WARD COUNCILLORS
1 – David R. Thibault-Muñoz
2 – Dana M. Heath
3 – Paul G. Tassone
4 – Karen G. Hardern
5 – Aleksander H. Dernalowicz, Esq.

COUNCIL PRESIDENT
George C. Tyros

COUNCILLORS AT LARGE
Calvin D. Brooks
Craig R. Cormier
Brad E. Heglin
Elizabeth J. Kazinskas
Judy A. Mack

CITY OF GARDNER
MASSACHUSETTS

CITY COUNCIL

RECEIVED
2026 JUL 21 P 4:19
CITY CLERK'S OFFICE
GARDNER, MA

FINANCE COMMITTEE MEETING NOTICE

Date: Friday, July 24, 2026
Time: 8:00 A.M.
Location: City Council Chamber City Hall

AGENDA

CALL TO ORDER

ANNOUNCEMENT OF OPEN MEETING RECORDINGS

Any person may make a video or audio recording of an open session of a meeting, or may transmit the meeting through any medium, subject to reasonable requirements of the chair as to the number, placement and operation of equipment used so as not to interfere with the conduct of the meeting. Any person intending to make such recording shall notify the Chair forthwith. All Documents and exhibits used or referenced at the meeting must be submitted in duplicate to the City Clerk, as they become part of the Meeting Minutes.

I. **Review and Approval of Meeting Minute(s)**

II. **First Time on the Agenda**

11880 - An Order Transferring Reappropriated Bond Proceeds Funds from the Greenwood Pool Roof Replacement Project to the Perry Auditorium Window Replacement Project. *Page* 4

11881 - An Order Rescinding Portions of Reappropriated Bond Proceeds to Various Capital Projects with a lifespan of at least 30 years as part of Items 11499 and 11827. *Page 14*

11884-An Ordinance to Strengthen Oversight and Transparency of Capital Improvement Planning and Projects. *Page 16*

11885- An Ordinance To Amend Section 21 of Chapter 600 the Code of the City of Gardner, thereof entitled "Parking Meter Fees Waived," to add a new exemption for Blue Star Plates. *Page 19*

11886 - An Order Waiving Parking Meters Downtown from December 1, 2026, through January 1, 2027. *Page 30*

11887 - A Measure Accepting Donations to the Gardner Animal Shelter. *Page 32*

11888 - A Measure Accepting Donations for the Gardner Food Truck Festival by Gateway Fiber. *Page 35*

11889 - An Order Transferring Funds from the DPW New Salt Shed Account into the City's Stabilization Account. *Page 38*

11890 - A Measure Accepting a Donation of $2,019.00 from Amanda Morse to the Police Department Domestic Violence Division**.** *Page 41*

11891 - An Ordinance To Amend the Code of the City of Gardner to Create A Regular Review Schedule for Various Rates and Fees to Ensure Financial Viability and Responsibility. *Page 43*

11892 - Order To Reappropriate Unexpended Bond Proceeds to Other Capital Projects - Waterford Asbestos Abatement. *Page 46*

III. <u>In Subcommittee</u>

11482 – Discussions regarding the City's Health Insurance Payments and Trust Fund. *Page 68*

11752 – Study and Report on the Salt Shed Repayment Issue. *Page 72*

11836 – A Measure Adopting the City's Hazard Mitigation Plan. *Page 84*

11841B – An Ordinance to Amend Attachment F of Chapter 8 of the Code of the City of Gardner, thereof entitled "Primary Non-Union Compensation Schedule" to add the position of Golf Administrative Assistant. *Page 235*

11862 – An Ordinance to Increase Oversight of Professional Development and Travel. *Page 238*

11867 – An Order Transferring Salary Appropriations from the City Clerk Department to Auditor Department Expenses. *Page 239*

11870 – An Ordinance to Increase Financial Transparency, Financial Governance, and Budget Preparedness. *Page 243*

11872 – A Measure Accepting a Donation of $5,000.00 from Lynn Barrieau, in Memory of Deputy Chief Rock Barrieau (ret.), For Gardner Police Department Community Policing Programs. *Page 245*

11873 – A Measure Accepting a Donation to the City of Gardner from Keller Partners Co. of an American Flag flown over the US Capitol Building to Commemorate the 250th Anniversary of the United States. *Page 248*

11874 – A Measure Accepting a Donation of a 2026 Chevrolet Pick Up Truck for the Gardner Police Department K9 Program. *Page 251*

11875 – A Measure Authorizing the City to Enter into a Tax Increment Exemption (TIE) Agreement for the Property Located at 94 Pleasant Street. *Page 254*

11877 – A Measure Transferring $4,016.00 from City Council Salary and Wages Account to Greenwood Memorial Pool Minor Equipment for Signage at the Greenwood Memorial Pool. *Page 262*

IV. Discussion on the City's Financial Outlook

ADJOURNMENT

NOTICE: The listing of Agenda items are those reasonably anticipated by the Chairman which may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law.

CITY COUNCIL OF GARDNER

Aleksander H. Dernalowicz

Aleksander H. Dernalowicz
Chair, Finance Committee

City of Gardner – ***Mayor's Office***
Mayor Michael J. Nicholson

June 30, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Order Transferring Reappropriated Bond Proceeds Funds from the Greenwood Pool Roof Replacement Project to the Perry Auditorium Window Replacement Project.

Dear Mr. President and Councilors,

As you are aware, on February 18, 2025, the City Council voted to approve funding for both the replacement of the roof of the buildings at the Greenwood Memorial Pool and to replace the windows in Perry Auditorium with new energy efficient windows.

The pool roof replacement project was completed in May of 2025 and came in $110,000.00 under budget.

When the windows in Perry Auditorium were removed, it was determined that the existing wood blocking was deteriorated making it unable to support the new double pane window installation. Additionally, concealed in the existing wood framing there is another bead of confirmed Asbestos Containing Materials (ACMs) which will have to be abated in order to install the new windows as well.

The attached transfer request is being put forward so that the project can continue and the new windows installed.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ORDER NO. ____

IN CITY COUNCIL _____, 2026

AN ORDER TRANSFERRING REAPPROPRIATED UNEXPENDED BOND PROCEEDS TO OTHER CAPITAL PROJECTS

BE IT ORDERED, BY THE CITY COUNCIL OF THE CITY OF GARDNER AS FOLLOWS:

That SIXTY FIVE THOUSAND DOLLARS AND ZERO CENTS ($65,000.00) be transferred from the GREENWOOD POOL ROOF REPLACEMENT ACCOUNT (38621-58306) to the CITY HALL AUDITORIUM WINDOW REPLACEMENT PROJECT ACCOUNT (38193-58306) to pay for additional costs of the previously approved capital projects, each of which have a useful life of at least 30 years.

DIVISION OF CAPITAL ASSET MANAGEMENT

FORMAT FOR SUBMISSION OF CHANGE ORDER

WORK OF "FILED SUB CONTRACTOR" AND/OR "GENERAL CONTRACTOR"

NOTE:
6/18/2026

This Change Order addresses the additional abatement work required at the 19 window openings, including the removal of existing deteriorated wood framing and installation of new wood framing, as directed in Nick Day's email dated 6/15/2026. The scope also includes the cost of additional plywood required to complete the simultaneous infill of all window openings.

WORK OF THE "FILED SUB" CONTRACTOR

1. DIRECT LABOR: "FILED SUB CONTRACTOR":

To Include: Prevailing Wage Per Specifications or Verified Union Base Wage, Health/Welfare, Pension and Annuities

Trade	Classification	No. of Workers	Total Hrs. Worked	Pay Per Hour	Total Cost
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -

TOTAL LABOR COST: $ -

2. MATERIALS: "FILED SUB CONTRACTOR":

Type of Material	Quantity	Item Price	Total Cost
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -

TOTAL MATERIALS COST: $ -

3. EQUIPMENT: "FILED SUB CONTRACTOR":

Type of Equipment	Hours Required	Cost per Unit per hr.	Total Cost
			$ -
			$ -
			$ -
			$ -
			$ -

TOTAL EQUIPMENT COST: $ -

4. SUB TOTAL "FILED SUB CONTRACTOR" COST FOR ITEMS 1., 2. & 3.: **SUB TOTAL:** $ -

5. MISC. LUMP SUM SERVICES PROVIDED TO "FILED SUB CONTRACTOR" (POLICE DETAIL, UTILITIES, LUMP SUM SUB SUB WORK, ETC.):

Type of Miscellaneous Lump Sum Service	Cost	Total Cost

TOTAL MISC. LUMP SUM SERVICE COST: $ -

CHANGE ORDER SUBMISSION FORMAT CONTINUED:

6. "FILED SUB" ALLOWED 10% O&P Mark Up - MISC. LUMP SUM SERVICES: **10% x ITEM 5.:** $ -

7. SUB TOTAL "FILED SUB CONTRACTOR" LINE ITEMS 4., 5. & 6.: **SUB TOTAL:** $ -

8. **INSURANCE AND TAXES ON "FILED SUB CONTRACTOR" DIRECT LABOR ONLY:**

A. Insurance And Taxes At 30% (Enter 30% x Total of Item 1.): **30%** x **ITEM 1.:** $ -

OR

B. Actual Documented Cost Of Insurance & Taxes On Direct Labor Only. **As Per Contract Include Only The Following:**

* Workmen's Compensation
* Massachusetts Unemployment Compensation
* Federal Social Security
* Liability Insurance

Documented Insurance & Taxes (Enter Approved % x Total of Item 1.): **0.00%** x **ITEM 1.:** $ -

9. **OTHER APPROVED "FILED SUB CONTRACTOR" DIRECT LABOR FRINGE BENEFITS:**

(i.e.: Apprentice Training, Education Fund, Legal, Travel, ETC.) **FRINGE BENEFITS:**

10. **OVERHEAD AND PROFIT OF "FILED SUB CONTRACTOR":**

Filed Sub Contractor can charge 10% of actual total cost of Item 4.: **FILED SUB 10%** x **ITEM 4:** $ -

11. **TOTAL OF ITEMS 7., 8. (A. or B.), 9. and 10.**

TOTAL COST OF WORK PERFORMED BY "FILED SUB CONTRACTOR": **TOTAL "FILED SUB CONTRACTOR" COST:** $ -

WORK OF THE "GENERAL" CONTRACTOR + "NON-FILED" SUBS

12. **DIRECT LABOR: "GENERAL CONTRACTOR" + "NON-FILED" SUBS:**

To Include: Prevailing Wage Per Specifications or Verified Union Base Wage, Health/Welfare, Pension and Annuities

Trade	Classification	No. of Workers	Total Hrs. Worked	Pay Per Hour	Total Cost
Supervisor	Supervisor	1	45	$ 81.92	$ 3,686.40
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -

3 hrs / day for 3 weeks

TOTAL LABOR COST: $ 3,686.40

CHANGE ORDER SUBMISSION FORMAT CONTINUED:

13. **MATERIALS: "GENERAL CONTRACTOR" + "NON-FILED" SUBS:**

Type of Material	Quantity	Item Price	Total Cost
Additional material for simultaneous window temp infill	1	$ 350.74	$ 350.74
New wood framing material for 19x windows	1	$ 6,650.00	$ 6,650.00
			$ -
			$ -
			$ -

Allowance $300 per window

TOTAL MATERIALS COST: $ 7,000.74

14. **EQUIPMENT: "GENERAL CONTRACTOR" + "NON-FILED" SUBS:**

Type of Equipment	Hours Required	Cost per Unit per hour	Total Cost

Boom Lift	1	$ 3,415.00	$ 3,415.00
Dumpster	1	$ 750.00	$ 750.00
			$ -
			$ -
			$ -

TOTAL EQUIPMENT COST: $ 4,165.00

15. **SUB TOTAL "GENERAL CONTRACTOR" COST ITEMS 12., 13. & 14.:** **SUB TOTAL:** $ 14,852.14

16. **MISC. LUMP SUM SERVICES PROVIDED TO "GENERAL CONTRACTOR" (POLICE DETAIL, UTILITIES, LUMP SUM SUB WORK, ETC.):**

Type of Miscellaneous Lump Sum Service	Cost	Total Cost
Compass Restorations	$ 14,900.00	$ 14,900.00
C&M Finishes	$ 24,511.00	$ 24,511.00

TOTAL MISC. LUMP SUM SERVICE COST: $ 39,411.00

17. **"G. C." ALLOWED 10% O&P Mark Up - MISC. LUMP SUM SERVICES:** **10% x ITEM 16.:** $ 3,941.00

18. **SUB TOTAL "GENERAL CONTRACTOR" LINE ITEMS 15., 16. & 17.:** **SUB TOTAL:** $ 58,204.14

19. **INSURANCE AND TAXES ON "GENERAL CONTRACTOR" DIRECT LABOR ONLY:**

A. Insurance And Taxes At 30% (Enter 30% x Total Of Item 12.): 30% x ITEM 12.: $ 1,105.92

OR

B. Actual Documented Cost Of Insurance & Taxes On Direct Labor Only. **As Per Contract Include Only The Following:**

* Workmen's Compensation
* Massachusetts Unemployment Compensation
* Federal Social Security
* Liability Insurance

Documented Insurance & Taxes (enter Approved % x Total Of Item 12.): 0.00% x ITEM 12.: $ -

20. **OTHER APPROVED "GENERAL CONTRACTOR" DIRECT LABOR FRINGE BENEFITS:**

(i.e.: Apprentice Training, Education Fund, Legal, Travel, ETC.) **FRINGE BENEFITS:**

CHANGE ORDER SUBMISSION FORMAT CONTINUED:

21. **OVERHEAD AND PROFIT OF "GENERAL CONTRACTOR":**

Combined, the "General Contractor" and all the "Non Filed Sub Contractor(s)" shall receive 20% of Item 15. Division of the 20% will be agreed to contractually between the "General Contractor" and all the "Non Filed Sub Contractor(s)".

G.C / Non Filed Sub **10% x ITEM 15.:** $ 1,485.21

22. **TOTAL OF ITEMS 18., 19. (A. or B.), 20. and 21. WORK OF THE "GENERAL CONTRACTOR":** **TOTAL** **TOTAL WORK OF G. C.:** $ 60,795.27

23. **CARRY DOWN ITEM 11. TOTAL DOLLAR VALUE FOR WORK OF "FILED SUB CONTRACTOR":** **TOTAL WORK OF FILED SUB:** $ -

24. **"FILED SUB CONTRACTOR" PREMIUM FOR BOND**

Only allowed to be used by "Filed Sub Contractor" if required by page "F." of the contract. Precentage of approved bond x item 23. Total Work of the "Filed Sub Contractor": 0.0% x ITEM 23.: $ -

25. **"GENERAL CONTRACTOR" 10% O&P OF "FILED SUB CONTRACTOR" WORK**

"General Contractor" can charge 10% of "Filed Sub Contractor's" total price: **G.C. O&P On Filed Sub** **0%** **x ITEM 23.:** $ -

26.	**GRAND TOTAL OF ALL DOLLAR VALUES (Item 22. + 23. + 24. + 25.):**	**TOTAL:**	**$ 60,795.27**
27.	**"GENERAL CONTRACTOR" PREMIUM FOR BOND** Percentage of bond per contract or verified/approved amount:	**1.50%** **x ITEM 26:**	**$ 911.93**
28.	**SUB TOTAL OF ITEMS 26. AND 27.:**	**CHANGE ORDER SUB TOTAL:**	**$ 61,707.20**
29.	**Unit Cost Items: For "G.C." And/Or "Filed Sub Contractor(s)":** Unit Cost Items Include Their Proportionate Share Of All Labor, Material, Equipment, Overhead & Profit, Insurance, Taxes And Bond.	**UNIT COST ITEMS:**	
30.	**TOTAL CHANGE ORDER REQUEST TOTAL OF ITEMS 28. + 29.:**	**TOTAL CHANGE ORDER ROUNDED TO NEAREST CENT:**	**$ 61,707.20**

COMPASS
RESTORATION SERVICES L.L.C.
Restoring Homes, Buildings, & The Environment Within

June 18, 2026

Estimators

Re: Gardner Town Hall Window Replacement

Dear Estimator,

Compass Restoration Services LLC is pleased to provide this change order proposal for asbestos removal for the lump sum price of 14,900.00.

The breakdown of our work scope is as follows:

- Demo and dispose of the quarter round trim and associated caulking 19 windows from the exterior per AD-101 per conditions found in the field that were additionally tested.
- Back track to windows that were already removed, prep, remove and reclean.

Excluded: Temporary protection/Weather protection, patch, repainting, repair, shoring/engineering, lifts/staging to access, removal/replacement of window treatments/blinds, demo of any window substrate other than listed above, damage to interior substrate to remain i.e. sheetrock, paint, wallpaper etc. due to containment requirements per MA DEP/DLS, water, and power.

Our price includes all labor, our standard insurance, materials, equipment and proper disposal.

Please return the signed proposal if you would like to proceed with the work. Feel free to contact me with any questions or concerns. I can be reached in the office or on my cell phone at 413-583-7919.

Compass Restoration Services is a certified Women Business Enterprise.

Sincerely,
Nichole Henriques, President

1020 East Street, Ludlow MA 01056
tel 413.583.7919 fax 413.583.2963
email compassrestoration@yahoo.com

C & M Finishes
62 Bayberry Lane
Westfield, Ma 01085
Bid

To : Mr. Edward Olmo, Project Manager
Diversifed Construction

From: C & M Finishes

RE: Gardener Town hall

June 18,2026

Includes

1. **Labor and equipment to reframe 19 windows in masonry openings**
2. **Prevailing wages**

Excludes

- Materials and fasteners
- Lifts and staging needed for approximately 2 weeks
- Overtime hours

Our bid for this project is $ 22,011.00
Alternate 1 to remove rotted framing if no Hazardous materials are found $ 2,500.00

For any questions or concerns please reach out to
Robert. L Saunders, Project Manager @ 860-234-0696 0r rsaunders754@gmail.com

MAKI BUILDING CENTERS

11880

513 BETTY SPRING RD
GARDNER MA 01440-2489
PHONE: (978) 632-5354

CUST NO:	JOB NO:	PURCHASE ORDER:	REFERENCE:	TERMS:	CLERK:	DATE / TIME:
*1352	000	GARDNER CITY HALL PROJECT	PO # GARDNER CITY	C.O.D	1761	6/17/26 8:48

SOLD TO:
DIVERSIFIED CONSTRUCTION *CASH

SHIP TO:
DIVERSIFIED CONSTRUCTION *CASH

95 PLEASANT ST
GARDNER MA 01440

TERMINAL: 580
ORDER: 790643
DEL. DATE: 6/16/26
SALESPERSON: 38 LOUISE QUIDOZ
TAX: 002 GARDNER SALES TAX

COD INVOICE: H90899/2

LINE	SHIPPED	ORDERED	UM	SKU	DESCRIPTION	SUGG	UNITS	PRICE/ PER	EXTENSION
1	20	20	EA	12-OSB	1/2X4X8' ORIENTED STRAND BOARD		20	12.859 /EA	257.18
2					WALL & ROOF SHEATHING				
3					60PCS/ LIFT --NORBOARD				
4					--15/32" THICK--				
5					NORBOARD BRAND				
6					NEED TO USE H-CLIPS FOR				
7					ROOF SHEATHING ON 24"O.C.				
8	1	1	EA	2CS5	2" CERAMIC SCREW 5#BX		1	35.28 /EA	35.28 *
9	1	1	EA	STOCKRETURN	Materials that are in stock at		1	/EA	N/C
10					MAKI yards or stores may be				
11					returned under the following				
12					conditions:				
13					1) Materials were purchased				
14					within 75 days prior				
15					2) Materials must be clean				
16					and dry and in resaleable				
17					condition (no nail holes or saw				
18					cuts)				
19									
20					****Materials not in resaleable				
21					condition ARE NOT ALLOWED TO BE				
22					RETURNED FOR CREDIT.				
23	1	1	EA	DELIVERYR	DELIVERY		1	15.00 /EA	15.00 N
24	1	1	EA	DIESEL	DIESEL STOP CHARGE		1	25.00 /EA	25.00 *N
25	1	1	EA	STREET	WE DELIVER TO STREET ADDRESS.		1	/EA	N/C *N
26					WE ARE NOT RESPONSIBLE FOR				
27					PROPERTY DAMAGE WHEN ASKED				
28					TO DELIVER BEYOND STREET				
29					TO CUSTOMER'S PROPERTY.				
					12-3 delivery please				

**** PAID IN FULL ****** 350.74

(EDWARD)

TAXABLE	**292.46**
NON-TAXABLE	**40.00**
SUBTOTAL	**332.46**
TAX AMOUNT	**18.28**
TOTAL	**350.74**

BANKCARD PAYMENT 350.74
BKCRD# XXXXXXXXXXX1108

TOT WT: 0.00
MID: ***7034

APP: 220368 XR: 79089901

X Manual Signature
Received By

11880

Kenney Masonry
413-256-0400

Edward Olmo Jr <edward@divconllc.com>

Gardner City Hall - Existing Framing

Nick Day <NDay@tighebond.com> Mon, Jun 15, 2026 at 4:39 PM
To: Edward Olmo Jr <edward@divconllc.com>, "Matt P. Wzorek" <MPWzorek@tighebond.com>
Cc: Josh Kenney <josh@divconllc.com>, Melissa MacDonald <mmacdonald@gardner-ma.gov>, Ryan Egan <regan@gardner-ma.gov>

Good afternoon Edward,

Thank you for sending over these pictures. After looking at the pictures it is clear that the wood is rotten, we ask you to provide us with a PCO for the replacement of the wood blocking to match in kind.

If any sections of the wood blocking are found to be in satisfactory condition during removal and inspection, those sections may remain in place, and only the deteriorated or weakened material should be replaced.

Please let us know if you have any questions or require additional information.

Thanks,

Nick

Nicholas R. Day, PE

Project Engineer

From: Edward Olmo Jr <edward@divconllc.com>
Sent: Monday, June 15, 2026 2:52 PM
To: Nick Day <NDay@TigheBond.com>; Matt P. Wzorek <MPWzorek@tigheBond.com>
Cc: Josh Kenney <josh@divconllc.com>; Melissa MacDonald <mmacdonald@gardner-ma.gov>; Ryan Egan <regan@gardner-ma.gov>
Subject: Gardner City Hall - Existing Framing

[Caution - External Sender]

[Quoted text hidden]

City of Gardner – *Mayor's Office*

Mayor Michael J. Nicholson

June 30, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Order Rescinding Portions of Reappropriated Bond Proceeds to Various Capital Projects with a lifespan of at least 30 years as part of Items 11499 and 11827

Dear Mr. President and Councilors,

In order to fully evaluate and consider the various portions of the projects needed to be done to open the Community Center at 62 Waterford Street, I am hereby requesting that all previously approved Bond Re-Appropriations be rescinded, depositing the funds back into the Unexpended Bond Proceeds Account so that the funding can be available for a full comprehensive look at the building for the projects needed to be done.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDER RESCINDING PORTIONS OF A PORTION OF THE UNEXPENDED BOND PROCEEDS RE-APPROPRIATION RELATING TO UNEXPENDED FUNDS FROM THE NEW ELEMENTARY SCHOOL CONSTRUCTION PROJECT

ORDERED:

To rescind portions of the vote taken on February 18, 2025, under Calendar Item #11499, ordering that the sum of EIGHT MILLION ONE HUNDRED SIXTY-ONE THOUSAND DOLLARS AND NO CENTS be re-appropriated to "pay the costs of various capital projects, each with a useful life of at least 30 years" be rescinded as follows:

Community Center Electrical Upgrades..... $525,000.00

Community Center Flooring..... $200,000.00

FURTHER ORDERED:

That all other authorizations made through the vote taken on February 18, 2025, under Calendar Item #11499, aside from those mentioned in the previous section remain authorized and shall not be impacted as a result of this vote.

