Ballston Spa
Comprehensive Master Plan Steering Committee
May 5, 2022

Present in Person: John Cromie, Mathew Ercoline; John Hearn, Karen Martell, Peter Martin, Ellen Mottola, Steven Springer, and Marilyn Stephenson

Present by Zoom: Scott Burlingame, Bob Bush, Jr., Carrie Chapman, Monique Cohen, Josh Frederick, Jared Iaolucci, and Jackie Pelliccia.

Excused: Nafeesa Koslik

Observers in Person: Frank Rossi

Observers by Zoom: Paul Farnum, Gina Marozzi, Shawn ____

Meeting was opened by Chair Karen Martel at 7:00. Minutes of the prior meeting were reviewed. It was noted Marilyn Stephenson's name was incorrectly spelled. Otherwise, motion by Peter Martin to approve the minutes; seconded by Marilyn Stephenson; passed.

Blue Niels of Cooperative Extension who works as Storm Water Consultant for municipalities in Saratoga County was introduced by Karen.

Blue began with a quick history of the Clean Water Act from its genesis in Cleveland's Cayahoga River fires and enactment in 1972. In 2003, smaller communities like Ballston Spa were brought under the Clean Water Act and required to have a Municipal Separate Storm Sewer System or MS4. MS4 Communities are required to use public education, participation, and involvement; detect and illuminate illicit discharges, prevent construction site run-offs, and good housekeeping, in general.

Most construction sites in Ballston Spa will not be large enough (one acre or more) to come under federal and state regulations dealing with construction and follow up, the village has the option to apply the regulations to smaller sized parcels.

Impervious surfaces common in municipalities like Ballston Spa don't let water absorb into the ground. It is collected and sent to streams increasing flood potential. Municipal storm water discharge often carries with it organic pollutants, pathogens,

nitrates, heavy metals, and sediment, adversely affecting water downstream. This problem is exacerbated by unprotected construction sites. When in a natural state, much of this storm water sent to streams would have recharged aquifers.

In an area of 75-100% impervious surfaces, runoff is increased 5.5 times and soil infiltration is decreased by 70% from the natural state. For areas of 35-50% impervious surfaces the figures are 3 times and 30%, respectively. Streams become moderately impacted when the percentage of impervious surface in the watershed reaches 15% and highly impacted at 30%. Until they reach the mobile home parks, the Kayaderosseras and Gordon flow through areas of low impact. Between there and the village there is a moderate amount of impervious surfaces. The village is the first major area of impervious surfaces that affect the Kayaderosseras. It isn't until Bog Meadow and Lake Lonely reach the Kayaderosseras that water running from that sub-watershed has a high percentage of impervious surfaces.

It is important to explain to the public and key players: 1) the impact of storm water discharge on waterbodies, 2) the pollutants of concern, and 3) steps to reduce pollutants and contributors of the pollutants. Areas to be reviewed are storm water systems, street and bridge maintenance, winter practices, municipal building & grounds maintenance, and solid waste management. The first flush of a storm washes off the majority of pollutants from impervious surfaces. Techniques exist to capture that water prior to it entering streams. Simple policy changes such as requiring bagging of leaves and lawn waste and having holding areas to dump snow can reduce pollutants in streams.

Municipalities are to have a transparent process through which the public is able to give input, which results in evaluation and responses. People should know who to contact with these concerns, and reports are available for review, usually on the web. The village's consulting engineer usually prepares annual reports. Cornell Cooperative Extension, through Blue's position, works with county and local planning staff to assist 16 municipalities (including Ballston Spa) with storm water management and reporting.

Points of storm water discharge are to be reviewed once every five years to identify illicit discharges but tracing the discharge to a source can be difficult and expensive. Enforcement is focused on having the problem fixed. Techniques such as porous parking surfaces and discharging water through a gutter system into green infrastructure are available to minimize runoff.

Interactive maps are available that show the location of the 100-year flood plain (areas where there is a 1% chance of flooding each year.) The maps are assumed to be accurate. Maps also show soil types, which can be accessed to show where basements will need sumps. (The presented map indicated most all the village's east side and Colonial Hills are difficult soils for basements.)

It helps to minimize flooding if the rate of runoff is slowed down by various methods. Small structures can be built in existing storm drainage lines to impound and slow down water. But it is difficult to do that if the village doesn't know where its lines go and what condition they are in.

Committee members had a lot of anecdotal evidence of failures of village storm water drainage. Chesterwood Court floods during storms and water rises from catch basins, county buildings have no storm water retainage causing water to rush into West High, pool in front of Christ Church, and wash down Low and Springs Streets. In the North and Center Street areas, storm water is not caught in basins and races in a torrent down the streets. In other places street are lower than the collection basin. Although pooling on streets may retain water. the water absorbs heat from the pavement, and when it does reach the streams it can warm water, harming trout.

Blue asked members to list locations where these events occur for his information and to look into the problems. A location and condition inventory of the village's storm water system is essential. Repair and upgrading will require allocation of money.

While the village can act within its boundaries, it is affected by municipal actions relating to upstream and downstream maintenance. For instance, anything that inhibits waterflow into the flood plain near the end of Northline Road may result in village flooding. It will be important for the village to be part of intermunicipal agreements. The critical area that causes flooding is the confluence of the Gordon and Kayaderosseras Creeks. There are a few things that can be done to minimize water backup, but nothing corrective. Foot's Pond and the high banks of the Kayaderosseras may provide opportunities for retaining flood waters. Ownership issues would need addressing.

A system can be added to existing storm sewers that is essentially a box that catches pollutants in the first flush of rain and allows the water to evaporate or seep into the surrounding soil. The system is bypassed by large storms, but it can result

in 0 discharge during minor storms. There is another system that creates a vortex to separate out organics and trash from the water. All of those systems need regular maintenance. Some soils are too wet to use them.

Mayor Rossi noted the village is working inter-municipally on water and sewer upgrades and was able to use the committee's work to help show the village's need for grants.

Although the interactive map shows catch basins and outlets, it lacks information on the condition of the basins or how they are connected to each other. When there is a questionable discharge found, the computer program will then be able to trace back the discharge to its source.

In areas of the village, storm sewers cannot work because of springs coming out of hill sides, shallow naturally impervious layers, and other reasons that are reflected in soil types. These conditions are relevant even in a mostly built out village because of redevelopment.

Except for a general county study, there is no readily available data on natural water sources that cause the village's "water abundance." On site observations, noting wet areas, listening for constantly running storm sewers, and studying soil maps can be done to begin developing a map.

Karen thanked Blue for his presentation and reminded everyone of the village tour next Tuesday at 3:30 beginning at Victory Circle. The second phase will be on the next Tuesday, May 17, at 3:30 beginning at the Village Cemetery near the columbarium. 3:30 was the latest Amy could do it and have it fit in her workday.

Ellen asked everyone to familiarize themselves with the Village of Ballston Spa Economic Development Plan prepared by Saratoga County Prosperity Partnership in 2020, as June's topic will be economic development.

Meeting ended at 8:40 pm.