

Burlington Conservation Board

645 Pine Street
Burlington, VT 05401
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Rebecca Roman, Chair
Ryan Crehan
Zoe Richards
Don Meals
Ethan Ely
Evan Horne
Dale Azaria
Kelly Farrell



Conservation Board Meeting Public Notice

Monday, October 6, 2025, 5:30 PM

311 North Avenue, Conference Room or Remote via Zoom

Zoom: <https://zoom.us/j/95590052709?pwd=MlhQcTVTNmUydW5qeIBLeFUwZk9LZz09>

Webinar ID: 955 9005 2709

Password: 346560

Telephone: 1 929 205 6099

1. Minutes

1.1. Accept minutes from September 8, 2025 meeting

2. Board Comment

3. Public Comment

4. Update & Discussion

4.1. PlanBTV New North End

Follow up discussion of comments to provide to City Planning

4.2. Open Space Plan

Discussion and adoption of Open Space Plan

5. Project Review

5.1. ZP-25-488; 11 Driftwood Ln (RL, Ward 4) Andrew & Tracy Russell / Michael Koch
Proposed replacement of deteriorating seawall

6. Adjournment

7. Informational and Non-Discrimination Statements

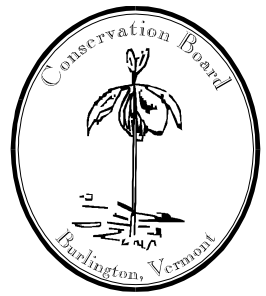
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Conservation Board Meeting Minutes

Monday, September 8, 2025 – 5:30 pm

Remote & In Person Meeting

Attendance

- **Board Members:** Zoe Richards (ZR), Rebecca Roman (RR), Leslie Spencer (LS), Ryan Crehan (RC), Dale Azaria (DA), Evan Horne (EH), Kelly Farrell (KF),
- **Absent:** Don Meals (DM), Ethan Ely (EE)
- **Public:** Jill Dixon, Rhiannon Sinclair, Bren Alvarez, Marty Courcelle, Neil Gardner
- **Staff:** Scott Gustin (Permitting & Inspections), Dan Cahill (Parks & Rec), Charles Dillard, Sarah Morgan (City Planning)

RR, chair, called the meeting to order at 5:35 p.m.

Minutes

August 4, 2025 minutes

A MOTION was made by DA and SECONDED by ZR:

Approve the August 4 minutes as written.

Vote: 6-0-0, motion carried. (No RC yet)

Board Comment

None.

Public Comment

None.

Update & Discussion

1. PlanBTV New North End

Design concepts discussion with Office of City Planning staff

Charles Dillard and Sarah Morgan appeared on behalf of this item.

Charles Dillard overviewed the New North End Plan project and provided context. Sarah Morgan mentioned the relationship of this plan to the Open Space Plan and the Historic Preservation Plan as well. Sarah went over the project schedule and noted that they are in the “planning and urban design” phase of the project. Demographics, housing, transportation options are among the items under consideration. She displayed a map of areas identified for potential growth; not all the same type or extent of growth. She noted the Rt. 127 scoping study is included in the assessment of potential growth. Mobility and connectivity – infrastructure needs are under consideration. Evaluation of safer crossings of North

The programs and services of the Dept. of Permitting & Inspections are accessible to people with disabilities. For accessibility information call 865-7188.

Avenue are being done. Charles noted 70% of vehicle trips in the New North End is SOV transportation, including 40% AM trips that begin and end in the NNE. Sarah mentioned role of TDM. There was a CarShare vehicle in the NNE for several years, but it was underutilized. It is no longer located there. Charles mentioned potential for a mobility hub within the NNE. He mentioned 5 “focus areas” with potential to accommodate additional growth. He showed several street cross sections of potential street improvements. They are doing an assessment of demand for gathering places of various types within the community. Charles noted a “test fit” analysis for several properties, including the North Avenue Alliance Church, the EA Shopping Center, Starr Farm West, and the Ethan Allen Parkway/North Ave/EA Park intersection too. Charles addressed public land focus areas. They will do a civic assets study – study of all city lands and what they might be suitable for. Sarah pointed out a 20-year timeframe for these concepts.

RC said he can’t ever see supporting development in city parks. He’s surprised that a civic assessment hasn’t yet been done. The push for housing needs to account for keeping Burlington a livable city. Charles noted this is not a zero sum game and referred to ecological design standards. Lawn spaces could be made more ecologically robust as part of a redevelopment scenario.

ZR, start with the ecological design first, rather than a particular location. She mentioned a last remaining remnant of a sandplain ecological community in the Starr Farm area. What counts as a city asset? Charles, we will definitely consider ecology as part of the overall puzzle. He noted what is not built in Burlington is built in the suburbs and exurbs.

RR noted that growth outside of Burlington is not directly within tonight’s purview. The BCB supports housing where its supposed to be. RR likes the details provided, like 99% of EA Park to remain intact.

Dan Cahill, in terms of property acquisition, the city is not a developer, but he appreciates we are pushing into that a bit. We’ve not engaged in conservation / development projects with the Legacy Fund. Charles would like to see collaborative partnerships in the future. Ultimately, he said, the plan is determined by the community. Charles invited the Board’s feedback and continuing conversation.

KF, ecological design standard is the baseline from where we move forward. We need to be careful that the various city plans align with one another.

RR is very curious about the collaborative work among developers. Generally, they decline to do more than the minimum required.

2. Nature Based Climate Solutions Grant Program

Review available funds and program adjustments

Dan Cahill appeared on behalf of this item.

Dan Cahill said that we have \$68K rather than \$168K available for the Legacy Fund Grant. For about 3 years, there was an error in what monies were available annually for the Legacy Fund. Basically, the Legacy Fund is tied to 2005 funding levels. It does not grow with the grand list as was thought. With this one big change, the grant sizes will be reduced to the \$10K - \$30K range.

RR provided a quick overview of the Legacy Grant program for the new members in the room.

ZR noted that the 2022 Nature Based Climate Solutions Addendum is the basis for the Legacy Grant Program.

KF asked for some grant program projects. Dan noted native plants project, invasives management, community trail stewards program, etc.

Dan, the grant will open October 1, 2025 and will remain open for applications thru end of November. He went over the whole schedule and the grant review matrix.

Dan, any thoughts on the proposed award amounts? DA, what were they in the past? Dan, the highest has been \$75K with the lowest about \$30. DA, will this fund range be useful to applicants? RR, we could consider the possibility for one large or several smaller, depending on the applications and what resources are needed. KF said it may be smart to go with one larger award. RR, the review committee should meet twice in January, rather than once in December and then in January.

Dan, is anyone interested in being on the committee? RR, KF, and DA. Maybe DM too (not present tonight). Two Parks Commission members have participated in past reviews as well.

3. Open Space Plan

Review and discussion of the new draft Open Space Plan

Jill Dixon and Rhiannon appeared on behalf of this item.

SG overviewed the draft and the context of how we got here.

Jill and Rhi overviewed the draft plan. (LS left at 7:15 pm)

RR asked a process question about providing individual comments. SG, send to me by week's end, Monday if need be.

RC said he would really appreciate if Open Space was defined by percentages / acreage. KF said she was surprised that private residential lawns are part of the open space inventory. SG said its about knowing where the open space is and guiding opportunity for neighborhood based open space assets, like community gardens.

DA, impact of tree removal from private property is relevant. Its significant and should be called out on pg. 145 as something that homeowners can do. There is opportunity to build on what private property owners can do for open space improvements.

RC emphasized the human connection to open spaces, accessibility.

RR, with the plan in PDF, the double page layout isn't present. The two-page spreads should be two pages. Maybe a strategy summary should be provided as an appendix.

DA, it will be hard to make it short and difficult to summarize. Huge kudos to the team. Something like an executive summary would be helpful. She also noted the action items that are BCB primarily or as a key partner. SG noted that the plan will come back next month for adoption. RR suggested discussing further at the October Open Space Subcommittee meeting.

KF didn't understand some of the content of the points, like redefine the city's "green infrastructure." What does that mean?

EH, its nice to have some open-endedness to goals. Too much specificity can be limiting. Also, he spoke to noting funding sources. SG said that was considered, but we ended up guessing for a number of items and decided to leave that out.

Project Review

1. ZSP-25-8; 77-91 North Winooski Ave (RM, Ward 3) Neil Gardner / Wayne Nelson / Martin Courcelle

Sketch plan review for proposed construction of memory care facility to the rear of three existing properties.

Bren Alvarez, Marty Courcelle, and Neil Gardner appeared on behalf of this application.

Bren Alvarez overviewed the site, it contains 3 properties. The applicants envision a three level structure behind the three existing buildings along North Winooski Ave. Marty Courcelle said preliminary soils analysis shows great potential for infiltration. We'll use pervious pavers.

KF, overall thinks is a great project. She is curious about plantings in the southwest corner. This would be the best place for new trees, for the trees and shade they'd produce.

RC, we want to see a planting plan. Avoid invasive species.

KF, if you did rooftop solar, consider integration of a green roof as well. Maybe a little better efficiency for the solar panels.

ZR, noted the resident garden at the Converse Home is a nice amenity.

KF, daycare drop-off should be considered, and avoid conflict with parking spaces.

Adjournment

8:20 PM.

TO: Burlington Conservation Board
FROM: Charles Dillard, AICP, Director, Office of City Planning
Sarah Morgan, AICP, Principal Planner, Office of City Planning
DATE: August 4, 2026
RE: planBTV: New North End Design Concepts

The purpose of this communication is to provide an overview of *planBTV: New North End* and additional detail regarding the role of development concepts within the plan. Additionally, the memo addresses community feedback received to date, a limited subset of which we understand has been raised with members of the Conservation Board.

Overview of planBTV: New North End

Burlington's Office of City Planning, in collaboration with the Chittenden County Regional Planning Commission, launched *planBTV: New North End* this past January. This neighborhood plan aims to create a long-term vision for the New North End, guiding growth and infrastructure investment over the next decade.

The planning process is divided into three phases: Visioning the Future, Planning & Urban Design, and Assembling the Plan. We initiated public engagement in December as part of Phase 1 to gather community values and establish a guiding vision.

Focus Area Concepts

On July 23rd, we kicked off Phase 2: Planning & Urban Design with a Neighborhood Design Workshop. During this phase, the project team will work with community members, stakeholders, and city leaders to refine a comprehensive plan for the neighborhood integrating land use, transportation, housing, and infrastructure.

A key component of this plan is the identification of "Focus Areas" for potential positive change based on community feedback. The illustrations presented at the workshop reflect the diverse aspirations of New North End residents and depict redevelopment concepts for five Focus Areas, addressing critical needs:

- **Housing:** Burlington is experiencing a severe housing shortage, both in sheer numbers but also in specific types of housing, like senior housing or homes that can fit growing families, so we've worked with our team of planners, architects and urban designers to depict how diverse housing options might fit in the Focus Areas
- **Commercial and Mixed-Use Spaces:** New North End residents we've spoken to desire more places to spend their time and money in close proximity to where they live, so we've looked for opportunities for more commercial and community spaces.
- **Transportation & Mobility:** The New North End works pretty well for people in cars, but only sometimes, or not so much at all, for people who walk, bike, roll, or ride the bus. So we've looked for opportunities for improving streets and neighborhood connections in these Focus Areas, all of which ultimately will make it easier for everyone to move around, people in cars included.
- **Proximity to Parks & Greenspace:** Of course, cities are more than just homes, shops and streets. To create a more sustainable and highly livable New North End, we've depicted new and improved open spaces in these focus areas.

These illustrations are intended to help residents envision what long-term change might look like.

Frameworks For Growth: Utilizing community resources to solve the housing crisis

Given the severity of Burlington's housing emergency, which impacts people of all incomes, our team has looked far and wide for opportunities to build housing and community in the New North End. We have taken note of how communities of varying sizes in the United States and beyond are building sustainable and equitable communities on city land. In our engagement work, New North End residents have also suggested looking at city-owned land as sites for housing.

planBTV: *NNE* has identified several city properties as potential sites where new homes, but also community facilities, new park amenities and even small commercial spaces could be built in an equitable and ecologically beneficial way. These include portions of park land (but never the majority of an individual park) and could include portions of school yards.

Developing housing and community on city-owned land is not a new concept for Burlington. While *planBTV: South End* (2019) recommends developing a portion of the Champlain Elementary school site, we are approaching the concept differently.

First, it is imperative that we move carefully and thoughtfully through a process to educate and learn, to assess community support, and make sure that if we do build new communities on the City's land, it's done in a way that reflects what the people want to see. We are early in the "educate and learn" phase of this concept. Following *planBTV: NNE*, the City, in the coordinated inter-departmental work that has begun on an update to *planBTV*, a new BPRW system plan, and citywide transportation and economic development plans, will assess current parks programming and level of service, as well as the future needs of the Burlington community regarding parks and recreation spaces. This planning effort will also employ a scenario planning approach that will test hypothetical impacts to parks and/or ecological spaces emanating from various housing and economic development scenarios. For example, this approach will help us understand how and where the City should prioritize new and/or improved park spaces to offset any park area lost to housing. It is important to note that the Administration and the Office of City Planning do not envision the City selling any land depicted in the *planBTV: NNE Focus Areas* but instead long-term leasing it for affordable and mixed-income communities.

The second major way in which *planBTV: NNE*'s approach to city-owned land differs from the South End plan is the degree to which the concept is envisioned as a holistic strategy to accomplish multiple city goals at once:

- Social housing on public land: cities, counties and states, (e.g. Montgomery County, MD, Seattle, Atlanta and Rhode Island) are developing or beginning initiatives to build mixed-income housing, including ample affordable housing. Burlington is exploring the feasibility of this approach, which is a fundamental component of what makes places like, Vienna, where 60 percent of residents live in social housing, consistently rank as one of the world's most livable cities.
- Reducing development costs: land typically accounts for 10-20 percent of a housing development's cost. The contribution of city land for affordable housing, and potentially even market-rate housing, could significantly improve the feasibility of a more affordable Burlington housing market.
- Procurement control: communities across the world that are building housing on their own land get to decide what is built. Our office is exploring procurement alternatives to the open-ended Request for Proposals process, which often fails to deliver community-supported and desired outcomes. One such alternative is a process employed in Europe wherein rigorous community engagement regarding desired program, housing counts and other elements informs design competitions and/or highly prescribed RFPs.
- Ecological design: the draft concepts envisioned in *planBTV: NNE* show housing built on what is predominantly unprogrammed lawn. The Office of City planning views housing on city-owned land, including parks and others, not as a zero-sum game, and instead sees potential for these hypothetical projects to improve the ecological health of these lands.

- Park programming: as Burlington grows, the community's parks and recreation needs may change. Community-led development projects on city land could elicit new and evolved programming opportunities at existing and new parks.

The Ethan Allen Parkway/North Avenue intersection was identified as one such Focus Area, due mostly to a desire to improve the safety of the intersection and an acknowledgement that the intersection, with its access to multiple open spaces, schools, transit and other amenities, is a great location for more homes. The illustration we shared to communicate this concept showed some neighborhood-scaled development in what is now a handful of properties, Ethan Allen Parkway, and a small portion of Ethan Allen Park near North Avenue. It also showed a new community garden and gateway at the park, a new public plaza, and small commercial spaces for the neighborhood. In our engagement we have heard from residents who support this concept, and others who oppose it.

We want to reiterate that the illustrations we shared are meant to help residents envision what change might look like. And at this stage, our goal is to understand what residents like and don't like about the future these illustrations envision.

Next Steps & Opportunities for Feedback

In addition to engaging residents at in-person events, [Burlingtonians can view and submit feedback related to these concepts online.](#)

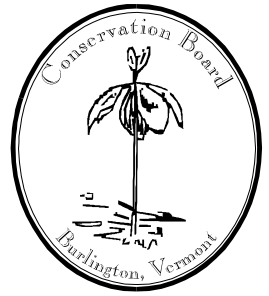
Our office has been invited to discuss this topic with the Parks Commission during its meeting on August 12th. We will also present these concepts to the Planning Commission that same evening, following the Parks Commission meeting. We look forward to discussing these ideas with the Conservation Board during its September meeting.

Our office anticipates kicking off the adoption process for *planBTV: New North End* this coming winter and into the new year.

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TO: Conservation Board
FROM: Scott Gustin
DATE: October 6, 2025
RE: Open Space Plan

The 2025 Open Space Plan is included in the Conservation Board's October 6, 2025 meeting packet for final review and, hopefully, recommendation for adoption.

This plan is the result of more than a year of collaborative work including assessments, outreach, visioning, and writing. Most recently, a comprehensive draft plan was circulated for review and comment to the Conservation Board, Parks Commission, and the Planning Commission. The draft plan was also made available online for review and comment during the month of August and into September, 2025. The effort to rewrite the city's Open Space Plan has been a collaborative effort between the core city team, UVM's Spatial Analysis Lab, and Agency Landscape & Planning.

Following action by the Conservation Board, Parks Commission, and the Planning Commission, the Open Space Plan will move on to the City Council in later October and, ultimately, adoption in November 2025.

FINAL VERSION
1 October 2025



BURLINGTON OPEN SPACE PLAN





"WHILE IT INITIALLY TAKES
EFFORT TO NOTICE SOMETHING
NEW, OVER TIME A CHANGE
HAPPENS THAT IS IRREVERSIBLE.
REDWOODS, OAKS, AND
BLACKBERRY SHRUBS WILL
NEVER BE "A BUNCH OF GREEN."
A TOWHEE WILL NEVER SIMPLY
BE "A BIRD" TO ME AGAIN, EVEN
IF I WANTED IT TO BE. AND
IT FOLLOWS THAT THIS PLACE
CAN NO LONGER BE ANY PLACE."

- JENNY ODELL,
HOW TO DO NOTHING





Acknowledgments

Core City Team

- Dan Cahill, City Land Steward
- Scott Gustin, Principal Planner
- Sarah Morgan, Principal Planner
- Zoe Richards, Conservation Board Representative
- Sophie Sauvé, Parks Planning Division Director
- Juliet Shen, Marketing & Communications Manager

Conservation Board

- Rebecca Roman
- Ryan Crehan
- Dale Azaria
- Ethan Ely
- Kelly Farrell
- Evan Horne
- Don Meals
- Zoe Richards

Parks Commission

- Nate Lantieri
- Ryan Bergmann
- Kirsten Boehm
- Halle Davis
- Robert Etter
- Harley Johnson
- Katie Flanagan Mobley

Planning Commission

- Andy Montroll
- Alex Friend
- Michael Gaughan
- Erhard Mahnke
- Erin Malone
- Ryan Nick
- Julia Randall

City Council

- Ben Traverse
- Mark Barlow
- Gene Bergman
- Becca Brown McKnight
- Marek Broderick
- Sarah Carpenter
- Melo Grant
- Joe Kane
- Evan Litwin
- Carter Neubieser
- Allie Schachter
- Ranjit “Buddy” Singh

Mayor Emma Mulvaney-Stanak

Consultant Teams

- Agency Landscape + Planning
- Chapman EcoLandscape
- UVM Spatial Analysis Lab
- Christine Tyler Hill



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Plan Summary

Nestled on the shores of Lake Champlain at the confluence with the winding Winooski River, Burlington sits at a regionally significant location.

Open spaces are at the heart of what makes Burlington special — enabling high quality of life for the community, supporting the city's economy, growing local food, providing home to local and migrating wildlife, and keeping the city cool in a changing climate.



Burlington's open spaces do more than provide spaces for recreation and wildlife habitats!

They also help to absorb stormwater and reduce the impacts of flooding, help cool the city, grow food, sequester carbon, and clean the water and air.



Burlington's Open Space Plan establishes a framework for conserving, managing, and expanding open space across the city.

As Burlington continues to grow the plan works to protect vital natural environments open space and ensure they are an integral part of a livable, resilient city. This plan builds on the plans that have come before it and aims to align closely with other planning initiatives, including the upcoming comprehensive plan, to create synergy across city departments.

The plan frames the open space system as an healthy network that supports climate resilience, biodiversity, equitable access, and high quality of life. During the plan process, several key findings and opportunities were identified:

The City is well served by open space with opportunities to expand access and connect natural resources.

Burlington already contains a substantial share of open space, nearly half of its land area falls under some open- or green-space designation.

However, some neighborhoods have abundant access to parks and nature areas, while others have limited access. Many open areas are also disconnected from one another. The plan underscores the importance of wildlife corridors, riparian buffers, greenbelts, and connected trails as essential to ecological health and public use.

City population growth should be balanced with thoughtful conservation policies.

With increasing development pressure, especially in infill and densification areas, there is heightened tension between protecting open land and meeting

housing, infrastructure, and economic goals. As part of the plan's engagement process, residents raised concerns about losing natural areas, water quality, wildlife habitat, and floodplain functions. Public feedback frequently emphasized the need to balance growth with conservation and employ green design standards.

We need to plan for increasing climate, ecological, and stormwater demands today!

The plan reaffirms that nature-based solutions like forest and tree canopy management, wetland protection, and urban greening, will play an important role in Burlington's climate resilience strategy.

Many open spaces double as stormwater buffers, floodplains, or carbon sinks. Managing these places that provide multiple benefits is critical in adapting to increasing rainfall, heat, and ecological stress.

This plan is an opportunity to coordinate the many stewards and landowners who contribute to the open space network.

The plan identifies the need for stronger coordination across city departments, clearer roles and funding, and tools to help implement the plan's actions. It emphasizes that conservation cannot rely only on the City and on city regulations, but must take advantage of existing landowners, partners, and engaged stewards.

The Community's vision is at the center of this plan.

The planning process has intentionally reached out and welcomed ideas and worries from the many diverse residents who make up Burlington's community. A recurring theme is that residents value both access to nature (walking, recreation) and preserving "wild" spaces—especially as the city grows.



Plan at a Glance

Nestled on the shores of Lake Champlain at the confluence with the winding Winooski River, Burlington sits at a regionally significant location. Open spaces are at the heart of what makes Burlington special — enabling high quality of life for our community, supporting our city’s economy, growing local food, providing home to local and migrating wildlife, and keeping us cool in a changing climate.

VISION

SEE PAGES 56 - 65

Burlington is a Nature-Filled City

with healthy open spaces where wildlife thrive in forests, streams, and the lake; where people enjoy nature’s various offerings and eat what their gardens and farms grow; and **where people and ecosystems flourish together.**



GOALS

GOAL ONE



CONSERVE

Stewarding Burlington’s network of protected lands to support healthy ecosystems and a healthy city

GOAL TWO



CONNECT

Knitting the landscape together through green infrastructure, stewardship, and green design standards

GOAL THREE



EXPERIENCE

Expanding a variety of nature experiences across Burlington

GOAL FOUR



CULTIVATE

Growing sustainable and accessible local food systems that meet community needs



The Open Space Plan provides a roadmap for how to continue to protect the city's open space and urban forest network through a collaborative stewardship approach. Balancing the need to grow with healthy ecosystems is possible with thoughtful planning and collaboration.

STRATEGIES

SEE PAGES 66 - 141

Expand restoration and management city-wide

Support wildlife movement and ecological health

Evolve the Conservation Legacy Fund to be flexible to changing needs

Collaborate to protect open space for future generations

Grow and celebrate nature-based climate solutions

Cultivate an ecosystem of stewardship

Enhance and protect Burlington's urban forest

Encourage new development to incorporate nature-based principles

Increase awareness about Burlington's open spaces

Grow public access to nature-based experiences

Break down barriers to open space access

Cultivate sustainable and resilient agriculture practices

Expand community gardens

Support the cultivation of alternate food sources

IMPLEMENTATION ROADMAP

The open space plan is a collaborative roadmap to stewarding the future of our city's open spaces.

While the focus is on actions the City of Burlington can take, it also offers strategies we all can take to expand stewardship.

The implementation roadmap identifies:

- Implementation Lead
- Key Partners
- Implementation Timeframe







1

Introduction

Burlington wouldn't be Burlington without its open spaces. This plan provides a vision and roadmap for protecting them together now and in the future.

Plan Purpose

The Open Space Plan is a roadmap to guide the City of Burlington and its residents, partners, and collaborators as they work together to grow and steward Burlington’s open spaces now and in the future.

Burlington is a place where open spaces, water, and the built environment are intertwined in a symbiotic relationship that helps to make Burlington the unique place that is it. The conservation of open space and waterways enhances the quality of life for residents and allows for the continued preservation, restoration, and functioning of the natural systems of which we are a part.

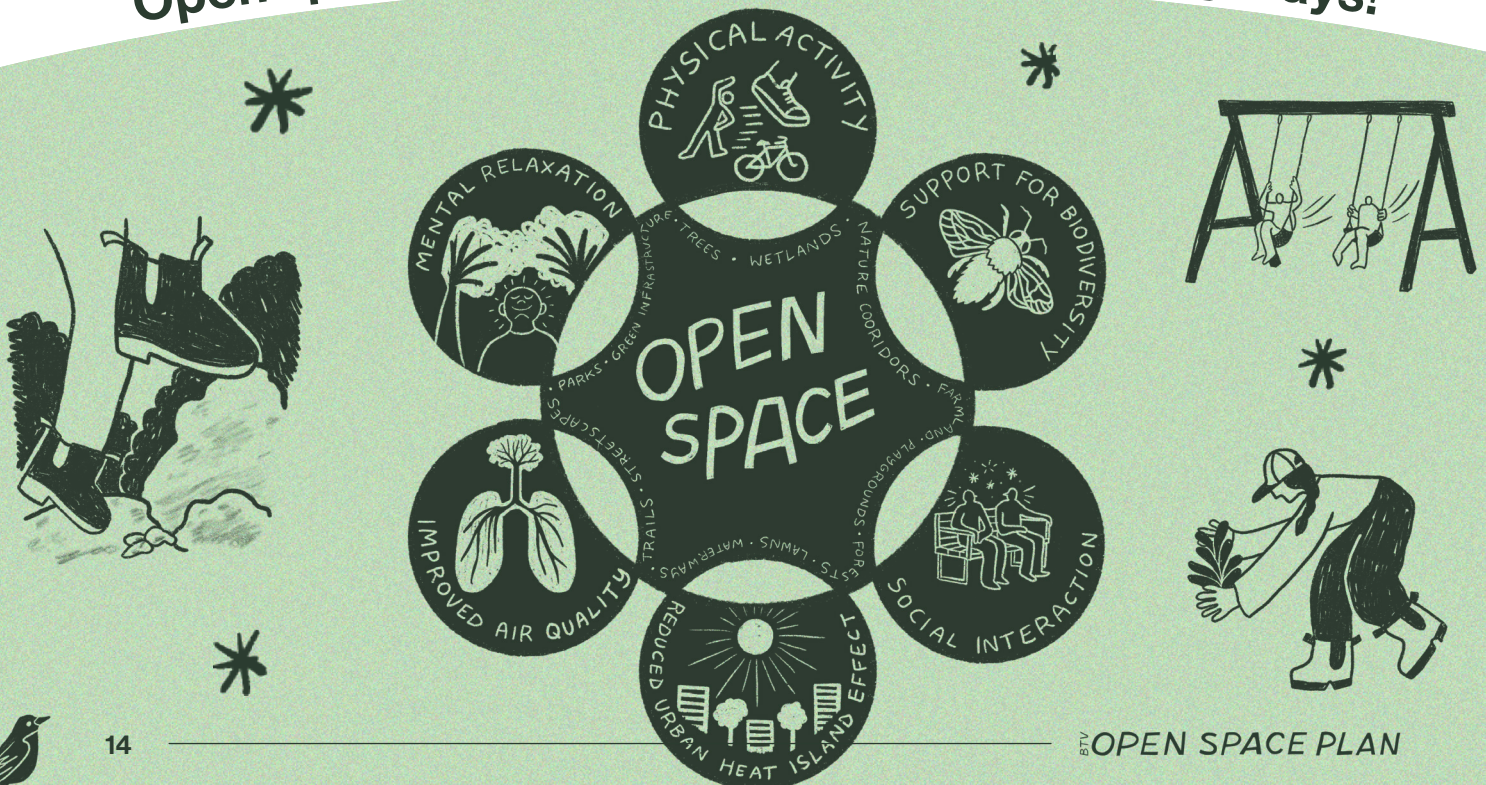
The city benefits from an abundance of open space totaling almost 50% of its geographic area

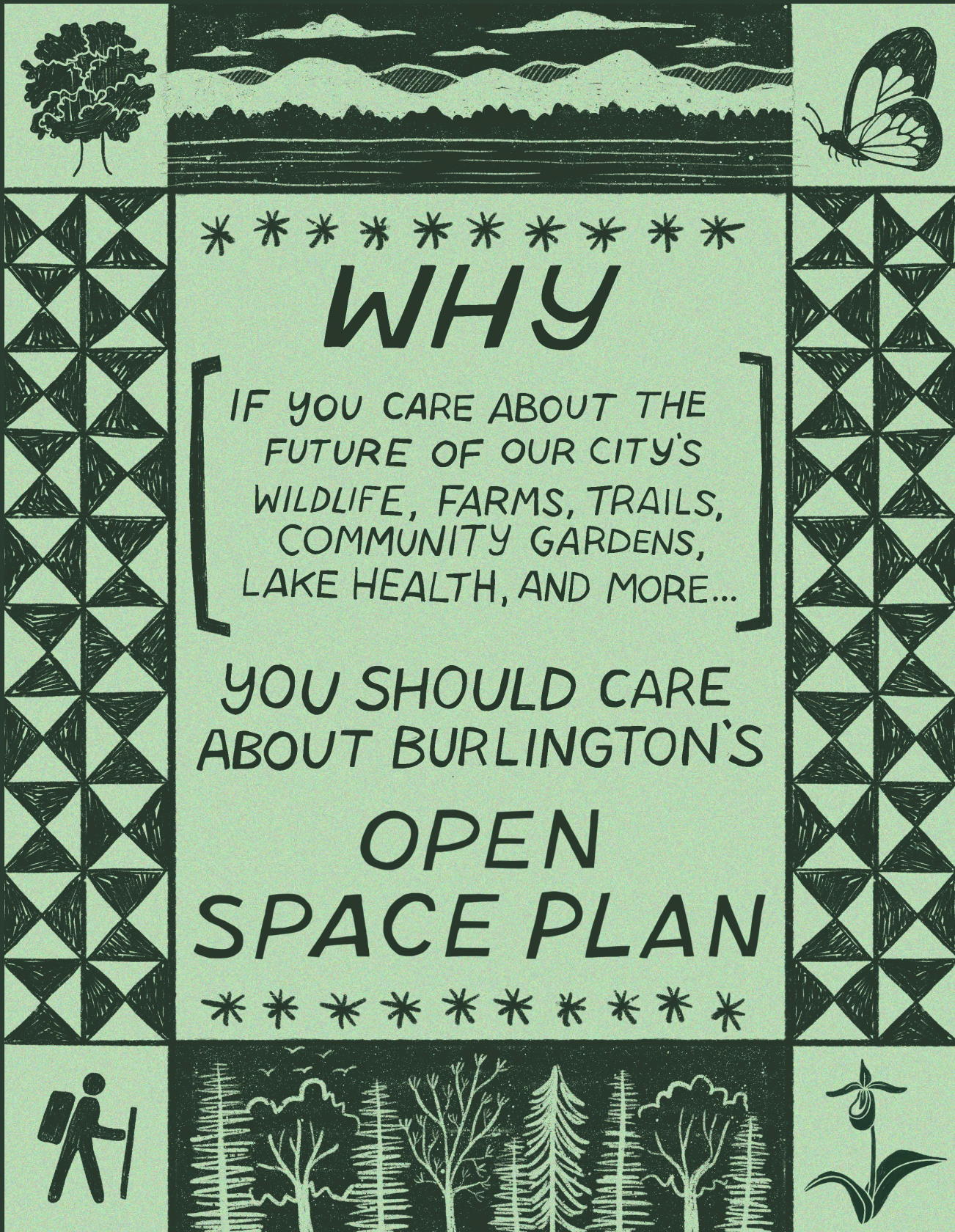
and is naturally bound by Lake Champlain and the Winooski River. The city’s environmental ethic has pushed for preservation, adaptation, and access to its diverse open spaces.

As Burlington continues to intensify in density to accommodate its increasing population, the City aims to continue its long-standing commitment to providing equitable access to quality open spaces and stewarding the health of the city’s ecosystems.

Burlington’s Open Space Plan takes an interdisciplinary approach to documenting the City’s open spaces, updating open space goals, and identifying specific resource targets and timelines through a robust community-focused engagement process. Ultimately, this plan is created to ensure that both the community—those who live, work, and recreate here—and the wildlife and flora will continue to thrive for generations to come.

Open space matters to Burlington in so many ways!





* * * * *

WHY

IF YOU CARE ABOUT THE
FUTURE OF OUR CITY'S
WILDLIFE, FARMS, TRAILS,
COMMUNITY GARDENS,
LAKE HEALTH, AND MORE...

YOU SHOULD CARE
ABOUT BURLINGTON'S

OPEN SPACE PLAN

* * * * *



?

WHAT IS



“Open space” encompasses all the green, outdoor spaces in the city that are important for its ecological health and people’s mental health. It includes natural areas, agricultural lands, parks, greenbelts, rain gardens, pocket parks, and trees, as well as school grounds, campuses, and private yards.

Open spaces are used by people for many reasons, including recreation, play, leisure, and growing food. Environmentally, they’re critical for wildlife and for climate resilience. They also provide residents with a connection to nature. Open spaces include publicly accessible green spaces owned by the City of Burlington, as well as privately owned open spaces. They vary in character, size, and distribution throughout the city. Together, our open spaces create an important network for people, nature, and our city.

Within the city there are...



WORKING LANDS

50
miles of
shoreline



380
acres of
wetlands



**WATERS +
WETLANDS**



14
community
gardens

Scenic Views





OPEN SPACE?

Everyday Nature
Experiences

50%
of the city's
land area is
open space



PARKS



FORESTS

50+
parks and
urban wild
areas

40%
tree
canopy



GREEN
INFRASTRUCTURE



LAWNS+
AUXILIARY
GREEN SPACES

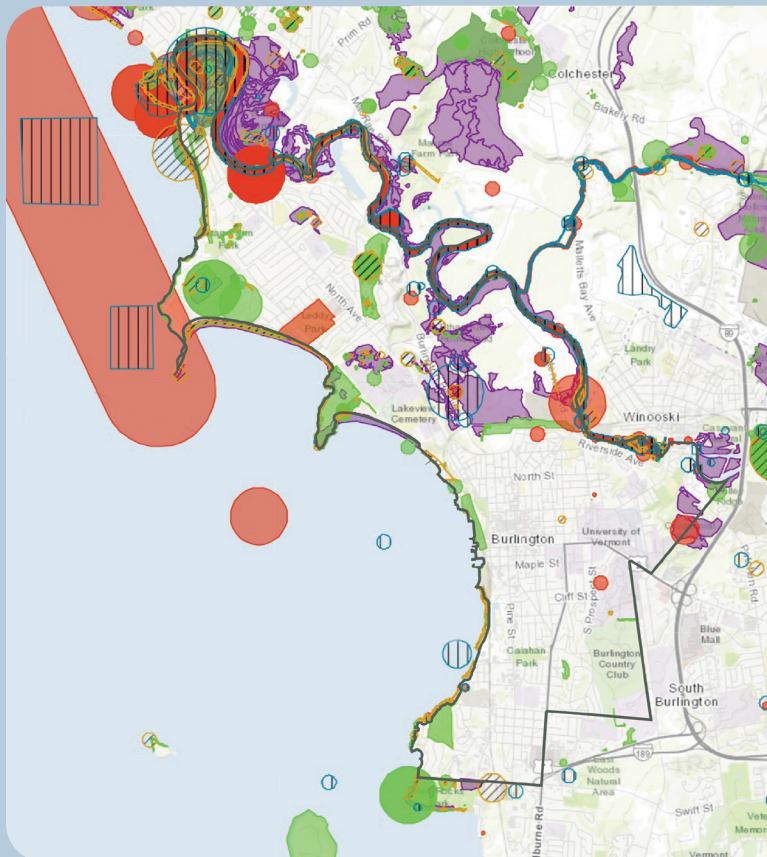




Why does Open Space matter?

Burlington's open spaces play a critical role in regional ecosystems.

At the confluence of the Winooski River Basin and Lake Champlain, Burlington is home to not only 44,000 residents, but also a rich diversity of plants and wildlife species. The City includes plants, animals, and natural communities that are uncommon in Vermont, as well as species classified as rare, threatened, and endangered by the State. Many of these significant natural communities are found along Burlington's waterways, from the shores of Lake Champlain to the Winooski River corridor.



VT Uncommon Species

- Plant
- Animal
- Natural Community

VT Rare, Threatened, and Endangered Species

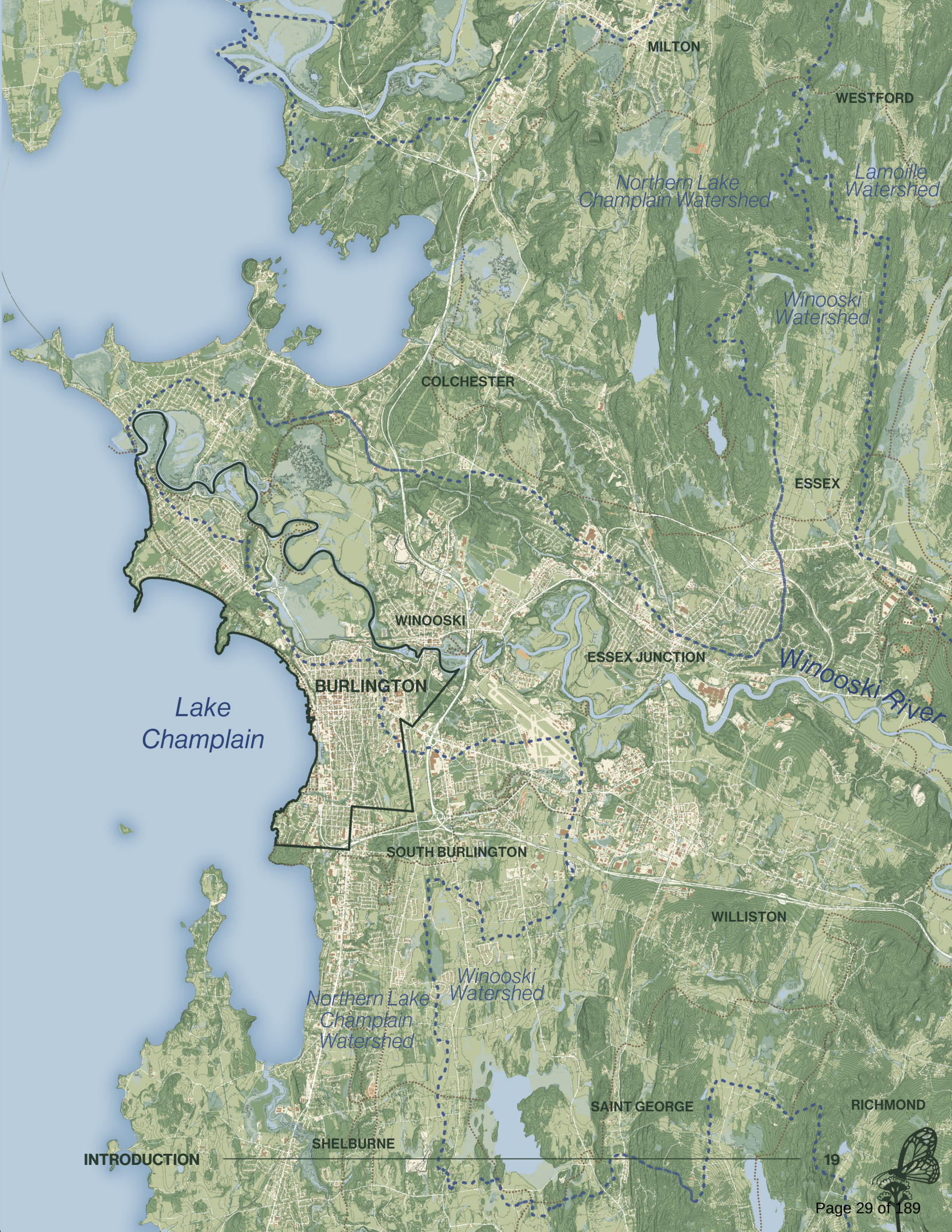
- RTE Animal
- RTE Plant

VT Significant Natural Communities

- VT Significant Natural Communities

VT Natural Resources Atlas





Why does Open Space matter?

Burlington's open spaces act as natural infrastructure for the city.

The city's green spaces are just as important for its function as roads and hard infrastructure, like pipes and power lines. Like other kinds of infrastructure, they keep the city running and thriving. You might not think of a tree as a piece of infrastructure, but it and the other green spaces in our city provide important services like cleaning water, absorbing pollution, and keeping our city cool.

Absorb
Stormwater

Grow
Food

Sequester &
Store Carbon

Cool the
City

Clean
Water

Absorb
Air Pollution



Ecosystem Services



**Open spaces are
increasingly important
as our climate changes.**

**Burlington is the 4th fastest
warming city in the US.**

Burlington's tree canopy and green spaces act as natural air conditioning, keeping our city cool. A shaded house can keep a home's temperature cooler in the summer and with the right tree, can let in more light and heat during the winter. The cooling power of trees is just one example of how they keep our city livable and healthy for all of us. These superpowers will be even more critical as our climate changes. We need our tree canopy and open spaces now more than ever.



Why does Open Space matter?

[illegible]

\$ Supporting Our City's Economy

Open spaces also contribute to our local economy. From direct employment of city staff who care for parks, to saving our city money with the ecosystem services open spaces provide, like reducing local flooding. They also play an important role in our city's economy by driving tourism and supporting outdoor recreation businesses.

**Local
Jobs**

**Spending
by Locals**

**Spending
by Visitors**

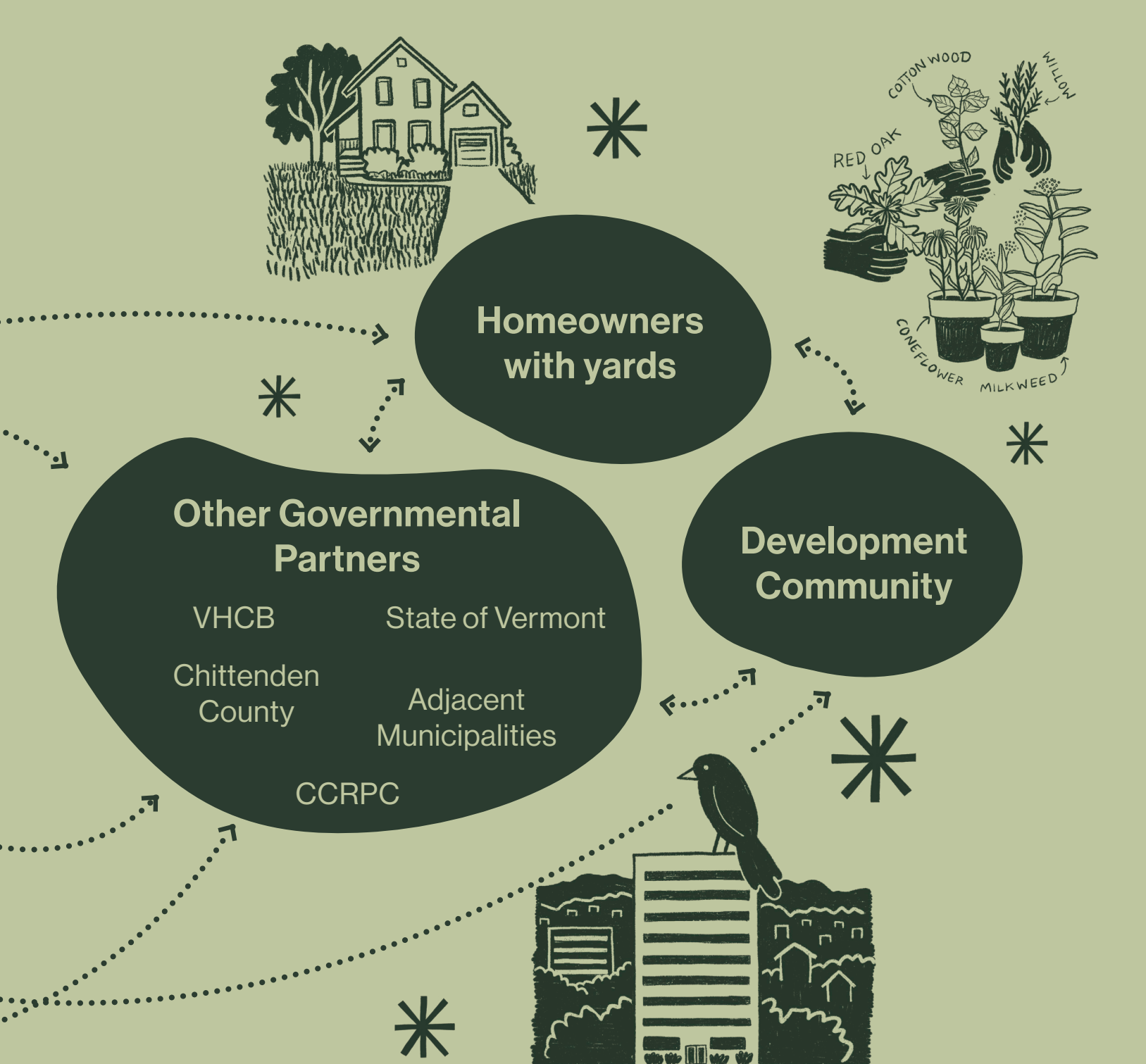
**Local
Businesses**

Ecosystem of Stewardship

We're all partners in the future of Burlington's open spaces.