FURTHER ORDERED:

To rescind portions of the vote taken on May 18, 2026, under Calendar Item #11827, ordering that the sum of ONE MILLION ONE HUNDRED TWENTY-FIVE THOUSAND DOLLARS AND NO CENTS be re-appropriated to "pay the costs of various capital projects, each with a useful life of at least 30 years" be rescinded as follows:

Community Center Concrete Ramp Upgrades..... $200,000.00

FURTHER ORDERED:

That all other authorizations made through the vote taken on May 18, 2026, under Calendar Item #11827, aside from those mentioned in the previous section remain authorized and shall not be impacted as a result of this vote.

FURTHER ORDERED:

The funds from these recissions shall remain in the City's Unexpended Bond Proceeds Account as authorized borrowed funds unless otherwise reappropriated.

The City of Gardner
City Council

PRESENTED BY

Councillor George Tyros

AN ORDINANCE TO STRENGTHEN OVERSIGHT AND TRANSPARENCY OF CAPITAL IMPROVEMENT PLANNING AND PROJECTS

Be it ordained by the City Council:

SECTION 1: Chapter 7, § 7-8A(2) is hereby amended by striking in its entirely and replacing therewith the following:

"Members shall consist of the Council President or their designee, two members of the City Council to be appointed by the Council President, the Vice Chair of the School Committee or their designee who shall be a School Committee Member, the City Treasurer, the City Auditor, the City Purchasing Agent, the Mayor or their designee, and one member appointed by the Mayor.

Members serving in ex officio capacity shall be full voting members for the duration of their service. Other appointed members shall serve at the pleasure of their above stated appointing authority."

SECTION 2: Chapter 7, § 7-8C is hereby amended by adding the following:

"The City Council may reduce, add, or in any other way amend the capital plan prior to acceptance."

SECTION 3:
Section 1: Part IV of the City Code is hereby amended by adding the following new chapter:

Chapter 676 - Capital Improvement Planning and Execution

§676-1 Purpose and Intent

These regulations are enacted to ensure proper planning and execution of capital improvement projects with appropriate oversight, transparency, and public awareness.

§676-2 Final Project Plan Approval

A. Prior to the advertisement or solicitation of bids for any capital improvement project with an estimated cost exceeding $100,000, the Mayor shall submit the final project plan to the City Council for approval.
    a. The final project plan shall include:
        i. the project scope;
        ii. site plans, renderings, or construction drawings sufficient to describe the proposed improvements;
        iii. the estimated project cost and funding sources;
        iv. the anticipated project schedule; and
        v. any material changes from the project concept or design previously presented to the City Council.
    b. No invitation for bids, request for proposals, or other procurement process for construction of the project shall be issued until either the approval is granted in a manner to be determined by the City Council or thirty (30) days have elapsed following the aforementioned submittal.

§676-3 Capital Project Advisory Committee

A. Establishment

For any capital improvement project authorized by the City Council with a total estimated cost exceeding $500,000, or such other amount as may be established by ordinance, a Capital Project Advisory Committee shall be established prior to the commencement of procurement activities.

B. Purpose

The purpose of the Capital Project Advisory Committee shall be to review project plans, provide public input, monitor project progress, and make recommendations regarding project scope, design, schedule, budget, and community impacts. The Committee shall serve in an advisory capacity only and shall possess no authority to direct City employees, contractors, consultants, or project expenditures.

C. Membership

The Capital Project Advisory Committee shall consist of at least three (3) voting members appointed where not less than one third of members shall be appointed by the Council President

and the remaining members appointed by the Mayor. The Mayor shall designate one member to serve as chair.

D. Duties

The Committee at their discretion may:

1. Review and comment on project plans and design concepts;
2. Receive periodic reports from project managers, consultants, and City officials;
3. Conduct public meetings to solicit community feedback;
4. Issue written recommendations concerning significant changes to project scope, design, or budget; and
5. Submit advisory reports to the Mayor and City Council at such intervals as the Committee deems appropriate.

E. Final Report

The Committee may submit a final advisory report to the Mayor and City Council summarizing its findings and recommendations regarding the proposed project.

F. Sunset

The Committee shall automatically dissolve upon substantial completion of the project unless extended by joint action of the Mayor and City Council.

City of Gardner – *Mayor's Office*
Mayor Michael J. Nicholson

July 20, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Ordinance To Amend Section 21 of Chapter 600 the Code of the City of Gardner, thereof entitled "Parking Meter Fees Waived," to add a new exemption for Blue Star Plates

Dear Mr. President and Councilors,

On July 15, 2026, Governor Maura Healey signed a new law directing the Massachusetts Registry of Motor Vehicles to create a new "Blue Star" license plate to honor the families of police officers who died in the line of duty.

As you may remember, in 2024, the City adopted a new ordinance waving parking meter fees for all those with various Veterans Plates as a way to recognize our veterans and their families for their service to the County.

The families of our fallen officers are equally deserving of recognition for the service and sacrifice of their family members who died protecting and serving our residents and visitors. I am therefore requesting that the new Blue Star License Plate be added to the list of license plates exempted from paying parking meter fees.

This exemption only exempts the vehicle from paying the parking meter fee itself. The vehicle is still required to adhere to all time restrictions and other parking laws and regulations in the parking meter area.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDINANCE TO AMEND THE CODE OF THE CITY OF GARDNER, CHAPTER 600, THEREOF ENTITLED "VEHICLES AND TRAFFIC," TO AMEND SECTION 21 ENTITLED "PARKING METER FEES WAIVED."

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARDNER AS FOLLOWS:

SECTION 1: That a new Section 21 be added to Chapter 600 of the Code of the City of Gardner to be entitled, "Parking Meter Fees Waived" by adding a new subsection O as follows:

0. Blue Star

SECTION 2: That this ordinance take effect upon passage and publication as required by law.

REDLINED VERSION SHOWING EDITS

§21 Parking Meter Fees Waived

A. Vehicles affixed with the following license plates, issued by the Massachusetts Department of Transportation Registry of Motor Vehicles shall be exempt from payment at parking meters throughout the City:
    a. Handicap/ADA/Disability
    b. Veteran (of any branch of service)
    c. Disabled Veteran
    d. Bronze Star
    e. Congressional Medal of Honor
    f. Distinguished Flying Cross
    g. Ex-POW
    h. Gold Star Family
    i. Legion of Valor
    j. Medal of Liberty
    k. National Guard
    l. Pearl Harbor Survivor
    m. Purple Heart
    n. Silver Star
    o. Blue Star

B. All vehicles with plates listed in Section A shall still be liable for all other time limits, restrictions, regulations, or other limitations prescribed by ordinance or the General Laws of the Commonwealth.

OFFERED BY Governor Maura Healey and Lt. Governor Kim Driscoll

PRESS RELEASE

Governor Healey Signs Blue Star Family License Plate Legislation Honoring Families of Fallen Police Officers

New law establishes commemorative license plates for family members of officers who made the ultimate sacrifice

FOR IMMEDIATE RELEASE:

7/15/2026 Governor Maura Healey and Lt. Governor Kim Driscoll

MEDIA CONTACT

Jacqueline Manning, Press Secretary

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(617) 725-4025

Online

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BOSTON — Today, in a ceremony with families of fallen Troopers and Officers,Governor Maura Healey signed ***S2903, An Act honoring Blue Star families*** (https://urldefense.com/v3/__https://malegislature.gov/Bills/194/S2903__;!!CPANwP4y!RI1gHbm4lmqX1HRO3QI4O_IOIowAWaAya9z4KadsZ_fxayUcqbxACuba9XJxHGtMU5Sc9vdwXdSp5lSwiN5uSvQQNhEw_D_UKvy33l8NRw$), creating a new commemorative license plate for eligible family members

of those killed in the line of duty. Thanks to bipartisan legislation filed by Senator Bruce Tarr and Representative Thomas Walsh, the Registry of Motor Vehicles (RMV) will issue the plates free of charge in recognition of the extraordinary sacrifice made by police personnel and their families.

“Every day, police officers put on the badge knowing the risks that come with serving their communities. Their families understand those risks, too. And when an officer is killed in the line of duty, that loss is carried not only by a department, but by parents, spouses, children, siblings, grandchildren, friends, and entire communities,” said **Governor Healey**. “These Blue Star Plates will be a visible tribute to their loved ones’ sacrifices. I hope everyone who sees them on the roads will pause and remember those who gave their lives in the service of others. I’m deeply grateful for the advocacy of the Blue Star families who shared their stories in support of this bill and to the legislators whose leadership made it possible.”

“We appreciate the work of our colleagues in the Legislature on both sides of the aisle who shared our vision to make this important tribute a reality,” said **Lieutenant Governor Kim Driscoll**. “Creating a new license plate is a small gesture from the people of Massachusetts that means so much to Blue Star Families.”

“Blue Star Plates provide a symbol of respect for law enforcement families who made the ultimate sacrifice for the safety of Massachusetts communities,” said **Secretary of Public Safety and Security Gina Kwon**. “We appreciate the Legislature’s work to deliver this bill to the Governor’s Desk, and we pledge our full support to families applying for a plate through the forthcoming Registry of Motor Vehicles’ process. We will never forget the fallen heroes of this Commonwealth.”

"There is no larger sacrifice a public servant can make than giving their lives in the line of duty to protect the public. The Blue Star plate is one way we can honor the families of those heroes for their loss, and in my opinion, we can never do enough to honor our fallen and stand together, in remembrance, with their families and loved ones," said **Massachusetts State Police Colonel Geoffrey Noble**.

“We are honored to have a role in making the Blue Star Family License Plate a reality. Creating this plate serves as a meaningful way to recognize these fallen heroes and their families. We are grateful to all of those who helped to make this possible and look forward to making these plates available so eligible family members can proudly display this symbol of service and support,” said **Registrar of Motor Vehicles Colleen Ogilvie**.

“Every day, law enforcement officers across the Commonwealth put themselves between danger and the people they serve. These heroes left their families and never came home,” said **Senate President Karen E. Spilka (D-Ashland)**. “This law won’t erase these tragic and heartbreaking losses, but it will ensure their memory, and the memories of all our fallen officers, travel with the families who carry it every day. I’m grateful to my Senate colleagues for prioritizing this important bill and to Governor Healey for signing it into law.”

"This bill is about recognizing the sacrifice made by the families of fallen law enforcement officers,” said **House Speaker Ronald J. Mariano (D-Quincy)**. “By making license plates available to the spouses, parents, and children of law enforcement who were killed in the line of duty, Massachusetts is ensuring that the legacy of those who gave their lives in service to our communities is never forgotten. I want to thank Governor Healey for signing this important legislation into law, as well as my colleagues in the House and our partners in the Senate for their hard work on this issue.”

"It’s especially fitting to bestow this highly visible blue license plate in honor and recognition for families of law enforcement officers who made the ultimate sacrifice protecting their communities. With the Governor signing this bill into law, the special plate proudly displaying the “Blue Star Family’ emblem will now be available to spouses, children, and parents of fallen law enforcement officers all across the Commonwealth, at no additional charge from the Registry,” said **Senator Michael J. Rodrigues, Chair of the Senate Committee on Ways and Means (D-Westport)**. “This initiative is a meaningful token of appreciation that will forever honor these brave men and women who paid the price when answering the call to duty.”

"When family members lose a loved one who dies while protecting our public safety, they make an incalculable sacrifice that endures for every day they carry on without that person in their lives,” said **Senate Minority Leader Bruce Tarr (R-Gloucester).** “That sacrifice should be recognized and honored with a license plate that allows all of us to be aware of it, and to capture every opportunity to express our respect, gratitude, and support.”

The bill requires the RMV to issue distinctive motor vehicle license plates and motorcycle license plate emblems that read “Blue Star Family” upon the request of the parent, child, sibling, grandchild or spouse of a law enforcement officer who was killed in the line of duty. The RMV will begin implementing the new license plate program and will announce application details once they become available.

Governor Healey previously **submitted testimony** (/news/governor-healey-supports-blue-star-family-license-plate-legislation) in support of this legislation.

Statements from Impacted Families

Maral Bucci, mother of Massachusetts State Trooper Tamar Bucci

“As the parents of fallen Massachusetts State Trooper Tamar Bucci, my husband and I know that no law, honor, or tribute can ever replace the child we lost. But knowing that Massachusetts has chosen to recognize Blue Star families is a powerful reminder that the sacrifices made by our loved ones, and by the families who stand behind them, will never be forgotten. This legislation is more than a bill. It is a promise that the service, dedication, and ultimate sacrifice of those who wear the badge will continue to be honored for generations to come. We are grateful to the legislators, advocates, and everyone who worked to make this recognition reality. We hope this serves as a lasting tribute not only to Tamar, but to every family whose life has been forever changed by the loss of a loved one in the line of duty. Tamar lived with courage, compassion, and a commitment to serving others. We will continue to honor her legacy by ensuring that her sacrifice, and the sacrifices of all fallen heroes, are never forgotten.”

Barbara Trainor, mother of Massachusetts State Trooper Kevin Trainor

“Our family is grateful to everyone supporting the Blue Star plate and helping ensure Kevin’s service and sacrifice are never forgotten.”

Shannon LaPorta, wife of Uxbridge Police Officer Stephen A. LaPorta:

“As the wife of Uxbridge Police Officer Stephen A. LaPorta (E.O.W. 01-07-26), I want to express my heartfelt gratitude, on behalf of myself, my son Matthew, and our entire family, to State Representative Thomas P. Walsh, presenter of S.2903, “The Blue Star Family License Plate”; to everyone who supported this meaningful legislation; and especially to Governor Maura Healey for signing it into law. This symbol means more to our family than words can fully capture. As a Blue Star Spouse and mother, I am deeply grateful for the kindness, compassion, and support shown to us, and to all Blue Star families who will now be able to proudly display this symbol of sacrifice, service, and remembrance.”

Kristin Tracey, widow of Waltham Police Officer Paul Tracey:

“As the widow of fallen Waltham Police Officer Paul Tracey (EOW December 6, 2023), I am beyond grateful and deeply moved by the passing of the Blue Star License Plate bill. This legislation is more than just a license plate—it is a meaningful symbol of recognition, remembrance, and support for the families who continue to carry the loss of a loved one who made the ultimate sacrifice in service to their community. Knowing that my family will now have this visible tribute is both comforting and inspiring. I sincerely thank everyone who worked tirelessly to make this bill a reality and for honoring the legacy of our fallen heroes and the families they left behind. A special appreciation and acknowledgment to Fraternal Order of Police Director Frank Frederickson and MCOP VP John Nelson for their continued efforts for years to get this bill supported and passed.”

Denise Morency Gannon, mother of Yarmouth Police Sergeant Sean Gannon:

“On behalf of Patrick, Dara and my children and their spouses, we're so grateful to know such compassion and support from everyone who participated in the process of producing the Blue Star License Bill and its passage into Law. We are not present today because even 8 years after the murder of our son, Sergeant Sean Gannon from Yarmouth Police Department, we are entering a second appeal by the defendant, Thomas Latanowich to appeal his case for the second time. Today, as you celebrate the passage of this Bill into Law, we are in the District Attorney's office with his team to listen to the next steps of the Appellate process. We're thinking and praying with you and for you.

On behalf of all families who have experienced a line of duty death and the years that justice for the victim, the Officers who died often takes a toll on their families' physical and mental health, this Gratitude Plate can be a reminder to the public of the daily expense that Police Officers willingly give on behalf of public safety. The streets of Heaven are too crowded with Blue angels. We pray that all officers who serve will remain safe and return home at the end of every shift. God bless everyone who helped to make this Blue Star License Plate a reality.”

The Tarentino Family, family of Auburn Police Officer Ronald Tarentino Jr.:

As a family, we are so gracious for everyone who has had a hand in making the Blue Star License Plates possible, from creating the initiative to where we are today. It was an all-around team effort from all involved and we are beyond proud to support the Blue Star License Plates. This is near and dear to our hearts, and we make every effort to honor the men and women who have made the ultimate sacrifice and support their families in the same way our own family has been supported and what a tremendous honor it is, to

display the pride we have for our heroes and remind those passing by that Law Enforcement Officers are humans. In honor of Officer Ronald Tarentino, Jr., our son, brother, father, husband, uncle and friend - and every officer who has made the ultimate sacrifice in the Line of Duty - you will NEVER BE FORGOTTEN.

Les Vitale, brother of Saugus Police Officer Harold L. Vitale:

“When I receive my Blue Star Plate, I plan to take it in my arms and hold it to my chest, because it will make me feel like I’m getting to hug my brother one more time. Then I’ll probably drive around town with my Blue Star Plate and it will feel like my brother is my guide riding with pride that only a Blue Star family can really understand and appreciate.”

Jim O’Leary, son of Boston Police Patrolman James B. O’Leary:

The passage of the Blue Star License Plate bill is deeply personal to me and brings a lifetime of emotions to the surface. The grief and sorrow of losing a loved one in the line of duty never truly disappear. They remain just beneath the surface, even after nearly 63 years. I was only six years old when my father, A Boston Police Officer, was killed during an armed robbery. Like so many families of fallen officers, we have carried that loss every day. While time moves forward, the sacrifice made by our loved ones is never forgotten

This legislation ensures that Massachusetts’ fallen law enforcement officers will be honored every day on the roads of our Commonwealth. Too often, the memory of those who made the ultimate sacrifice fades from public awareness. The Blue Star License Plate will not only commemorate their courage, dedication, and service, but also serve as a lasting reminder of the risks that law enforcement officers willingly face to protect our communities.

Statements of Support

Scott Hovsepian, President, Massachusetts Coalition of Police:

"Thank you to everyone who has been involved in advocating for the Blue Star Family Plate bill, especially the most important people of all...the Blue Star Families. Their involvement has been nothing short of amazing. They deserve all of the honor and recognition of getting this bill passed. It has always been about them and will always be

about them. We will never forget their sacrifice, and we will never forget those who have gone before us."

Massachusetts Fraternal Order of Police:

“The Massachusetts Fraternal Order of Police is very pleased at the passage of "An Act Honoring Blue Star Families." This important law provides a Blue Star License Plate for the families of fallen law enforcement officers, creating a lasting tribute to their loved ones' service, courage, heroism, and sacrifice.

More than a symbol, the Blue Star License Plate gives families a meaningful way to honor their fallen officer while serving as a constant reminder that their sacrifice will never be forgotten. It represents pride, remembrance, comfort, and the enduring legacy of a hero. It also recognizes the tremendous cost of protecting others and fosters greater respect for the law enforcement profession. I have witnessed firsthand the profound impact the loss of an officer has on a family, a police department, and an entire community. I have also had the privilege of working alongside many families of fallen officers as they advocated for this legislation. They shared with me what this plate would mean to them on a deep personal level. One family member, whose brother was killed in the line of duty more than 30 years ago, told me, "I can't wait to touch my plate. It will feel like I am touching my brother again." Those words capture the profound significance of this tribute.

The Massachusetts Fraternal Order of Police extends its sincere gratitude to the Governor, the Legislature, the bill sponsors, and everyone who helped make this meaningful tribute a reality.”

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Media Contact

Jacqueline Manning, Press Secretary

Phone

(617) 725-4025

Governor Maura Healey and Lt. Governor Kim Driscoll

Since taking office, Governor Healey and Lieutenant Governor Driscoll's top priority has been lowering costs, making life easier and protecting what makes Massachusetts the best place to live, work and learn.

State Organizations (/massachusetts-state-organizations)

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City of Gardner – ***Mayor's Office***
Mayor Michael J. Nicholson

July 20, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Order Waiving Parking Meters Downtown from December 1, 2026, through January 1, 2027

Dear Mr. President and Councilors,

For the past several years, the City has waived parking meter fees during the month of December as a way to support those visiting our downtown businesses during the holiday season.

While there is certainly plenty of time between now and then, as a way to plan ahead and avoid issues of delay that have come up in past years, I am submitting now to ensure adequate time for review, implementation, and communication with all parties involved.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

A MEASURE AUTHORIZING FREE PARKING AT DOWNTOWN PARKING METERS FROM DECEMBER 1, 2026 THROUGH JANUARY 1, 2027

VOTED: To approve a request to allow free parking at metered locations within the downtown area from December 1, 2026, through January 1, 2027, in order to promote availability and convenience to those visiting the business district during the holiday season.

City of Gardner – *Mayor's Office*
Mayor Michael J. Nicholson

July 21, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: A Measure Accepting Donations to the Gardner Animal Shelter

Dear Mr. President and Councilors,

Attached, please find a donation acceptance request for donations of goods and funds received by the Gardner Animal Shelter.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ACCEPTANCE OF DONATIONS AND GIFTS

ANIMAL SHELTER DONATIONS

VOTED: That the City of Gardner is authorized to accept certain donations for the animal shelter and gifts for use by the Executive Department, said acceptance in accordance with the provisions of Chapter 44, Section 53A½ of the General Laws.

Donation by donors according to the attached schedule.

