

TOWN OF DURHAM

8 Newmarket Road Durham, NH 03824 Tel: 603-868-5571

Fax: 603-868-1858 www.ci.durham.nh.us

Although members of the Town Council will be meeting in the Council chambers, the Council meetings are still available for members of the public to participate via Zoom or in-person.

AGENDA

DURHAM TOWN COUNCIL
MONDAY, OCTOBER 17, 2022
DURHAM TOWN HALL - COUNCIL CHAMBERS
7:00 PM

<u>NOTE:</u> The Town of Durham requires 48 hours notice if special communication aids are needed.

- I. Call to Order
- II. Town Council grants permission for fewer than a majority of Councilors to participate remotely
- **III. Roll Call of Members.** Those members participating remotely state why it is not reasonably practical for them to attend the meeting in person
- IV. Approval of Agenda
- V. Special Announcements
 - A. **RESOLUTION #2022-18** recognizing longtime and beloved Durham Citizen Edward (Ted) Waring McNitt for his many years of dedicated community service to the Town of Durham and honoring his recent 103rd birthday
 - B. **RESOLUTION #2022-19** recognizing Friends of the Durham Public Library for 25 years of service
- VI. Public Comments (*) Please state your name and address before speaking
- VII. Approval of Minutes None
- VIII. Councilor and Town Administrator Roundtable
- **IX. Unanimous Consent Agenda** (Requires unanimous approval. Individual items may be removed by any councilor for separate discussion and vote)
 - A. Shall the Town Council approve the 4th Warrant for 2022 Water and Sewer totaling \$609,428.91 and authorize the Administrator to sign said warrant?
 - B. Shall The Town Council adopt a special meeting date in December, 2022 for the purpose of deliberating the proposed FY 2023 Operating, Capital, and Special Fund Budgets and the 2023-2032 Capital Improvement Plan, and schedule a Public Hearing on the Proposed FY 2023 Budgets for Monday, November 14, 2022?

C. RESOLUTION #2022-20 requesting that the Strafford Regional Planning Commissioners, the Policy and Technical Advisory Committees, and the NHDOT include Durham Point Road in the State of New Hamshire's Ten-Year Transportation Improvement Plan to reconstruct and repave Durham Point Road (from Route 108 to Bay Road), to address roadway deficiencies, including stormwater management and water quality improvements, enhanced flood resiliency, fish and amphibian passage, vehicle pedestrian and cyclist safety, ADA compliance, and improvements in multi-modal transportation

X. Committee Appointments

Shall the Town Council appoint Joseph Warzin, 102 Madbury Road, to fill an alternate member vacancy on the Zoning Board of Adjustment?

XI. Presentation Items

- A. Receive update on and adopt Durham's Climate Action Plan Rafidah Rahman, Sustainability Fellow
- B. Report from Zoning Board of Adjustment Micah Warnock, Chair
- C. Report from the Trustees of the Trust Funds & Cemetery Committee Michael Everngam, Trustees Chair; Craig Seymour, Cemetery Chair
- D. Receive update on Madbury Road Complete Streets Project Richard Reine, Director of Public Works; April Talon, Town Engineer

XII. Unfinished Business

PUBLIC HEARING AND ACTION ON RESOLUTION #2022-21 authorizing the acceptance of unanticipated revenues from the State of New Hampshire Department of Transportation (NHDOT) in the amount of \$249,176.50 for road improvement/maintenance and \$281,170.00 for bridge maintenance

XIII. New Business

Other Business

- XIV. Nonpublic Session (if required)
- XV. Extended Councilor and Town Administrator Roundtable (if required)
- XVI. Adjourn (NLT 10:30 PM)

^(*) The public comment portion of the Council meeting is to allow members of the public to address matters of public concern regarding town government for up to 5 minutes. Obscene, violent, disruptive, disorderly comments, or those likely to induce violence, disruption or disorder, are not permitted and will not be tolerated. Complaints regarding Town staff should be directed to the Administrator.



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-5571AGENDA ITEM:

5A

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Todd I. Selig, Administrator

AGENDA ITEM:

RESOLUTION #2022-18 RECOGNIZING LONGTIME AND

BELOVED DURHAM CITIZEN EDWARD (TED) WARING

McNitt for his Many Years of Dedicated Community Service to the Town of Durham and Honoring His

RECENT 103RD BIRTHDAY

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

Todd I. Selig, Administrator

AGENDA DESCRIPTION:

It has been brought to Town staff's attention that longtime resident Ted McNitt of Durham Point Road recently celebrated his 103^{rd} birthday on October 8, 2022, and a number of residents felt it would be very appropriate at this time for the Town Council to not only acknowledge Mr. McNitt's momentous birthday but to also take the opportunity to recognize him for the 20 years of cumulative service he dedicated to the Town of Durham while participating on various Town boards and committees.

Attached is a resolution recognizing Mr. McNitt for both these remarkable life accomplishments.

This item has been placed on Monday night's agenda under "Special Announcements" at which time Council Chair Kitty Marple should read the resolution in its entirety for members of the public. Afterward, the below motion should be made to adopt the resolution.

LEGAL AUTHORITY:

N/A

LEGAL OPINION:

N/A



Council Communication, 10/17/2022 - Page 2 Re: Resolution #2022-18 Recognizing Ted McNitt

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION:

The Durham Town Council does hereby ADOPT Resolution #2022-18 recognizing longtime and beloved Durham citizen Edward (Ted) Waring McNitt for his many years of community service to the Town of Durham while participating on various Town boards and committees. Furthermore, the Town Council extends its sincere congratulations to Mr. McNitt upon reaching the remarkable age of 103 on October 8, 2022.

RESOLUTION #2022-18 OF DURHAM, NEW HAMPSHIRE

RECOGNIZING LONGTIME AND BELOVED DURHAM CITIZEN EDWARD (TED) WARING MCNITT FOR HIS MANY YEARS OF DEDICATED COMMUNITY SERVICE TO THE TOWN OF DURHAM AND HONORING HIS RECENT 103RD BIRTHDAY

WHEREAS the Durham Town Council desires to formally recognize Edward (Ted) Waring McNitt for the immeasurable contributions he made to the Durham community over a span of 20 years while serving in the following volunteer capacities:

Budget Committee	1985-87
Planning Board	1988-90; 1992-94; 1994-96 (Chair – 1997) 1996-98
Strafford Regional Planning Commission	1990-97
Zoning Board of Adjustment	2002-07

NOW, THEREFORE BE IT RESOLVED that the Durham Town Council, the legislative and governing body of the Town of Durham, New Hampshire, does hereby adopt Resolution #2022-18 recognizing Ted McNitt and expressing its gratitude and appreciation on behalf of the Durham community for his many years of dedicated public service and for the selfless volunteer time and efforts he contributed.

The Durham Town Council would also like to take this opportunity to congratulate Mr. McNitt upon turning 103 years of age on October 8, 2022—a truly remarkable and blessed achievement. His longevity is an inspiration to all and reflects his spirit for living and loving life to the fullest.

PASSED AND ADOPTED by the	Town Council of the Town of Durham, New
Hampshire this 17th day of October	er, 2022 by affirmative votes, negative
votes, and abstentions.	·
	
	Katherine Marple
	Durham Town Council
ATTEST:	
Lorrie Pitt, Town Clerk-Tax Collector	



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-5571 AGENDA ITEM:

5B

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Durham Library Board of Trustees

AGENDA ITEM:

RESOLUTION #2022-19 RECOGNIZING THE FRIENDS OF THE DURHAM PUBLIC LIBRARY FOR THEIR DEDICATED SERVICE AND SUPPORT FOR THE DURHAM PUBLIC LIBRARY AND PUBLIC LIBRARY USERS THROUGHOUT THE OYSTER RIVER

COMMUNITY

CC PREPARED BY:

Sheryl Bass, Director, Durham Public Library

PRESENTED BY:

Katherine Marple, Town Council Chair

AGENDA DESCRIPTION:

The Durham Library Board of Trustees have requested that the Friends of the Durham Public Library be formally acknowledged for their dedicated service and support for the Durham Public Library and library users throughout the Oyster River community for the past 25 years.

Attached is a resolution recognizing the Friends of the Durham Public Library for their continued ongoing voluntary support and fundraising efforts to support the mission of the Durham Public Library in supporting literacy and lifelong learning.

This item has been placed on Monday night's agenda under "Special Announcements" at which time Council Chair Kitty Marple should read the resolution in its entirety for members of the public. Afterward, the below motion should be made to adopt the resolution and Chair Marple will present it to Beth Newkirk, current Chair of the Friends group.

LEGAL AUTHORITY:

N/A

LEGAL OPINION:

N/A



Council Communication, 10/17/2022 – Page 2 Re: Resolution #2022-19 Recognizing the Friends of the Durham Public Library

FINANCIAL DETAILS:

 $\overline{N/A}$

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION:

The Durham Town Council does hereby ADOPT Resolution #2022-19 recognizing the Friends of the Durham Public Library for their dedicated service and support for the Durham Public Library and Public Library users throughout the Oyster River community.

RESOLUTION #2022-19 OF DURHAM, NEW HAMPSHIRE

RECOGNIZING THE FRIENDS OF THE DURHAM PUBLIC LIBRARY FOR THEIR DEDICATED SERVICE AND SUPPORT FOR THE DURHAM PUBLIC LIBRARY AND PUBLIC LIBRARY USERS THROUGHOUT THE OYSTER RIVER COMMUNITY

WHEREAS the Durham Town Council desires to formally recognize the Friends of the Durham Public Library for the immeasurable voluntary contributions made to the Durham Public Library over a span of 25 years; and

WHEREAS the Durham Town Council desires to formally recognize the grassroots efforts of the Friends of the Durham Public Library for their special and instrumental role in organizing the community and fundraising to form a public library for the Durham community as early as 1996; and

WHEREAS the Durham Town Council desires to formally recognize the continued efforts of the Friends of the Durham Public Library for their ongoing voluntary support and fundraising efforts to support the mission of the Library in supporting literacy and lifelong learning,

NOW, THEREFORE BE IT RESOLVED that the Durham Town Council, the legislative and governing body of the Town of Durham, New Hampshire, does hereby adopt Resolution #2022-19 recognizing the Friends of the Durham Public Library and expressing its gratitude and appreciation on behalf of the Durham community for their many years of dedicated service and for the selfless volunteer time and efforts they provide.

PASSED AND ADOPTED by the	Town Council of the Town of Durham, New
Hampshire this 17th day of Octobe	r, 2022 by affirmative votes, negative
votes, and abstentions.	
	Katherine Marple
ATTEST:	Durham Town Council
Lorrie Pitt, Town Clerk-Tax Collector	



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-5571 AGENDA ITEM:

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

April Talon, Town Engineer

AGENDA ITEM:

SHALL THE TOWN COUNCIL APPROVE THE 4TH 2022

WARRANT FOR WATER AND SEWER TOTALING \$609,428,91

AND AUTHORIZE THE ADMINISTRATOR TO SIGN SAID

WARRANT?

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

Todd I. Selig, Administrator

AGENDA DESCRIPTION:

Attached for the Council's approval is the 4th 2022 Warrant for Water and Sewer totaling \$609,428.91 in accordance with RSA 38:22 II (a) which states: "A municipality may commit bills for charges to the Tax Collector with a warrant signed by the appropriate municipal officials requiring the Tax Collector to collect them." The commitment list is available for viewing in the Town Clerk-Tax Collector's Office and will be available for viewing once the warrant is approved Monday evening.

At a prior Town Council meeting Councilors Lawson and Welsh asked that additional information be included with all water and sewer warrants. Particularly how the warrant is calculated, what the usage was, and how it compares to the budget.

Water and/or sewer bills are issued quarterly and are based on meter readings which are taken at the beginning of each quarter (on or about January 1, April 1, July 1 and October 1). Bills are calculated on the actual cubic foot (CF) of water used for each account. The Durham Public Works Water Division obtains the necessary readings using an automatic meter reading system and software which collects meter data including account numbers and water meter readings. This information is uploaded into the Town's utility billing software to generate the warrant. Some accounts are water only as is the case for irrigation meters or for properties that have a septic system. Some accounts are sewer only if they have a residential well.



Council Communication, 10/17/2022 - Page 2 4th Water and Sewer Warrant for 2022

The Town obtains the total number of cubic feet used and converts it to a dollar amount using the cost per cubic foot which is determined during the budget cycle. The amount of cubic feet used can fluctuate from year to year for the same period due to changes in weather (for example when there is more rain, people use less irrigation), time of year (summer versus winter), and whether UNH is in or out of session.

The charts below compare the actual water and sewer usage and fees for 2018, 2019, 2020, 2021 and the first nine months of 2022 compared to the budget.

3 RD QUARTER COMPARISONS	2018 (total cubic feet)	2019 (total cubic feet)	2020 (total cubic feet)	2021 (total cubic feet)	2022 (total cubic feet
Water	3,645,321	3,448,551	3,817,406	3,412,971	3,680,587
Water – Lee Extension					24,319*
Sewer	3,264,997	3,159,604	3,449,128	3,205,142	3,305,110

^{*}Lee Connections as of late July 2022

	E	ESTIMATED WATER			ACTUAL WATER					VARIANCE		
YEARLY COMPARISONS	Cubic Feet (cf)	Rates per 100 cubic feet		f/100 * Rate	Cubic Feet (cf)	1	Rates per 100 cubic feet	cf,	/100 * Rate	CF Estimate vs. Actual	\$ Estimate vs. Actual	% Estimated t Actual
2018	14,391,134	\$ 6.05	\$	870,664	14,383,549	\$	6.05	\$	870,205	(7,585)	(\$459)	100%
2019	14,420,835	\$ 7.08	\$	1,020,995	14,035,194	\$	7.08	\$	993,692	(385,641)	(\$27,303)	97%
2020	14,853,460	\$ 7.35	\$	1,091,729	13,863,777	\$	7.35	\$	1,018,988	(989,683)	(\$72,742)	93%
2021	14,853,460	\$ 7.74	\$	1,149,658	14,427,696	\$	7.74	\$	1,116,704	(425,764)	(\$32,954)	97%
2022 - 9 months	10,728,228	\$ 8.43	\$	904,390	10,593,007	\$	8.43	\$	892,991	(135,221)	(\$11,399)	99%

	ESTIMATE	ESTIMATED WATER - LEE EXTENSION			WATER - LEE EXT	TENSION	VARIANCE - LEE EXTENSION		
YEARLY COMPARISONS	Cubic Feet (cf)	Rates per 100 cubic feet	cf/100 * Rate	Cubic Feet (cf)	Rates per 100 cubic feet	cf/100 * Rate	CF Estimate vs. Actual	\$ Estimate vs. Actual	% Estimated to Actual
2022 - 9 months		\$ 9.69	\$ -	24,319	\$ 9.69	\$ 2,357	24,319	\$2,357	0%

	E	STIMATED SEWE	R		ACTUAL SEWER		VARIANCE		
YEARLY COMPARISONS	Cubic Feet (cf)	Rates per 100 cubic feet	cf/100 * Rate	Cubic Feet (cf)	Rates per 100 cubic feet	cf/100 * Rate	CF Estimate vs. Actual	\$ Estimate vs. Actual	% Estimated to Actual
2018	13,898,594	\$ 8.96	\$ 1,245,314	13,316,231	\$ 8.96	\$ 1,193,134	(582,363)	(\$52,180)	96%
2019	13,444,655	\$ 8.71	\$ 1,171,029	13,208,897	\$ 8.71	\$ 1,150,495	(235,758)	(\$20,535)	98%
2020	13,713,549	\$ 8.97	\$ 1,230,105	12,843,156	\$ 8.97	\$ 1,152,031	(870,393)	(\$78,074)	94%
2021	13,713,549	\$ 8.97	\$ 1,230,105	13,653,420	\$ 8.97	\$ 1,224,712	(60,129)	(\$5,393)	100%
2022 - 9 months	10,137,526	\$ 8.98	\$ 910,350	9,896,116	\$ 8.98	\$ 888,671	(241,410)	(\$21,679)	98%

Council Communication, 10/17/2022 – Page 3 4th Water and Sewer Warrant for 2022

LEGAL AUTHORITY:

RSA 38:22 II (a)

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

The warrant details are as follows:

Water \$ 310,273.51

Lee Waterline Extension Water \$ 2,356.51

Sewer \$ 296,798.89

Total \$ 609,428.91

with interest at eight percent (8%) on all sums not paid thirty days (30) from the due date.