While this document is primarily a roadmap for the City of Burlington, by working together, we can expand our collective impact. Continuing to steward, protect, and enhance our open spaces depends on all of us. Many of these organizations are regularly collaborating on open space initiatives and knowledge sharing—and many more are not listed. These are but a few of the champions who make a difference in open space stewardship.







Plan Process Overview

The Open Space Plan builds on the decades of open space planning and protection in Burlington.

The Open Space Plan reinforces ongoing commitment to conservation, with a renewed roadmap to guide the next chapter of collaborative stewardship and a policy vision for management and access. As Burlington grows, everyone needs fair access to high-quality open spaces while maintaining the ecological health of existing natural areas. The Plan expands on previous plans by:

- Connecting it with other city plans, like the Urban Forestry Plan.
- Working across City departments to make sure the Plan is visionary and feasible.
- Partnering with private owners who conserve land and expand stewardship to more than City-owned land.
- Finding more ways to not just conserve open space but expand it as well.

The Plan was created over a year across three planning phases with many collaborators and broad public input:

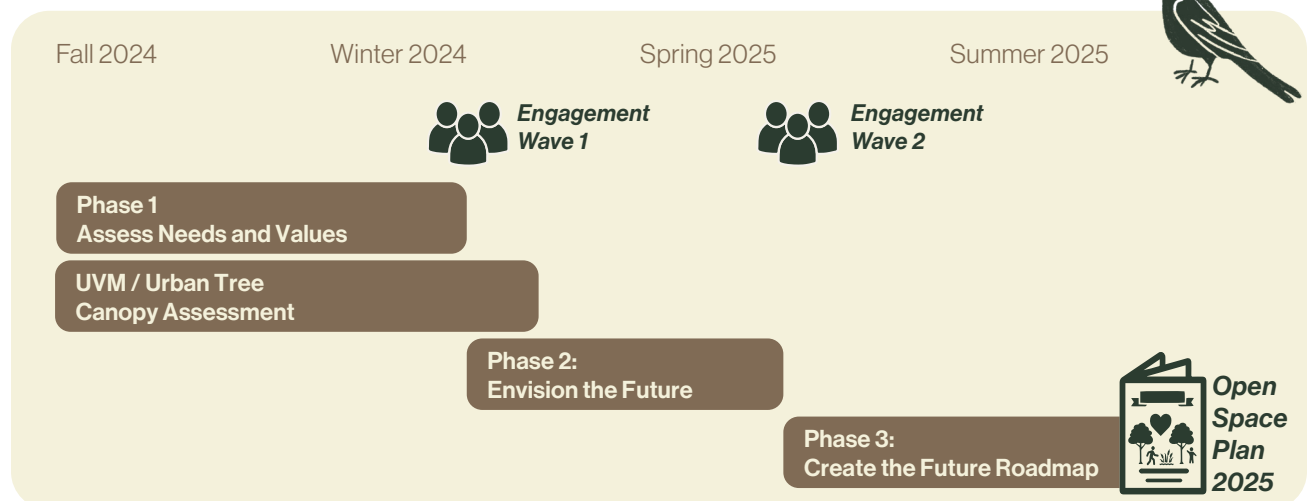
Phase 1: Assess Needs and Values

The first phase centered on understanding the history and current state of Burlington's open spaces. It assessed open space needs and values of the community.

Stakeholder focus groups were held to understand the most prominent issues faced by those whose work centers around open spaces, and the community shared their hopes and concerns for the future at events throughout Winter of 2024/2025.

In tandem, the University of Vermont's Spatial Analysis Lab conducted a Tree Canopy Assessment. The assessment included analysis of the city's land cover and the patterns and distribution of tree canopy changes over ten years (from 2014 to 2023). Findings were shared with the public and are incorporated throughout the Open Space Plan.

Project Schedule

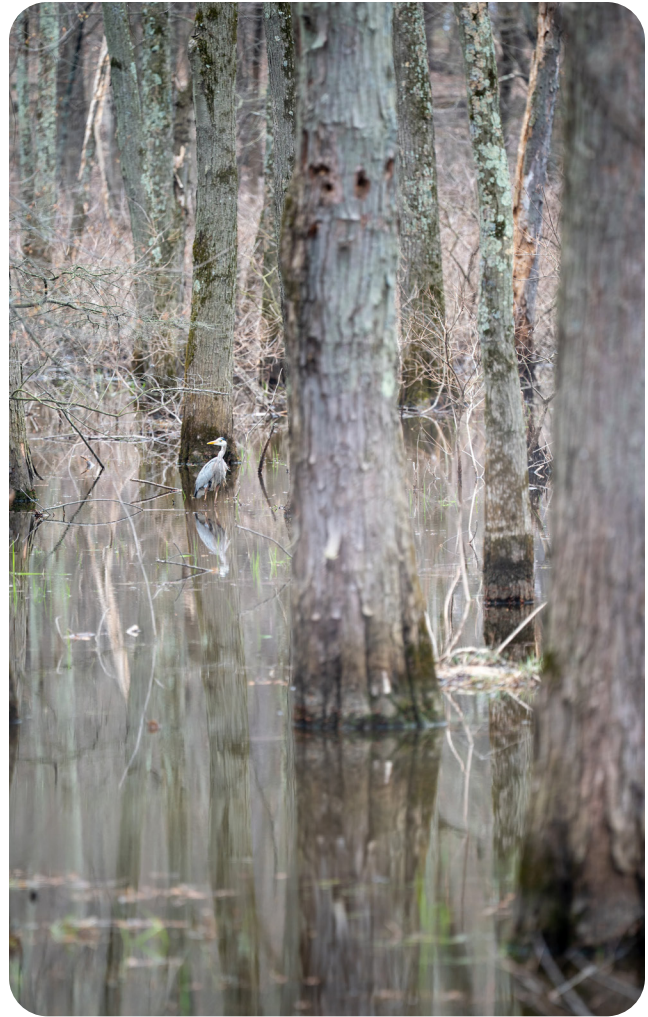


Phase 2: Envision the Future

Building on the community's stories and stakeholder input, the second phase envisioned the future and turned feedback into a draft policy vision with implementation steps. The vision was shared back with the community and stakeholders for input in Spring of 2025.

Phase 3: Create the Future Roadmap

Finally, the last phase created the future roadmap—this plan—that is guided by a vision statement and four key goals that reflect the core planning goals expressed by the community and stakeholders alike.



Role of the Comprehensive Plan

The City is issuing a new comprehensive plan that will integrate municipal, mobility, economic development, and parks planning. Some issues raised during the open space planning process span these other realms and, while important to open space, will be investigated in more depth in the comprehensive plan. These include:

- Strategies for land acquisition for conservation.
- Advanced planning around the unhoused population on City-owned open spaces to ensure ecological integrity and public safety.
- Growing public access to nature-based experiences.
- Strategies for improvements in multi-modal access to the Intervale.



Community Input

“Open Space is for the people of Burlington—present and future.”
- 2000 Open Space Protection Plan

The Burlington community has been an integral collaborator throughout crafting this plan update, from the broad vision to the most specific action. In addition to meetings with the Planning Commission, Conservation Board, Parks Commission, and the City Council’s Parks, Arts, and Culture Committee,

the Open Space Plan project team hosted 24 events across two waves of engagement in 2025: the first in January and February centered around visioning and open space stories, and the second in May and June focused on the plan framework and policy recommendations. In both waves, the project team shared details about the Plan and process to gain informed feedback from residents. Each wave included in-person events and online engagement to reach a broad audience. Some of these events included Winterville, Sea Caves skating, farmers markets, and Beach Bites. A complete list follows on the next page.

All quotes were gathered from the community during engagement events or in surveys.



“Open spaces help build community.”

“Everybody should have access to fresh air and natural spaces!”

24
events across
six months



3
school groups
engaged



“Education of our youth is key—the entire city is a classroom!”



"I love this community and our commitment to open spaces."



125
open space
stories
shared

"Open spaces are free,
beautiful, connected places
to gather and learn."



146 hot dogs
+
28 veggie dogs
served

>20
organizations
connected



12
stakeholder
focus groups

"Green spaces are tied
within the fabric of the
city."



"Create a community and
culture of respect and
reciprocity."



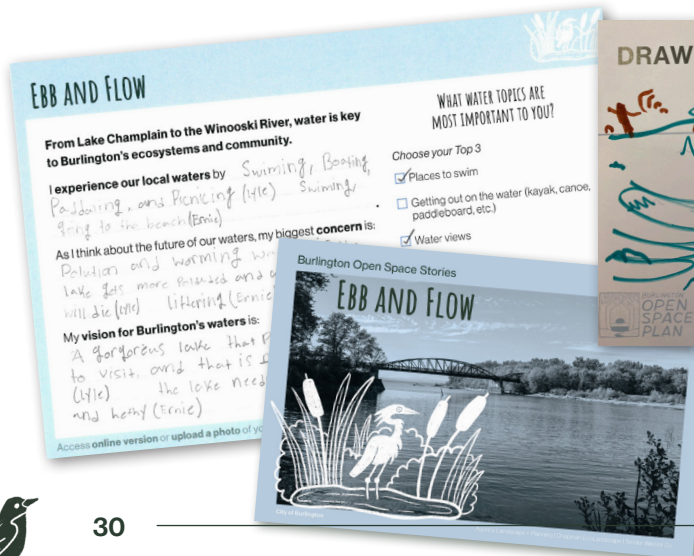
>230
online survey
respondents



Outreach Events

Wave 1: Visioning and Open Space Stories

Date	Event
November 19, 2024	Stakeholder meetings
November 20, 2024	Stakeholder meetings
January 23, 2025	New North End Plan Kickoff
January 24, 2025	Stakeholder make up session
January 25, 2025	Winter Farmers Market
January 25, 2025	Sea Caves skating event
February 7, 2025	Winterlude
February 12, 2025	BHS City Lake Semester
February 18, 2025	Trusted Community Voices
February 12, 2025	Wintervale
March 1, 2205	Library Book Sale
March 3, 2025	Azizza Malik's 5th Grade Class
March 12, 2025	Sarah Brown's 5th Grade Class





Wave 2: Plan Framework and Recommendations

Date

Event

May 13, 2025	Stakeholder meetings
May 14, 2025	Stakeholder meetings
May 14, 2025	Open Space Open House
June 6, 2025	Ward 6 NPA
June 7, 2025	Twilight Block Party
June 12, 2025	Ward 2 NPA
June 14, 2025	Farmers Market
June 17, 2025	ONE Farmers Market
June 19, 2025	Ward 5 NPA
June 25, 2025	Leddy Park Beach Bites
June 25, 2025	Wards 4 & 7 NPA



Community Perspectives on Open Space Opportunities

Hope for the future of Open Spaces

Importance of Burlington's open spaces



- A Ecosystem Services
- B Human Health and Wellbeing
- C Flooding in Food Growing Spaces

Balancing needs for people and nature



- A Open Space is Integral to a Thriving City
- B Connections to Nature
- C Balance Growth and Open Space Preservation

Community Concerns

- A Irregular Quality of Park Spaces
- B Pollution in Open Spaces
- C Flooding in Food Growing Spaces



- A Preserve Open Space While Meeting Housing and Other Needs
- B Maintaining momentum for ongoing care and preservation of open spaces



Feelings and Activities



Peace



Calm



Happy



Energized



Relaxed



Connected



Walk



Swim



Bike



Friends



Boat



Lake

Takeaways from common themes



Burlington's parks and open spaces are intertwined and support healthy air, water, people, and wildlife.



There are pressures from development and housing demands that need to be **balanced with future open space investments.**



Providing a variety of experiences



- A Open Spaces Support Social Interaction
- B Bolster the Local Economy and Make Burlington a Destination

Stewardship and climate resilience



- A Connections to Nature
- B Diverse Experiences
- C Mitigating Climate Change

- A Waitlist for Community Gardens
- B Park Rule Breakers
- C Physical Access for Persons with Disabilities



- A Funding for Maintenance, Conservation, and Protection
- B Impacts of Pollution and Aggressive Introduced Species



Be Active



Be Restful



Be Communal



Connect with Nature; Wildlife Habitat; Recreation; Clean Water and Air; Food Growth; Climate Resilience; Community Character



Natural spaces should be **accessible for all and support a range of experiences** and activities.



Healthy open spaces **connect us to nature and support a climate ready future**, so it is our job to protect and maintain them.



History of Open Space Use and Protection



Burlington has a long history of open space use and protection, stretching back to pre-colonial times and continuing to today. While there were times when forests were cleared and pollution was common, over the past decades Burlingtonians have prioritized the importance of nature is to the city.

A Pre-1700s

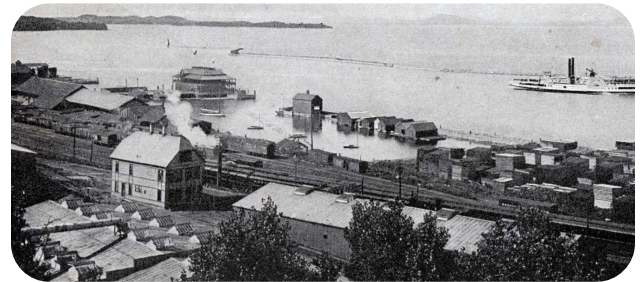


Abenaki couple, 1700s.
Source: City of Montreal

Early Inhabitants

Indigenous Groups: For hundreds of years, the Abenaki people have inhabited and stewarded the land in the northeastern US and Canada. In and around modern-day Burlington, they grew beans, corn, and squash in the rich agricultural soil of the Winooski Floodplain.

B 1700s to 1800s



Burlington's Waterfront, 1800s.
Source: University of Vermont

Resource Extraction

In the mid-1700s, colonists arrived and farmed the floodplain to support their communities. Some forests were cleared for new farmland.

In the 1800s, Burlington became a trading hub. More forests were cleared for lumber, farmland, and grazing land. The waterfront was lined with lumber yards, train companies, power generating plants, and water pumping facilities.



C Early 1900s

Logging in Vermont, 1900s.

Source: VT Dept. of Forests, Parks and Recreation

Industrialization and Ecological Decline

In the early 1900s, the Industrial Revolution ramped up across the US, and factories and coal gas plants popped up across Burlington, including the Barge Canal. Farming in the Intervale declined, and some of Intervale's land became dumping grounds for refuse.

D Mid 1900s



Gardening at the Intervale, 1980s.

Source: Vermont Community Garden Network

Environmental Movement

By the 1970s, the environmental movement was in full swing. Oil tanks on the waterfront were phased out and removed as part of a long-term waterfront plan. Conservation efforts began with the Winooski Valley Park District's acquisition of land and lake shoreline. Tommy Thompson's "Gardens for All" began to reclaim some of the farmland that had previously been lost and set up community gardens.

E 1900s and early 2000s



The Urban Reserve, 1990s.

Source: City of Burlington

Codifying Conservation

In the 1990s, residents called for more conservation efforts to protect natural areas in and around the City. The City purchased 40 acres of land now known as the Urban Reserve.

In the early 2000s, Burlington passed the city's first Open Space Protection Plan, becoming a pioneer among US cities to plan for the future of its green spaces. The Plan included the creation of the Conservation Legacy Fund and was closely followed by the Urban Forestry Master Plan.

F 2020s to today!



Burlington City Hall rain garden, 2020.

Source: Burlington Free Press

Planning for Climate and Equity

2020s: The City shifts open space planning to focus on equity, accessibility, and fighting climate change with "Nature Based Climate Solutions". Burlington recognizes that a thriving human community is necessary to protect existing natural areas, restore ecosystems, and steward natural resources for a green future.

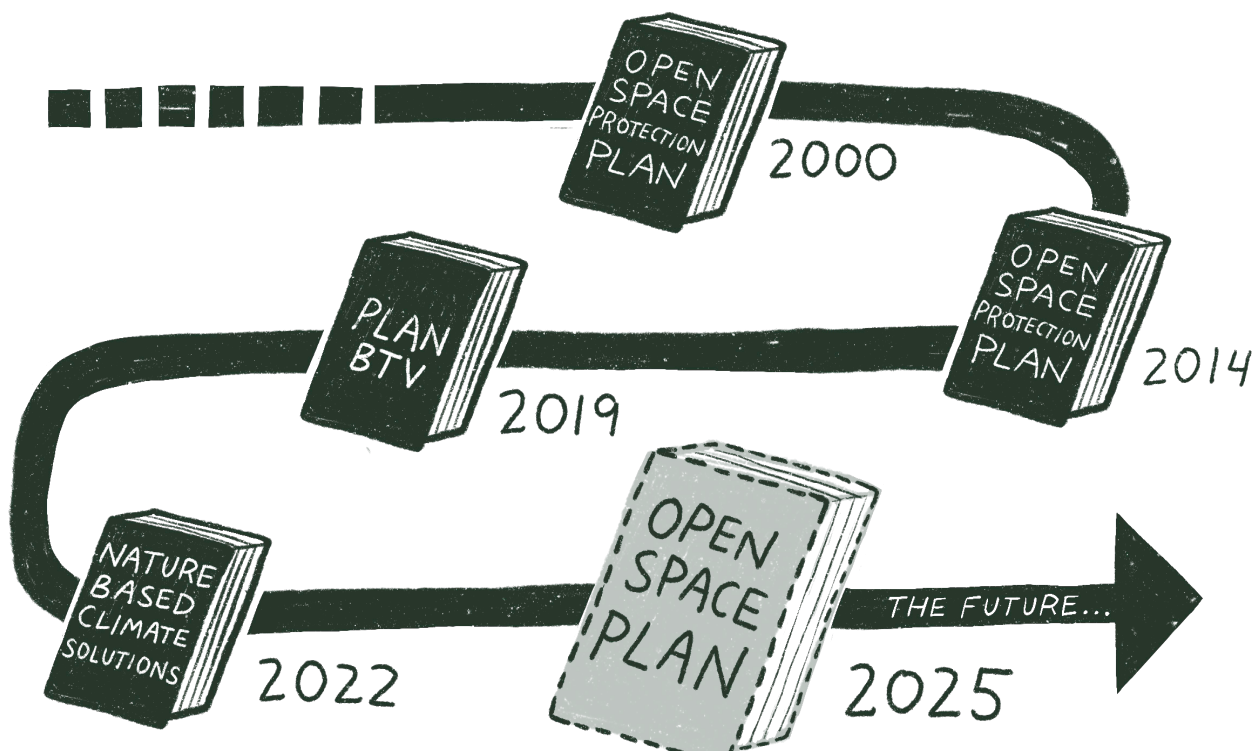


Legacy of Open Space Planning

Burlington's original Open Space Protection Plan was adopted in 2000.

The Plan grew out of a 1997 City Council Resolution calling for the creation of "a plan to protect important natural areas and open spaces" and had a variety of goals related to identifying, protecting, and preserving the City's natural areas and open spaces. The Plan also created the Conservation Legacy Fund, which is still in use today. It was a visionary plan that grew from a long history of open space stewardship in Burlington and laid a foundation for both Burlington and other cities to protect their futures.

The City's 2014 Open Space Protection Plan Update inventoried open space lands and characterized them with respect to natural areas, urban agriculture, parklands, and green infrastructure. The 2014 Plan also assessed the proximity of residents to existing open space



amenities such as community gardens, parks, and the waterfront. The tactical nature and updated goals of the Plan can be used to identify underserved areas of the city and to determine the best places for open space protection and related open space amenities like community gardens and parklands.

Burlington continued to further the goals of the Open Space Protection Plan in 2022 through the adoption of “Nature Based Climate Solutions: An Addendum to the Burlington Open Space Protection Plan”. This addendum was written to further the goals identified in earlier plans, including the Open Space Plan and PlanBTV: Burlington’s Comprehensive Plan, while specifically identifying nature-based solutions that will combat climate change. It focuses on climate change and equity and is built on the inextricable link “that a thriving human community is necessary if we want to ensure thriving ecosystems.”

“Burlington’s citizens, non-profits, and government have a proud tradition of protecting what is important to them and what sets Burlington apart - its sense of place, natural environment, open spaces, and recreational opportunities

As needed growth continues, a comprehensive plan to protect the city’s most vulnerable natural areas and significant open spaces becomes a necessity.”

- 2000 Open Space Protection Plan



* * * * *

Conservation Legacy Fund

In 2002, the City adopted its first Open Space Protection Plan. It was designed to acknowledge and reflect the high value Burlington’s citizens saw in the city’s diverse natural areas—and it put forward strategies to uphold and improve stewardship of these irreplaceable lands and waters.

One of the central recommendations of this plan was the creation of the Conservation Legacy Fund. This recommendation went before the voters in November 2002. The ballot question read:

“Shall the tax rate ceiling in Sec. 99 of the City Charter be amended by increasing it one (1) cent upon the dollar of the property grand list, from 38.88 cents to 39.88 cents, and shall the voters recommend authorizing the appropriation of such increase to be placed in a special revenue account under the name of the Burlington Conservation Legacy Fund, the purpose of which is the purchase and protection of important natural areas and open space.”

The ballot item passed with 70% approval.

This fund was created to:

- **Fund Land Acquisition** and long-term protection of natural areas, open spaces, and greenspaces through acquisition by the City and other interested parties.
- Support **Long-Term Stewardship**, including the development and implementation of management plans, for natural areas and open spaces in the City. Some of these areas were to be permanently managed by the City of Burlington’s Conservation Legacy Program as Urban Wilds.
- Develop and support **Conservation Education Programs** administered under the Burlington Conservation Legacy Program.



Since its inception, the Conservation Legacy Fund has achieved many of the goals set out by the original open space plan. These achievements include:

- Creation and funding of a City Land Steward staff position in 2005.
- Creation of a Conservation Field Coordinator position in 2023, with 50% of the funding for the position coming from the fund.
- \$1.7 million invested in land acquisitions and easement purchases conserving 236 acres at 10 locations in the City.
- \$4.2 million additional dollars raised as matching funds.

In 2022, a Nature-Based Climate Solutions Addendum was added to the Open Space Protection Plan. To address the threat that climate change poses to the health of the city's natural areas and to support the role that ecosystems play in ameliorating the effects of a warming climate, the Addendum identified nature-based goals and strategies aimed at resiliency in a fast-warming world.

To support this work, the Conservation Legacy Fund expanded its purview the same year. A percentage of the Conservation Legacy Fund was made available in 2023 to provide funds for a new annual Conservation Legacy Grant program. The program is competitive and has provided financial support to local climate initiatives including invasive species management, native pollinator habitat restoration, collective gardening, and native tree nurseries. In the first two years of this innovative program, \$332,060 were dispersed in support of seven local nature-based climate solution projects.

The Conservation Legacy Fund has been a noteworthy force in protecting natural areas and keeping the city healthy, ecologically rich, and green.

However, unlike other dedicated city funds, the way this fund was laid out means that it does not grow as the city's grand list grows. Its relative worth declines with every year.

Looking ahead, there is a sustained need within Burlington for the Conservation Legacy Fund to continue to fund land acquisition, conservation education and nature-based climate solutions. But the fund also needs to be broadened to support conservation infrastructure within the city's green spaces. Community assets — such as trails, wetland boardwalks, and improved connectivity for enhanced and managed access to our spaces — are needed, and the Conservation Legacy Fund provides a powerful tool and opportunity to meet these needs.



* * * * *

Growing Open Space and Stewardship

In recent years, the City of Burlington and other partners have continued to expand open space and increase stewardship. Here are a few examples...



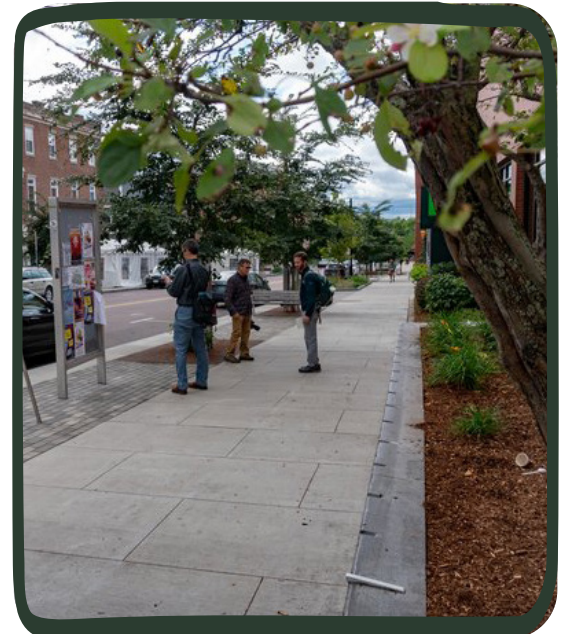
Northbend Orchard on Manhattan Drive

In 2020, residents on Manhattan Drive petitioned the city to plant fruit trees and move boulders to bring more life into a roadside grassy median. It was converted from a space with no ecological or community purpose to a no-mow zone that reestablishes habitat, attracts pollinators, and increases tree canopy.



St. Paul Street Green Infrastructure

As part of the Great Streets Initiative, St. Paul Street saw a major overhaul in 2018 that combined pedestrian-bicyclist initiatives with green stormwater infrastructure. Corner bumpouts made intersections shorter and more visible for pedestrians and widened sidewalks became more comfortable while rain gardens, permeable pavers, and soil cells guide runoff to flow into the stormwater system.





Conservation Legacy Grants

The Conservation Legacy Grant is an annual grant program to grow Nature-Based Climate Solutions in Burlington. Since its inception, grants have been awarded to individuals and groups to complete projects in the city that address strategies and actions identified in the Addendum's Implementation Matrix for at least two of the Addendum's six core principles.



Grow Wild Native Plant Giveaway

Grow Wild—a part of Burlington Wildways—has now run its third annual native plant giveaway in collaboration with the University of Vermont. The program gave away over 1,300 seedlings in 2025. Planting native plants to enhance native pollinator and insect diversity is a nature-based solution that can strengthen the local environment and help mitigate effects of climate change.



Burlington City and Lake Semester

Run out of Burlington High School, the Burlington City and Lake Semester program treats the city as its classroom to “explor[e] the people, places, problems and possibilities of our community.” Its curriculum covers a wide breadth of topics. Those pertaining to open space have included native species restoration, climate resilience tree-planting with Burlington Parks, Recreation and Waterfront Department, and restoring reptile habitat at Delta Park.





A photograph of a natural open space, likely a beach or shoreline. In the foreground, there is a large, weathered log (driftwood) lying on the ground. The ground is covered with dry leaves and twigs. In the background, two people are walking along the shore. The background is filled with bare trees, suggesting a late autumn or winter setting. The overall scene is a natural, open space.

2

Burlington's Open Spaces Today

The city has many types of open spaces, from large parks to backyards. Together, these open spaces create networks that support people and wildlife.

* * * * *

What is Open Space?

“Open space” describes areas that are green and have natural elements, like plants and animals.

They are used by people for many reasons, including both active and passive recreation, play, leisure, and growing food. Environmentally, they’re critical for wildlife and for climate resilience. In cities, they provide residents with a connection to nature.

Typically, open spaces in cities are thought of primarily as parks, trails, water bodies, and natural areas. Burlington has an abundance of these that are frequented by residents and visitors alike, from the smallest Smalley Park to the trail-filled and mostly wild Arms Forest. While some cities’ waterfront land is for private use only, much of Burlington’s publicly-accessible open spaces line waterways like Lake Champlain and the Winooski River—evidence of the city historically stewarding open space for public enjoyment and conservation.



A Natural Areas Derway Island, Arms Forest, Rock Point	B Parks Waterfront Park, Calahan Park, Schifilliti Park	C Trails + Greenways Ethan Allen Park, Burlington Greenway	D Water Bodies Lake Champlain, Winooski River, Englesby Brook

There's more to Open Space than we think...

There are lots of other types of green spaces to care and plan for.

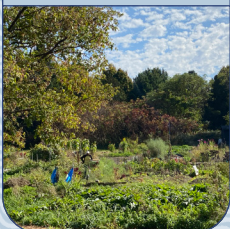
Many other open spaces also contribute to Burlington's open space network, providing home to our city's wildlife and providing ecosystem services that we all benefit from.

Burlington's unique landscape includes working lands (such as the Intervale Center and community gardens), private open space, and other green spaces. Smaller spaces, such as lawns, pocket parks, and green infrastructure, can also be important interstitial pieces of the overall open space network. The ecological and environmental health of our city is not limited to public land. Water flows and wildlife move seamlessly cross parcel boundaries, and 38% of our urban forest sits on private residential parcels. This Plan aims to guide actions by the City of Burlington, while also offering ways other partners and residents can also support open space stewardship.



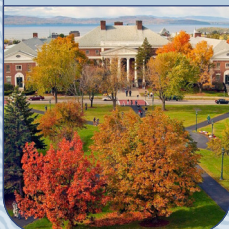
E Working Lands

The Intervale Center, Starr Farm Garden



F Private Open Spaces

University of Vermont, Rock Point



G Other Green Spaces

Yards, pocket parks, green infrastructure





Types of Open Space

Burlington is unique in the rich diversity of its open space. While it has those typically found in urban areas—parks and playgrounds—it also has many natural communities of statewide significance in natural areas like Derway Island and water bodies like Lake Champlain and the Winooski River. Burlington's open space network is not complete without areas that are not typically found in an urban space plan: working lands, private open spaces, and other open spaces. Planning for all types of open space is important to ensure a connected network of open spaces and tree canopy.



Parks

Parks are areas used primarily by people for recreation and gathering. They vary greatly in size: some are many acres large, like Leddy Park, while others are a small patch of grass on a street corner, like Dewey Park. Their amenities also vary greatly: they may include benches, water features, playgrounds, ballfields, and skate parks.



Water Bodies

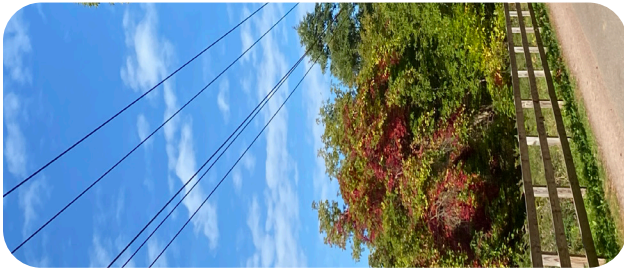
Water bodies include natural or man-made lakes and streams. They form a network of waterways connected to watersheds and the region that serve important ecological functions—including circulating water throughout natural areas and bringing water to wetlands and floodplains. They are also commonly enjoyed recreationally for swimming, kayaking, and other water-based activities.



Natural Areas

Natural areas are lands with outstanding natural resources that function with little maintenance from people. These include forests, wetlands, and wildlife habitats. They may have trails and limited amenities and are generally not intensely managed. In addition to serving ecological functions, they also provide people with direct connections to the natural world. Some natural areas include Derway Island, Arms Forest, Rock Point, and Centennial Woods.





Trails + Greenways

Many natural areas and parks have paths used by people for recreation and mobility. They are paved or unpaved, single or multi-modal, through forests or along the water's edge. The Burlington Greenway is among the most well-known and well-loved multi-use paths in the city, stretching from its entire north-south extent along Lake Champlain. The 127 Bike Path serves a similar function on the eastern edge along the Intervale, and many trails connect between them through open space—including some that are part of Burlington Wildways.



Private Open Spaces

While local governments tend to concentrate open space efforts on public land, there is much privately owned land with green space that can also contribute to the ecological health and even sometimes the recreational experience of the community. Collaboration with landowners and actions by private property owners are critical to supporting the overall health of our city's ecosystems.

Examples: University of Vermont, Rock Point, Burlington Country Club



Working Lands

Working lands are considered lands used by people to grow food, maintain orchards, and raise livestock. They can be for personal or commercial use and span small community gardens to large agricultural plots like the Intervale. Having access to local working lands and their products allows communities to be more self-sustaining, relying less on supply chains for sustenance.



Other Open Spaces

In addition to the previously mentioned types, there are other areas—many small ones—that serve or have the potential to contribute to the open space network throughout the city. They are often overlooked as interstitial spaces but, all together, can contribute positively to open space networks. They can include lawns, pocket parks, green infrastructure, planted medians, school yards, vacant lots, and cemeteries.



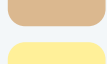
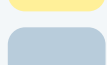
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Open Space Inventory

This map shows the current inventory of open space in Burlington.

It includes the seven types of open space categorized in this plan with the addition of the tree canopy. Shown together, it becomes clear how green the city is. Though not all this land is publicly accessible, we can get a sense of where we can enjoy natural spaces — much of the green space shown is not in an officially designated park, it could be in your backyard.

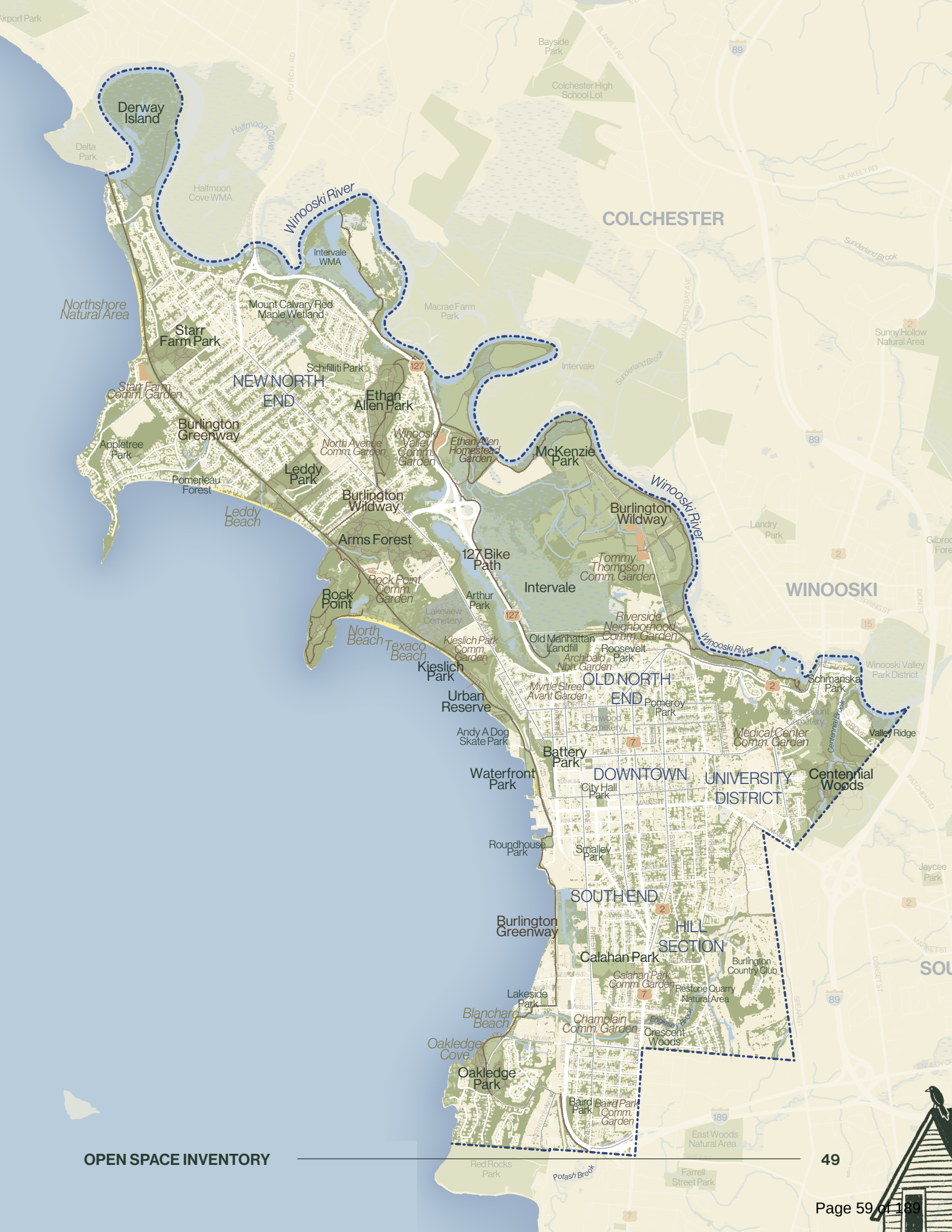
Find your favorite open space and see what else is nearby!

-  Burlington Border
-  Trails & Greenways
-  Bike Infrastructure
-  Tree Canopy
-  Parks & Natural Areas
-  Cemetery*
-  Community Gardens†
-  Beach
-  Water
-  Wetland

* Cemeteries are considered “other open space”, along with lawns, pocket parks, green infrastructure, planted medians, school yards, vacant lots.

† Community gardens are a type of working land. The Intervale, shown on this map as a park or natural area, is the main agricultural working land in Burlington.





* * * * *

Burlington's Natural Communities

The 2014 Open Space Protection Plan identified several natural communities that comprise most of the natural and semi-natural lands (about 67 percent) of the City's 6,775 acres of undeveloped land and water. The communities listed below represent the majority of the naturalized land surface in Burlington's natural areas and parks.



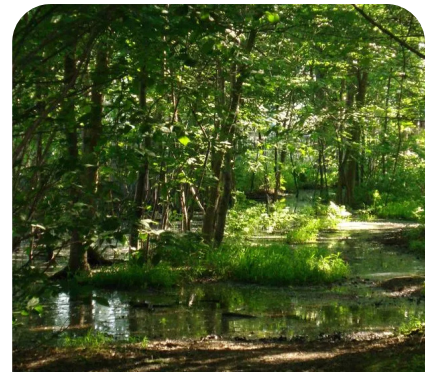
Dry Red Oak-White Pine Forest (Dry Oak-Pine Forest)

Small forests on ridgetops, south to west slopes, with thin soil and rocky outcrops.



Mesic Pine-Oak Sandplain Forest

Small to moderate-sized forests on gentle slopes and level ground in sandy outwash and lakeplain; most extensive upland forest type in City.



Maple-Green Ash Swamp (Red Maple Swamp)

Small to moderate-sized depressions in landscape; high water table; floods in spring.



Silver Maple-Sensitive/Maple-Ostrich Fern Floodplain Forest (Silver Maple Floodplain Forest)

Moderate-sized to large forests in the floodplain of the Winooski River; most extensive forest type in city.



Alder Swamp

Small depressional areas in level to gently sloping landscapes, including floodplains.



Shallow Emergent Marsh **Cattail Marsh** (Emergent Marsh)

Low, permanently inundated areas in floodplains and at edges of lakes and rivers.



Natural Community Types



* * * * *

Dry Red Oak-White Pine Forest

(Dry Oak-Pine Forest)



Main Species

- Red oak
- White pine
- Black oak
- Big-tooth aspen
- Hickory



Soil

Farmington extremely rocky loam; Colton and Stetson sand

Major Issues

- Tree regeneration suppression by common buckthorn, Morrow's honeysuckle
- Managing transition from Norway maple and black locust to diverse canopy

Restoration Priorities

- Ensure native tree canopy replacement by controlling structure-altering aggressive introduced species
- Maintain continuous forest canopy cover
- Manage understory shading to support tree seedlings and native shrubs/herbs
- Reduce edge effects by reversing forest fragmentation



* * * * *

Mesic Pine-Oak Sandplain Forest



Main Species

- White pine, oak (red, white, black)
- American beech
- Ironwood
- Eastern hemlock
- Sugar maple
- Red maple
- Black cherry



Soil

Adams and Windsor loamy sand; Hartland very fine sandy loam

Major Issues

- Tree regeneration suppressed by buckthorn (common, glossy), Morrow's honeysuckle, Norway maple
- Managing transition from single-species pine plantations to diverse forest canopy

Restoration Priorities

- Ensure native tree canopy replacement by controlling structure-altering aggressive introduced species
- Maintain continuous forest canopy cover
- Manage understory shading to support tree seedlings and native shrubs/herbs
- Reduce edge effects by reversing forest fragmentation



Burlington's Natural Communities

Natural Community Types



Maple-Green Ash Swamp

(Red Maple Swamp)



Main Species

- Red maple
- Ash (green, black)
- Oak (black, red)
- Paper birch
- White pine

Major Issues

- Small size invites aggressive introduced species and over-use
- Alteration of groundwater due to surrounding impervious cover and surface drainage
- Colonization by deep-shade-casting trees and shrubs (e.g. sugar/Norway maple; glossy buckthorn)



Soil

Au Gres fine sandy loam (seasonally wet)

Restoration Priorities

- Reduce edge effects by native shrub plantings at margins
- Monitor and manage tree canopy regeneration
- Monitor and manage shrub layer to support native ground layer



Silver Maple-Sensitive Fern Floodplain Forest Silver Maple-Ostrich Fern Floodplain Forest

(Silver Maple Floodplain Forest)



Main Species

- Silver maple
- Box-elder
- Cottonwood
- Green ash

Major Issues

- Many aggressive introduced community-altering plant species due to frequent flooding
- Edge effects in narrow bands of forest



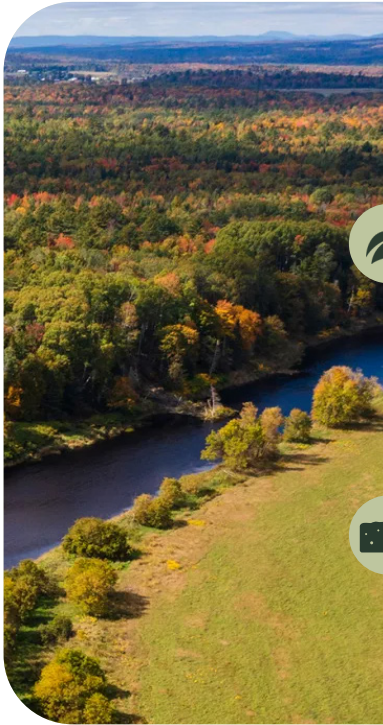
Soil

Limerick silt loam; Winooski very fine sandy loam; Hadley very fine sandy loam—all types are flooded

Restoration Priorities

- Identify most abundant structure-altering species for control
- Focus control on early infestations of these species
- Reduce edge effects by reversing forest fragmentation





Alder Swamp



Main Species

- Speckled alder
- Willow
- Quaking aspen
- Reed canary grass
- Sedges
- Bluejoint reed grass



Soil

Covington silty clay (wet), others

Major Issues

- Reduced plant and pollinator diversity due to local dominance by reed canary grass

Restoration Priorities

- Identify and evaluate candidates for restoration where other plant communities are being restored and managed for the long term



Shallow Emergent Marsh Cattail Marsh

(Emergent Marsh)



Main Species

- Narrow-leaved cattail
- Giant reed
- Reed canary grass
- Bulrushes
- Sedges



Soil

(Unknown)

Major Issues

- Dominance by a few plant species
- Low plant and pollinator diversity

Restoration Priorities

- Identify and evaluate candidates for restoration where other plant communities are being restored and managed for the long term



Urban Forest Snapshot



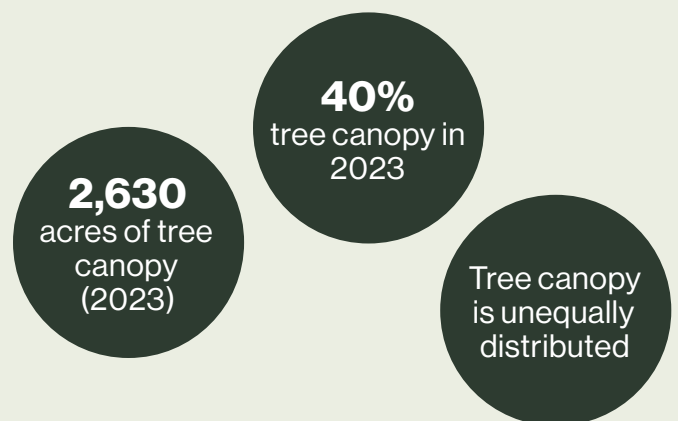
The University of Vermont's Spatial Analysis Lab conducted a Tree Canopy Assessment to detect and analyze changes in the city's tree canopy across a ten-year period, from 2014 to 2023. Using LiDAR data and processes developed by the USDA Forest Service, they found that Burlington has 40% tree canopy coverage—relatively stable since 2014 with a 1.6% decrease in ten years.

The change was not consistent across the city's area: some places lost trees (like parts of the New North End, Downtown, and South End) while others gained (like the University District, Intervale, and Rock Point. Tree canopy change was attributed to a number of factors: some losses were individual tree removals on private yards while others were cleared patches for new construction. Growth of existing tree canopy was the biggest contributor to gains.