Date	Donation Description	Source	Rec'd by	
6/2/2026	34 cans cat food, 3 lb bag dry cat food,	Donation Bin	TW	
6/5/2026	48 CANS KITTEN FOOD, 19 CANS ADULT CAT FOOD, 2 5 POUND BAGS MEOW MIX	Donation Bin	MJ	
6/6/2026	12 packets dog food, 1 bag royal canin dog food	Donation Bin	AN	
6/8/2026	Ck# 154 $300.00 Donation	Pierre H Lalonde 125 Allen St Gardner MA	MJ	MO27-AC
6/8/2026	Joint health chews, 84 cans cat food, 1 cat scratcher, dog toys & cat toys	Donation Bin	JB	
6/10/2026	Dog treats, 12 cans dog food, 40 cans cat food	Donation Bin	TW	
6/12/2026	Dog Diapers, Puppy Pads & 1 dog ramp	Donation Bin	JB	
6/16/2026	small Cat carrier, 3 cans cat food	Donation Bin	TW	
6/18/2026	6 harnesses, 3 leashes	Donation Bin	JB	
6/19/2026	35 cans cat food, 1 3# dry cat food	Donation Bin	AN	
6/25/2026	$25.00 Tractor Supply Gift Card	Anonymous	AN	
6/26/2026	16# dog food	Donation Bin	JB	
6/29/2026	144 small cans kitten food	Donation Bin	MJ	
6/29/2026	Ck 4755 $500.00 Sheila Brazell 113 Main St Athol, MA 01331 978-249-8444	Donation in Memory of Diane Gurney	TW	MO27-AC
6/29/2026	Ck #136 $480.00 Nocole Johnson PO Box 3 Templeton, MA 01468	Via City hall & Chief McAvene	MJ	MO27-AC

City of Gardner – *Mayor's Office*
Mayor Michael J. Nicholson

July 21, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: A Measure Accepting Donations for the Gardner Food Truck Festival by Gateway Fiber

Dear Mr. President and Councilors,

Attached, please find a donation acceptance request for a donation of $1,000.00 from Gateway Fiber to cover the cost of the live performers who played at the Gardner Food Truck Festival.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ACCEPTANCE OF DONATIONS AND GIFTS

FOOD TRUCK FESTIVAL DONATIONS

VOTED: That the City of Gardner is authorized to accept certain donations for the Food Truck Festival and gifts for use by the Executive Department, said acceptance in accordance with the provisions of Chapter 44, Section 53A½ of the General Laws.

Donation in the amount of $1,000.00 by donor according to the attachment.

CASH ONLY IF ALL CheckLock™ SECURITY FEATURES LISTED ON BACK INDICATE NO TAMPERING OR COPYING

Item 11888 6349

Gateway Fiber Operating, LLC
275 W Service Rd N Ste O
Wright City, MO 63390
888.201.4339

Hancock Whitney Bank
PO Box 4019
Gulfport, MS 39502
35-96/1130

7/9/2026

PAY TO THE ORDER OF City of Gardner $ **1,000.00

One thousand and 00/100********** DOLLARS

PROTECTED AGAINST FRAUD

City of Gardner
50 Manca Dr
Gardner MA 01440
United States

Craig Ceranna MP

MEMO Donation to Gardner Food Truck Festival

[redacted]

© 2021 INTUIT INC. 1-800-433-8810

Gateway Fiber Operating, LLC 6349

6349

City of Gardner 7/9/2026

Date	Description	Orig. Amt.	Amt. Due	Discount	Amount
6/25/2026	Bill #100	1,000.00	1,000.00		1,000.00

111212 Cash : Hancock/Whitney - ... Donation to Gardner Food Truck Festival 1,000.00

City of Gardner – *Mayor's Office*
Mayor Michael J. Nicholson

July 21, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Order Transferring Funds from the DPW New Salt Shed Account into the City's Stabilization Account

Dear Mr. President and Councilors,

As was stated when the order was originally approved and at various points during the project's construction, with the Salt Shed construction project now completed, I am hereby requesting the remaining funds that were appropriated for the project hereby be reappropriated back into the City's stabilization account.

As you may remember, the City Council voted to appropriated $625,000.00 from the City's Stabilization Account to construct a new salt shed for the City. The project has now been completed and came in at a total cost of $513,005.32, leaving a balance of $111,994.68 left to return to the stabilization account.

Attached is the full expense report from this account, which also shows $19,000 that transferred out of this account and into a DPW equipment line for new chassis for the salt trucks.

This officially closes out this project.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDER TRANSFERRING FROM DPW SALT SHED CAPITAL EXPENSE ACCOUNT TO THE STABILIZATOIN TRUST FUND

ORDERED:

That there be and is hereby transferred the sum of One Hundred Eleven Thousand Nine Hundred Ninety-Four and Sixty-Eight Cents ($111,994.68) from the Department of Public Works Salt Shed Capital Expense Account (38199-58315) to the City's Stabilization Trust Fund (70100-32944).

GARDNER, MA

G/L ACCOUNT DETAIL

Org: 38199 Object: 58315
SALT SHED CAP EXPENSE 380 -100-199-58315 -

YEAR	PER	JOURNAL	EFF DATE	SRC	T	PO/REF2	REFERENCE	AMOUNT	P	CHECK NO	WARRANT	VDR NAME/ITEM DESC	COMMENTS
2026	12	280	06/22/2026	GEN	1		RECLEX	-19,000.00	Y		0		
2026	10	17	04/02/2026	API	1	23107	W 26-40	16,000.00	Y	28424026-40		WOODFORD ELECTRIC	SALT SHED
2026	07	154	01/22/2026	API	1	22723	W 26-30	4,925.00	Y	28318626-30		LAROCHELLE CONSTR	SALT SHED
2026	07	30	01/08/2026	API	1	22794	W 26-28	3,324.00	Y	28290526-28		JOHN LEVESQUE	GATE PROJ
2026	06	243	12/24/2025	API	1	22723	W 26-26	93,575.00	Y	28272926-26		LAROCHELLE CONSTR	SALT SHED
2026	06	243	12/24/2025	API	1	22794	W 26-26	6,000.00	Y	28273126-26		JOHN LEVESQUE	GATE PROJ
2026	06	243	12/24/2025	API	1	22975	W 26-26	9,500.00	Y	28273426-26		TWIN CEDARS INC	2012 INTE
2026	06	243	12/24/2025	API	1	22975	W 26-26	9,500.00	Y	28273426-26		TWIN CEDARS INC	2012 INTE
2026	06	157	12/18/2025	API	1		W 26-25	860.00	Y	452026-25		RAGGED HILL, INC	24501 V-B
2026	06	83	12/11/2025	API	1		W 26-24	62.99	Y	28241026-24		MAKI CORPORATION	4271 DRI
2026	06	83	12/11/2025	API	1		W 26-24	30.14	Y	28244426-24		BLUE TARP FINANCI	366398 P
2026	06	25	12/04/2025	API	1		W 26-23	31.64	Y	28222526-23		MAKI CORPORATION	DRIVE PIN
2026	06	25	12/04/2025	API	1		CRED MEMO	-9.20	Y	28222526-23		MAKI CORPORATION	CAL RED S
2026	06	25	12/04/2025	API	1	2600	CK 151292	139.99	Y	151292626-23		AMAZON	SUPPLIES
2026	05	225	11/26/2025	API	1		W 26-22	549.03	Y	28217926-22		FLAGS USA LLC	AMERICAN
2026	05	92	11/13/2025	API	1		W 26-20	112.50	Y	28194226-20		MAKI CORPORATION	DRIVE PIN
2026	05	92	11/13/2025	API	1	22704	W 26-20	4,924.30	Y	28194226-20		MAKI CORPORATION	PRESSURE
2026	05	92	11/13/2025	API	1		W 26-20	920.98	Y	28195526-20		SCHOFIELD POWER E	CHAIN & G
2026	05	23	11/04/2025	GEN	1		RECLEX	76,981.44	Y		0		RECLEX
2026	04	14	10/02/2025	API	1	22185	W 26-14	2,433.00	Y	28114226-14		JACQUES ARCHAMBAU	SALT SHED
2026	03	242	09/25/2025	API	1	22354	W 26-13	3,408.00	Y	419426-13		DAVID R. RICHARD	SCREENED
2026	03	242	09/25/2025	API	1	1900	W 26-13	231.44	Y	28102626-13		USA TODAY MEDIA	751977 O#
2026	03	165	09/18/2025	API	1		W 26-12	167.88	Y	28084526-12		MAKI CORPORATION	BITS - SA
2026	03	79	09/11/2025	API	1		CRED MEMO	-40.09	Y	28072126-11		MAKI CORPORATION	CREDIT IN
2026	03	31	09/04/2025	API	1	22005	W 26-10	3,200.00	Y	410726-10		RAGGED HILL, INC	24501BLOC
2026	02	261	08/28/2025	API	1		W 26-09	40.09	Y	28038026-09		MAKI CORPORATION	LUMBER\SC
2026	02	261	08/28/2025	API	1		W 26-09	20.59	Y	28038026-09		MAKI CORPORATION	PROPANE
2026	02	261	08/28/2025	API	1	22005	W 26-09	25,440.00	Y	408326-09		RAGGED HILL, INC	BLOCKS -
2026	02	261	08/28/2025	API	1	21807	W 26-09	23,384.27	Y	408526-09		MASS BROKEN STONE	COLD PLAN
2026	02	189	08/21/2025	API	1		W 26-08	123.91	Y	28023426-08		MAKI CORPORATION	SALT SHED
2026	02	133	08/14/2025	API	1		W 26-07	37.89	Y	28005626-07		ADOLF JANDRIS & S	OPEN REAL
2026	02	35	08/07/2025	API	1	21885	W 26-06	2,770.00	Y	27991926-06		W.J. GRAVES CONST	24501 BLO
2026	02	35	08/07/2025	API	1	21926	W 26-06	5,900.00	Y	402226-06		DAVID R. RICHARD	JOHN DEER
2026	01	432	07/31/2025	API	1	21883	W 26-05	6,090.00	Y	27986726-05		MILTON RENTS INC	84" VIBRA
2026	01	361	07/24/2025	GEN	1		RECLEX	-9,777.59	Y		0		RECLEX
2026	01	173	07/24/2025	API	1	21818	W 26-04	9,777.59	Y	27978426-04		WOODFORD ELECTRIC	INSTALLAT
2026	01	173	07/24/2025	API	1	21819	W 26-04	5,310.93	Y	27978426-04		WOODFORD ELECTRIC	SERVICE &

Total Amount: 286,945.72

** END OF REPORT - Generated by Mayorist **

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 24, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Accepting a Donation of $2,019.00 from Amanda Morse to the Police Department Domestic Violence Division

Dear Mr. President and Councilors,

Ms. Amanda Morse recently completed a degree program that required an internship with a local human service program and a community service event.

After concluding her internship with the City's Domestic Violence Advocate, Director Morse held a meat raffle to support the Domestic Violence Division's activities. The proceeds of that raffle are the donation here presented for acceptance.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ACCEPTANCE OF DONATIONS AND GIFTS

DOMESTIC VIOLENCE DONATIONS

VOTED: That the City of Gardner is authorized to accept certain donations for the Domestic Violence Advocacy Program and gifts for use by the Police Department, said acceptance in accordance with the provisions of Chapter 44, Section 53A½ of the General Laws.

Donation in the amount of $2,019 by donor Amanda Morse.

City of Gardner – *Mayor's Office*
Mayor Michael J. Nicholson

July 21, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Ordinance To Amend the Code of the City of Gardner to Create A Regular Review Schedule for Various Rates and Fees to Ensure Financial Viability and Responsibility

Dear Mr. President and Councilors,

Following the recent discussions around the water rates and timeline of submission, as well as a way of improving and strengthening a financial future of the City, I am hereby submitting an ordinance proposal that would create a set review period for the City's Water, Sewer, and Solid Waste Enterprise Accounts.

These review periods would require a collaborative conversation between the Mayor, City Council, and Department Heads to make sure rates are staying in market to avoid larger rate increases and surprises, rather than a thoroughly reviewed, thought out conversation.

This ordinance also does not bar additional reviews from taking place at other times, but makes this a minimum standard for the City, alleviating various concerns and constraints that have come up in the past.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDINANCE TO AMEND THE CODE OF THE CITY OF GARDNER TO CREATE A REGULAR REVIEW SCHEDULE OF VARIOUS RATES AND FEES TO ENSURE FINANCIAL VIABILITY AND RESPONSIBILITY.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARDNER AS FOLLOWS:

SECTION 1: That a new Section 92 be added to Article XVIII of Chapter 553 of the Code of the City of Gardner, thereof entitled "Sewer Fees and Rates" be added as follows with all necessary renumbering occurring through the remainder of the chapter:

§553-92: Review of Rates and Fees

a. By March 1 of an even numbered year, the Mayor shall submit to the City Council for their review a written review of the rates and fees associated with this section, along with a financial projection for the costs associated with the Sewer Enterprise Fund for the following five (5) fiscal years.
b. By May 1 of an even numbered year, the Mayor, if deemed necessary following the review mentioned in the previous section, shall submit a proposal for any rate changes that are deemed necessary for the financial health and viability of the Enterprise Fund as well as written justification for such proposal for the City Council's consideration.

SECTION 2: That a new section 14 be added to Article I of Chapter 625 of the Code of the City of Gardner, thereof entitled "Water General Regulations" be added as follows with all necessary renumbering occurring through the remainder of the chapter:

§625-14: Review of Rates and Fees

a. By March 1 of an even numbered year, the Mayor shall submit to the City Council for their review a written review of the rates and fees associated with this section, along with a financial projection for the costs associated with the Water Enterprise Fund for the following five (5) fiscal years.
b. By May 1 of an even numbered year, the Mayor, if deemed necessary following the review mentioned in the previous section, shall submit a proposal for any rate changes that are deemed necessary for the financial health and viability of the Enterprise Fund as well as written justification for such proposal for the City Council's consideration.

SECTION 3: That a new subsection F be added to Section 3 of Chapter 560 of the Code of the City of Gardner, thereof entitled “Annual Fee; Trash Bags” be added as follows:

F. Review of Rates

i. During the month of July of last year of an existing contract for solid waste hauling services the Director of Public Health and Director of Purchasing shall initiate a request for proposals process for a contract renewal for solid waste collection services within the City.

ii. Within two (2) months after receiving proposals for contact renewal, the Mayor and Director of Public Health shall provide a written report to the City Council about cost trends in the solid waste removal services and provide a five (5) year forecast for expenses in the Solid Waste Enterprise Account.

iii. By March 1 of the last year of an existing contract for solid waste hauling services, the Mayor and Director of Public Health shall submit a proposal for any rate changes associated with the new contract to the City Council for their review, along with written justification for any proposed changes.

SECTION 4: That this ordinance take effect upon passage and publication as required by law.

City of Gardner – *Mayor's Office*

Mayor Michael J. Nicholson

July 21, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant St
Gardner, MA 01440

RE: An Order To Reappropriate Unexpended Bond Proceeds to Other Capital Projects- Waterford Asbestos Abatement

Dear Mr. President and Councilors,

After reviewing the documents received from both the Massachusetts Department of Environmental Protection (DEP) and Tighe and Bond Engineering (Tighe and Bond), I am proposing that the City repurpose the unused bond funds that were previously transfers for use at the Community Center to perform a full abatement of all asbestos in the two story wing of the facility, to avoid any issues like this from occurring in the future.

I believe it to be in the best interest of the City to fully remediate any concerns with this area in order to ensure that the project moves forward and the Senior Center is able to open in their new location as soon as possible with the facility in the best optimal condition.

Following the DEP review of the building, the locations that tested positive for asbestos were located within the two-story wing. By completing this abatement project, this would almost fully alleviate any future concerns for the building as it removes the largest area of concern.

Additionally, following conversations with the State Fire Marshall's Office, it was confirmed that the facility does not need to immediately install a full sprinkler system in order for the location to open. While this is something that the City is working toward in a phased-in manner, where this is not an immediate need, I am also requesting that this project include running a new waterline into the building so that it exists and is readily available when funding for a full system installation is obtained.

To do this, I recommend re-allocating the funds that have already been appropriated for use at the Community Center to this purpose to cover the costs as follows:

Costs	
Fire Service Piping to Building	$ 47,250.00
First Floor Ceiling Abatement/Replacement	$ 391,545.00
LED Lighting on 1st Floor	$ 106,234.00
First Story Floor Removal/Abatement and Replacement	$ 170,573.00
Second Story Floor and Ceiling Removal/Abatement	$ 105,630.00
Total for Construction	**$ 821,232.00**
Contingency (15%)	$ 123,184.80
Escalation (3%)	$ 24,636.96
OPM Fee (7.5%)	$ 61,592.40
Engineering Design and Coordination (15%)	$ 98,547.84
Bidding and Construction Services (10%)	$ 82,123.20
Full Total Project Cost	**$1,211,317.20**
Revenue	
Community Center Electrical Upgrades	$ 525,000.00
Community Center Flooring Upgrades	$ 200,000.00
Community Center Concrete Replacement	$ 200,000.00
Total Bond Reallocation	**$ 925,000.00**
Federal Earmark	$ 250,000.00
CDBG Allocation for Waterford	$ 122,000.00
Total Allocated Funds	**$1,297,000.00**

If we are going to do this project, we should do it right. I truly believe this work is the best step forward for the City by correcting the issues that have come up and preventing them from continuing to occur in the future. This path forward gets the project moving forward and the facility open so that we can truly start to see the benefits of a fully integrated community center.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ORDER NO. ____

IN CITY COUNCIL _____, 2026

AN ORDER TO REAPPROPRIATE UNEXPENDED BOND PROCEEDS TO OTHER CAPITAL PROJECTS

BE IT ORDERED, BY THE CITY COUNCIL OF THE CITY OF GARDNER AS FOLLOWS:

That nine hundred twenty-five thousand dollars and zero cents ($925,000.00) is appropriated to pay costs of the following capital projects, each of which have a useful life of at least 30 years:

Project Description	Amount
Waterford Community Center Abatement and Upgrades	$925,000.00
TOTAL:	$925,000.00

and that to meet this appropriation, nine hundred twenty-five thousand dollars and zero cents ($925,000.00) shall be transferred from a portion of the amount borrowed on June 23, 2022, to pay costs of the Waterford Street Elementary School replacement project, which project is complete and no liability remains, such funds being no longer needed to complete that project, in accordance with G.L. c, 44, §20.

Tighe and Bond Estimate Report

Memorandum

Waterford Street School 2-Story Wing Flooring and Ceiling Replacement Estimate

To: Mayor Nicholson

From: Matt Wzorek

Date: 6/11/2026

The City of Gardner is interested in looking at options for partial renovations on the 2-story wing portion of the Waterford Street Community Center. The proposed renovations will address both the ceiling and the flooring in the 2-story wing. We have provided 4 alternative renovation options and developed an approximate cost estimate and construction duration associated with each option. We have included some assumptions related to the governing factors of the existing building conditions as explained in the following.

The general costs provided are advisory and should not be considered of high accuracy. The lump sum for each category was calculated based on the unit cost (e.g. Square Foot) of the item to be addressed only. The two plan sheets attached to this memo show the areas identified for ACM containing flooring and ceiling. This does not include other imperative factors that may be required to be addressed as the renovation work proceeds with the approach of "Change of Occupancy". For example, the estimate of replacement of existing ceiling tiles does not address items like new fire protection, fire alarm, wiring/lighting systems that would be installed in the new ceiling if required by code for this proposed level of alteration.

The timeline estimates for each option shown below is based on the construction duration if the building area is unoccupied. Additionally, the construction timeline we would need a design, bidding and submittal review period which would be about 3 months. Despite providing some flexibility for building operations, it is important to note that conducting the work in separate time segments (dividing the work to first floor and second floor separately, or floor replacement separately from ceiling replacement) will inevitably raise the sum of total costs as it will incur additional costs of crew mobilization, abatement area containment measures, as week as other overhead costs that would be avoided if the proposed segments were coordinated to be performed concurrently.

Cost to Install New Flooring Over Existing Flooring

The chart below summarizes the estimated cost and duration required to install new flooring. Costs and schedule impacts are shown for completing each floor individually, as well as for performing the work on both floors concurrently.

Flooring Area's	Timeline	Cost estimate (Construction Duration Only)
First Floor (5,700 SF)	6-8 weeks	$131,000
Second Floor (8,300 SF)	7-9 weeks	$191,000
First and Second Floor (14,000 SF)	10-12 weeks	$280,000

The option to install new flooring over the existing asbestos containing floor tiles (in lieu of removal and abatement of the existing tiles before installing a new floor) is cheaper; however, it comes with some additional challenges that may impact construction. If the existing floor has already been disturbed and identified in the MassDEP report, MassDEP may require the removal and abatement of the existing Asbestos Containing Floor (not simply allowing a new floor coverage). Assuming that new floor coverage is allowed, the new floor will have to be strictly installed by adhesive, no nailing, anchorage, or coring through the existing floor will be

allowed. Additionally, the finished floor level will increase – nevertheless slightly - if a new floor is applied over the existing, which may cause some issues with floor transitions between spaces and potential issues with doorways where thresholds and door undercuts may have to be adjusted to address conflicts. There might also be a concern if the flooring contractor will provide a warranty on the flooring due to the substrate it is adhered to.

Cost to Fully Remove Existing Flooring and Install New Flooring

The chart below summarizes the estimated cost and duration required to fully abate the existing flooring and install new flooring. Costs and schedule impacts are shown for completing each floor individually, as well as for performing the work on both floors concurrently.

Flooring Area's	Timeline	Cost estimate (Construction Duration Only)
First Floor (5,700 SF)	10-12 weeks	$171,000
Second Floor (8,300 SF)	12-14 weeks	$250,000
First and Second Floor (14,000 SF)	14 -16 weeks	$360,000

Cost to Fully Remove Ceilings and Install New Ceilings

The chart below summarizes the estimated cost and duration required to fully abate the existing ceiling and install a new drop ceiling. Costs and schedule impacts are shown for completing each floor individually, as well as for performing the work on both floors concurrently. As noted above, this table does not include any ancillary items like lighting, fire protection, fire alarm, etc. that may be required with ceiling replacement.

Level	Timeline	Cost estimate (Construction Duration Only)
First Floor (13,200 SF)	12-16 weeks	$392,000
Second Floor (13,200 SF)	12-16 weeks	$392,000
First and Second Floor (26,400 SF)	16-20 weeks	$675,000

Cost to Fully Remove Flooring and Ceilings and Install New flooring and Ceilings

The chart below summarizes the estimated cost and duration required to fully abate the existing flooring and ceilings and install new flooring and drop ceiling. Costs and schedule impacts are shown for completing each floor individually, as well as for performing the work on both floors concurrently.

Ceiling Area's	Timeline	Cost estimate (Construction Duration Only)
First Floor (13,200 SF)	20-24 weeks	$513,000
Second Floor (13,200 SF)	20-24 weeks	$592,000
First and Second Floor (26,400 SF)	24-28 weeks	$950,000

By performing the flooring and ceiling abatement concurrently, the project is expected to realize an estimated cost savings of approximately $100,000, as illustrated in the chart above if both scopes of work at the same time allows the materials to be abated under a single containment area, reducing mobilization, containment setup, labor, and associated project costs. This coordinated approach improves overall efficiency while minimizing disruption and maximizing project value.

Conclusion

The estimates for the proposed partial renovations can only advise the feasibility of construction based solely from a budgetary standpoint. Approval and permitting the work for construction remains crucial for the proposed renovations to be implemented. This closely relates to the "Change of Use" Existing Building Code requirements, and how the renovation work of the Waterford Street School building as a whole should meet those requirements whether through a major renovation project before full occupancy, or by phasing the work over a schedule.

