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**Item No. 12.1.1**  
**Environment & Sustainability Standing Committee**  
**July 7, 2022**

**TO:** Chair and Members of the Environment and Sustainability Standing Committee

**SUBMITTED BY:**  **(Original Signed)**

Jacques Dubé, Chief Administrative Officer

**DATE:** April 12, 2022

**SUBJECT:** Naturalization Strategy

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**ORIGIN**

February 21, 2017 Regional Council motion (Item Number 15.8):

MOVED by Councillor Austin, seconded by Councillor Nicoll

THAT Halifax Regional Council requests a staff report on the possibility of an HRM park naturalization strategy and that it be forwarded to the Environment & Sustainability Standing Committee.

MOTION PUT AND PASSED

January 29, 2019 Regional Council motion (Item Number 14.4.1):

MOVED by Councillor Zurawski, seconded by Councillor Blackburn

THAT Halifax Regional Council direct staff to advance the naturalization initiatives outlined in the Discussion section of the staff report dated December 14, 2018, including:

- a) naturalizing areas within parks and right-of-ways which may be difficult to maintain with lawn cover;
- b) naturalizing parks or areas within parks that are comprised of older and underutilized park features and equipment;
- c) introducing naturalization in new parks or when undertaking park plans for existing parks;
- d) raising public awareness regarding the benefits of naturalization and local projects through HRM's website and on-site signage;
- e) continuing to foster partnerships with stakeholder and community groups to establish naturalization projects;
- f) cataloguing naturalization programs and projects over a 2-year period for monitoring purposes towards consideration of a future naturalization guideline/policy; and
- g) That staff to return with an update on the identified naturalization initiatives in two years' time.

AMENDED MOTION PUT AND PASSED

**RECOMMENDATION ON PAGE 2**

March 23, 2021 Regional Council motion (Item Number 11.2.1):

MOVED by Councillor Blackburn, seconded by Councillor Mason

THAT Halifax Regional Council extend the naturalization initiative review period by one year to December 31, 2021, to fully include the pilot projects that were to have occurred in 2020 for monitoring towards a future naturalization guideline/policy.

MOTION PUT AND PASSED

### **LEGISLATIVE AUTHORITY**

*Halifax Regional Municipality Charter*

Section 70(1) The Municipality may,

(a) beautify, improve and maintain property owned or leased by the Municipality;

Section 79A(1) Subject to subsections (2) to (4), the Municipality may only spend money for municipal purposes if

(a) the expenditure is included in the Municipality's operating budget or capital budget or is otherwise authorized by the Municipality;...

### **RECOMMENDATION**

It is recommended that the Environment & Sustainability Standing Committee recommend that Halifax Regional Council direct the Chief Administrative Officer to expand the naturalization pilot to a municipal-wide program and include \$150,000 in the 2023/24 operating budget for Regional Council's consideration to support the program.

### **EXECUTIVE SUMMARY**

Over the past three years, the Municipality has been undertaking a pilot program to institute naturalization initiatives and assess if a broader program and strategy should be developed. During this time, various community and corporate projects have occurred. The interest and success of the naturalization projects have led to a conclusion that a permanent naturalization program should be considered, along with dedicated staffing resources.

### **BACKGROUND**

On January 29, 2019, Regional Council approved the staff report, HRM Park Naturalization Strategy Recommendation Report, that outlined directions for proceeding with a two-year naturalization pilot project. Naturalization is an ecologically based approach to landscape management that seeks to enhance biodiversity and ecological resilience in the urban landscape using native or non-invasive-adapted plant species. The 2019 report outlined numerous ecological, environmental, educational, recreational, and economic benefits of naturalization; naturalization methods; naturalization strategies from other municipalities; and the local context.