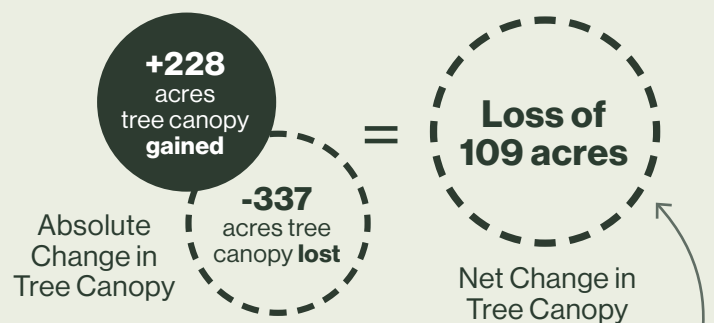
To aid the city in planning how to maintain or grow tree canopy for the next ten years, the assessment also included analyzing land cover to quantify existing tree canopy, possible tree canopy, and land not suitable for trees. Areas with possible tree canopy could be vegetated areas that do not currently have trees, such as grass or shrub area, or paved areas that could be converted to green, such as bare soil or parking lots. 33% of the city's land area falls into this category—though some, like agricultural land in the Intervale, is not culturally suitable for trees. Combined with local knowledge, this assessment can help the city plan for opportunities to increase tree canopy.

Trees in Burlington

111,912+
Individual trees
estimated in 2023



Change in Tree Canopy (2014-2023)



*That's the equivalent of
18 Battery Parks,
15 Sea Cave skating areas, or
1.5 Ethan Allen Parks!*

Urban Tree Canopy Assessment by UVM



Burlington's urban forest includes a mix of larger patches, smaller patches, and isolated trees. There is no ideal patch size — each patch can be evaluated independently for what it contains and protects.



Larger forests like at Rock Point, Arms Forest, and Ethan Allen Park support a range of local and migrating wildlife.

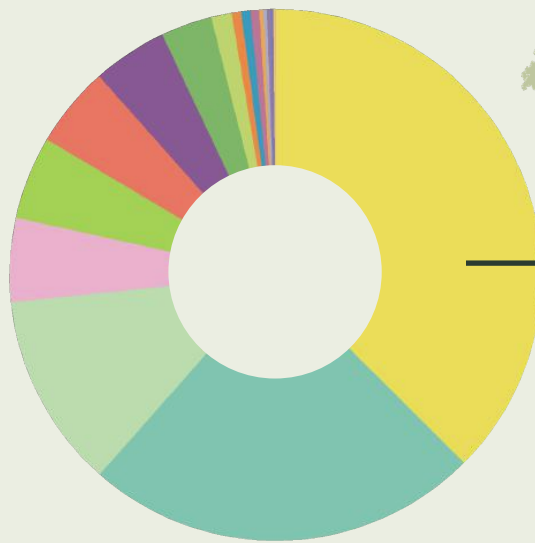


Urban Forest Snapshot

Urban Forest Today

Trees by Land Use

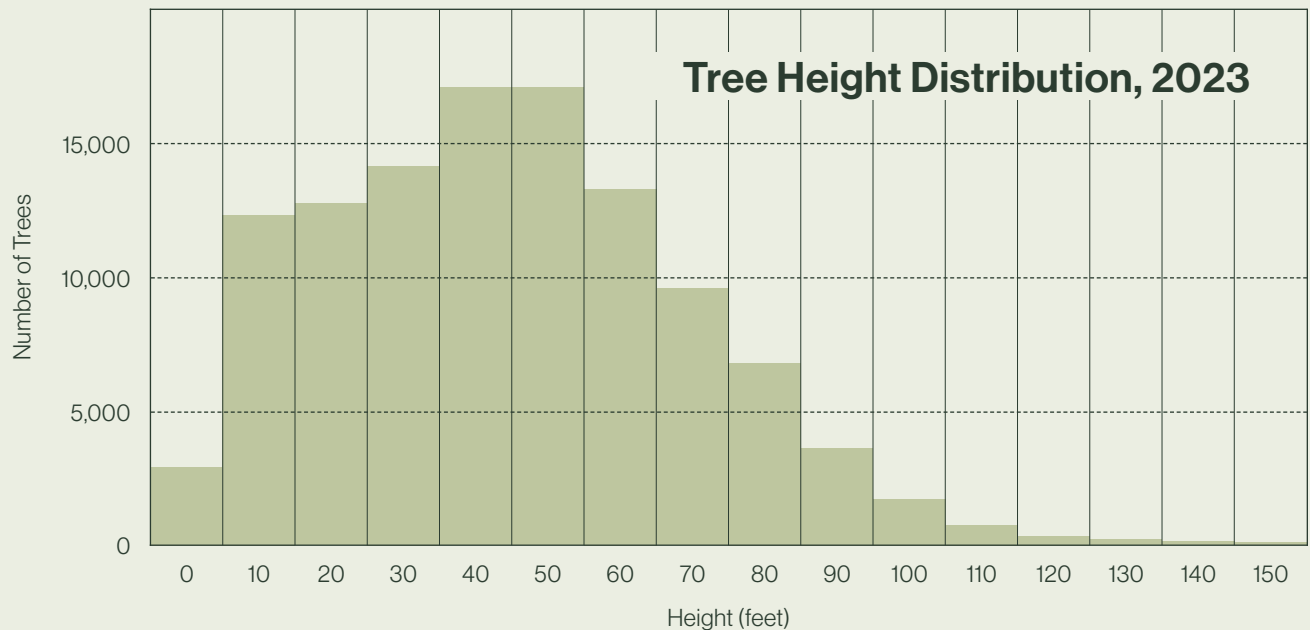
- Parcel Land Use
- City Park
 - City Property
 - Commercial
 - Education - Champlain
 - Education - City Owned
 - Education - Private
 - Education - UVM
 - Farm
 - Farmland
 - Federally Owned
 - Land
 - Mixed Com/Resident
 - ROW - Railroad
 - ROW-Private
 - Religious Institution
 - Residential
 - State Owned
 - Unknown
 - Vacant Land
 - Winooski River



37.5%

of Burlington's tree canopy exists on **residential parcels**.

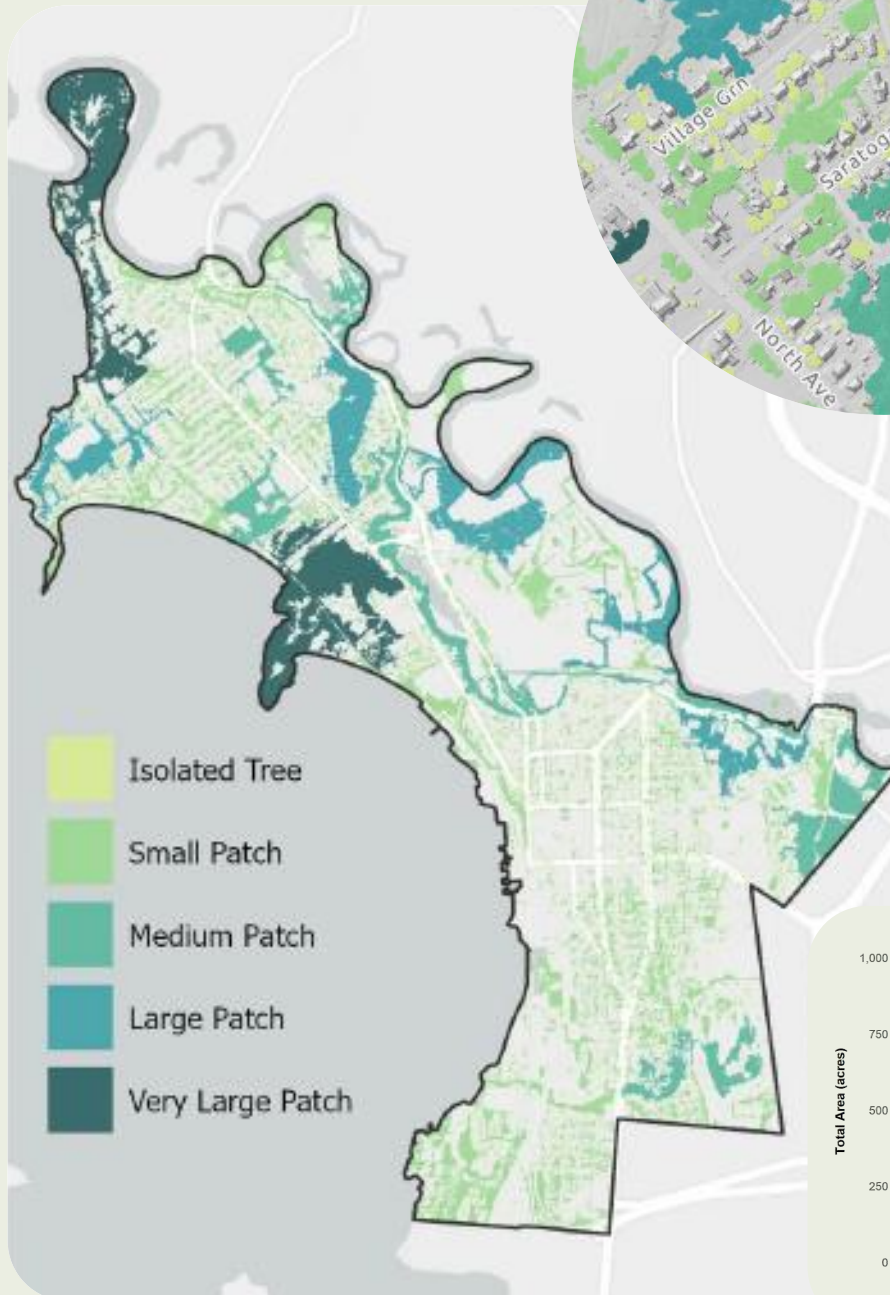
Engaging with land owners will be key to managing the city's tree canopy.



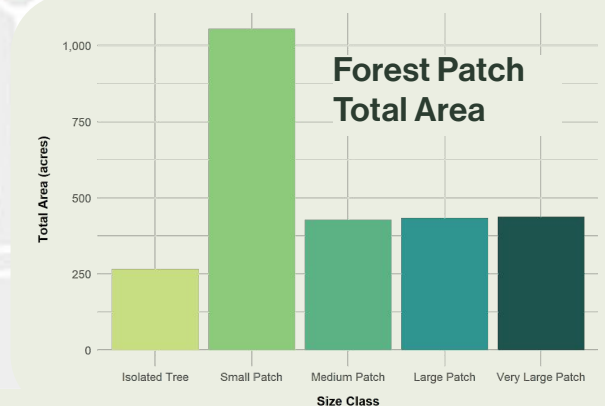
Urban Tree Canopy Assessment by UVM



Forest Patch Sizes



Example close-up of forest patch size classification



Urban Forest Snapshot

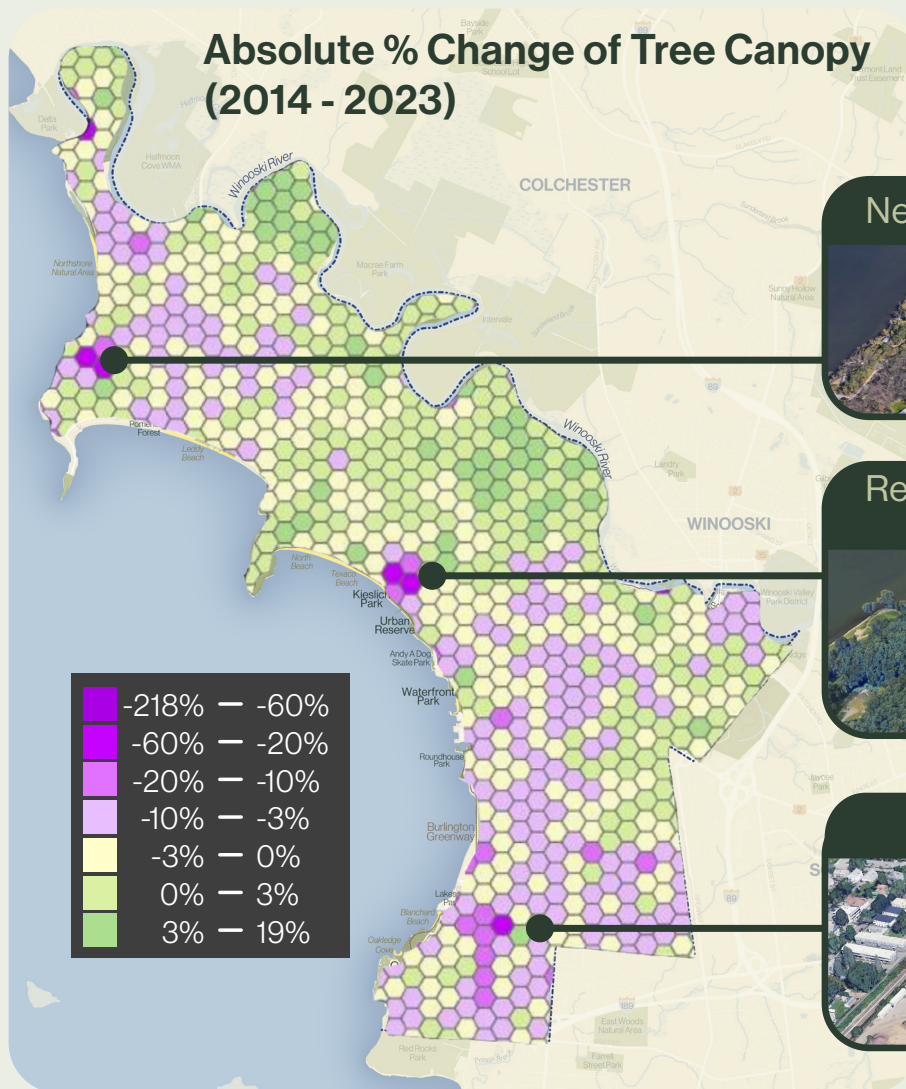
Changes in last 10 years

While there is not one singular goal for the urban forest, strategies can involve considering where tree canopy is below the city's average and target those areas to plant new trees.

Changes from 2014-2023

Burlington has experienced a net decrease in tree canopy over the 2014 to 2023 time period, but the story of change is more nuanced, with a mix of loss and gain. All areas of the city experienced both gains and losses of tree canopy, though some areas saw a net increase and others a net decrease. Removal and die off of mature trees resulted in the

loss of large patches of tree canopy. Mature trees with large crowns contribute substantially to tree canopy and take decades to grow, so their loss creates large, localized declines in tree canopy. Even though there was evidence of tree loss throughout Burlington, planting efforts, preservation programs, and natural growth helped offset losses and stem decline.



Example Areas of Significant Loss

New North End Solar Array



Redevelopment of the former Burlington College

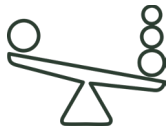


Champlain Parkway



Urban Tree Canopy Assessment by UVM



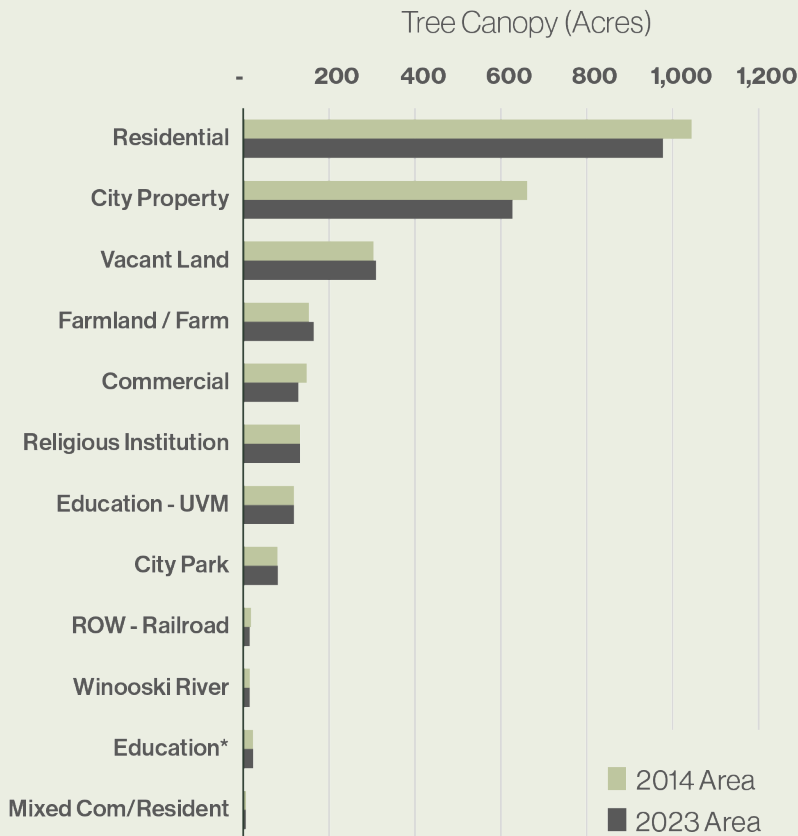


Losses in tree canopy are outpacing gains, resulting in a net decrease in tree canopy. Burlington has experienced 4% relative loss of tree canopy.



Growth of existing tree canopy is the biggest contributor to Burlington's tree canopy gains.

Tree Canopy Change by Land Use



*Includes Private, Champlain, and City-owned

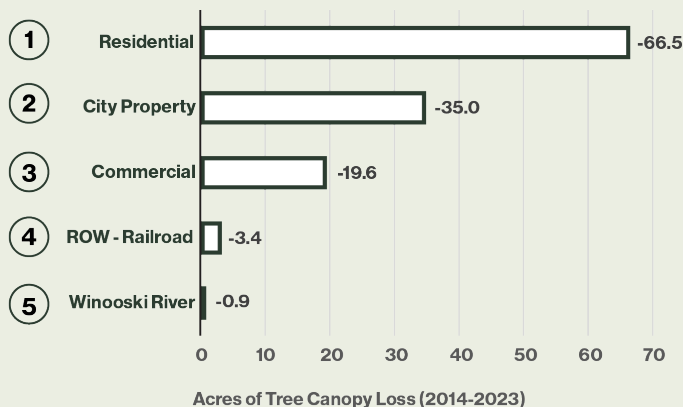
Managing Ash Tree Loss and Planning for a Resilient Urban Canopy

The recent spread of emerald ash borer, which was confirmed in Burlington in July 2024, has led to the removal of ash trees throughout the city. Nearly all ash trees are expected to be affected by the ash borer in the coming years, presenting a significant challenge for the urban forest and forest blocks both large and small.

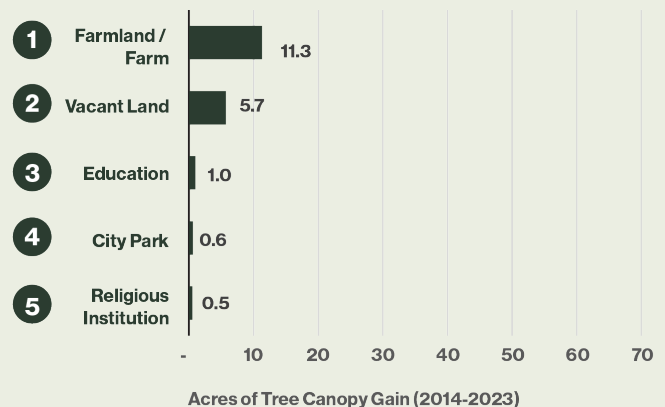
However, in anticipation of this impact, the City initiated an ambitious tree planting program over the past seven years, planting nearly 2,100 new trees across every ward of the city. These plantings were placed in locations with existing ash trees — such as Scarff and Ferguson Avenues, Upper College St., and the Appletree Point neighborhood — in anticipation of canopy loss due to the ash borer.

As more space opens up following ash tree removals, the City will continue to plant a diverse mix of species, aiming to strengthen and sustain a healthier, more resilient urban forest in the future.

Most Tree Canopy Loss



Most Tree Canopy Gain



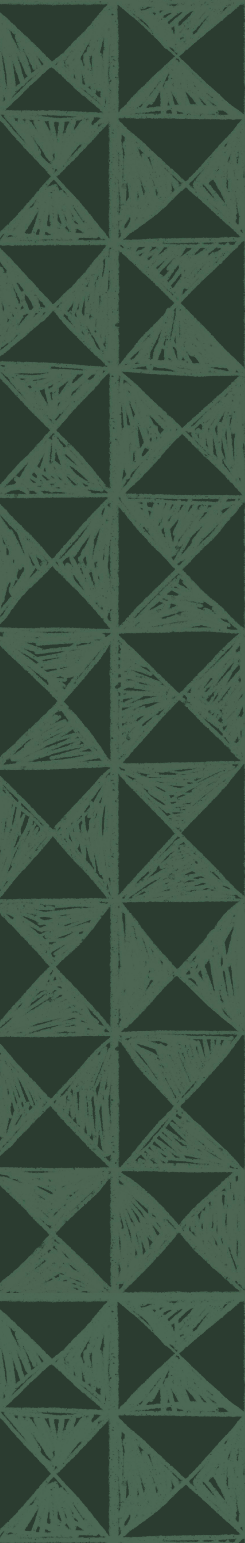




3

Vision and Goals

Building on the original vision from the 2000 Open Space Protection Plan, this chapter reaffirms our city's commitment to stewarding Burlington's open space network and incorporating nature-based climate solutions.



Vision Statement

Burlington is a Nature-Filled City





Healthy open spaces that connect lake to river create a linked network where wildlife thrives. Around every corner, there are a variety of natural experiences that can be enjoyed by residents and visitors alike. Community gardens and urban farms burst with local produce. Burlington's open spaces invite all to explore, play, and grow — **creating a city where people and ecosystems flourish side by side.**



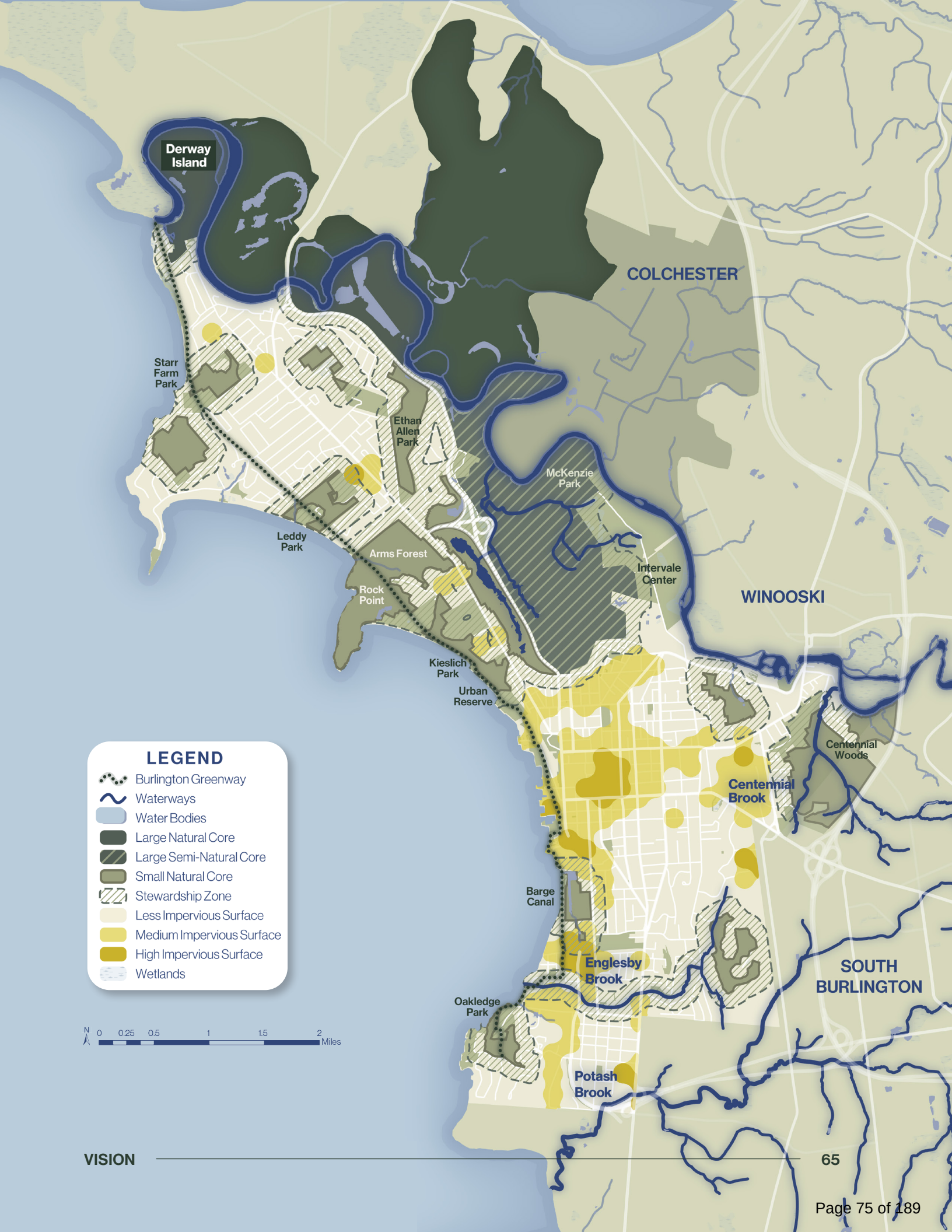
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Healthy Connected Ecosystems Framework

Since the first colonialists arrived in Burlington and settled along the shores of what is now Lake Champlain, the city has undergone significant changes to meet the needs of a growing population and shifting industry demands, and the natural ecosystem and wildlife patterns have been impacted by human activity. To reinvest in the city's open spaces, wildlife health, and human connections to nature, the plan outlines a comprehensive, scientifically based ecological framework. The framework's goal is to be widely accessible and actionable by city staff, advocates, and the broader public.

Burlington's healthy ecosystem framework describes the conditions that enable an ecosystem to maintain its structure, function, and ability to recover from change and development. This includes a foundation of protected core natural areas that are large enough and continuous enough to support wildlife that depend upon large natural areas to live. This framework identifies where to prioritize conservation efforts and sustainable resource management to have the greatest impact. It shows where actions in and near open spaces should be considered with a heightened lens for their open space impacts and stewardship opportunities.





LEGEND

- Burlington Greenway
- Waterways
- Water Bodies
- Large Natural Core
- Large Semi-Natural Core
- Small Natural Core
- Stewardship Zone
- Less Impervious Surface
- Medium Impervious Surface
- High Impervious Surface
- Wetlands

N 0 0.25 0.5 1 1.5 2 Miles

Layers of the Healthy Ecosystems Framework

Core Ecological Areas



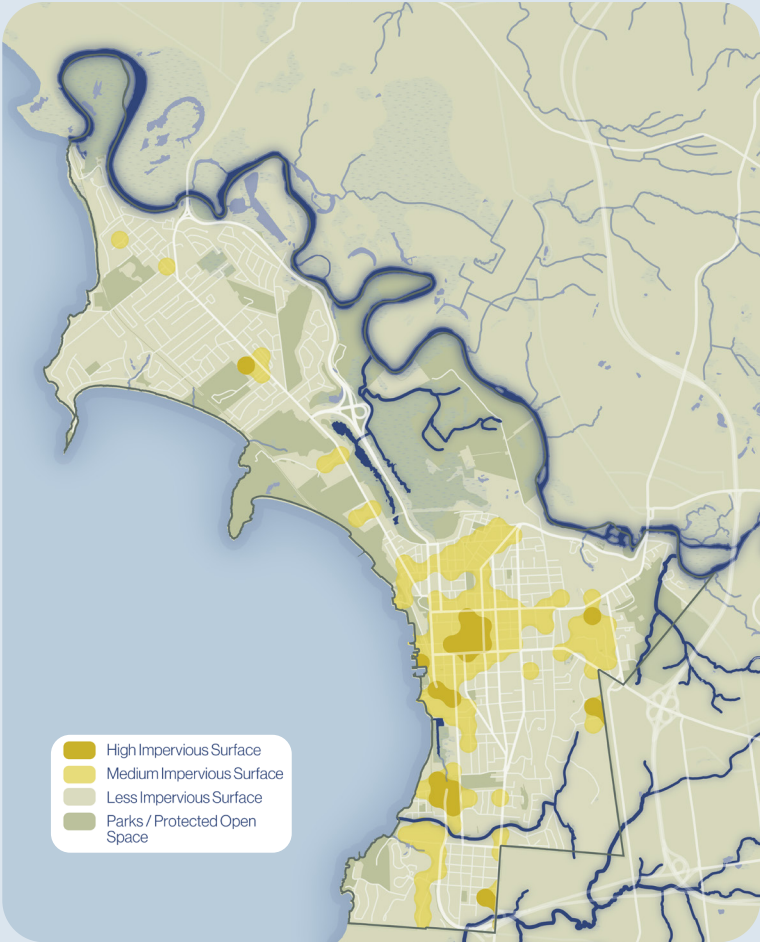
Water, Wetlands, and Floodplains



* see Urban Forest Snapshot, CONSERVE, and CONNECT sections for descriptions of these layers



Impervious Surface Density



Tree Canopy



Goals and Strategies Overview

CONSERVE

Stewarding Burlington's network of protected lands to support healthy ecosystems and a healthy city

- CS1** Expand restoration and management city-wide
- CS2** Support wildlife movement and ecological health
- CS3** Evolve the conservation fund to be flexible to changing needs
- CS4** Collaborate to acquire land to protect open space for future generations



CONNECT

Knitting the landscape together through green infrastructure, stewardship, and green design standards.

- CN1** Grow and celebrate nature-based climate solutions across the city
- CN2** Cultivate an ecosystem of stewardship
- CN3** Enhance and protect Burlington's urban forest
- CN4** Encourage new development to incorporate nature-based principles



EXPERIENCE

Expanding a variety of nature experiences across Burlington

- EX1** Increase awareness about Burlington's open spaces
- EX2** Grow public access to nature-based experiences
- EX3** Break down barriers to open space access



CULTIVATE

Growing sustainable and accessible local food systems that meet community needs

- CL1** Cultivate sustainable and resilient agriculture practices
- CL2** Expand community gardens
- CL3** Support the cultivation of alternate food sources





GOAL ONE

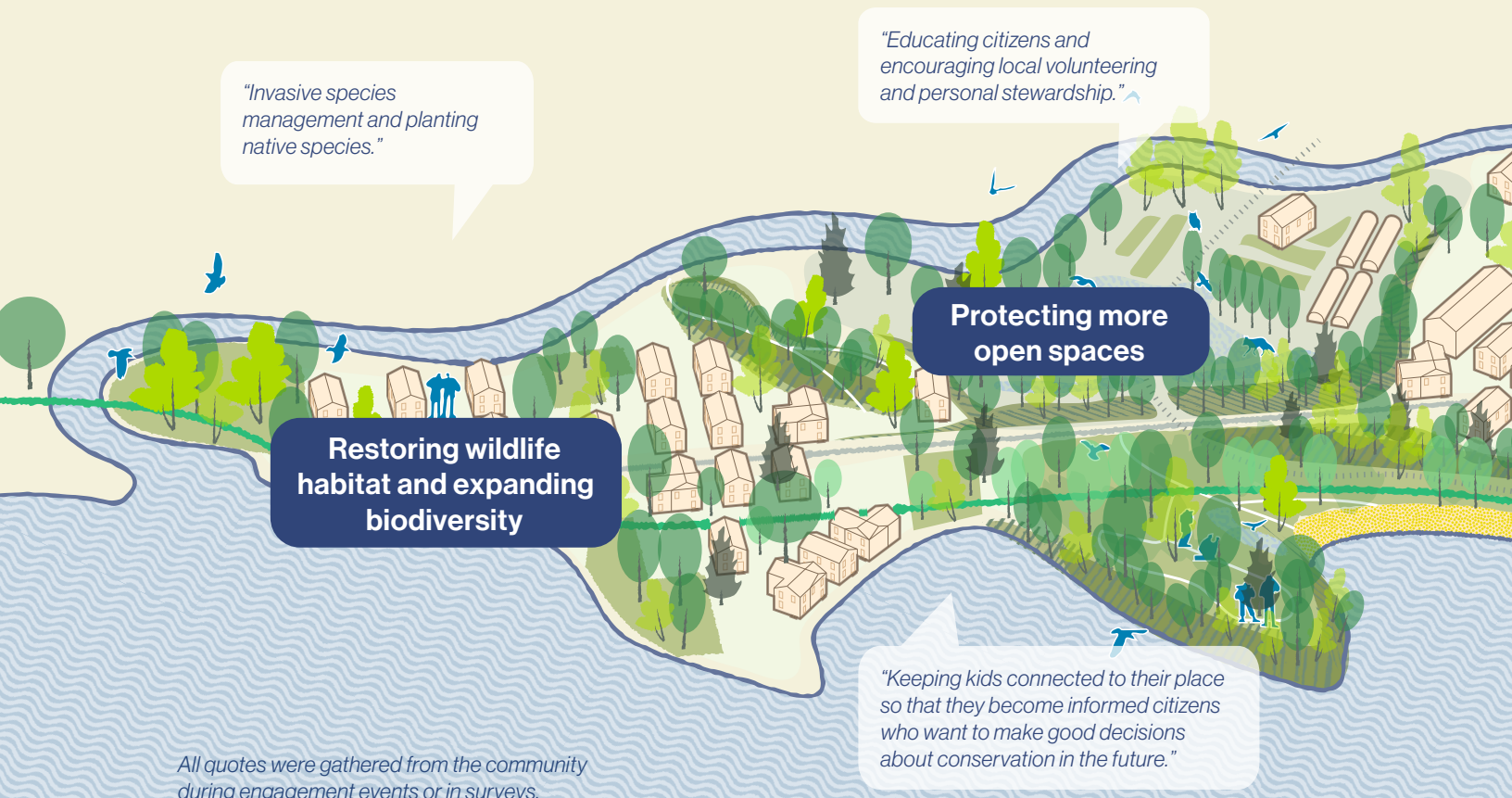
CONSERVE

Stewarding Burlington's network of protected lands to support healthy ecosystems and a healthy city

CONSERVE Overview

Building on a long legacy of open space protection

Burlington's open space network is special because it includes not just urban parks for people to enjoy, but also large natural spaces that are both locally and regionally significant for wildlife and connected to areas outside the city. Expanding on the 2000 Open Space Protection Plan, this update provides a roadmap for ongoing protection, restoration, and management efforts to be undertaken by the city or large land stewards.



CONSERVE Strategies

- CS1** Expand restoration and management city-wide
- CS2** Support wildlife movement and ecological health
- CS3** Evolve the Conservation Legacy Fund to be flexible to changing needs
- CS4** Collaborate to acquire land to protect open space for future generations



"Preserving and protecting ecosystems, restoration of impaired ecosystems, community involvement in natural areas/local ecosystem."

"Focuses in preservation, maintenance and resiliency in the face of climate escalated weather events."

Connections linking open space and natural areas

Improving water quality

"Balancing the human benefits with of these spaces with the ecosystem health."

"Restoration projects to maintain forest health, remove invasive species, increase water quality, help wildlife habitat by increasing corridors etc."

Stewardship of core natural areas

CONSERVE Overview

Burlington's ecosystems depend on healthy waters and a network of ecologically rich preserved lands.

All elements of the natural world are connected. While the relationships that people have with water and land differ vastly, their relationship to each other is inextricable. The flow of water brings nourishment to the land—including through the flooding of floodplains—while runoff from and drainage through land replenishes and enriches the water. Together, they form a network of connected habitats that allow wildlife populations to thrive.

Burlington's abundance of waterways has experienced increasing challenges, including aggressive introduced species and flooding. The CONSERVE goal outlines a framework for shared stewardship to support the long-term health of our city's waters and lands, including through partnerships with "Friends of" groups and conservation districts that may provide technical assistance and funding.

Water, Wetlands, and Floodplains

From urban brooks to the Winooski River to Lake Champlain, water is integral to healthy ecosystems and community life in Burlington. The ecological health of these waterways is largely influenced by actions and land use across their full watersheds, but Burlington and its residents can help by reducing pavement, adding more green spaces, and reducing runoff.



Lake Champlain

Lake Champlain's 12 miles of shoreline on Burlington's western edge is lined with open spaces. Much of Burlington's land area drains directly into the Lake, including via Englesby Brook. Though the lakeshore was once full of industrial plants, it has in many areas returned to a more natural state that many wildlife species call home.



Urban Brooks

A number of brooks flow through Burlington, such as Centennial, Englesby, and Potash Brooks, and flow into the two watersheds the city is part of. In some areas they are surrounded by tree canopy and open space while in others they abut private properties. The ecological health of some brooks have been impaired—there are on-going stewardship efforts and opportunities to manage issues like erosion and aggressive introduced species.



-  Waterways
-  Watershed Boundary
-  Water
-  Floodplains
-  Wetlands
-  Parks / Protected Open Spaces

Winooski Watershed
Northern Lake Champlain Watershed

COLCH

WINOOSKI

Centennial Brook

Barge Canal

Englesby Brook

Potash Brook

SOUTH BURLINGTON



Winooski River

With a total length of 90 miles and a watershed spanning 1,080 square miles, the Winooski River starts in the foothills of the Green Mountains and drains into Lake Champlain. It is a critical part of a riparian system that floods its banks—such as the Intervale—and serves as a wildlife corridor.



Wetlands

Wetlands are rich ecosystems that support a wide variety of species across all seasons. Development pressures and lack of understanding of their ecological functions resulted in widespread wetland drainage throughout the 1800s and 1900s. Burlington currently has 380 acres of protected wetlands.



Core Ecological Lands

Burlington's core ecological lands work together to form a network that supports wildlife, cleans air, and absorbs rainfall. These open spaces vary in size and include a range of landscapes, from forests to fields to semi-natural areas, like the Intervale and Starr Farm.



Large Natural Core

Preserve large areas for ecosystem integrity at scale and support regionally uncommon species.



Large Semi-Natural Core

Preserve large mixed natural, semi-natural, and agriculture landscapes for food production and ecosystem integrity.



Small Natural Core

Larger isolated blocks of forest (some wetlands, grassland, brushland) embedded in urban landscape.



Stewardship Zone

Support neighbors of open spaces to take stewardship actions that reduce the edge effects on nearby core areas.





LEGEND

-  Large Natural Core
-  Large Semi-Natural Core
-  Small Natural Core
-  Stewardship Zone
-  Parks / Protected Open Space

0 0.25 0.5 1 1.5 2 Miles

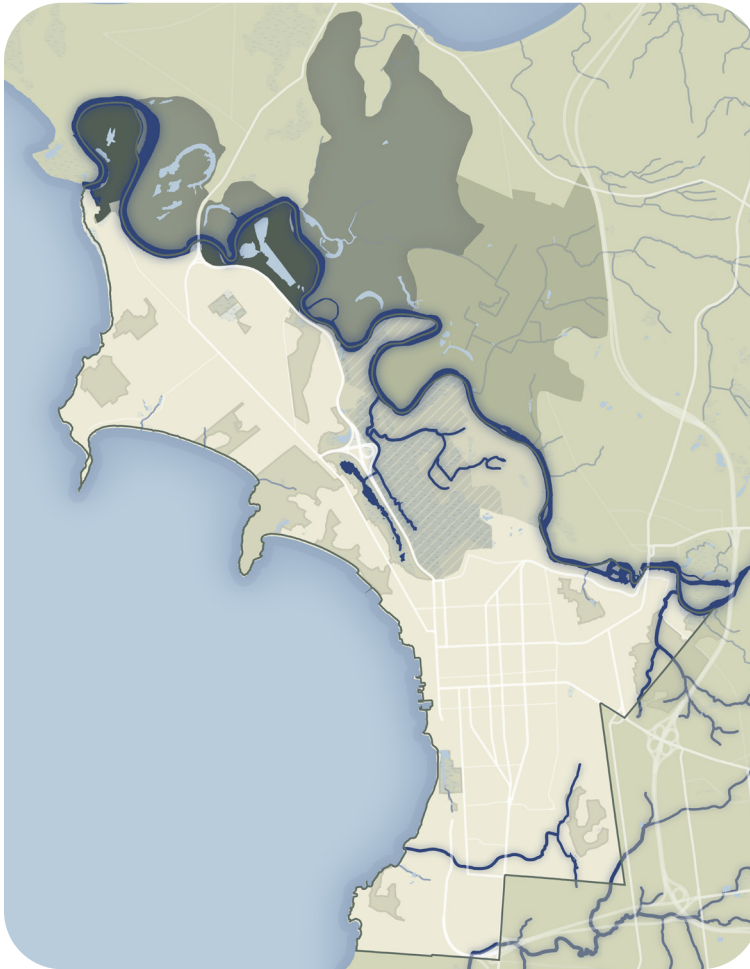
CONSERVE

77



Large Core Areas

Large Natural Core



PURPOSE

Preserve large areas for ecosystem integrity at scale and support regionally uncommon species.

EXISTING PROTECTIONS

Majority of land in large cores is protected public open space (Derway Island, Howe Farm); floodplain, wetland and natural resource ordinances protect most of remainder.

OPPORTUNITIES

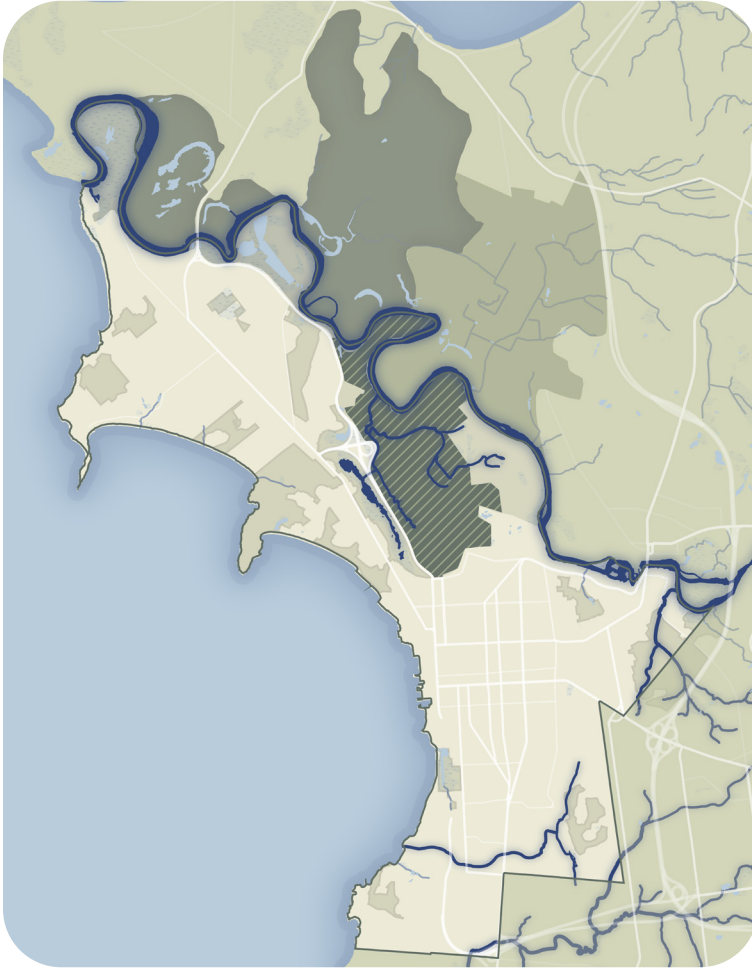
- All combined, over 2000-acre expanse of largely natural land
- Potential habitat for larger or area-sensitive animals (river otter, mink, bobcat)
- Non-public land is largely in state-regulated protected floodplain

BARRIERS TO SUCCESS

- Cross-river collaboration requires working across municipal boundaries
- Challenge of river flooding introducing aggressive introduced plant species
- Edge effects where residences abut natural area



Semi-Natural Agricultural Core



PURPOSE

Preserve large mixed natural, semi-natural, and agriculture landscapes for food production and ecosystem integrity.

EXISTING PROTECTIONS

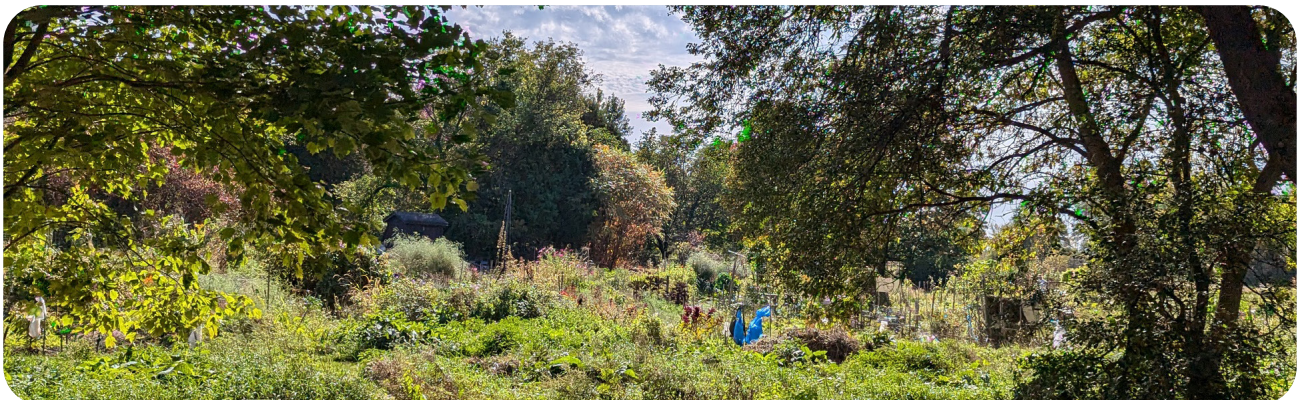
Almost half in Intervale; some in McKenzie Park and McCrae Farm Park. Floodplain, wetland and natural resource ordinances protect much of remainder.