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Legend

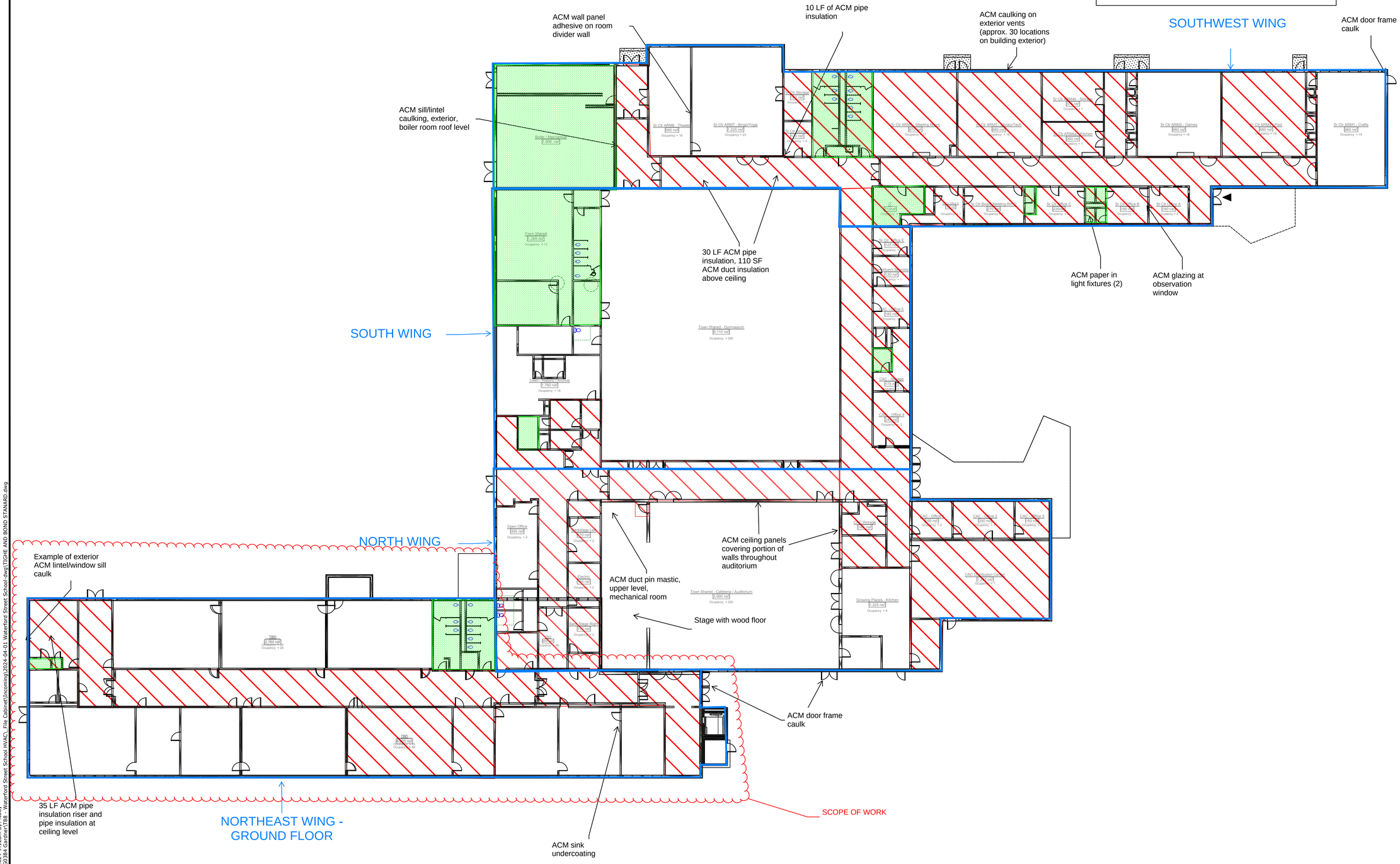
ACM Floor Tile and/ or Mastic Present

Area Without ACM Ceiling Panels

ASSUMED ASBESTOS CONTAINING MATERIALS

- Glue daubs behind mirrors, approximately 12 locations
- Glazing compound associated with hallway glass door systems, approximately 6 locations

N



0 8' 16' 32'

SCALE: 1/16"=1'-0"

Tighe&Bond

CONCEPTUAL PLANS

THIS DOCUMENT IS RELEASED TEMPORARILY FOR PROGRESS REVIEW ONLY. IT IS NOT INTENDED FOR BIDDING OR CONSTRUCTION PURPOSES.

Waterford School Conceptual Re-use Layout Plans

City of Gardner

Gardner, Massachusetts

MARK	DATE	DESCRIPTION

PROJECT NO:	G-0384-088
DATE:	MM/DD/YYYY
FILE:	TIGHE AND BOND STANARD.dwg
DRAWN BY:	
DESIGNED/CHECKED BY:	
APPROVED BY:	

APPENDIX C
ASBESTOS CONTAINING MATERIAL LOCATION PLAN

SCALE: AS SHOWN

SHEET 1 OF 2

Last Saved: 4/10/2024
Plotted On:Apr 15, 2024-9:12am By: NDay
Tighe & Bond J:\G\G0384 Gardner\188 - Waterford Street School HVAC_File Cabinet\Incoming\2024-04-01 Waterford Street School-dwg\TIGHE AND BOND STANARD.dwg

Legend

ACM Floor Tile and/
or Mastic Present

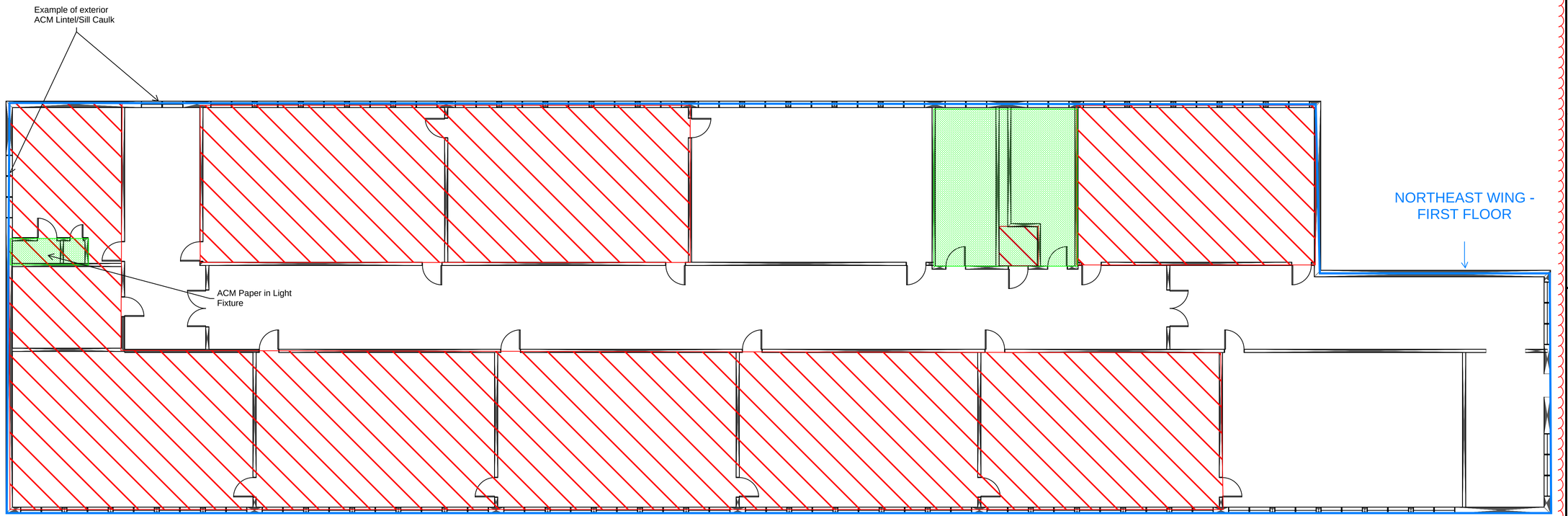
Area Without ACM
Ceiling Panels

ASSUMED ASBESTOS CONTAINING MATERIALS

- Glue daubs behind mirrors, approximately 12 locations.
- Glazing compound associated with hallway glass divider door systems, approximately 12 locations.

N

SCOPE OF WORK



0 4' 8' 16'
SCALE: 1/8"=1'-0"

Tighe&Bond

CONCEPTUAL PLANS

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Waterford School Conceptual Re-use Layout Plans

City of Gardner

Gardner,
Massachusetts

MARK	DATE	DESCRIPTION

PROJECT NO:	G-0384-088
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APPENDIX C
ASBESTOS CONTAINING
MATERIAL LOCATION PLAN

SCALE: AS SHOWN

SHEET 2 OF 2

Last Saved: 4/15/2024
Plotted On:Apr 15, 2024 10:16am By: NDay
Tighe & Bond J:\G\G0384 Gardner\088 - Waterford Street School HVAC_File Cabinet\Incoming\2024-04-01 Waterford Street School-dwg\TIGHE AND BOND STANARD.dwg

Memorandum

Waterford Street School Renovations and Upgrades Cost Estimate

To: Mayor Nicholson

From: Matthew P. Wzorek, PE

Date: 7/1/2026

This memorandum is supplemented by the attached Opinion of Probable Construction Cost (OPCC) for renovations at the two-story wing of Waterford Street School. Similarly to previous correspondence regarding renovations at Waterford Street School, this outline of renovations activities and their associated cost is only for the material and labor associated with the item. The cost and feasibility of the renovations does not include other imperative factors that may be required to proceed with the approach of "Change of Occupancy."

Additionally, it is recommended that the desired renovations be brought to the attention of both the Building Commissioner and the Fire Chief as their approval of proposed renovations is required. This discussion will be beneficial in both planning and permitting the proposed renovations at Waterford Street School.

Ceiling and Floor Abatement / Replacement

Please refer to the Memorandum dated June 11, 2026 for additional information regarding the abatement of asbestos containing materials within the two-story wing and associated pricing options for replacement. The attached OPCC summarizes ceiling and flooring abatement / replacement costs and includes anticipated contractor mobilization costs.

Fire Protection Upgrades

Tighe & Bond is in the process of coordinating with Impact Fire Services, LLC to perform hydrant flow tests in the vicinity of Waterford Street School. The results of these tests will allow our engineers to determine the required size of the fire service pipe to be installed at Waterford Street School. The attached cost estimate includes the estimated cost to install the fire service pipe if it were to be bid with the larger Waterford Street School Project and subject to prevailing wages.

The fire protection option included in the attached OPCC accounts for the installation of sprinklers and piping to be installed on the first and second floor of the two-story wing. It is not feasible to only install sprinklers on the first floor of this building wing. Partially installing fire protection systems is not feasible or permitted by regulating codes. The presence of fire suppression equipment that is inoperable can create a false sense of safety and may not be permitted by the Building Commissioner or Fire Chief. This system will include connecting a standpipe to the previously mentioned fire service pipe to make the sprinkler system fully-operable.

The feasibility of this option is dependent on approval from the Building Commissioner and Fire Chief that it is acceptable to only install sprinklers in the two-story wing of this building. It is possible that after discussions with the Building Commissioner and Fire Chief, the installation of a fire suppression system cannot only be completed within the two-story wing and may require whole building coverage. It is estimated that the material cost for installation of a fire suppression system within the entire building will cost $504,000.

Fire Alarm Upgrades

We have included the anticipated cost to install fire alarms (both ceiling mounted and wall mounted) throughout the entire building. Similarly to the fire suppression scope, partial protection cannot be provided in properties where full systems are legally required (e.g., specific commercial occupancies, educational occupancies, high-rises, or residential buildings exceeding certain unit counts or heights). Any partial installation, modification, or disconnection of an existing fire alarm system must be approved in writing by the local fire chief or building official. It is our understanding that these permissions may not be granted for partial protection at Waterford Street School. It is estimated that the material cost for the installation of a fire alarm system within the entire building will cost $432,000.

LED Lighting

The estimated cost to install LED lighting throughout the first floor of the two-story wing is included in the attached OPCC.

Owner's Project Manager

Any public building project estimated to cost more than $1.5 million, Massachusetts law requires a public agency to the services of an Owner's Project Manager (OPM). The maximum construction cost estimated on the attached OPCC, including construction contingency and escalation, exceeds the $1.5 million threshold. Based on Tighe & Bond's experience with OPM fees, a percentage fee was incorporated into the cost estimate for the OPM services.

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ENGINEER'S OPINION OF PROBABLE COST **Tighe&Bond**

Project: **Waterford Street School Interior Upgrades** Prepared By: JMP

Location: **Gardner, MA** Date Prepared: 7/1/2026

Updated:

Estimate Type:

☑ Conceptual ☐ Construction

☐ Preliminary (w/o plans) ☐ Change Order

☐ Design Development @ _____ % Complete

Item No.	Quantity	Unit	Fire Service Piping (Water Main to Building)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 2,250.00	$ 2,250
2	200	LF	6" Ductile Iron Pipe and Fittings	$ 175.00	$ 35,000
3	1	EA	6" DCVA, Riser Check Valve	$ 10,000.00	$ 10,000
				Construction Total	$ 47,250

Note: Estimate assumes use of 6" DI Pipe as this is the minimum size required by NFPA 13 for Fire Supression Sprinkler Systems. Confirmation of pipe sizing upon completion of flow testing.

Item No.	Quantity	Unit	First Floor Ceiling (2-Story Wing)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 18,645.00	$ 18,645
2	13,200	SF	Remove and Dispose of Asbestos Ceiling Tiles	$ 9.00	$ 118,800
3	13,200	SF	Install New Drop Ceiling	$ 19.25	$ 254,100
				Construction Total	$ 391,545

Item No.	Quantity	Unit	First Floor and Second Floor Fire Supression (2-Story Wing)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 9,800.00	$ 9,800
2	13,500	SF	Sprinkler Coverage for First Floor	$ 7.00	$ 94,500
3	14,500	SF	Sprinkler Coverage for Second Floor	$ 7.00	$ 101,500
				Construction Total	$ 205,800

Note: Assumes building comissioner and fire chief will permit installation of fire supression system only in the 2-story wing, leaving the unoccupied section unprotected. It is not feasible to only install sprinkler on the first floor of this wing as work within the wing will likely be permitted as one, thus second floor fire supression must be operable.

Item No.	Quantity	Unit	Fire Supression (Whole Building)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 25,200.00	$ 25,200
2	72,000	SF	Sprinkler Coverage for Entire Building	$ 7.00	$ 504,000
				Construction Total	$ 529,200

Note: Total construction cost to install fire supression system for full building coverage if partial coverage is not permitted by the fire chief and/or building comissioner.

Item No.	Quantity	Unit	Fire Alarm System (Whole Building)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 21,600.00	$ 21,600
2	72,000	SF	Voice Evac Fire Alarm System	$ 6.00	$ 432,000
				Construction Total	$ 453,600

Note: Partial connection of a fire alarm system is not permitted in properties where full systems are legally required. Cost estimate assumes alarming the full building to comply with code.

Item No.	Quantity	Unit	LED Lighting Installed (on 1st Floor of 2-Story Wing)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 5,058.75	$ 5,059
2	5,700	SF	LED Lighting (flat panels, 0-10V dimming)	$ 7.25	$ 41,325
3	5,700	SF	Emergency Lighting and Exit Signs(battery backed	$ 6.00	$ 34,200
4	5,700	SF	0-10V Lighting Controls	$ 1.50	$ 8,550
5	5,700	SF	Outlet Boxes, Raceways and Wiring	$ 2.00	$ 11,400
6	5,700	SF	Circuit breakers and Connnections	$ 1.00	$ 5,700
				Construction Total	$ 106,234

Item No.	Quantity	Unit	Flooring Abatement and Replacement (on 1st Floor of 2-Story Wing)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 8,122.50	$ 8,123
2	5,700	SF	Remove and Dispose of Asbestos Floor Tiles	$ 7.00	$ 39,900
3	5,700	SF	Install Vinyl Flooring System	$ 21.50	$ 122,550
				Construction Total	$ 170,573

Item No.	Quantity	Unit	Flooring System Installed over ACM Flooring Tiles (on 1st Floor of 2-Story Wing)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 6,270.00	$ 6,270
2	5,700	SF	Install Vinyl Flooring System	$ 22.00	$ 125,400
				Construction Total	$ 131,670

Item No.	Quantity	Unit	Second Floor Abatement (of 2-Story Wing)	Unit Price	Amount
1	1	LS	Mobilization and Demobilization	$ 5,030.00	$ 5,030
2	8,300	SF	Remove and Dispose of Asbestos Ceiling Tiles	$ 8.00	$ 66,400
3	5,700	SF	Remove and Dispose of Asbestos Flooring Tiles	$ 6.00	$ 34,200
				Construction Total	$ 105,630

Note: Assumes Unit Cost Savings as Abatement will be done under 1 Containment with flooring. Assumes no replacement of ceiling or flooring.

Maximum Esitmated Contruction Cost	Construction Total
Fire Service Piping (Water Main to Building)	$ 47,250
First Floor Ceiling (2-Story Wing)	$ 391,545
Fire Supression (Whole Building)	$ 529,200
Fire Alarm System (Whole Building)	$ 453,600
LED Lighting Installed (on 1st Floor of 2-Story Wing)	$ 106,234
Flooring Abatement and Replacement (on 1st Floor of 2-Story Wing)	$ 170,573
Second Floor Abatement (of 2-Story Wing)	$ 105,630
Construction Subtotal	$ 1,804,100
Contingency (15%)	$ 270,700
Escalation (3%)	$ 54,200
Estimated Owner's Project Manager Fee (7.5%)	$ 135,400
Engineering Design and Coordination (15%)	$ 270,700
Bidding and Construction Phase Services (10%)	$ 180,500
Total Project Cost	$ 2,715,600

Tighe and Bond 30-Year Engineer Verification Stamped Letter

G-0384

July 2, 2026

Mayor Nicholson
City of Gardner
95 Pleasant Street
Gardner, MA 01440

Re: Reappropriation of Unexpended Bond Proceeds – Waterford Street School

Dear Mayor Nicholson:

It is our understanding that the City of Gardner (City) has unexpended funds from a previous project and intends to reallocate these funds to other capital improvements projects. The City has provided Tighe & Bond with the following list of potential projects for funding:

Waterford Community Center Sprinkler System

Waterford Community Center Asbestos Abatement

We understand that only projects with an estimated minimum useful life of 30 years are eligible for this funding. After reviewing the scopes of work and available data for the materials that would be generally utilized, it is our opinion that the following projects can be expected to have a minimum useful life of 30 years. Our understanding of the project scopes and assumptions regarding the types of materials and equipment to be used are described below.

Waterford Community Center Sprinkler System: The installed sprinkler piping system is expected to achieve a service life of at least 30 years under normal operating conditions, assuming proper installation, routine inspection, testing, maintenance, and replacement of wear items and components as required by NFPA 25 and the equipment manufacturers.

Waterford Community Center Asbestos Abatement: Removal of existing Asbestos containing materials within the building is considered to have greater than 30 years of useful life as it removed the potential for future exposure to the building or community.

53 Southampton Road
Westfield, MA 01085

TIGHEBOND.COM

T 413.562.1600

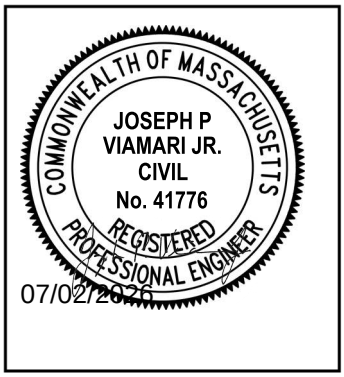
If you have any questions, please do not hesitate to contact me at 413.572.3281 or via email at jpviamari@tighebond.com.

Respectfully yours,

Tighe & Bond, Inc.

