City of Leominster
MVP Project Meeting Notes

Includes notes from:
Municipal Kick-off Meeting
Community Meeting 1
Community Meeting 2 Notes

Leominster Municipal Kickoff - December, 7th, 2023 - 10 am

Attendees: Nick Kremp, Jake Fleming, Dick O'Brien, John Roseberry, Shawn Comeau. Bob Pine, Ralph Baker, Hillary King.

NRWA Staff: Sara Singh, Paulina Torres, Will Collier

NBS Site Ideas:

Shawn, who is Leominster's Code Enforcement person for their MS4 Permit brought up Phosphorus runoff concerns, Discussion followed as:

- Monoosnoc Brook and Fall Brook mentioned as areas of concern
- Potential NBS along this land could entail rain gardens
- Best Management Practices regarding NBS potential
- Mix of private and City-owned parcels in the area that could be applied to this project.
- This would aid keeping DPW in compliance with MS4 permit requirements
- Area mentioned covers denser parts of the city and coincides with EJ census blocks.
- Mentions of some degree of visible algal bloom in these areas, despite low phosphorus
- Sites upstream of Monoosnoc Brook parkway could reduce flow in flooding events before it runs through town.

Idea to use NBS for water infiltration @ headwaters

- NBS that would help both flood and drought years (NBS could include any of those that promote infiltration of runoff)
- This would also aid in phosphorus runoff concerns as P tends to bind to soil constituents

Nick asked about private parcel restrictions under MVP, Hillary clarified there are no restrictions set by the program on private parcels. Would be a conversation worth having with willing participant land owners.

Nick brought up Frances Drake House on Franklin St., a City owned parcel with strips of land of bare lawn along floodplain (may involve historical society)

- Possibility of floodplain forest in this area

- Additional private parcels along this area as well
- Dick suggested asking Mark Bodanza (City Councilor) about it

Shawn brought up Monoosnoc E.Coli prevention issues:

- Private property off Whitney St. (85 Water St.?) known as Whitney Carriage property (along Monoosnoc Brook)
- Idea of removing parking pavement near the brook
- Partially collapsed dam and culvert in the area are in rough shape, currently fenced off
- Collapsing building

John brought up the breached dam on Nashua River near baseball fields behind Lowes (Area between new Lancaster Rd and Rt. 190)

- Lots of private parcel lots (complex)
- Public safety issue: recreational concerns such as rebar disrupting canoe trips.
- NBS idea: floodplain forest

Community Outreach and EJ:

Nick, John, Dick, and others mentioned that Wendy Wiiks knows everyone and she would be critical for community outreach.

- Mentioned that Wendy was a great resource for communication with the public during the September flooding events.
- EMA(?) meetings were held in Leominster as community outreach for prior MVP programs run in Leominster, to prepare for future MVP efforts. They had a good response.

Other resources for contacts mentioned were various Departments' Facebook pages, and the Spanish American Center.

Attendees requested that we share our list of Leominster contacts with them. When contacting potential community participants, include the QR code.

Other Concerns and Ideas mentioned:

Ralph and Will prompted the question of whether there were beneficial mapping tools developed by Leominster for flooding projections, for use by NRWA for this project.

- H+H study in Monoosnoc (a smaller project) has mapping that might be applicable (Shawn, Jake of DPW)
- Mention of future USGS and FEMA map updates coming soon.
    - Note and discussion that flood maps are often backwards-looking, and more work into modeling predictions and scenarios would be useful.

- Leominster submitted a report to FEMA enumerating significant sites during the September floods, and showing each of their locations on a map (John DPW).

Will prompted the question of NBS possibilities 'In a Utopian world' or 'North Star' ideas:

- Attendees agreed that detailed reports, maps, and other material developed from this project would be greatly beneficial to the City on their own.
- Nick stated the possibility of 'jumpstarting' future implementation projects.
- Paving the way for future project development was mentioned
- Hopes that this project aids in developing ***credibility*** for future funding opportunities.

Discussion ensued on whether this is possible through a future MVP grant for Leominster.

- Is a future meeting needed to discuss what this additional project could look like?
- Hillary clarified that for this project, Expression of Interests (EOI) are informal and helpful but not necessary to jumpstart a new project.
- While EOI deadlines come soon, the upcoming MVP Action Grant solicitation (RFR) is not expected to be released until March 2024, and prior submission of an EOI is not required.