OPPORTUNITIES

- Some 1700 acres of continuous floodplain, wetlands and uplands in a mosaic of natural and agricultural land
- The Intervale Center is integral to City identity and part of core

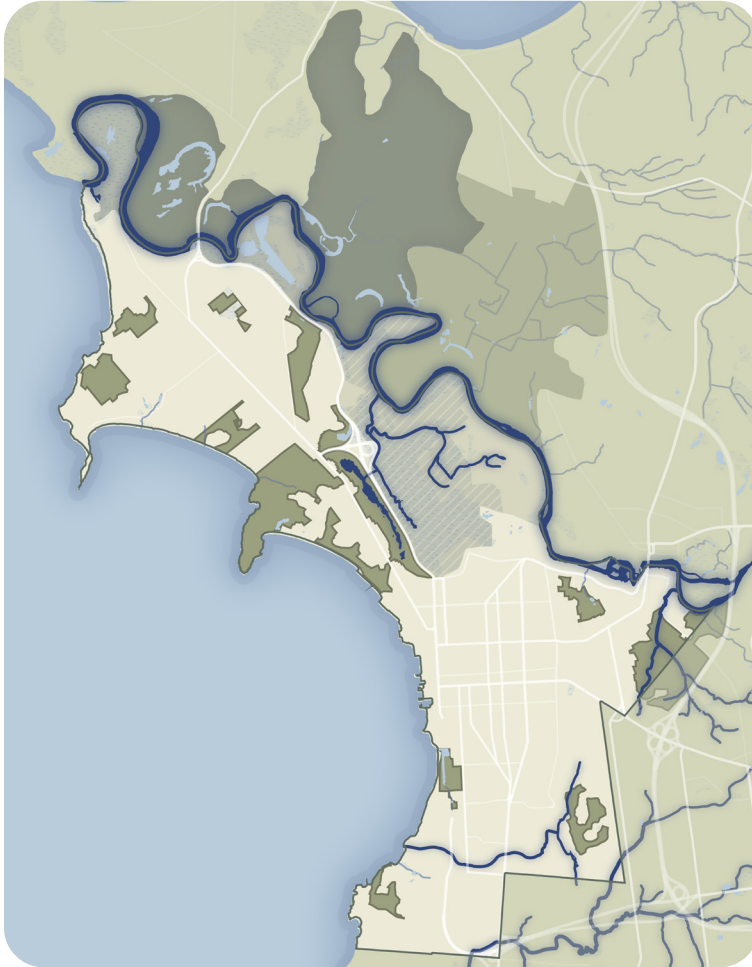
BARRIERS TO SUCCESS

- Challenge of cross-river collaboration
- Challenge of river flooding introducing aggressive introduced plant species
- Edge effects where residences and VT 127 abut natural area
- Reducing fragmentation of floodplain forest requires strategic restoration of agricultural land to forest



Small Core Areas

Small Natural/ Semi-Natural Core



PURPOSE

Larger isolated blocks of forest embedded in urban landscape.

EXISTING PROTECTIONS

Some in parks, or protected by natural resource ordinance, or on institutional land with low prospect for development (e.g., Rock Point).

OPPORTUNITIES

- Continuous forest cover and good tree diversity – less canopy underplanting
- Localized aggressive introduced plant invasions (e.g., knotweed, Norway maple) or light/moderate (e.g., buckthorn, honeysuckle) – forest structure less likely to change if addressed now
- Native groundlayer plants – less need for expensive plantings

BARRIERS TO SUCCESS

- Non-targeted interventions expending resources and patience
- Weak program for ecosystem management
- Long-term stewardship weakly integrated in daily operations



Inventory Process

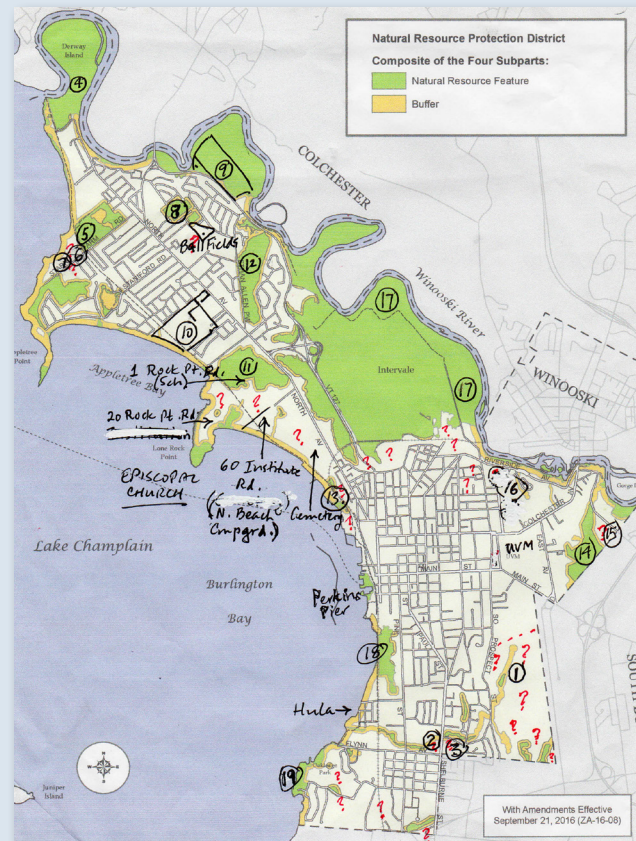
In November 2024, the project team visited 19 sites representing a range of ecosystems in Burlington. The purpose of the site visit was to identify issues affecting ecological integrity, diversity, and resilience in natural and semi-natural lands.

The sites included:

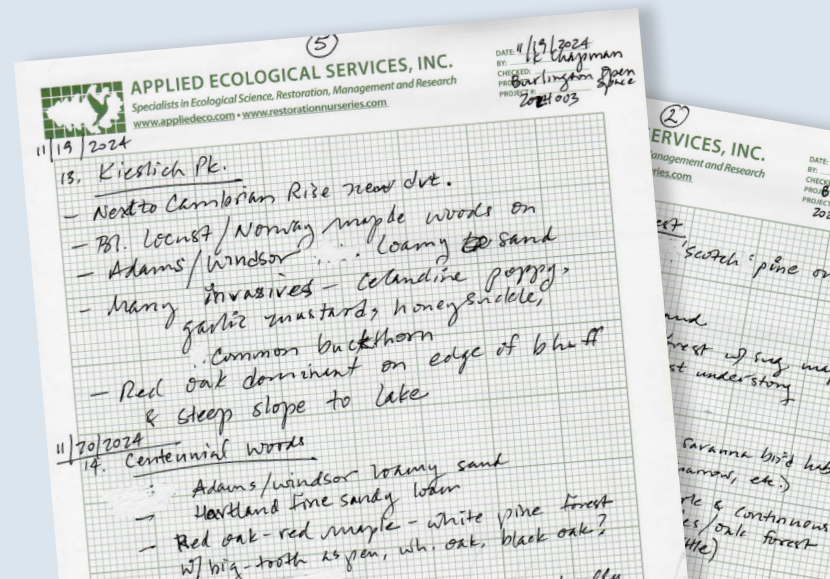
- Large blocks of natural and semi-natural land
- Public parks
- Smaller, interesting natural areas



Sites visited



Example of field notes from site visits



Core Ecological Lands & Water Resources

Why are Lake Champlain, Winooski River, and other water resources not included on the core ecological area maps?

The Open Space Plan focuses on core ecological land areas rather than water bodies, as water constitutes a distinct ecosystem with different management and health considerations. While improving the ecological health of core lands is achievable through targeted management within the area and reducing edge effects in the surrounding 500-600 feet, the management of water bodies is more complex. It requires broader collaboration among multiple property owners across larger areas.

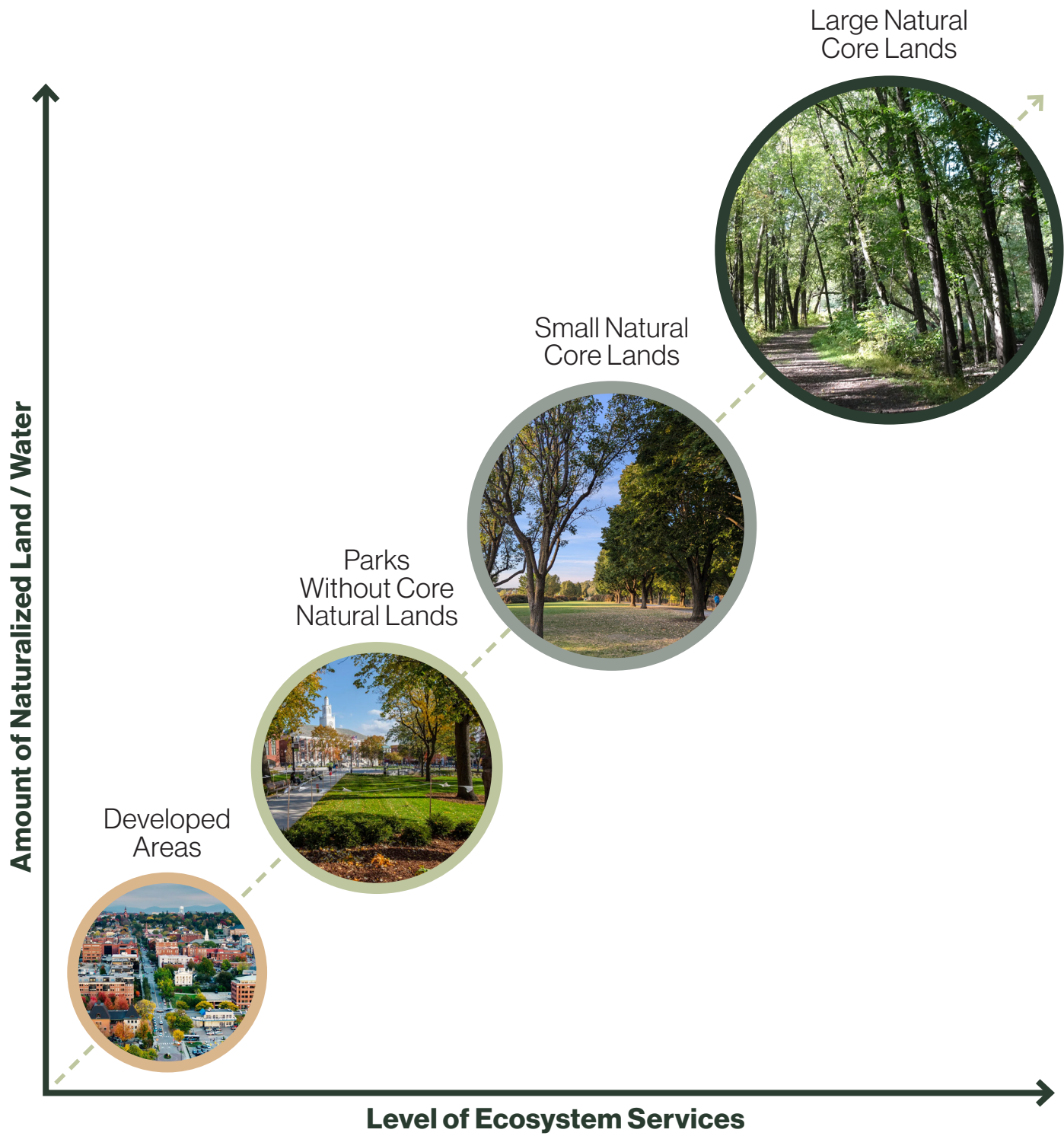
Enhancing the ecological health of water resources depends on watershed-scale action. While this plan does not directly address water bodies, its recommendations—such as expanding tree canopy and promoting green infrastructure—will indirectly benefit local waterways by improving stormwater absorption and filtration. Further study of watershed-scale issues and opportunities could complement the actions outlined in this plan.

Why are some areas of Burlington's parks not shown as core ecological lands?

While all parks provide valuable ecosystem services, such as stormwater absorption and cooling the surrounding area, certain park areas—like parking lots and athletic fields—offer more limited ecological benefits compared to forested or naturalized areas. The core ecological lands map focuses on the most critical places in Burlington for maintaining healthy ecosystems. While parks serve important functions that balance human recreation with ecological needs, not all park areas contribute equally to ecological health.

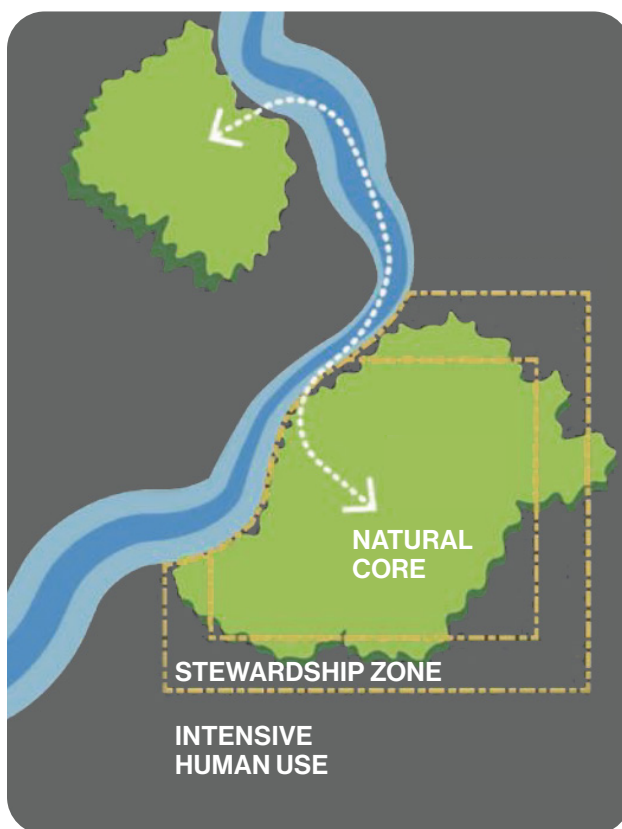
However, there are opportunities to enhance the ecosystem services in non-core park areas. For example, installing solar shade canopies over parking lots or incorporating green stormwater features along their edges can help reduce heat island effects and improve water quality.





Edge Effects and Stewardship Zones

Development affects nearby natural areas, but we can accommodate growth while strengthening the network of green spaces.



Purpose of Conservation

When thinking of conservation, we take an ecological point of view and envision how to keep the nature we love and avoid damaging it in the future. We think first of the species we'd like our great-grandchildren to see a hundred years from now. These are the common plants, like oaks and pines, and uncommon plants, like orchids and spring wildflowers. Along with these are fungi and soil organisms. Then we turn to generalist wildlife, such as robins, goldfinches, crows, deer, raccoons, foxes, white-footed mice, American toads, garter snakes, bluegills and the fish we usually catch. We also think of habitat specialists and area-sensitive wildlife, like big carnivores and the many warblers and migratory birds that travel thousands of miles to breed here. Lastly, we think of the common and rare insects, many of them pollinators of wildflowers, orchard trees, and crop plants.

The common plants and wildlife can tolerate and even thrive in cities, towns, and rural lands. They are not the focus of conservation because their populations are usually stable or increasing.

Core/Interior Habitats and Edge Habitats

SOURCE: Bentrup, 2008

■ Edge Habitat
■ Interior Habitat

Edge width based on 150 ft



100 acre
27% Edge
73% Interior



10 acre
68% Edge
32% Interior



1 acre
100% Edge
0% Interior

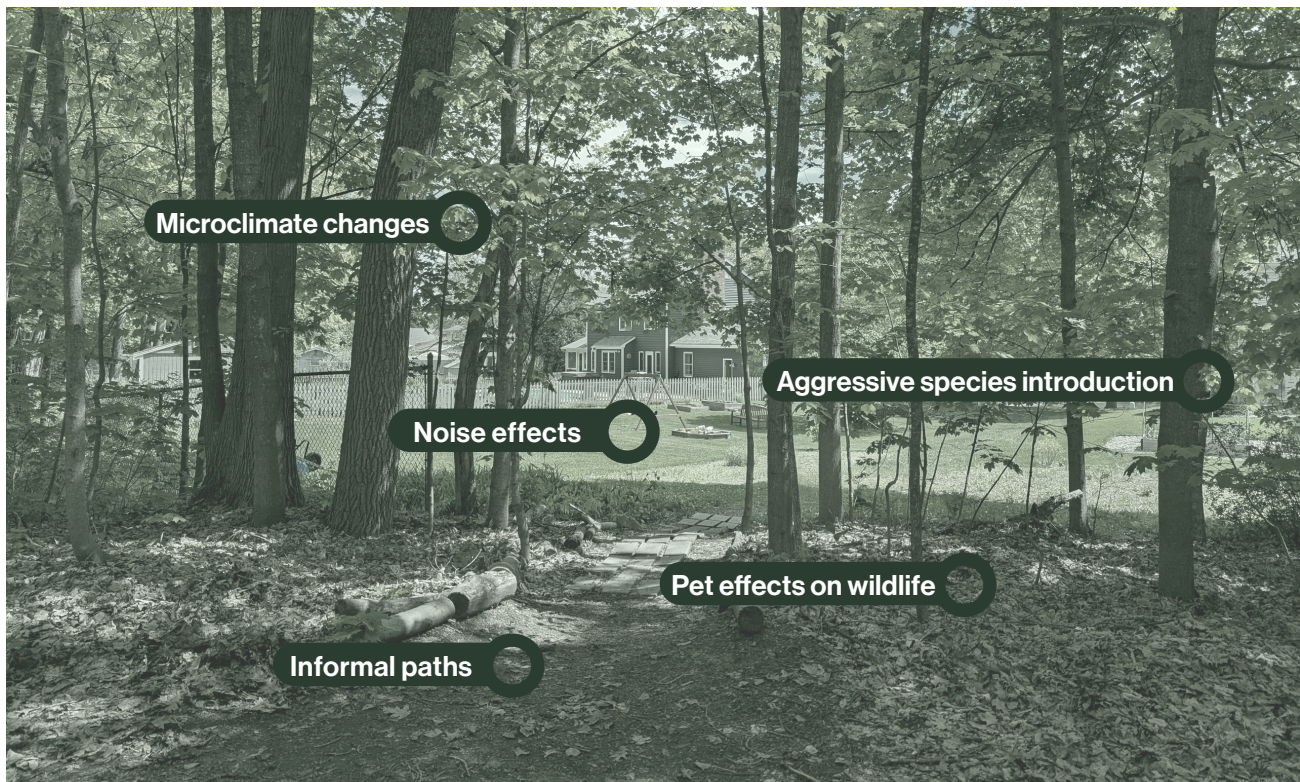
By contrast, uncommon plant and insect species, and wildlife specialists or area-sensitive animals often have declining populations. Many need large and diverse core natural areas to sustain themselves.

The direct effect on natural areas of conversion to crops and urban or suburban development is well documented. Less obvious are long-term effects from a longer habitat edge compared to the habitat's interior area. Smaller and narrower habitats have more edge than larger, rounder ones.

Edge Effects

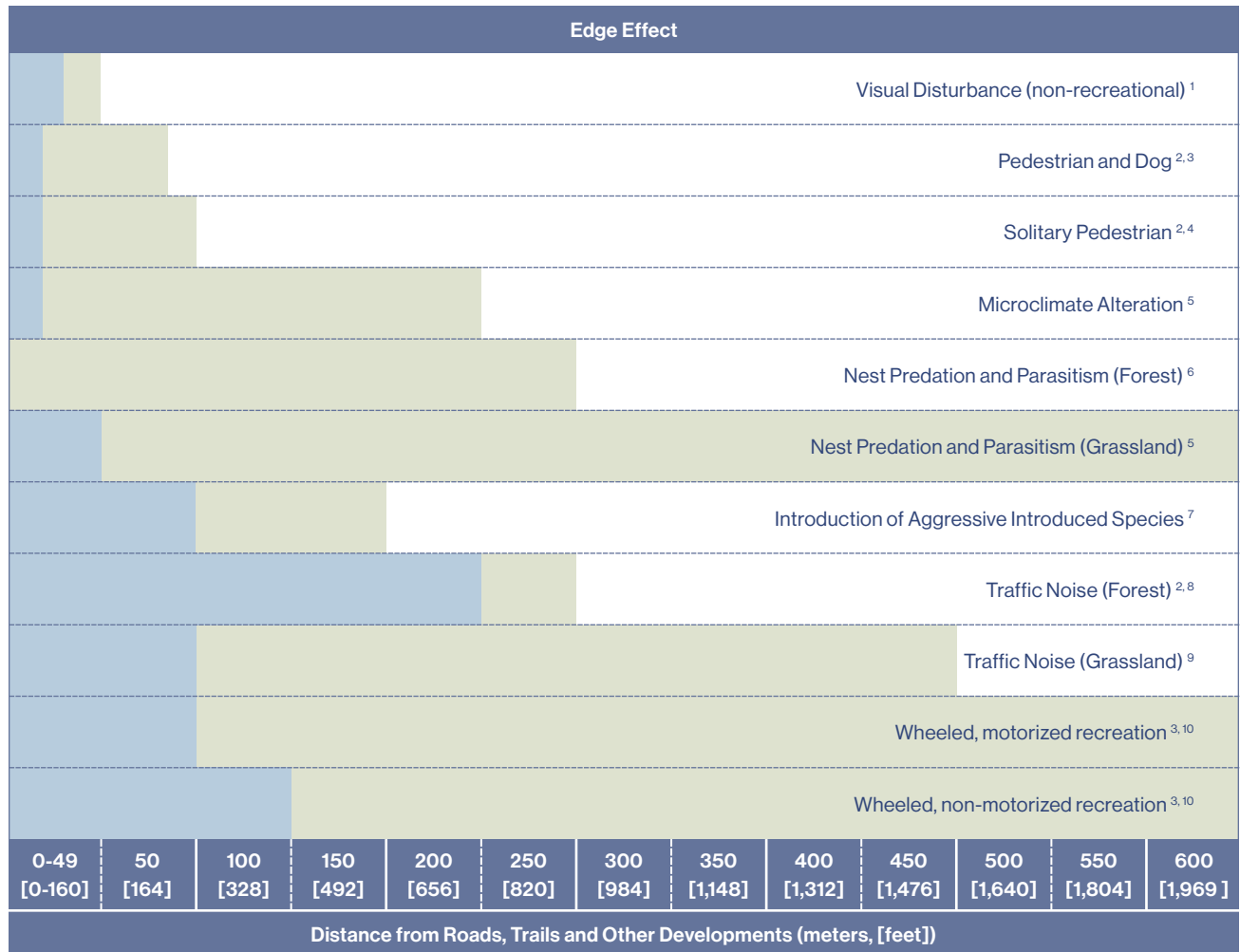
Edge effects are damaging influences on core natural areas due to other uses on adjacent lands that penetrate the cores, reducing their suitability for many plant and animal species.

As the length of edge around a natural core grows, interior habitat shrinks. Scientific studies show how far edge effects penetrate into adjacent habitat (see table on next page). For instance, birds and other wildlife can be flushed by people walking on trails up to 150 feet away. Predators like raccoon and house cat will travel several hundred feet into forests and grasslands to prey on bird eggs, nestlings, small mammals and other wildlife. Aggressive introduced plants move from edges into natural areas. Traffic noise, warm and dry air, dust from roads, pesticide drift, and other damaging influences affect nearby natural areas. Management can reduce edge effects. In stewardship zones around natural areas, neighbors can act in ways that lessen edge effects. Where room allows, natural areas can be made more round or protected with native vegetation screens.



Edge Effects and Stewardship Zones

Edge Effect Distances



Distances at which edge effects are in full effect

Range of distances at which edge effects decrease

Distance of Edge Effect Penetration into Adjacent Natural Areas

SOURCE: ¹Fish and Wildlife Service (2006), ²Miller et al. (2001), ³Snetsinger and White (2009), ⁴Fernandez-Juricic et al. (2005), ⁵Environmental Law Institute (2003), ⁶Soule (1991), ⁷Askins (1995), ⁸Reijnen et al. (1995), ⁹Reijnen and Foppen (1996), ¹⁰Spahr (1990)

*Unless large natural core near a road with speed limit over 35 mph, then 650 feet or sound barrier recommended

Stewardship Zones: Notify, Educate, Negotiate

Improving Stewardship

The purpose of stewardship zones is to recognize that neighbors of core natural areas play important roles in their health. Stewardship zones are priority areas for providing information and other resources to landowners to increase awareness about how their actions affect the natural function of nearby open spaces and support best practices on their property. These resources may include access to native plantings and possible Conservation Legacy Fund support for neighborhood NBCS efforts.

Backyard Stewardship Zone: **165 feet**

Stewardship in this zone reduces most significant negative impacts on natural areas.

- Reduces visual disturbance
- Reduces impacts of pedestrians and pets
- Reduces microclimate alteration
- Reduces introduction of aggressive introduced species
- Reduces traffic noise

Neighborhood Stewardship Zone: **500 feet**

Stewardship in this zone further improves health of core natural area.

- Much greater reduction of microclimate alterations, traffic noise, aggressive introduced species introductions, and nest predation

500 ft
Best Practice
Distance

165 ft
Minimum
Distance

Edge of Core
Natural Area



STEWARDSHIP ZONE

Core Natural Areas

What you can do if you live in a stewardship zone:

- mow your yard less or convert to a wild yard
- grow native plants
- build small-scale green infrastructure
- organize a community garden
- participate in neighborhood-scale nature-based climate solutions

For other tactics related to Stewardship Zones, see actions CN1.2, CN2.3, and CN4.2.



CONSERVE Strategies



STRATEGY 1

Expand Restoration and Management City-wide

Burlington's natural environment is a chief ingredient in the city's character, making it one of the most attractive and inviting small cities in the country. While Burlington enjoys an abundance of open space, totaling almost 50% of its geographic area, the city has been historically striving to take care of these spaces, from protecting nature to cleaning up polluted areas and maintaining parks. The city realizes that when such spaces are disturbed, natural ecosystems eventually degrade. Now, with climate change creating a noticeable impact, it becomes especially important to identify, plan, manage, and restore core open spaces, keeping in mind the needs of the ecosystem and the Burlington community.

In order to expand restoration and management throughout the city, Burlington needs to inventory existing natural areas and climate initiatives, followed by the development and continuous evaluation of restoration and management plans with a focus on climate solutions. The city can establish and expand relations with stewards for improving city-wide management, and work towards community values that go beyond basic nature improvements.

While many of these actions are oriented toward city government, private land stewards have a critical role to play as well. They can employ similar tactics on their land and collaborate with the City to ensure efforts do not stop at parcel boundaries.

ACTIONS

- CS1.1 Develop restoration and management plans for core natural areas. Use existing management plans as templates and work with other organizations to ensure alignment across plans. Prioritize plans for ecological significance.
- CS1.2 Inventory current initiatives and projects that support Nature Based Climate Solutions, identify gaps, and outline future initiatives/projects to close gaps.
- CS1.3 Adjust the City's green infrastructure definition to go beyond stormwater management and to include elements such as the urban forest, natural areas, wetlands, and green corridors.
- CS1.4 Establish city- and community-wide values and methods for aggressive introduced species management. Communicate in the communications plan (See EX1.3)
- CS1.5 Update Natural Resource Protection District Map for consistency with Open Space Plan's core natural areas.
- CS1.6 Continue to restore urban waterways like Potash, Centennial, Englesby Brooks (through partnerships, restoration activities, and regulations like buffer zones).
- CS1.7 *See also in CONNECT: CN2.3. Support "Friends Of" groups near natural areas (including supporting existing efforts and expanding to new groups) and target outreach within stewardship zones.*



STRATEGY 2

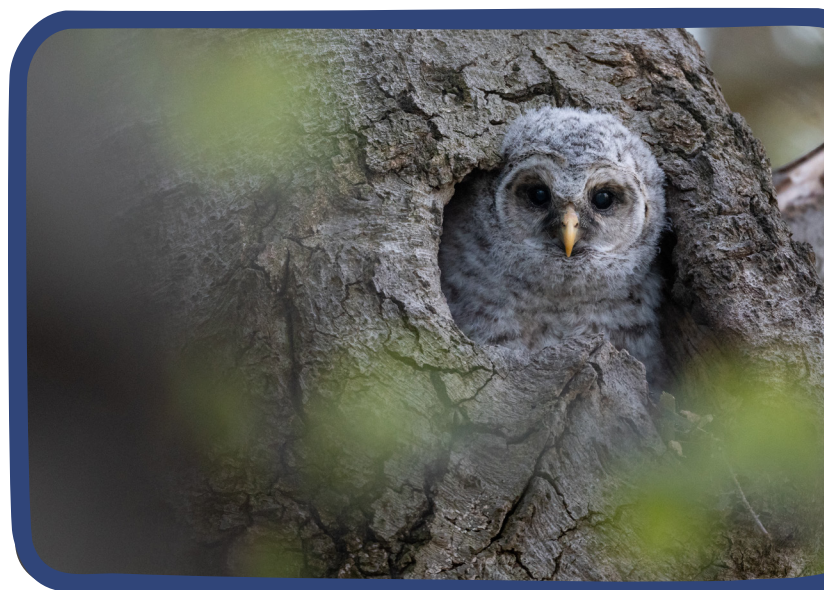
Support Wildlife Movement and Ecological Health

Core natural areas enable wildlife movement and support ecological health. Connecting open spaces and supporting natural systems can be strengthened through stewardship actions, both large and small.

This strategy includes actions focused on collecting and sharing data to increase community awareness about ecosystem health. It also includes actions to improve health of ecosystems, especially larger core areas and areas supporting area-sensitive or regionally uncommon plants, animals, and natural communities. The Burlington community showed widespread support for restoration projects to maintain forest health, remove aggressive introduced species, and help sustain the wildlife habitat. Though not explicitly addressed in these actions, the issue of deer inhibiting forest regeneration is one the city will need to monitor in conjunction with their effect on agricultural lands (see CULTIVATE).

ACTIONS

- CS2.1 Create network of pollinator-friendly and native plant habitats across the city.
- CS2.2 Increase data collection on Burlington's Wildlife Corridors (e.g. species use, frequency of use, key environmental components) to incorporate in other City processes (e.g. management strategies).
- CS2.3 Continue to identify opportunities to improve large forest areas and improve habitat for songbirds and other indicator species.
- CS2.4 Create an open-access dashboard tracking key indicators related to wildlife, water quality, and restoration with suggested ways to make progress.





CONSERVE Strategies



STRATEGY 3

Evolve the Conservation Legacy Fund to be flexible to changing needs

The Conservation Legacy fund has been a critical tool in expanding Burlington's protected open spaces to support community goals. Now, as the pace of new protection slows down, to continue to reflect community values of stewardship, there is a need to broaden the use of the Conservation Fund to include critical maintenance, stewardship, and conservation infrastructure on open space lands.

ACTIONS

- CS3.1 Increase the Conservation Legacy Fund.
- CS3.2 Review the Conservation Legacy Fund and evaluate expanding the definition of potential fund uses to support conservation goals and values expressed in the Fund's inception (e.g. conservation infrastructure, education, green stormwater infrastructure, etc.).



STRATEGY 4

Collaborate to acquire land to protect open space for future generations

Burlington views natural and recreational lands as community assets that support residential quality of life, drinking water quality, food security, and a sense of place and history defined by a unique landscape. With this realization comes the responsibility for nurturing and protecting those assets over the long term. Acquiring land through collaborative strategies for scenic, natural, and recreational purposes is one of the surest ways for any community to secure its most important land assets. Land can also be set aside to build community green spaces as infill development is undertaken.

ACTIONS

- CS4.1 Review and update acquisition list and criteria.
- CS4.2 Adapt strategies for land acquisition for conservation for both public and private lands, reflecting the priorities of the new open space plan and upcoming comprehensive plan.







Implementation Matrix

CS 1 Expand Restoration and Management City-wide			
No.	Action	Lead	Key Partners
CS 1.1	Develop restoration and management plans for core natural areas. Use existing management plans as templates and work with other organizations to ensure alignment across plans. Prioritize plans for ecological significance.	Conservation Board, Parks Conservation Team	Qualified ecologists
CS 1.2	Inventory current initiatives and projects that support Nature Based Climate Solutions, identify gaps, and outline future initiatives/projects to close gaps.	Parks Conservation Team	Wildways, NBCS grantees, Water Resources
CS 1.3	Adjust the City's green infrastructure definition to go beyond stormwater management and to include elements such as the urban forest, natural areas, wetlands, and green corridors.	Conservation Board	Water Resources, DPI, City Planning, NRCD, "Friends of" groups
CS 1.4	Establish city- and community-wide values and methods for aggressive introduced species management. Communicate in the communications plan (See EX1.3)	Parks Conservation Team and Wildways	State of Vermont, Parks maintenance team, large landowners (e.g. Intervale)
CS 1.5	Update Natural Resource Protection District Map for consistency with Open Space Plan's core natural areas.	City Planning/DPI	Conservation Board, Planning Commission
CS 1.6	Continue to restore urban waterways like Potash, Centennial, Englesby Brooks (through partnerships, restoration activities, and regulations like buffer zones).	Parks Conservation Team	VT DEC, Water Resources, WVPD, BLUE Stormwater
CS 1.7	<i>See also in CONNECT: CN2.3. Support "Friends Of" groups near natural areas (including supporting existing efforts and expanding to new groups) and target outreach within stewardship zones.</i>	-	-



High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Mid-term (2-6 years)	-
-	YES	Near-term (0-2 years)	-
-	YES	Near-term (0-2 years)	-
-	-	Mid-term (2-6 years)	EX 1.3
-	-	Mid-term (2-6 years)	-
-	-	Long-term (6+ years)	-
-	-	-	-



Implementation Matrix

CS 2 Support Wildlife Movement and Ecological Health			
No.	Action	Lead	Key Partners
CS 2.1	Create network of pollinator-friendly and native plant habitats across the city.	Parks Conservation Team	Wildways, VGN, Grow Wild
CS 2.2	Increase data collection on Burlington's Wildlife Corridors (e.g. species use, frequency of use, key environmental components) to incorporate in other City processes (e.g. zoning, neighborhood codes).	Parks Conservation Team	UVM, VT Fish and Wildlife, City Planning, DPI, Conservation Board
CS 2.3	Continue to identify opportunities to improve large forest areas and improve habitat for songbirds and other indicator species.	Conservation Board	Parks Conservation Team
CS 2.4	Create an open-access dashboard tracking key indicators related to wildlife, water quality, and restoration with suggested ways to make progress.	City Planning (provide data), IT Department (set up dashboard) Parks, Communications (maintain dashboard)	City Planning (Data Analysts), Park Conservation Team, Parks Communications
CS 3 Evolve the Conservation Fund to be flexible to changing needs			
No.	Action	Lead	Key Partners
CS 3.1	Increase the Conservation Legacy Fund.	DPI, Parks Conservation Team	Conservation Board, Parks Commission, City Council, Mayors Office, Director of Financial Operations
CS 3.2	Review the Conservation Legacy Fund and evaluate expanding the definition of potential fund uses to support conservation goals and values expressed in the Fund's inception (e.g. conservation infrastructure, education, green stormwater infrastructure, etc.).	DPI, Parks Conservation Team	Conservation Board, Parks Commission, City Council, Mayors Office, Director of Financial Operations)
CS 4 Collaborate to acquire land to protect open space for future generations			
No.	Action	Lead	Key Partners
CS 4.1	Review and update acquisition list and criteria.	Parks Conservation Team	City Planning, City Assessor
CS 4.2	Adapt strategies for land acquisition for conservation for both public and private lands, reflecting the priorities of the new open space plan and upcoming comprehensive plan.	Parks Conservation Team	City Planning, City Assessor, Conservation Board, Parks Commission, DPI



High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Mid-term (2-6 years)	-
-	-	Mid-term (2-6 years)	-
-	YES (ongoing)	Long-term (6+ years)	-
-	-	Near-term (0-2 years)	-

High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Near-term (0-2 years)	-
YES	YES	Near-term (0-2 years)	-

High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Near-term (0-2 years)	-
YES	-	Mid-term (2-6 years)	-



GOAL TWO

CONNECT

**A landscape stitched together by stewardship
and nature-based development**



CONNECT Overview

Connections are key to thriving natural spaces.

This goal focuses on increasing connectivity between the city's core natural areas, expanding tree canopy and nature pockets throughout Burlington, and identifying how existing and new development can contribute to healthier ecosystems. The benefits of this approach are more connected green networks that work better for local wildlife and reduce the urban heat island effect, creating a cooler, more nature-filled city for Burlingtonians to enjoy.



Converting lawns to habitat

Connecting Burlington's green spaces

"Encouraging private homeowners to plant habitats in their yards."

All quotes were gathered from the community during engagement events or in surveys.

CONNECT Strategies

- CN1** Grow and celebrate nature-based climate solutions across the city
- CN2** Cultivate an ecosystem of stewardship
- CN3** Enhance and protect Burlington's urban forest
- CN4** Encourage new development to incorporate nature-based principles



CONNECT: Overview

The amount of impervious surface is a key driver of ecological health.

The location and prevalence of impervious surfaces imposes a ceiling on protection, restoration, and stewardship of the natural world, and limits the integration of the natural world into the human-built environment. Open space planning can be constrained by impervious surfaces as they put limits on where naturalization and restoration efforts of the built environment can occur. They also limit

the actions the City can effectively take to improve the ecological integrity, resilience, and functioning of the City's open spaces. These actions range from removing aggressive introduced plants, to creating pollinator habitat, to restoring wetlands and forests, to managing stormwater runoff, to creating space for animals that cannot tolerate human intrusion on their habitats.

At 10% impervious cover, negative ecological effects are already present.

10% Impervious Cover



10%
impervious

Stream water quality begins to deteriorate. 10% impervious cover can exclude larger mammals, raptors, and area-sensitive species from areas.

20% Impervious Cover



20%
impervious

Streams shift to a highly altered urban state. Visible evidence of erosion, algae blooms, and decreased macroinvertebrate diversity.



25% Impervious Cover



25%
impervious

Remnant natural areas are small and have no interior habitat. Greatly decreases biodiversity in birds, small mammals, herptiles, and invertebrates.



Open Space Stories

BLUE BTV

* * * * *

Lake Champlain Sea Grant's program **BLUE** helps residents protect their waterways from pollution right in their yards.

When rainwater flows off impervious surfaces like roofs, driveways, and streets, it can carry dirt, oil, and other pollution into the water. This runoff can cause harmful algae blooms that are often unsafe for people and animals. BLUE helps change that.

Any resident can sign up for a free visit from BLUE. They will do a home inspection, look at how rainwater flows around your yard, and give tips on how to keep that water clean. Tips range from small projects like redirecting your downspouts to bigger ones like installing rain gardens or permeable driveways. Once you complete the project, you are "BLUE-certified" — you are helping make Burlington's waters cleaner!





CONNECT: Overview

The intensity of development within an area impacts what strategies are most effective.

Burlington has a wide variety of neighborhoods, from the dense urban core of Downtown to areas with more open space, like the New North End. The amount of impervious surfaces—such as roads, parking lots, and buildings—greatly influences both the ecological health and future potential of each area. Strategies to enhance green spaces, manage stormwater sustainably, and support biodiversity will differ

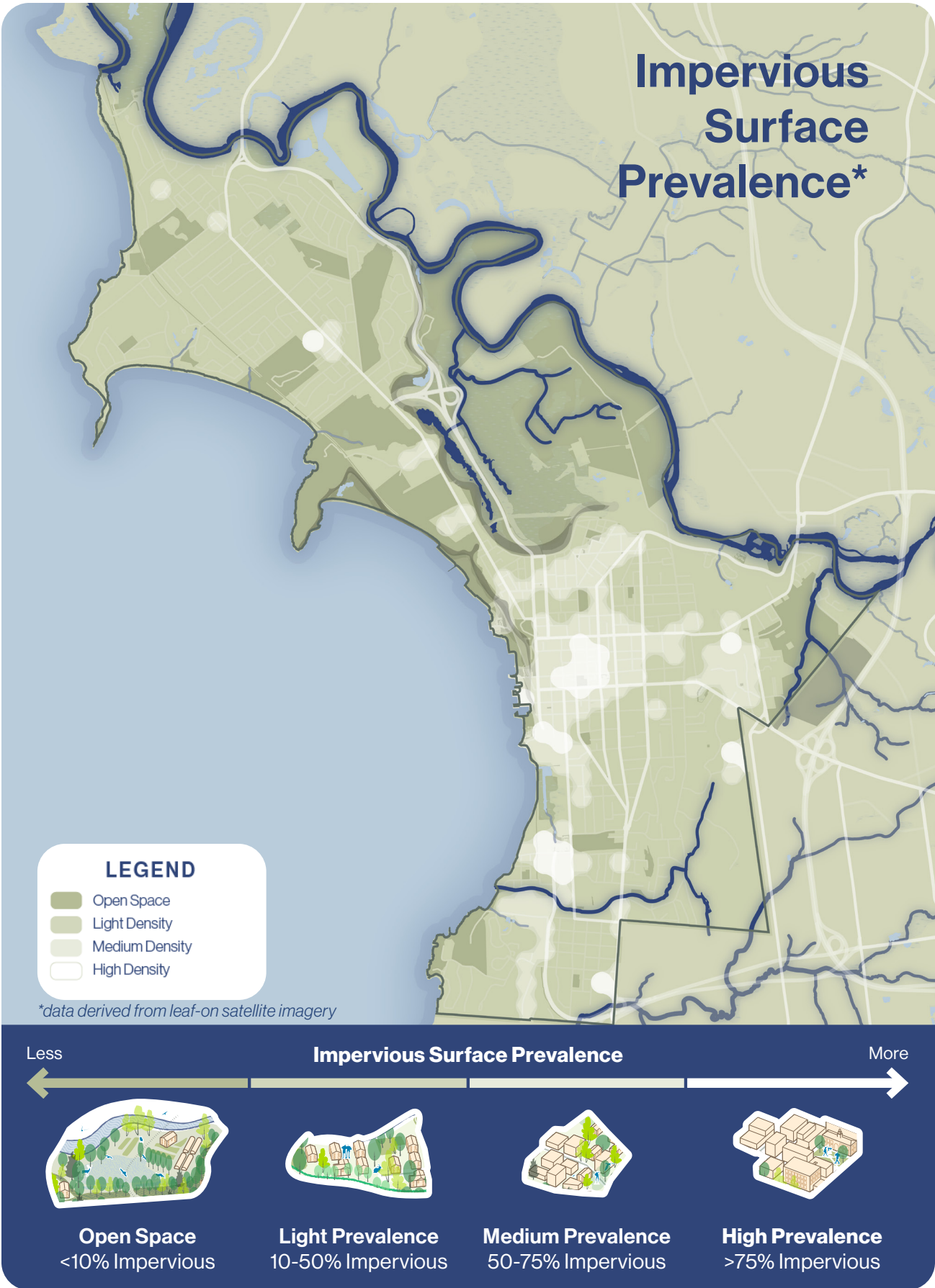
depending on the density and development of the neighborhood. Across all neighborhoods, these strategies not only connect ecology, but also connect people to green spaces and to each other.

Stewardship Opportunities

- Potential for an activity to protect, restore and steward ecosystems and habitats
- Rating of activities by zone – Feasibility given space, level of effort/cost, and likelihood of success

Strategies marked as **“High”** represent places where improvements can be made successfully with relatively low cost and effort. **“Low”** indicates strategies that will require greater resources and effort for meaningful change.

Impervious Cover	 Ecological Stormwater Management	 Large Natural Areas	 Small Natural Areas	 Biodiversity Enhancements
Open Space < 10%	High	High	High	High
Light Prevalence 10 - 50%	High	Low	Medium	High
Medium Prevalence 50 - 75%	Medium	Low	Low	Medium
High Prevalence > 75%	Low	Low	Low	Medium



* * * * *

Key Connections

The map on the opposite page identifies potential key connections for wildlife movement. Arrows on the map identify connections between core natural areas, waterbodies, and contiguous tree canopy. It can be a high-level guide for where additional protected land, tree plantings, and infrastructure to facilitate wildlife movement (culverts under roads for crossing) could be prioritized. It is intended to show high-level connections at a broad scale. The tree canopy data from UVM can also be used to support finer-grained connectivity improvements, like enhancing linear habitat connection across backyards in a neighborhoods to support localized wildlife movement.

Key areas of focus for wildlife movement include:

- **New North End**, loop from Derway Island through Starr Farm, Leddy Park, Arms Forest, Rock Point, Ethan Allen Park, and Mount Calvary Red Maple Wetland
- **Across North Ave, especially near North Ave/127** entrance - the topography in this location is especially favorable for a wildlife and potentially pedestrian underpass
- **Along Winooski River**
- From **Centennial Woods** / Centennial Brook northwest towards Intervale Center
- **South End**, from large patches of tree canopy in the Country Club, along Englesby Brook, towards the Barge Canal, and Oakledge Park towards South Burlington





LEGEND

- Burlington Greenway
- Waterways
- Water Bodies
- Large Natural Core
- Large Semi-Natural Core
- Small Natural Core
- Stewardship Zone
- Parks/Major Protected Open Space
- Tree canopy patches
- Wetlands
- Key Connections

0 0.25 0.5 1 1.5 2 Miles

CONNECT

105

Types of Connections

Habitat Islands

PURPOSE

Plant small habitat islands across urban landscape to increase plant, insect, bird, and small mammal diversity near people's homes and places of work and play.