Prior to the 2019 report, there had been several one-off naturalization projects in the municipality, but no coordinated approach. To properly assess past and forthcoming projects, which could then be reviewed before development of a formalized naturalization strategy, the 2019 report recommended to proceed with the following initiatives:

- the continuation of naturalizing areas within parks and right-of-way's that may be difficult to maintain with lawn cover;
- naturalizing parks or areas within parks that are comprised of older and underutilized park features and equipment;
- introducing naturalization in new parks or when undertaking park plans for existing parks;
- raising public awareness regarding the benefits of naturalization and local projects through the municipality's website and on-site signage;
- continuing to foster partnerships with stakeholder and community groups to establish naturalization projects; and
- cataloguing naturalization programs and projects over a 2-year period for monitoring purposes toward consideration of a future naturalization guideline/policy.

While the 2-year timeframe had been identified, the COVID-19 pandemic resulted in delayed or altered planned approaches for core pilot projects, which had relied on volunteers. A subsequent February 11, 2021 staff report outlined that while certain naturalization initiatives had advanced, the fully intended pilot program was unable to be implemented. A one-year extension to the naturalization program was recommended, with the following intended next steps:

- resume the plans for Dillman Park and Merv Sullivan Park in the spring of 2021;
- create an online interactive map displaying the catalogue of naturalization project sites;
- explore the inclusion of stormwater-runoff mitigation, programming for private landowners and other related initiatives; and
- produce a staff report outlining the overall successes and challenges of the initiative, the required resources, and make recommendations on the future implementation of a naturalization strategy.

On March 23, 2021, Regional Council approved the directions and next steps that were outlined in the staff report.

## **DISCUSSION**

Progress has been made on the various 'next step' initiatives that were outlined in the February 11, 2021 staff report, along with others that arose within the realm of the naturalization program. These initiatives have helped assess the merits of a broader naturalization program that the municipality might undertake, which is also supported by various municipal policy documents.

### **Next Step Initiatives**

#### **Dillman and Merv Sullivan Parks and other Pilot Program Sites**

As described in the 2019 staff report, community involvement is one of the most important aspects of successful municipal naturalization programs in other jurisdictions and is a key component of Halifax's pilot initiatives. However, because of COVID-19 public health measures, the projects were not able to proceed as anticipated. Community events had been planned to begin in the spring of 2021, however the third wave of the COVID-19 pandemic occurred. Nevertheless, the three naturalization pilot sites have all advanced with a smaller number of volunteers and support from Parks & Recreation and Public Works staff. The progression and acknowledgement of each pilot site is captured visually in Attachment A.

*Dartmouth Common (Leighton Dillman Park)* – The area selected for naturalization in the Dartmouth Common is one that was formerly dominated by turf grass. The plan for this site involved the addition of flowering shrubs, small trees and on-going wildflower seeding and weeding. In the spring of 2021 staff advanced the project by planting three pagoda dogwood trees, five butterfly bushes and 13 summersweet shrubs along with a variety of seeded pollinator species. Blooming flowers over the past summer attracted numerous pollinator species.

*Merv Sullivan Park* – The Merv Sullivan Park naturalization plan involved converting an underutilized grassed area into a prominent naturalized gathering space with flowering perennials, shrubs, and trees. In the spring of 2021 staff removed the turf, added soil and mulch, and planted 25 bearberry groundcover plants, 15 sweet fern shrubs, and three dogwood trees. Three sections of felled urban trees were repurposed by staff to create a natural seating circle. In the fall of 2021 local volunteers, including newcomers to Canada and those from the Young Naturalist Club, were involved by helping weed and plant over 60 flowering perennials.

*Sime Court ROW (Kingswood)* – In the spring of 2020 the installation of a resident-driven pollinator garden in the road right-of-way commenced with a small number of volunteers. Site work by staff included the cultivation and addition of topsoil and the development of a berm between the planted area and the drainage ditch. This densely planted area now contains an estimated 2000 perennials and over a dozen species that bloom throughout the growing season attracting large numbers of pollinator species, including various bee species, butterflies, dragonflies, damselflies, and hummingbirds. The density of plants helps to shade out competing weeds. There is strong and sustained support and interest in this project from the local residents and the broader gardening community.