MVP Community Meeting 1
Leominster Town Hall Auditorium
2/5/2024 5:30 - 7:30 pm

Leominster Focus Group 1

Mall at Whitney Field - water treatment needed because it has the worst water quality, flooding at Market Basket & other parking lots…invasives management needed too

Pierce Pond - Rickers Kinderkamp, 511 Lindell Ave.

Fitchburg - Shea Street neighborhoods - Oak HIll Country Club has proposed to deforest 40+ acres of land to allow for Solar Panel Development…..(this area is upgradient from Leominster's Notown Reservoir)

Vacant lot - pocket forests, would be good for Mechanic Street area

Sholan Farms - 1125 Pleasant St. - owned by City of Leominster - apple orchard and vegetable farming area, known for heavy flooding

Natural swimming beach at DCR-owned Crow Hill Pond in Leominster State Forest, Rt. 31, Westminster

Pierce Pond & Barrett Park Pond - contaminated water, not swimmable. Could improve water quality with proper NBS.

Abbott Ave at Blossom Street - after clearing of initial 9/11/2023 flooding, consistent basement flooding. Permanent change to the landscape.

Barrett Park Dam: high hazard

Fall Brook Sewer line at DeCicco Drive, Fall Brook School => this is woodland turtle habitat

Hamilton St. & Twin Cities Rail Trail, next to Rt. 12

Pleasant & Colburn Street - built on culvert, Reservoir Brook flows down from Barrett Park through it

Sheldon Hill subdivision (including former Pheasant Run ski area) - Flooding contributes to Fall Brook => stormwater came up sewer pipe during Sept. '23 flooding event and emptied into basements

Mechanic Street Area - needs vegetation

Having conversations with business owners about permeable pavement - somewhere for water to go

CSO - need to separate water & divert from getting to water treatment plants (to prevent overflow)

Expand the size of wetlands to accept floodwater

Leominster Focus Group 2

Impassable roads into trails….all “fire roads” are inaccessible during flood events

Pleasant Street flooding concerns

Stream crossings creating flood vulnerabilities

Barrett Park Dam flooding concerns - causing erosion / buildup

Fournier Park, along Fall Brook - vast fields, needs more trees, parking lot should be made permeable

Leominster Focus Group 3

Locations for a technical team to evaluate:

Dam removal by the **apple orchard** (this probably refers to Sholan Farms area)

Mall at Whitney Field - replace impervious surfaces with permeable pavement, new tree canopy, expand the “Free Trees” program

[There is a note that mentions resilientmass.gov as a resource, Climate Solutions Project]

How to link ecosystem resilience with planning + zoning? Are there ways on a large scale to encourage redevelopment instead of developing untouched land?

Leominster Focus Group 4

Burrage Ave flooding

Private dam @ **Whitney Carriage, Monoosnoc Brook**

Fall Brook Diversion @ Railroad trestle on Litchfield Street (Fall Brook goes under road and train tracks)

Trees needed in **downtown Leominster** to alleviate Urban Heat Island effect

Managed retreat from stream banks

Leominster Focus Group 5

Deterioration of fire roads, **reservoir system near Leominster High School** gouged the causeway….much of the erosion ended up in the tributary streams of Monoosnoc Brook

Access road from reservoir to quarry is inaccessible due to 5 foot ravine
Rusty, discolored water….widespread water quality concerns

Detention pond + adequately sized culvert needed at **Upper West Street / Zephyrs property**
Could be made more scenic and functional in terms of stormwater management

Bottom of Colburns dam, Barrett Park - “river has shifted into their basements”
Very saturated, high groundwater is affecting gas lines
Buried infrastructure, but sitting in water
Had to replace a whole main line, damage to buried infrastructure is likely

3000 acres of city-owned watershed land on West Side: typical Forest Mgmt approach to cutting down trees. The Community should take a proactive stance and ask for old growth forests to be preserved, with a focus on carbon sequestration

Too much biomass is entering Notown Reservoir due to deciduous tree cover…shallow water warms it up and causes tannins to release (like tea)

Pierce Pond - 12 storm drains empty directly into Monoosnoc Brook….a court ruling required MassDOT to fix the area’s issues. But they did not.