Joseph P. Viamari, Jr., PE,LEED AP
SENIOR VISE PRESIDENT

Registered Professional Engineer Block and Signature



Signature and Date

\\tighebond.com\data\Data\Projects\G\G0384 Gardner\PROP\Engineers letter for bond Proceeds - Sprinklers and Abatement.docx

DEP Inspection Report

Pace Analytical Services, LLC - Woburn
Item 11892
22 Cummings Park
Woburn, MA 01801
(781) 935-3212
www.pacelabs.com

Client:
MASS DEP - CERO
8 New Bond St.
Worcester, MA 01606
Attn: Juan Rascon

Certificate of Analysis

Project Name: 70 Waterford St. Gardner MA

Proiect ID: 26018253

Date Collected: 05/21/26
Date Received: 05/21/26
Date Analyzed: 05/29/26
Date Reported: 05/29/26
Job ID: 26018253

Test Requested: **Asbestos Bulk Analysis, Polarized Light Microscopy (PLM):** EPA 600/R-93/116: Method for Asbestos in Bulk Building Materials, EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method for Asbestos in Bulk Insulation Samples

Sample Identification		Physical Description of Sample/Layer	Homo-geneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos		
Client	Lab Sample Number				Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
01	**26018253-001-A**	**Gray Floor Tile**	**N**	**60**	**AN, CHRY**	**5,2**	**0**	**93**	
	26018253-001-B	Black Cementitious Material	N	40	ND	0	0	100	
02	**26018253-002-A**	**Black Mastic**	**N**	**100**	**CHRY**	**7**	**3**	**90**	**CELL**
03	**26018253-003-A**	**Gray Floor Tile**	**N**	**80**	**AN, CHRY**	**5**	**0**	**95**	
	26018253-003-B	Brown Top Mastic	N	20	ND	0	2	98	CELL, SYN
04	26018253-004-A	Brown Mastic	N	100	ND	0	<1	100	CELL
05	26018253-005-A	Brown Glue Daub	N	100	ND	0	0	100	
06	26018253-006-A	Gray Debris Boiler Room	N	100	ND	0	<1	100	FBG
07	**26018253-007-A**	**Brown Floor Tile 9x9**	**N**	**100**	**CHRY**	**<1**	**0**	**100**	
08	**26018253-008-A**	**Black Mastic**	**N**	**100**	**CHRY**	**2**	**3**	**95**	**CELL**

Becca Foster
Analyst

Aimee Cormier
Lab Manager

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
TR Tremolite
Trace Less Than 1%
ND None Detected

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
D Diatoms

CELL Cellulose
MW Mineral Wool
FBG Fiberglass
SYN Synthetic
WO Wollastonite
FT Fibrous Talc
AH Animal Hair
NAC Non-Asbestiform AC
NTR Non-Asbestiform TR

Pace Analytical Services, LLC - Woburn
Item 11892
22 Cummings Park
Woburn, MA 01801
(781) 935-3212
www.pacelabs.com

Client:
MASS DEP - CERO
8 New Bond St.
Worcester, MA 01606
Attn: Juan Rascon

Certificate of Analysis

Project Name: 70 Waterford St. Gardner MA

Proiect ID: 26018253

Date Collected: 05/21/26
Date Received: 05/21/26
Date Analyzed: 05/29/26
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Test Requested: **Asbestos Bulk Analysis, Polarized Light Microscopy (PLM):** EPA 600/R-93/116: Method for Asbestos in Bulk Building Materials, EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method for Asbestos in Bulk Insulation Samples

Sample Identification		Physical Description of Sample/Layer	Homo-geneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos		
Client	Lab Sample Number				Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
09	26018253-009-A	Black Cove Base	N	100	ND	0	0	100	
10	26018253-010-A	Brown Adhesive	N	100	ND	0	5	95	CELL
11	26018253-011-A	Multicolored Pipe Insulation	N	100	ND	0	5	95	CELL, SYN
12	26018253-012-A	White Floor Tile 12x12	N	100	ND	0	<1	100	CELL
13	2601253-013-A	Tan Mastic	N	100	ND	0	12	88	CELL, FBG
14	**26018253-014-A**	**Red Floor Tile Red**	**N**	**100**	**CHRY**	**<1**	**2**	**98**	**CELL**
15	**2601853-015-A**	**Black Mastic**	**N**	**100**	**CHRY**	**5**	**3**	**92**	**CELL**
16	26018253-016-A	Green Floor Tile 9x9	N	100	ND	0	0	100	
17	**26018253-017-A**	**Black Mastic**	**N**	**100**	**CHRY**	**5**	**0**	**95**	
18	26018253-018-A	Black Cove Base	N	100	ND	0	0	100	

Becca Foster
Analyst

Aimee Cormier
Lab Manager

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
TR Tremolite
Trace Less Than 1%
ND None Detected

Q Quartz
C Carbonates
G Gypsum
M Mica
T Tar
P Perlite
B Binder
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CELL Cellulose
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FT Fibrous Talc
AH Animal Hair
NAC Non-Asbestiform AC
NTR Non-Asbestiform TR

Pace Analytical Services, LLC - Woburn
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22 Cummings Park
Woburn, MA 01801
(781) 935-3212
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NVLAP TESTING
NVLAP LAB CODE 200090-0

Client:
MASS DEP - CERO
8 New Bond St.
Worcester, MA 01606
Attn: Juan Rascon

Certificate of Analysis

Project Name: 70 Waterford St. Gardner MA

Proiect ID: 26018253

Date Collected: 05/21/26
Date Received: 05/21/26
Date Analyzed: 05/29/26
Date Reported: 05/29/26
Job ID: 26018253

Test Requested**: Asbestos Bulk Analysis, Polarized Light Microscopy (PLM):** EPA 600/R-93/116: Method for Asbestos in Bulk Building Materials, EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method for Asbestos in Bulk Insulation Samples

Sample Identification		Physical Description of Sample/Layer	Homo-geneous (Y/N)	Layer Percentage	Asbestos		Non-Asbestos		
Client	Lab Sample Number				Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition
19	26018253-019-A	Tan Adhesive	N	100	ND	0	30	70	CELL
20	**26018253-020-A**	**White Cementitious Ceiling Tile**	**N**	**100**	**CHRY**	**10**	**5**	**85**	**CELL**

Becca Foster
Analyst

Aimee Cormier
Lab Manager

A Amosite
AC Actinolite
AN Anthophyllite
CHRY Chrysotile
CR Crocidolite
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Trace Less Than 1%
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Pace Analytical Services, LLC - Woburn
Item 11892
22 Cummings Park
Woburn, MA 01801
(781) 935-3212
www.pacelabs.com

Client:	Certificate of Analysis	
MASS DEP - CERO 8 New Bond St. Worcester, MA 01606 Attn: Juan Rascon	**Project Name: 70 Waterford St. Gardner MA** Proiect ID: 26018253	Date Collected: 05/21/26 Date Received: 05/21/26 Date Analyzed: 05/29/26 Date Reported: 05/29/26 Job ID: 26018253

General Notes

* **ND** indicates no asbestos was detected; the method detection limit is 1%.

* **Trace** or "<1" indicates asbestos was identified in the sample, but the concentration is less than 1%.

* All regulated asbestos minerals (i.e. chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite) were sought in every layer of each sample, but only those asbestos minerals detected are listed. Amosite is the common name for the asbestiform variety of the minerals cummingtonite and grunerite. Crocidolite is the common name used for the asbestiform variety of the mineral riebeckite.

* Tile, vinyl, foam, plastic, and fine powder samples may contain asbestos fibers of such small diameter (< 0.25 microns in diameter) that these fibers cannot be detected by PLM. For such samples, more sensitive analytical methods (e.g. TEM) are recommended if greater certainty about asbestos content is required. Semi-quantitative bulk TEM floor tile analysis is accepted under NESHAP regulations.

* These results are submitted pursuant to Pace Analytical Services, LLC's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted.

* Unless notified in writing to return the samples covered by this report, Pace Analytical Services, LLC will store the samples for a minimum period of thirty (30) days before discarding. A shipping and handling charge will be assessed for the return of any samples.

* Pace Analytical Services, LLC does not guarantee the results of tape lifts, microvacs, wipe, and/or debris samples. Accurate analysis cannot be performed due to particle size, media used, and/or amount of material given. Analysis of these materials should be performed by a TEM. A result of ND does not indicate that the sample area does not contain asbestos. It means the analyst could not identify asbestos in the specific sample for the reasons listed above.

Notes Required by NVLAP

* Pace Analytical Services, LLC shall be responsible for all the information provided in the report, except when information is provided by the customer. Pace Analytical Services, LLC is not responsible for the sampling activity.

* This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

* This test report relates only to the items tested.

* This report is not valid unless it bears the name of a NVLAP-approved signatory.

Titi Siriphan

From: George Tyros
Sent: Wednesday, January 29, 2025 8:54 PM
To: Alek Dernalowicz; Titi Siriphan
Subject: Re: Finance Committee - January 29, 2025 Meeting Recap

Thank you Mr. Chair,

Madam Clerk,

Please add items 11479, 11480, 11481 to the next Council agenda.

Please create an item 'Discussions in regard to the City's Health Insurance Payments and Trust Fund' and assign it to the Finance Committee.

Thank you both,
George

From: Alek Dernalowicz <adernalowicz@gardner-ma.gov>
Sent: Wednesday, January 29, 2025 8:48 PM
To: Titi Siriphan <tsiriphan@gardner-ma.gov>; George Tyros <gtyros@gardner-ma.gov>
Subject: Finance Committee - January 29, 2025 Meeting Recap

Mr. President and Madam Clerk,

Below is a recap of the the actions taken at the January 29, 2025 Finance Committee Meeting. They are organized into sections based on the outcome at the meeting.

Assigned/Referred Items - To Place On The Full Council Calendar:

- 11479 – A Communication from the Mayor regarding the City's Health Insurance Payments and Trust Fund.
- 11480 – An Order Authorizing the City to Borrow $100,000 for the Feasibility Study and Schematic Design of the Middle School Roof Replacement Project in Conjunction with the Massachusetts School Building Authority.
- 11481 –An Ordinance to Amend the Code of the City of Gardner, Chapter 171, thereof entitled Personnel, to add the position of Human Resources Manager to the Compensation Schedule.

New Items Originating in Committee - To Place On The Full Council Calendar:

- None

New Items Originating in Committee - To Place On The Finance Committee Calendar:

- Discussions in regard to the City's Health Insurance Payments and Trust Fund

- Note: This proposal was made via motion during discussion and related to *11479 – A Communication from the Mayor regarding the City's Health Insurance Payments and Trust Fund.* This will require a new item number .

In Subcommittee - To Remain With The Finance Committee:

- 11457 – An Ordinance to Amend the Code of the City of Gardner to have the Community Development Block Grant Steering Committee Meet Monthly.
- 11454 – Report on the Investigation of the Maki Park Project.
- 11477 – Discussions in Regard to Internal Working Groups Review of the Salary Study.

I have retained the *"New Items Originating in Committee - To Place on the Full Calendar"* subsection to avoid confusion with *"New Items Originating in Committee - To Place on the Finance Committee Calendar"*.

Please let me know if you have any questions.

Best,

--
Aleksander H. Dernalowicz, Esq.
Ward 5 City Councillor
(978) 632-0243

ACCOUNT NUMBER	FUND NAME	BEGINNING MARKET VALUE	BEGINNING PRINCIPAL (Non-Expend)	BEGINNING EARNINGS (Expendable)	NET INCOME	REALIZED GAIN/LOSS	NET EARNINGS	TRANSFERS OF PRINCIPAL (Non-Expend)	TRANSFERS OF EARNINGS (Expendable)	ENDING PRINCIPAL (Non-Expend)	ENDING EARNINGS (Expendable)	ENDING CASH VALUE	CHANGE IN UNREALIZED GAIN/LOSS	UNREALIZED GAIN/LOSS	ENDING MARKET VALUE
	MISCELLANEOUS FUNDS														
	AGNES BOURNE FUND	$3,862.46	$535.00	$3,158.97	$4.99	$0.00	$4.99	$0.00	$0.00	$535.00	$3,163.96	$3,698.96	$11.37	$179.86	$3,878.82
	ALICE M. GOFF	$782.06	$508.18	$239.76	$1.01	$0.00	$1.01	$0.00	$0.00	$508.18	$240.77	$748.95	$2.30	$36.42	$785.37
	ALLEN-SAWIN	$315.14	$204.91	$96.48	$0.41	$0.00	$0.41	$0.00	$0.00	$204.91	$96.89	$301.80	$0.92	$14.67	$316.47
	EDWARD & AILI TUHKUNEN FLOWER FUND	$1,553.00	$514.25	$971.00	$2.01	$0.00	$2.01	$0.00	$0.00	$514.25	$973.01	$1,487.26	$4.57	$72.32	$1,559.58
	EDWARD L. KNOWLTON	$2,408.37	$521.93	$1,781.38	$3.11	$0.00	$3.11	$0.00	$0.00	$521.93	$1,784.49	$2,306.42	$7.09	$112.15	$2,418.57
	ADELAIDE GIBSON	$2,508.78	$422.84	$1,976.50	$3.24	$0.00	$3.24	$0.00	$0.00	$422.84	$1,979.74	$2,402.58	$7.38	$116.82	$2,519.40
	HAROLD & HELENE K. TAYLOR	$1,925.26	$417.81	$1,423.46	$2.49	$0.00	$2.49	$0.00	$0.00	$417.81	$1,425.95	$1,843.76	$5.66	$89.65	$1,933.41
	LUCY VAN BENTHEYSON	$2,505.76	$522.71	$1,873.74	$3.24	$0.00	$3.24	$0.00	$0.00	$522.71	$1,876.98	$2,399.69	$7.37	$116.68	$2,516.37
	MARIE ST. GERMAINE	$742.29	$508.18	$201.73	$0.96	$0.00	$0.96	$0.00	$0.00	$508.18	$202.69	$710.87	$2.19	$34.57	$745.44
	SNELL-ARCHIBALD	$1,552.14	$514.62	$969.81	$2.01	$0.00	$2.01	$0.00	$0.00	$514.62	$971.82	$1,486.44	$4.57	$72.28	$1,558.72
	SELMA ROTH	$325.05	$204.68	$106.19	$0.42	$0.00	$0.42	$0.00	$0.00	$204.68	$106.61	$311.29	$0.96	$15.14	$326.43
	WILLIAM F. THOMAS	$120.39	$102.24	$12.90	$0.16	$0.00	$0.16	$0.00	$0.00	$102.24	$13.06	$115.30	$0.36	$5.61	$120.91
	SUBTOTALS	$18,600.70	$4,977.35	$12,811.92	$24.05	$0.00	$24.05	$0.00	$0.00	$4,977.35	$12,835.97	$17,813.32	$54.74	$866.17	$18,679.49
	PERPETUAL CARE FUNDS														
	CEMETERY PERPETUAL CARE	$500,523.60	$447,448.76	$31,240.53	$644.01	$0.00	$644.01	$0.00	($2,254.70)	$447,448.76	$29,629.84	$477,078.60	$1,363.44	$23,197.75	$500,276.35
	SUBTOTALS	$500,523.60	$447,448.76	$31,240.53	$644.01	$0.00	$644.01	$0.00	($2,254.70)	$447,448.76	$29,629.84	$477,078.60	$1,363.44	$23,197.75	$500,276.35
	BLUE CROSS BLUE SHIELD														
	BLUE CROSS BLUE SHIELD	$2,313,056.50	$2,090,898.03	$121,256.15	$2,990.22	$0.00	$2,990.22	$0.00	$0.00	$2,090,898.03	$124,246.37	$2,215,144.40	$6,808.14	$107,710.46	$2,322,854.86
	SUBTOTALS	$2,313,056.50	$2,090,898.03	$121,256.15	$2,990.22	$0.00	$2,990.22	$0.00	$0.00	$2,090,898.03	$124,246.37	$2,215,144.40	$6,808.14	$107,710.46	$2,322,854.86
	COL. THOMAS GARDNER TR FUND														
	COL. THOMAS GARDNER TR FUND	$729.93	$374.69	$323.40	$0.94	$0.00	$0.94	$0.00	$0.00	$374.69	$324.34	$699.03	$2.15	$33.99	$733.02
	SUBTOTALS	$729.93	$374.69	$323.40	$0.94	$0.00	$0.94	$0.00	$0.00	$374.69	$324.34	$699.03	$2.15	$33.99	$733.02
	STABILIZATION FUNDS														
	STABILIZATION	$3,800,007.45	$3,414,841.16	$219,398.81	$4,912.49	$0.00	$4,912.49	$0.00	$0.00	$3,414,841.16	$224,311.30	$3,639,152.46	$11,184.77	$176,952.25	$3,816,104.71
	SPECIAL PURPOSE STAB - VEHICLE	$57,351.26	$50,781.80	$4,067.63	$74.14	$0.00	$74.14	$0.00	$0.00	$50,781.80	$4,141.77	$54,923.57	$168.81	$2,670.64	$57,594.21
	SPECIAL PURPOSE CAPITAL PROJECTS	$34,710.41	$31,502.00	$1,694.24	$44.87	$0.00	$44.87	$0.00	$0.00	$31,502.00	$1,739.11	$33,241.11	$102.16	$1,616.33	$34,857.44
	SPECIAL EDUCATION STABILIZATION	$34,710.41	$31,502.00	$1,694.25	$44.88	$0.00	$44.88	$0.00	$0.00	$31,502.00	$1,739.13	$33,241.13	$102.17	$1,616.33	$34,857.46
	SUBTOTALS	$3,926,779.53	$3,528,626.96	$226,854.93	$5,076.38	$0.00	$5,076.38	$0.00	$0.00	$3,528,626.96	$231,931.31	$3,760,558.27	$11,557.91	$182,855.55	$3,943,413.82
	GENERAL FUNDS														
	GENERAL FUND	$268,508.60	$251,599.17	$5,196.30	$347.11	$0.00	$347.11	$0.00	$0.00	$251,599.17	$5,543.41	$257,142.58	$790.32	$12,503.45	$269,646.03
	SUBTOTALS	$268,508.60	$251,599.17	$5,196.30	$347.11	$0.00	$347.11	$0.00	$0.00	$251,599.17	$5,543.41	$257,142.58	$790.32	$12,503.45	$269,646.03

ACCOUNT NUMBER	FUND NAME	BEGINNING MARKET VALUE	BEGINNING PRINCIPAL (Non-Expend)	BEGINNING EARNINGS (Expendable)	NET INCOME	REALIZED GAIN/LOSS	NET EARNINGS	TRANSFERS OF PRINCIPAL (Non-Expend)	TRANSFERS OF EARNINGS (Expendable)	ENDING PRINCIPAL (Non-Expend)	ENDING EARNINGS (Expendable)	ENDING CASH VALUE	CHANGE IN UNREALIZED GAIN/LOSS	UNREALIZED GAIN/LOSS	ENDING MARKET VALUE
GRAND TOTALS		$7,028,198.86	$6,323,924.96	$397,683.23	$9,082.71	$0.00	$9,082.71	$0.00	($2,254.70)	$6,323,924.96	$404,511.24	$6,728,436.20	$20,576.70	$327,167.37	$7,055,603.57

ACCOUNTING METHOD : BOOK VALUE

CURRENT ACCRUAL:	$62,530.25
TRANSFER IN TRANSIT:	$0.00
UNREALIZED GAIN/LOSS:	$327,167.37
MONTH ENDING STATEMENT VALUE:	**$7,055,603.57**

The information contained herein has been created by your financial advisor, is provided for informational purposes only as a courtesy to you, should not be relied upon for tax purposes, is based upon sources believed to be reliable, and is not intended to replace your custodial statements. No guarantee is made to the completeness or accuracy of the information. Commonwealth urges you to compare your account custodian statements with the statements you receive from us or your advisor. If you believe there are material discrepancies between statements, please contact Commonwealth directly at 800.251.0080. Securities and advisory services offered through Commonwealth Financial Network, Member FINRA/SIPC, a Registered Investment Adviser. Past performance is not indicative of future results. 13364323

A RESOLUTION RELATING TO THE WITHDRAWAL OF FUNDS FROM THE STABILIZATION ACCOUNT AND THE CONSTRUCTION OF THE NEW DEPARTMENT OF PUBLIC WORKS SALT SHED

WHEREAS, On January 25, 2024 the Mayor submitted to the City Council a request to withdraw Six Hundred Twenty Five Thousand dollars from the Stabilization Account for the construction of a new salt shed; and

WHEREAS, The Mayor described this plan as a "loan from ourselves" that included a repayment plan which would be fulfilled by increasing the amount of money deposited from 'free cash' on an annual basis to be an additional ten percent of the total certified funds on top of the regular five percent;

NOW THEREFORE, the City Council hereby expresses its will that the stabilization fund should be made whole from this withdrawal as judged by the following conditions:

1. The deposit of six hundred twenty five thousand dollars plus the interest those funds would have otherwise accrued had they not been withdrawn.

2. Only funds deposited that make total annual deposits into the stabilization account to exceed five percent of the total certified free cash amount for that fiscal year will be credited towards repayment of the original withdrawal; and

FURTHER, Until such time that the repayment conditions are met, the City Council will not consider the matter concluded, and will strictly scrutinize requests for appropriations from 'free cash' that would cause to prevent funds from being available for repayment.

_____

George Tyros, City Council President
On Behalf of the City Council of the City of Gardner

4

CITY OF GARDNER
LAW DEPARTMENT

Vincent Pusateri II
City Solicitor

Christopher Batinsey
Assistant City
Solicitor

128 Prichard Street
Fitchburg, MA 01420

Telephone (978) 342-6081
Fax (978) 343-0600

Writer's Email:
cbatinsey@batinseylegal.com

April 21, 2026

Mayor Michael Nicholson
City of Gardner
95 Pleasant Street
Gardner, Massachusetts 01440

Dear Mayor Michael Nicholson:

As you requested, this letter addresses whether the appropriation approved under Order No. 11180 for the "DPW Salt Shed" was an appropriate account from which to purchase equipment necessary to operate the salt shed, including a salt spreader installed in the bed of City vehicles.

In my opinion, the appropriation was properly used for this purpose. The City Auditor certified that sufficient funds were available under this account and further certified that the appropriate City officer was authorized to execute the contract. Under Massachusetts General Laws, the Auditor bears responsibility for confirming both the availability of an appropriation and the authority of the executing official.

General Laws c. 41 § 52 provides;

"The auditor … shall approve the payment of all bills or pay rolls of all departments before they are paid by the treasurer, and may disallow and refuse to approve for payment, in whole or in part, any claim as fraudulent, unlawful or excessive… "

General Laws c. 44, § 31C provides:

"No contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or public work by any city or town … shall be deemed to have been made until the auditor … has certified … that an appropriation in the amount of such contract is available … and that an officer … of the city … has been authorized to execute said contract and approve all requisitions and change orders."

Massachusetts courts have consistently recognized that auditor certification under c. 44 is a substantive statutory safeguard and a condition precedent to a valid municipal contract. See, e.g., Bradston Assocs., LLC v. Cabral, 67 Mass. App. Ct. 1103 (2007); Baltazar Contractors, Inc. v. Town of Lunenburg, 65 Mass. App. Ct. 718 (2006). These decisions reflect that financial control statutes are mandatory protections of the public and require judgment and enforcement by municipal finance officers. (However, it is notable that, while such a certificate will protect a contractor from an assertion by the municipality that appropriations were insufficient, the certificate does not operate to validate a contract that is otherwise void. Id. at 722. It does not appear that is contract is void.)

The appropriation in this case was designated for the "DPW Salt Shed." It was not expressly limited to the construction of a physical structure, nor restricted solely to operations. In the absence of such limiting language, the Auditor acted well within his statutory authority in certifying that the expenditure was lawfully charged to this account.

Even assuming, arguendo, a narrower interpretation of the appropriation, General Laws c. 44, § 31D independently authorizes expenditures in excess of available appropriations for snow and ice removal, subject to statutory conditions.

Under either analysis, the City had lawful authority to expend funds necessary to operate the DPW Salt Shed, including the purchase of related snow and ice removal equipment.

Respectfully submitted,

Vincent Pusateri II

City Solicitor

11180

AN ORDER APPROPRIATING FROM STABILIZATION TO DPW SALT SHED

ORDERED:

That there be and is hereby appropriated the sum of Six Hundred Twenty-Five Thousand Dollars and No Cents ($625,000.00) from Stabilization to DPW Salt Shed.

Order No. 13194

Order

In City Council

February 5, 2024

Order Passed

March 18, 2024

11 yeas. 0 nays.

Clerk

Presented to Mayor for approval

March 19, 2024

Approved on March 19, 2024

Mayor

Mayor's Signature

CITY OF GARDNER
Department of Public Works

Highway
Water
Sewer
Forestry
Parks/Playgrounds
Cemeteries

Dane E. Arnold, Director
50 Manca Drive
Gardner, MA 01440-2687
Telephone (978) 630-8195
darnold@gardner-ma.gov

Mayor Nicholson and City Councilors
95 Pleasant Street
Gadner, MA 01440

January 30, 2026

RE: Salt Shed

Dear Mayor Nicholson and City Councilors;

The salt shed project is approximately 95% complete and is currently in use. The remaining work includes installation of lighting and site loaming and seeding. The lighting will be completed by the City's on-call electrical contractor; a purchase order has already been generated and charged to the appropriate account. Loaming and seeding will be performed in the spring, with an estimated cost ranging from $2,000 to $10,000, depending on whether traditional seeding or hydroseeding is selected.

The original budget for the project was $625,000. Due to a significant portion of the work being completed in-house by the Department of Public Works, total expenditures to date are $540,789, leaving a remaining balance of $84,210.39. This total also includes $19,000 for the purchase of two used cab and chassis units, which will replace two existing salt trucks dating back to 1988 that the Mayor approved a few months ago.

If you have any questions, feel free to reach out by phone or email.