The three pilot sites were relatively small in scope and existing staff resources and operational budgets were able to accommodate costs. Additionally, at the Kingswood site all plants were donated. An expanded naturalization program beyond the scope of the pilot phase would require a larger and sustained funding stream, as recommended in this staff report.

#### Interactive Map

A partnership with Dalhousie University led to the creation of a spatial inventory of past and present naturalization-type initiatives. The inventory was used to create an interactive map on the municipality's naturalization homepage which provides details about each initiative<sup>1</sup>. The map adds to a growing web presence which is an important aspect in expanding public awareness and acceptance of naturalized areas.

#### Stormwater Mitigation

One of the many benefits of naturalization is the ability to slow and filter stormwater runoff. This benefit was highlighted in the Pollution Source Control Study for Lake Banook & Lake Micmac (Pollution Source Control Study), which was approved by Regional Council in September 2020. The report recommended expanding the scope of the naturalization strategy to help mitigate stormwater runoff into these lakes as one of its short-term goals.<sup>2</sup> The eight HRM-owned parks that directly abut the two lakes offer potential space for enhanced naturalization as do ROW areas within the sub-watershed. Green infrastructure in ROW areas, including street trees and rain gardens, such as the one recently installed along Prince Albert Street, should be considered together with park space naturalization and other stormwater mitigation measures to maximize impact. Numerous private lands also fall within the sub-watershed, the promotion of naturalization on these lands could be part of a comprehensive approach (see next section). Any naturalization efforts should be prioritized and coordinated through the forthcoming Lake Management Plan (the plan is a recommendation in the Pollution Source Control Study).

#### Private Landowners

In March of 2021, Regional Council approved an administrative order (AO) permitting the placement of boulevard gardens in municipal right of ways. This AO allows abutting property owners to plant species other than turf grass. While not specifically focused on naturalization, this initiative highlights the

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<sup>1</sup> Link to Naturalization Strategy page on Halifax.ca: <https://www.halifax.ca/parks-recreation/parks-trails-gardens/naturalization>

<sup>2</sup> Link to Pollution Control at Lake Banook and Lake Micmac staff report and study: <https://www.halifax.ca/sites/default/files/documents/city-hall/regional-council/200929rc1114.pdf>

importance of, and growing interest in, diversifying plantings to increase biodiversity, create more ecologically robust landscapes, and improve aesthetics.

### Overall Successes and Challenges

In addition to the successes, there is growing community interest in naturalization-type initiatives. Over 30 sites with naturalization potential have been suggested by citizens, youth groups, council members, and staff (Attachment B). There are also regular community requests to plant trees on municipal lands, and in 2021 there were several requests to create butterfly gardens in parks. In addition, relationships have also developed with partners such as the Mersey Tobiatic Research Institute, Tree Canada, and Dalhousie University. Researchers at Dalhousie are collaborating with HRM regarding the urban forest on an on-going basis. A forthcoming report examines the potential impact of the invasive insect Hemlock woolly adelgid (*Adelges tsugae*) in five HRM parks<sup>3</sup>. The study will propose risk management recommendations. These types of partnerships allow for resource and knowledge sharing and strengthen naturalization efforts.

A challenging aspect of the naturalization program has been the demands for staff resources to implement the projects and coordinate the increasing interests of the public and other stakeholders. Staffing and project resources during the pilot timeframe have not been dedicated to the program, but rather, shared between different business units and staff responsibilities.

### **Implementation of a Permanent Naturalization Program**

The information gathered through the three-year monitoring phase of the program highlight an increasing interest in naturalization projects of a variety of scales throughout the municipality. More resources, however, are needed to implement a fulsome municipal-wide approach to naturalization. Funds for a dedicated project coordinator and two seasonal staff are recommended for consideration in future year's budgets.