Mall at Whitney Field Parking Lot - make it permeable, it is bigger than it needs to be

North Side of Doyle Field, Priest St. - 61 acres of wetlands, hazardous waste site

A 6 acre trailhead should be put into the **DCR-owned Johnny Appleseed State Park**, which is currently overrun by invasives => make a floodplain forest

Monoosnoc Brook has been overconfined between flood walls => establish retention & detention areas

Restore and create wetlands, expand the width of Monoosnoc Brook

Smith Pond, **Notown Reservoir**, **Pierce Pond** sediment problems

Leominster attendees: Chuck Raymond, Mark Mathews, Michelle Powell, Graeme Noseworthy, **Frank Ardinger,** Nick Kremp, Natalie Higgins, Wendy Wiiks, Pete Lanza, Mike Cahn, Connie Allen, Nicholas Venti
Jan McDaniel Cummings, Jeff Ardinger, Jo-Anne Crystoff, John Roseberry, Josh Brennecke, Susan Templeton, Kendal Royer, Dick O'Brien, Nastasia Lawton-Sticklor, Stephanie Quinlan, David Driscoll

MVP Community Meeting 2 (Zoom)
2/12/2024

Attendees: Natalie Higgins, Dick O'Brien, Ed Himlan, Larissa Parse, Jan McDaniel, Nick Venti, Jeff Legros, Jessica Hansen, Jeff Ardinger, Unidentified Guest, Gillian Davies, Tom Groves, Sara Singh, Stacey Chilcoat, Ralph Baker, Paulina Torres, Lindsey Carle, Hillary King.

5:30 Introductions, Meeting Agenda
5:40: Gillian's presentation (pictures within presentation slides)

- NBS examples
  Dam removals
  Walkways with hedgerows
  Pocket Forests
  Restoration of water bodies
  Bylaws/regulations
  Outreach and Education
  Urban trees and forests
  Green Roofs/Green Walls
- NBS Tool kit description

5:54 Tom video leominster flooding
5:57 Tom data viewer walkthrough
6:00 NBS Sites discussion begins

Site 1:
Barrett Park

Dick: potential overtopping of dam serious issue, stream that feeds Colburns Pond is fed from Monoosnoc Hill. Water coming from Elm St to the end of the pond high elevation picks up high speed and volume destroying trails above. Mitigation of effects of stormwater from Colburn stream, the pond's causeway fills up with sediment and gravel from hills up above.

Jan: Barrett Park has no swimming access, which if available would help with EJ and urban populations in hot weather.

Ed: residential neighborhood south of Barrett Park, Chestnut St & Pleasant St, sees lots of stormwater. Runoff from these neighborhoods feeds into Colburns Pond. Big reason for no public access to swimming, lots of nutrients increasing algae problem in the pond.

Dick: Sheldon Hill development runoff also comes into Colburns Pond.

Dick: Where this stream crosses Elm St would be a potential good location for a detention basin to help with the problems at this site. And/or another detention basin further down.

Site 2:
Fournier Park

Ed: Opportunity here to provide connectivity in the Fal Brook corridor. Can provide a buffer to floodplains from the stream. Can connect to Mass Audubon property with vernal pools and priority habitats, and to Fall Brook priority habitat downstream.

Tom: The notes from previous meetings on Fournier fields say there is a need for more trees, permeable pavement, and states concerns about the vast open spaces.

Ed: Connect stream corridor to protected spaces while adding more trees. Parcels of land that can be added to help improve the situation. Senior community at Meadowbrook trailer park is a vulnerable population nearby (had to be rescued via boats in the September 11 floods), flooding coming from Barrett Park. This area is connected to the Barrett Park area. All these areas added to the problems in the big storm (Sept 11 storm).

Dick: an opportunity to direct runoff from parking into a detention basin to clean up pollution before it flows into the Fall Brook area.

Ed: Swales with fruit trees and other trees could help benefit the social aspect of this project.

Nick Venti: Culvert on Litchfield St experienced some bank erosion during the Sept 11 storm. Bank was stabilized during the event, a steep area, an issue to put on map.

Ed: Fall Brook in this section has or had habitats for wild brook trout.