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION:

The Durham Town Council does hereby approve the 4^{th} 2022 Warrant for Water and Sewer totaling \$609,428.91, commits the bills for charges to the Tax Collector for collection, and authorizes the Administrator to sign said warrant on its behalf.

STATE OF NEW HAMPSHIRE WATER/SEWER – 4th WARRANT 2022

STRAFFORD SS

To Lorrie Pitt, Collector of Water and Sewer Taxes for the Town of Durham in said County.

In the name of said State, you are directed to collect the water and sewer taxes in the list herewith committed to you, amounting in all to the sum of

Six Hundred Nine Thousand Four Hundred Twenty-Eight Dollars and Ninety-One Cents (609,428.91)

Water \$ 310,273.51 Lee Waterline Extension Water \$ 2,356.51 Sewer \$ 296,798.89 **Total \$ 609,428.91**

with interest at eight percent (8%) on all sums not paid thirty (30) days from the due date.

And we further order you to pay all monies collected to the Treasurer of said Town at least on a weekly basis.

As attested by the Town Clerk-Tax Collector, the list on the following pages is a correct list of the assessment of the 4th billing of 2022 computed from the 3rd Quarter water and sewer readings of 2022.

ATTEST:		
	Lorrie Pitt, Town Clerk-Tax Collector	
Given under	er our hands and seal at Durham this <u>17th</u> day of <u>Oct</u>	ober, 2022.
	Todd I. Selig, Administrator Per Town Council vote on 10/17/20	



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-5571AGENDA ITEM:

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Todd I. Selig, Administrator

AGENDA ITEM:

SHALL THE TOWN COUNCIL SCHEDULE A SPECIAL MEETING DATE IN DECEMBER FOR THE PURPOSE OF DELIBERATING THE PROPOSED FY 2023 OPERATING, CAPITAL, AND SPECIAL FUND BUDGETS AND 2023-2032 CAPITAL IMPROVEMENT PLAN, AND SCHEDULE A PUBLIC HEARING ON THE PROPOSED FY 2021

BUDGETS FOR MONDAY, NOVEMBER 14, 2022?

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

Todd I. Selig, Administrator

AGENDA DESCRIPTION:

The proposed FY 2023 Operating Budgets and 2023-2032 Capital Improvement Plan are in the final development phase and will be ready for presentation to the Town Council for the meeting on Monday, November 7, 2022.

Historically, the Town Council has held meetings on Monday evenings throughout the months of November and December, excluding holidays, until the budget and CIP have been adopted.

LEGAL AUTHORITY:

Section 5.3 "Budget hearings" of the Durham Town Charter:

"The Town Council shall hold in convenient places as many public hearings on the budget as it deems necessary, but at least one (1) public hearing on the budget shall be held at least fourteen (14) days before its final adoption by the Council at such time and place, convenient to the public, as the Council shall direct. Notice of such public hearing, together with a copy of the budget as submitted, shall be posted in two (2) public places and published once at least one (1) week in advance by the Town Clerk."

Section 5.4 "Final date for budget adoption" of the Durham Town Charter:

"The budget shall be adopted not later than the last workday of the preceding fiscal year....Failure by the Council to adopt a budget by the deadline established in this section will establish the budget as recommended by the Administrator as the adopted budget."

Section 5.8 "Capital Improvement Plan" of the Durham Town Charter:

"A. The Town Administrator, after consultation with the Planning Board, shall prepare and submit to the Council a capital improvements plan at least one (1) month prior to



Council Communication, 10/17/22 - Page 2

Re: Schedule Special Meeting Dates for Budget Deliberations and Schedule Budget Public Hearing

the final date for submission of the budget. The capital improvements program shall include:

- 1. A clear summary of its contents.
- 2. A list of all capital improvements, including major replacements, which are proposed to be undertaken during the next six (6) fiscal years, including but not limited to equipment, sewer and water mains or facilities, roads, sidewalks, bicycle paths or lanes, public open spaces and recreation facilities, new police and/or fire stations and other new public facilities and major items of equipment, with appropriate supporting information as to the necessity for such improvements.
- 3. Cost estimates methods of financing and a recommended time schedule for each such improvement.
- 4. The estimated annual cost of operating and maintaining the facilities to be constructed or acquired.
- B. The capital improvements plan shall be based on a period of not less than six (6) years and shall include reference to or be influenced by, where appropriate, the Town Master/Comprehensive Plan.
- C. The above information may be revised and extended each year with regard to capital improvements still pending or in process of construction or acquisition.

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

N/A

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION #1:

The Durham Town Council does hereby set Monday, December 12, 2022, as a Budget Worksession in addition to its regular legislative meeting dates, to deliberate, discuss, and take action on the proposed FY 2023 Operating, Capital, and Special Fund Budgets and 2023-2032 Capital Improvement Plan.

MOTION #2:

The Durham Town Council does hereby schedule a Public Hearing for the proposed FY 2023 Operating, Capital, and Special Fund Budgets for Monday, November 14, 2022, in accordance with Section 5.3 "Budget Hearings" of the Durham Town Charter.



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-5571 AGENDA ITEM:

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Richard Reine, MSCE, CA, Public Works Director

AGENDA ITEM:

RESOLUTION #2022-20 REQUESTING THAT THE STRAFFORD

REGIONAL PLANNING COMMISSIONERS, THE POLICY AND

TECHNICAL ADVISORY COMMITTEES, AND THE NEW

HAMPSHIRE DEPARTMENT OF TRANSPORTATION INCLUDE DURHAM POINT ROAD IN THE STATE OF NEW HAMPSHIRE'S TEN-YEAR TRANSPORTATION IMPROVEMENT PLAN TO RECONSTRUCT AND REPAVE DURHAM POINT ROAD (FROM

ROUTE 108 TO BAY ROAD) TO ADDRESS ROADWAY

DEFICIENCIES, INCLUDING STORMWATER MANAGEMENT AND

WATER QUALITY IMPROVEMENTS, ENHANCED FLOOD RESILIENCY, FISH AND AMPHIBIAN PASSAGE, VEHICLE, PEDESTRIAN AND CYCLIST SAFETY, ADA COMPLIANCE, AND

IMPROVEMENTS IN MULTI-MODAL TRANSPORTATION.

CC PREPARED BY:

Wayne Burton, Commissioner, Strafford Regional

Planning Commission, Policy Committee

Richard Reine, MSCE, CA Public Works Director

April Talon, P.E., Town Engineer

PRESENTED BY:

Richard Reine, Public Works Director

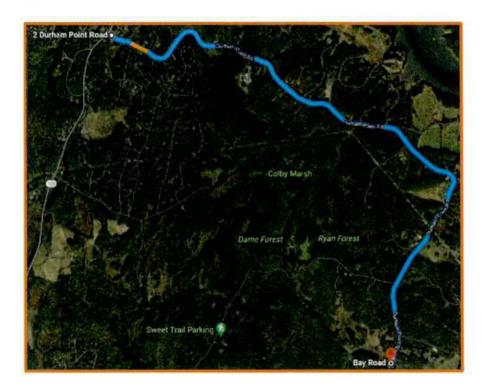
AGENDA DESCRIPTION:

This request seeks approval of the attached Resolution supporting the inclusion of reconstruction and repaying of Durham Point Road, from Route 108 to Bay Road, within the State of New Hampshire's Ten- Year Transportation Improvement Plan (10-Year Plan).

The 10-Year Plan is a fiscally-constrained program of state – and federal-funded transportation projects. The 10-Year Plan is updated biennially, in accordance with the requirements of New Hampshire RSA 240. It includes projects related to roadway improvements, bicycle and pedestrian travel, public transportation, aviation, and natural hazard resiliency.



Durham Point Road is a Scenic Road with many historic features and is considered a major collector road with average daily traffic exceeding 1,000 vehicles per day. In addition, the roadway provides access to over 1,000 cars weekly to Durham's Recycling Center and Transfer Station, along with the University of New Hampshire's Jackson Estuarine Laboratory. The proposed project limits are approximately 19,513 feet in length and span between Route 108 and Bay Road as shown below.



Historic data indicates that during the 10-year period between 2010 -2020 there were 71 reported incidents, including collisions with fixed objects and other moving vehicles with one fatality. The roadway is a popular route for recreational and commuter cyclists and pedestrians. It also serves as a detour route during flooding and scheduled and unscheduled road closure events, when Route 108 becomes impassable.

The roadway is generally in poor condition with roadway base failure throughout the corridor and has a pavement condition index (PCI) ranging from 60-65. Sidewalks are provided on a very limited stretch of Durham Point Road measuring 823 feet in length and located on the westerly most section, between Route 108 and Sunnyside Lane.

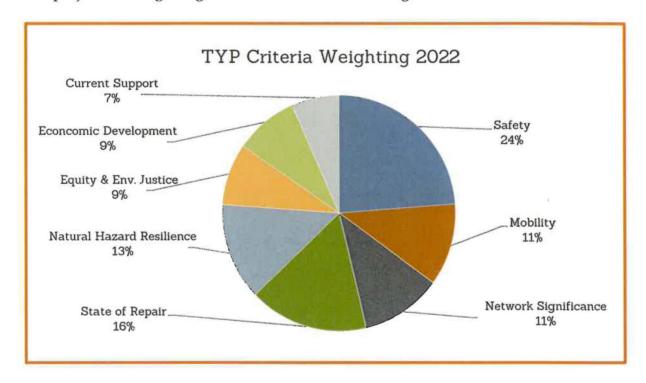
The proposed project will address deficiencies in the roadway, while implementing improvements for multimodal transportation, including cyclists and pedestrians. The project will focus on safety improvements, including potential modifications of

roadway and intersection geometry, while constructing improvements in stormwater management to increase water quality and provide improved habitat for fish and amphibians.

The Town of Durham successfully advocated for the Durham Point Road project during this year's initial evaluation process and this project was selected as one of seven within the SRPC region for further consideration by the Commission. Strafford Regional Planning has authorized VHB Engineers to develop conceptual designs and cost estimates to further inform their decision making on these projects.

The Strafford Regional Planning Technical Advisory (TAC) and Policy Committees will now evaluate these projects further and score them based on set criteria to determine which projects will be included in the Commission's 10-Year Plan recommendation to NHDOT.

The projects scoring categories and the associated weights are shown below.



On November 4, 2022, a Joint Meeting is scheduled to be held with the Strafford Regional Planning Technical Advisory (TAC) and Policy Committee at which time Durham SRPC Commissioner Wayne Burton and Technical Advisory Committee Member and Durham Public Works Town Engineer, April Talon will review all projects and answer questions and highlight the benefits of the Durham Point Road project.

Council Communication, 10/17/2022 - Page 4

Re: Resolution #2022-20 - Durham Pt Road Inclusion in NHDOT 10-Year Transportation Plan

Demonstrated support from the Town Council, Town Administrator and Public Works Department through this resolution will weigh heavily in the Commission's recommendation.

LEGAL AUTHORITY:

N/A

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

N/A

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION:

The Durham Town Council does hereby ADOPT Resolution #2022-20 requesting that the Strafford Regional Planning Commissioners, the Policy and Technical Advisory Committees, and the New Hampshire Department of Transportation include Durham Point Road in the State of New Hampshire's Ten-Year Transportation Improvement Plan to reconstruct and repave Durham Point Road (From Route 108 to Bay Road) to address roadway deficiencies, including stormwater management and water quality improvements, enhanced flood resiliency, habitat and fish/amphibian passage, vehicle, pedestrian, and cyclist safety, ADA compliance, and improvements in multi-modal transportation.

RESOLUTION #2022-20 OF DURHAM, NEW HAMPSHIRE

REQUESTING THAT THE STRAFFORD REGIONAL PLANNING COMMISSIONERS, THE POLICY AND TECHNICAL ADVISORY COMMITTEES, AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION INCLUDE DURHAM POINT ROAD IN THE STATE OF NEW HAMPSHIRE'S TEN-YEAR TRANSPORTATION IMPROVEMENT PLAN TO RECONSTRUCT AND REPAVE DURHAM POINT ROAD (FROM ROUTE 108 TO BAY ROAD) TO ADDRESS ROADWAY DEFICIENCIES, INCLUDING STORMWATER MANAGEMENT AND WATER QUALITY IMPROVEMENTS, ENHANCED FLOOD RESILIENCY, HABITAT AND FISH/AMPHIBIAN PASSAGE, VEHICLE, PEDESTRIAN, AND CYCLIST SAFETY, ADA COMPLIANCE, AND IMPROVEMENTS IN MULTI-MODAL TRANSPORTATION

WHEREAS, The Town's Durham Point Road, a Scenic Road with numerous historic features and recreational opportunities, is a major collector road, serving both State, Local and Regional transportation interests; and

WHEREAS, Historic data indicates a significant record of crash incidents, including one fatality and 71 crashes, involving moving and fixed objects in the 10-year period between 2010 -2020; and

WHEREAS, the roadway is in poor condition with roadway base failure throughout the project limits and minimal pedestrian or ADA accommodations; and

WHEREAS, the existing stormwater management system consisting of over twenty culvert crossings and a limited closed drainage system is in disrepair and provides minimal water quality treatment, inadequate fish and amphibian passage or flood/natural hazard resiliency; and

WHEREAS, as traffic on the roadway has increased over the years, so has the rate of speed, which is of significant concern; and

WHEREAS, Durham Point Road provides access to the University of New Hampshire's Jackson Estuarine Laboratory and to over 1,000 vehicles weekly to the Town of Durham's Recycling Center and Transfer Station which promotes sustainable environmental practices, yet the access to this critical facility is lacking in sight distance and clear site lines; and

WHEREAS, the Town of Durham encourages non-carbon producing modes of transportation and Durham Point Road serves as a Seacoast region asset providing a popular venue for cyclists, hikers and pedestrians, yet the roadway is not currently constructed to adequately enable these alternatives, and

WHEREAS, Durham Point Road serves as an alternate route in lieu of traveling on Route 108, connecting Newmarket and points south with Durham and points north during road closures related to construction activities, downed trees, and wires or when flooding of Route 108 results in the roadway becoming impassable,

NOW THEREFORE, BE IT RESOLVED that the Durham Town Council, the governing and legislative body of the Town of Durham, does hereby ADOPT Resolution #2022-20 urging the Strafford Regional Planning Commissioners, the Policy and Technical Advisory Committees, along with NHDOT to support the inclusion of the Durham Point Road Improvement Project in Durham NH, in the State of New Hampshire's Ten Year Transportation Improvement Plan and support Durham's efforts to make access to the Town safe for vehicles, cyclists and pedestrians through safety improvements while improving water quality, flood resiliency and the Town's Roadway and sidewalk network.

PASSED AND ADOPTED this _	17th day of October 2022, by a majority vote
of the Durham Town Council with	affirmative votes, negative votes , and
abstentions.	
	Katherine Marple, Chair Durham Town Council
ATTEST:	
Lorrie L. Pitt, Town Clerk-Tax Collector	



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-5571 AGENDA ITEM:

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Joseph Warzin, 102 Madbury Road

AGENDA ITEM:

SHALL THE TOWN COUNCIL APPOINT JOSEPH WARZIN, 102 MADBURY ROAD, TO FILL A THREE-YEAR ALTERNATE MEMBER TERM VACANCY ON THE ZONING BOARD OF ADJUSTMENT?

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

Todd I. Selig, Administrator

AGENDA DESCRIPTION:

Attached for the Council's information and consideration is an application for board appointment submitted by Joseph Warzin, 102 Madbury Road, requesting appointment as an alternate member to the Zoning Board of Adjustment. There are currently three (3) alternate member vacancies with term expirations of April 30, 2023, 2024, and 2025.

Mr. Warzin has met with ZBA Chair Micah Warnock and has attended at least one meeting of board. Attached is correspondence from Chair Warnock endorsing Mr. Warzin's appointment.