The project coordinator would be responsible for:

- selecting and prioritizing sites which considers factors such as proximity to existing natural areas, protection of existing native species, adjacent uses, invasive species control, Crime Prevention through Environmental Design (CPTED) principles, physical extent of potential area, equity, visibility, and community support;
- organizing on-going community stewardship for each project which requires sustained effort to find interested community members and keep them updated and engaged;
- planning and design of naturalization sites which involves landscape analysis, developing site plans and species selection;
- organizing site preparation which may require contractors and procuring appropriate plant species.
- coordinating on-the-ground logistics for planting, maintaining, and monitoring sites;
- considering the intake of community tree planting requests in coordination with the urban forestry program;
- liaising with partners such as the Mersey Tobiatic Research Institute who can offer plant stock/seeds and Dalhousie University whose research can compliment municipal naturalization efforts;
- expanding communication and education regarding the benefits of naturalization, resources for private landowners and the celebration of projects through an enhanced web presence and regular social media posts;
- creating on-site interpretation materials which explain the rationale and benefits of naturalization and provides details regarding site-specific species; and
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<sup>3</sup> Shubie Park, Point Pleasant Park, Admiral's Cove Park, Hemlock Ravine and Sir Sanford Fleming Park

- developing naturalization program metrics such as total land area converted, number of plant species, number of pollinator and other animal species and level of community support and participation.

While community involvement is an important aspect of the naturalization program, volunteers tend to ebb and flow. Two seasonal gardeners would also be involved with municipal projects that are labour intensive during the first few years (until plants are established). Having knowledgeable staff working with community members on the ground would also improve planting success rates. Associated with the staffing, long-term dedicated funds for plantings and other related materials would also need to be allocated. A three-year funding allocation for plantings and related materials has been identified, as detailed in Financial Implications.

One of the possible outcomes of the naturalization program as a pilot was envisioned to be a strategy. At this time, a fulsome strategy is only envisioned with the implementation of further community-based naturalization and additional corporate initiatives, such as those that have been identified in this report. Such a strategy would be expected to address how the municipality might further institute and prioritize naturalization projects. Due to the specific next set of deliverables identified, a strategy is not seen as a necessary outcome to advance the resourcing that is recommended in this report.

### **Policy and Planning Framework**

There are numerous municipal plans that support naturalization, including:

- the recent Strategic Priorities Plan, which calls for healthy ecosystems that support biodiversity and enhance quality of life;
- the Regional Plan Review Themes & Directions document, which highlights the inclusion of naturalization in the Urban Forest Master Plan (UFMP), Halifax Green Network Plan (HGNP) and *HalifACT*, and gives direction to review development policies relating to naturalization and green infrastructure; and
- the Regional Centre Municipal Secondary Planning Strategy, which also has a policy to incorporate naturalization and green infrastructure into parks and to encourage naturalization and daylighting of watercourses.

The UFMP and HGNP speak to the health, environmental, and economic benefits that accompany increased naturalization and biodiversity. The UFMP calls for naturalization in parks and greenspaces by increasing tree planting, increasing the species and age diversity of trees, and retaining dead standing trees in remote park areas for wildlife habitat. The UFMP explains how parks are faced with serious challenges, such as high rates of imperviousness (i.e., paved surfaces), low canopy cover, low species diversity, and high rates of natural tree decline. The UFMP recommends that several thousand trees be added to parks, ensuring diversity of species and age, requirements for a healthy urban forest. The HGNP has an action item to prepare policies and procedures to incorporate naturalization in parks and suggests that any park in an over-serviced area be assessed for naturalization suitability.

*HalifACT*, Halifax's plan to address climate change for the next 30 years, has an action item calling for development and implementation of a region-wide naturalization program to enhance biodiversity and ecological resilience on both municipally owned and private property. The recent *HalifACT* annual report includes a Three-Year Resource Plan (2022-2025) which earmarks some funding for an expanded naturalization program under Core Area 6: Support communities for climate adaptation and climate-related emergencies.

### **FINANCIAL IMPLICATIONS**

Annual staff resource requirements of approximately \$150,000 are needed for one new full-time employee and two seasonal employees within the Parks and Recreation Business Unit. Staff resource requests are being recommended for approval in this staff report and to be included in the 2023/24 operating budget.

Aligned with timing on the staffing, resources for three years for several of the projects outlined in Attachment B will be funded through the Climate Capital Fund (Account CB200012). Project resources beyond this timeframe will be brought forward in subsequent business plans and budgets.