Site 3:
Mechanic St Park

Tom: Note from prior meetings: Park needs vegetation.

Dick: Don't fill up the oval with trees, it is a large open space residents use for rec and athletics. It is a new park that has new plantings that are very young. Needs to mature before we look at it as an option for an urban forest.

Gillian: There can be other NBS (other than tree plantings) we can look at.

Nick: We suggested this site at the first meeting, not necessarily the park but the street. The street can use more trees, the street is blanched by sunlight perennially. Developed area, a main road with no trees. Probably characterizes a large part of the neighborhood as well.

Larissa: Most of the mature trees were removed, not a lot of space available for trees. Creative ideas 1st, 2nd, 3rd, 4th street could implement plant islands as they are less busy than mechanic

st. A lot of the space on Mechanic st, Spruce st, and Water st have lost space available to plant trees.

Dick O'Brien; This is a good example of a need for pocket-parks. How can we acquire small areas to green these areas? '12' pocket parks in the french hill area can be kept as a part of a larger vision within the city that can go on to the late future.

Site 4:
Whitney Field Mall

Tom: Meeting notes: Water treatment needed, flooding at parking lots, invasives.

Jan: Too much pavement for the amount of commerce that is going on. Flooding at market basket parking is considerably large.

Ed: Opportunity to connect to forested lands, providing a corridor to wildlife. (Trail behind the mall) And to connect Monoosnoc brook to the Nashua River Greenway for wildlife corridor. This could be a longer term goal. Another piece of this is the existing stormwater treatment facilities, who are working on the water quality issues. Spike in wildlife experienced in the area. A useful thing to keep in mind. Wetlands in the area are working well, and we could look at the area to see what can be expanded on. The trail connects to lower income neighborhoods, and could aid social aspects of the project.

Dick: There is also a maintenance road for the sewer line that flows through the brook, a wonderful walking space. How could we connect the mail trail and this trail on commercial drive, and south of mill st. Could create a loop trail 30 min hike. How can we get in touch with Mall owners to make connections on the mall side of the stream?

Ralph: Trail has had a lot of litter and trash.

Ed: Change in ownership can be the reason for the litter. Previous owners used to invite / pay Boy Scouts to do cleanups there. Perhaps current owners could be encouraged to do the same.

Site 5:
Monoosnoc Brook

Dick: Monoosnoc brook greenway, 3-4 components with the vision to have a trail that runs from monoosnoc/nashua connection all the way to west st trail parking area. Larger vision that will take a longer time. There are areas that we can consider to add small pieces to this vision, adding bit by bit as future projects arise. How can we add wetlands and vegetated areas that can take stormwater runoff and act as natural filters to reduce water flow speed and pollution.

Ed: State agencies had a plan done for the Monoosnoc brook greenway 5-6 years ago. Something more important to consider is to map out the impervious areas that run into the brook below rockwell pond. ~250 acres of pavement going into the brook. The floodplain of the brook is completely asphalt, with very little to no wildlife in the area.

Ralph: During the flood(Sept 11) Mazzarella noticed large dumpsters and even a trailer container ending up on top of the Monoosnoc brook flood walls. There isn't enough capacity in the corridor to carry floodwaters downstream.

Ed: 1987 when Monoosnoc greenway project began, there were cleanups of the brook where close to 100 tons of debris were taken out that would block the brook. This was highly supported by the downtown businesses as it would clear out the brook.

Site 6:
Fallbrook Reservoir

Tom: Notes say: Fallbrook diversion on Litchfield st.

Dick: The issue here is the abundance of pollution from dog walking. Not as serious of an issue.

Consensus: this area is not of large concern, let's move on to Fallbrook.

Fallbrook:

Nick: Litchfield st crosses fallbrook and railroad tracks.

Dick: Flooding issues experienced in this area arising from beaver dam. Piece of land that leominster land trust owns a chunk of. Remember seeing the beaver dam, DPW removed the dam, this could have been the cause of concern.

Dick: there is a potential of the culvert in the area that could cause erosion issues in the future.

Nick: Old stone culvert

Dick: potential for this old culvert to collapse.

Nick: Stormwater can overflow the culvert.

Ralph: There may be an issue where the brook flows beneath the RR tracks.