Mr. Warzin has been invited to attend Monday night's Town Council meeting for introduction and to respond to any questions Council members may have concerning his appointment.

LEGAL AUTHORITY:

Section 11.5 "Vacancies in Elected or Appointed Office" states that, "Unless otherwise specified in this Charter, in the event of a vacancy in an elected or appointed office, board, commission or committee of the town, the Town Council shall fill that vacancy by appointment, such appointment to continue until the next town election for elected positions or the remainder of a person's term if an appointed position."

LEGAL OPINION:

N/A



Council Communication, 10/17/2022 - Page 2 Re: Appoint Joseph Warzin to the Zoning Board of Adjustment

FINANCIAL DETAILS:

N/A

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION:

The Durham Town Council does hereby appoint Joseph Warzin, 102 Madbury Road, to fill an unexpired alternate member term vacancy on the Zoning Board of Adjustment with a term expiration of April 30, 2025



Town of Durham

8 Newmarket Road Durham, NH 03824-2898 Tel: 603/868-5571 Fax 603/868-1858 jberry@ci.durham.nh.us

Application for Board Appointment

Type of Appointment and Position Desired (Please select only one):
New appointment/regular member □ New appointment/alternate member □ Reappointment/regular member □ Reappointment/alternate member □
NOTE: New applicants are asked to attend AT LEAST ONE meeting, as well as to meet separately with the Chair(s) of the committee(s) to which they are applying, prior to submitting an application for appointment.
Applicant has: X ATTENDED A MEETING X SPOKEN WITH CHAIR/V CHAIR X BEEN RECOMMENDED FOR MEMBERSHIP
Name: Joseph Warzin Date: 9/7/2022 Address: 102 Madbury Rd
E-Mail Address: Warzin @gmail.com
Telephone: 586-933-6336
Board/Commission/Committee to which you are interested in being appointed. (Please list ir order of preference, if interested in more than one appointment).
1. Zoning Board 2. 3.
Are you willing to attend ongoing educational sessions offered by the New Hampshire Municipal Association, Strafford Regional Planning Commission, et al, and otherwise develop skills and knowledge relevant to your work on the board/committee? (YES) NO

(Over)

Town of Durham - Application for Board Appointment Page 2

Please provide a brief explanation for your interest in appointment to a particular board, commission or committee:

I am interested in serving the town. I have talked with the chair and this seems like a good opportunity.

Please provide brief background information about yourself:

I am an airline pilot flying for JetBlue. I have lived in Durham for a year and in Newfield's for about six.

Please provide below the names and telephone numbers of up to three personal references:

Name: M. cah Warnock Telephone: 540-421-3705

Name: Matt Krueger Telephone: 810-423-9161

Name: Josh Pace Telephone: 970-368-0983

Thank you for your interest in serving the Town. Please return this application, along with a resume, if available, to: Town Administrator, 8 Newmarket Road, Durham, NH 03824, or email Jennie Berry at iberry@ci.durham.nh.us.

From: Micah Warnock
To: Jen Berry

Subject: Re: October 3 Town Council Meeting

Date: Thursday, September 15, 2022 12:02:22 PM

Hi Jen, Here is my recommendation.

Counselors,

I am pleased to recommend Joe Warzin to the Town of Durham, Zoning Board of Appeals. Joe attended a meeting on Sept 13th and has shown abundant interest in how the board works to better understand the process. I feel he will be an asset to the board and fill many of our gaps. Joe has been a resident of Durham for over a year and a resident in New Hampshire for more than 5 years.

Thank you for considering him to join the board.

Best Regards,

Micah

On Thu, Sep 15, 2022 at 9:51 AM Jen Berry < <u>iberry@ci.durham.nh.us</u>> wrote:

Hi Joseph,

I understand you have attended a ZBA meeting. I will place your appointment on the Town Council agenda for October 3rd if you will be able to attend that meeting. Just let me know.

Micah: Could you please send over your recommendation for Joseph's appointment to me?

Thank you both.

Jen-

Jennie Berry



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-55**AGENDA ITEM:**

<u>#11A</u>

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Todd I. Selig, Administrator

AGENDA ITEM:

RECEIVE UPDATE ON AND ADOPT DURHAM'S FINAL CLIMATE

ACTION PLAN - UNH SUSTAINABILITY FELLOW, RAFIDAH

RAHMAN

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

UNH Sustainability Fellow Rafidah Rahman

AGENDA DESCRIPTION:

In January 2021, Durham joined the Global Covenant of Mayors for Climate and Energy (GCoM), in which local governments commit to the GCoM pledge to:

- Undertake measures to reduce/limit greenhouse gas emissions.
- Prepare for the impacts of climate change.
- Increase access to sustainable energy.
- Track progress toward these objectives.

Under GCoM, Durham must complete the following within 3 years:

- Greenhouse Gas Inventory (complete)
- Target for reducing greenhouse gases (complete)
- Risk and Vulnerability Assessment (ongoing)
- Goals for reducing risks (ongoing)
- Climate Action Plan (complete/on-going)

In addition, Durham will provide updates to GCoM every 2 years.

In the summer of 2021, UNH Sustainability Fellow Cathy Fletcher was selected to begin work on the Climate Action Plan for Durham. The main purpose of the plan includes:



Council Communication, 10/17/2022 – Page 2 RE: Update on and Adoption of Durham's Climate Action Plan

- Outlines specific actions.
- Estimates each action's impact on reducing emissions or increasing resilience.
- Includes an implementation plan and how to measure progress.

Actions that fall under mitigation and/or adaptation/resilience are:

- <u>Mitigation</u>: Reducing greenhouse gas emissions
- <u>Adaptation/Resilience</u>: Preparing for and managing the risks of climate change impacts (<u>Example</u>: increase in flooding)

The importance of the CAP for Durham is that it will outline what actions Durham will take to reduce its emissions and increase its resiliency to climate change impacts.

Before her departure in June of 2022, Ms. Fletcher developed a draft plan which was placed on the Sustainable Durham website for community review and collected feedback from the Town's department heads and also the Durham community through an online survey. In May 2022, Ms. Fletcher gave presentations of the proposed plan to the Human Rights Commission, Land Stewardship Subcommittee, Integrated Waste Management Advisory Committee, and Conservation Commission.

In July 2022, Durham welcomed new UNH Sustainability Fellow Rafidah Rahman to continue working on finalizing the Climate Action Plan, as well as other projects and outreach in conjunction with the Durham Energy Committee and Administrator's Office. Rafidah is working on her Master of Science in Sustainability, under the Department of Urban & Environmental Policy & Planning, Graduate School of Arts and Sciences at Tufts University where she is a Merit Scholar.

At the October 17, 2022, Town Council meeting, Ms. Rahman will give a presentation to Council members on the final Climate Action Plan and will seek Council approval of the plan at that time in order to submit the approved plan to the Global Covenant of Mayors for Climate and Energy before the October 31, 2022, deadline for its feedback.

LEGAL AUTHORITY:

N/A

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

N/A

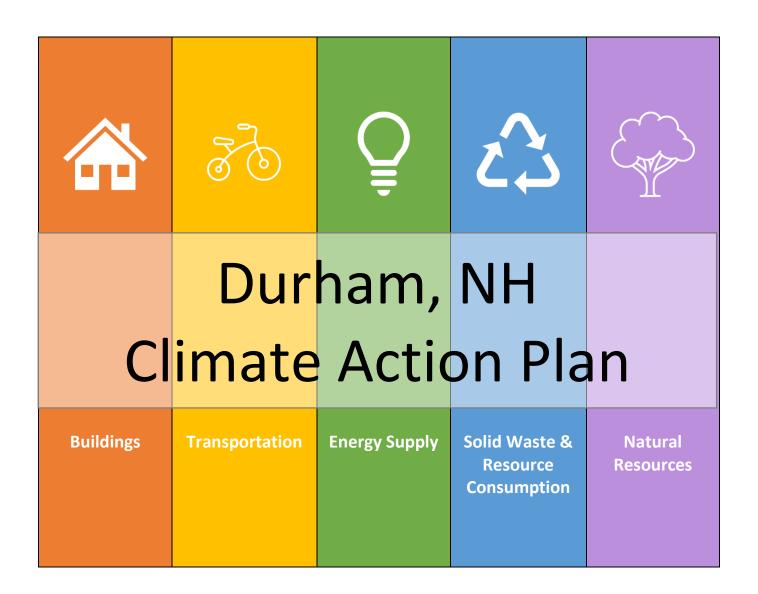
Council Communication, 10/17/2022 - Page 3 RE: Update on and Adoption of Durham's Climate Action Plan

SUGGESTED ACTION OR RECOMMENDATIONS:

Receive a presentation from UNH Sustainability Fellow Rafidah Rahman on Durham's finalized Climate Action Plan. Afterward, the following motion is recommended:

MOTION:

The Durham Town Council does hereby ADOPT Durham's Climate Action Plan and refers the plan to the Global Covenant of Mayors for Climate and Energy for additional feedback (if any) and final approval.



Approved by Durham Town Council

[Date Approved] - 8/24/22 Draft

Produced by the Climate Action Plan Task Force
Through partnership with ICLEI – Local Government for Sustainability (ICLEI)



Acknowledgments

Climate Action Plan Task Force

- Rafidah Rahman 2022-2023 UNH Sustainability Fellow
- Cathy Fletcher 2021-2022 UNH Sustainability Fellow
- Jennifer Andrews Project Director, UNH Sustainability Institute
- Nat Balch Chair, Durham Energy Committee
- Jim Lawson Member, Durham Town Council/Energy Committee
- Todd Selig Administrator, Town of Durham

Durham Officials and Staff

- Durham, NH Leadership Team;
- Rich Reine, Public Works Director;
- · Rene Kelley, Police Chief;
- David Emanuel, Fire Chief;
- Rachel Gasowski, Parks & Recreation Director;
- Sheryl Bass, Library Director;
- Luke Vincent, IT Manager;
- Gail Jablonski, Business Manager;
- Lorrie Pitt, Town Clerk/Tax Collector;
- Rachel Dean, Deputy Town Clerk/Tax Collector;
- James Rich, Assessor;
- Audrey Cline, Code/Zoning/Health Officer;
- Michael Behrendt, Director of Planning & Community Development.

Community Stakeholders

- Conservation Commission
- Agricultural Commission
- Land Stewardship Subcommittee
- Integrated Waste Management Advisory Committee
- Energy Committee
- Town Council

This Climate Action Plan was developed using a template provided by ICLEI – Local Governments for Sustainability, USA. This template and its appendices were published in April 2018.

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Executive Summary

This Climate Action Plan establishes a clear course of action for local efforts in Durham, New Hampshire, toward a reduction in GHG emissions of 2019 levels by 35.5% by 2030, and achieving zero emissions by 2050. The Climate Action Plan is a framework for developing and implementing actions to achieve these targets.

It is organized across five action areas—buildings, transportation, energy supply, waste and natural resources—and identifies concrete emissions reduction strategies that the Town will work to implement and encourage, working with residents, businesses and local stakeholders including the Oyster River School District and the University of New Hampshire. These strategies were based on local community input as well as research into best practices being pursued in communities across the state, region, nation, and the globe. The Town of Durham will report on progress and update the action strategies every two years.

It is important to note that while UNH and the Town are making concrete efforts to reduce their GHG emissions, it is largely up to community members whether or not we meet our goals.

When excluding transportation emissions, which are difficult to estimate by user, emissions by user were as follows: UNH (42.4%), Residential (30.4%), Commercial (22.1%), Oyster River Cooperative School District (ORCSD) (2.9%), and Municipal (2.2%). As UNH, the municipality, and ORCSD directly account for 47.5% of non-transportation emissions, the remaining 52.5% of emissions are in the hands of the community.

Introduction

Climate change is perhaps the greatest environmental challenge of the 21st century. It poses a serious threat not just to New Hampshire's natural resources, but also to our health, welfare, critical infrastructure, and economic interests. Climate change also presents huge opportunities for creating a healthier, safer, and more equitable zero-carbon world. Durham has an unparalleled opportunity to make changes in ways that increase sustainability, resiliency, and benefit all residents. Scientists expect that with the current trends in fossil fuel use, Americans may see more intense heat waves, droughts, rainstorms, floods, wildfires, and landslides in the future. These impacts could drag down our economy, stress our natural resources and worsen inequities facing many Americans. Action is required at all levels, and local governments such as Durham have a unique role to play in building low-carbon communities. However, government action alone is not enough to address climate change; everyone must be a part of the solution.

The Creation of the Climate Action Plan

Purpose

The 2014 Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), written by a panel of hundreds of climate experts and scientists and approved by a team of external reviewers, states unambiguously that anthropogenic or "man-made" greenhouse gas (GHG) emissions are causing global climate change. For this reason, Durham has joined an increasing number of local governments committed to addressing climate change at the local level, in particular through its commitment to the Global Covenant of Mayors for Climate and Energy. Durham recognizes the risk that climate change poses to its residents and is acting now to reduce the GHG emissions of both its government operations community-at-large through the innovative programs laid out in this Climate Action Plan. Furthermore, it is recognized that Durham needs to address existing climate risks such as sea level rise, increased flooding and drought conditions, and increased storm severity, among other anticipated changes, through enhanced resiliency and by adapting its systems and infrastructure to new conditions. Ultimately, local action is needed to reduce Durham's contribution to the problem of climate change and adapt to its current and future effects. This Climate Action Plan takes advantage of approaches and policies that our local government is uniquely positioned to implement

to work towards these efforts both for the municipality as a distinct entity and to promote action by individuals and businesses within the town.

By creating a clear course of action, our Climate Action Plan drives and coordinates local efforts toward a reduction in GHG emissions of 2019 levels by 35.5% by 2030, and achieving zero emissions by 2050. The Climate Action Plan is a framework for developing and implementing actions to achieve these targets.

In addition to addressing mitigation concerns as outlined in this Climate Action Plan, a separate 2017 Hazard Mitigation Plan is currently in effect, which highlights the vulnerability of Durham to climate hazards and the strategies proposed to respond to these vulnerabilities thereby increasing our local resilience to future climate-related challenges. The 2017 Hazard Mitigation Plan was scheduled for updating in 2021 but due to the effects of the COVID-19 pandemic and delays in the receipt of Federal funds necessary to support the cost of the local update, followed by required bureaucratic processes at the NH Office of Homeland Security & Emergency Management and Office of the NH Governor in allocating said funds to Durham, the update will commence on September 6, 2022, and is anticipated to be completed by mid-2023. A related draft Climate Action Chapter of the Durham Master Plan is now under development and a recently completed 2022 study evaluating the impacts of sea level rise on groundwater levels and water quality/septic systems & critical infrastructure in Durham will help to inform the update to the 2022 Hazard Mitigation Plan.

We recognize that ultimately, no one strategy will undo these challenges, but the implementation of multi-faceted strategies may set Durham on the right path. We plan to outline goals and document progress as outlined below.

Development Process

Home to the University of New Hampshire (UNH), Durham has leveraged its relationship with the university to drive forward its sustainability efforts. UNH is a leader in its own right, updating its Climate Action Plan, known as WildCAP, in 2021 in which it continued outlining how the university would reduce its Scope 1 and 2¹ emissions from 2019 levels by 50% by 2030. In addition, the UNH Sustainability Institute has been connecting undergraduate students and post-baccalaureates from universities across the US to organizations to work on sustainability initiatives. Durham has hosted a sustainability

¹ UNH defines Scope 1 emissions as "All direct, on-site emissions that result from facilities operations. For UNH, this includes emissions from burning fossil fuels to heat and provide electricity for our buildings, run our power plant, and fuel our fleet vehicles; applying fertilizers and using refrigerants; and cultivating livestock" and Scope 2 emissions as "Off-site emissions from utility generation of electricity, steam, or chilled water. For UNH this includes the electricity we purchase."

fellow each summer since 2018, and began keeping fellows on part-time throughout the year beginning in the fall of 2020. This partnership between Durham and the UNH Sustainability Institute allows Durham to access UNH's technical expertise in support of various sustainability efforts.

