

## Fitchburg MVP FY22 - CLIMATE RESILIENT FALULAH/BAKER BROOK WATERSHED

### Frequently Asked Questions (FAQ)

*Our FAQ will be updated throughout the project. Please check back periodically for new information!*

#### **What is the timeframe for this project?**

The current project identification and initial design phase will wrap up in June 2022. The City will be pursuing additional funding opportunities to design and construct priority projects.

#### **How do green infrastructure projects reduce temperature on the ground?**

Green infrastructure projects that increase canopy cover or remove impervious surfaces help to reduce overall ambient air temperature (temperature felt at ground level), but not just in the areas they are implemented. Trees produce cooling through increased shade and also evapotranspiration (water moisture transferred from leaves into the air). When a tree is part of a larger canopy, the cooling effect can be profound. Reduction of impervious surfaces can include the removal of heat-absorbing materials (i.e. asphalt) replacing them with vegetation. It can also include replacing impervious with pervious surfaces (i.e. permeable paving / asphalt). Although still hard surfaces, permeable paving and asphalts are proven to help reduce ambient air temperature because of the air exchange created by the porous voids within the material.

#### **How is the stormwater volume reduction calculated for the potential designs?**

The green infrastructure concepts identified within the watershed have specific areas (sq.ft.) and depths of potential storage are determined by the type of projects (i.e., swale, rain garden). That provides a potential volume for each feature that can be input as storage volumes into the H&H model. The overall watershed is delineated into subbasins that correspond to smaller catchment areas, considering both surface and drainage system flow. So, the stormwater volume reduction is calculated based on the individual feature's ability to store a percentage of runoff water from a specific subbasin. Furthermore, the stormwater volume reduction is calculated based on specific storm / rainfall events, including near- and long-term events.

#### **How is this project related to/separate from the John Fitch Highway redesign?**

Last year, we focused on designing changes to the John Fitch Highway to address chronic flooding and improve mobility for bikes and pedestrians within the corridor. The John Fitch Highway redesign MVP project is in the final design stage and will seek funding from MassDOT when it is ready to be constructed.

This project expands on last year's effort. This year, we're looking across the whole watershed to find a few other locations for projects on public and private properties to implement green infrastructure. We will be developing designs based on a watershed model and building an overall implementation plan. To make the community more climate resilient, we are looking to identify, prioritize, and design several stormwater retrofit projects to reduce impervious surfaces and/or capture rainwater for detention or infiltration. We're looking for project sites in these two subbasins, which cover the northeast part of Fitchburg and go down into the North Nashua River near the Fitchburg Municipal Airport.

**How can a property owner who is interested in extending some of the mitigation into their property show interest? Is there a way to discuss it?**

Property owners can identify areas that experience flooding and prioritize green infrastructure and nature-based solutions on their private properties to catalyze change across the watershed. The project team will be holding meetings with interested landowners to explore potential design and funding for projects on their properties.

**How are these projects going to be financed? Will there be an effect on our property taxes?**

This project is being funded by the City of Fitchburg's Engineering Department and the Massachusetts Executive Office of Energy & Environmental Affairs' Municipal Vulnerability Preparedness (MVP) Grant program, which provides support for cities and towns to plan for climate change and to implement projects to build local resiliency.

**Is there any potential for completely redesigning the movie theater/ dead store complex?**

The Cinema World / strip mall parking area has always represented a potential project with significant flood mitigation opportunities. The options have ranged from reestablishing the historic floodplain to resurfacing with permeable paving. The main consideration for this site has been that it is a private property with potentially multiple stakeholders. Historic uses (i.e., laundry) and conditions may require soil testing to understand potential permitting hurdles for large scale site redesign. Other considerations to understand may include any future planned development of the site and how flood mitigation could be incorporated.

**What measures is Fitchburg taking to implement traffic control or traffic slowing, especially in downtown area?**

In the downtown area, the City has recently converted Main Street and Boulder Drive to two-way traffic. Numerous traffic-calming measures have been installed throughout the Main Street, Boulder Drive, and River Street areas, including accessible crosswalks with signalization (both traffic lights and Rectangular Rapid Flashing Beacons, or RRFB's), sidewalk bump-outs/flare, and narrower vehicle travel lanes. The City is also exploring the implementation of additional traffic calming measures along with pedestrian and vehicular safety improvements in targeted locations throughout the City, including Boutelle Street, Franklin Road, John Fitch Highway, Rollstone Street, and Water Street. The Department of Public Works, in close coordination with the Department of Community Development and Planning and Police Department, are actively pursuing a number of grant programs to fund this work.

**Are there any updates planned for bike lanes on Main St.?**

With the conversion of Main Street and Boulder Drive to two-way traffic, there is little room for bike lanes on Main Street. However, bike lanes were constructed on Boulder Drive to allow bicycle traffic to more safely navigate through the downtown corridor. Main Street is bicycle-accessible from Boulder Drive via several connecting cross streets, including Wood Place, Newton Place, and Putnam Street.

**Is it possible to increase the public garden space in the watershed?**

Yes, absolutely. Public/Community gardens are beneficial, can include stormwater management practices, and can be implemented at many different scales.

**What laws can Fitchburg enact to protect ALL its forest and wildlife areas? How about a law that newforming business development must use existing infrastructures?**

The City currently has a number of safeguards to help protect its resource areas. Most projects require a review by the Planning Board and/or Conservation Commission, which help guide private property owners' decisions regarding development. In addition, private property owners have the ability to implement conservation restrictions on their property. There are a number of loopholes and ways to circumvent these restrictions, however, particularly with regard to forest cutting operations, which are regulated through the state. The City has seen a large increase in these types of projects recently, and is evaluating way to further protect these areas.

**Do you have reps from all effected neighborhoods involved in this project?**

Input on the project has been received from over 100 residents thus far through pop-up events, virtual meetings, online surveys, emails, and comment forms. The City has conducted extensive outreach to the community through a variety of print and digital channels, including specifically targeted outreach to neighborhoods closest to the project area.