Ed: There are a number of rare species and habitats that cross the stream. By Audubon and near Samoset there are vernal pools. Chance to protect and increase biodiversity.

Tom: Leominster has a large amount of vernal pools (certified and uncertified)

Jeff: Fallbrook Elementary School downstream of the reservoir is subject to flooding during extreme flood events like Sept. 11th.

Site 7:
Crow Hill Pond

Tom: Unclear what this point was outlining.

Ralph: Someone had raised the issue of where swimming areas are. There is public access to the swimming beach in this location, which is in Westminster.

Dick: Paradise pond is likely what they meant, the point is actually west of crow hill pond.

Tom: This is out of boundaries of Leominster land, omitting from the project.

Site 8:
Pierce Pond

Tom: Notes state Richer's Kinderkamp Summer camp, clarifications?

Dick: The camp uses the pond for swimming but this is not a real issue. There is runoff pollution from rt 2 coming into the pond through Monoosnoc Brook unabated. The courts have ruled that MassHighway has to correct the catch basins that feed these pollutants directly into Monoosnoc brook, which DOT hasn't been doing.

Ed: Peninsula was formed in pierce pond from the sediments in rt.2

Dick: There is a lot of sand and sediment from east of the filtration plant where the sediments start to come into the brook. Patches of sand and sediment arise along the stream at several other locations.

Ed: this section of the Monoosnoc brook was before designated a Coldwater fishery, this may not be the case anymore.

Larissa: Merriam ave has some development going on in the area, in the inlet, north of pierce pond.

Dick: Bovensi Subdivision plan that is moving forward 19 acres will be protected open space with a trail corridor to connect to west st trail side. Hike from doyle community park and center to merriam to roach ave to west st to Monoosnoc stream.

Ed: Debris and sediment in the culvert under rt 2 always has large amounts of this sediment. Fitchburg has many areas that add to the runoff sediment in leominster.

Ralph: Oak Hill Country Club ~30-acre proposed solar farm project could have a large potential impact on leominster. Runoof going into Shea brook, which runs down into Notown Res. could detrimentally impact the reservoir.

Site 9:
Main St

Tom: Note: flooding and erosion.

Ralph: MBTA commuter rail abutment washed out during the storm.

Dick: The embankment washed out completely and was rebuilt.

Ed: The drainage in the area was not addressed. Lots of impervious pavement upstream of the area.

Jeff: Water funnels down Main Street from the North and also along the railroad from the Northwest building up substantial flow in extreme rain events (flow enough to move large cobbles) and then flows directly to bridge at Nashua River eroding both side (abutments) during flood events (near Baker Cadillac).

Site 10:
Smith St.

Tom: Notes: Sediment problem.

Dick: Correction to exact location of the site.

Larissa: Smith and Poscoe backyards are very wet.

Dick: Homeowners in the area had complaints about flooding in this area routinely. Question was raised about how to get the water to Monoosnoc brook.

Ed: My understanding is that this section, known as “The Flats” used to all be wetlands that were built on.

Site 11:
Notown Reservoir

Tom: Notes: Sedimentation

Dick: Sedimentation is not the most important issue, there are more concerning water quality issues. This area fails state levels of water quality restrictions. This water is used by residents in their homes. City is working on it, the proposition is to thin out the forested area to reduce the amount of deciduous leaf litter in the reservoir. ~2,500 acres of forested area there, perhaps time to promote mature / old growth forest in this area. Sequester more carbon, create more diverse habitat, and benefit wildlife.

Ed: The tributary from Rocky Pond Reservoir, and wetlands in the south end of Notown reservoir have high acidity levels (pH 4.6-4.8).

Dick: Landfill in west-side outside of watershed limits of Monoosnoc, could that water be percolating into the groundwater and making its way up to Notown reservoir. Downslope of reservoir has car junk yard, possibility of runoff from there as well? Private land (Burke Hill parcel) 115 acres, half of which drains into the reservoir, potential for development in the future, if the city cannot acquire the land.

Site 12:
Johnny Appleseed State Park

Dick: 200-300 acres of land owned by DCR, plus some city ownership along its southerly border. There is a 5 acre vacant parcel of open space owned by leo land trust, there is a trail there that is mismanaged by DCR. Could this area be managed more carefully? Lots of invasive species, a dam that interferes with recreational use of the river, this opportunity could bring wildlife value and recreational opportunities.