OPPORTUNITIES

- Many small areas, such as pocket parks, are available on public and private land
- Public interest in seeing flowering plants, butterflies, birds, pollinators, and other signs of nature living nearby

BARRIERS TO SUCCESS

- Too dispersed, small and diverse to facilitate long-term protection and management by any one entity
- Correct siting of habitat islands to avoid conflicts, ensure establishment and persistence, and minimize management costs



Green Stormwater Facility

PURPOSE

Ecologically-inspired and functioning facilities to manage stormwater runoff; e.g., rain garden, tree trench, roadside planter (e.g., St. Paul green streets), downspout redirection to turf, bioswale, bioinfiltration basin, stormwater wetland, green roof, treatment train, etc.

OPPORTUNITIES

- Future road upgrades and major repair jobs are best opportunity to install GSI to manage road and parking lot runoff
- Other opportunities in City's stormwater management plan

BARRIERS TO SUCCESS

- Typically high cost
- Usually limited space to manage large catchments
- Usually small catchments are managed – high per-gallon cost for pollutant removal (lbs. removed/dollar spent)



Other Connections

PURPOSE

Understand and support movement of wild animals and native plants through urban landscape.

OPPORTUNITIES

- Neighborhood based NBCS projects, redevelopment projects, wildlife corridor assessments and protocols, pollinators and their habitats.

BARRIERS TO SUCCESS

- Feasibility of using non-public lands
- Limited resources for acquisition of fee title, easement, or lease
- No voluntary recognition program exists





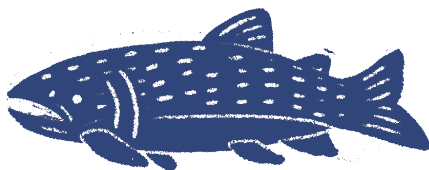
Green Planning Principles

Overall

- A** Develop with native soil, hydrology, and vegetation in mind.
- B** Protect and maintain healthy and resilient natural areas.
- C** Understand past and existing conditions to guide restoration and management.
- D** Create attractive, resilient, and economically feasible plant communities.
- E** Tell an ecological story that inspires people to restore the natural world.
- F** Allow people to visit natural areas while protecting ecosystem resilience.
- G** Document ecological trends by monitoring indicators of health and resilience.

Wildlife

- A** Protect and restore habitat for rare and uncommon plant and animal species.
- B** Create the largest, roundest habitats for area-sensitive wildlife species.
- C** Connect habitat cores to similar nearby habitat.
- D** Design new reserves to minimize edge effects from adjacent properties.
- E** Establish stewardship zones to manage edge effects from adjacent developed land.
- F** Install special habitat features like nest boxes and basking logs.
- G** Manage nuisance wildlife, such as deer and geese, using appropriate methods.



Soil & Hydrology

- A** Preserve stable soils and existing natural hydrology.
- B** Fix eroding lands and degraded hydrology with catchment and watershed management.
- C** Prevent flooding by preserving natural lands and installing green infrastructure.
- D** Use ecological stormwater management tools before highly engineered solutions.
- E** Reduce runoff at its source; use a sequence of natural features to manage runoff.
- F** Solve soil and hydrological problems in the most cost-effective way.

Vegetation

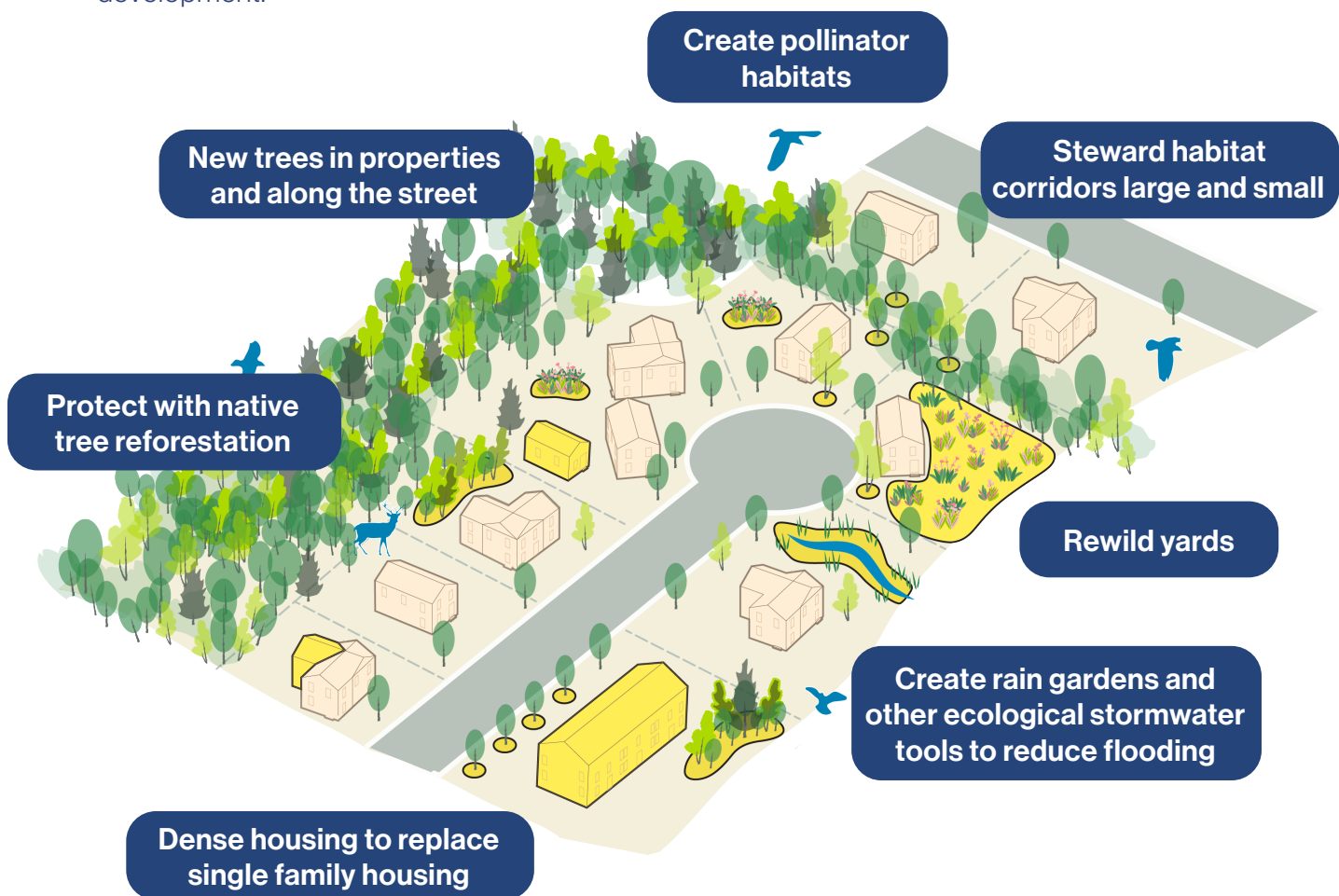
- A** Protect and restore rare and common native ecological land cover types.
- B** Encourage diverse native flowering plants across the growing season.
- C** Control non-native and native plants that disrupt ecosystems and depress biodiversity.
- D** Establish vegetation that can be managed with the least effort.
- E** Convert lawns to more productive native habitat where possible.

Human Use

- A** Identify natural areas with sensitive wildlife that tolerate little human interaction.
- B** Define management units and access points.
- C** Detect problems early by monitoring on-trail and off-trail use.
- D** Recruit organizations, experts and volunteers (such as “Friends Of” groups) to help maintain and monitor natural areas.
- E** Protect cultural resources, such as Native American artifacts and historical structures.

Nature-Supporting Growth Areas

Development and open space can work in tandem to provide mutual benefits to both nature and people. In the below scenario, a residential neighborhood at the edge of a large forest can grow and change to support new residents through accessory dwelling units, and a new apartment building, while also contributing to the vision and goals outlined in this plan like supporting ecological stormwater infrastructure, forest restoration, pollinator gardens, and redevelopment rather than new development.





CONNECT Strategies



STRATEGY 1

Grow and Celebrate Nature-Based Climate Solutions Across the City

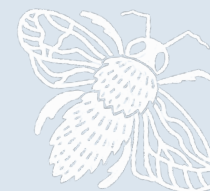
The 2022 Addendum to the Open Space Plan highlighted the connection between a thriving environment and a thriving community. Built on a foundational themes of equity, inclusion, and relationships, NBCS are holistic strategies that protect, restore, and steward the world around us through multidisciplinary collaboration.

While NBCS are deeply integrated throughout this Open Space Plan, this strategy focuses on education and awareness—strengthening existing relationships and building new partnerships to educate on, grow, and track NBCS throughout the city and across many initiatives. This involves not just the city government, but also schools, the public, and private property owners.

ACTIONS

- CN1.1** Educate the public on Nature-Based Climate Solutions and their value. (See also EX1.3)
- CN1.2** Create and support existing education, recognition, and incentive programs to encourage private property owners to integrate Nature Based Climate Solutions and implement sound ecological practices (e.g. reducing lawn space), especially within Natural Area Stewardship Zones.
 - Celebrate and support Grow Wild initiatives to encourage lawn conversions for native spaces to incrementally replace non-native for habitat benefits.
 - Use established pockets to disburse throughout neighborhoods.
 - Potential programs include adaptation of Green Design Standards, expansion of the BLUE program, and encouragement of “Wild Yards” to convert mowed areas to naturalized open space.
- CN1.3** Continue to partner with schools to grow nature-based climate solutions on school grounds.
- CN1.4** Create a municipal management plan to track and reduce mowed lawns.
- CN1.5** Continue to grow nature-based climate solutions on City property, including but not limited to green stormwater infrastructure.
- CN1.6** See also in CONSERVE: CS2.1. Create network of pollinator-friendly and native plant gardens across the city.





STRATEGY 2

Cultivate an Ecosystem of Stewardship

From school children to community-based organizations to city leadership, Burlington has a deep sense of care and commitment to stewarding the natural world around them—not just for personal use but for its intrinsic value and environmental health. Burlingtonians across the city are doing meaningful work in many different capacities to educate people to open space, plant pollinator gardens, advocate for resilient waterways, and encourage responsible growing and foraging.

This strategy celebrates the existing communities of care and seeks to support and build on them to facilitate knowledge and resource sharing. Across the community, schools, organizations, and City departments, this strategy streamlines processes and seeks to make valuing open space integral to how everyone operates, particularly through co-education and shared resources.

ACTIONS

- CN2.1** Create a database and listserv of open space organizations to support collaboration, resource sharing, etc.
- CN2.2** Co-host a recurring open space summit for land stewards, community organizations, and others.
- CN2.3** Continue to support “Friends Of” groups near natural areas (including supporting existing efforts and expanding to new groups) and target outreach within stewardship zones.
- CN2.4** Update Urban Wilds definition, including considering expanding beyond city-owned land.
- CN2.5** Distribute educational resources about how personal actions can support water quality health in lake, river, and tributaries. (See also EX1.3)





CONNECT Strategies



STRATEGY 3

Enhance and Protect Burlington's Urban Forest

Burlington's urban forest offers numerous benefits—from providing shade and wildlife habitat to reducing stormwater runoff and improving air quality. While the city still maintains a robust 40% tree canopy cover, this coverage has declined over the past decade, particularly in areas where more canopy is most needed. Urban forest management should focus not only on protecting existing trees but also on expanding canopy through new plantings.

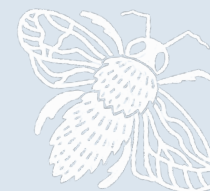
To support this, tree data must be regularly updated and tracked over time. This includes comprehensively updating the City's Tree Ordinance and conducting regular tree canopy assessments and setting goals. These tools can help identify areas where protection efforts should be strengthened, as well as places suitable for establishing new groves or clusters of trees.

With 37.5% of Burlington's trees located on private property, community engagement will be essential. Public education about alternatives to tree removal and the benefits of tree preservation can help build broader support for a resilient, citywide tree canopy.

ACTIONS

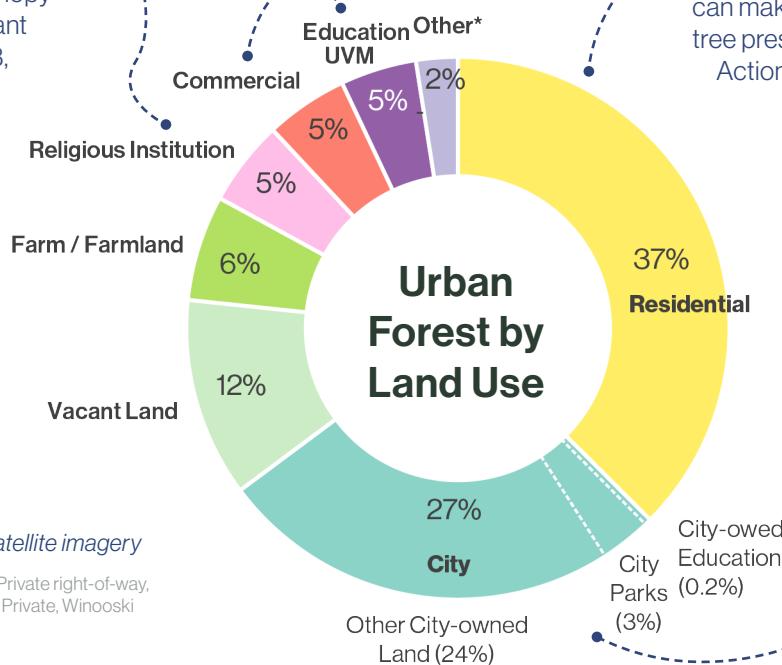
- CN3.1 Comprehensively update the Tree Ordinance.
- CN3.2 Update the urban tree canopy goal and mapping/data analysis every 10 years. Consider developing specific goals for different types of canopy based on their ecological and heat island mitigation value.
- CN3.3 Conduct Pocket Forest Feasibility Study inclusive of existing and potential pocket parks that develops plant lists, identifies potential existing sites, and envisions incentives for establishing pocket forests in new developments, dense neighborhoods, and greenbelts.
- CN3.4 Identify large valuable trees (e.g. specimen trees) in the city that are on public and private land, and consider protection with ideas framed in the policy toolkit from Biophilic Cities network.
- CN3.5 Educate the public on benefits of the urban forest and how to manage it on private property. (See also CN1.1, CN1.2, EX1.3)





About 10% of the urban forest is on land owned by **religious or educational institutions**. Partnerships could be considered for expanding tree canopy on suitable land. Relevant actions: CN3.1, CN3.3, CN3.4, and CN3.5.

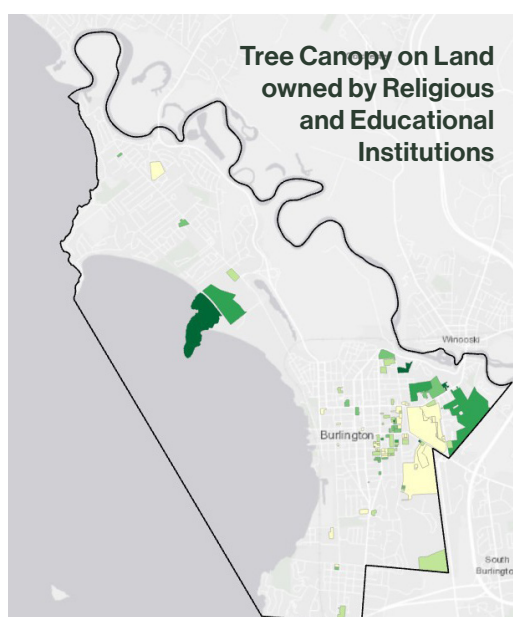
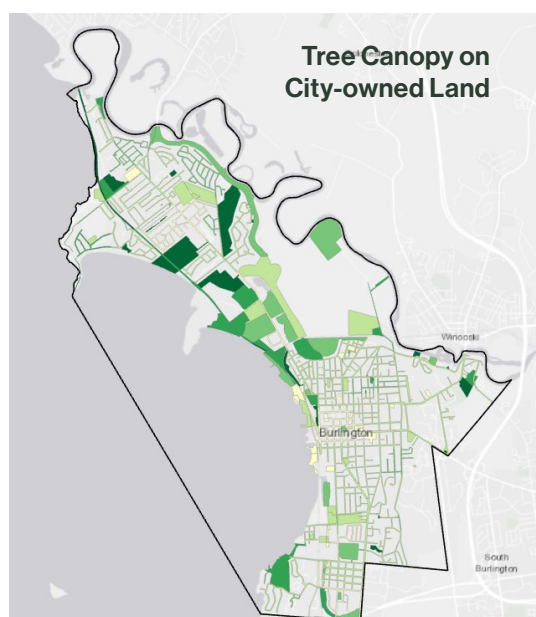
37% of Burlington's urban forest sits on **residential land**, and another 5% is on **commercial land**. Individual actions can make a significant impact, either for tree preservation or tree loss. Relevant Actions: CN3.1, CN3.4, and CN3.5.



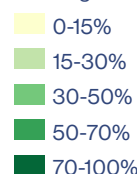
27% of the urban forest is on **City-owned land**. The City can directly expand tree canopy on City-owned land and model best practices for urban forest health and maintenance. Relevant actions: CN3.3 and CN3.4.

**data derived from leaf-on satellite imagery*

Other includes following land uses: Private right-of-way, Education - Champlain, Education - Private, Winooski



Existing Tree Canopy %



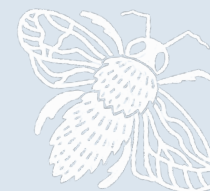
CONNECT Strategies



Urban Tree Canopy Assessment by UVM

114

ETV OPEN SPACE PLAN



Managing for Biodiversity and Resilience with Canopy Assessment Data

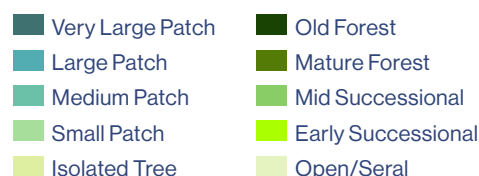
UVM's Tree Canopy Assessment provides a valuable dataset that can inform urban forest management decisions across Burlington. For example, data on patch age helps distinguish mature forest areas from those in earlier successional stages.

Combined with information about patch shape, this data highlights which forest patches contribute most to a resilient and healthy urban forest network. Smaller or irregularly shaped patches with high edge-to-area ratios are more vulnerable to biodiversity loss over time—a process known as

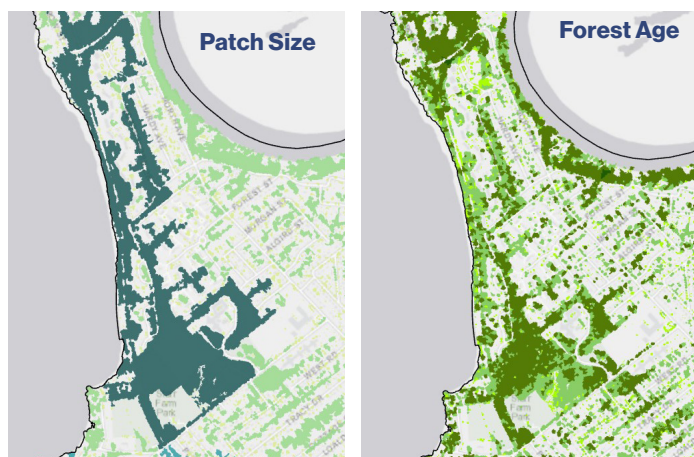
“species relaxation.” In contrast, larger, “rounder” forest patches tend to support greater species diversity and are more resistant to aggressive introduced species.

These insights can help guide where to prioritize management actions that build long-term forest resilience and where to maintain different habitat types. Not every area should be managed toward mature forest conditions. Open landscapes and grasslands remain important for supporting species like bluebirds. The open areas and grasslands in the Intervale, for example, could be managed to stay open, supporting edge-requiring species like butterflies and other insects.

Both of these forest patches are identified as very large patches, but due to their age and shape, they have varying levels of long-term resilience to species loss.

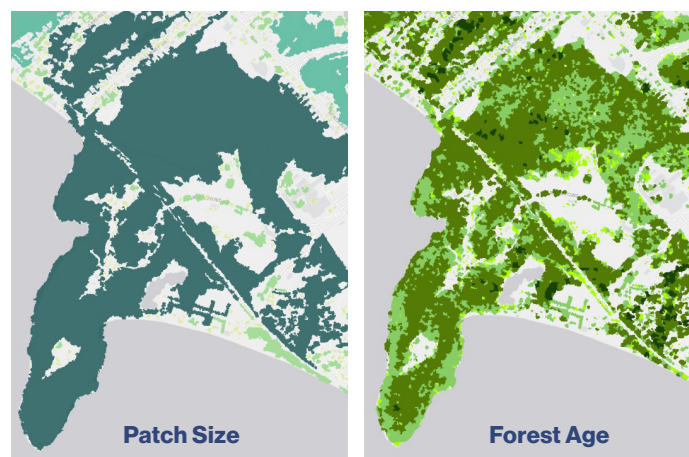


Small and/or irregularly shaped patches are more vulnerable to biodiversity loss and spread of aggressive introduced species.



Starr Farm Park, North Shore Natural Area, and nearby areas in New North End

Large, round areas of old and mature forest are more resilient to biodiversity loss.

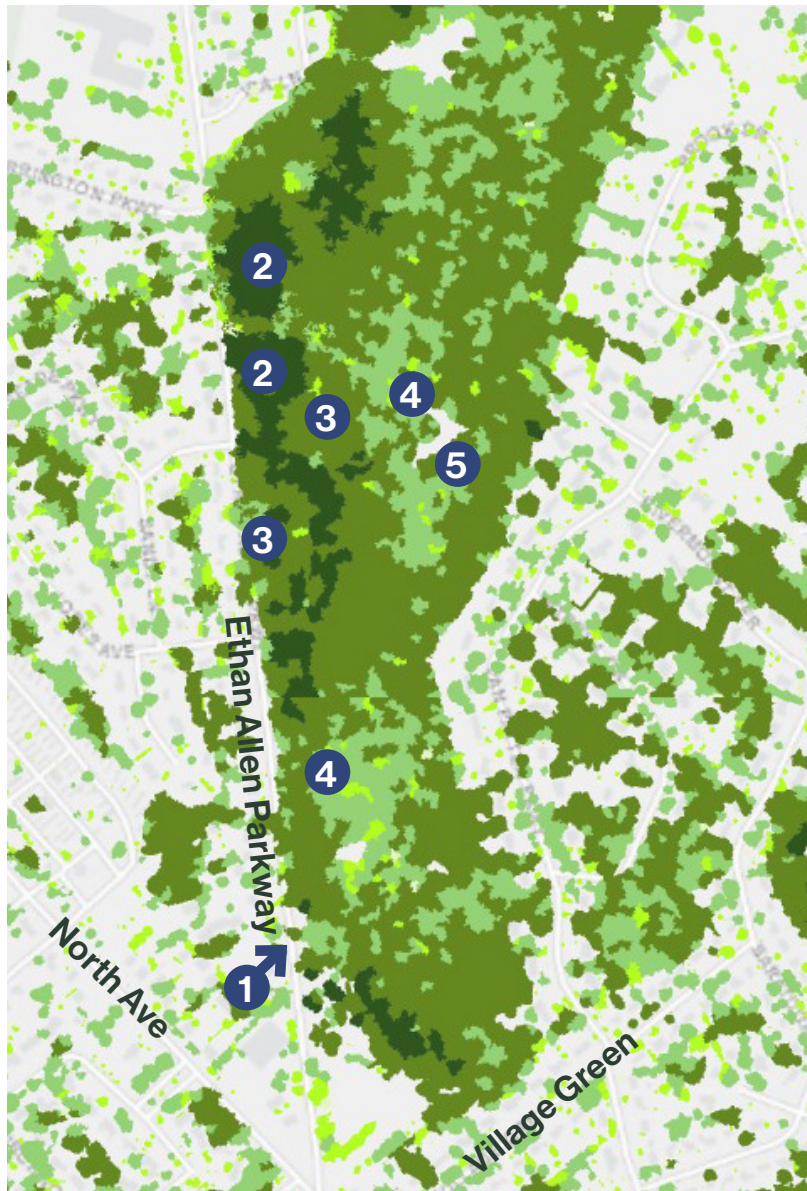


Arms Forest and Rock Point



CONNECT Strategies

Example of using data for management and planting decisions



General management prioritization principles, with example locations indicated on map of Ethan Allen Park:

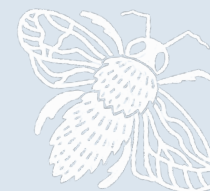
- 1 Areas of old and mature forest that have more edge area could be made more resilient by adding tree canopy where possible to increase the interior areas of these patches.
- 2 Prioritize aggressive introduced species control in large old and mature forest patches.
- 3 Also prioritize aggressive introduced species control in mid-successional areas near old/ mature forests to reduce spread of species into older forest areas.
- 4 Manage mid-successional, especially areas near large old/ mature forests to guide them to the desired mature state. Foresters can help assess current conditions and guide species composition through selective thinning that favors desired canopy species (e.g. oak, hickory, walnut, white pine).
- 5 Identify open patches that are not needed for recreation or other uses (e.g., picnics, sports fields). These areas can be prioritized for tree planting to reduce the spread of aggressive introduced species.

Ethan Allen Park

Urban Tree Canopy Assessment by UVM

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OPEN SPACE PLAN



- Old Forest
- Mature Forest
- Mid Successional
- Early Successional
- Open/Seral

Leddy Park

Leddy Park shows an example of a park that is balancing a lot of varied needs for both people and wildlife: from recreation, to parking, to habitat / biodiversity. To enhance urban forest health, biodiversity, and resilience, the City could consider relocating parking or recreational uses within Leddy Park to create more interior forest habitat, while still preserving the diversity of uses. When relocating uses, consider shifting to less mature forest areas. For example, shifting the southern parking lot southeast towards the edge of the park could allow replanting on the northwestern end to create a larger area of contiguous forest.



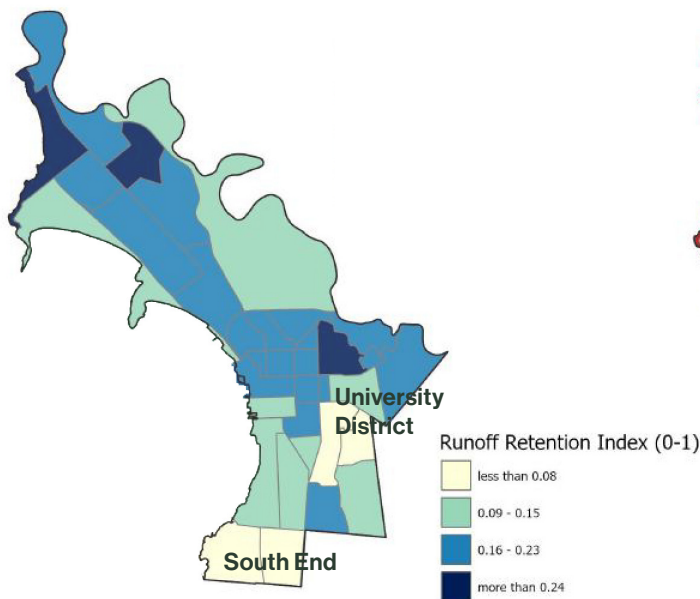
CONNECT Strategies

Using Tree Canopy Assessment to Support Planting and other benefits

UVM's Tree Canopy Assessment identified high-level opportunities for reforestation as well as where the city's urban forest is absorbing stormwater and cooling adjacent areas.

By planting just one new tree, Burlington can remove enough CO₂ to offset 13 miles of car travel and absorb six bathtubs of stormwater!

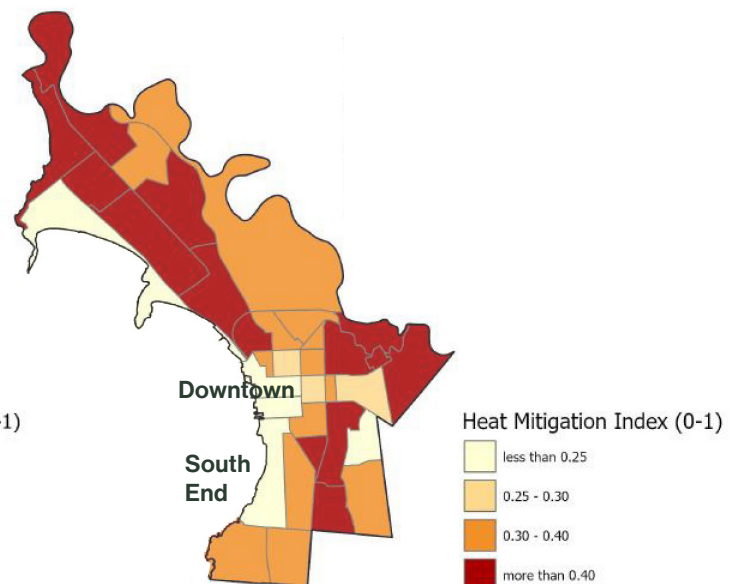
Stormwater Absorption



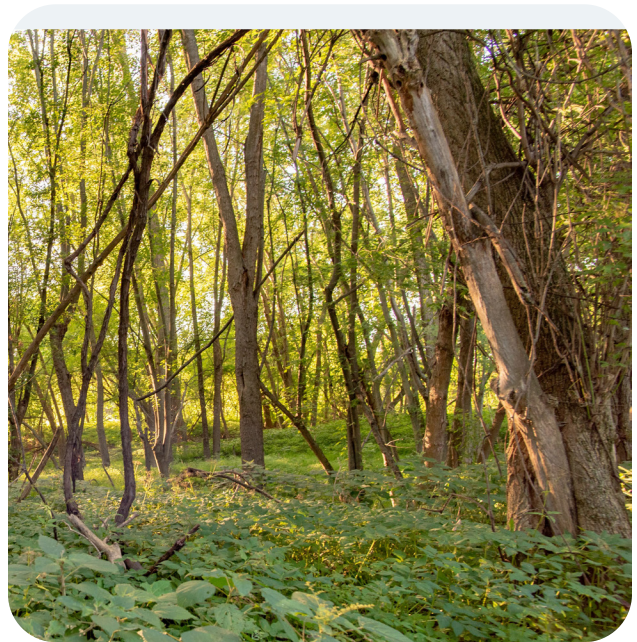
Maps by UVM

"Areas with low runoff retention may benefit from increased tree plantings due to the capacity of vegetation acting as riparian buffers filtering runoff and absorbing precipitation into the soil."
- UVM Urban Tree Canopy Assessment

Urban Cooling Benefits



Areas with lower heat island mitigation today (e.g. light yellow areas above) could be priorities for more tree planting focused on enhancing urban cooling.





CONNECT Strategies



STRATEGY 4

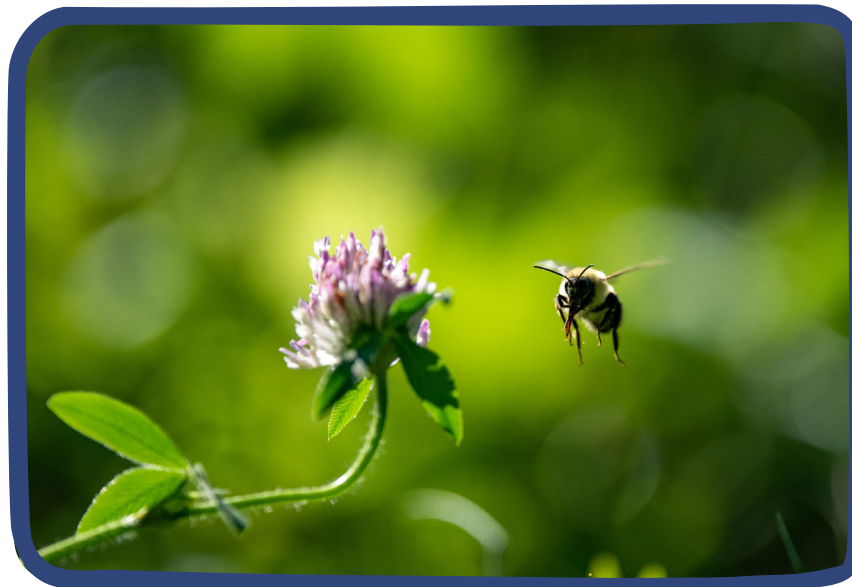
Encourage New Development to Incorporate Nature-Based Principles

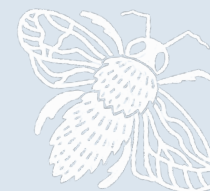
Though conservation and development have historically been pitted against each other, the two can work together in mutually beneficial ways. Cities like Burlington that both deeply value open space and sorely need to expand their housing stock can build dense development that also increases ecologically healthy green areas with practices like Low Impact Design and Conservation Development.

This strategy capitalizes on widespread desires across the community to incorporate nature-based principles in development. On the new development side, creating green design standards and development review resources will help foster environmentally-beneficial building. On the existing development side, providing educational resources to owners and occupants within Stewardship Zones will help those closest to natural areas support their ecological health. Green design standards can guide both new and existing development to incorporate principles and engage in tactics like reducing impervious surface, improving drainage, building green stormwater infrastructure, and creating pollinator habitats.

ACTIONS

- CN4.1 Develop Green Design Standards for new developments and redevelopments.
- CN4.2 Provide educational resources for owners and occupants in Stewardship Zones to support ecological health of nearby natural areas.
- CN4.3 Create development review resources to support review bodies in evaluating sustainable/ ecological nature-based approaches to development and open space impacts of new development.





Open Space Stories

BEE a Good Steward

* * * * *

Vermont is home to about 350 different species of native bees, and Burlington is an important statewide hotspot for native bees!

The sandy soils on the lakeshore and river delta and diversified organic agriculture in the floodplain provide prime nesting and feeding grounds for bees, contributing to a high diversity of bee species. While the most famous bee is the non-native honey bee, bees native to Vermont come in all shapes, colors, and sizes. We rely on native bees and pollinators to pollinate our crops, gardens, plants and trees.

Many of these trees and plants won't regenerate without bees and other pollinators. While people rely on urban

forests and plants to slow storm water, clean the air, and keep the lake clean, native bees and pollinators rely on native plants for nutrients and habitat. Growing and planting natives around the city helps both us and bees steward healthy connected habitats.

That's why Vermont's open spaces and our ability to continue stewarding them are so important: native plants and habitats are critical for these bees and pollinators survival. In return the city gains many valuable services from native plants and trees that our native bees and other pollinators rely on.

This new Open Space plan will build on past city plans and establish a policy vision for open space inventory, management, access, and preservation going into the future.





Implementation Matrix

CN 1 Grow and Celebrate Nature-Based Climate Solutions Across the City			
No.	Action	Lead	Key Partners
CN 1.1	Educate the public on Nature-Based Climate Solutions and their value. (See also EX1.3)	Parks Conservation Team	Conservation Board, Parks Commission, Wildways, Parks Communications
CN 1.2	Create and support existing education, recognition, and incentive programs to encourage private property owners to integrate Nature Based Climate Solutions and implement sound ecological practices (e.g. reducing lawn space), especially within Natural Area Stewardship Zones. • Celebrate and support Grow Wild initiatives to encourage lawn conversions for native spaces to incrementally replace non-native for habitat benefits. • Use established pockets to disburse throughout neighborhoods. • Potential programs include adaptation of Green Design Standards, expansion of the BLUE program, and encouragement of “Wild Yards” to convert mowed areas to naturalized open space.	Parks Conservation Team	Conservation Board, Wildways, GROW wild, BLUE program, Parks Communications
CN 1.3	Continue to partner with schools to grow nature-based climate solutions on school grounds.	Burlington School District	Burlington Wildways, Parks Conservation Team, Shelburne Farms.
CN 1.4	Create a municipal management plan to track and reduce mowed lawns.	Parks	Parks Ground Maintenance, Parks Conservation Team, Water Resources
CN 1.5	Continue to grow nature-based climate solutions on City property, including but not limited to green stormwater infrastructure.	Parks	Water Resources
CN 1.6	<i>See also in CONSERVE: CS2.1. Create network of pollinator-friendly and native plant habitats across the city.</i>	-	-



High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Near-term (0-2 years)	-
YES	-	Mid-term (2-6 years)	-
-	YES (ongoing)	Near-term (0-2 years)	-
-	-	Near-term (0-2 years)	-
-	YES (ongoing)	Near-term (0-2 years)	-
-	-	-	-



* * * * *

Implementation Matrix

CN 2 Cultivate an Ecosystem of Stewardship			
No.	Action	Lead	Key Partners
CN 2.1	Create a database and listserv of open space organizations to support collaboration, resource sharing, etc.	Parks Conservation Team	Wildways, Conservation Board
CN 2.2	Co-host a recurring open space summit for land stewards, community organizations, and others.	Wildways, Mayor	VCGN, Audubon, UVM, Wildways partners (e.g. Intervale, WVPD, Rock Point, Parks)
CN 2.3	Continue to support “Friends Of” groups near natural areas (including supporting existing efforts and expanding to new groups) and target outreach within stewardship zones.	Parks Conservation Team	Parks Communications, WNRCD, Friends of the Winooski, Watersheds United Vermont, etc.
CN 2.4	Update Urban Wilds definition, including considering expanding beyond city-owned land.	Conservation Board	Wildways, Large landowners, Parks Conservation Team, DPI
CN 2.5	Distribute educational resources about how personal actions can support water quality health in lake, river, and tributaries. (See also EX1.3)	Lake Champlain Sea Grant (BLUE program)	Water Resources, Parks Communications



High Priority	Quick Win	Implementation Timeframe	Related Actions
-	YES	Near-term (0-2 years)	-
-	YES	Near-term (0-2 years)	-
-	-	Mid-term (2-6 years)	-
YES	YES	Near-term (0-2 years)	-
-	-	Near-term (0-2 years)	EX 1.3





Implementation Matrix

CN 3 Enhance and Protect Burlington's Urban Forest			
No.	Action	Lead	Key Partners
CN 3.1	Comprehensively update the Tree Ordinance.	Parks, City Arborist	Conservation Board, Parks Commission, City Arborist, Parks Conservation Team, Planning, Planning Commission, DPI
CN 3.2	Update the urban tree canopy goal and mapping/ data analysis every 10 years. Consider developing specific goals for different types of canopy based on their ecological and heat island mitigation value.	Parks, City Planning, Conservation Board	UVM Spatial Analysis, or similar provider
CN 3.3	Conduct Pocket Forest Feasibility Study inclusive of existing and potential pocket parks that develops plant lists, identifies potential existing sites, and envisions incentives for establishing pocket forests in new developments, dense neighborhoods, and greenbelts.	Parks Conservation Team	Parks Planning, City Planning
CN 3.4	Identify large valuable trees (e.g. specimen trees) in the city that are on public and private land, and consider protection with ideas framed in the policy toolkit from Biophilic Cities network.	Conservation board	UVM Spatial Analysis Lab, City Arborist, Branch Out Burlington
CN 3.5	Educate the public on benefits of the urban forest and how to manage it on private property. (See also CN1.1, CN1.2, EX1.3)	Parks Conservation Team	Conservation Board, Parks Commission, Wildways, Parks Communications
CN 4 Encourage New Development to Incorporate Nature-Based Principles			
No.	Action	Lead	Key Partners
CN 4.1	Develop Green Design Standards for new developments and redevelopments.	DPI, City Planning	Conservation Board, Planning Commission, Water Resources, land owners, landscape architects (?)
CN 4.2	Provide educational resources for owners and occupants in Stewardship Zones to support ecological health of nearby natural areas.	Parks Conservation Team and Parks Communications	Grow Wild, Parks Planning, Lake Champlain Sea Grant
CN 4.3	Create development review resources to support review bodies in evaluating sustainable/ecological nature-based approaches to development and open space impacts of new development.	DPI	Conservation Board, Parks Conservation Team



High Priority	Quick Win	Implementation Timeframe	Related Actions
YES	-	Near-term (0-2 years)	-
YES	-	Long-term (6+ years)	-
-	-	Mid-term (2-6 years)	-
-	YES	Near-term (0-2 years)	-
-	-	Near-term (0-2 years)	CN1.1, CN1.2, EX1.3

High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Mid-term (2-6 years)	-
-	-	Mid-term (2-6 years)	-
-	-	Near-term (0-2 years)	-

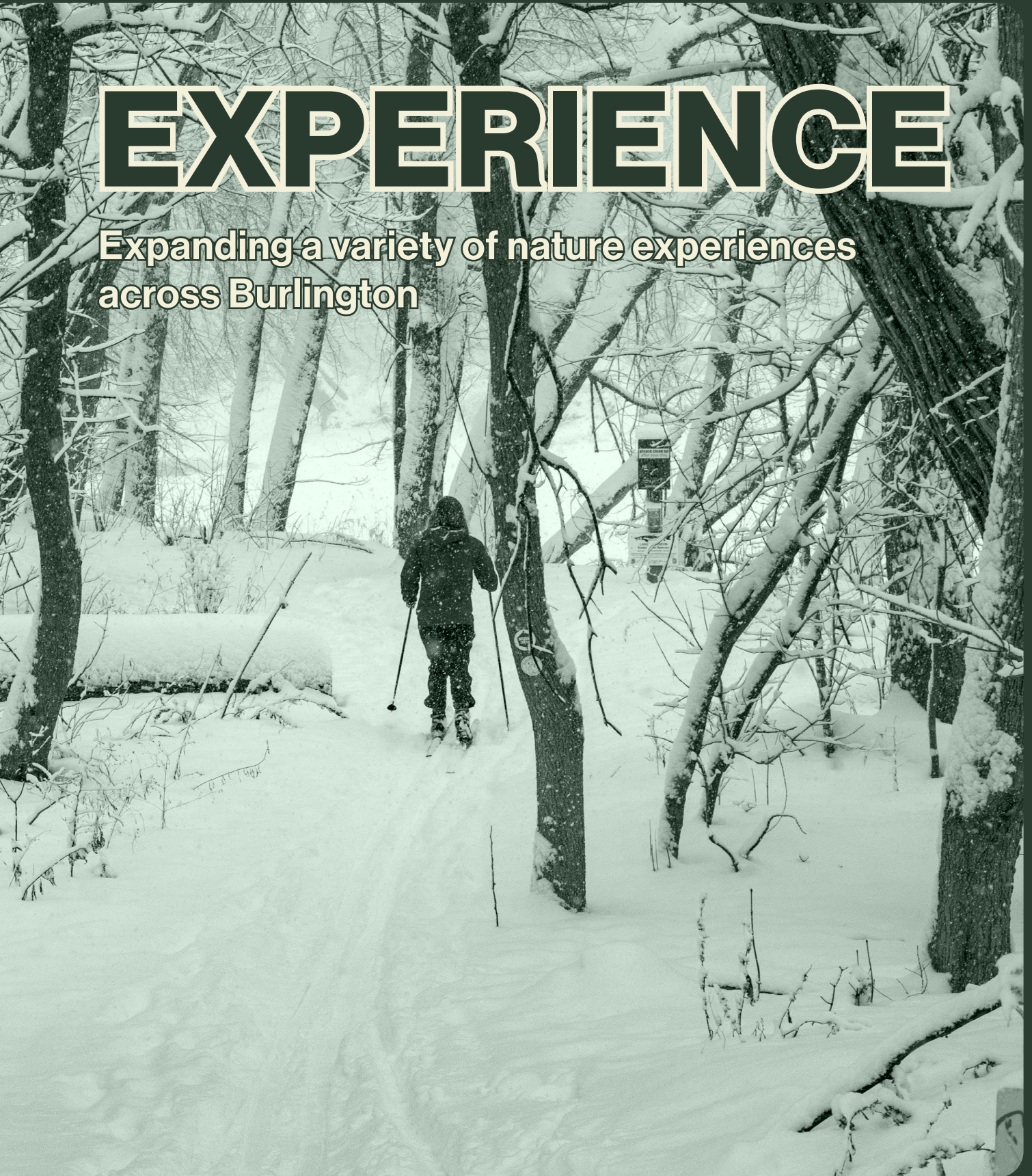




GOAL THREE

EXPERIENCE

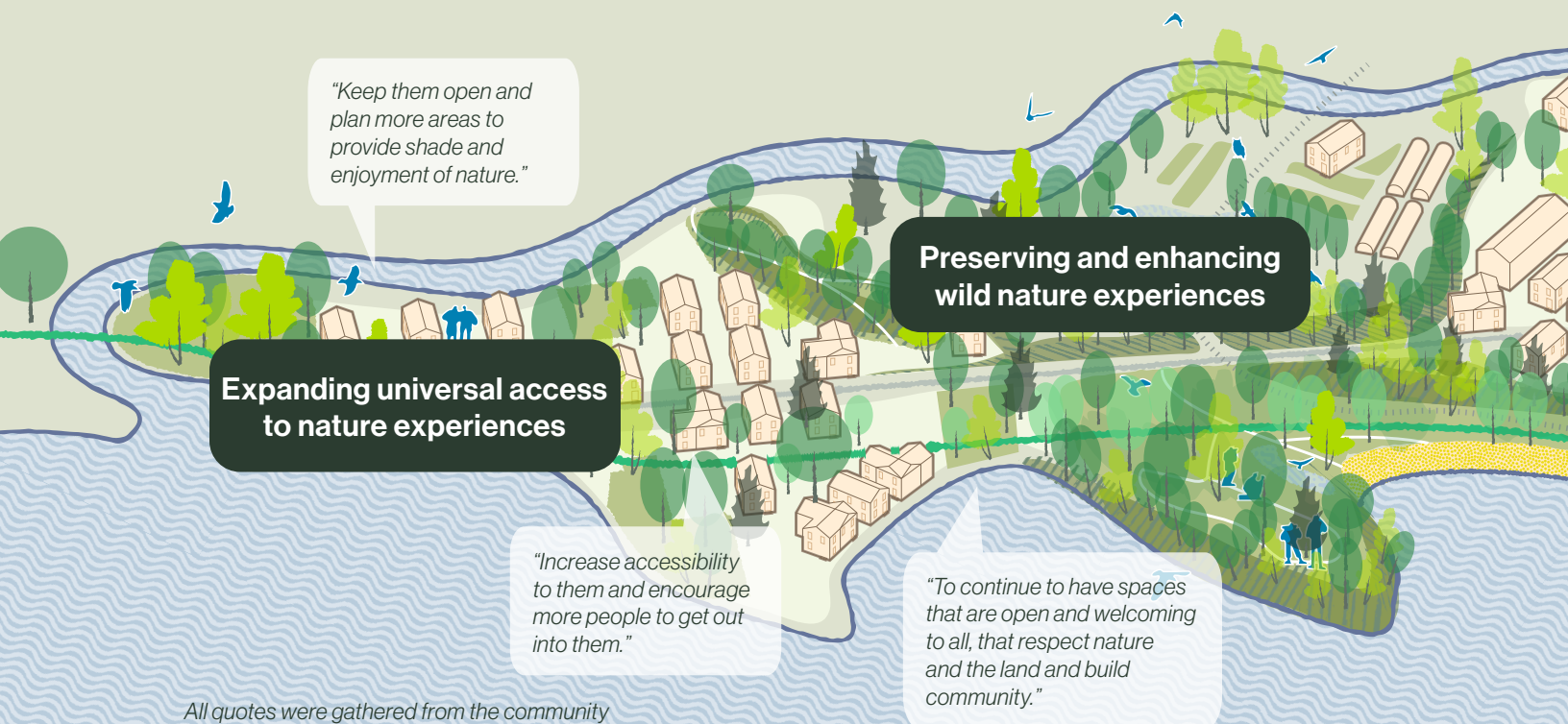
Expanding a variety of nature experiences
across Burlington



EXPERIENCE Overview

Fostering diverse outdoor experiences for everyone

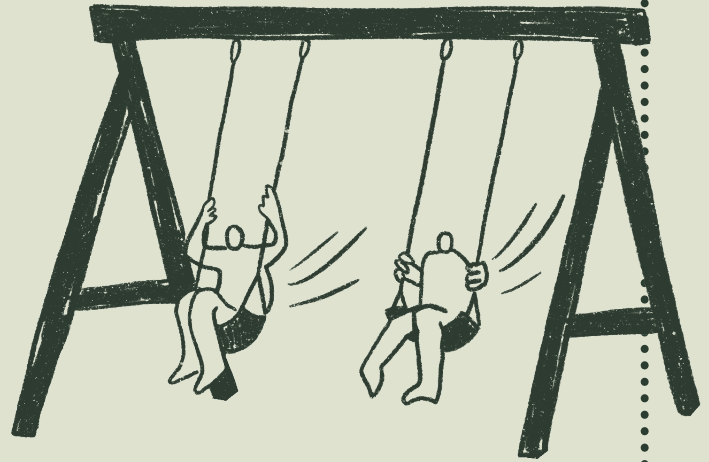
Burlington's Open Space Plan is not just about land—it's about how people use and enjoy them. As reflected in the first wave of engagement, Burlingtonians' outdoor experiences are as diverse as the open spaces themselves. This goal focuses on preserving and enhancing experiences in nature while breaking down barriers to access. It also considers the different types of nature experiences people have—everyday experiences and wild ones—and how to educate people about them while growing opportunities to engage with a variety of open spaces.