### **RISK CONSIDERATION**

The risk associated with the recommendation in this report is low. To determine this consideration was given to financial, reputational and governance considerations.

### **COMMUNITY ENGAGEMENT**

There has been considerable engagement over the past three years in association with the three pilot projects and through general interest in naturalization-type projects.

### **ENVIRONMENTAL IMPLICATIONS**

Naturalization has many ecological and environmental benefits, including:

- conserves local native plants,
- provides wildlife habitat,
- improves air quality,
- reduces urban heat island effects,
- mitigates stormwater runoff, and
- reduces/offsets municipal greenhouse gas emissions.

Expanding the existing naturalization initiatives will increase the impact of these benefits.

### **ALTERNATIVES**

1. The Environment & Sustainability Standing Committee could recommend that Regional Council direct the Chief Administrative Officer to extend the naturalization pilot program for a further year and request a further staff report with additional assessments and recommendations.
2. The Environment & Sustainability Standing Committee could recommend that Halifax Regional Council direct the Chief Administrative Office to discontinue municipal naturalization initiatives.

### **ATTACHMENTS**

Attachment A – Pilot Site Progression  
Attachment B – Potential Naturalization Sites

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A copy of this report can be obtained online at [halifax.ca](http://halifax.ca) or by contacting the Office of the Municipal Clerk at 902.490.4210.

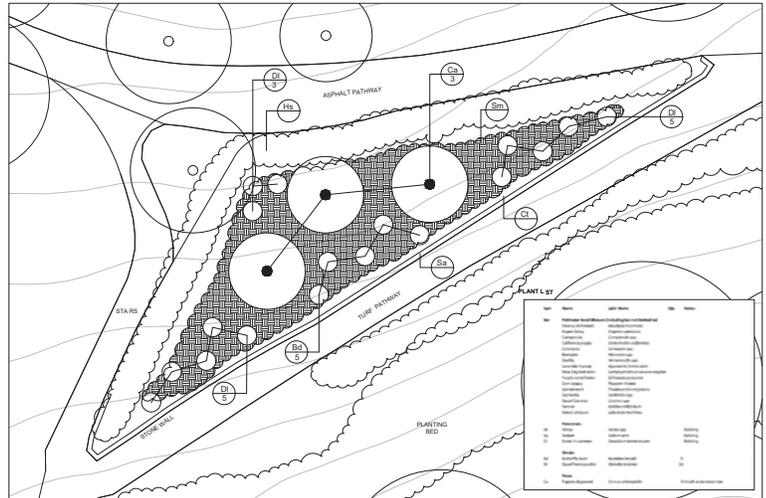
Report Prepared by: Penelope Kuhn, Real Property Policy Coordinator, Policy and Planning, Parks & Recreation, 902.240.2647  
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Leighton Dillman Park