This plan was developed by a Climate Action Plan Task Force, composed of individuals from Town departments, committees, and commissions, as well as the UNH Sustainability Institute (see "Acknowledgements" for full list of contributors). The Task force initially created draft goals and actions that were informed by the 2015 Durham Master Plan, 2019 Community-Wide Greenhouse Gas Inventory, and 2017 Hazard Mitigation Plan (to be updated as described below commencing in September 2022). The Task Force solicited feedback from the community through meetings with Town committees, commissions, and department heads, in-person events such as Earth Day, and online surveys. This feedback helped shape the final version of this plan, making it more useful for the Durham community.

While this Plan includes overarching goals out to 2030, the *actions* within this Plan are intended to be completed by 2024. As required by the Global Covenant of Mayors, Durham will provide updates every two years after the approval of this Plan and revise actions as necessary.

It is important to note that while UNH and the Town are making concrete efforts to reduce their GHG emissions, it is largely up to community members whether or not we meet our goals. When excluding transportation emissions, which are difficult to estimate by user, emissions by user were as follows: UNH (42.4%), Residential (30.4%), Commercial (22.1%), Oyster River Cooperative School District (ORCSD) (2.9%), and Municipal (2.2%). As UNH, the municipality, and ORCSD directly account for 47.5% of non-transportation emissions, the remaining 52.5% of emissions are in the hands of the community. Even if UNH and the municipality reach the goals they are able to directly control, Durham will need community support to reach the goals of the community.

Climate Action Plan Elements

While Durham has already begun to reduce its GHG emissions and climate risk in meaningful ways through a variety of actions, this plan outlines a deliberate and comprehensive approach to continuing these efforts. It offers a framework to document, coordinate, measure, and adapt efforts moving forward. This Plan covers goals and actions for reducing GHG emissions resulting from local government and community-wide activities within Durham (i.e., mitigation-focused). The separate 2017 Hazard

Mitigation Plan (and subsequent update soon to get underway) outlines current climate hazards in Durham to increase its resilience (i.e., adaptation-focused).

Goals and actions to reduce GHG emissions are organized into five focus areas. While are not all-inclusive, they provide a structural framework to organize goals and actions under this and subsequent versions of this Plan.

1. Buildings – promoting energy efficiency and conservation in buildings

- Encouraging the shift to resilient and efficient buildings that minimize the GHG emissions required to heat, cool, and power them
 - I. Green Infrastructure (low-impact development)
 - II. Energy Efficiency (energy efficiency and conservation)
 - III. Green Equipment (energy-efficient equipment)
 - IV. Resilient Buildings (buildings resilient to climate impacts ex: intense storms, and heat)

2. Transportation - providing a range of transportation options and promoting active transportation (walking, biking)

- Creating a safe, connected, and accessible transportation system that prioritizes low-carbon transportation methods and seeks to reduce GHG emissions.
 - Active transportation (Walking, biking)
 - II. Electric vehicles (promoting electric vehicles and transfer stations)
 - III. Land use (impacts on transportation: zoning, bike lanes, EV charging)
 - IV. Public transportation (expanding and encouraging the use of public transportation)
 - V. Vehicles (improving vehicle efficiency; reducing use)
 - VI. Design (resilient design and improvements for transportation infrastructure)

3. Energy Supply – providing green energy choices and an adequate supply for future energy demand

- Creating a reliable, green, and adequate energy supply to support current and future energy needs.
 - I. Renewable Energy (expanding renewable energy generation)
 - II. Resilient Energy (reliable energy systems)

4. Solid Waste and Resource Consumption – reducing and diverting waste; conserving resources

- Promoting processes that reduce the amount of waste sent to the landfill, encourage reduced water usage, and support locally sourced products.
 - I. Local Food (local food and agriculture)
 - II. Purchasing (purchasing practices: Energy Star)
 - III. Waste (waste reduction and diversion: composting)
 - IV. Water Use (water use reduction and efficiency)
 - V. Storm water (storm water management)

5. Natural Resources – protecting water and other natural resources

- Preserving and enhancing the health of Durham's waterways, agriculture, wildlife, and open spaces.
 - I. Agricultural Lands (healthy, productive agricultural lands)
 - II. Open Space (preserving green and open space)
 - III. Sustainable & Resilient Landscapes (biodiversity, pollinator protection, resistance to erosion)
 - IV. Tree Canopy (tree canopy and forest maintenance and management)
 - V. Water Resources (protecting water resources)
 - VI. Storm water management

Summary of Goals and Actions

The Climate Action Plan offers a robust set of goals and actions that will address GHG reductions. Each goal and action were created and reviewed by a group of stakeholders who considered technology limitations, funding constraints, public support, and the feasibility of implementation, environmental justice considerations, and other barriers.

Calculating expected emissions reductions for each goal requires making assumptions about the degree of implementation, technology, and individual behavioral changes several years into the future. The uncertainty associated with these assumptions makes it difficult to assign exact reduction totals to each goal or action. To address this uncertainty and provide a simple but useful reference for reduction potential, the following symbols and associated ranges represent the emission reductions associated with each objective and its strategies.

Symbol	GHG Reduction
	0-5,000 tCO₂e
	5,001-10,000 tCO₂e
	10,001 or more tCO₂e

In addition to measuring the GHG reduction potential, each focus area is also evaluated for other benefits such as jobs and prosperity, equity and justice, environmental conversation, and public health. The symbols below will indicate which co-benefits a measure will generate.

Symbol	Co-Benefit
₽ o	High potential to support jobs and prosperity
S	High potential to advance equity and justice
*	High potential to improve local environmental quality
Č	High potential to improve health

Summary of Goals

Goal	Support- ing Actions	Supports Mitigation (M) or Adaptation (A)	Benefits	Reduction Potential by 2030
Buildings				
B.1 – In residential and commercial buildings, electrify stationary energy sources and increase energy efficiency to compensate for this increased energy demand by 2030.	B.1.1 – B.1.2	M	♦ ♦	
B.2 – Diversify Durham's housing stock by 2030.	B.2.1	M	♦ ♦	Not Applicable (see description)
B.3 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030.	B.3.1	М	* *	
Transportation				
T.1 – Transition 70% of the police fleet to hybrid vehicles by 2024, and 100% of municipal vehicles to hybrid or electric vehicles by 2030, as technology and the market allows.	T.1.1- T.1.2	M	*	

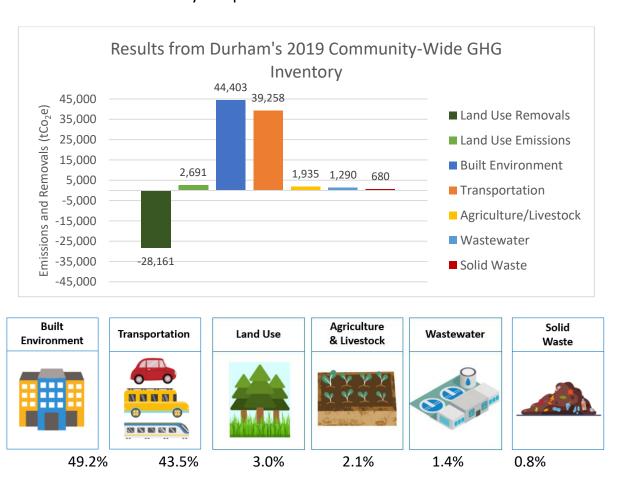
T.2 – Increase bicycle connectivity to the downtown core and enhance the safe pedestrian experience by 2024.	T.2.1- T.2.2	М	♦ ♦	
T.3 – Reduce single-occupancy vehicle miles traveled by 5% by 2024 and 15% by 2030.	T.3.1- T.3.4	М	* 	
T.4 – Increase the share of electric vehicles and number of public charging stations in Durham by 2030.	T.4.1- T.4.2	М	* Š	
T.5 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030.	T.5.1	M	⑤	
Goal	Support- ing Actions	Supports Mitigation (M) or Adaptation (A)	Benefits	Reduction Potential by 2030
Energy Supply				
E.1 – Provide the option of 100% renewable energy source for all residents by 2024.	E.1.1- E.1.3	М	♦ ♦	
E.2 – Source all municipal buildings from 100% renewable energy by 2024.	E.2.1	M	A Ú	
E.3 – Ensure an adequate renewable energy supply while accounting for increased demand from the transportation sector and impacts from climate change by 2030.	E.3.1	M, A	♦ ♦	Not Applicable (see description)
Solid Waste and Resource Consumption				
SW.1 – Reduce the tonnage, and send it to the landfill by 10% per household by 2024 with the goal over time of meeting and exceeding the NH state diversion rates.	SW.1.1- SW1.2	M	* *	
Natural Resources				
NR.1 – Increase the amount of municipal-owned land that meets the Conservation/Open Space Land criteria by 2024.	NR.1.1- NR.1.2	M, A	* *	Not Applicable (see description)

NR.2 – Maintain Durham's capability of sequestering carbon through land use practices through 2024.	NR.2.1	M, A	* *	Not Applicable (see description)
NR.3 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030.	NR.3.1	М	* *	

In addition to listing actions, the Plan discusses how each action will be implemented via timelines, financing, and assignment of responsibilities to departments, staff, or community partners where known. It also provides the anticipated GHG reductions as well as benefits for public health, equity and justice, jobs and prosperity, and environmental quality.

Durham's Carbon Footprint

In 2021, Durham's Community-Wide Greenhouse Gas Inventory was completed. Using 2019 data, this inventory included the measurement of GHG emissions and removals from the following sectors: Built Environment, Transportation, Wastewater, Solid Waste, Agriculture/Livestock, and Land Use. Units of measurement are in metric tons of carbon dioxide equivalents (noted as tCO₂e), which is the universal unit for comparing emissions of different GHGs in terms of the global warming potential of one unit of carbon dioxide. The results from this inventory are provided below.



Durham has committed to:



Reducing 2019 greenhouse gas emissions by **35.5%** by **2030**



Achieving **zero** greenhouse gas emissions by **2050**

This goal was set to meet the ambition of the United States' April 2021 nationally determined contribution made in line with the Paris Agreement, as required by the Global Covenant of Mayors. Durham used a straight-line path to determine how much the Town would have to reduce emissions by 2030 to meet zero emissions by 2050.

Science-based GHG reduction target methodology considers what target would represent a fair share of the 50% global per capita emissions reduction by 2030, identified in the IPCC Special Report on Global Warming of 1.5°C, largely based on the country in which the town is located. Durham considered creating a science-based target, and it was estimated that Durham would have to reduce its per capita emissions by approximately 62.8% by 2030. Based on the smaller size of Durham, limited funding and staffing to drive initiatives, and caution towards setting a too-ambitious goal that would feel unrealistic to residents, Durham has decided to continue along the straight-line path to zero emissions at this time.

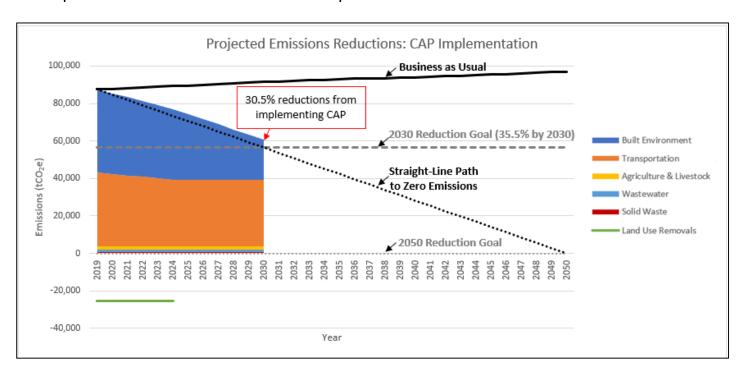
What does "zero" greenhouse gas emissions mean?

Durham is defining "zero" GHG emissions as zeroing all emissions **outside of land use**. By doing this, Durham is acknowledging trees' role in regulating the earth's natural carbon cycle as well as the importance of nature-based solutions in mitigating the effects of climate change. Durham's most recent GHG inventory found that Durham's forests and trees sequestered 28,161 tCO₂e per year – approximately 31.2% of Durham's emissions!

Durham intends to drive forward initiatives that will:

– Minimize Emissions from	+ Maximize Removals from
Built Environment	
Transportation	
Solid Waste	Land Use
Wastewater	
Agriculture/Livestock	

The combination of measures that Durham has already implemented, are currently planned, and are presented through this Climate Action Plan are designed to achieve the 2030 and 2050 targets. Reductions rely on the best information currently available pertaining to population forecasts, future changes to building codes, and vehicle fuel efficiency standards among other information. Durham has also completed an emissions forecast based on projections of current data and expected future trends. The emissions forecast is a "Business-As-Usual" forecast, a scenario estimating future emissions levels if no further local action (i.e. projects within this Climate Action Plan) were to take place (see Appendix II for assumptions and calculations). The forecast indicates that if we do not take action, GHG emissions will continue to increase. Below is a sample of the anticipated GHG reduction measures compared to the Business-As-Usual forecast.



Climate Risks and Vulnerabilities – Durham's 2017 Hazard Mitigation Plan

In addition to addressing mitigation concerns as outlined in this Climate Action Plan, there is also a separate 2017 Hazard Mitigation Plan, which highlights Durham's vulnerability to climate hazards and the strategies proposed to combat these vulnerabilities, thereby improving our local resilience to future climate-related challenges.

The 2017 Hazard Mitigation Plan was scheduled for updating in 2021 but due to the effects of the COVID-19 pandemic and delays in the receipt of Federal funds necessary to support the cost of the local update, followed by required bureaucratic processes at the NH Office of Homeland Security & Emergency Management and the Office of the NH Governor in allocating said funds to Durham. The 2022 Hazard Mitigation Plan, outlining Durham's Risk and Vulnerability Assessment, commenced on September 6, 2022, and is anticipated to be completed by mid-2023.

A draft Climate Action Chapter of the Durham Master Plan now under development and a recently completed 2022 study evaluating the impact of sea level rise on groundwater levels, water quality, septic systems, and critical infrastructure in Durham will help inform the update to the 2017 Hazard Mitigation Plan.

Preparing for the impacts of climate change is a complex challenge. Despite the uncertainty of future global emissions levels, climate science is evolving. Therefore, Durham's preparedness strategy needs to be an evolving one as well.

As climate conditions change, proactive planning can be more cost-effective than reactive responses to damage after the fact, and can assist in maintaining the functionality of town infrastructure and systems. It may involve anticipating the need for later modifications or operational changes or designing for projected foreseeable conditions. In other situations, the uncertainty surrounding the timing and magnitude of future impacts may make it more cost-effective to design the project so that future modifications can be made as soon as the potential impact becomes more apparent. For example, a current roadway storm water system can be designed to allow future modifications to accommodate additional precipitation. To be most effective, climate change preparedness requires decision-making that is specific to each project and program, and that is informed by a broad understanding of the impacts of climate change. These considerations are included as part of the Town's 2017 Hazard Mitigation Plan.

The most vulnerable populations are in general at greater risk of climate change impacts and often have the fewest resources to cope with these changes. In the aftermath of extreme events, it is imperative to foster resilience in more vulnerable populations and support their recovery. To enhance equity, climate change preparedness strategies should:

- 1. Identify and prioritize measures that can be used to mitigate the effects of climate change on vulnerable populations.
- 2. Ensure vulnerable populations' input and perspectives are taken into account.

The Path Ahead

The Climate Action Plan is organized into five focus areas as listed and described in the table below. Each focus area has associated goals, created based on consideration of Durham's 2015 Master Plan goals, 2019 Community-Wide Greenhouse Gas Inventory findings, and 2017 Risk and Vulnerability Assessment (to be updated commencing in September 2022). Under each goal are actions intended to be completed by the next Climate Action Plan update in 2024.

Focus Area	Description
Buildings	Promoting energy efficiency and conservation in buildings
Transportation	Providing a range of transportation options and promoting active transportation (i.e., walking, biking)
Energy Supply	Providing green energy choices and an adequate supply for future energy demand
Solid Waste and Resource Consumption	Reducing and diverting waste; Conserving resources
Natural Resources	Protecting water and other natural resources

Calculations and assumptions for GHG reduction potential for the following sections can be found in Appendix I. In total, these goals and actions are expected to reduce emissions by up to 11.79% by 2024, and up to 42.78% by 2030.