Sincerely,

Dane E. Arnold, Director
Department of Public Works

Fiscal	2024	2025	2026 (YTD)	FY26 per policy	Difference between appropriation and policy
Principal	$ 2,972,902.89	$ 3,405,984.49	$ 3,446,990.43		
Transfers	$ 128,978.00	$ 261,809.00	$ 100,975.00	$ 375,000.00	$ 274,025.00
Interest	$ 92,392.00	$ 171,272.00	$ 55,929.83		$ 118,741.58 Difference
% of Interest	2.98%	4.67%	1.62%		
Interest without Salt Shed*	$ 111,008.12	$ 172,141.30	$ 58,489.83		
Difference Salt Shed v without	$ 18,616.12	$ 869.30	$ 2,560.00		
		Total Lost Interest	$ 22,045.42		

Total Deposit Appropriations	$ 491,762.00
Salt Shed Appropriation	$ (625,000.00)
Total Interest without SS	$ (22,045.42)
Left to bring back whole	**$ (155,283.42)**

* Interest without Salt Shed Formula:

2024 (Principal + Transfers + 625,000)*%of Interest Line

2025 (Principal+2024 Difference Salt Shed v Without + Transfers)* % of Interest

2026 (Principal+2025 Difference Salt Shed v Without + Transfers)* % of Interest

Note: December 2025 Interest $2,187.99

Fiscal	2024	2025	2026 (YTD)
Principal	$ 2,972,902.89	$ 3,405,984.49	$ 3,446,990.43
Transfers	$ 128,978.00	$ 261,809.00	$ 100,975.00
Interest	$ 92,392.00	$ 171,272.00	$ 55,929.83
% of Interest	2.98%	4.67%	1.62%
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2024 (Principal + Transfers + 625,000)*%of Interest Line

2025 (Principal+2024 Difference Salt Shed v Without + Transfers)* % of Interest

2026 (Principal+2025 Difference Salt Shed v Without + Transfers)* % of Interest

Note: December 2025 Interest $2,187.99

STABILIZATION TRUST ACCOUNT HISTORY AS OF 10/31/25

Description	2026 Actual	2025 Actual	2024 Actual	2023 Actual	2022 Actual	2021 Actual	2020 Actual	2019 Actual
F/B STABILIZATION TRUST BALANCE	$ 3,446,990.43	$ 3,405,984.49	$ 2,972,902.89	$ 3,376,531.97	$ 3,188,962.31	$ 2,938,257.22	$ 2,651,095.74	$ 2,284,737.78
FC TRANSFERS	$ -	$ 261,809.00	$ 128,978.00	$ 130,819.00	$ 180,582.00	$ 220,913.06	$ 309,484.00	$ 223,429.00
INTEREST	$ 41,005.94	$ 171,272.60	$ 92,392.92	$ 56,750.66	$ 70,123.09	$ 66,248.42	$ 56,509.96	$ 41,425.35
OTHER TRANSFERS		$ -	$ (625,000.00)					$ (601,947.00)

Appropritions Since Salt Shed	
FY2024	$ 128,978.00
FY2025	$ 261,809.00
FY2026	$ 100,975.00
Total	**$ 491,762.00**
Difference from Salt Shed Appropriation	**$ 133,238.00**
Interest Since Salt Shed	
FY2024	$ 92,392.92
FY2025	$ 171,272.60
FY2026 (YTD)	$ 41,005.94
Total	**$ 304,671.46**

11752
11723

Outlook

Salt Shed Item - Finance Committee

From Brad E. Heglin <bheglin@gardner-ma.gov>
Date Mon 12/8/2025 7:14 PM
To Jayen Kumar <jkumar@gardner-ma.gov>
Cc Titi Siriphan <tsiriphan@gardner-ma.gov>

Greetings and salutations,

I wanted to flag, in case it was missed, that at the last full council meeting on an item pertaining to free cash/stabilization I made the following motion that was approved:

We accept the order appropriating $100,975.00 from Free Cash to the City Stabilization Account

AND

We direct the Finance Committee to study and report on the salt shed repayment issue.

The bottom part, boldened and underlined, means a new item needs to be created for the next (not this upcoming 12/10 meeting but the subsequent one) finance committee agenda.

Thank you for your attention to this matter.

Sincerely,
Brad

Woodford Electric, inc.

74 Sand St
Gardner MA. 01440

Estimate

Date	Estimate #
1/13/2026	4595

Name / Address
Gardner DPW 50 Manca Drive Gardner, Ma. 01440

Terms	Due Date	Project
Net 30	2/12/2026	

Description	Qty	Rate	Total
Install 1, 20' light pole with 2 flood heads to illuminate the entrance and the side lot. Lighting to be controlled with dusk to dawn sensors. Light pole will need excavation and concrete. Install a flood light at the peak of the shed entrance to illuminate the area in the front of the shed. Install 2 high bay fixtures in the shed to illuminate the interior. Flood light and interior lighting to be controlled by a single pole switch located on the left side of the entrance. Excavation, backfill, concrete work by others.	1	16,000.00 0.00	16,000.00 0.00
		Total	$16,000.00

Phone #
978-730-8870

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 2, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Adopting the City's Hazard Mitigation Plan

Dear Mr. President and Councilors,

As you may remember, in the Spring of 2024, the City received a grant in the amount of $40,000.00 from Federal Emergency Management Agency (FEMA) to draft a Hazard Mitigation Plan for the City.

A Hazard Mitigation Plan analyzes the various vulnerabilities in the City's main and major infrastructure, identifies how those vulnerabilities may be compromised in the event of a natural disaster, and creates a strategy plan to address those hazards to minimize damage to the City's infrastructure over the course of the next five (5) years.

Under regulations issued by FEMA, City Council approval is required for the adoption of a Hazard Mitigation Plan.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

A MEASURE ACCEPTING THE CITY'S HAZARD MITIGATION PLAN

VOTED:

That the City Council of the City of Gardner hereby accepts the attached document as the City's Hazard Mitigation Plan per all related sections and requirements of the Federal Emergency Management Agency.

City of Gardner
Hazard Mitigation Plan (HMP) 2026

DRAFT DATE

Weston & Sampson

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1

1. Introduction

The City of Gardner prepared this Hazard Mitigation Plan (HMP) to assess risks from natural hazards and develop long-term strategies that will reduce the impacts of future climate events on people, property, and the environment. This Chapter further discusses HMP components and local goals for hazard mitigation.

1.1. What is Hazard Mitigation Planning?

Hazard mitigation planning is an iterative process that seeks to reduce the impacts of natural hazards and climate change on people and property. The City of Gardner has assessed a variety of natural hazards that pose a risk to the health and welfare of residents, identified specific vulnerabilities associated with those hazards and climate change, and identified local capabilities and specific mitigation actions to protect homes, businesses, and the critical infrastructure that keeps the City functioning. This process is tailored to address the issues affecting 21,287 residents[1] now and into the future and is crucial to building community resilience. Below are some key words necessary for understanding this Hazard Mitigation Plan, derived from the Federal Emergency Management Agency (FEMA):

- **Natural Hazards** are a source of harm or difficulty created by a meteorological, environmental, or geological event (such as extreme wind events, tornadoes, winter weather as well as earthquakes, flooding, and fires).
- **Hazard Mitigation Planning** reduces loss of life and property by minimizing the impact of disasters. It begins with state, tribal, and local governments identifying natural disaster risks and vulnerabilities that are common in their area. After identifying these risks, they develop long-term strategies for protecting people and property from similar events. Mitigation plans are key to breaking the cycle of disaster damage and reconstruction.
- **Vulnerability** is a description of which community "assets" (people, structures, systems, natural resources, cultural resources, historic resources, the economy, and activities that have value to the community) are at risk from the effects of a natural hazard.
- **Impacts** are the consequences or effects of each hazard on the participant's assets identified in the vulnerability assessment. For example, impacts could be described by

[1] Based on the April 2020 Decennial Census (U.S. Census Bureau).

referencing historical disaster damages with an estimate of potential future losses (such as percentage of damage vs. total exposure).

- **Climate Change** refers to "changes in average weather conditions that persist over multiple decades or longer. Climate change encompasses both increases and decreases in temperature, as well as shifts in precipitation, changing risk of certain types of severe weather events, and changes to other features of the climate system." (FEMA, U.S. Global Change Research Program, 4th National Climate Assessment).
- **Resilience** is the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions due to emergencies.

1.2. Benefits of Hazard Mitigation Planning

Completing natural hazard mitigation planning provides many benefits to Gardner:

- **Increasing public awareness of natural hazards that may affect the community reduces overall risk.** By providing education and outreach, individuals are able to understand how natural hazards may affect their lives and what the region, the City, and they as individuals can do and are doing to minimize impacts of those hazards.
- **Proactive planning creates efficiency beyond City limits.** Developing an HMP allows state and local governments to coordinate on risk reduction strategies across all community systems, and work together to implement mitigation actions.
- **The community's greatest vulnerabilities can be prioritized to receive resources**. The hazard mitigation planning process considers the prioritization of mitigation actions based on the cost and benefit of quantitative and qualitative factors, such as community safety, physical risk to property, cultural and natural resources, and quality of life.
- **The implementation of an HMP saves taxpayer money.** According to FEMA, one dollar spent on federal hazard mitigation grants saves an average of six dollars on disaster response (NIBS, 2019).
- **Maintaining a FEMA compliant HMP also makes the municipality eligible for federal grant funding** (FEMA, 2020). Hazard mitigation funding is available through the Federal Emergency Management Agency (FEMA). To be eligible for FEMA Grants, local governments must prepare an HMP that meets the requirements established in the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by the Disaster Mitigation Act of 2000. The HMP also ensures that federally funded projects reflect a community's priorities and offer solutions to specific threats. Please refer to Chapter 6 for more information on FEMA grants and other potential funding sources associated with proposed actions.

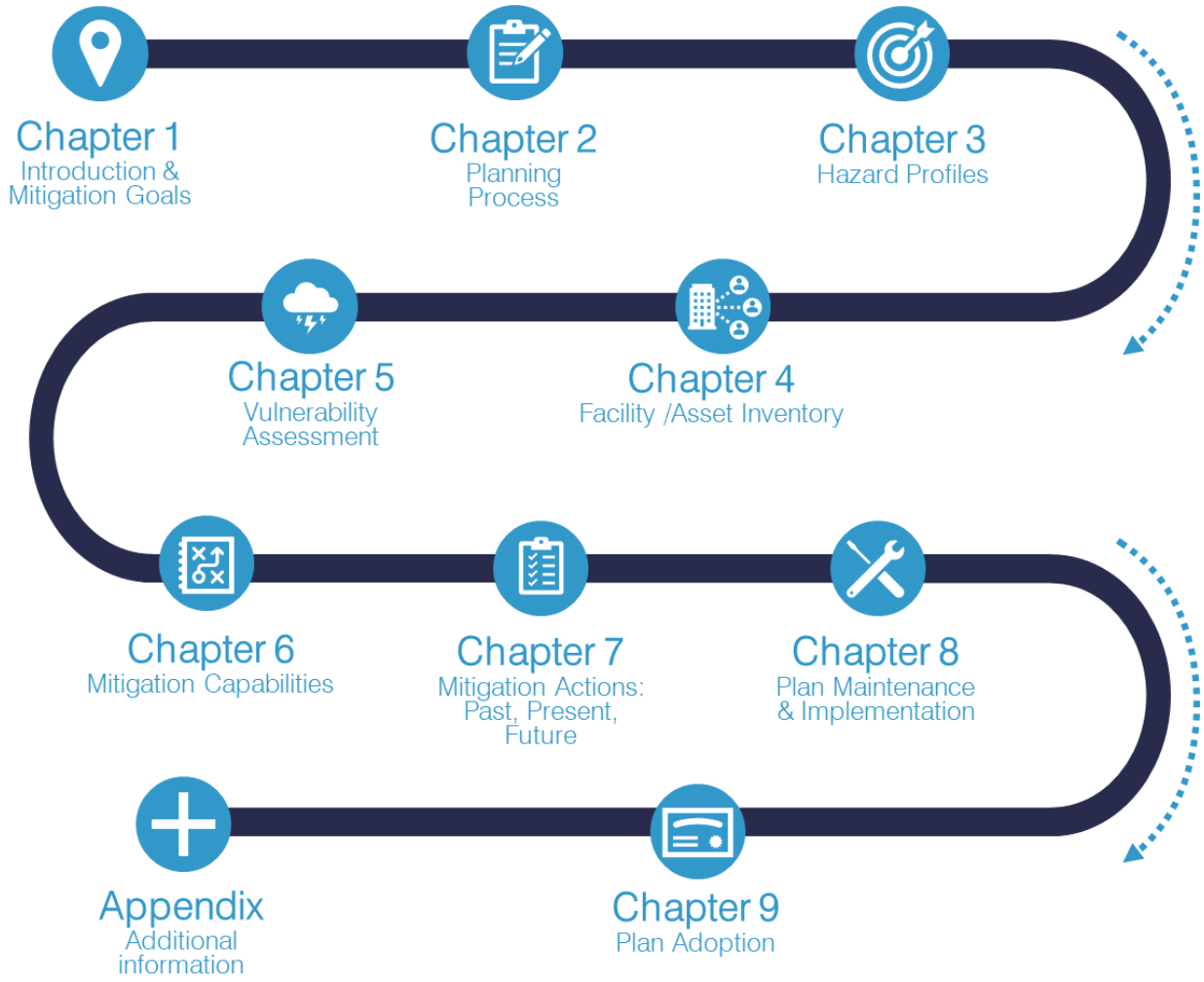
1.3. About this Document

The Gardner HMP is intended for local government officials, the citizens of Gardner, various local and regional organizations, scientists, and any other individuals or institutions who may be interested in planning and preparing for natural disasters. The HMP connects local viewpoints and experiences with

reliable climate data to provide a well-rounded picture of the City's current status regarding natural disasters and its future trajectory.

1.3.1. | Organization of the HMP

The report presents the results of the HMP planning process, which was informed by data review and analysis, input received from the Steering Committee during and outside of the Steering Committee meetings, input from the Hazard Mitigation Plan Workshops held with targeted stakeholders, and input from public engagement activities. This report is organized as visualized in the diagram below.



1.4. Hazard Mitigation Goals

Gardner's Hazard Mitigation Local Hazard Mitigation Committee (LHMC) established the goals and objectives for natural hazard mitigation planning in Gardner after reviewing the goals listed in the Montachusett 2015 Regional Hazard Mitigation Plan. The goals were restructured to better reflect current hazard mitigation efforts, align with other resilience planning processes, and simplify messaging for the public.

1	**Reduce the loss of life, injury and damage to property, infrastructure and cultural resources throughout the City of Gardner from natural hazards.**	• Identify and reduce impacts to the health and safety of vulnerable populations from natural hazards. • Provide resources for residents and businesses to make their buildings and properties more disaster resistant. • Ensure critical infrastructure, facilities, and services are protected from natural hazards and incorporate resiliency, to facilitate efficient recovery, evacuation, public health, and safety.
2	**Monitor and incorporate newly released data in planning and projects.**	• Develop internal strategies to review and update current emergency preparedness, outreach, and response activities to anticipate future changes in vulnerabilities. • Encourage private property-owners, institutions, and local businesses to implement measures to protect their property. • Work regionally with state, regional and federal agencies and surrounding communities to mitigate impacts from natural hazards and to respond and recover from hazard events.
3	**Invest in mitigation strategies that protect the community from the impacts of hazards identified in the plan.**	• Continue to program mitigation projects in the Gardner capital improvement planning • Identify and seek funding for priority measures to mitigate or eliminate significant hazards and impacts. • Continue to identify and understand how climate change may alter where and how the City is vulnerable to climate hazards.
4	**Enhance awareness and support for natural hazard mitigation among private organizations, businesses, and residents through outreach, education, and communication.**	• Improve outreach to non-English speakers and other vulnerable populations before, during and after hazard events. • Encourage people to be prepared before, during, and after hazard events. • Increase awareness and provide information for hazard mitigation and climate resilience to businesses and residents through outreach and education, including promoting community-based mitigation strategies.
5	**Strengthen the City of Gardner's capacity to respond to natural hazards.**	• Ensure City departments, committees, and boards have adequate data, guidance, staff, training, and equipment to respond to natural hazard events, maintain preparedness, and anticipate future changes in vulnerabilities. • Ensure that future development / redevelopment does not make existing properties more vulnerable to hazards. • Identify mitigation strategies that preserve and restore the function of natural systems and minimize secondary impacts from hazards.

2

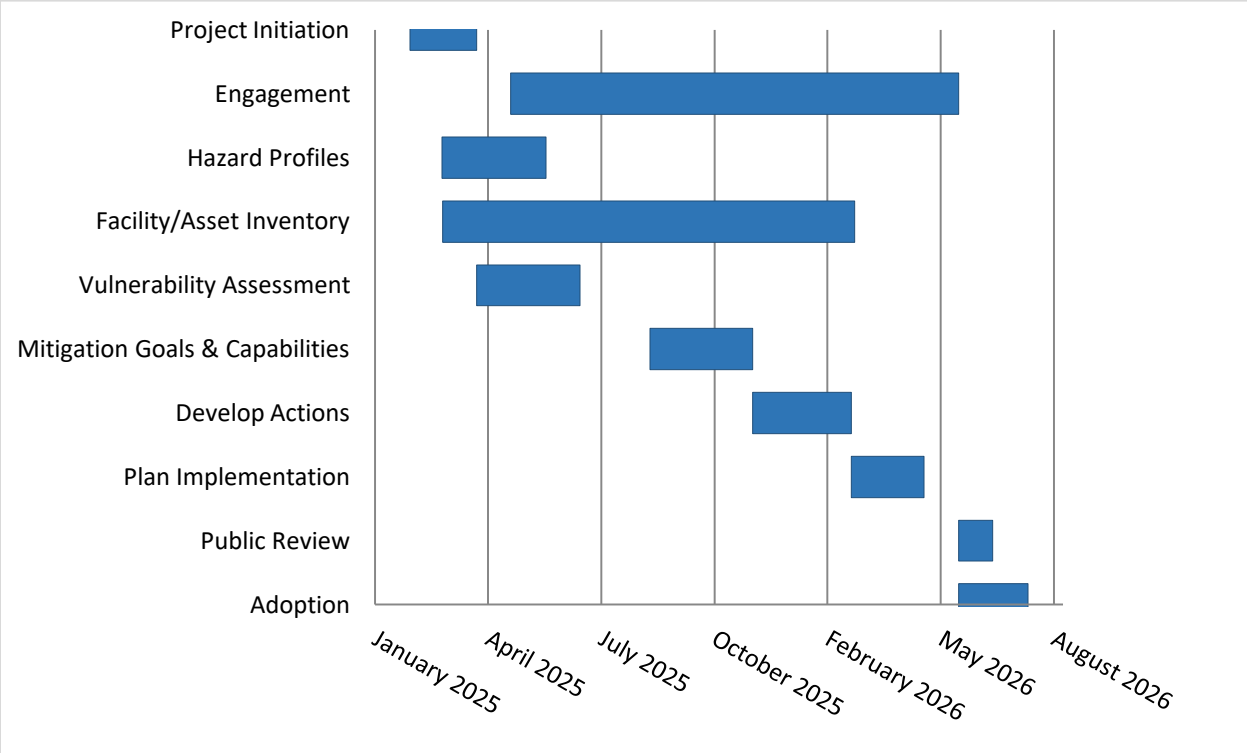
2. Planning Process

The Gardner HMP was informed by data review and analysis, input received from the Local Hazard Mitigation Committee (LHMC) during and outside of the committee meetings, input from the Workshop held with targeted stakeholders, and input from public engagement activities. The HMP planning process proceeded according to the timeline below. The subsequent pages describe the involvement of the Local Hazard Mitigation Committee and community leaders in the HMP planning process in more detail.

2.1. Overview of Plan Development

The HMP planning process proceeded according to the timeline shown in Table 2.1.

Table 2.1: HMP Planning Timeline



2.2. Plan Updates to Reflect Community Priorities

Gardner, located in Worcester County, Massachusetts is a City with a diverse demographic profile. As of the 2020 decennial census, the population is around 21,000, with a median age of approximately 42 years. The City has seen a modest growth in population over the years, with a mix of families, young professionals, and retirees. The local economy is primarily driven by manufacturing, retail, healthcare, and education, with Gardner being historically known for its furniture manufacturing, known as “Chair City”. However, the City faces economic challenges, including the need to diversify its industrial base and address workforce development in emerging sectors. The community is also experiencing pressures related to affordable housing, public infrastructure, and improving access to quality healthcare and education. Planning priorities for Gardner focus on revitalizing its downtown, expanding housing options, enhancing transportation networks, fostering economic development, and investing in sustainable practices to improve quality of life for residents. Additionally, strengthening local public services and attracting new businesses remain central to the City's long-term growth and resilience.

Since the Montachusett Regional Hazard Mitigation Plan (2015), Gardner has undertaken several planning processes and programs to address natural hazards, including through the Municipal Vulnerability Preparedness (MVP). This process, key information, and recommendations to increase resiliency are detailed in The Gardner Community Resilience Building Workshop (2020). The City of Gardner also developed the Green Communities Action Plan (2010), that provides a set of actions that meets each of the five required criteria to achieve the Green Community designation. These efforts are detailed later on this Chapter in Section 2.5.

2.3. Community Engagement Approach

The goal of public engagement for this HMP process was to center the experiences of those who are most vulnerable to natural hazards in Gardner. To truly mitigate hazards, the City must develop strategies for protecting and supporting those who are most exposed. This includes populations who may be disproportionately impacted by natural hazards, due to life circumstances that systematically increase their exposure to the hazards or make it harder to respond. In addition to income, race, and language, other factors like physical ability, access to transportation, health status, and age shape whether someone or their community will be disproportionately affected by climate change. This is because of underlying contributors such as racial inequity, financial insecurity, or accessibility barriers that create vulnerabilities.

To better understand the experiences of the residents and businesses of Gardner, the engagement strategy included a multitude of approaches including:

The Local Hazard Mitigation Committee (LHMC): A group of City staff whose work focuses on specific related groups and issues and who met regularly to consult on the HMP

Community Leaders: A team of representatives from a wide variety of groups and experiences

Public Engagement: Outreach and public surveys open to all community members and neighbors

Within these activities, some engagement strategies include:

- Being intentional about participants in the LHMC so that the group's participants are representative of Gardner's neighborhoods, community knowledge, and more.
- Tracking information about demographics in public surveys.
- Identifying approaches to engage residents with the understanding that already limited time and resources have been stressed post COVID-19.
- The team worked to address barriers to participation through translation of surveys and printed materials, offering interpretation for meetings, and conducting accessibility reviews of language and visuals.
- Understanding the community context and local initiatives through interactive engagement techniques focused on listening and collecting stories, ideas, and input from residents, businesses, and other stakeholders.
- Avoid "planning fatigue" by building on previous and ongoing efforts as well as considering ways to continue natural hazard preparedness beyond this project.

These engagement activities and the input gathered from the community were invaluable to the development of the HMP. The LHMC and community members helped shape the asset inventory, vulnerability assessment, mitigation actions, and other elements of the plan.