Before - turf grass



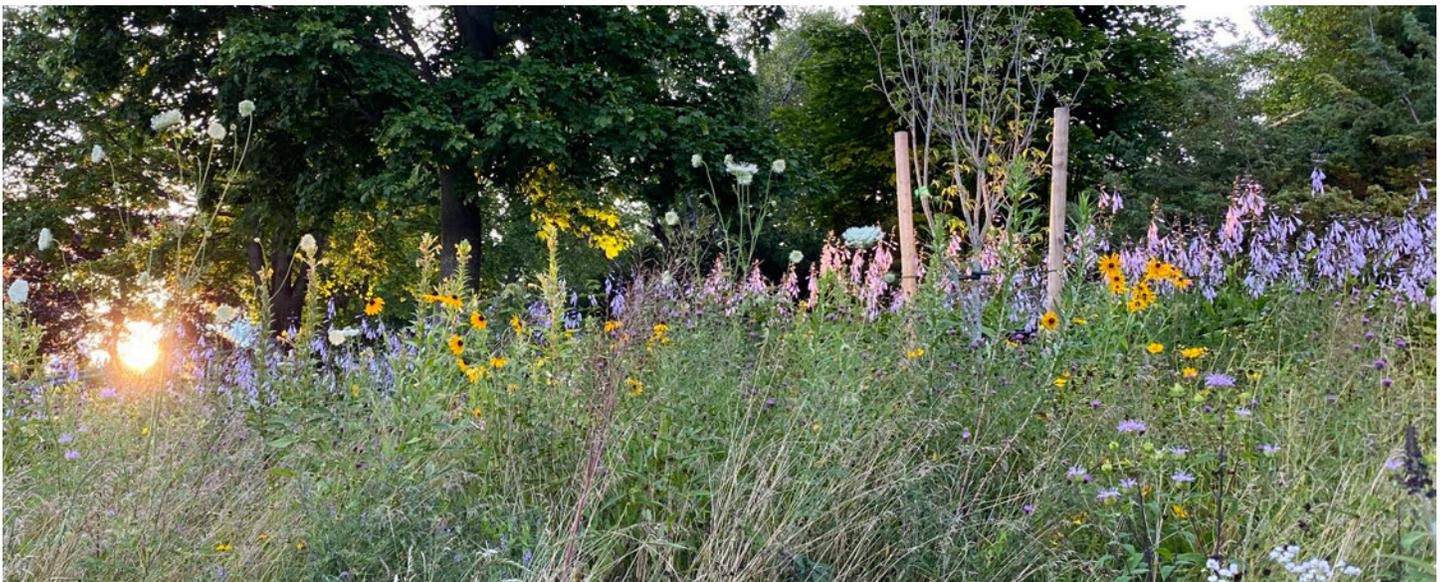
Concept plan



Staff reseeding perennial wildflowers in the spring of 2021.



Aster with Monarch, Starflower, Beebalm and Arizona Poppy (summer 2021).

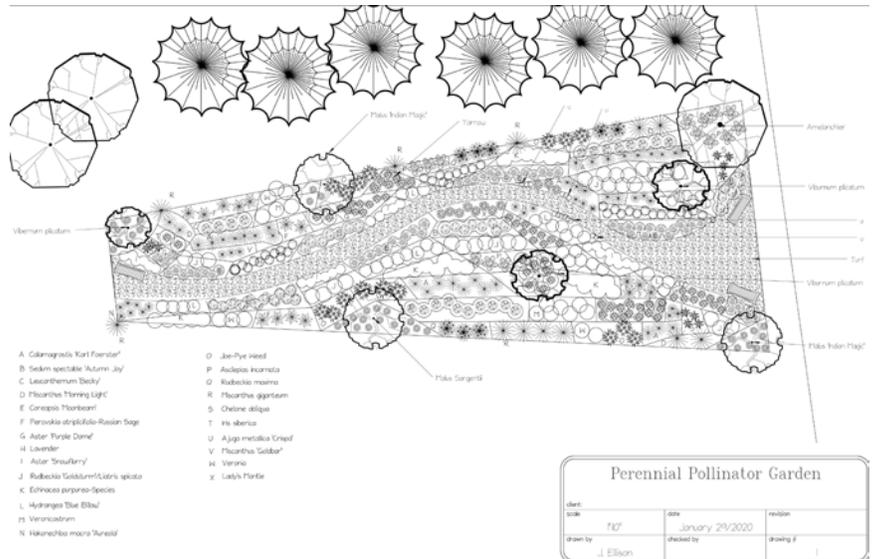


After - Setting sun highlights the diversity of species in full bloom. Species planted include: Pagoda Dogwood trees, Butterfly bushes, Summersweet shrubs, Wallflower, Evening Primrose, Yarrow, Coreopsis and many more (summer 2021).