All quotes were gathered from the community during engagement events or in surveys.

EXPERIENCE Strategies

- EX1** Increase awareness about Burlington's open spaces
- EX2** Grow public access and accessibility to nature-based experiences
- EX3** Break down barriers to open space access



"To preserve and maintain the ones we have, and to add smaller open spaces even in the most urban parts of the city if possible"

Increasing visitor stewardship of open spaces

"Connectivity for animals, climate solutions, youth engagement, educational purposes, community gathering spaces."

Growing everyday nature experiences

Expanding the open space network

"More community spaces to connect with each other and the natural world."

EXPERIENCE: Overview

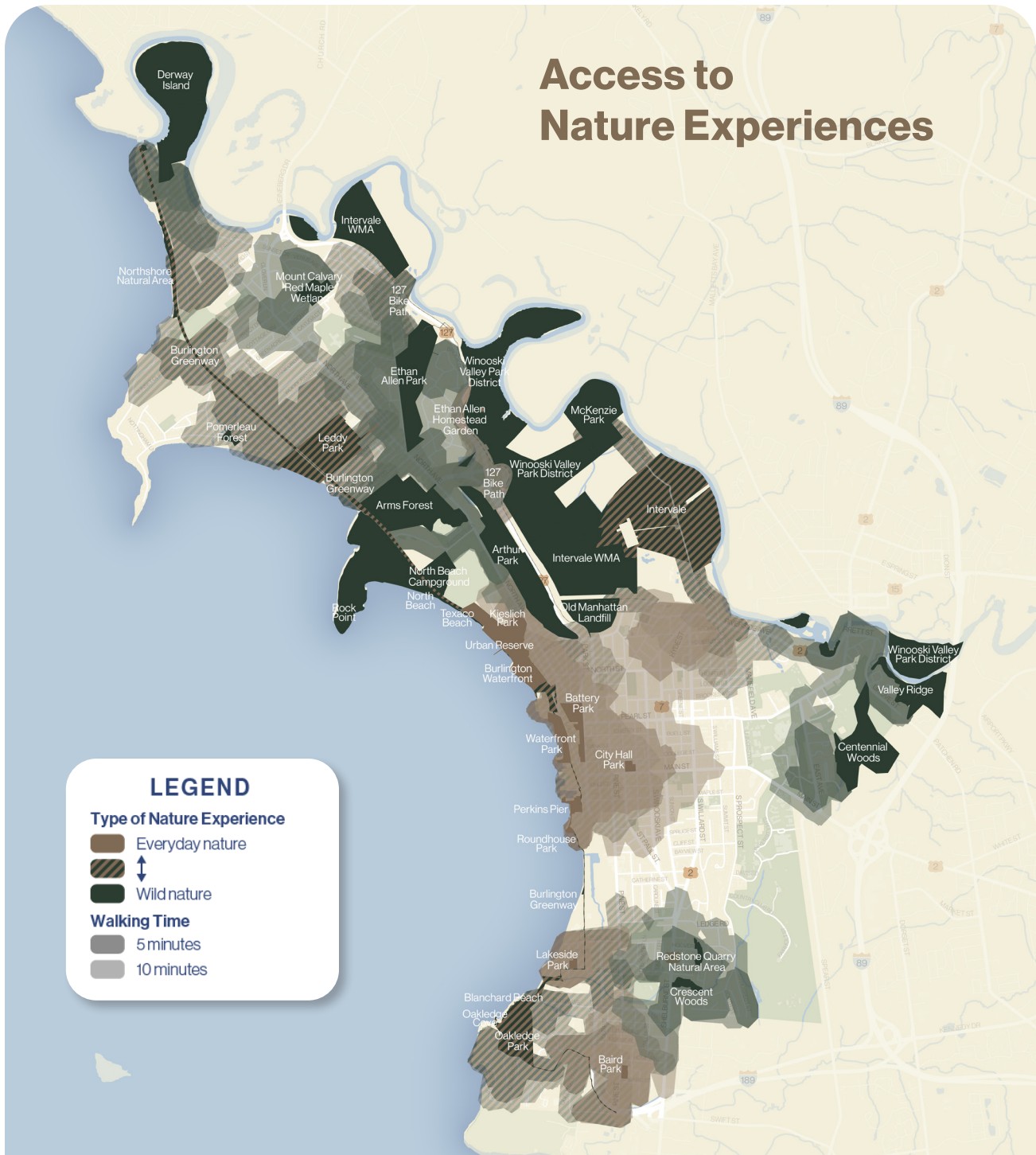
Connecting with nature can take many forms, from everyday nature moments to big woods experiences.



Standing at the edge of Rock Point and gazing out at Lake Champlain, without a building in sight. Pausing along a neighborhood walk to admire a neighbor's pollinator garden and breathe the evening air. Biking on the Burlington Greenway and passing picnickers, skateboarders, and kayakers at different points. These are just a few of the wide range of outdoor experiences that Burlington offers in everyday life and in close-to-home adventures.

Burlington's experiences are rich because of the variety of open space types and their diverse ownership and management practices. Some open spaces are managed intensively by people while others are left more wild. Some spaces lend themselves to passive recreation while others are more active. Some spaces can only be used in certain ways while others have many potential uses. Burlington is lucky to have this multifaceted array of open spaces.





LEGEND

Type of Nature Experience

- Everyday nature
- Wild nature

Walking Time

- 5 minutes
- 10 minutes

Nature Experiences

% area within....

	5 walk	10 walk
Everyday Nature	11%	21%
↕	23%	39%
Big Woods / Wild Nature	13%	25%

This map categorizes open spaces by whether they foster everyday nature or wild nature experiences. It shows the surrounding area that is within a 5-minute or 10-minute walk.



EXPERIENCE Strategies



STRATEGY 1

Increase Awareness About Burlington's Open Spaces

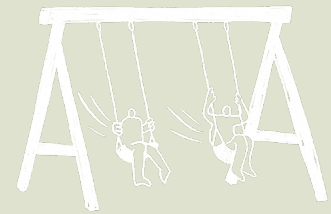
Half of Burlington's land area is covered by open spaces, but knowledge about and access to these spaces are not well known. While many people—residents and visitors alike—frequent Burlington's parks and recreate freely—from hiking to swimming to picnicking to relaxing—there is a wealth of knowledge and events that can be readily shared. Some center on history and learning while others foster connections and shared experiences.

This strategy aims to connect more people to more experiences through education and communication. By increasing awareness of the natural world and ways to engage with it, more people may become part of an ever-growing community of open space champions.

ACTIONS

- EX1.1 Collaborate to create educational tools on Burlington's natural history and stewardship story with associated places to visit.
- EX1.2 Create a central calendar that crowdsources events and volunteer efforts around the City. (See also EX1.3)
- EX1.3 Create a comprehensive open space communications and education plan to share recommendations of the open space plan. (See also EX1.2)





STRATEGY 2

Grow Public Access to Nature-Based Experiences

Burlington offers a wide variety of nature experiences, from a morning walk in the park to a weekend rafting escapade. From an afternoon watching bees and birds in a pollinator garden to a thrilling mountain biking adventure through the woods. It's not everyday that those big experiences happen—and they're not necessarily possible for or desired by everyone. Everyone should be able to experience nature every day—and it's much easier in Burlington, where nearly the entire city is within a 10-minute walk from an open space.

This strategy focuses on making those everyday nature experiences more commonplace and integrated into daily routines. It includes increasing opportunities throughout the city, partially in partnership with private and institutional landowners. Public access to private land is already happening in places like Rock Point and can be expanded to even more areas.

ACTIONS

- EX2.1 Expand “everyday” nature experiences across the city that give community members opportunities to experience green/natural spaces as part of daily routines.
- EX2.2 Continue to partner to expand public access to nature experiences. Partnerships could include, for example, private and institutional landowners, organizations, and visionaries that promote nature-based work.

**The upcoming
Comprehensive Plan will
continue to address
these issues.**





EXPERIENCE Strategies



STRATEGY 3 Break Down Barriers to Open Space Access

Everyone in Burlington is within a 10-minute walk from an open space, but not all open spaces are created equal. Not only do they differ in size, nature, and types of experiences offered, they also differ in accessibility. Accessibility can refer to physical accessibility (“How easy is it for me to get to an open space by foot, bike, or car?”) or cultural accessibility (“Once I get to this open space, how welcoming and comfortable of an environment is it for me? For my family?”).

This strategy seeks to tackle both barriers while considering the health of important natural areas. Acknowledging that there are cultural differences in enjoying open spaces, inclusive and accessible strategies need to be employed to engage marginalized communities and integrate cultural preferences. Physical access is a priority as well, particularly by different modes, and needs to be balanced with ecological sensitivities. The Conservation Legacy Fund can be strategically used to help support improved access and accessibility through conservation infrastructure, including focusing on universal design throughout.

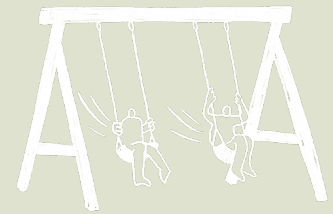
ACTIONS

- EX3.1 Evaluate opportunities for universal access in natural areas where appropriate and considering ecological sensitivity. (See also EX3.3)
- EX3.2 Improve equitable transportation access to natural areas and seek out alternative funding mechanisms.
- EX3.3 Regularly engage communities who face barriers to accessing or enjoying open space to identify additional actions to increase use and where to prioritize improvements. (See also EX3.1)
- EX3.4 Plan for and integrate different cultural preferences in the use of public outdoor spaces.
- EX3.5 Incorporate language access in educational campaigns.

The upcoming Comprehensive Plan will include specific strategies for improvements in multi-modal access to the Intervale.

Stakeholder and public feedback included some challenges that are being accomplished outside of the Open Space Plan, including cat and dog regulations, food safety, and border management. This plan acknowledges these challenges and supports related actions in other plans.





Open Space Stories

Wildways

The Burlington Wildways partnership works together to address some of the most pressing needs for conservation, climate resilience, and equitable nature access in Burlington's urban context.

Wildways was formed by a city council resolution in 2017 to collectively steward these areas and make sure that Burlington residents know about, care about, and have access to them. With the many threats posed by a warming climate, they promote nature connection and many forms of stewardship to help save and increase biodiversity and protect ecological functions in the city. They have piloted some groundbreaking approaches, such as the school-based tree nursery program; the Wildways Stewards program that uses citizens to maintain trails, help manage non-native species and do restoration work; and the Grow Wild native plant initiative. They also host an annual City Nature Celebration.



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Implementation Matrix

EX 1 Increase Awareness About Burlington's Open Spaces

No.	Action	Lead	Key Partners
EX 1.1	Collaborate to create and translate educational tools on Burlington's natural history and stewardship story with associated places to visit.	Parks Conservation Team	REIB, Crows Path, Master Naturalist, UVM, Shelburne Farms, ECHO, WVPD, Vermont Folklife, UVM Spatial Analysis, Generator
EX 1.2	Create a central calendar that crowdsources events and volunteer efforts around the City. (See also EX1.3)	Parks Communications (with LoveBurlington)	Wildways, Parks Conservation Team
EX 1.3	Create a comprehensive open space communications and education plan to share recommendations of the open space plan. (See also EX1.2)	Parks Communications	City Planning, Park Planning, Wildways

EX 2 Grow Public Access to Nature-Based Experiences

No.	Action	Lead	Key Partners
EX 2.1	Expand "everyday" nature experiences across the city that give community members opportunities to experience green/natural spaces as part of daily routines.	Parks Conservation Team, Parks Planning	DPW, Parks Communications, Neighborhoods/individual landowners
EX 2.2	Continue to partner to expand public access to nature experiences. Partnerships could include, for example, private and institutional landowners, organizations, and visionaries that promote nature-based work.	Parks	UVM, Rock Point, Intervale Center other large landowners



High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Near-term (0-2 years)	-
-	-	Near-term (0-2 years)	EX 1.3
-	-	Mid-term (2-6 years)	EX 1.2

High Priority	Quick Win	Implementation Timeframe	Related Actions
YES	-	Long-term (6+ years)	-
-	-	Long-term (6+ years)	-



Implementation Matrix

EX 3 Break Down Barriers to Open Space Access			
No.	Action	Lead	Key Partners
EX 3.1	Evaluate opportunities for universal access in natural areas where appropriate and considering ecological sensitivity. (See also EX3.3)	Parks Planning	BACA
EX 3.2	Improve equitable transportation access to natural areas and seek out alternative funding mechanisms.	Parks Planning	DPW, CCRPC
EX 3.3	Regularly engage communities who face barriers to accessing or enjoying open space to identify additional actions to increase use and where to prioritize improvements. (See also EX3.1)	Parks Planning, City Planning, REIB, BACA	Liberation Ecosystem, BPRW Conservation Team, Wildways, Trusted Community Voices
EX 3.4	Plan for and integrate different cultural preferences in the use of public outdoor spaces.	Parks Planning, City Planning, REIB	Liberation Ecosystem, BPRW Conservation Team, Wildways
EX 3.5	Incorporate language access in educational campaigns.	Parks Communications, REIB	Trusted Community Voices



High Priority	Quick Win	Implementation Timeframe	Related Actions
YES	-	Long-term (6+ years)	EX 3.3
YES	-	Long-term (6+ years)	
YES	-	Near-term (0-2 years)	EX 3.1
YES	-	Near-term (0-2 years)	-
-	-	Near-term (0-2 years)	-





GOAL FOUR

CULTIVATE

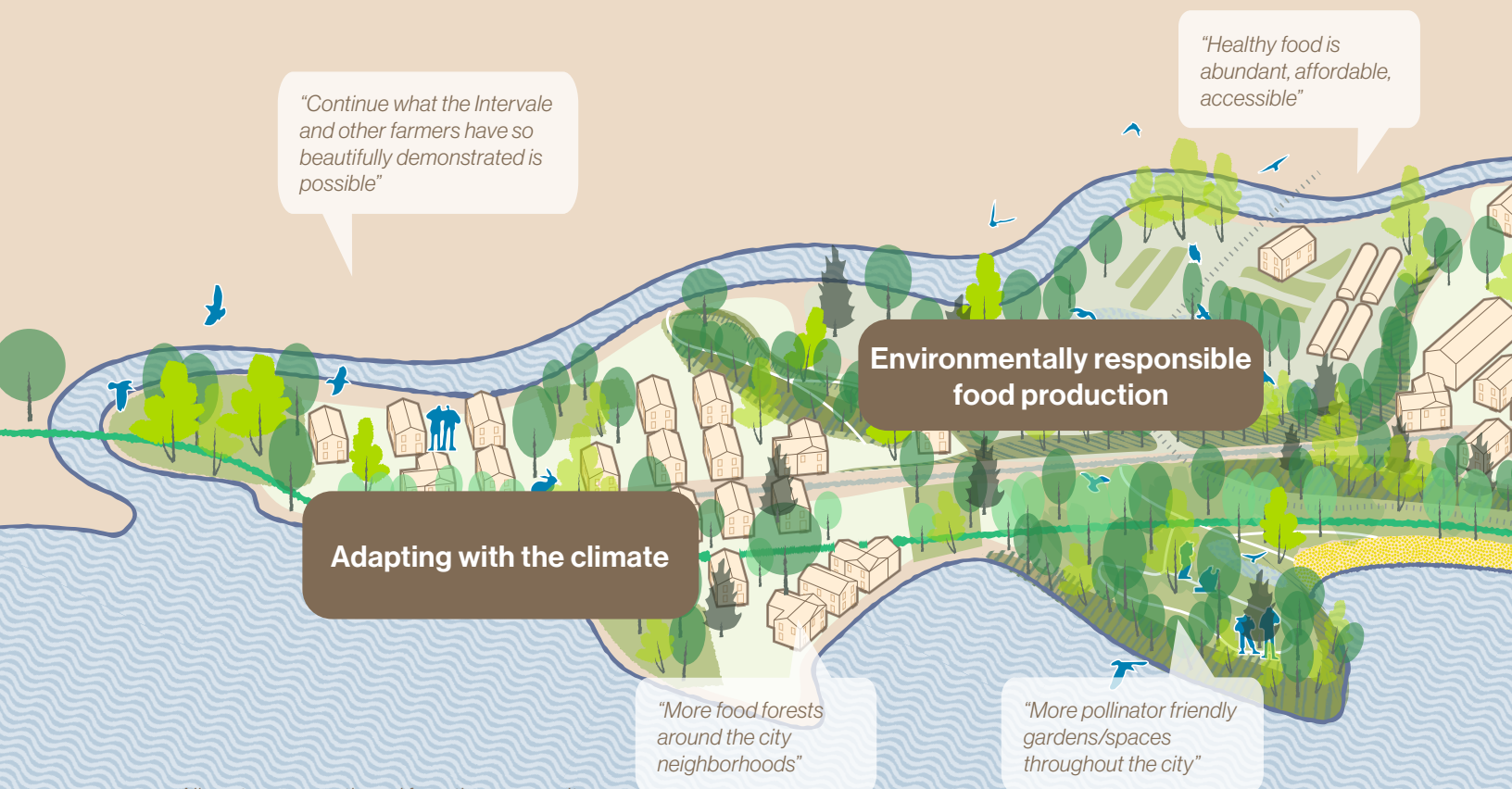
Growing sustainable and accessible local food systems that meet community needs



CULTIVATE Overview

“Growing Local” connects us to our food and can create more sustainable food systems

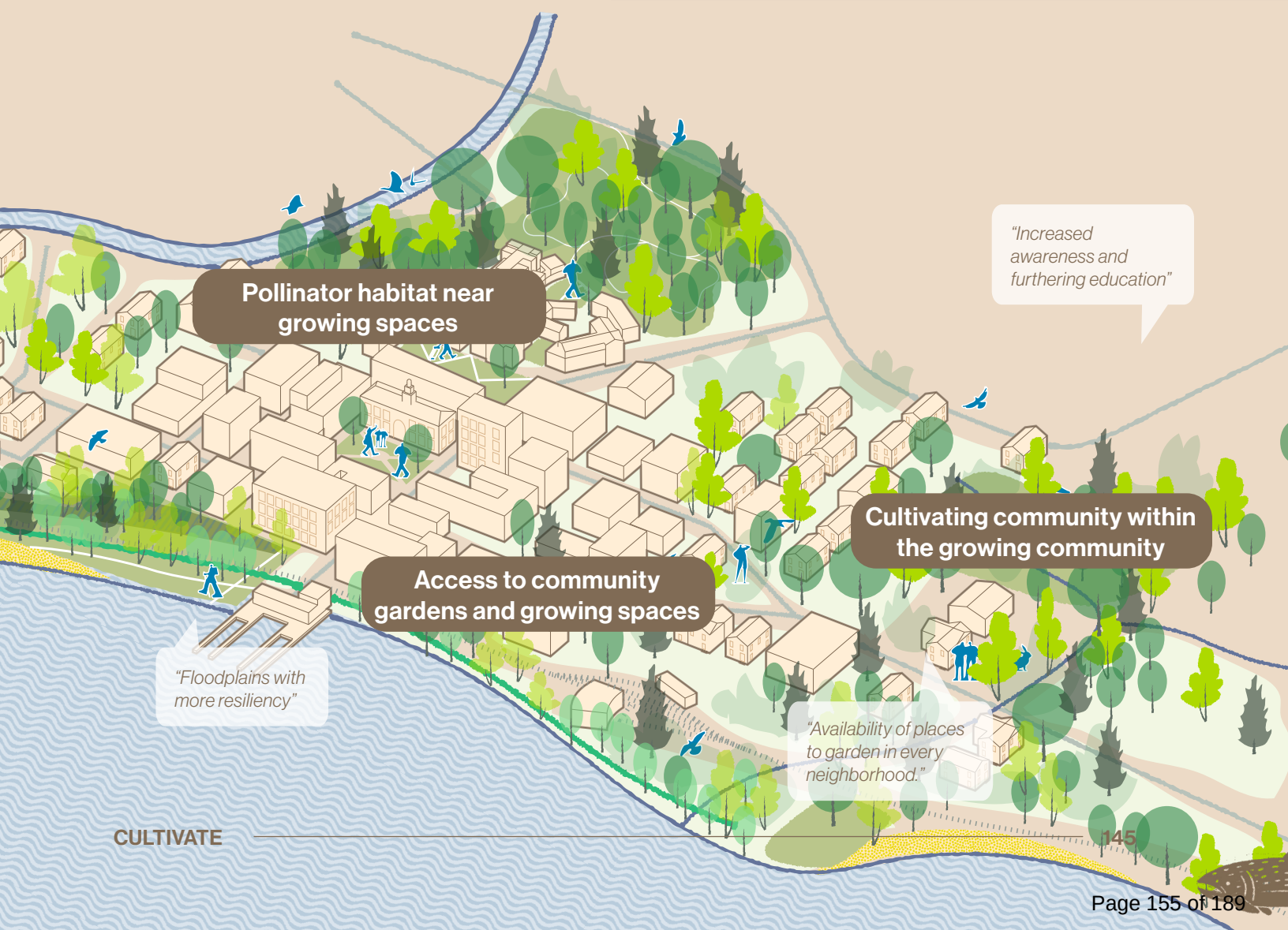
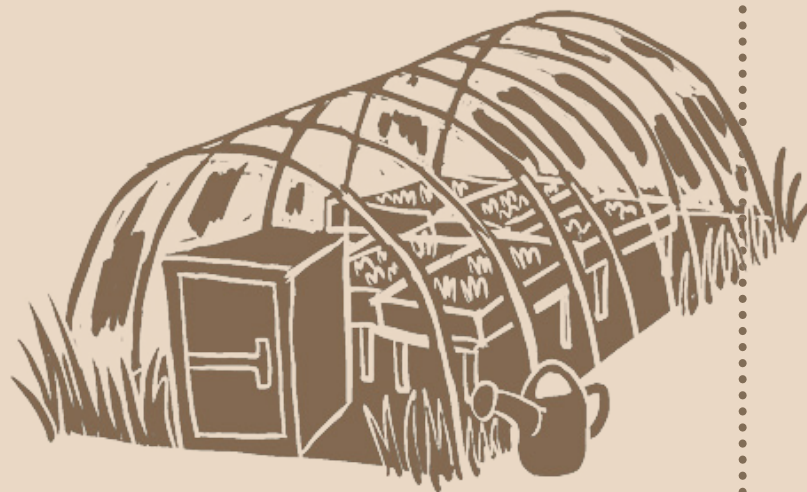
Local food systems are integral to the fabric of open space and life in Burlington, from home gardens to the community garden to the Intervale Center. More growing space is needed to meet the community’s demand, and the food system is susceptible to challenges like climate change.



All quotes were gathered from the community during engagement events or in surveys.

CULTIVATE Strategies

- CL1** Cultivate sustainable and resilient agriculture practices
- CL2** Expand community gardens and access for new community members
- CL3** Support the cultivation of alternate food sources



CULTIVATE: Overview

Exposure to varied food experiences can strengthen local food resilience



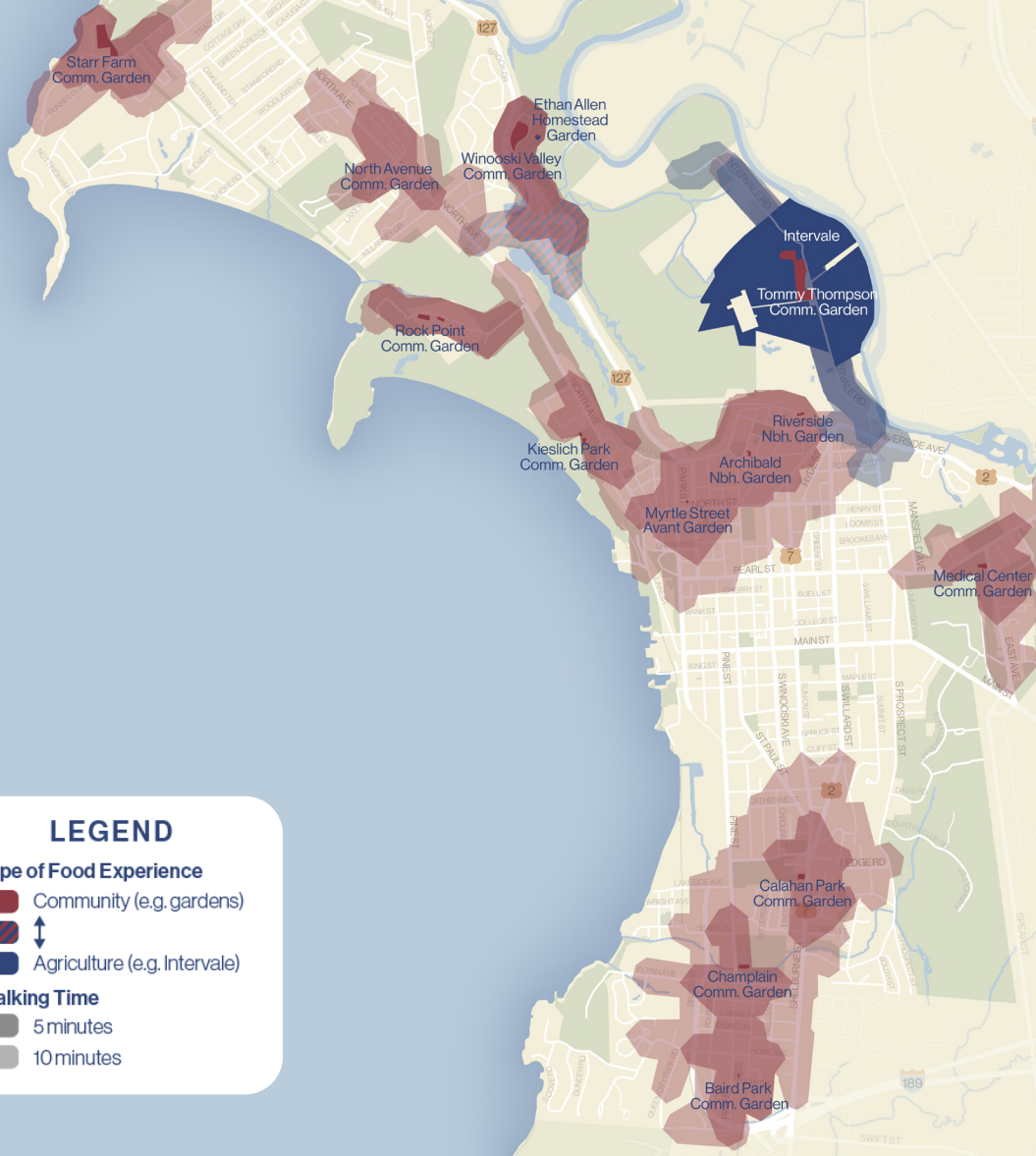
In Burlington, food growing spaces hold deep cultural significance as symbols of community resilience, heritage, and connection to the land. For many of Burlington's immigrant communities, these spaces exemplify traditional agricultural practices, provide space for intergenerational knowledge sharing, and encourage food sovereignty. Similarly, community gardens often reclaim space for marginalized communities, nurturing identity, pride, and care. These spaces connect people closer to nature and collective health, making them vital to cultural continuity and social cohesion.

Many food procuring methods are practiced in Burlington, like regenerative agriculture, community gardening, and foraging. Exposure to them is a way to increase food experiences and strengthen local food resilience. This could lead the community to expand community gardens, promote sustainable urban agriculture, and encourage alternative food sources like food forests and foraging. There are also many opportunities to propagate growing throughout the community at-large. Community knowledge-sharing is critical to expanding and enriching the ways we cultivate, make, and source food.

Together, these efforts diversify how food is grown and accessed locally, thereby reducing reliance on commercial growing methods and improving food security. Take a look at the map to see the many food experiences are available to Burlington residents today.



Access to Intervale and Community Gardens



LEGEND

Type of Food Experience

- Community (e.g. gardens)
- ↕
- Agriculture (e.g. Intervale)

Walking Time

- 5 minutes
- 10 minutes

Food Experiences

% area within....

	5 walk	10 walk
Community	14%	30%
↕	1%	2%
Agriculture	2%	3%

Community gardens are distributed across Burlington, although there are gaps in Downtown and in the New North End. The Intervale Center is located near the mid-point of Burlington, but access is largely car-dependent.

CULTIVATE: Overview

Steward Ecological Health to Sustain Long-Term Food Production

While providing access to more food experiences is important to increase awareness and encourage future stewardship of food growing spaces, the quality of those food growing and cultivating spaces is also critical. This plan identifies several strategies to ensure that Burlington also considers soil health, climate resilience, and sustainable land stewardship as part of its cultivation goals. This focus will ensure that both traditional and alternative food systems can thrive in the face of environmental challenges, such as flooding and temperature fluctuations, aggressive introduced species, and habitat pressure.







CULTIVATE Strategies



STRATEGY 1

Cultivate Sustainable and Resilient Agriculture Practices

Community-based urban agriculture and stewardship is an integral part of Burlington's open spaces. Since the creation of the first community garden, there has been a thoughtful balance between open space and food production needs throughout the city. This system is under threat, however, from climate change, aggressive introduced species, and deer overpopulation. Flooding especially has been and will continue to be a major issue as weather patterns become more unpredictable.

This strategy endeavors to address these major issues in order to ensure that urban agriculture can thrive for many generations to come. Sustainable and resilient food growing contributes to ecological benefits, such as reduction in food miles and reduced carbon footprint, that are all part of the city's climate strategies. Underlying it is also a focus on soils: as soils are the core resource to farming, understanding them and how to maintain their health is critical to ensuring they remain fertile and retain growing potential.

ACTIONS

- CL1.1 Continue to plan for resilient agriculture strategies in the Intervale as climate and flood risks increase.
- CL1.2 Develop and implement deer management strategies, and track progress.
- CL1.3 Work with other agencies to educate and share resources on soil health information and remediation, aiming to create a resource similar to Dig Safe to emphasize safe soils for safe food.



STRATEGY 2

Expand Community Gardens

There are currently 14 community gardens managed by the Burlington Area Community Gardens (BACG) program with plots ranging from 100 square-feet to 750 square-feet. The program not only connects people with plots of land but also encourages community partnerships through community days and knowledge sharing. They foster a close relationship with food and provide food security.

While these gardens are well-loved, demand historically has been and continues to be much higher than supply. There is a great need for more community gardening space, especially as the city continues to grow. This strategy seeks to identify partnerships that can identify where community gardens can be expanded and to set and track goals for expansion. It also emphasizes that education for private land owners is critical to expanding growing opportunities on both private land and in neighborhood community gardens.

ACTIONS

- CL2.1 Partner with community and other groups to explore new spaces for community gardens and community agriculture (especially in areas with less vehicle access, higher percentage of low-income residents, and less access to grocery stores).
- CL2.2 Track garden plots per capita to establish baseline conditions and evaluate unmet demand. Set and track mid-term and long-term goals for community garden spaces.
- CL2.3 Address the need for more community gardens with actions like:
 - Conduct city land asset study for community garden opportunities.
 - Document and review process for plot distribution
 - Proactively work with neighborhoods to identify potential community garden spaces and support with the Conservation Legacy Fund.
 - Encourage and direct expansion of capacity at existing sites with elements like new raised beds and support infrastructure.
 - Consider out-of-the-box opportunities, such as rooftop gardens, and innovative practices, such as vertical garden opportunities.
- CL2.4 Incentivize creation of community gardens with new and redevelopment through green design standards.





CULTIVATE Strategies



STRATEGY 3

Support the Cultivation of Alternate Food Sources

Gardening is not the only method for sourcing food outside of a commercial environment: the natural world is full of edible plants. Alternative food sources like food forests and the practice of foraging for wild food sources have gradually spread in recent years, partially as a sustainable activity and partially as a safeguard against food insecurity. The Intervale Center, for example, began the first phase of the Agroforestry Riparian Buffer Project in 2024 to “demonstrate the feasibility of a large scale implementation of agroforestry while satisfying the need to enhance the riparian buffer along the Winooski River.” This effort can both grow perennial food producing plants and support climate resilience by protecting growing lands and creating additional habitats for birds and beneficial insects.

There sometimes is, however, a conflict between the desire or need for foraging and conservation goals. This strategy not only acknowledges foraging as a viable method but also encourages sustainable foraging practices. Food forests can be planned for and educational resources can be shared to ensure responsible cultivation of foraging practices. These strategies will need to consider the legal environment around community food sources on public property.

ACTIONS

- CL3.1 Plan for food forests, including consideration of tree choices to allow for more community food production. (See also CL3.2)
- CL3.2 Work with the public to facilitate responsible, safe, and sustainable foraging communities. (See also CL3.1)
- CL3.3 Create an inventory of potential food forest spaces and feasibility study.
- CL3.4 *See also in CS2.1 CONSERVE: Create network of pollinator-friendly and native plant gardens across the city.*



Open Space Stories

New Farms for New Americans

* * * * *

What began in 2008 as a workforce development program under the Association of Africans Living in Vermont (AALV) has evolved into a community-based gardening and agriculture program for refugees and immigrants.

Each year, NFNA connects around 100 participants with plots of land in the Intervale and Ethan Allen Homestead for subsistence farming—for consumption or for sale—and offers education and training on adapting farming practices to Vermont's climate.

This program not only helps farmers grow culturally significant crops like snake gourd, African eggplants, and daikon but also increases food security, fosters cross-cultural communities, and contributes to local climate resilience.





Implementation Matrix

CL 1 Cultivate Sustainable and Resilient Agriculture Practices			
No.	Action	Lead	Key Partners
CL 1.1	Continue to plan for resilient agriculture strategies in the Intervale as climate and flood risks increase.	Intervale Center	Farmers, UVM AgroEcology, Parks Conservation Team, VT Garden Network, CEDO (with NRCS)
CL 1.2	Develop and implement deer management strategies, and track progress.	Conservation Board	Parks Conservation Team, Intervale Center
CL 1.3	Work with other agencies to educate and share resources on soil health information and remediation, aiming to create a resource similar to Dig Safe to emphasize safe soils for safe food.	NRCS, CEDO	NRCS, Conservation Districts, UVM Extension Service
CL 2 Expand Community Gardens			
No.	Action	Lead	Key Partners
CL 2.1	Partner with community and other groups to explore new spaces for community gardens and community agriculture (especially in areas with less vehicle access, higher percentage of low-income residents, and less access to grocery stores).	City Planning, Parks Conservation Team	Vermont Garden Network
CL 2.2	Track garden plots per capita to establish baseline conditions and evaluate unmet demand. Set and track mid-term and long-term goals for community garden spaces.	Parks Conservation Team	Community gardeners, Vermont Garden Network
CL 2.3	Address the need for more community gardens with actions like: • Conduct city land asset study for community garden opportunities. • Document and review process for plot distribution • Proactively work with neighborhoods to identify potential community garden spaces and support with the Conservation Legacy Fund. • Encourage and direct expansion of capacity at existing sites with elements like new raised beds and support infrastructure. • Consider out-of-the-box opportunities, such as rooftop gardens, and innovative practices, such as vertical garden opportunities.		
CL 2.4	Incentivize creation of community gardens with new and redevelopment through green design standards.		



High Priority	Quick Win	Implementation Timeframe	Related Actions
YES	-	Mid-term (2-6 years)	-
-	-	Near-term (0-2 years)	-
-	-	Long-term (6+ years)	-

High Priority	Quick Win	Implementation Timeframe	Related Actions
-	-	Long-term (6+ years)	-
YES	YES	Near-term (0-2 years)	-





Implementation Matrix

CL 3 Support the Cultivation of Alternate Food Sources			
No.	Action	Lead	Key Partners
CL 3.1	Plan for food forests, including consideration of tree choices to allow for more community food production. (See also CL3.2)	Park Planning or Conservation Team	Parks Conservation Team
CL 3.2	Work with the public to facilitate responsible, safe, and sustainable foraging communities. (See also CL3.1)	Intervale Center	WVPD, Parks Communications and Conservation Teams, Rock Point, UVM
CL 3.3	Create an inventory of potential food forest spaces and conduct a feasibility study.		
CL 3.4	<i>See also in CS2.1 CONSERVE: Create network of pollinator-friendly and native plant gardens across the city.</i>	-	-



High Priority	Quick Win	Implementation Timeframe	Related Actions
YES	-	Long-term (6+ years)	CL3.2
-	-	Mid-term (2-6 years)	CL3.1
-	-	-	-







4

Way Ahead

Implementing the Open Space Plan will be a team effort. This chapter looks at opportunities to work together—and dream big!—for the future of our open spaces.

How can I contribute?

The Open Space Plan is a roadmap to guide the City of Burlington and its many partners and collaborators as they work together to invest in a thriving open space system for future generations.

While the City is the primary author of this document, and many of the actions will be led by the City, the City cannot implement this plan alone. It will require the investment of everyone in Burlington to make this plan a success. Below are Burlington's open space stewards and key actions that each group will need to champion.

Large Land Stewards

- Contribute to **monitoring of important restoration and wildlife indicators** including aggressive, introduced species, and water quality - See *Strategies CS 1.1, 1.6, 2.2, 2.4, and CL1.2*
- Help **expand public access to nature experiences** - See *Strategy EX 2.2*
- **Alleviate the impacts of climate change** by managing stormwater on-site, expanding tree canopy, and reducing impervious surfaces - See *Strategies CN 1.5 and CN 3.2*



Community Organizations

- **Expand access to food cultivation and pollinator-friendly and native gardens** throughout the city through advocacy and City partnerships - See *Strategies CL 3.1 and CS 2.1*
- **Join a consortium of like-minded organizations** and share resources and best practices - See *Strategy CN 2.1*
- **Participate in recurring summits and sustained communications** to strengthen collaboration and increase awareness of city and community initiatives. - See *Strategy CN 2.2*



Development Community

- Lean into **sustainable/ ecological nature-based approaches to development** - See *Strategy CN 4.3*
- **Contribute to the development of Green Design Standards** for new developments and redevelopments to ensure standards balance fiscal realities with aspirations for sustainable building - See *Strategy CN 4.1*



Governmental Partners

- Collaborate across agencies to **identify opportunities for nature-based solutions** in all city, county, and state projects - See *Strategy CS 1.6*
- **Engage seniors and youth** in expanding awareness of nature-based climate solutions - See *Strategy CN 1.2, CN 1.3, and CN 1.5*
- **Retain citywide Nature-based Climate Solutions positions** like the Land Steward and Nature-Based Climate Solutions Field Coordinator



Homeowners with Yards

- Consult with the BLUE program to **add a rain garden or other green infrastructure** to absorb rainfall - See *Strategy CL 3.3*
- Consider replacing non-native plants with native lawn alternatives to **grow not mow** and contribute to a healthier lake, native ecology, and people! - See *Strategies CN 1.2 and CN 1.4*
- **Retain mature trees and plant new trees** to help grow the city's tree canopy and clean our air- See *Strategy CN 3.2 and CN 3.2*



Everybody!

- **Get out into your open spaces, trails, and forests** - See *Strategy EX 1.2, 2.1, and 2.2*
- Learn how to **responsibly forage for food** in forests and other open spaces - See *Strategy CL 3.2*
- **Volunteer** with the city or local community steward - See *Strategy EX 1.2*
- **Learn more about your open spaces** and **spread the word** to neighbors See *Strategy CS 2.4*
- **Participate** in processes to improve open spaces - See *Strategy EX 1.3*



Wild Ideas

Throughout the Open Space Plan process, Burlington residents, land stewards, and other stakeholders shared some out-of-the-box ideas to help guide future investment in and enjoyment of Burlington's open space network and urban wildlife.

Below are a few of Burlington's big ideas! Many of these are tactics or projects that align with the goals and strategies of the plan, and if the funding opportunities and community visions align - these ideas will go a long way in transforming Burlington into a nature-filled city.

Become a Foodie City

Encourage food production everywhere

Expand use of planters in the right-of-way to grow food

Create Continuous Habitats

Green the tunnel under North Avenue to the Intervale

Create a wildlife bridge over Colchester Avenue

Create pollinator and insect habitat across public and private properties

Create a sound barrier along Centennial Woods

Go Big with Go Wild

Proactively work with large landowners to rewild open spaces

Rewild the Champlain Parkway

Grow native plants in yards and along roads

Create community toolsheds

Launch a yearly shared communications campaign in support of the big ideas

Launch a yearly communications plan

in support of the big ideas and the more practical, attainable things that people can do

Strategically plant trees

to mitigate the urban heat island effect



* * * * *

Comprehensive Plan Corner

As the City prepares to embark on a new comprehensive plan, there are a few recommendations within the Open Space Plan that will be important to carry forward into the future comprehensive planning.