For the Asset Inventory, the LHMC and community members gave input on assets that are critical to them or their community. Within Chapter 4 of this HMP, community members gave feedback on specific experiences they or others have had in a variety of hazards through a public survey. They also brought attention to potential vulnerabilities in the face of a changing climate. Additionally, community members helped develop specific mitigation actions to address these vulnerabilities and strengthen the resilience of the community. These assets, vulnerabilities, and actions have all been incorporated into the HMP.

Bringing as many people, particularly vulnerable people, as possible into the hazard mitigation process will help Gardner be more equitable and resilient in the future.

2.3.1. | Local Hazard Mitigation Committee (LHMC)

The City of Gardner convened a Local Hazard Mitigation Committee (LHMC) for the development of the HMP. The LHMC was involved in the planning process alongside community leaders and the public, having the opportunity to meet five times over the course of the HMP to guide the process and make final decisions. The LHMC played an important role in identifying critical infrastructure, identifying and involving key stakeholders, and documenting the City's capacity to mitigate hazards alongside ongoing operations. To assist in drafting the HMP, the LHMC also suggested or made available reports, maps, and other pertinent information related to natural hazards in Gardner.

Table 2.2: Steering Committee Meeting Schedule

Meeting	Date	Meeting Topics
Kickoff Meeting	March 25, 2025	• Overview of Natural Hazard Mitigation Planning • Scope and Schedule • Engagement Plan • Questions/ Discussion/ Action Items
LHMC Meeting #1	April 30, 2025	• Overview of work in progress • Mitigation Goals • Past Mitigation Actions • Asset Inventory • Stakeholder Outreach and Engagement Plan • Capabilities Assessment • Next Steps
LHMC Meeting #2 + Community Leaders	June 24, 2025	• Overview of work in progress • Asset Inventory • Next Steps
LHMC Meeting #3 + The Public	September 18, 2025	• Overview of Work in progress • Capabilities Assessment • Vulnerability Assessment • Hazard Descriptions • Next Steps
LHMC Meeting #4 +The Public	December 13, 2025	• Overview of work in progress • Mitigation Actions • Plan Evaluation • Prioritization Criteria and Process for Prioritizing Mitigation Actions • Next Steps
LHMC Meeting #5 +City Council	To be Scheduled	• Overview of work in progress • Overview of Plan • Next Steps

2.3.2. | Community Leaders

Stakeholders with subject matter expertise and local knowledge and experience were invited to join LHMC meetings alongside the Local Hazard Mitigation Committee (LHMC) and attend a series of 2 meetings.

These stakeholders included City of Gardner affiliates, state and regional agencies, representatives of business/academia/private organizations, nonprofit organizations, community groups, and neighboring communities. The chart on the following page outlines the various stakeholder groups that participated in the planning process.

Figure 2.1: Example List of Categories of HMP Update Stakeholders

During the LHMC, community leader, and public input meetings, Weston & Sampson provided information about local features and hazards impacting Gardner and reviewed the City's vulnerability to these hazards. Participants identified and prioritized key actions that will improve the City's resilience to natural and climate-related hazards.

The full list of community representatives who were invited and those who participated in the process are presented in the Appendix, along with the agenda from each LHMC meeting. The broad representation of local and regional entities that participated in these workshops helps align

the HMP update with the operational policies and hazard mitigation strategies at different levels of government and implementation. A summary of key findings from each workshop is included on the following pages.

LHMC meetings were organized around topic areas that included:

- Asset, vulnerability, and impact identification
- Mitigation action development
- Mitigation action prioritization

2.3.3. | LHMC Meeting #1: Introduction to Project

Eleven participants joined the meeting to learn more about the Gardner Hazard Mitigation Plan. The consultant team, Weston & Sampson, introduced themselves and provided background information on hazard mitigation planning. An introductory exercise was shared where participants could provide information on natural hazards they are most concerned about. Previous actions from the Montachusett Region Natural Hazard Mitigation Plan were shared along with an overview of Gardner plans that relate to natural hazards. A survey was also shared for the committee members to fill out and provide input on the City's existing capabilities. The LHMC shared a list of groups and parties to involve in the HMP process, and next steps were outlined at the conclusion of the meeting.

Key Findings

- One of the lessons learned during COVID was the importance of the incident command system.
- Past ice storms caused major power outages and showed the need for better sheltering and public communication.
- Flooding, drought, and severe storms are putting more stress on local infrastructure like roads and drainage.
- There's a need for more public education on hazards and stronger coordination with schools and city departments.

2.3.4. | LHMC Meeting #2: Asset Inventory Review

Twelve participants joined the meeting and brainstormed key local assets in Gardner, how those assets might be impacted by hazards, and who would be the most vulnerable to those impacts. The meeting started with an icebreaker aimed at getting feedback on natural hazards participants were most concerned about. The assets were categorized by *people, historic & cultural, community, structures, systems, natural resources*, *economic*, and *community*. The workshop format started with a presentation of the hazard mitigation planning process, check in on previous HMP action status, and an overview of assets. Throughout the presentation, the committee provided feedback on the asset categories. Next steps were shared at the end of the meeting.

Key Findings

- There is interest in continuing hazard mitigation education and outreach with social media and text messages.

- Shelter supplies are kept mobile, and there is a need to improve coordination and communication around sheltering resources.
- There is no real discussion or coordination with private dam owners. This has caused issues in the past.
- Beaver-related flooding is a concern, but removal is limited by permitting - diverters are preferred as a lower-impact solution.
- Participants provided many additional assets and suggested name changes.

2.4. Public Engagement

2.4.1. | Equitable Public Engagement

To strengthen existing social infrastructure and to support a more equitable and resilient future, the engagement team prioritized stakeholders, residents, and community organizations early in the process. The project-specific equity goals include:

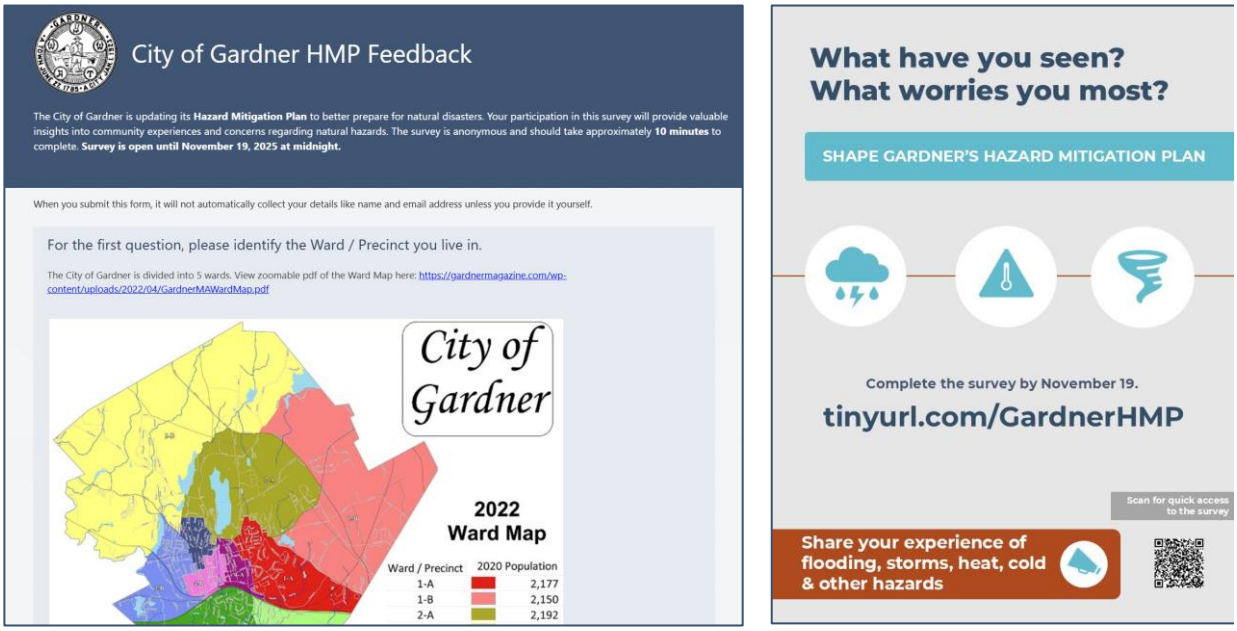
- Being intentional about the composition of the Community Leaders team so that it reflected the community in Gardner neighborhoods and community knowledge.
- Tracking success metrics such as attendance at meetings, social media engagement, and participation in surveys.
- Identifying approaches to engage residents with the understanding that time and resources are stressed by other issues. Respectfully and meaningfully asking for community input, addressing barriers to participation (including technology, time, and language barriers).
- Understanding the community context and local initiatives through interactive engagement techniques.
- Avoid “planning fatigue” by building on previous and ongoing efforts, leveraging local expertise, and empowering residents, and the LHMC, to continue considering natural hazard preparedness beyond the duration of this project.
- Developing accessible engagement materials by prioritizing visuals over text, using multilingual designs, using accessible language, and providing translation.

2.4.2. | Public Survey

The project team developed an online survey and associated flyer to collect information on the local experience of natural hazards and needs to increase resilience. This survey was open from August 5th, 2025 through January 31st, 2026.

Figures 2.2 and 2.3:

HMP Feedback Survey Posted to Microsoft Forms (Right) and Survey Flyer for HMP (Left)



The Hazard Mitigation Plan public survey was distributed to community members through virtual and community outreach network methods. This survey was shared at each of the LHMC, community input, and public input meetings. Community outreach network methods included posting the survey on the City of Gardner Facebook page on August 18th, within the Greater Gardner Chamber of Commerce "Chamber Happenings" newsletter on November 14th, and now the second item in our "News Flash" section when it got reposted earlier last week and posted again on our social media on 11/7.

A notice was physically posted in front of the city clerk's office and treasurer's office as the two high traffic points in City Hall.

The fact sheet, as shown above, was distributed through social media networks and aimed at capturing a snapshot of the project as well as promoting the public survey. 36 residents responded to the survey. A full report of survey responses can be found in the Appendix.

Sixty-one percent of respondents reported being somewhat concerned about future disasters in Gardner, while the remaining respondents were split evenly between being extremely concerned and not concerned at all.

Most respondents (64%) said they had experienced or been impacted by a natural disaster in Gardner. Out of these respondents that said yes, many of them indicated extreme storms, including winter storms, ice storms, and nor'easters to be the highest threat. The most notable ice storm was the one in 2008.

Figure 2.4: Responses for Storm Event that had the Most Impact

Many respondents noted that they have not taken actions to make their home or property more resistant to natural hazards. For those that have taken action, this includes removing hazard trees or strengthening roofs, installing a sump pump or drainage improvement, elevating utilities, and purchasing a generator.

2.4.3. | Public Meetings

The community was given the opportunity to comment through two public meeting opportunities. Public Meetings were announced to community members through virtual, hard copy, and community outreach network methods. These included posting notices on social media and the project webpage, virtual and hard copy flier distribution, and promotion in partnership with the City.

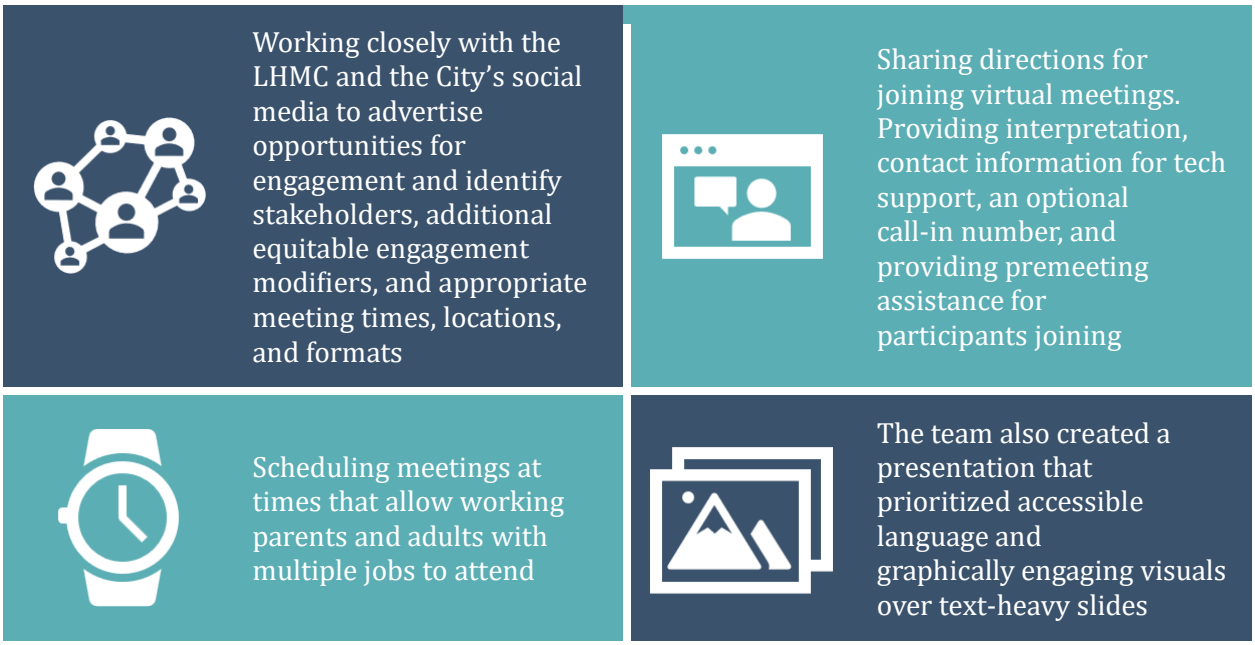
The first meeting was held on September 18th and was primarily focused on informing the public about the history and purpose of the HMP update, FEMA mitigation funding programs, project work plan, and the overall planning process. The meeting included a discussion of local vulnerabilities, strengths, historic hazard impacts on the community, and potential adaptation action items.

The second meeting was held on December 13th to present the draft actions and method of prioritization. This meeting was recorded and posted to the City's website to improve visibility.

Figure 2.5: Open House Flyer

Addressing Challenges to Virtual Engagement

The project team planned each meeting to encourage participation and engagement. Equitable engagement modifiers were used to facilitate participation during meetings, including:



2.5. Local Long-Range Plans Related to Hazard Mitigation

Gardner has undertaken significant long-range planning efforts related to hazard mitigation, climate resilience, and sustainability. Key focus areas include reducing localized flooding, strengthening the resilience of critical infrastructure and facilities, promoting sustainable land use, and enhancing environmental sustainability. The following plans, studies, reports, and technical information were reviewed and incorporated into the HMP.

There are also a variety of ordinances and regulations, as well as committees and task forces, that further the City's efforts to proactively address natural hazards, which are discussed in Chapter 5 in the Capabilities Assessment.

Gardner Master Plan (2026)

At the same time that this Hazard Mitigation Plan was being developed, the City was undertaking an update to its citywide Community Master Plan. The City staff coordinated between both planning efforts, and the goals, issues and opportunities from the master plan process were incorporated into this plan, though the full plan was not yet completed at the close of the Hazard Mitigation Plan.

Municipal Vulnerability Preparedness (MVP) Program (2020)

Gardner is an MVP-certified community, having completed the MVP Planning Grant process. The MVP program helps municipalities identify climate-related vulnerabilities and prioritize local actions through a community-driven workshop model.

Findings from Gardner's MVP workshop (completed in 2020) are incorporated directly into this HMP's vulnerability assessment and mitigation strategy sections. Key community concerns, such as localized flooding, tree damage from storms, and the need for cooling centers, shaped both the problem statements and proposed actions in this plan.

Community Development Plan (CDP) (2006)

Gardner's CDP outlines long-term goals related to land use, housing, economic development, and infrastructure investment. It emphasizes revitalization of downtown areas, affordable housing preservation, and infrastructure improvement.

The CDP informed the HMP's identification of vulnerable populations and infrastructure needs. Goals related to equitable development and housing resilience helped shape mitigation strategies focused on reducing flood risk in lower-income neighborhoods and integrating hazard considerations into redevelopment areas.

Urban Renewal Plan – Downtown Gardner (2022)

This plan outlines targeted redevelopment strategies in the downtown core to eliminate blight and encourage mixed-use development, including improvements to infrastructure, pedestrian access, and public spaces.

The Urban Renewal Plan was reviewed to evaluate if the proposed mitigation actions support, rather than conflict with, planned investments. Actions related to flood management and infrastructure hardening are aligned with redevelopment goals, ensuring that hazard mitigation supports long-term revitalization efforts.

Urban Renewal Plan – Mill Street Corridor (2012)

This corridor-specific plan focuses on repurposing vacant and underutilized parcels, improving transportation access, and encouraging commercial and light industrial redevelopment.

The HMP recognizes the potential hazard exposure in the Mill Street area, particularly related to flooding and aging infrastructure. Mitigation actions for stormwater upgrades and brownfield reuse incorporate the plan's redevelopment vision, ensuring resilience is built into future land use.

Green Communities Action Plan (2010)

As a designated Green Community, Gardner's Action Plan outlines strategies to reduce municipal energy use and greenhouse gas emissions, including building retrofits, fleet electrification, and efficient street lighting.

Energy resilience and sustainability goals from the Green Communities Plan inform mitigation actions such as backup power at critical facilities, tree planting to reduce heat island effects, and retrofitting public buildings for energy efficiency and resilience to extreme weather.

Open Space and Recreation Plan (OSRP) (2017–2024)

Gardner's OSRP identifies priority conservation areas, recreation facilities, and trail networks. It supports environmental stewardship, water quality protection, and equitable access to open space.

The OSRP contributes to the HMP by identifying natural buffers and green infrastructure that reduce flood risk and provide co-benefits. Several mitigation actions, such as expanding riparian buffers and protecting floodplains, align with open space goals and support nature-based solutions.

A4-a

2.6. State Long-Range Plans Related to Hazard Mitigation

Montachusett Region Natural Hazard Mitigation Plan (2019)

Prepared by the Montachusett Regional Planning Commission (MRPC), this regional HMP covers 22 communities, including Gardner. It provides a regional assessment of hazard risks, particularly flooding,

severe storms, and winter weather, and recommends mitigation strategies with a focus on inter-municipal collaboration.

The City of Gardner's HMP builds on the regional risk assessment and adapts shared strategies to reflect local conditions. MRPC data, such as regional critical infrastructure mapping and historical hazard profiles, were used to supplement Gardner-specific analyses. The plan ensures consistency with regional mitigation goals and facilitates eligibility for FEMA funding.

Massachusetts State Hazard Mitigation and Climate Adaptation Plan (SHMCAP, 2018; update in progress 2023–2025)

The SHMCAP integrates hazard mitigation with climate adaptation and sets the statewide framework for addressing flooding, extreme temperatures, severe storms, and other hazards. It includes a comprehensive risk assessment and outlines goals such as protecting vulnerable populations and increasing community capacity.

Gardner's HMP builds upon the SHMCAP's risk assessment methodologies and prioritizes mitigation actions that reflect state goals, especially related to flood mitigation, stormwater improvements, and infrastructure resilience. The City also references SHMCAP hazard projections and aligns local strategies with the state's resilience principles.

Montachusett Regional Transportation Improvement Program (TIP)

The TIP identifies priority transportation investments in the region over a multi-year period, including roadway, bridge, transit, and bicycle/pedestrian projects.

Gardner's HMP coordinates with planned TIP projects, particularly where hazard-prone roadways or culverts are identified. Opportunities to incorporate resilience improvements, such as stormwater retrofits or climate-resilient design, into TIP-funded infrastructure are noted in the mitigation strategy.

MBTA Northern Tier Passenger Rail Study (2023)

This study evaluates the potential for restoring passenger rail service along the Fitchburg Line to communities in the Northern Tier, including Gardner. While primarily a transportation and economic development initiative, the rail corridor traverses areas susceptible to extreme weather and flooding. The HMP includes recommendations for coordinating with future transit investments to support the development of climate-resilient rail infrastructure.

Route 140 Corridor Study (2020)

Conducted by MRPC, this study evaluates safety, mobility, and economic development potential along Route 140 through Gardner and surrounding communities. The HMP identifies the Route 140 corridor as a critical transportation route with exposure to severe weather and flooding. The corridor study's recommendations for infrastructure upgrades and traffic flow inform mitigation actions related to transportation resilience and emergency access.

2.7. FEMA Review Tool

All aspects of the planning process were created and implemented in accordance with the updated FEMA Local Mitigation Planning Policy Guide (FEMA, 2022) and FEMA Local Mitigation Planning Handbook (FEMA, May 2023).

3

3. Risk Assessment: Community Assets

Assets are defined broadly as anything that is important to the character and function of a community (FEMA, 2023). Assets can be built, natural, or non-physical elements. They range from emergency facilities and critical infrastructure to community events that help shape collective identity and social cohesion. Below are asset categories, community lifelines, and the list of assets in Gardner. This analysis is the first step in the risk assessment to identify local vulnerabilities to natural hazards (Chapter 4) and develop a plan for future resilience (Chapter 6).

3.1. Asset Categories

The following Sections discuss categories of community assets and how community assets are categorized into community lifelines.

3.1.1. | Overarching Categories

Assets are organized into the following five categories (FEMA, 2022). These categories represent the wide variety of perspectives, purposes, and goals that assets can include.

While assets may fall into multiple categories, they will be listed under just one. The categories are defined according to FEMA and used for organizational purposes only and will not impact the mitigation actions or vulnerability assessments of any assets.

- **People (including underserved communities and socially vulnerable populations):** "Assets that serve populations that are more vulnerable to disaster (e.g., elderly, children, visiting populations) and/or serve densely populated areas."
- **Structures (including facilities, lifelines, and critical infrastructure):** "Built facilities that provide community lifeline services. A community lifeline enables the continuation of critical government and business functions and is essential to human health and safety or economic security."
- **Systems (including networks and capabilities):** "A collection of components that perform a critical service for the community. Systems are linear type assets. Systems may include horizontal assets associated with linear type assets."
- **Natural resources:** "Natural Resources are
    - areas that provide protective functions to reduce magnitude of hazard impact and increase resiliency.

  - areas of sensitive habitat that are vulnerable to hazard events,
  - protection of areas that are important to community objectives, such as the protection of sensitive habitat, provide socio-economic benefits, etc."

- **Historical and Cultural Resources:** "Assets that possess historical, cultural, archaeological or paleontological significance, including sites, contextual information, structures, districts, and objects significantly associated with or representative of earlier people, cultures, maritime heritage, and human activities and events."
- **Economic Assets:** Economic assets are defined as entities that produce a financial benefit for the owner or community.
- **Community Assets:** "Activities that benefit the community by increasing community morale and well-being. Activities may include education and knowledge transfer."

3.1.2. | Community Lifelines

"Community Lifelines" is FEMA's term for assets of a community that the community cannot survive without. "A lifeline enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security" (FEMA, 2020).

For the purposes of hazard mitigation planning and the asset inventory, community lifelines are used to categorize all assets in terms of these critical functions. Not all assets are community lifelines.

A subset of the City of Gardner's assets falls into one of eight lifelines that have been classified and described as follows (FEMA, 2019).

