sustainable water supply. This includes water use/water supply studies as part of approval process for new developments (required for developments over a set threshold) and development of municipal water conservation and water-use efficiency action plans.

OBJECTIVE 2: Facilitate the adaptive re-use of existing infrastructure.

Action #1: Pursue redevelopment of the brownfields and mills to minimize development pressure on the remaining open spaces and improve the social and economic value of these previously developed land. Examples of high priority sites include the Stillwater Mill (Burrillville, RI), Fisherville Mill (Grafton, MA), and Stanley Woolen Mills (Uxbridge, MA).

Action #2: Create incentives for repurposing of mills to multi-family structures, including tax credits, zoning changes, use of Community Preservation Act funds, and award programs for developers.

OBJECTIVE 3: Promote sustainable agriculture.

Action #1: Protect high priority farmsteads to preserve both community character and the quality of life within the region through existing programs.

OBJECTIVE 4: Support planning efforts to help reduce fragmentation of green infrastructure.

Action #1: Conduct research to identify and map important green infrastructure elements and river constrictions, including important wildlife habitat corridors and planned DPW roadway projects.

Goal G: Local Capacity Building

OBJECTIVE 1: Improve the capacity of local organizations and communities to more effectively steward the watershed.

Action #1: Boost organizational capacity of environmental non-profits, both individually and together as the Blackstone River Coalition.

Action #2: Continue regular meetings of the Watershed Advisory Committee (WAC) convened to develop this 2004 plan or create a similar network.

Action #3: Jointly pursue funding sources with greater coordination and collaboration as a watershed community.

Action #4: Improve watershed organization websites.

Action #5: Investigate the possibility of promoting sales of the Blackstone Valley license plate as a fundraising mechanism for local NGO thorough a cooperative agreement with the MA Environmental Trust and MADMV.

Annual #6: Conduct an annual watershed summit.

Goal H: Public Education and Outreach

OBJECTIVE 1: Increase public understanding and community stewardship of ecological resources of the watershed.

Action #1: Create a K-12 environmental education pilot project (or series of projects) focused on raising awareness Blackstone River watershed ecology, including lake education workshops.

Action #2: Establish "GeoVentures" summer camps project for high school students through the Massachusetts Community Water Watch program.

Action #3: Storm drain decals should be applied to every storm drain in the watershed.

Action #4: Poster-sized watershed maps should be developed and displayed in all public buildings, with "you are here" notations.

Action #5: Stream and river crossing signage at all 25 cold-water streams and all river crossings along Route 146.

Action #6: Increase press interactions, including regular press releases, news stories, and report cards of river health.

Action #7: Pursue outreach and education about the value of sustainable development and pursuing existing high priority undeveloped areas.

Action #8: Create partnerships to assist municipalities with NDPES Phase 2 required mapping and outreach.