CS 4.2 Adapt strategies for land acquisition for conservation for both public and private lands reflecting the priorities of the new open space plan and upcoming comprehensive plan.

EX 2.1 Expand “everyday” nature experiences across the city that give community members opportunities to experience green/natural spaces as part of daily routines and without driving.

Additional Considerations Improve multi-modal access to the Intervale in conjunction with existing plans; include adequate funding to ensure creation of critical access.

Advanced planning around the unhoused population on City-owned open spaces to ensure ecological integrity and public safety.





NOTES

1. UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION.
2. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.
3. SITE INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY CIVIL ENGINEERING ASSOCIATES, INC. SEPTEMBER 2024. CIVIL ENGINEERING ASSOCIATES, INC. SURVEY ORIENTATION IS "GRID NORTH". VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) AND NAVD88 (VERTICAL) ESTABLISHED FROM GPS OBSERVATIONS ON SITE.
5. PROJECT BENCHMARK IS LAKE CHAMPLAIN ESTABLISHED FROM THE UNITED STATES GEOLOGICAL SURVEY GAUGING STATION 04294500 LOCATED IN BURLINGTON, VERMONT. (DATUM NGVD 29)
6. CONTOUR INFORMATION OUTSIDE OF SHORELINE STABILIZATION PROJECT IS BASED UPON LIDAR DATA FROM VERMONT CENTER FOR GEOGRAPHIC INFORMATION STATE WIDE 1' CONTOURS. HORIZONTAL AND VERTICAL DATUM BASED ON VCS NAD 83 AND NAVD 88.

LEGEND

- APPROXIMATE PROPERTY LINE
--- APPROXIMATE SETBACK LINE
---100--- EXISTING CONTOUR
---o--- EXISTING FENCE
--- EXISTING GRAVEL
--- EXISTING PAVEMENT
--- OE --- EXISTING OVERHEAD ELECTRIC
--- UE --- EXISTING UNDERGROUND ELECTRIC
--- FM --- EXISTING FORCEMAIN
--- G --- EXISTING GAS
--- ST --- EXISTING STORM
--- S --- EXISTING GRAVITY SEWER
--- W --- EXISTING WATER
--- EDGE OF LAKE
--- EXISTING SHUT OFF
--- EXISTING UTILITY POLE
--- EXISTING GUY WIRE/POLE
--- EXISTING DECIDUOUS TREE
--- EXISTING CONIFEROUS TREE
--- EDGE OF BRUSH/WOODS

SITE ENGINEER:



CIVIL ENGINEERING ASSOCIATES, INC.
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CLIENT:
BIRDSEYE BUILDING

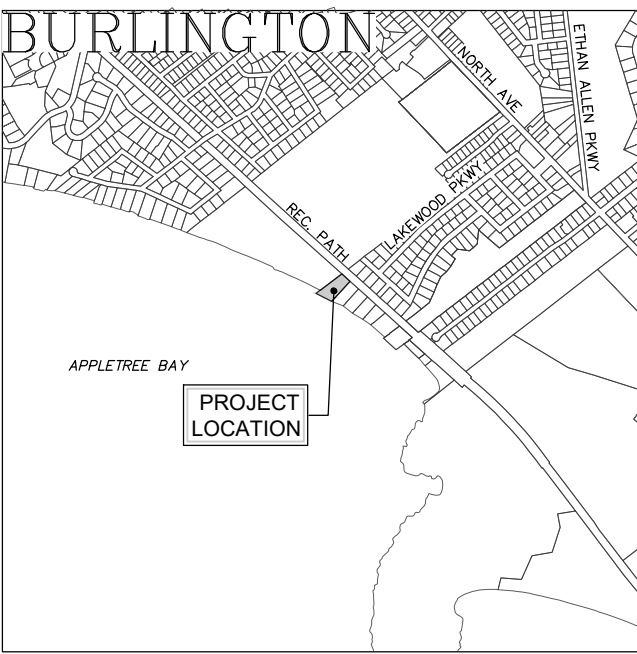
3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:

**TRACY AND
ANDREW RUSSELL**

**SHORELINE
RE-STABILIZATION**

11 DRIFTWOOD LANE
BURLINGTON, VERMONT



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION

**EXISTING
CONDITIONS
PLAN**

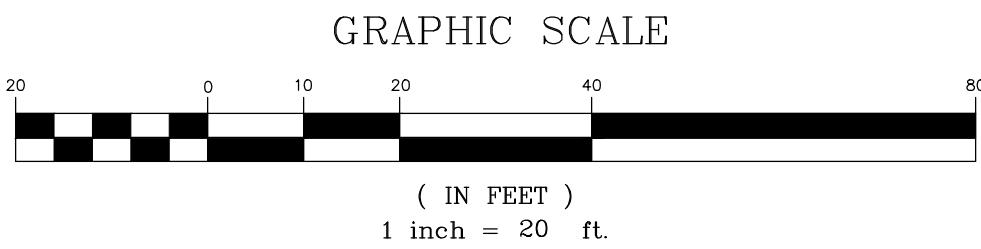
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SCALE
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PROJ. NO.
24174

DRAWING NUMBER

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LEGEND

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--- O --- EXISTING FENCE
--- --- EXISTING GRAVEL
--- --- EXISTING PAVEMENT
--- OE --- EXISTING OVERHEAD ELECTRIC
--- UE --- EXISTING UNDERGROUND ELECTRIC
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--- G --- EXISTING FORCEMAIN
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--- --- EXISTING SHUT OFF
--- --- EXISTING UTILITY POLE
--- --- EXISTING GUY WIRE/POLE
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--- --- EXISTING CONIFEROUS TREE
--- --- EDGE OF BRUSH/WOODS

GENERAL NOTES

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- ALL EXISTING UTILITIES NOT INCORPORATED INTO THE FINAL DESIGN SHALL BE REMOVED OR ABANDONED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL REPAIR/RESTORE ALL DISTURBED AREAS (ON OR OFF THE SITE) AS A DIRECT OR INDIRECT RESULT OF THE CONSTRUCTION.
- ALL GRASSED AREAS SHALL BE MAINTAINED UNTIL FULL VEGETATION IS ESTABLISHED.
- MAINTAIN ALL TREES OUTSIDE OF CONSTRUCTION LIMITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY FOR COMPLETE AND OPERABLE FACILITIES AND UTILITIES.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ITEMS AND MATERIALS INCORPORATED INTO THE SITE WORK. WORK SHALL NOT BEGIN ON ANY ITEM UNTIL SHOP DRAWING APPROVAL IS GRANTED.
- IN ADDITION TO THE REQUIREMENTS SET IN THESE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLETE THE WORK IN ACCORDANCE WITH ALL PERMIT CONDITIONS AND ANY LOCAL PUBLIC WORKS STANDARDS.
- THE TOLERANCE FOR FINISH GRADES FOR ALL PAVEMENT, WALKWAYS AND LAWN AREAS SHALL BE 0.1 FEET. UNLESS NOTED OTHERWISE, ALL EXISTING MANHOLE COVERS, VALVES, CURB STOPS AND OTHER ITEMS TO REMAIN SHALL BE ADJUSTED TO THE NEW FINISH GRADE.
- ANY DEWATERING NECESSARY FOR THE COMPLETION OF THE SITEWORK SHALL BE CONSIDERED AS PART OF THE CONTRACT AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN TOWN ROAD R.O.W. WITH TOWN AUTHORITIES.
- THE CONTRACTOR SHALL INSTALL THE ELECTRICAL, CABLE AND TELEPHONE SERVICES IN ACCORDANCE WITH THE UTILITY COMPANIES REQUIREMENTS.
- EXISTING PAVEMENT AND TREE STUMPS TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE LOCATION. ALL PAVEMENT CUTS SHALL BE MADE WITH A PAVEMENT SAW.
- IF THERE ARE ANY CONFLICTS OR INCONSISTENCIES WITH THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR VERIFICATION BEFORE WORK CONTINUES ON THE ITEM IN QUESTION.
- PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING TESTING AND INSPECTION SERVICES INDICATED IN THE CONTRACT DOCUMENTS, TYPICAL FOR CONCRETE AND SOIL TESTING.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT AND FIELD ENGINEERING REQUIRED FOR COMPLETION OF THE PROJECT. CIVIL ENGINEERING ASSOCIATES WILL PROVIDE AN AUTOCAD FILE WHERE APPLICABLE.
- THE OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ANY AND ALL SAFETY FENCES OR RAILS ABOVE EXISTING AND PROPOSED WALLS. THE OWNER SHALL VERIFY LOCAL, STATE AND INSURANCE REQUIREMENT GUIDELINES FOR THE INSTALLATION AND VERIFY ANY AND ALL PERMITTING REQUIREMENTS.

REMOVAL OF OFF PROPERTY WALL NOTES:
• CONTRACTOR TO AVOID DISTURBANCE OF EXISTING GABION WALL
• UTILIZE EXISTING RED ROCK TO BLEND FROM EXISTING GABION SLOPE TO NEW PANTON STONE WALL (RIPRAP SLOPE)
• TOPSOIL, SEED, MULCH / EROSION CONTROL MATTING ON ALL DISTURBED AREAS NOT COVERED BY RIPRAP.

REMOVE EXISTING 4" AND 8" PVC STORMWATER OVER PROPERTY LINE AND REDIRECT ON SUBJECT PARCEL. COORDINATE WITH CONTRACTOR AND ENGINEER

REMOVE EXISTING BOULDER WALL ON ADJACENT PROPERTY

REMOVE EXISTING WOODEN RETAINING WALL ON ADJACENT PROPERTY

EXISTING BOULDER WALL TO BE REMOVED AND REPLACED
EDGE OF LAKE (SEPTEMBER 2024)

SEE SHEET C3.0 EPSC SITE PLAN FOR CONSTRUCTION ACCESS

REPLACE EXISTING STAIRS PER SHEET C2.1

OIL / WATER SEPARATOR

GRINDER PUMP

HVAC PADS

WOODS

n/t
CITY DPW-PARKS REC.
DEPARTMENT

T. & A. RUSSELL

LAWN

LAWN

SHRUBS

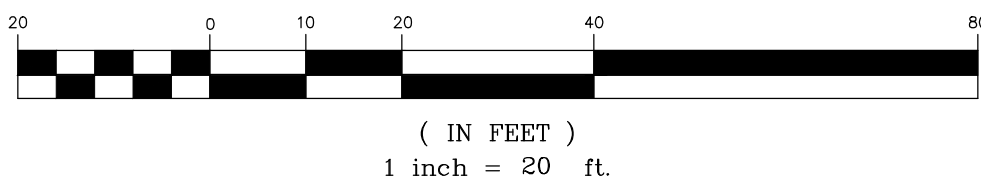
WOODEN
RETAINING WALL

LIGHT POLE
AND GUY WIRE

ONLY TO BE IMPROVED WITH
ABUTTING PROPERTY
OWNERS APPROVAL

n/t
M. & J. KIKUT

GRAPHIC SCALE



SITE ENGINEER:



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DSM

CLIENT:

BIRDSEYE BUILDING

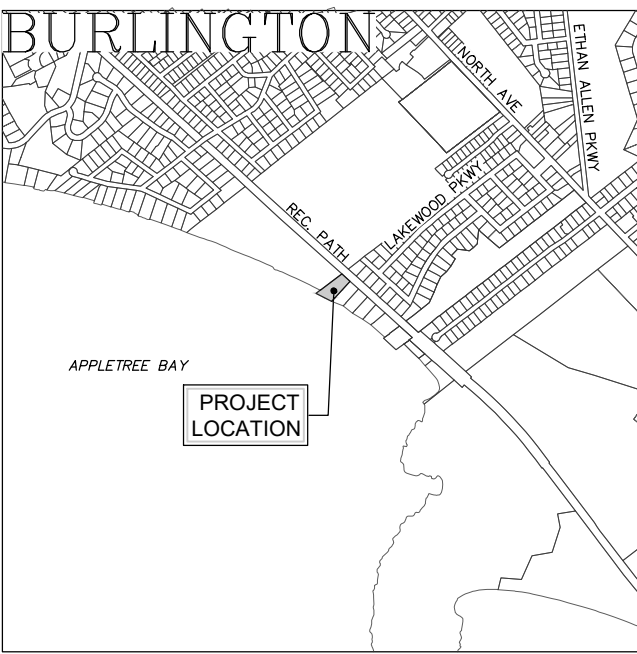
3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:

TRACY AND
ANDREW RUSSELL

SHORELINE
RE-STABILIZATION

11 DRIFTWOOD LANE
BURLINGTON, VERMONT



DATE	CHECKED	REVISION
02/13/25	MCK	ADDED EROSION CONTROL MEASURES

PROPOSED
CONDITIONS
PLAN

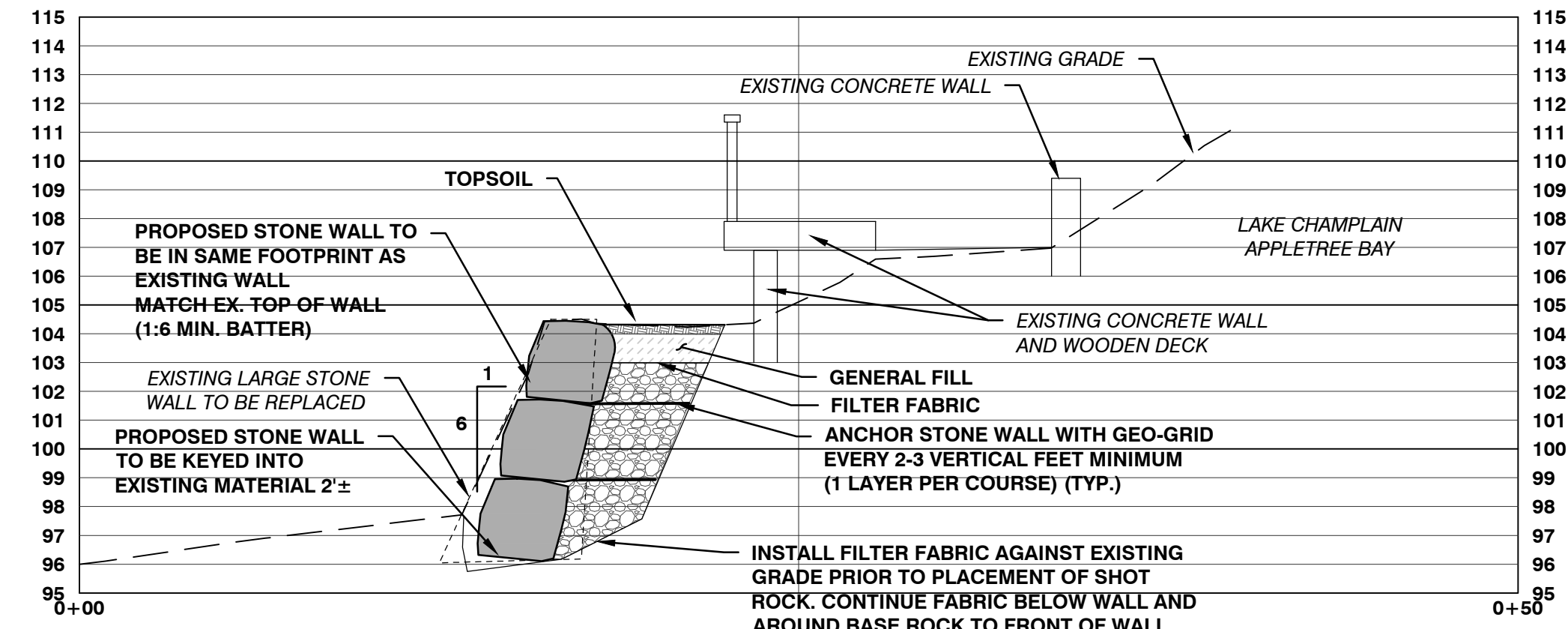
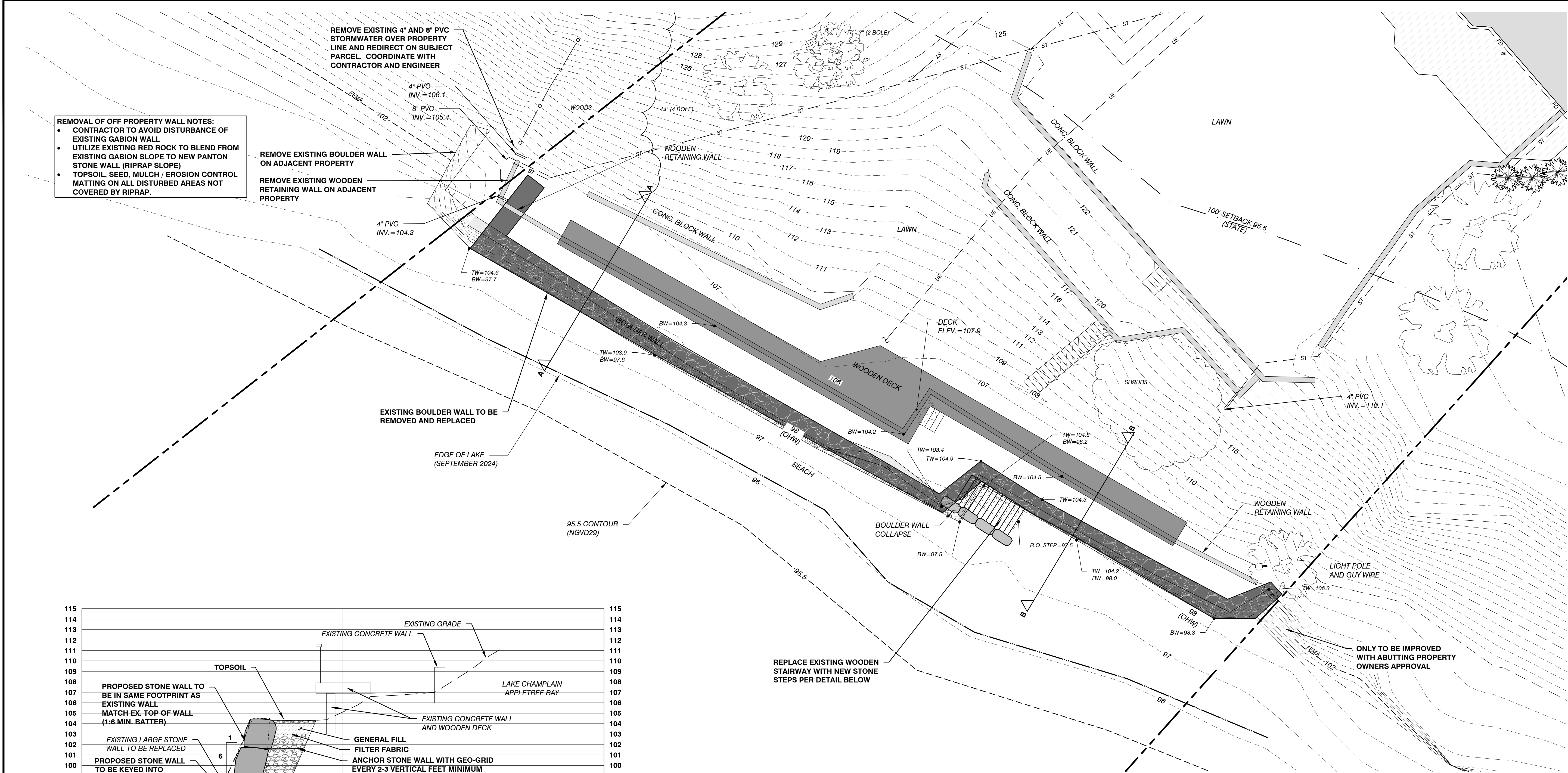
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08/27/2025

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PROJ. NO.
24174

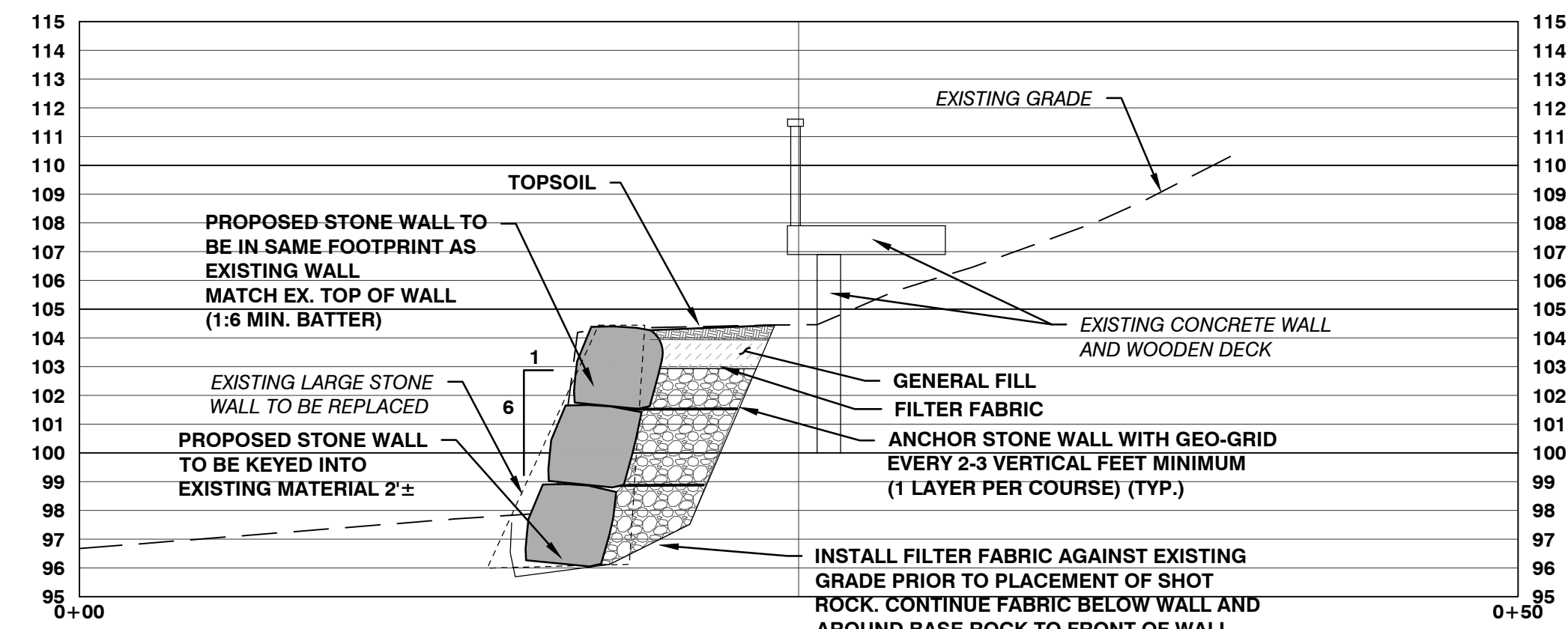
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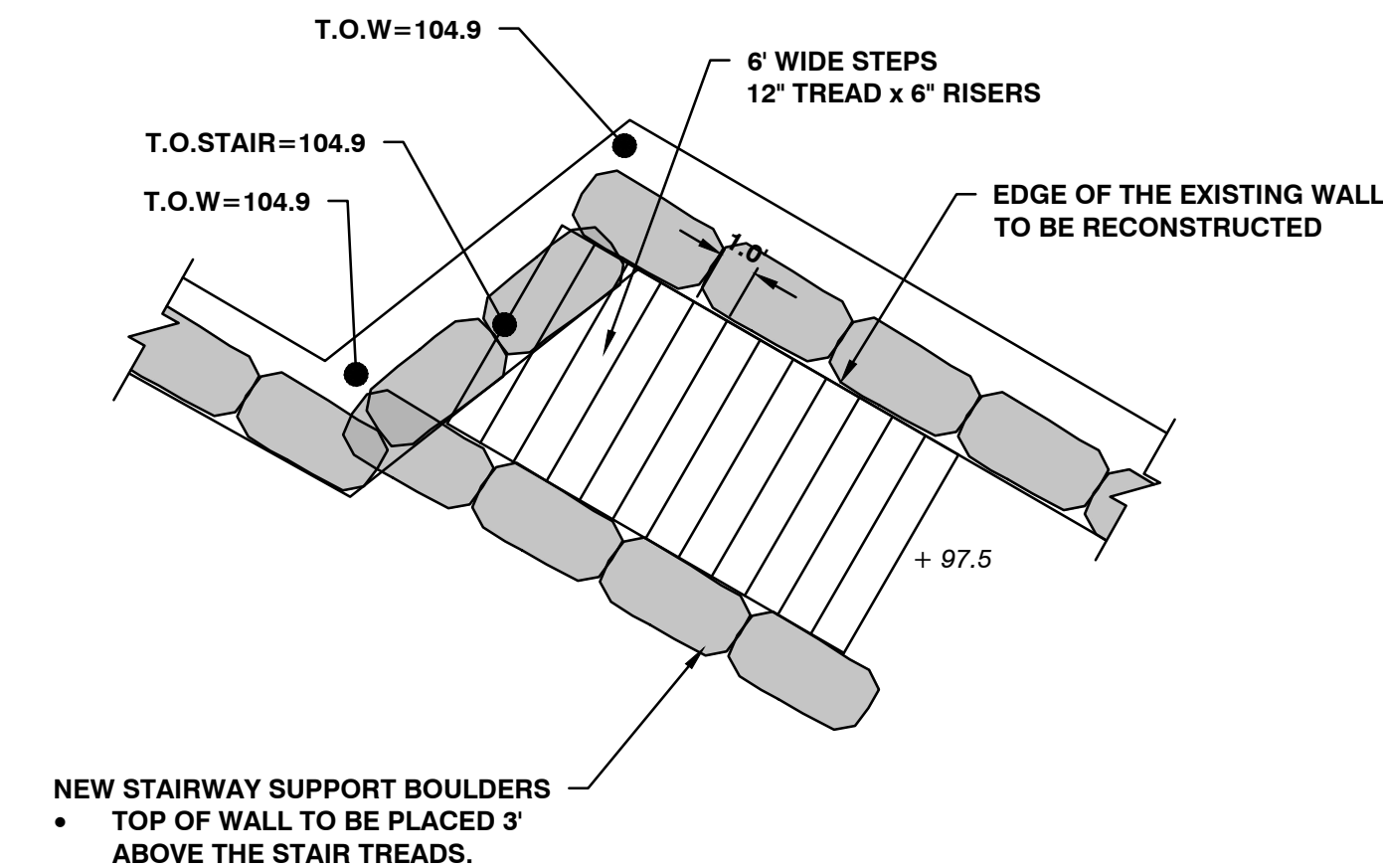
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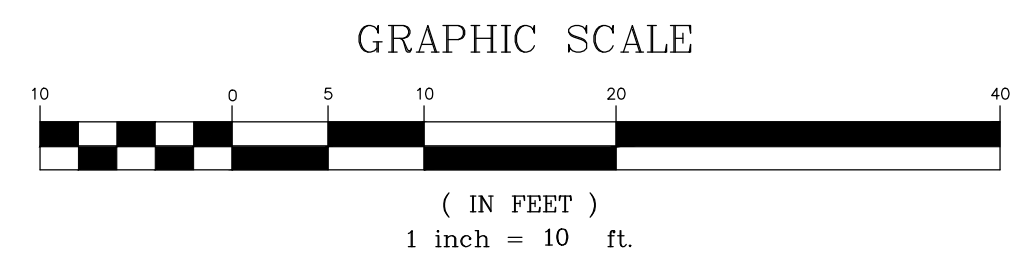
SITE PLAN

SCALE: 1" = 10'



STAIR DETAIL

SCALE: 1" = 5'



SITE ENGINEER:

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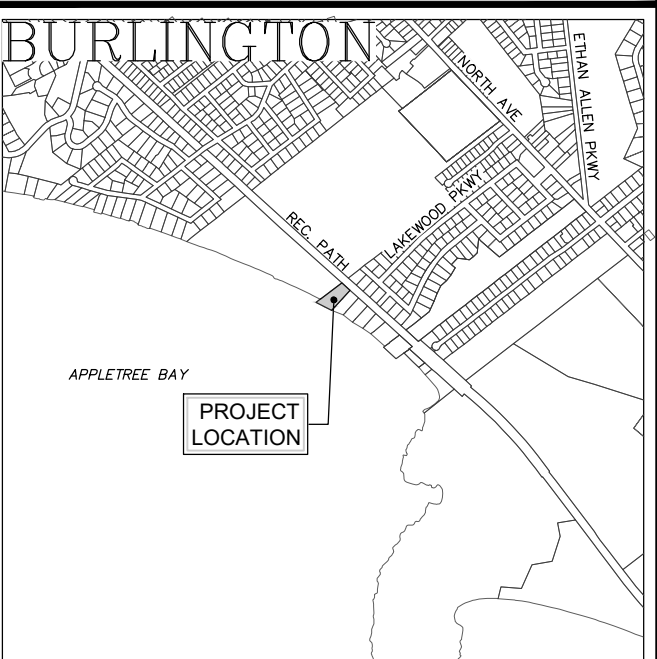
CLIENT:
BIRDSEYE BUILDING

3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:
**TRACY AND
ANDREW RUSSELL**

**SHORELINE
RE-STABILIZATION**

11 DRIFTWOOD LANE
BURLINGTON, VERMONT



DATE	CHECKED	REVISION

**PROPOSED
CONDITIONS
PLAN**

DATE
08/27/2025
SCALE
1" = 10'
PROJ. NO.
24174
DRAWING NUMBER
C2.1

PROJECT COORDINATION

PART 1 – GENERAL

1.01 MEETINGS & PROJECT ACCESS

- A. The Owner shall be notified five (5) days prior to commencement of Work by the Contractor.
- B. The Contractor will coordinate with the Owner to arrange an on-site pre-construction meeting prior to commencement of any work. Job superintendents and subcontractors shall be included in this meeting.
- C. The Contractor will coordinate all phases of the Work, so as not to interfere with the normal work procedures in the area.
- D. The Contractor shall conduct his work in such a manner as to not interfere with or endanger work or traffic in areas adjacent to the construction area, except as permitted by the Owner. The Contractor shall so arrange his construction operations as to provide access for emergency vehicles and equipment to the work site at all times.

1.02 LABOR

- A. The Contractor and subcontractors will employ mechanics skilled in their respective trades.
- B. All labor will be performed in a neat and workmanlike manner.

1.03 PROTECTION OF PERSONS AND PROPERTY

- A. The Contractor shall be responsible for initiating, maintaining, and supervising all O.S.H.A. safety precautions in connection with the Work.
- B. Fire Protection: The Contractor shall take all necessary precautions to prevent fires adjacent to the Work and shall provide adequate facilities for extinguishing fires. The Contractor shall also prevent fires in project related buildings and shall prevent the spread of fires to areas outside the limits of the Work.
- C. Safety Precautions: Prior to commencement of Work, the Contractor shall be familiar with all safety regulations and practices applicable with construction operations. No additional payments will be made for equipment and procedures necessitated by these safety precautions.

1.04 CORRECTION OF WORK

- A. The Contractor shall promptly correct all Work rejected by the Owner as defective or as failing to conform to the Contract Documents. The Contractor shall bear all cost of correcting such rejected Work.

1.05 WEATHER CONDITIONS

- A. No Work shall be done when, in the opinion of the Owner, the weather is unsuitable. No concrete, earth backfill, embankment, or paving shall be placed upon frozen material. If there is delay or interruption in the Work due to weather conditions, the necessary precautions must be taken to bond new Work to old.
- B. Protection Against Water and Storm: The Contractor shall take all precautions to prevent damage to the Work by storms or by water entering the site of the Work directly or through the ground. In case of damage by storm or water, the Contractor, at his own expense, shall make repairs or replacements or rebuild such parts of the Work as the Engineer may require in order that the finished work may be completed as required by the Drawings and Specifications.

1.06 DISPOSAL OF DEBRIS

- A. All debris and excess materials, other than that which is authorized to be reused, become the property of the Contractor and shall be promptly removed from the property. The Contractor shall receive title to all debris and/or excess material. The Owner will not be responsible for any loss or damage to debris or excess material owned by the Contractor.

1.07 PROJECT LAYOUT

- A. The Contractor shall be responsible for providing all necessary survey staking.
1. Locate and protect control points before starting work on the site.
2. Preserve permanent reference points during progress of the Work.
3. Establish a minimum of two permanent benchmarks on the site, referenced to data established by survey control points.
- a. Record locations, with horizontal and vertical data, on Project Record Documents.

1.08 TESTING

- A. The Contractor is responsible for obtaining testing and inspection services.

SITE EARTHWORK

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes:
1. All excavation (unless covered in other sections of these specifications), removal and stockpile of topsoil, stabilization fabric, and other miscellaneous and appurtenant works.
2. Site filling.
3. Roadway structural sections.
- 1.02 PROTECTION
- A. Protect bench marks and existing structures.
- B. Protect above or below grade utilities which are to remain.

1.03 SUBMITTALS

- A. Testing laboratory reports indicating that material for backfill meets requirements of this Section.
- B. Field density test reports of site fill in place.
- C. Field density test reports for roadway structural sections in place.
- D. Stabilization Fabric: Submit copies of manufacturer's specifications and installation instructions.

PART 2 – PRODUCTS

2.01 STRUCTURAL FILL – CRUSHED GRAVEL (AOT SPEC. 704.05, FINE)

- A. All materials shall be secured from approved sources. This gravel shall consist of angular and round fragments of hard durable rock of uniform quality throughout, reasonably free from thin elongated pieces, soft or disintegrated stone, dirt, organic or other objectionable matter. This material shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
2"	100
1 1/2"	90 – 100
No. 4	30 – 60
No. 100	0 – 12
No. 200	0 – 6

At least 50% by mass (weight) of the material coarser than the No. 4 sieve shall have at least one fractured face.

2.02 CRUSHED GRAVEL (AOT SPEC. 704.05, COARSE)

- A. All materials shall be secured from approved sources. This gravel shall consist of angular and round fragments of hard durable rock of uniform quality throughout, reasonably free from thin elongated pieces, soft or disintegrated stone, dirt, organic or other objectionable matter. This material shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
4"	95 – 100
No. 4	25 – 50
No. 100	0 – 12
No. 200	0 – 6

At least 50% by mass (weight) of the material coarser than the No. 4 sieve shall have at least one fractured face.

2.03 COMPACTED FILL/GRANULAR BORROW

- A. All materials shall be secured from approved sources. This material shall be free of shale, clay, friable material, debris, and organic matter. This material shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
3"	100
3/4"	75 – 100
No. 4	20 – 100
No. 100	0 – 20
No. 200	0 – 6

2.04 DRAINAGE COURSE (AOT SPEC. 704.16 or 704.02B)

- A. All materials shall be secured from approved sources. Rock for drainage applications shall be produced from natural gravels or crushed quarried rock and shall consist of clean, hard, sound, and durable material. This material shall meet the following grading requirements:

Sieve Designation	Percent by Weight Passing Square Mesh Sieve
1"	100
3/4"	90 – 100
3/8"	20 – 55
No. 4	0 – 10
No. 8	0 – 5

2.05 DENSE GRADED CRUSHED STONE (AOT SPEC. 704.06)

- A. All materials shall be secured from approved sources. Dense Graded Crushed Stone shall consist of clean, hard, uniformly graded, crushed stone. It shall be sufficiently free from dirt, deleterious material, and pieces that are structurally weak. This material shall meet the following grading requirements:

Sieve Designation	Percent Finer by Weight
3/8"	100
3"	90 – 100
2"	75 – 100
1"	50 – 80
1/2"	30 – 60
No. 4	15 – 40
No. 200	0 – 6

Source: This material shall be obtained from crushed quarried rock sources. The area from which this material is obtained shall be stripped and cleaned before blasting.

Not more than 30% by mass (weight) of the material coarser than the No. 4 sieve shall consist of thin and/or elongated pieces.

2.06 SAND BORROW AND CUSHION (AOT SPEC. 703.03)

- A. All materials shall be secured from approved sources. Sand Borrow shall consist of material reasonably free from silt, loam, clay, or organic matter. This material shall meet the following grading requirements:

Sieve Designation	Percent Finer by Weight
2"	100
1 1/2"	90 – 100
1/2"	70 – 100
No. 4	60 – 100
No. 100	0 – 20
No. 200	0 – 8

2.07 GEOTEXTILE

- A. Subsurface Drainage Geotextile: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 3; AASHTO M 288.
2. Grab Tensile Strength: 120 lbf; ASTM D 4632.
3. Tear Strength: 50 lbf; ASTM D 4533.
4. Apparent Opening Size: No. 70 sieve, maximum; ASTM D 4751.
5. Permittivity: 1.7 per second, minimum; ASTM D 4491.
6. UV Stability: 70 percent after 500 hours' exposure; ASTM D 4355.

- B. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 3; AASHTO M 288.
2. Grab Tensile Strength: 200 lbf; ASTM D 4632.
3. Sewn Seam Strength: 222 lbf; ASTM D 4632.
4. Tear Strength: 75 lbf; ASTM D 4533.
5. Puncture Strength: 90 lbf; ASTM D 4833.
6. Apparent Opening Size: No. 40 sieve, maximum; ASTM D 4751.
7. Permittivity: 0.02 per second, minimum; ASTM D 4491.
8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.
9. Weight: 4.0 oz/yd² minimum.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Identify known below grade utilities. Stake and flag locations.
- C. Maintain and protect existing utilities remaining which pass through work area.
- D. Upon discovery of unknown utility or concealed conditions, discontinue affected work; notify Engineer.

3.02 EROSION CONTROL

- A. Erosion control must be installed prior to beginning any earthwork operations.

3.03 TOPSOIL EXCAVATION

- A. Excavate topsoil from areas to be excavated, re-landscaped or regraded and stockpile in areas designated on site or as directed by the Engineer.
- B. Maintain the stockpile in a manner which will not obstruct the natural flow of drainage.
1. Maintain stockpile free from debris and trash.
2. Keep the topsoil damp to prevent dust and drying out.

3.04 SUBSOIL EXCAVATION

- A. Excavate subsoil from areas to be regraded in accordance with plans.
- B. Excavate subsoil required to accommodate site structures, construction operations, roads, and parking areas.
- C. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- D. Notify engineer of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- E. Correct areas over-excavated by error as directed by the Engineer.
- 3.05 DITCHES
- A. Cut accurately to the cross-sections, grades, and elevations shown.
- B. Maintain excavations free from detrimental quantities of leaves, sticks, trash, and other debris until completion of the work.
- C. Dispose of excavated materials as shown on the drawings or directed by the Engineer; except do not, in any case, deposit materials less than three feet from the edge of a ditch.

3.06 ROADWAY EMBANKMENTS AND BERMS

- A. When embankments are to be made on a hillside, the slope of the original ground on which the embankments are to be constructed shall be stepped and properly drained as the fill is constructed so that adverse movements of the slopes do not occur.
- B. Any excavated rock, ledge, boulders, and stone, except where required in the construction of other items or otherwise directed, shall be used in the construction of embankments to the extent of the project requirements and generally shall be placed so as to form the base of an embankment.
- C. Frozen material shall not be used in the construction of embankments, nor shall the embankments or successive layers of the embankments be placed upon frozen material. Placement of material other than rock shall stop when the sustained air temperature, below 32 degrees Fahrenheit, prohibits the obtaining of the required compaction. If the material is otherwise acceptable, it shall be stockpiled and reserved for future use when its condition is acceptable for use in embankments.
- D. When an embankment is to be constructed across a swamp, muck, or areas of unstable soils, the unsuitable material shall

be excavated to reach soils of adequate bearing capacity and the embankment begun. Alternative methods, such as use of a stabilization fabric in place of excavation and backfill, may be utilized only after approval of some by the Engineer.

- E. Material being placed in embankments shall be placed in horizontal layers of uniform thickness across the full width of the embankment. Stumps, trees, rubbish, and other unsuitable material shall not be placed in embankments.
- F. Embankment areas shall be placed in eight-inch maximum lifts. Effective spreading equipment shall be used on each layer to obtain uniform thickness prior to compaction. Each layer shall be kept crowned to shed water to the outside edge of embankment and continuous leveling and manipulating will be required to assure uniform density. The entire area of each layer shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors, or a combination thereof. Earth-moving and other equipment not specifically manufactured for compaction purposes will not be considered as compaction equipment.
- G. All fill material shall be compacted at a moisture content suitable for obtaining the required density. In no case shall the moisture content in each layer under construction be more than three percent above the optimum moisture content and shall be less than that quantity that will cause the embankment to become unstable during compaction. Sponginess, shoving, or other displacement under heavy equipment shall be considered evidence for an engineering determination of lack of stability under this requirement, and further placement of material in the area affected shall be stopped or retarded to allow the material to stabilize.
- H. When the moisture content of the material in the layer under construction is less than the amount necessary to obtain satisfactory compaction by mechanical compaction methods, water shall be added by pressure distributors or other approved equipment. Water may also be added in excavation or borrow pits. The water shall be uniformly and thoroughly incorporated into the soil by disc, harrowing, blading, or by other approved methods. This manipulation may be omitted for sands and gravel. When the moisture content of the material is in excess of three percent above optimum moisture content, dry material shall be thoroughly incorporated into the wet material, or the wet material shall be aerated by diskings, harrowing, blading, rotary mixing, or by other approved methods; or compaction of the layer of wet material shall be deferred until the layer has dried to the required moisture content by evaporation.

3.07 COMPACTION REQUIREMENTS

- A. All backfills and fills shall be compacted in even lifts (8" maximum) to attain the required densities as follows:

Location	Modified Proctor ASTM D-1557
Subgrade and Gravel for Roads and Parking Lots	95%
General Embankments	90%
B. Testing Agency will test compaction of soils in place according to ASTM D1557, ASTM D2167, ASTM D2922 and ASTM D2937, as applicable. Tests will be performed at the following locations and frequencies:	
1. Paved and Building Slab Areas: At subgrade and each compacted fill and backfill layer, at least 1 test for every 2,000 square feet or less of paved area or slab, but in no case fewer than 3 tests.	
2. Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for each 100 feet or less of wall length, but no fewer than 2 tests.	
3. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 150 feet or less of trench length, but no fewer than 2 tests.	
C. When testing agency reports that subgrades, fills or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.	

LANDSCAPE GRADING

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes:
1. Finish grading; bring rough grade in areas to design elevations as shown on the drawings.
2. Topsoil: Work shall consist of furnishing, placing and shaping topsoil, or placing, spreading, and shaping topsoil form stockpiles or stripped areas.

PART 2 – PRODUCTS

2.01 TOPSOIL

- A. Topsoil shall be loose, friable, reasonably free of admixtures of subsoil, free from refuses, stumps, roots, brush, weeds, rocks, and stones 1 1/4 inch in overall dimensions. The topsoil shall also be free from any material that will prevent the formation of a suitable seedbed or prevent seed germination and plant growth. It shall contain not less than three (3) nor more than twenty (20) percent organic matter. Any material which has become mixed with undue amounts of subsoil during any operation at the source or during placing or spreading will be rejected and shall be replaced by the Contractor with acceptable material.

PART 3 – EXECUTION

3.01 SUBGRADE PREPARATION

- A. Clean subgrade of all stumps, stones, roots, trash or other materials which might hinder proper tillage or spreading.
- B. All surfaces on which topsoil is to be placed shall be graded to a reasonably true surface and scarified by raking, discing or other approved means to a minimum depth of two inches before placing topsoil.

3.02 PLACING TOPSOIL

- A. Minimum final depth of topsoil shall be 4 inches.
- B. Place topsoil when seeding operations can closely follow spreading operations. Use topsoil in relatively dry state.
- C. Topsoil shall be spread and shaped to the lines and grades shown on the plans, or as directed by the Engineer. The depth stated in the contract to which the topsoil is to be placed is that required after final rolling of the material has taken place. All stones, roots and debris over 1 1/4 inch in diameter along with any sodding weeds and other undesirable material shall be removed.
- D. After shaping and grading, all trucks and other equipment shall be excluded from the topsoiled area to prevent excessive compaction. The Contractor shall perform such work as required to provide a friable surface for seed germination and plant growth prior to seeding.
- E. It shall be the Contractor's responsibility to restore to the line, grade and surface all eroded areas with approved material and to keep topsoiled areas in acceptable condition until the completion of the work.

SEEDING

PART 1 – GENERAL

1.1 Section Includes:

- A. Seeding.
1. Furnish all labor, materials and equipment to complete all seeding work as shown on the drawings and specified herein.
2. Except where otherwise shown or specified, the Contractor shall seed all areas where new contours are shown on the drawings and all areas where existing ground cover has been disturbed by the Contractor's operations.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.

1.3 PROJECT CONDITIONS

- A. Planting Restrictions: Seeding and initial fertilizing shall be done between May 1st and September 15th unless otherwise authorized. Seeding shall not be done during windy weather or when the ground is frozen, excessively wet, or otherwise untiltable. If seeding is done during July or August, additional mulch material may be required. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 SEED

- A. Conservation Seed Mix:

Kind of Seed	Minimum Purity	Minimum Germination	Lbs/Acre
Creeping Red Fescue	98%	85%	22.5
Tall Fescue	95%	95%	22.5
Red Top	95%	90%	3
Birdsfoot Trefoil	98%	85%	9
Annual Ryegrass	95%	85%	3
TOTAL =			60

2.2 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural limestone containing a minimum of 85 percent calcium carbonate equivalent and as follows:
1. Class: T, with a minimum of 99 percent passing through No. 8 sieve and a minimum of 75 percent passing through No. 60 sieve.