1. Buildings

Promoting energy efficiency and conservation in buildings

- Encouraging the shift to resilient and efficient buildings that minimize the GHG emissions required to heat, cool, and power them
- Subcategories:
 - Green Infrastructure (low-impact development)
 - II. Energy Efficiency (energy efficiency and conservation)
 - III. Green Equipment (energy-efficient equipment)
 - IV. Resilient Buildings (buildings resilient to climate impacts ex: intense storms, and heat)

Energy consumed in buildings accounts for 50.7% of Durham's total GHG emissions (excluding land use). Decreasing energy use and improving building efficiency will contribute significantly to achieving Durham's GHG reduction target. This section focuses on opportunities to retrofit existing buildings and ensure that future activities are compatible with our community's climate protection goals.

Goal B.1 – Buildings	Reduction Potential 2024	Reduction Potential 2030
In residential and commercial buildings, electrify stationary energy sources and increase energy efficiency to compensate for this increased energy demand by 2030.	Not Estimated*	16,151 tCO₂e

Action Number	Action	Lead Actor	Metric
B.1.1	Incorporate an educational campaign about energy efficiency/reduction opportunities in existing residential buildings by 2024.	Energy Committee	Campaign establishment
B.1.2	Identify ways to gather Town-level, rather than current county-level, residential energy data to estimate the impact of energy efficiency initiatives by 2024.	Sustainability Fellow	Database determined and protocols for gathering established

^{*}Due to the amount of time necessary to electrify energy sources, it is difficult to estimate this goal's anticipated progress for 2024 at this time. Although electrification still is emitting GHGs, the grid is less carbon intensive than stationary fuels (ex: a gallon of gas) and the share of fossil fuel-based energy is expected to decrease.

Goal B.2 – Buildings	Reduction Potential 2024	Reduction Potential 2030
Diversify Durham's housing stock by 2030.	Not Applicable**	

Action Number	Action	Lead Actor	Metric
B.2.1	Evaluate changes needed in Durham (ex: zoning and other means) to allow for a broader variety of modestly sized, affordably-priced, energy efficient housing types that are proximate to the urban core by 2024.	Workforce Housing Task Force & Planning Dept.	Summary of necessary changes completed

^{**}Single-family homes tend to have higher emissions and a higher overall cost due to them being physically larger than smaller multifamily or apartment homes. Increasing the diversity of units within Durham not only provides opportunities for lower emissions due to smaller unit sizes, and in cases of new construction, more stringent and efficient standards, but it also expands the number of households that can live in Durham due to the lower costs associated with smaller units. While it is difficult to estimate GHG emissions associated with this goal, it is still essential in Durham to work towards an equitable place to live.

	Reduction	Reduction
Goal B.3 – Buildings	Potential	Potential
	2024	2030
Support UNH's goal of reducing their Scope 1 and 2 emissions by 50%	Not	9,115.05
by 2030.	Estimated***	tCO₂e

Action	Action	Lead Actor	Metric
Number			
B.3.1	Partner with UNH to identify opportunities	Sustainability	Partnership established
	for the Town to emission-reduction initiatives	Fellow	and opportunities
	by 2024.		determined

^{***}Due to this being a longer-term (i.e., 2030) goal, and considering emission-reduction techniques are likely to have a non-linear impact on emissions, it is difficult to estimate this goal's anticipated progress for 2024 at this time.

2. Transportation

Providing a range of transportation options and promoting active transportation (i.e., walking, biking)

- Creating a safe, connected, and accessible transportation system that prioritizes low-carbon transportation methods and seeks to reduce GHG emissions.
- Subcategories:
 - I. Active transportation (Walking, biking)
 - II. Electric vehicles (promoting electric vehicles and transfer stations)
 - III. Land use (land use decisions impacting transportation: zoning, bike lanes, EV charging)
 - IV. Public transportation (expanding and encouraging the use of public transportation)
 - V. Vehicles (improving vehicle efficiency; reducing use)
 - VI. Design (resilient design and improvements for transportation infrastructure)

Emissions from transportation are a common sight to nearly everyone in Durham. Besides emitting GHGs, transportation fossil fuels also produce a host of criteria air pollutants when combusted, reducing local air quality and affecting our health. Transportation, including regional drive-through traffic, accounts for 44.8% of Durham's total GHG emissions (excluding land use). This section focuses on programs and policies to reduce emissions from transportation and includes design-oriented approaches as well as the expansion of alternative modes such as walking, biking, or public transportation in Durham.

Summary of Actions

Goal T.1 – Transpor	tation		Reduction Potential 2024	Reduction Potential 2030
Transition 70% of the police fleet to hybrid vehicles by 2024, and 100% of municipal vehicles to hybrid or electric vehicles by 2030, as technology and the market allows.		38.07 tCO₂e	54.39 tCO₂e	
Action	Action	Lead A	ctor	Metric

T.1.1	Purchase new hybrid police vehicles to replace old vehicles on an annual basis, and continue to filter vehicles downward for uses by other departments.	Police Department	Number of vehicles
T.1.2	Review hybrid and electric vehicle options in the market for all other municipal vehicles on an annual basis. Reevaluate action by 2024.	Public Works, Fire Department	Updated list of options with each new purchase

Goal T.2 – Transportation	Reduction Potential 2024	Reduction Potential 2030
Increase bicycle connectivity to the downtown core and enhance the safe pedestrian experience by 2024.	437.83 tCO₂e	437.83 tCO₂e*

Action Number	Action	Lead Actor	Metric
T.2.1	Install 6500 feet (1.23 miles) of bike-sharing lanes on Madbury Road by 2024.	Administrator's Office	Length of bike sharing lanes
T.2.2	Evaluate how the municipal, university, and NGO trails can be better connected to Durham's downtown by 2024.	Land Stewardship Subcommittee and Land Stewardship Coordinator	Map and/or report created

^{*}Due to the short-term nature of this goal (i.e., completed by 2024), it is assumed that the potential reduction by 2030 is the same as the reduction by 2024 until a longer-term goal is established.

Goal T.3 – Transportation	Reduction Potential 2024	Reduction Potential 2030
Reduce single-occupancy vehicle miles traveled by 10% by 2024.	3,304 tCO ₂ e	3,304 tCO ₂ e**

Action Number	Action	Lead Actor	Metric
T.3.1	Partner with UNH to locate increased graduate housing stock close to campus by 2024.	Administrator's Office	Partnership established
T.3.2	Partner with UNH to evaluate how the Wildcat bus service can better serve Durham residents by 2024.	Sustainability Fellow	Partnership established
T.3.3	Partner with UNH to incorporate an educational campaign about active/public transportation options by 2024.	Energy Committee	Partnership and campaign established

T.3.4	Partner with UNH to implement a community	Sustainability	Partnership and
	bike sharing program by 2024.	Fellow	Program
			established

^{**}Due to the short-term nature of this goal (i.e., completed by 2024), it is assumed that the potential reduction by 2030 is the same as the reduction by 2024 until a longer-term goal is established.

Goal T.4 – Transportation	Reduction Potential 2024	Reduction Potential 2030
Increase the share of electric vehicles and the number of public charging stations in Durham by 2030. Although electrification still is emitting GHGs, the grid is less carbon intensive than stationary fuels (ex: a gallon of gas) and the share of fossil fuel-based energy is expected to decrease.	Not Estimated***	Not Estimated***

Action Number	Action	Lead Actor	Metric
T.4.1	Incorporate public input to identify areas to install public charging stations by 2024.	Sustainability Fellow, supported by Energy Committee	High-priority areas identified
T.4.2	Identify local, state, and federal incentives for both electric vehicle ownership and charging station installation for community usage by 2024.	Sustainability Fellow, supported by Energy Committee	Opportunities identified

^{***}Considering that the increase of EV charging infrastructure is likely to have a non-linear impact on emissions, it is not possible to usefully estimate this goal's anticipated progress at this time.

Goal T.5 – Transportation	Reduction Potential 2024	Reduction Potential 2030
Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030.	Not Estimated****	949.6 tCO₂e

Action	Action	Lead Actor	Metric
Number			
T.5.1	Partner with UNH to identify opportunities	Sustainability	Partnership established
	for the Town to support UNH emission-	Fellow	and opportunities
	reduction initiatives by 2024.		determined

^{****}Due to this being a longer-term (i.e., 2030) goal, and considering emission-reduction techniques are likely to have a non-linear impact on emissions, it is difficult to estimate this goal's anticipated progress for 2024 at this time.

3. Energy Supply

Providing green energy choices and an adequate supply for future energy demand

- Creating a reliable, green, and adequate energy supply to support current and future energy needs.
- Subcategories:
 - I. Renewable Energy (expanding renewable energy generation)
 - II. Resilient Energy (reliable energy systems)

Broadly speaking, the use of fossil fuels for energy (including electricity, heating, transportation, and other uses) is the single largest contributor to GHG emissions and climate change. Fossil fuels still supply a considerable share of energy for electricity, heating, transportation, and other energy-producing uses. Emissions from fossil fuel combustion for energy, including transportation, represent 95.5% of the community's total GHG emissions when excluding land use emissions. Energy Production is a crosscutting focus area in that nearly all activities that take place in the community require energy of some sort. Opportunities exist for citizens and Durham's local government to offset the need for fossil fuels. This focus area is limited to energy production exclusively – goals and actions that focus on end-use energy efficiency are included in other focus areas. The programs and projects within this focus area are designed to spur local government and community investment in renewable energy sources including those that produce electricity, heat, and mobile fuels.

In addition, Durham may experience challenges to its local energy supply due to warmer temperatures and increased electricity demand due to the electrification of products that currently rely on stationary fuel. Peak demand for electricity may increase due to the increased use of air conditioners in Durham, and efficiencies of electricity generation and transmission decrease as air temperatures increase, which further inhibits the ability of electric providers to meet increased demand.

Summary of Actions

Goal E.1 – Energy Supply	Reduction Potential 2024	Reduction Potential 2030
Provide the option of 100% renewable energy source for all residents by 2024.	6,081.3 tCO₂e	6,081.3 tCO₂e*

Action Number	Action	Lead Actor	Metric
E.1.1	Update Durham's solar ordinance to provide Durham residents with clearer guidance by 2024.	Town Council	Solar ordinance updated
E.1.2	Participate in the Community Power Aggregation Coalition of NH and provide a 100% renewable energy option to Durham residential and commercial customers as a default energy source by 2024.	Energy Committee, and supported by the Administrator's Office	Program established
E.1.3	Incorporate an educational campaign about green energy opportunities in residential buildings by 2024.	Energy Committee	Campaign established

Goal E.2 – Energy S	upply		Reduction Potential 2024	Reduction Potential 2030
Source all municipa	l buildings from 100% renewable e	energy by 2024.	690.1 tCO₂e	690.1 tCO ₂ e*
Action Number	Action	Lead <i>i</i>	Actor	Metric

Number	Action	Lead Actor	Metric
	Purchase PPA2 (power purchase agreement 2) by 2024.	Sustainability Fellow, and supported by Energy Committee	PPA2 purchased

^{*}Due to the short-term nature of this goal (i.e., completed by 2024), it is assumed that the potential reduction by 2030 is the same as the reduction by 2024 until a longer-term goal is established.

	Reduction	Reduction
Goal E.3 – Energy Supply	Potential	Potential
	2024	2030

Ensure an adequate renewable energy supply while accounting for
increased demand from the transportation sector and impacts from
climate change by 2030.

Not Applicable**

Action Number	Action	Lead Actor	Metric
	Evaluate expected changes to energy supply based on an increase in energy demand from electrification (electric vehicles, etc.) by 2024.	Sustainability Fellow, and supported by Energy Committee	Evaluation completed

^{**}While ensuring an adequate energy supply doesn't equate to GHG emission reductions, it ensures that Durham is resilient to anticipated changes in both energy demand and efficiency levels at increased temperatures.

4. Solid Waste and Resource Consumption

Reducing and diverting waste; conserving resources

- Promoting processes that reduce the amount of waste sent to the landfill, encourage reduced water usage, and support locally sourced products.
- Subcategories:
 - I. Local Food (local food and agriculture)
 - II. Purchasing (purchasing practices: Energy Star)
 - III. Waste (waste reduction and diversion (composting))
 - IV. Water Use (water use reduction and efficiency)
 - V. Storm water (storm water management)

Durham's solid waste is disposed of at Turnkey Landfill in Rochester, RH. Emissions from decaying putrescible material directly contribute to 0.8% of Durham's total GHG emissions (excluding land use) and contribute to emissions in the Transportation sector via hauling of waste to and from facilities and operating. Additionally, embodied energy within the items that we throw away might be harnessed through the reuse and recycling of materials. It is in Durham's long-term interest to expand recycling facilities and enable the reuse of construction materials and other goods. This chapter focuses on opportunities to reduce waste, reuse materials, and recycle what cannot be reused.

In addition to waste reduction, conserving resources is vital in Durham. Water availability is and has been a vital economic, natural resource, and public health issue in New Hampshire. Warming temperatures, along with decreased rainfall, will worsen droughts and threaten local water supplies. Multi-year droughts challenge water supplies and will intensify as climate change causes reduced rainfall, decreased snowfall, and increased temperatures.

Summary of Actions

Goal SW.1 – Solid Waste and Resource Consumption	Reduction Potential 2024	Reduction Potential 2030
Reduce the tonnage, and send it to the landfill by 10% per household by 2024 with the goal over time of meeting and exceeding the NH state diversion rates.	24.7 tCO ₂ e	24.7 tCO₂e*

Action Number	Action	Lead Actor	Metric
SW.1.1	Incorporate an educational campaign about waste reduction and diversion opportunities by 2024.	Integrated Waste Management Advisory Committee	Evaluation completed
SW.1.2	Implement a solution aimed at addressing the concept of establishing a Durham-wide compost program by 2024.	Integrated Waste Management Advisory Committee and supported by Public Works	Program established

^{*}Due to the short-term nature of this goal (i.e., completed by 2024), it is assumed that the potential reduction by 2030 is the same as the reduction by 2024 until a longer-term goal is established.

5. Natural Resources

Protecting water and other natural resources

- Preserving and enhancing the health of Durham's waterways, agriculture, wildlife, and open spaces.
- Subcategories:
 - I. Agricultural Lands (healthy, productive agricultural lands)
 - II. Open Space (preserving green and open space)
 - III. Sustainable Landscapes (biodiversity, pollinator protection)
 - IV. Tree Canopy (tree canopy and forest maintenance and management)
 - V. Water Resources (protecting water resources)

As humans, we benefit immensely from the resources created by our environment. With changing climatic conditions, it is important to help protect the wildlife and natural systems around us. Rising temperatures and changes in rainfall threaten the ecosystems of Durham and the habitats of the region's wildlife. While the goals and actions within this section do not reduce Durham's GHG emissions, they are vital in ensuring Durham's continued resilience in the face of climate impacts.

Goal NR.1 – Natural Resources	Reduction Potential 2024	Reduction Potential 2030
Increase the amount of municipal-owned land that meets the Conservation/Open Space Land criteria by 2024.	Not App	licable*

Action Number	Action	Lead Actor	Metric
NR.1.1	Acquire 36 acres of Pike Property by 2024.	Administrator's Office	Property acquired
NR.1.2	Evaluate other eligible parcels consistent with the abovementioned guidelines by 2024.	Administrator's Office	Evaluation completed

^{*}The Conservation/Open Space Land document outlines the Town's procedures for acquiring land for conservation or open space purposes. While this does not reduce Durham's GHG emissions, the intent is to protect natural resources, enhance public access to open space and nature-oriented recreational opportunities, maintain Durham's prominent scenic view sheds, and build upon, create, and connect unfragmented conservation land.

Goal NR.2 – Natural Resources	Reduction Potential 2024	Reduction Potential 2030
Maintain Durham's capability of sequestering carbon through land use practices through 2024.	Not Applicable**	

Action Number	Action	Lead Actor	Metric
NR.2.1	Partner with UNH to incorporate an educational campaign about the importance of land sequestration and best land use practices by 2024.	Land Stewardship Subcommittee	Campaign completed

^{**}Although this is good for context, forests and trees should not be considered as direct carbon offsets in climate mitigation efforts because doing so underestimates the actual reductions communities need to make to meet reduction targets. In addition to this, carbon sequestration is part of the earth's natural carbon cycle that regulates climate and makes the planet habitable. Therefore, associating all carbon sequestration with offsetting anthropogenic emissions disregards this natural balance, and again underestimates Durham's emissions.