Sime Court ROW, Kingswood, 'The Meadow'



Before - turf grass



Concept plan



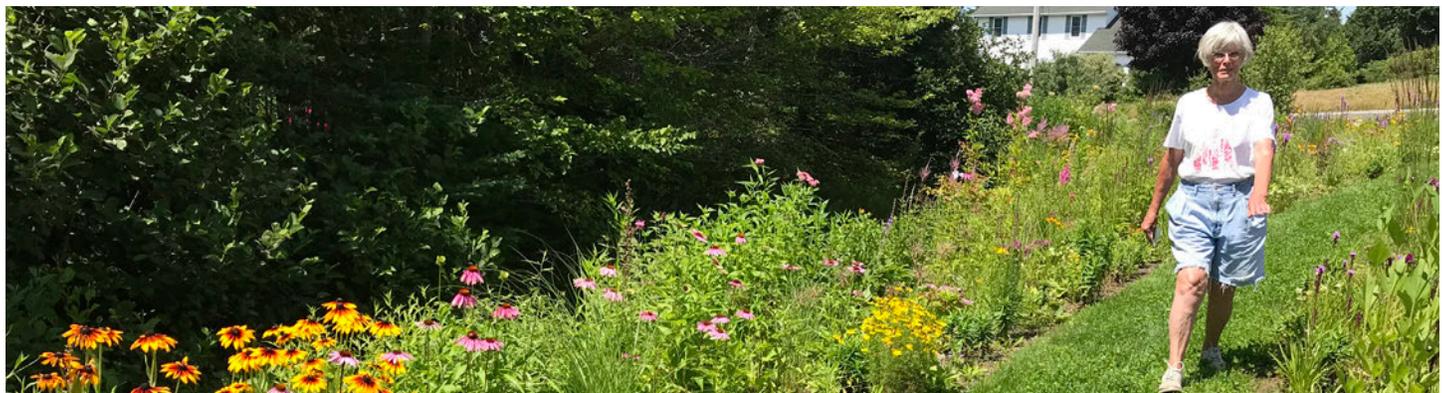
Site preparation and core volunteers planting in spring 2020.



First blooms of summer 2020.



Volunteers, visitors and pollinators alike enjoying The Meadow (summer 2021).



After - Donna Evers, the project lead (volunteer), among an estimated 2000 flowering perennials of over a dozen species which attract large numbers of pollinator species, including various bee species and damselflies (summer 2021).



Over 30 sites with naturalization potential have been suggested by citizens, youth groups, council members and staff.

<b>Site</b>	<b>Possible Landscape Type(s)</b>
Fish Hatchery Park	Riparian
Shubie Park	Riparian, Acadian Forest
DeWoulf Park	Urban Canopy
North Woodside Community Centre Park	Acadian Forest
Goresbrook Park	Pollinator Meadow
Village Green Land (ROW)	Pollinator spot planting
Baker Drive Park	Acadian Forest, Pollinator Meadow
Merv Sullivan Park (Phase I on-going and Phase II)	Pollinator Meadow
Dillman Park – on-going	Pollinator Meadow
Dartmouth Common	Forest understory
Sullivan's Pond	Riparian
Morash Park	Riparian
Fort Needham	Pollinator Meadow
Dartmouth Harbourfront Trail	Acadian Forest, Pollinator Meadow
Sawmill River Daylighting (Phase II)	Riparian, Wetland
Triangular ROW beside Dartmouth High School	Acadian Forest
Northbrook Park	Forest understory, Riparian
Rehab Lands (pending park plan)	Acadian Forest, Pollinator Meadow
Viscount Run Park	Acadian Forest, Pollinator Meadow
Eastern Passage Common	Coastal Forest
Friesian Court Park	Pollinator Meadow
Oathill Lake (north end)	Riparian, Acadian Forest
Lake Banook Regional Park	Riparian
Titus Park	Pollinator Meadow
Lacewood Terminal Park	Urban Canopy, Pollinator Meadow
Wentworth Street Park	Pollinator Meadow
Sir Sanford Fleming Park	Pollinator Meadow
Black Duck Brook area	Riparian
Marlbouough Woods	Acadian Forest, Riparian
Brennan Island (ROW)	Acadian Forest
Shearwater Flyer Trail Park	Acadian Forest, Pollinator Meadow
Dunbrack and Old Sambro (ROW)	Pollinator or Grass Meadow