2.3 FERTILIZER

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium.
- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium.

2.4 MULCHES

- A. Mulch: Provide air-dry, clean, mildew- and seed-free, hay or threshed straw of wheat, rye, oats, or barley.
- B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve; soluble salt content of 2 to 5 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
1. Organic Matter Content: 50 to 60 percent of dry weight.

PART 3 – EXECUTION .

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
2. Protect grade stakes set by others until directed to remove them.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter.
1. Apply fertilizer directly to subgrade before loosening.

SITE ENGINEER:



CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
P: 802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

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DSM

CLIENT:

BIRDSEYE BUILDING

3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:

TRACY AND
ANDREW RUSSELL

SHORELINE
RE-STABILIZATION

11 DRIFTWOOD LANE
BURLINGTON, VERMONT

DATE	CHECKED	REVISION

SPECIFICATIONS

DATE
08/27/2025

SCALE
NTS

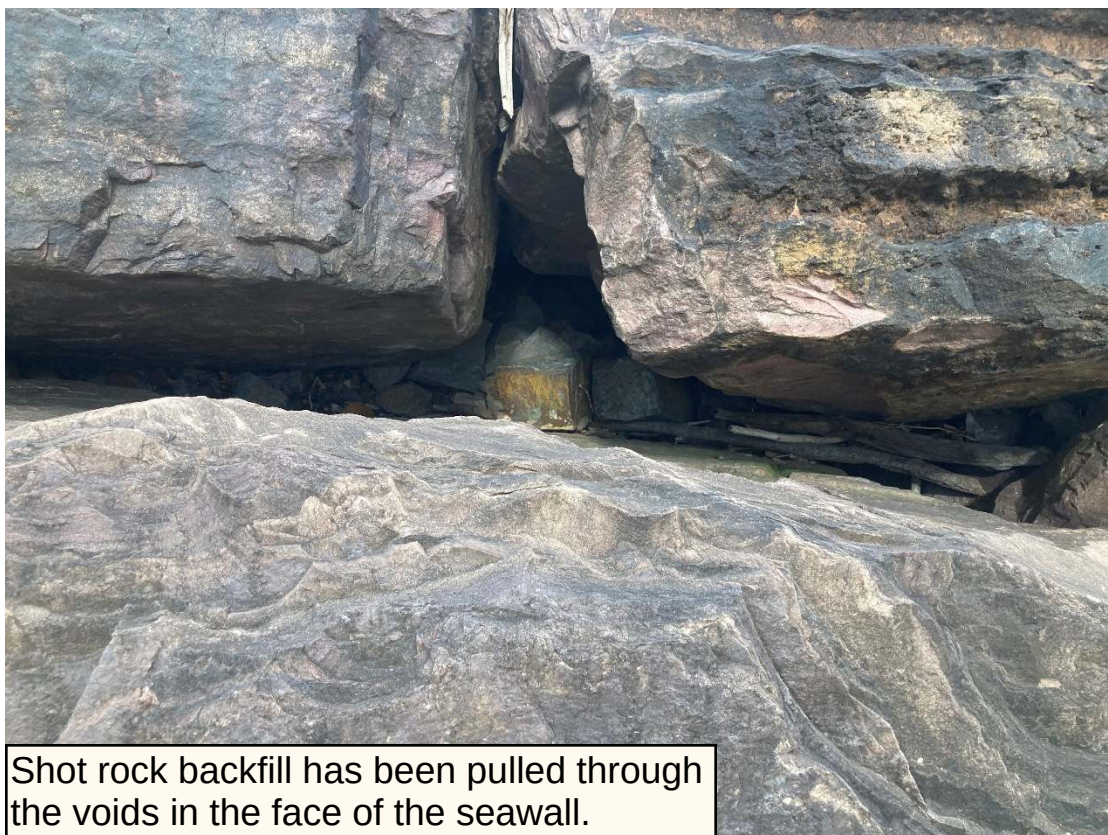
PROJ. NO.
24174

DRAWING NUMBER
C4.0

11 Driftwood Lane
Existing Conditions Photos (November, 2024)









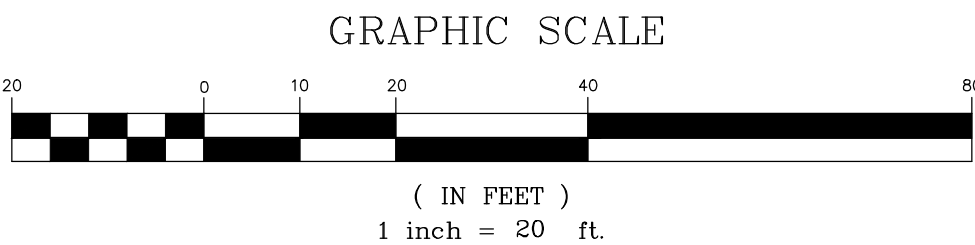
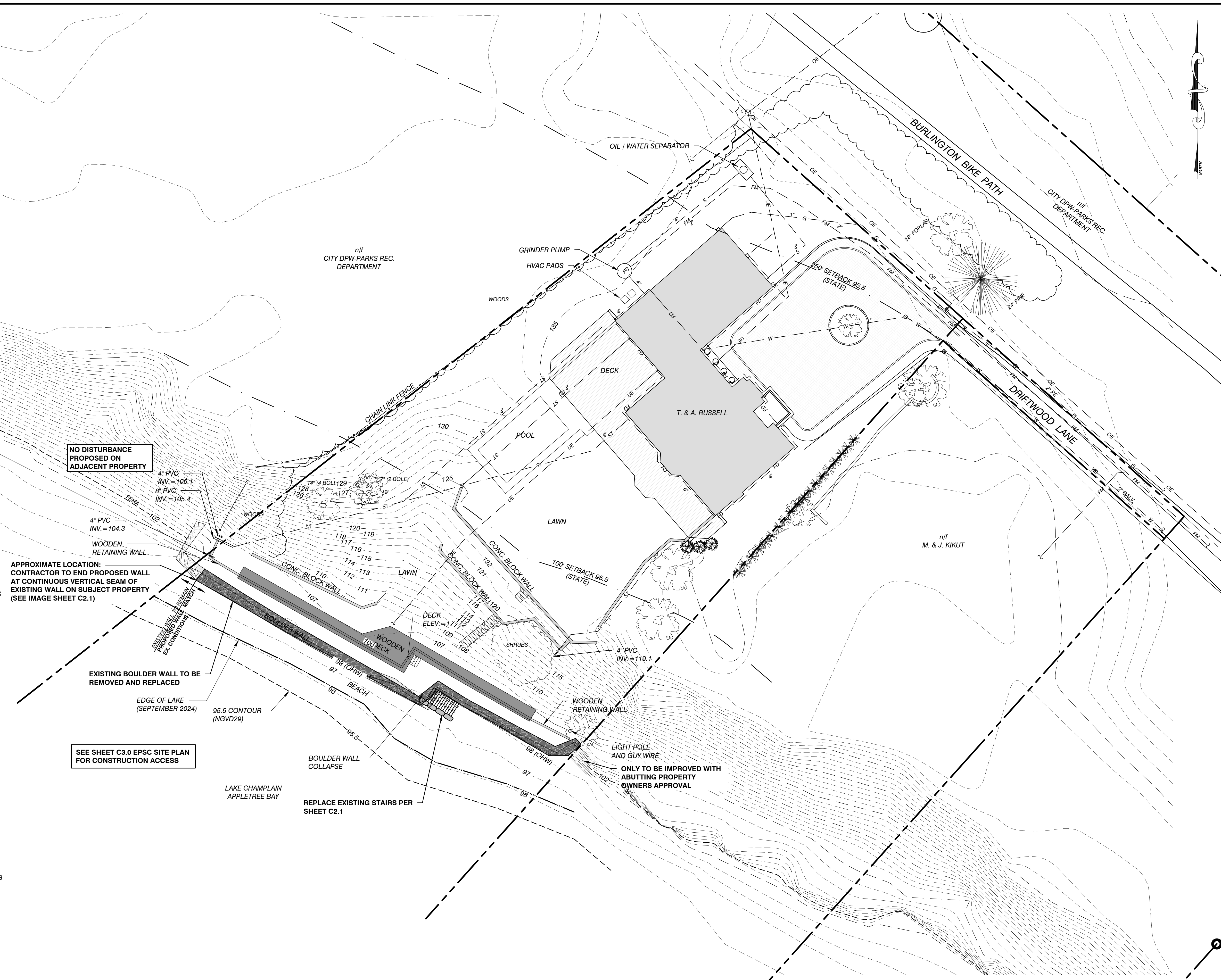


LEGEND

- APPROXIMATE PROPERTY LINE
--- APPROXIMATE SETBACK LINE
--- 100 --- EXISTING CONTOUR
--- O --- EXISTING FENCE
--- --- EXISTING GRAVEL
--- --- EXISTING PAVEMENT
--- OE --- EXISTING OVERHEAD ELECTRIC
--- UE --- EXISTING UNDERGROUND ELECTRIC
--- FM ---
--- G --- EXISTING BORCEMAIN
--- ST --- EXISTING STORM
--- S --- EXISTING GRAVITY SEWER
--- W --- EXISTING WATER
--- --- EDGE OF LAKE
--- --- EXISTING SHUT OFF
--- --- EXISTING UTILITY POLE
--- --- EXISTING GUY WIRE/POLE
--- --- EXISTING DECIDUOUS TREE
--- --- EXISTING CONIFEROUS TREE
--- --- EDGE OF BRUSH/WOODS

GENERAL NOTES

- UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATING FIRM TO LOCATE OWNER OWNED UNDERGROUND UTILITIES PRIOR TO START OF ANY EXCAVATION.
- ALL EXISTING UTILITIES NOT INCORPORATED INTO THE FINAL DESIGN SHALL BE REMOVED OR ABANDONED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL REPAIR/RESTORE ALL DISTURBED AREAS (ON OR OFF THE SITE) AS A DIRECT OR INDIRECT RESULT OF THE CONSTRUCTION.
- ALL GRASSED AREAS SHALL BE MAINTAINED UNTIL FULL VEGETATION IS ESTABLISHED.
- MAINTAIN ALL TREES OUTSIDE OF CONSTRUCTION LIMITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY FOR COMPLETE AND OPERABLE FACILITIES AND UTILITIES.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ITEMS AND MATERIALS INCORPORATED INTO THE SITE WORK. WORK SHALL NOT BEGIN ON ANY ITEM UNTIL SHOP DRAWING APPROVAL IS GRANTED.
- IN ADDITION TO THE REQUIREMENTS SET IN THESE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLETE THE WORK IN ACCORDANCE WITH ALL PERMIT CONDITIONS AND ANY LOCAL PUBLIC WORKS STANDARDS.
- THE TOLERANCE FOR FINISH GRADES FOR ALL PAVEMENT, WALKWAYS AND LAWN AREAS SHALL BE 0.1 FEET. UNLESS NOTED OTHERWISE, ALL EXISTING MANHOLE COVERS, VALVES, CURB STOPS AND OTHER ITEMS TO REMAIN SHALL BE ADJUSTED TO THE NEW FINISH GRADE.
- ANY DEWATERING NECESSARY FOR THE COMPLETION OF THE SITEWORK SHALL BE CONSIDERED AS PART OF THE CONTRACT AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN TOWN ROAD R.O.W. WITH TOWN AUTHORITIES.
- THE CONTRACTOR SHALL INSTALL THE ELECTRICAL, CABLE AND TELEPHONE SERVICES IN ACCORDANCE WITH THE UTILITY COMPANIES REQUIREMENTS.
- EXISTING PAVEMENT AND TREE STUMPS TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE LOCATION. ALL PAVEMENT CUTS SHALL BE MADE WITH A PAVEMENT SAW.
- IF THERE ARE ANY CONFLICTS OR INCONSISTENCIES WITH THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR VERIFICATION BEFORE WORK CONTINUES ON THE ITEM IN QUESTION.
- PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING TESTING AND INSPECTION SERVICES INDICATED IN THE CONTRACT DOCUMENTS, TYPICAL FOR CONCRETE AND SOIL TESTING.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT AND FIELD ENGINEERING REQUIRED FOR COMPLETION OF THE PROJECT. CIVIL ENGINEERING ASSOCIATES WILL PROVIDE AN AUTOCAD FILE WHERE APPLICABLE.
- THE OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ANY AND ALL SAFETY FENCES OR RAILS ABOVE EXISTING AND PROPOSED WALLS. THE OWNER SHALL VERIFY LOCAL, STATE AND INSURANCE REQUIREMENT GUIDELINES FOR THE INSTALLATION AND VERIFY ANY AND ALL PERMITTING REQUIREMENTS.



SITE ENGINEER:



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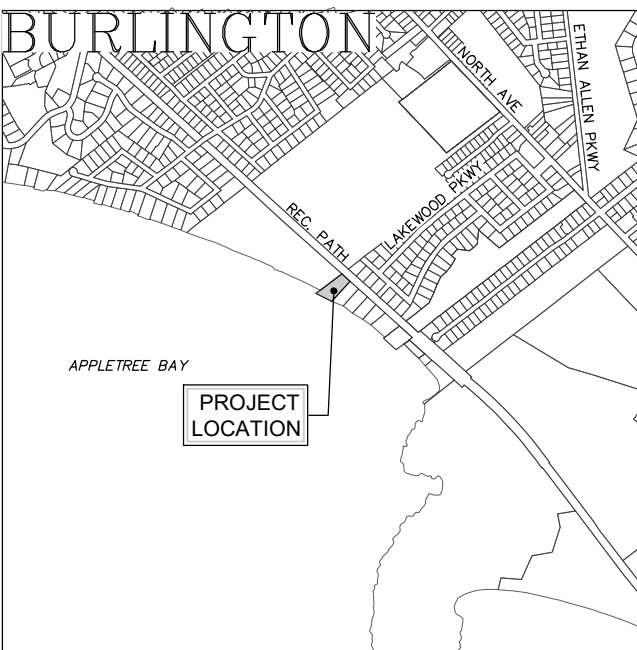
3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:

TRACY AND
ANDREW RUSSELL

SHORELINE
RE-STABILIZATION

11 DRIFTWOOD LANE
BURLINGTON, VERMONT



DATE	CHECKED	REVISION
02/13/25	MCK	ADDED EROSION CONTROL MEASURES
10/03/25	MCK	REVISED LIMITS OF CONSTRUCTION

PROPOSED
CONDITIONS
PLAN

DATE

08/27/2025

SCALE

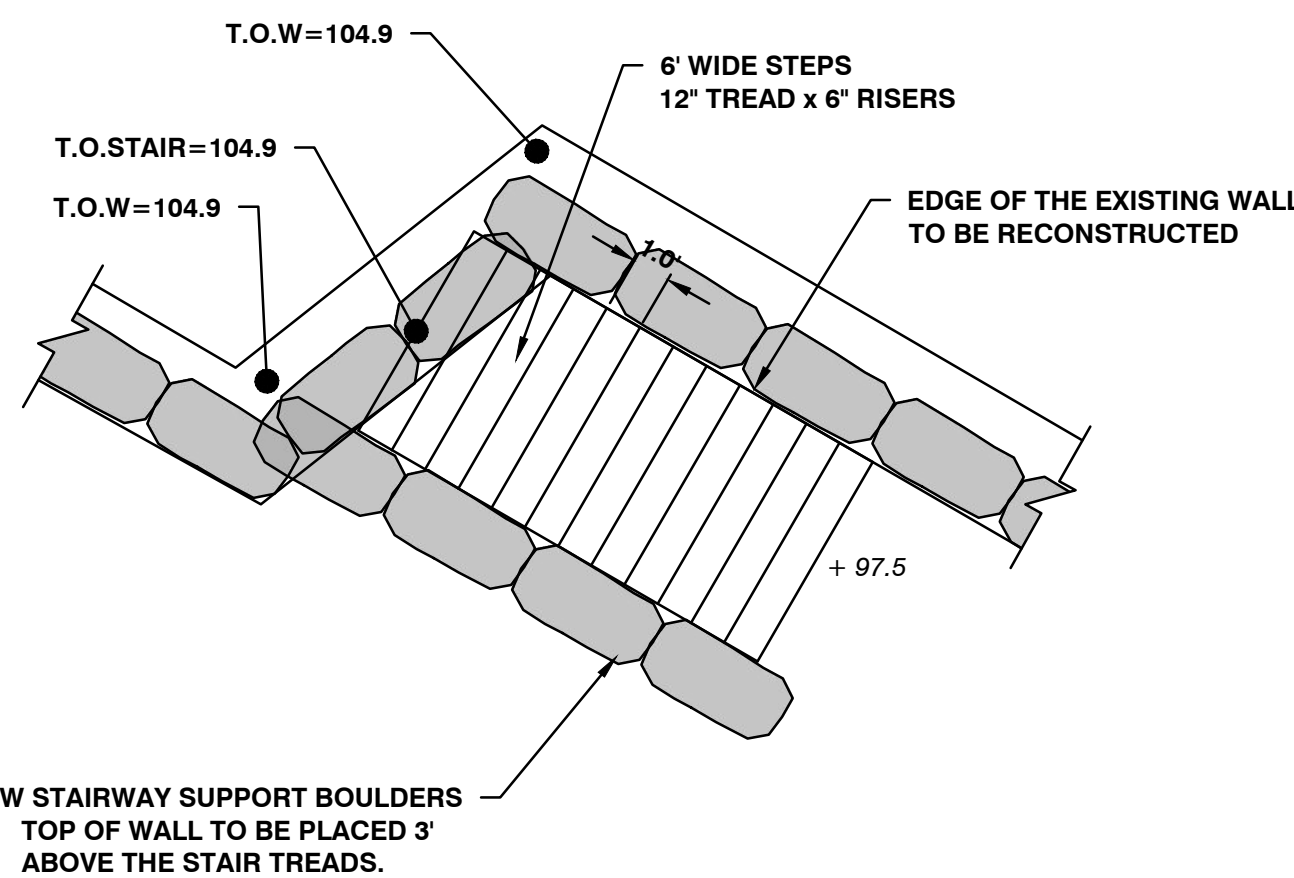
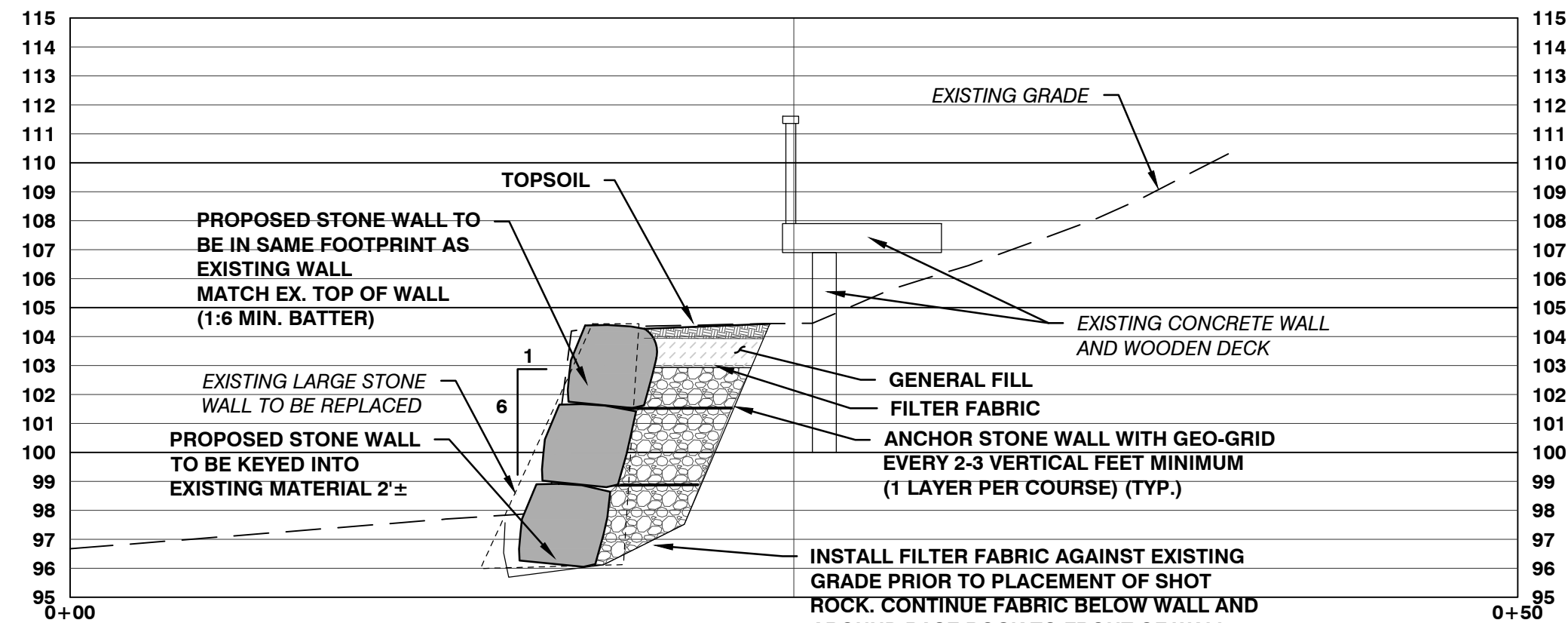
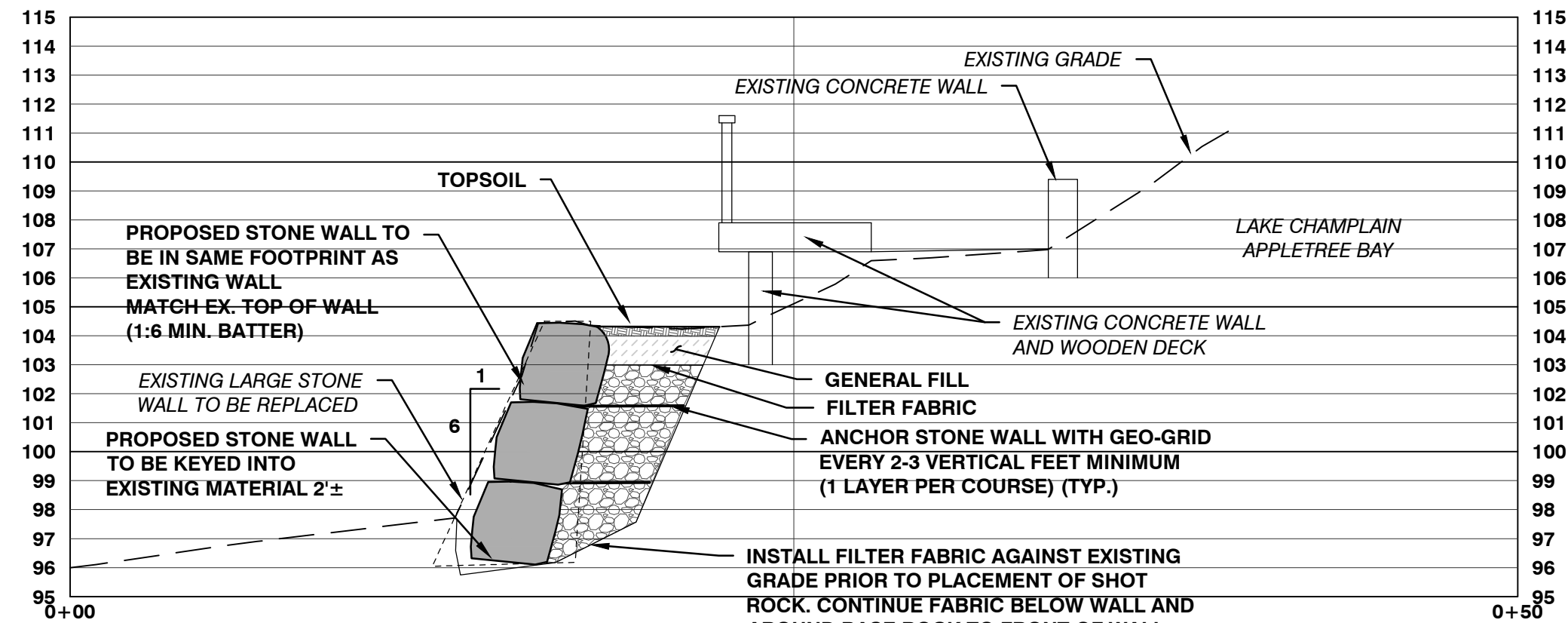
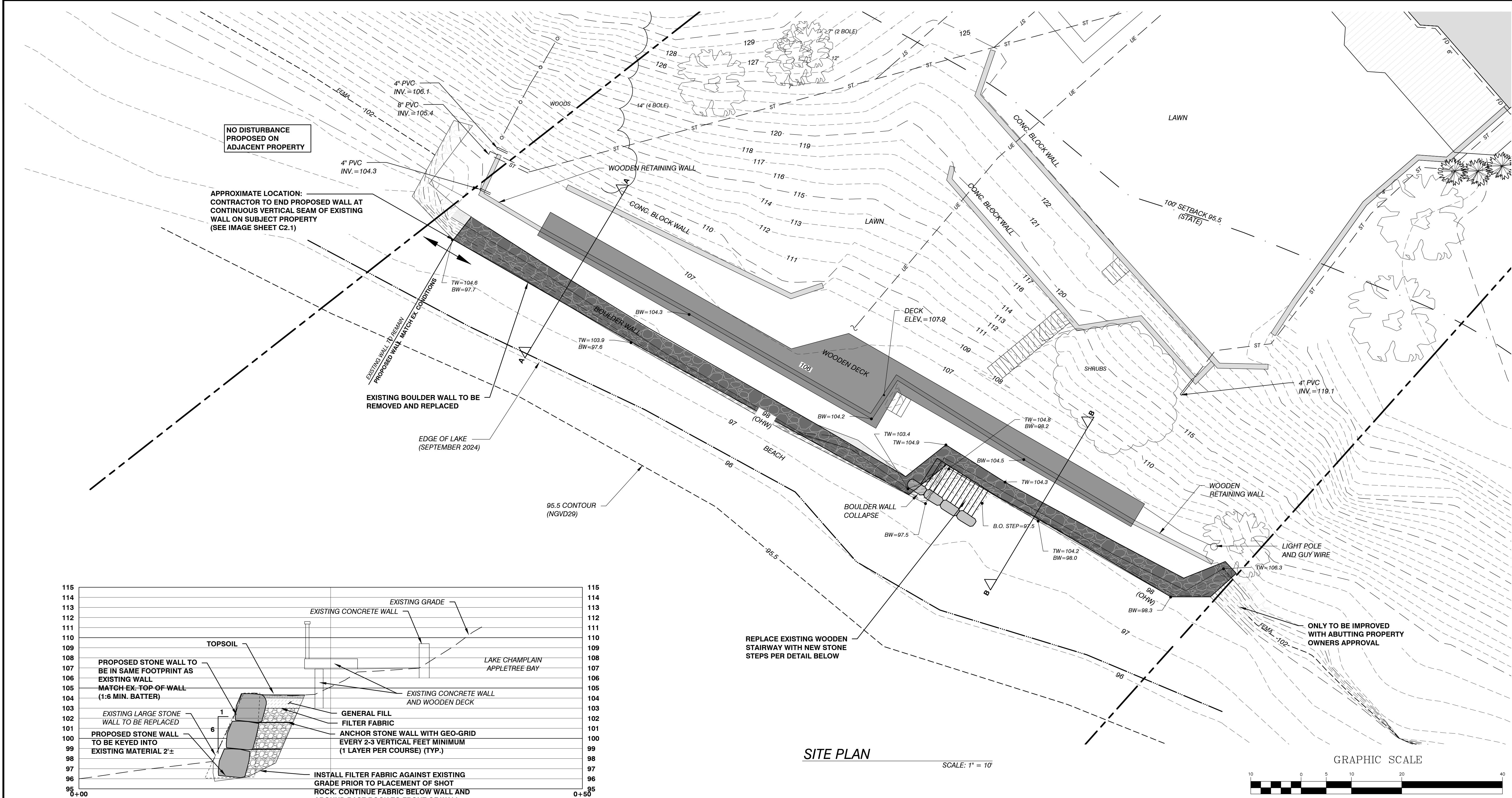
1" = 20'

PROJ. NO.

24174

DRAWING NUMBER

C2.0



SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
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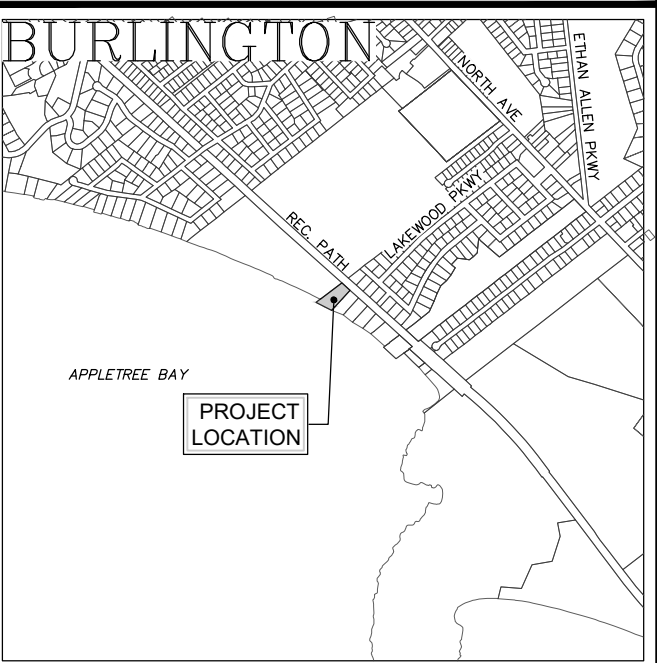
CLIENT:
BIRDSEYE BUILDING

3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:
**TRACY AND
ANDREW RUSSELL**

**SHORELINE
RE-STABILIZATION**

11 DRIFTWOOD LANE
BURLINGTON, VERMONT



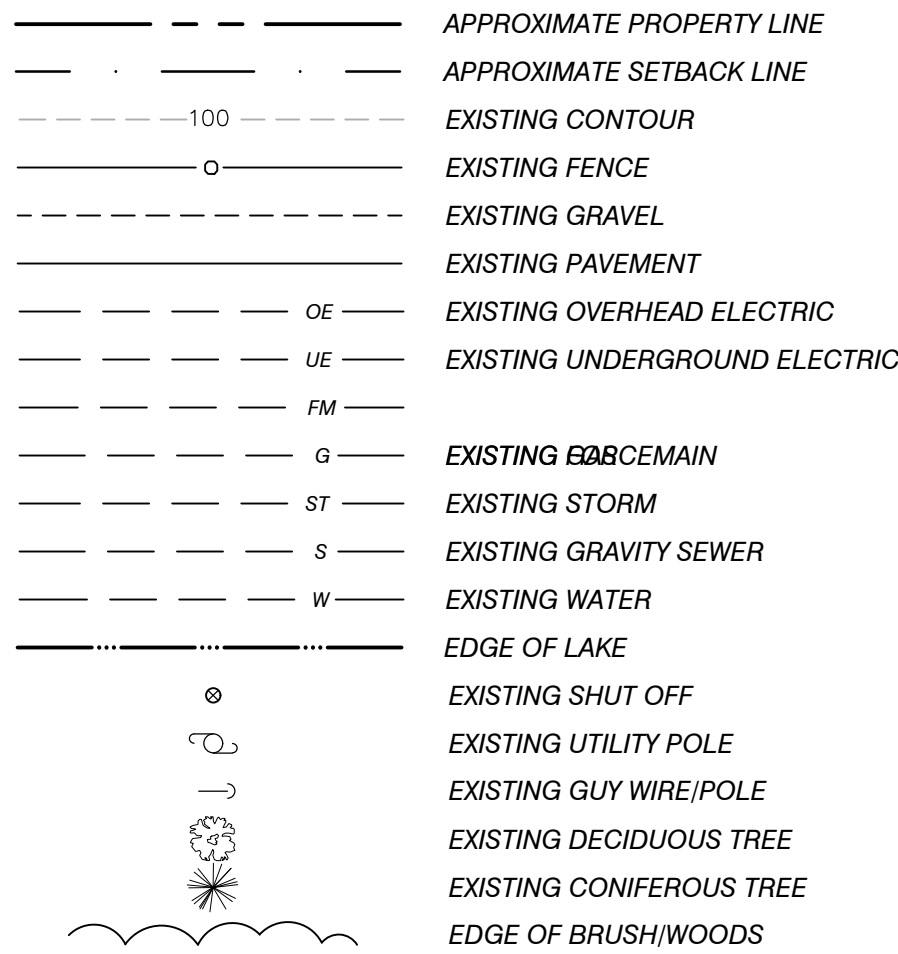
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10/03/25	MCK	REVISED LIMITS OF CONSTRUCTION

**PROPOSED
CONDITIONS
PLAN**

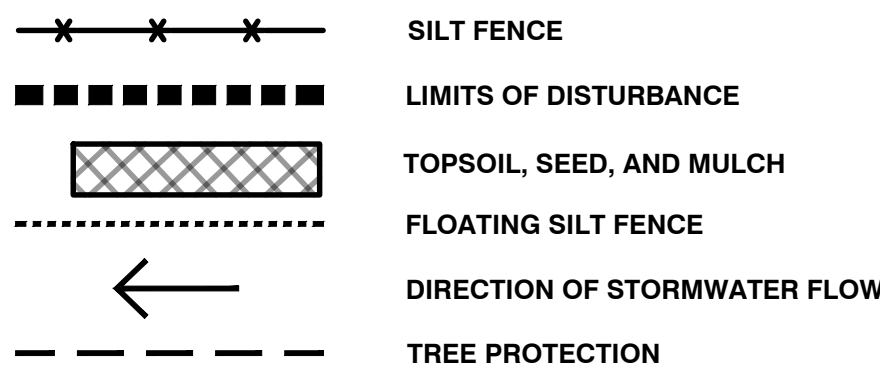
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08/27/2025
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24174

DRAWING NUMBER
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LEGEND



EROSION CONTROL LEGEND



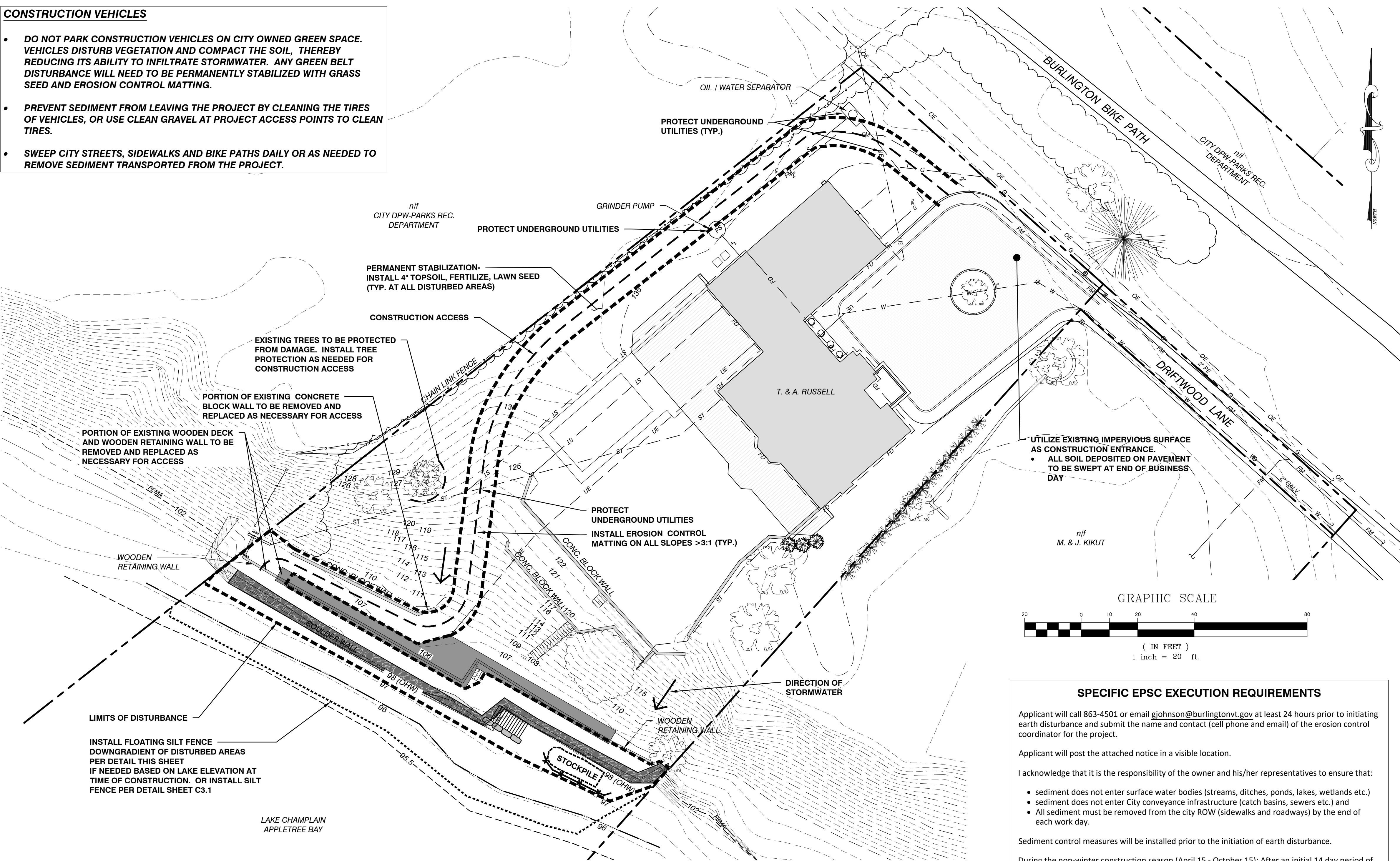
NOTES:

1. TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS (TYP.)
2. INSTALL TEMPORARY STABILIZATION OF DISTURBED SOILS THROUGH THE INSTALLATION OF 1" OF HAY MULCH NO MORE THAN 7 DAYS AFTER WORK HAS CEASED IN A PARTICULAR AREA.
3. SLOPES >3:1 SHALL RECEIVE EROSION CONTROL MATTING.
4. SILT FENCE CONTRIBUTORY AREA TO BE LIMITED TO 1/4 ACRE / 100 L.F.
5. EROSION CONTROL MEASURES SHOWN ON PLANS ARE CONCEPTUAL. ADDITIONAL MEASURES MAY BE NECESSARY BASED ON SITE/WEATHER CONDITIONS DURING CONSTRUCTION.

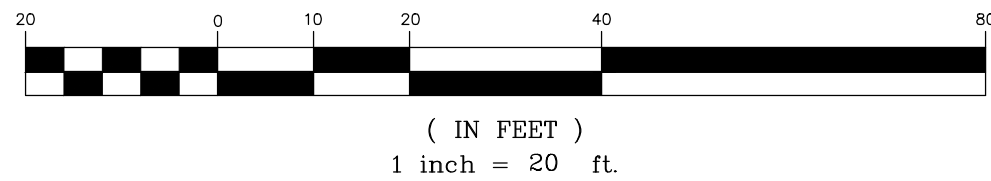
EROSION CONTROL SHALL BE IN STRICT CONFORMITY WITH THE LATEST REVISION OF THE " LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL " AVAILABLE FROM THE VT DEC STORMWATER SECTION.

CONSTRUCTION VEHICLES

- DO NOT PARK CONSTRUCTION VEHICLES ON CITY OWNED GREEN SPACE. VEHICLES DISTURB VEGETATION AND COMPACT THE SOIL, THEREBY REDUCING ITS ABILITY TO INFILTRATE STORMWATER. ANY GREEN BELT DISTURBANCE WILL NEED TO BE PERMANENTLY STABILIZED WITH GRASS SEED AND EROSION CONTROL MATTING.
- PREVENT SEDIMENT FROM LEAVING THE PROJECT BY CLEANING THE TIRES OF VEHICLES, OR USE CLEAN GRAVEL AT PROJECT ACCESS POINTS TO CLEAN TIRES.
- SWEEP CITY STREETS, SIDEWALKS AND BIKE PATHS DAILY OR AS NEEDED TO REMOVE SEDIMENT TRANSPORTED FROM THE PROJECT.



GRAPHIC SCALE



SPECIFIC EPSC EXECUTION REQUIREMENTS

Applicant will call 863-4501 or email gjohnson@burlingtonvt.gov at least 24 hours prior to initiating earth disturbance and submit the name and contact (cell phone and email) of the erosion control coordinator for the project.

Applicant will post the attached notice in a visible location.

I acknowledge that it is the responsibility of the owner and his/her representatives to ensure that:

- sediment does not enter surface water bodies (streams, ditches, ponds, lakes, wetlands etc.)
- sediment does not enter City conveyance infrastructure (catch basins, sewers etc.) and
- All sediment must be removed from the city ROW (sidewalks and roadways) by the end of each work day.

Sediment control measures will be installed prior to the initiation of earth disturbance.

During the non-winter construction season (April 15 - October 15): After an initial 14 day period of initial disturbance, temporary or permanent stabilization (mulching, erosion control matting or tarps for stockpiles, or other approved method) of exposed areas and stockpiles will occur at the end of each work day unless:

- Earthwork is to continue in the area within the next 24 hours and there is NO liquid precipitation forecast for the next 24 hours; or
- If work is occurring in a self-contained excavation (no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation or utility trenches.)

During the winter construction period from October 15 to April 15, any new disturbance must be temporarily or permanently stabilized (mulching, erosion control matting or tarps for stockpiles, or other approved method) will occur at the end of each work day unless:

- Earthwork is to continue in the area within the next 24 hours and there is NO liquid precipitation forecast for the next 24 hours; or
- If work is occurring in a self-contained excavation (no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation or utility trenches)

The perimeter of the site and all BMPs will be inspected at the end of each workday to ensure that sediment will not leave the site. If sediment has travelled beyond the site boundary, it shall be swept up or otherwise removed and deposited on-site in an upgradient area at the end of each work day.

The owner and his/her representatives shall abide by the best management practices (BMPs) indicated in this plan and conditions and in the Vermont DEC Low Risk Site Handbook for Erosion Prevention and Sediment Control (2006). Contact 802-863-4501 for a hard copy or go to the web: http://vtwaterquality.org/stormwater/docs/construction/sw_low_risk_site_handbook.pdf

If soils will be exposed after October 15 and winter construction has not been permitted the project will notify DPW prior to October 15th and ensure that sediment control is installed PRIOR to soil freezing. If the project is completed during the winter months, an additional inspection will be required to ensure that the site is buttoned up for the winter.

Within 48 hours of reaching final grading, the exposed soil will be seeded and mulched or covered with erosion control matting (for slopes steeper than 3:1 or high wind prone areas). Erosion control matting is preferred.

The owner will contact DPW to schedule a stabilization inspection when site work is finished and stabilization measures (seeding and mulching or matting) have been installed.

SITE ENGINEER:



CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
P: 802-864-2323 FAX: 802-864-2271 web: www.caa-vt.com

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DRAWN

MAB

CHECKED

DSM

APPROVED

DSM

CLIENT:

BIRDSEYE BUILDING

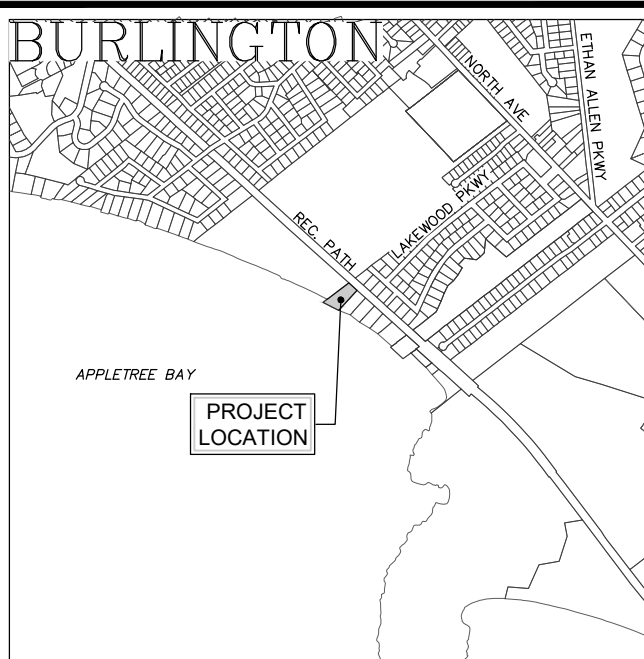
3104 HUNTINGTON ROAD
RICHMOND, VT 05447

PROJECT:

TRACY AND
ANDREW RUSSELL

SHORELINE
RE-STABILIZATION

11 DRIFTWOOD LANE
BURLINGTON, VERMONT



DATE	CHECKED	REVISION
10/03/25	MCK	REVISED LIMITS OF DISTURBANCE

EPSC SITE PLAN

DATE
08/27/2025

SCALE
1" = 20'

PROJ. NO.
24174

DRAWING NUMBER

C3.0