Goal NR.3 – Natural Resources	Reduction Potential 2024	Reduction Potential 2030
Support UNH's goal of reducing Scope 1 and 2 emissions by 50% by 2030.	Not Estimated***	967.5 tCO₂e

Action	Action	Lead Actor	Metric
Number			
NR.3.1	Partner with UNH to identify opportunities	Sustainability	Partnership established
	for the Town to support UNH emission-	Fellow	and opportunities
	reduction initiatives by 2024.		determined

^{***}Due to this being a longer-term (i.e., 2030) goal, and considering emission-reduction techniques are likely to have a non-linear impact on emissions, it is difficult to estimate this goal's anticipated progress for 2024 at this time.

Plan Implementation

Implementing the actions outlined in this plan will be a continuous process the town is undertaking with UNH, the energy committee, the integrated waste management advisory committee, the conservation commission, the agricultural commission, the administrator's office, and the town council.

Durham is required under the Global Covenant of Mayors to provide regular updates to its Climate Action Plan, Community-Wide Greenhouse Gas Inventory, and Climate Risk and Vulnerability Assessment. This is a voluntary community plan around implementation. Homeowners/businesses are not required to comply.

Monitoring Report Component	Timeline	Next Report Due
Climate Action Plan: Report any changes to the overall strategy as well as the implementation status (completed, in progress, on hold) of key actions and update their impacts.	Every 2 years	December 31, 2024
GHG Emissions Inventories:	Every 2	December 31,
Provide updated GHG emissions data for the reporting year.	years	2024
Climate Risk and Vulnerability Assessment:	Every 2	December 31,
Provide updates on goal progress for the reporting year.	years	2024

Appendix I: GHG Reduction Calculations

Below is a summary table of the estimated maximum GHG reductions by 2024 and 2030 for each goal. These numbers were calculated based on assumptions that are included in the calculations following the table.

Goal/Action	Estimated Maximum GHG reductions by 2024 (tCO ₂ e)	Estimated Maximum GHG reductions by 2030 (tCO ₂ e)
Buildings		
 B.1 – In residential and commercial buildings, electrify stationary energy sources and increase energy efficiency to compensate for this increased energy demand by 2030. B.1.1 – Incorporate an educational campaign about energy efficiency/reduction opportunities in existing residential buildings by 2024. B.1.2 – Identify ways to gather Town-level, rather than current county-level, residential energy data to estimate the impact of energy efficiency initiatives by 2024. 	Not Estimated	16,151 (18.44%)
 B.2 – Diversify Durham's housing stock by 2030. B.2.1 – Evaluate changes needed in Durham (ex: zoning and other means) to allow for a broader variety of modestly sized, affordably-priced, energy-efficient housing types that are proximate to the urban core by 2024. 	Not Applicable	Not Applicable
B.3 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030. O B.3.1 – Partner with UNH to identify opportunities for the Town to support UNH emission-reduction initiatives by 2024. Transportation	Not Estimated	9,115.05 (10.41%)

 T.1 – Transition 70% of the police fleet to hybrid vehicles by 2024, and 100% of municipal vehicles to hybrid or electric vehicles by 2030, as technology and the market allows. T.1.1 – Purchase new hybrid police vehicles to replace old vehicles on an annual basis, and continue to filter vehicles downward for uses by other departments T.1.2 – Review hybrid and electric vehicle options in the market for all other municipal vehicles on an annual basis. Reevaluate action by 2024. 	38.08 (0.04%)	54.40 (0.06%)		
 T.2 – Increase bicycle connectivity to the downtown core and enhance the safe pedestrian experience by 2024. T.2.1 – Install 6500 feet (1.23 miles) of bike-sharing lanes on Madbury Road by 2024. T.2.2 – Evaluate how the municipal, university, and NGO trails can be better connected to Durham's downtown by 2024. 	196.29 (0.22%)	196.29 (0.22%) unless the 2030 goal is set		
 T.3 – Reduce single-occupancy vehicle miles traveled by 10% by 2024. T.3.1 – Partner with UNH to locate increased graduate housing stock close to campus by 2024. T.3.2 – Partner with UNH to evaluate how the Wildcat bus service can better serve Durham residents by 2024. T.3.3 – Partner with UNH to incorporate an educational campaign about active/public transportation options by 2024. T.4 – Increase the share of electric vehicles and number of public 		3,304 (3.77%) unless 2030 goal is set		
 charging stations in Durham by 2030. T.4.1 – Incorporate public input to identify areas to install public charging stations by 2024. T.4.2 – Identify local, state, and federal incentives for both electric vehicle ownership and charging station installation for community usage by 2024. 	Not Estimated	Not Estimated.		
 T.5 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030. T.5.1 – Partner with UNH to identify opportunities for the Town to support UNH emission-reduction initiatives. 	Not Estimated	949.7 (1.05%)		
Energy Supply				
 E.1 – Provide the option of 100% renewable energy source for all residents by 2024. E.1.1 – Update Durham's solar ordinance to provide Durham residents clearer guidance by 2024. E.1.2 – Participate in Community Power Program and provide a 100% renewable energy option by 2024. E.1.3 – Incorporate an educational campaign about green energy opportunities in residential buildings by 2024. 	6081.3 (6.94%)	6081.3 (6.94%) unless 2030 goal is set		
E.2 – Source all municipal buildings from 100% renewable energy by 2024.	690.1 (0.79%)	690.1 (0.79%)		

Total	10,334.47 (11.79%) (excluding "TBD")	37,534.04 (42.78%) (excluding "TBD")
 NR.3 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030. NR.3.1 – Partner with UNH to identify opportunities for the Town to support UNH emission-reduction initiatives by 2024. 	Not Estimated	967.5 (1.07%)
NR.2 – Maintain Durham's capability of sequestering carbon through land use practices through 2024. O NR.2.1 – Partner with UNH to incorporate an educational campaign about the importance of land sequestration and best land use practices by 2024.	Not Applicable	Not Applicable
NR.1 – Increase the amount of municipal-owned land that meets the Conservation/Open Space Land criteria by 2024. O NR.1.1 – Acquire 36 acres of Pike Property by 2024. O NR.1.2 – Evaluate other eligible parcels consistent with the abovementioned guidelines by 2024.	Not Applicable	Not Applicable
SW.1 – Reduce the tonnage, and send it to the landfill by 10% per household by 2024 with the goal over time of meeting and exceeding the NH state diversion rates. SW.1.1 – Incorporate an educational campaign about waste reduction and diversion opportunities by 2024. SW.1.2 – Implement a Durham-wide compost program by 2024. Natural Resources	24.7 (0.03%)	24.7 (0.03%) unless 2030 goal is set
increased demand from the transportation sector and impacts from climate change by 2030. • E.3.1 – Evaluate expected changes to energy supply based on an increase in energy demand from electrification (electric vehicles, etc.) by 2024. Solid Waste and Resource Consumption	Not Applicable	Not Applicable
 E.2.1 – Purchase PPA2 (power purchase agreement 2) by the end of 2024. E.3 – Ensure an adequate renewable energy supply while accounting for 		

Calculations and Assumptions

Total 2019 emissions (excluding land use): 87,566 tCO₂e

Buildings

B.1 – In residential and commercial buildings, electrify stationary energy sources and increase energy efficiency to compensate for this increased energy demand by 2030.

2019 GHG Inventory findings (stationary fuel emissions only):

Sector	Emissions (tCO₂e)
Commercial	8,622.7
Residential	7,528.3
Total	16,151.0

2024 calculations:

Not estimated because it is a 2030 goal.

2030 calculations:

Up to $16,151\ tCO_2$ e reduction assumes 100% electrification, which would equate to 18.44% of 2019 emissions excluding land use.

B.2 – Diversify Durham's housing stock by 2030.

GHG reductions are not applicable.

B.3 – Support UNH's goal of reducing Scope 1 and 2 emissions by 50% by 2030.

2019 GHG Inventory findings (UNH building emissions only):

Sector	Emissions (tCO₂e)
Stationary Fuel	16,286.6
Electricity	1,943.5
Total	18,230.1

2024 calculations:

Not estimated because it is a 2030 goal.

2030 calculations:

 $18,230.1 * 0.5 = 9,115.05 \text{ tCO}_2\text{e}$ reduction (10.41% of 2019 emissions excluding land use)

Transportation

T.1 – Transition 70% of police fleet to hybrid vehicles by 2024, and 100% of municipal vehicles to hybrid or electric vehicles by 2030, as technology and the market allows.

2019 GHG Inventory findings:

2019 gasoline usage by police fleet: 15,673 gallons (136 tCO₂e)

In addition, a 2021 report comparing hybrid v. gasoline police vehicles found a 40% reduction in gas usage in hybrid vehicles.

2024 calculations (police vehicles only):

15,673 gallons * 0.4 * 0.7= 4388.44 gallons

 $136 \text{ tCO}_2\text{e} * 0.4 * 0.7 = 38.08 \text{ tCO}_2\text{e}$ (0.04% of 2019 emissions excluding land use)

2030 calculations (police vehicles only):

15,673 gallons * 0.4 = 6269.2 gallons

 $136 \text{ tCO}_2\text{e} * 0.4 = 54.40 \text{ tCO}_2\text{e}$ (0.06% of 2019 emissions excluding land use)

T.2 – Increase bicycle connectivity to the downtown core and enhance the safe pedestrian experience by 2024.

2024 calculations:

Estimated to reduce 2019 transportation emissions (39,258 tCO₂e) by approximately 0.5%, or 196.29 tCO₂e, thus reducing total 2019 emissions (excluding land use) by approximately 0.22%.

2030 calculations:

Assumed to be the same as 2024 until a 2030 goal is established.

T.3 – Reduce single-occupancy vehicle miles traveled by 10% by 2024.

2019 GHG Inventory findings:

	Vehicle Miles Traveled (VMT)	Emissions (tCO ₂ e)
Light duty vehicles	80,332,448	32,492
Motorcycles	2,776,819	548
Total	83,109,267	33,040

2024 calculations:

10% reduction: 8,310,926.7 VMT, or 3,304 tCO₂e (3.77% of total 2019 emissions excluding land use)

2030 calculations:

Assumed to be the same as 2024 until a 2030 goal is established.

T.4 – Increase the share of electric vehicles and the number of public charging stations in Durham by 2030.

2024 calculations:

We are not estimating this because it is impossible to accurately estimate given available data/limitations.

2030 calculations:

Not estimated.

T.5 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030.

2019 GHG Inventory findings (UNH transportation emissions only):

UNH's total fleet-related emissions in FY19 were 1998 MTCDE, and a UNH analysis suggested that 4.9% of those emissions were for WildCat Transit travel outside of Durham, making the UNH transportation emissions from the Durham FY19 GHG inventory 1899.3 MTCDE.

2024 calculations:

Not estimated because it is a 2030 goal.

2030 calculations:

UNH proposes to meet a 50% reduction from FY19 levels by 2030; success would result in reductions of 950 MTCDE (.5*1899.3).

Energy Supply

E.1 – Provide the option of 100% renewable energy source for all residents by 2024.

2019 GHG Inventory findings:

Residential electricity GHG emissions: 6081.3 tCO₂e

2024 calculations:

Up to 6,081.3 tCO₂e reduction (6.94% of 2019 emissions excluding land use) if all residential buildings adopt a 100% renewable energy source.

2030 calculations:

Assumed to be the same as 2024 until a 2030 goal is established.

E.2 – Source all municipal buildings from 100% renewable energy by 2024.

2019 GHG Inventory findings:

Municipal stationary fuel GHG emissions: 193.0 tCO₂e Municipal electricity GHG emissions: 497.1 tCO₂e

Total municipal GHG emissions from energy: 690.1 tCO₂e

2024 calculations:

Up to 690.1 tCO₂e reduction (0.79% of 2019 emissions excluding land use)

2030 calculations:

Assumed to be the same as 2024 until a 2030 goal is established.

E.3 – Ensure an adequate renewable energy supply while accounting for increased demand from the transportation sector by 2030.

GHG reductions are not applicable.

Solid Waste and Resource Consumption

SW.1 – Reduce the tonnage, and send it to the landfill by 10% per household by 2024 with the goal over time of meeting and exceeding the NH state diversion rates.

2019 GHG Inventory findings: Number of households: 2,240

Landfilled waste: 1,573 short tons (0.70 short tons/household) Landfilled waste emissions: 247 tCO₂e (0.11 tCO₂e/household)

2024 calculations:

Landfilled waste 10% reduction: 157.3 short tons (0.07 short tons/household)

Landfilled waste 10% emissions reduction: 24.7 tCO₂e (0.011 tCO₂e/household) (0.03% of 2019

emissions excluding land use)

2030 calculations:

Assumed to be the same as 2024 until a 2030 goal is established.

Natural Resources

NR.1 – Increase the amount of municipal-owned land that meets the Conservation/Open Space Land criteria by 2024.

GHG reductions are not applicable.

NR.2 – Maintain Durham's capability of sequestering carbon through land use practices through 2024.

GHG reductions are not applicable.

NR.3 – Support UNH's goal of reducing their Scope 1 and 2 emissions by 50% by 2030.

2019 GHG Inventory findings (UNH building emissions only):

Agriculture/Livestock emissions: 1,935 tCO₂e

2024 calculations:

Not estimated because it is a 2030 goal.

2030 calculations:

1935 * $0.5 = 967.5 \text{ tCO}_2\text{e}$ reduction (1.10% of 2019 emissions excluding land use)

Appendix II: Business-As-Usual Calculations

We calculated the Business-As-Usual scenario for Durham based on the current and anticipated emissions created on a per capita basis.

In 2019, Durham emitted 87,566 tCO₂e (excluding land use). Its 2020 population, per the US census, was 15,490, resulting in per capita emissions of approximately 5.65 tCO₂e/person.

Assuming that per capita emissions would stay constant, we calculated Business-As-Usual emissions based on the estimated population growth estimates included in Durham's 2015 Master Plan. Because the difference between the 2020 expected population and the 2020 US census population was 525 persons, we adjusted the population growth rates by that amount up through 2040. The Master Plan did not estimate population growth through 2050. For simplifying purposes, we assumed the same growth rate for 2040-2050 as for 2020-2040, which was approximately 560 persons per decade, or 280 persons per 5 years. The table below shows the expected and adjusted populations as well as the Business-As-Usual emissions.

Year	2015	2020	Business-As-Usual Emissions,
	Calculated	Adjusted Population	Adjusted Population (tCO₂e)
	Population		
2019	N/A	N/A	87,566
2020	16,015	15,490 (US census)	87,566 (2019 GHG inventory)
2025	16,387	15,788	89,669
2030	16,720	16,195	91,552
2035	16,983	16,458	93,039
2040	17,134	16,609	93,892
2045	N/A	16,889	95,475
2050	N/A	17,169	97,058



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-55AGENDA ITEM:

<u>#11B</u>

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Todd I. Selig, Administrator

AGENDA ITEM:

RECEIVE ACTIVITIES REPORT FROM THE ZONING BOARD OF

ADJUSTMENT - MICAH WARNOCK, CHAIR

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

Micah Warnock, ZBA Chair

AGENDA DESCRIPTION:

Section 11.1 (I) of the Durham Town Charter used to require that the Town Council meet annually with all Chairpersons of standing Town committees to review significant actions taken by the committees, projects currently under discussion, and anticipated activities for the coming year. At the March 10, 2020, Town Election Charter amendment (Article 16 on the ballot) was adopted which amended the language within this section to now read:

I. On an annual basis, Chairs of the Town of Durham committees will be provided the opportunity to present to the Town Council any significant actions or projects taken by their respective committee. This report can be in the form of a written summary or a formal presentation. No action is required if there is nothing of significance to report, although the Town Council can ask for a presentation if there is interest.

Since no regular annual updates from various town boards, commissions, and committees have occurred since the adoption of the Charter amendment in 2020, Administrator Selig felt it would be appropriate and beneficial for the Council to receive reports from the various boards and committees periodically to keep Councilors informed and up to date.