Ed: Dam is very dangerous,

Dick: Rebar found in the water that is not known to the public that can cause serious safety issues to canoes or kayaks. There is a possibility for trails on both sides of the river that can make it up to Mechanic street and create a loop through an existing corridor.

Ed: The corridor continues through 190 into Lancaster, and can create a wildlife corridor.

Dick: There is a paved trail under 190, a canoe trail. Could create a loop trail that circles around I-190 on both sides of the highway.

Ed: Cook conservation area east of this property is owned by Lancaster with existing extensive trails systems.

Site 13:
Meadow Brook

Dick: Bulk of parcel owned by Leominster land trust, was an oil spill site, not deemed significantly hazardous, unsure of current conditions.

Tom: This is behind trailer park by the floodplain.
Ed: Trailers came in after the Wetlands Protection Act, approved by City Council; FEMA objected but were ignored.
Fall brook runs through the trailer park. Opportunity to connect this area to wetlands and audubon lands.

Site 14:
Industrial Park on Research Dr.

Dick: This is a large auto junk yard, Greenleaf Auto Recyclers.

Ed: Is it easy to find out how this is impacting the stream north of the junkyard?

Tom: Stream along central St.

Ed: Stream comes down and connects with a brook south of the stream, trout population used to be in the brook and it is likely gone now.
Site 15:
Smith Pond

Ed: there used to be a dam there that blew out a couple decades ago, it's a big wetland now. Wetland is important to downstream runoff and flooding.

Ralph: Is there a possibility to expand the wetland and increase the benefits, i.e., increase this area's capacity to store and slowly release stormwater after major storms?

Ed: Adjacent to this property is a stormwater park installed in 2012 that has done a good job.

Gillian: Looks like a lower priority area, (Ed agrees)

Tom opens the discussion to new areas to consider:

Dick: Fire Access Roads in ~2,500 acres of Leominster watershed lands: Eroded materials from the September storm were found in the roads, correcting the water management in these roads could help aid water quality issues, reduce erosion and sedimentation, make improvements to stormwater runoff.

Ed: Tree removal across the city in residential areas of mature trees (~1,000 trees cut down) could be impacting brook trout populations. Could the city monitor removal of large trees in residential areas and pay more attention to this issue?

Dick: City could focus on creating local forests on vacant land to help air, water, quality issues, recreation, wildlife habitats. 30 acre capped landfill can have planted trees.

Larissa: vacant lot owned by the city: 139 7th st

Dick: could we get some examples of this to show the city

Ralph: A statewide group called “Trees as a Public Good” could help us with this issue.

Ed: It would be good as part of this project to look at this from a watershed perspective, if we are talking about water flooding. Impervious areas in Leo are increasing, we got to start addressing this because it will limit the effectiveness of implementing future NBS if far more impervious areas are being installed in future developments than the NBS we facilitate.

Tom: Description of **site visits Date for Leominster is March 19th, rain date of March 20th.** Details to follow, NRWA will send out further information on registration as it is limited. 10-15 citizens/residents to be invited to the area.

~ Meeting Adjourned ~

Jeff Legros & Larissa Parse’s comments in the chat

Jeff Legros, MRPC to Everyone:

That area had 8 - 9 feet plus of water depth within Monoosnoc Brook within that area.

And up to 20-feet just downstream closer to Whitney Field

Fallbrook Elementary School downstream of reservoir is subject to flooding during extreme flood events like Sept. 11th.

Significant flooding occurred along Fall Brook impacting homes between Fall Brook Reservoir and Lake Samoset. Brook was completely out of its banks for entire distance between the reservoir and Lake Samoset.
19:00:22 From Jeff Legros, MRPC to Everyone:

Water funnels down Main Street from the North and also along the railroad from the Northwest building up substantial flow in extreme rain events (flow enough to move large cobbles) and then flows directly to bridge at Nashua River eroding both side (abutments) during flood events (near Baker Cadillac).

Important point to note is that Whitney Field Mall is one of the largest flood zone areas in all of Leominster (and North Nashua Basin), but it is almost entirely impervious surface.

Larissa.Parse to Everyone:

Vacant lot owned by the city: 139 7th st