ZBA Chair Micah Warnock has been invited to attend Monday night's Town Council meeting to provide a brief update to Council members regarding the Zoning Board of Adjustment's current activities.



Council Communication, 10/17/2022 – Page 2 RE: Report on Activities From the ZBA

LEGAL AUTHORITY:

Section 11.1 (I) of the Durham Town Charter.

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

N/A

SUGGESTED ACTION OR RECOMMENDATIONS:

No formal action required. Receive presentation from Zoning Board Chair Micah Warnock and hold question and answer session if desired.



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH 03824

Tel: 603-868-55AGENDA ITEM:

Fax: 603-868-1858

www.ci.durham.nh.us DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY:

Todd I. Selig, Administrator

AGENDA ITEM:

RECEIVE REPORTS FROM TRUSTEES OF THE TRUST FUNDS

AND THE DURHAM CEMETERY COMMITTEE - MICHAEL

EVERNGAM, TRUSTEES CHAIR; CRAIG SEYMOUR, CEMETERY

COMMITTEE CHAIR

CC PREPARED BY:

Jennie Berry, Administrative Assistant

PRESENTED BY:

Michael Everngam, Trustees Chair

Craig Seymour, Cemetery Committee Chair

AGENDA DESCRIPTION:

Section 11.1 (I) of the Durham Town Charter used to require that the Town Council meet annually with all Chairpersons of standing Town committees to review significant actions taken by the committees, projects currently under discussion, and anticipated activities for the coming year. At the March 10, 2020, Town Election Charter amendment (Article 16 on the ballot) was adopted which amended the language within this section to now read:

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Since no regular annual updates from various town boards, commissions, and committees have occurred since the adoption of the Charter amendment in 2020, Administrator Selig felt it would be appropriate and beneficial for the Council to receive reports from the various boards and committees periodically to keep Councilors informed and up to date.



Council Communication, 10/17/2022 – Page 2 RE: Reports from Trustees of Trust Funds and Durham Cemetery Committee

Michael Everngam and Craig Seymour have been invited to attend Monday night's Town Council meeting to provide updates regarding the Trustees of Trust Funds and Cemetery Committee.

Attached for the Council's review and information are reports from Messrs. Everngam and Seymour.

LEGAL AUTHORITY:

Section 11.1 (I) of the Durham Town Charter.

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

N/A

SUGGESTED ACTION OR RECOMMENDATIONS:

No formal action required. Receive presentation from the Trustees of Trust Funds and Cemetery Committee and hold question and answer session if desired.

Trustee's 2021 Annual Report

2021 Accomplishments:

Operation of Investment Account:

Portfolio Income from reserve and trust investments for 2021 was \$108,475.27, a yield to the end-of-year market value of 2.34%. Part of this income was spent for the purposes of the various reserves and trusts, and the remainder was accumulated to the balances of the reserves and trusts. The income for 2022 is estimated to be about the same as for 2021. Market value of securities held at year-end 2021 increased by \$11,860.45 to \$4,625,925.72, an increase of 0.26%, which is market depreciation offset by an increase in deposits to reserves and trusts. The market value of the portfolio at 30 September 2021 was \$4,402,464.92, a decrease to date of \$223,460.80. This decrease is not as significant as it appears since the largest part of the portfolio is in bonds which will pay face value at maturity, but are depressed due to rising interest rates. During the last 3 guarters of 2022 the equity exposure of the portfolio was unchanged in response to concern for the impact of low interest rates and declining markets. A detailed report on the Town's Reserves and Trusts is in the financial section of the annual report. The Trustees have adopted a conservative investment policy with the primary goal of preserving the ability to carry out the purposes of the Town's reserves and trusts. The reserves and trusts in the custody of the Trustees were invested with People's United Advisors, Inc. through the first Quarter of 2022 while the changeover in investment advisors to Cambridge Trust was completed. We are finding Cambridge Trust's services to be exceptional. As we noted in last year's report, refreshing professional relationships is a "best practice" in financial management. (Continuing)

- Improvements at Doe Farm: We continue to be part of the Land Stewardship Sub-Committee which is
 managing the Town's conservation interests, including Doe Farm in which the Trustees have a fiduciary
 interest. Under the guidance of the Stewardship Coordinator improvements continued to be made on
 the farm this year in signage and access trails. The work on invasive species removal continues. The
 early regeneration of the cut-over areas which resulted from the salvage harvest of red pines is
 progressing well. Soil and stream bank damage from the harvest is also recovering well. (Continuing)
- <u>Transparency Efforts:</u> The Trustees have maintained a good record of timeliness in posting agendas and minutes. We have generally been able to respond promptly to communications from residents. We meet on the 4th Friday of each month. (Continuing)
- Improved Record Keeping: We continue reviewing records to winnow unnecessary documents, and to maintain those that explain how, when and why the various funds in our custody were established and investment performance reports. (Continuing)
- <u>Investment Policy:</u> The Trustees adopted the present policy during our 25 March 2022 meeting. As required by law, the Trustees forwarded the present policy to the NH AG's office. (See Trustee's web page for the policy).
- <u>Internal Controls Policy:</u> This policy was revised and re-adopted at our 23 September 2022 meeting. (See Trustee's web page for the policy).
- <u>Investment Holdings:</u> Monthly statements listing all holdings are on file in the Town Business office and are also available to read from any Trustee.
- <u>Alternate Trustee Appointment:</u> Ted Howard and Tom Bebbington were appointed as Alternate Trustees.

Goals for 2022:

- 1. We will seek to continue our efforts to be prudent custodians of the funds entrusted to us, while seeking sound returns on the investment of these funds.
- 2. We will review and revise our Internal Controls Policy. Completed
- 3. We will seek ways to maintain and improve our inter-relationships with Town departments and related Committees, Commissions and Boards.
- 4. We will continue to work on those projects/issues shown above which are "continuing".
- 5. We will seek potential future alternate Trustees to assure continuity in Trustee membership. While both alternate positions are now filled, ensuring succession is critical to the future administration of the Town's Reserves and Trusts.
- 6. We will work to create trust funds from which to finance the Town's celebration of its 300th Anniversary.
- 7. We will review the existing trust funds to determine if consolidation can simplify management.

MEMORANDUM



TO: Durham Town Council

FROM: Craig Seymour, Chair

Durham Cemetery Committee

DATE: October 17, 2022

SUBJECT: 2022 Annual Report on Cemetery Activities

<u>Accomplishments</u>

Year-to-date we have had eighteen (18) burials in the cemetery, four casket (22%) and fourteen cremains (78%). Only two were veterans. Some of the more familiar names include Don & Marney Sumner, Irene Bragdon and Maryanna Hatch.

Eight plots with a total of 15 graves were sold with no repurchases. Total revenue from grave sales was \$7,500, split between the Cemetery Trust and the Cemetery Improvement Fund.

• The Cemetery Care Trust – into which 50% of grave sale proceeds are deposited – had a fund balance of \$248,457 as of August 31, with \$36,006 in interest available for expenditures.

Memorandum to Town Council From Craig Seymour October 17, 2022 – Page 2

- The Cemetery Improvement Trust into which the other 50% of grave sale proceeds are deposited for non-routine improvements to roads, grounds, plantings, structures etc. had a balance of \$36,001.
- The Cemetery Special Project Trust created to accept donations by private individuals, groups or organizations for maintenance and improvements in the Town Cemetery had a balance of \$214. No additions to this fund have been made since it was established in 2019.

The cremains-only section, which was expanded in 2019 by the addition of 14 new shared foundations allowing for 28 more plots to be available, has had 8 plots sold. The addition of 9 shared foundations allowing for 14 new plots has been approved by the Cemetery Committee and bids are being sought for this work to be completed this year.

Several headstones have tipped over and we have attempted to contact the owners, who are responsible for their care and maintenance, to have them repaired. These include one in the historic Forrest Emery section which was relocated to the cemetery many years ago. The Committee authorized the expenditure of up to \$7,000 to repair the tipped and threatened headstones, and bids are being sought.





Great progress was made on the renovation of the storage shed in the rear of the cemetery. This structure, which was possibly moved to its current site when the cemetery was started in the 1920's has several historic features. The renovation, done by Durham DPW's Nick Bennion, included new supporting beams, siding, flooring and roofing. On behalf of the Cemetery Committee, I would like to thank Nick for a "job well done"!

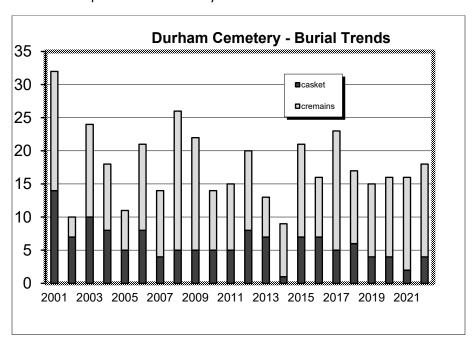
A commemorative chestnut tree was planted in time for Memorial Day by resident Lee Alexander with help from the DPW, to honor the Veterans buried in the Durham Cemetery. While the summer's drought impacted the new planting, there is hope that it will rejuvenate next spring.

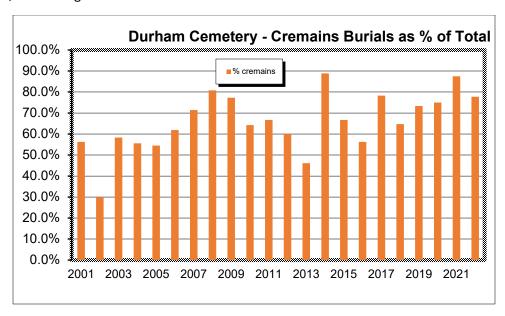


DPW again did a great job maintaining the cemetery this year, despite the lack of staff, time and money. I have received several positive comments about the overall appearance of the facility. Much of the mowing and trimming was done by Northern Landscape, the town's contractor. Work continues on longer term upkeep such as the roadways and tree/shrub removal.

Statistics

The figures below show the year over year statistics for burials and sales at the Durham Cemetery since 2001, when I started in the position of Cemetery Chair.





Looking Forward

I have announced that I will be leaving the Trustees of the Trust Funds, and as Chair of the Cemetery Committee, in early 2023 due to my impending move out of Durham (after 45 years in town and 42 years in the same house). One of the Trustee Alternates has indicated an interest in succeeding me and a smooth transition is being planned and implemented.



TOWN OF DURHAM 8 NEWMARKET ROAD DURHAM, NH **AGENDA ITEM:**

<u># 11D</u>

Tel: 603-868-5571

Fax: 603-868-1858 DATE: October 17, 2022

www.ci.durham.nh.us

COUNCIL COMMUNICATION

INITIATED BY:

Richard Reine, Public Works Director

AGENDA ITEM:

UPDATE ON MADBURY ROAD COMPLETE STREETS PROJECT -

RICHARD REINE, DPW DIRECTOR; APRIL TALON, TOWN

ENGINEER

CC PREPARED BY:

Richard Reine, Public Works Director

April Talon, PE, Town Engineer

PRESENTED BY:

Richard Reine, Public Works Director

AGENDA DESCRIPTION:

The Madbury Road Complete Streets Project includes the main corridor which is approximately 6,500 feet in length connecting Main Street in downtown Durham with US Route 4 and Pendexter Road. Although the roadway is considered rural in character, with densely populated abutting homes, the roadway serves as a major corridor in Durham with traffic counts exceeding 5,600 vehicles per day (VPD). Madbury Road provides pedestrian and transit access to the public and UNH students along with middle school aged walkers attending the Oyster River Middle School, located just one block away on Coe Drive, and serving the students of Durham, Madbury, and Lee.

Madbury Road was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in very poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and road base failure. The sidewalks and curb ramps are non-compliant relative to ADA requirements and curb reveal is minimal or non-existent in some areas creating an unpleasant and precarious experience for pedestrians and cyclists. Traffic calming measures have been installed, which include elevated speed tables, and have shown to be effective in slowing traffic, but this approach has resulted in other perceived negative consequences. The stormwater system is undersized with drainage structures and drainage pipeline in an excessively deteriorated condition. Water main replacement along Madbury Road (from Garrison Ave to US Route 4), is also necessary based on pipe age and watermain break history. Sewer rehabilitation has been identified as a

need in select areas. Due to the current condition of the roadway and sidewalk infrastructure along Madbury Road, along with anticipated impacts from the utility replacement project, a complete roadway and sidewalk reconstruction is required.

The timing of this local infrastructure project will align nicely with the proposed NHDOT project No. 42523, US Route 4 at Madbury Road Safety Improvements. This state project is currently in the alternatives analysis phase with project limits extending approximately 1,000 feet from the US Route 4 at Madbury Road intersection along all four approaches. The project team periodically receives updates from NHDOT, and in the latest communication from September, NHDOT indicated they were planning to approach the Town in the next few months to schedule a meeting to present conceptual alternatives.

The Madbury Road design is a "Complete Streets" approach that includes constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The project has a sustainable environmental approach to construction of public infrastructure, and the design incorporates various important cost-effective low impact development stormwater features, and environmentally conscious construction techniques and materials. In addition, the project scope includes a robust public involvement component to ensure all stakeholder's perspectives are considered within the design and incorporated where possible.





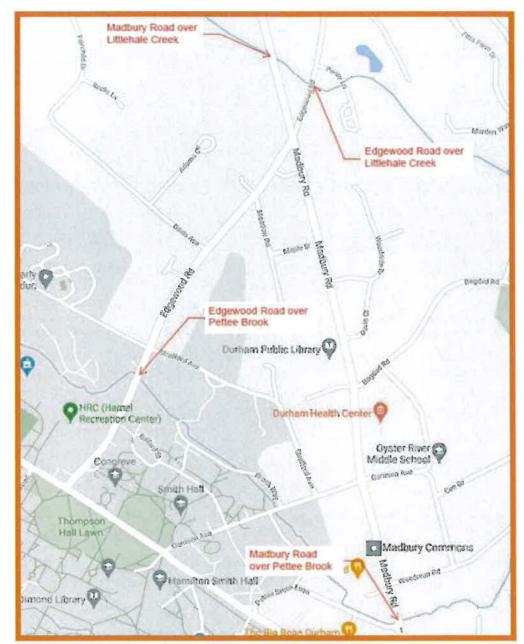
Pictured Above - Tree box filter (left) and Installation of Media Box Filter (right)

The Town hired Vanasse Hangen and Brustlin, Inc. (VHB) as its design engineer for this project through a Qualification Based Selection (QBS) process. The Town Council approved the design contract with VHB in September 2021 in the amount of \$1,142,898. The contract includes preliminary and final design of utilities (water, sewer, drainage), rehab or replacement of critical culvert crossings, and roadway/streetscape (sidewalks, ADA compliant ramps, improved signalization, lighting, pavement markings, traffic calming, and pedestrian and cyclist accommodations).

The Town was successful in obtaining substantial American Rescue Plan Act (ARPA) funding totaling over \$608,000 for these critical culvert and drainage improvements and continues to aggressively pursue funding for other project components.

In July 2021, Durham Public Works and VHB conducted a conditions assessment of five culverts as part of the drainage master plan development and identified the need for extensive construction improvements at all locations. The design of these improvements to four of these stormwater culverts is included within this scope at the following locations and as noted on the location maps below within and outside the Madbury Road project area. The proximity of these culverts to the main Madbury Road project area allows for design and permitting efficiencies while realizing cost savings. Inclusion of the culvert rehabilitation scope will also expedite these much-needed drainage system construction improvements before failure occurs.

- Littlehale Creek passing under Madbury Road and Edgewood Road
- Pettee Brook passing under Edgewood Road and Madbury Road



Pictured Above - Locations of critical culvert rehab/replacements

Issues identified include fractured, shifting, and failing stones and pipe, blocked inlets and outlets, failing headwalls and slopes, spalling concrete with exposed rebar and heavily corroded, collapsed pipe and undermined headwalls. Photographs Illustrating these conditions encountered during the inspections are shown below.



Madbury Road over Pettee Brook Inlet - Spalled Top Slab with Exposed Reinforcing Steel

Proposed improvements at Madbury Road over Pettee Brook include partial roof slab replacement.



Snapped Stone at Outlet headwall – (Left) and Fallen Stones from Sidewall and Ceiling (Right) Littlehale Brook at Edgewood Road Stone Box Culvert

Proposed improvements at Madbury Road over Littlehale Creek include lining the culvert and reconstructing the upstream and downstream headwalls. Proposed improvements at Edgewood Road over Littlehale Creek include a complete culvert replacement including new guardrail with removal of existing pedestrian bridge. This removal will provide for more efficient winter maintenance operations, decrease costly long term maintenance requiements, eliminate the need for structural evaluation of existing bridge and abuttments and reinstallation costs. The Edgewood Road culvert replacement project is scheduled to take place during the 2023 construction season, subject to bidding and material availability, and will require the closure of Edgewood Road at the culvert location during construction.



Pedestrian Bridge on Edgewood Road

Public Outreach and Development of Design Alternatives

The first public outreach meeting was held at the Durham Public Library on June 15, 2022. The goal of the meeting was to gather concerns and suggestions from the public around design considerations. The team also created and shared a Madbury Road Complete Streets Story Map found here Madbury Road Complete Streets Story Map which is continuously updated and provides important project information along with an opportunity to take part in a project related survey with the use of an interactive map where residents and business and corridor users can identify concerns and issues.

Some of the feedback that the team received was;

"Please add method for pedestrians and bikes to cross Route 4!"

"(Please add) Crosswalk to get to Emerson Road (which should have sidewalks as it is a route to the high school for walkers)"

"It would be really helpful to have sidewalks on both sides of the street on frat row..."

"The entire length of Madbury Road needs to be made safe for bicycle use."

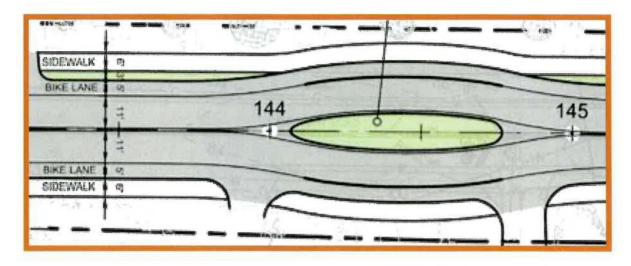
"Existing speed bump is not effective."

The speed hump on Madbury is controversial, though it does help to show traffic. Not so good for bikes, though, especially commuter bikes toiling upfill northward on a narrow roadway. Is there a different way to control speeds?"

Feedback from the public as well as survey results from the Madbury Road Story Map fall into three main categories which are pedestrian accommodations, bicycle accommodations, and traffic/safety concerns. The project team advanced the design to address these main categories of feedback and developed two alternatives described below.

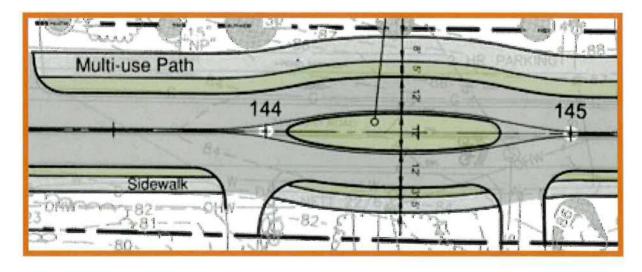
Alternative A

This alternative includes 5-foot bikes lanes on both sides of the road, a sidewalk on the West side of Madbury Road north of Edgewood, and sidewalks on BOTH sides of Madbury Road south of Edgewood Road.



Alternative B

This alternative includes a 8-foot wide multi-use path for non-motorized use such as walkers, bicycles, and skateboards and a 5-foot sidewalk on the west side of Madbury Road south of Edgewood Road.



Both alternatives include center medians traffic calming islands acting as chicanes to replace the existing speed tables, green planting strips, improved crosswalks, and improved Bagdad, Emerson, and Garrison Road Intersections.

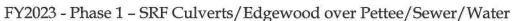


Example of median traffic calming island proposed to replace existing Speed tables

The second public meeting was held just recently on October 6, 2022 at the Durham Public Library and was an open house style meeting where residents were encouraged to walk around the room and see preliminary plans for the two main alternatives for the project corridor, ask questions of the team, and provide feedback and comments with sticky notes attached to the plans on the wall. There was overall consensus from those who attended the open house that Alternative B was clearly the preferred option.

Project Phasing and Schedule

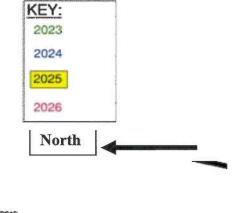
The project as designed is scheduled to take a phased construction approach over multiple construction seasons with culvert and utility improvements planned for 2023 followed by distinct segments of roadway, sidewalk, streetscape, utility improvements in the following years 2024, 2025, and 2026. The phasing and project durations are subject to change due to availability of funding. The intent is to complete the project in separate segments over the duration of 4 construction seasons.

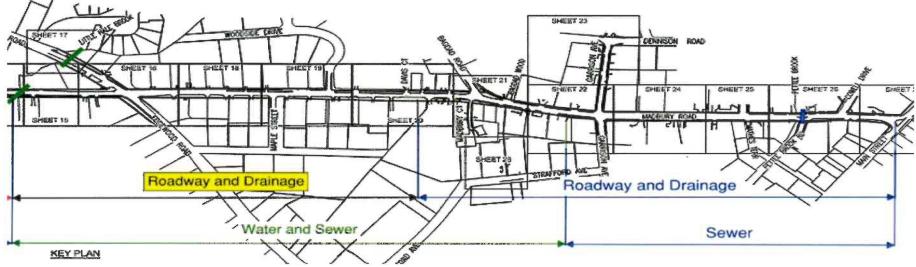


FY2024 - Phase 2 - Roadway/Drainage (Main to Davis Ct)/Sewer/Water

FY2025 - Phase 3 - Roadway/Drainage (Davis to Littlehale Crossing)/Water

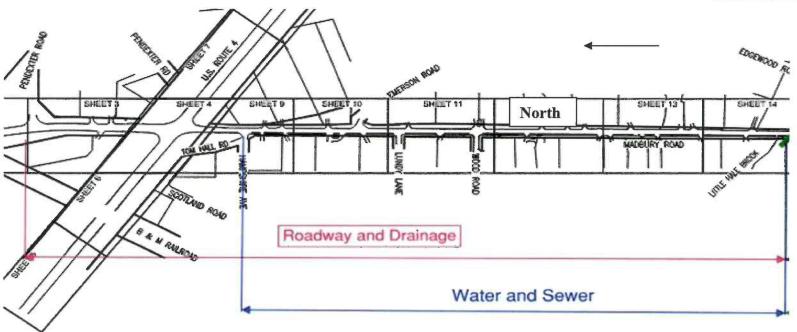
FY2026 - Phase 4 - Roadway/Drainage (Littlehale Crossing to Route 4)





Phase 1 - 2023				Phase 2 - 2024					Phase 3 - 2025				
Description	Cost	S per contract	S per Source	Source	Description	Cost	S per contract	S per Source	Source	Description Cost	5 per contract	S per Source	Source
3-Culverts 5 1,686	5 1,686,500	\$ 1,686,500	\$ 1,086,500	SRF/ARPA	Madbury over Petter		5 2,286,000	5 110.000 General Fund 5 1,482,000 General Fund	General Fund				
			\$ 600,000	General Fund	ALL SELECTION SERVICES								
			11-11-11		Segment 1 Roadway				Segment 2 Roadway \$ 1,565,000	C 2 209 000	\$ 1,565,000	General Fund	
					Segment 1 Drainage	5 694,000		\$ 694,000	General Fund	Segment 2 Drainage \$ 733,000	3 2,238,000	\$ 733,000	General Fund
Segment 2 Sew	ver \$ 525,000	5 2,300,000		Sewer SRF	Segment 1 Sewer Segment 3 Sewer Segment 3 Water	\$ 260,000 \$ 390,000 \$ 1,650,000	5 2,300,000	\$ 650,000	Sewer 5RF				
Segment 2 Water S	ter \$ 1,775,000		\$ 1,775,000	Enterprise				\$ 1,650.000	Enterprise	Segment 2 Water \$ 222,000	\$ 222,000	\$ 222,000	Enterprise





Phase 2 - 2024					F	Phase 4 - 2026							
Description	Cost	Sper contract	S per Source	Source	Description Cost	\$ per contract	5 per Source	Source	Description	Cost	5 per contrac	S per Source	Source
Madbury over Pettee	\$ 110,000		5 110,000	General Fund									
Segment 1 Roadway	\$ 1,482,000	5 2,286,000	5 1,482,000	General Fund	Segment 2 Roadway \$ 1,565,000	5 2,298,000	\$ 1,565,000	General Fund	Segment 3 Roadway	5 1,524,000	\$ 2 257 000	\$ 1,524,000	General Fun
Segment 1 Drainage	5 694,000		5 694,000	General Fund	Segment 2 Drainage 5 733,000	3 2230,000	5 733,000	General Fund	Segment 3 Drainage	5 733,000	3 2,237,000	\$ 174,500	General Fun
											The same of	\$ 558,500	SRF/ARPA
Segment 1 Sewer Segment 3 Sewer	\$ 260,000 \$ 390,000		5 650,000	Sewer SRF									
Segment 3 Water	\$ 1,650,000		\$ 1,650,000	Entermise	Segment 2 Water 5 222,000	\$ 222,000	\$ 222,000	Enterprise					

Project Cost and Funding

The existing 2022 Capital Improvement Plan and proposed 2023-2026 CIP includes the planning level funding requests shown above to construct the Madbury Road Improvements.

LEGAL AUTHORITY:

N/A

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

N/A

SUGGESTED ACTION OR RECOMMENDATIONS:

No formal action is required at this time. Receive presentation and hold question and answer session if desired.



TOWN OF DURHAM 8 NEWMARKET ROAD

DURHAM, NH 0382 AGENDA ITEM:

Tel: 603-868-5571

www.ci.durham.nh.us

Fax: 603-868-1858 DATE: October 17, 2022

COUNCIL COMMUNICATION

INITIATED BY: Gail Jablonski, Business Manager

PUBLIC HEARING AND ACTON ON RESOLUTION #2022-21 TO <u>AGENDA ITEM:</u>

> ACCEPT HIGHWAY BLOCK GRANT FUNDING IN THE AMOUNT OF \$249,176.50 to be Used for Road Improvements and MAINTENANCE AND \$281,170.00 TO BE USED FOR BRIDGE MAINTENANCE FROM THE STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION?

CC PREPARED BY: Gail Jablonski, Business Manager

Gail Jablonski, Business Marfager PRESENTED BY:

Todd I. Selig, Administrator

AGENDA DESCRIPTION:

With the state reporting a record surplus of funds in fiscal year 2022, SB 401 was passed allowing for direct payments to cities and towns for infrastructure improvements. Using state general fund surplus generated in fiscal year 2022, the bill appropriated \$36 million for the repair and maintenance of municipally-owned bridges and \$30 million in additional municipal highway block grants.

This funding does have restricted uses and is meant to supplement (not supplant) local budgets. The "supplement not supplant" provision requires that these funds must add to (supplement) and not replace (supplant) local budgeted funds when providing services that repair, maintain, and construct municipal bridges, repair and maintain class IV and V roads or acquire the equipment necessary to maintain Class IV and V roads.

The Town of Durham will be receiving \$249,176.50 in Highway block grant funds. These funds are allocated based 50% on the community's population in proportion to the entire state's population and 50% on the amount of Class IV and V road mileage in proportion to the total statewide Class IV and V mileage.

The Town of Durham will be receiving \$281,170.00 in Bridge Aid. These funds are allocated based 50% on a municipality's deck area proportional to the total deck area for Improvements to municipally-owned bridges within the state and 50% on the



Council Communication, 10/17/2022 - Page 2

Re: PH & Action on Resolution #2022-21 to Accept & Expend Unanticipated Funds from NHDOT

municipality's total share of the State's population. The Public Works Department will be proposing Capital Improvements Projects for 2023 that will use these supplemental funds.

On October 3, 2022, the Town Council scheduled a Public Hearing on the attached draft resolution for Monday, October 17, 2022. A notice of Public Hearing regarding this resolution was published in the *Foster's/Seacoast News* on Thursday, October 6, 2022, and was posted at the Town Hall, the Town website, Durham Public Library, and Public Works Department.

LEGAL AUTHORITY:

RSA 31:95-b III(a) states that "For unanticipated moneys in the amount of \$10,000 or more, the selectmen or board of commissioners shall hold a prior public hearing on the action to be taken. Notice of the time, place, and subject of such hearing shall be published in a newspaper of general circulation in the relevant municipality at least 7 days before the hearing is held."

LEGAL OPINION:

N/A

FINANCIAL DETAILS:

The State of New Hampshire unanticipated revenue is valued at \$249,176.50 for road maintenance and \$281,170.00 for bridge maintenance.

SUGGESTED ACTION OR RECOMMENDATIONS:

MOTION 1:

The Durham Town Council does hereby OPEN the Public Hearing on Resolution #2022-21 to accept highway block grant funding in the amount of \$249,176.50 for road improvements and maintenance and \$281,170.00 for bridge maintenance from the State of New Hampshire Department of Transportation.

MOTION 2:

The Durham Town Council does hereby CLOSE the Public Hearing on Resolution #2022-21 to accept highway block grant funding in the amount of \$249,176.50 for road improvements and maintenance and \$281,170.00 for bridge maintenance from the State of New Hampshire Department of Transportation.

MOTION 3:

The Durham Town Council, upon recommendation of the Administrator, does hereby ADOPT (as presented / as amended) Resolution #2022-21 to accept highway block grant funding in the amount of \$249,176.50 for road improvements and maintenance and \$281,170.00 for bridge maintenance from the State of New Hampshire Department of Transportation.

RESOLUTION #2022-21 OF DURHAM, NEW HAMPSHIRE

AUTHORIZING THE ACCEPTANCE OF UNANTICIPATED REVENUES FROM THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION IN THE AMOUNT OF \$249,176.50 FOR ROAD IMPROVEMENT/MAINTENANCE AND \$281,170.00 FOR BRIDGE MAINTENANCE

WHEREAS, in July 2022 the New Hampshire Senate passed SB 401 making an appropriation to the Department of Transportation for maintenance, construction and reconstruction of Class IV and V Highways and the repair and maintenance of municipally-owned bridges; and

WHEREAS, SB 401 allocates \$30 million to New Hampshire Cities and Towns for roadway maintenance/repairs and \$36 million for bridge maintenance; and

WHEREAS, the Town of Durham has been allocated \$249,176.50 for roadway maintenance and \$281,170.00 for bridge maintenance; and

WHEREAS, the Department of Public Works will be recommending the use of these funds in the 2023 Capital Improvements program; and

WHEREAS, Council approval is required for the acceptance of these funds; and

WHEREAS, RSA 31:95-b III(a) states that "For unanticipated moneys in the amount of \$10,000 or more, the selectmen or board of commissioners shall hold a prior public hearing on the action to be taken. Notice of the time, place, and subject of such hearing shall be published in a newspaper of general circulation in the relevant municipality at least 7 days before the hearing is held." and

WHEREAS, in accordance with RSA 31:95-b a duly posted Public Hearing was held by the Durham Town Council on Monday, October 17, 2022, for acceptance of unanticipated highway block grant funding totaling \$249,176.50 for road improvements and \$281,170.00 for bridge maintenance from the State of New Hampshire Department of Transportation,

NOW, THEREFORE, BE IT RESOLVED, that the Durham Town Council, the legislative and governing body of the Town of Durham, New Hampshire does hereby adopt Resolution #2022-21 authorizing the acceptance of highway block grant funding totaling \$249,176.50 from the State of New Hampshire Department of Transportation to be used for road improvements and maintenance.

PASSED AND	ADOPTED by	tne row	n Council of the Tow	n of Durnam,
New Hampshire this	day of	by	affirmative votes,	negativ
votes, anda	bstentions.			_
		Kath	erine Marple, Chair	
		Durl	nam Town Council	
ATTEST:				
Lorrie Pitt, Town Cler	k-Tax Collector	- r		