Table 3.1: Community Lifelines

	Law enforcement and government services, as well as the associated assets that maintain communal security, provide search and rescue, evacuations, and firefighting capabilities, and promote responder safety.
	Support systems that enable the sustainment of life, such as water treatment, transmission, and distribution systems; food retail and distribution networks; and wastewater collection and treatment systems.
	Infrastructure and service providers for medical care, public health, patient movement, fatality management, behavioral health, veterinary support, and health or medical supply chains.
	Service providers for electric power infrastructure, composed of generation, transmission, and distribution systems, as well as gas and liquid fuel processing, transportation, and delivery systems. Disruptions can have a limiting effect on the functionality of other community lifelines.
	Infrastructure owners and operators of broadband internet, cellular networks, landlines, cable services, satellite communications services, and broadcast networks (radio and television). Communications systems encompass a large set of diverse modes of delivery and technologies, often intertwined but largely operating independently. Services include elements such as alerts, warnings, and messages, 911 and dispatch and accessibility of financial services.
	Multiple modes of transportation that often serve complementary functions and create redundancy, adding to the inherent resilience in overall transportation networks. Transportation infrastructure generally includes highways/roadways, mass transit, railway, aviation, maritime, pipeline, and intermodal systems.
	Systems that mitigate threats to public health/welfare and the environment. This includes assessment of facilities that use, generate, and store hazardous substances, as well as specialized conveyance assets and efforts to identify, contain, and remove incident debris, pollution, contaminants, oil or other hazardous substances.
	Systems for Potable Water and Wastewater Management. This includes potable water intake, treatment, storage, and distribution. It also includes Wastewater collection, storage, treatment, and discharge.

3.2. City of Gardner Assets

Assets in the City of Gardner have been identified utilizing the newest MassGIS data, the most up to date MassGIS L3 Parcel data, the asset inventory presented in the 2015 Montachusett Natural Hazard Mitigation Plan, and input collected at the Steering Committee meetings. This Section describes community assets and provides summary tables of assets by category including more detail on the general types of assets within that category, how many assets there are, and which assets are considered community lifelines. Maps of community assets are included in Appendix E. Because the City does not currently maintain an up-to-date, geocoded database of these assets, the maps reflect only readily available asset data sourced from MassGIS.

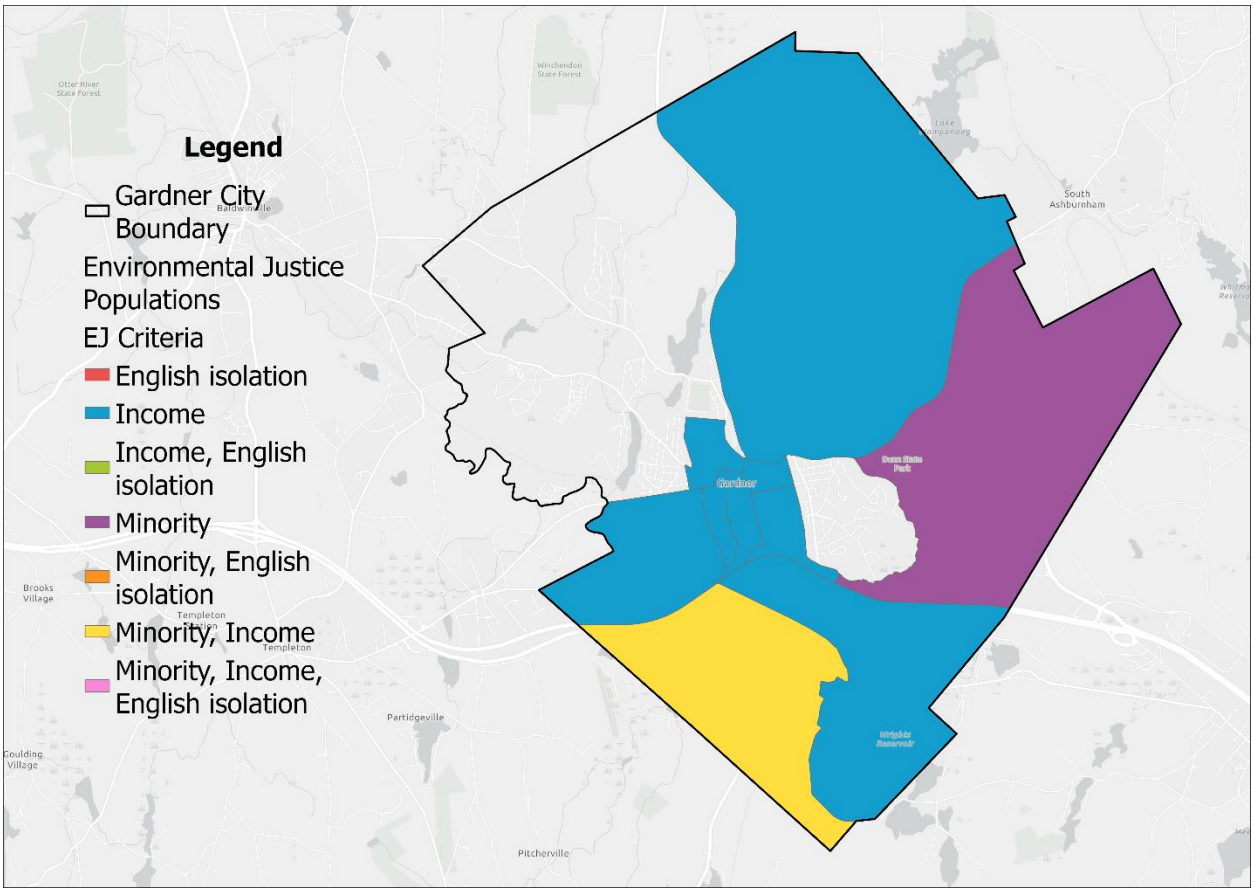
Figure 3.1: Summary of Community Assets

3.2.1. | People & Community Assets

According to the latest U.S. Decennial Census, the City of Gardner has a population of 21,287.

Many Gardner neighborhoods are home to Environmental Justice (EJ) populations. These communities are primarily located in census tracts near downtown Gardner and along Route 68, where there are higher concentrations of low-income households and non-English-speaking residents, including significant Hispanic and Asian populations.

Figure 3.2: Location of EJ Populations



Source: Executive Office of Energy and Environmental Affairs, available on MassGIS

According to EEA, "Priority populations are people or communities who are disproportionately impacted by climate change due to life circumstances that systematically increase their exposure to climate hazards or make it harder to respond. In addition to factors that contribute to Environmental Justice status (i.e., income, race, and language), other factors like physical ability, access to transportation, health, and age can indicate whether someone or their community will be disproportionately affected by climate change. This is driven by underlying contributors such as racial discrimination, economic disparities, or accessibility barriers that create vulnerability. The term priority populations acknowledges that the needs of people with these experiences and expertise must take precedence when developing resilience solutions to reduce vulnerability to climate change. All communities have priority populations even if they do not have a mapped Environmental Justice neighborhood."

Facilities that Serve the Community

People Assets are defined by FEMA (2022) as "assets that serve populations that are more vulnerable to disaster (e.g., elderly, children, visiting populations) and/or serve densely populated areas." Community Assets are described as "activities that benefit the community by increasing community morale and well-being. Activities may include education and knowledge transfer" (FEMA, 2022). For the purposes of this analysis, these two asset categories were combined to reflect their shared role in serving and supporting the community.

Table 3.2: People and Community Assets

Asset Type	Name	Location	Community Lifeline
Schools	Mount Wachusett Community College	444 Green Street	*NA*
	Gardner High School	200 Catherine Street	*NA*
	Helen Mae Sauter Elementary School	130 Elm Street	*NA*
	Elm Street School	160 Elm Street	*NA*
	Waterford Street School	62 Waterford Street	*NA*
	Gardner Middle School	297 Catherine Street	*NA*
	Our Lady of Holy Rosary	99 Nichols Street	*NA*
	Sacred Heart of Jesus Elementary School	53 Lynde Street	*NA*
	Wachusett Hills Christian School	100 Colony Road	*NA*
Religious Centers	Covenant Lutheran Church	627 Green Street	*NA*
	Chestnut Street United Methodist Church	161 Chestnut Street	*NA*
	St. Paul's Episcopal Church	79 Cross Street	*NA*
	UU Society of Gardner	66 Elm Street	*NA*
	Annunciation Parish at Our Lady of the Holy Rosary Church	135 Nichols Street	*NA*
	Annunciation Parish	50 Lovewell Street	*NA*
	First Baptist Church	14 High Street	*NA*

Asset Type	Name	Location	Community Lifeline
Sports, Cultural, and Recreational Areas	Gardner Veterans Skating Rink	45 Veterans Skating Rink	*NA*
	Greenwood Memorial Park & Pool	Park Street	*NA*
	Gardner Municipal Golf Course	152 Eaton St	*NA*
	Gardner Museum	28 Pearl Street	*NA*
	Dunn State Park Visitor Center	289 Pearl Street	*NA*
	Bickford Playground	64 West Broadway	*NA*
	Oliva Case Playground	35 Stuart Street	*NA*
	Pulaski Playground & Dog Park	2 Charbonneau Street	*NA*
	Wilder Field - Junior High School	133 Waterford Street	*NA*
Library	Levi-Heywood Memorial Library	55 West Lynde Street	*NA*
Farmers Market	Farmers Market	Park St & Osgood St	Food, Hydration, Shelter
Public Safety	Gardner Police Station	31 City Hall Avenue	Health and Medical
	Gardner Fire Station	70 City Hall Avenue	Health and Medical
	Woods Ambulance	457 Main St	Health and Medical
	National Guard Unit	321 West Broadway	Health and Medical
	Medstar	70 City Hall Avenue	Health and Medical
Early Education Childcare Facilities	MOC Child Care & Head Start Services/School Age	208 Coleman St. Ext.	*NA*

Asset Type	Name	Location	Community Lifeline
	O'Leary, Nancy	22 A Street	*NA*
	Meridian Gymnastics And Youth Fitness Preschool	871 W Broadway	*NA*
	Dennis, Billie-Jo	90 Bear Hill Road	*NA*
	Leger, Shauna	79 Ashley Drive	*NA*
	Moschan, Heather	262 Temple Street	*NA*
	Klever Kids Preschool & Extended Day Program	1055 West Street	*NA*
	Bethany Christian Nursery	72 Ryan Street	*NA*
	Dubey, Heidi	25 June Street	*NA*
	King, Stephen	76 Grant Street	*NA*
	Pellecchia, Laurie	66 Crestwood Drive	*NA*
	Leblanc, Jane T.	66 Oak Street	*NA*
	L'etoile, Melanie N.	100 Chapel Street	*NA*
	MOC Child Care & Head Start Services - Garrison	444 Green Street	*NA*
	Goguen, Christine	306 Pine Street	*NA*
	Guild of St. Agnes - Gardner	155 Green Street	*NA*
	Aukstikalnis, Deana M.	70 Sawyer Street	*NA*
	Levasseaur, Cynthia	52 Warwick Road	*NA*
	Chaban, Paula	68 Norman Street	*NA*
	Burgess, Doreen	79 Keyes Road	*NA*

Asset Type	Name	Location	Community Lifeline
	Beauregard, Laura	24 Mayfield Road	*NA*
	Coleman Child Care & Head Start Center	68 Coleman Street	*NA*
	Saner, April L.	64 Snake Pond Road	*NA*
	Maillet, Paula A.	29 Brookside Drive	*NA*
	Mccaie, Georgette	196 Nichols Street	*NA*
	Cormier, Suzanne	79 Robillard Street	*NA*
	Mcgrath, Deborah Ann	63 Leamy Street	*NA*
	Bradley, Becky	105 Brookside Drive	*NA*
	Bushee, Janine	362 Park Street	*NA*
Human Services	Life Skills	95 Mechanic Street	Health and Medical
	GAAMHA (Gardner Athol Area Mental Health Association)	208 Coleman Street	Health and Medical
Elderly Housing	Colonial Apartments	19 City Hall Avenue	Food, Hydration, Shelter
	Heritage Village	55 Sunrise Lane	Food, Hydration, Shelter
	Heywood Place Apartments	61 Lake Street	Food, Hydration, Shelter
	Hillside Gardens	137 Blanchard Street	Food, Hydration, Shelter
	The Binnall House	125 Connors Street	Food, Hydration, Shelter
	Garwest	116 Church Street	Food, Hydration, Shelter

Asset Type	Name	Location	Community Lifeline
Assisted Living	Heywood Commons	50 Pine Street	Health and Medical
Hospice	Gardner VNA Inc. - Hospice	34 Pearly Lane	Health and Medical
Hospital	Heywood Hospital	242 Green Street	Health and Medical
Long Term Care Facility	Heywood Rehabilitation Center	69 Pearson Boulevard	Health and Medical
	Gardner Center for Nursing and Rehabilitation	59 Eastwood Circle	Health and Medical
	Wachusett Manor	32 Hospital Hill Road	Health and Medical
	Swing Bed Coop with Athol Hospital	242 Green Street, Second Floor	Health and Medical
Prison	North Central Corr. Institute (Gardner - Medium)	500 Colony Road	*NA*
Clinics	North Central Human Services	31 Lake Street, Suites 181 & 9	Health and Medical
	Community Health Link Lipton Couns	10 Parker St 3rd Floor	Health and Medical
	Greater Gardner Community Health	175 Connors Street 1st Floor	Health and Medical
	You Inc. Family Center	205 School Street 1st Floor	Health and Medical
Community Groups	Acadien Social Club,	193 Parker Street	*NA*
	American Legion	22 Elm Street	*NA*
	Deep Sea Club	26 Nicols Street	*NA*
	Elks Club	31 Park Street	*NA*
	Fraternal Order of Eagles	City Hall Avenue	*NA*

Asset Type	Name	Location	Community Lifeline
	Gardner Deer Club	221 High Street	*NA*
	Gardner Fish and Gun Club	538 Clark Street	*NA*
	Gardner Rifle and Pistol Club	P.O. Box 704,	*NA*
	Lithuanian Club (The Lits Club)	23 Airport Road	*NA*
	Napoleon Club	271 Park Street	*NA*
	Polish American Citizens Club	294 Pleasant Street	*NA*
	Rabbit Club	1559 Whitney Street	*NA*
	Saint Paul Lodge (Free Masons)	42 Central Street	*NA*
	West End Beagle Club	110 Clark Street	*NA*

3.2.2. | Structures Assets

"Structure" assets are built facilities including residential, commercial, and industrial facilities that may be in harm's way during a hazard event. Many of these structures provide community lifeline services. Gardner is a small post-industrial city with a mix of suburban and urban land uses. The community includes dense residential neighborhoods surrounding a traditional downtown core with commercial and civic uses, while outlying areas feature low-density housing, open space, and significant conservation land. There are also extensive wetlands and hilly terrain that limit future development in certain parts of the City.

Development Since Previous Hazard Mitigation Plan

According to the 2025 Master Plan, Gardner's land use by parcels is comprised of residential development (nearly 30% of the City's land cover), agriculture (roughly 7% of the City's land cover), and conservation land (just about 33% of the City's land cover).

Areas of high-density residential use are concentrated in and around downtown Gardner. The historic downtown core contains the City's highest concentration of multifamily housing and mixed-use buildings. Neighborhoods immediately surrounding downtown, including areas along Water Street, Parker Street, and Central Street, have smaller lot sizes and a higher density of single-family homes compared to the outer parts of the City. Higher-density residential development is also found along specific corridors, particularly Pearson Boulevard and portions of Timpany Boulevard, where multifamily zoning allows for garden-style apartments and mixed-use development.

High-density agricultural use is primarily located in the southwest portion of Gardner. Approximately 820 acres, representing about seven percent of the City's land area, are enrolled in Chapter 61 agricultural

and horticultural programs and are largely concentrated in this area. In addition, smaller active farms are scattered throughout the City, with many parcels in the southern and southwestern areas remaining in limited agricultural use despite increasing residential development pressure.

High-density conservation and open space use accounts for more than one-third of Gardner's land area. The largest protected holdings include Dunn Pond State Park, the Wapaca (Crystal Lake) watershed lands, and extensive tracts surrounding Wilder Brook and Wampanoag land holdings. Significant areas around the City's reservoirs and wetlands are also permanently protected through water supply and watershed protection programs.

Gardner's land use goals include:

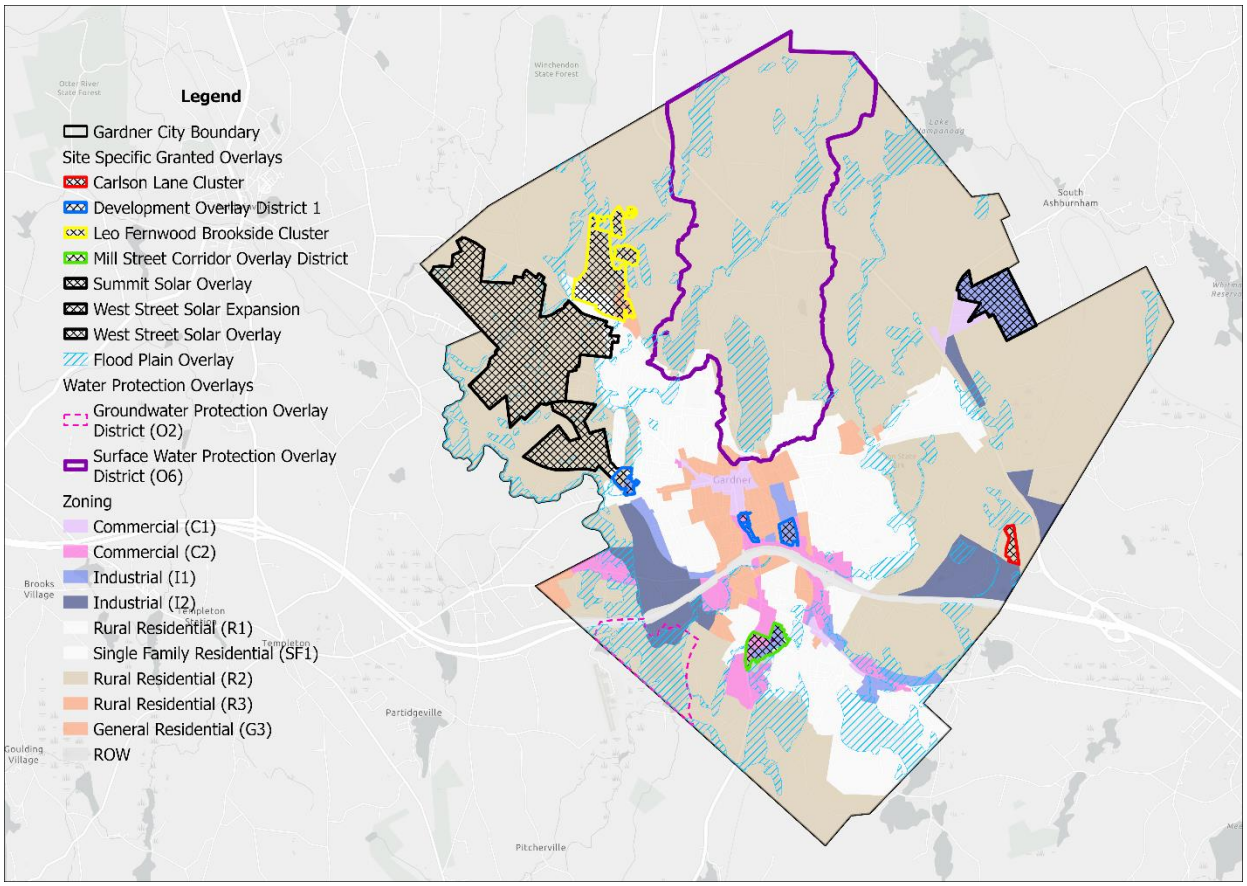
- **Preserve Neighborhood Character and Open Space –** Maintain the integrity of established neighborhoods while protecting large tracts of conservation land and sensitive environmental resources.
- **Support Compact and Efficient Development –** Encourage infill development, mixed-use zoning downtown, and higher density in corridors where infrastructure exists.
- **Balance Conservation with Growth –** Use tools such as overlay districts, conservation restrictions, and flexible zoning to reconcile economic development with Gardner's extensive protected lands.
- **Encourage Industrial and Commercial Readiness –** Ensure shovel-ready industrial parcels and reuse of vacant mills/brownfields to diversify the tax base.
- **Link Land Use to Housing and Economic Needs –** Integrate zoning and planning decisions with housing affordability, aging population needs, and targeted industry growth.

Gardner regulates land use and development through zoning, which has the capacity to guide the development of vacant land. There are 10 conventional use districts, 8 site specific granted overlay districts, and 2 water protection overlay districts:, as described in Table 3.3.

Table 3.3: Table of Gardner Zoning Districts

Site Specific Granted Overlay Districts	Water Protection Overlays	Zoning District
• Carlson Lane Cluster • Development Overlay District 1 • Leo Fernwood Brookside Cluster • Mill Street Corridor Overlay District • West Street Solar Expansion • West Street Solar Overlay	• Groundwater Protection Overlay (O2) • Surface Water Protection Overlay (O6)	• Commercial (C1) • Commercial (C2) • Industrial (I1) • Industrial (I2) • Rural Residential (R1) • Single Family Residential (SF1) • Rural Residential (R2) • Rural Residential (R3) • General Residential (G3) • ROW

Figure 3.3: Map of Gardner Zoning Districts



Source: City of Gardner

There are also a variety of development standards incorporated in site plan review related to landscaping, parking and loading, signage, and outdoor lighting, all of which guide land use and development.

Since the preparation of the Montachusett Regional Natural Hazard Mitigation Plan in 2015, a number of new or redevelopment projects have occurred in the City of Gardner.

Table 3.4 shows the number of annual building permits in Gardner. There is a general trend of annual building permits decreasing since 2015 by approximately a third and decreasing number of demolition permits.

This level of development coupled with existing land use controls through zoning and wetlands result in an overall decrease in the community's vulnerability to natural hazards.

Table 3.4: Annual Building Permits in Gardner since 2015 (Last HMP)

Year	Number of Construction Permits	Number of Demolition Permits
2015	31	14
2016	29	21

Year	Number of Construction Permits	Number of Demolition Permits
2017	32	17
2018	23	19
2019	14	17
2020	12	10
2021	16	20
2022	18	15
2023	10	15
2024	10	5

Existing Structure Assets

Table 3.5 shows current structural assets in Gardner by type. In addition, the relevant community lifeline, previously described in Section 3.1.2., is noted.

Table 3.5: Structure Assets

Asset Type	Name	Location	Community Lifeline
Emergency Response	Gardner EOC	61 East Broadway	N/A
Emergency Dispensing Sites	Gardner High School	200 Catherine Street	N/A
	Gardner Middle School	297 Catherine Street	N/A
City Facilities	Gardner City Hall	95 Pleasant St	N/A
	Gardner District Courthouse	108 Matthews St	N/A
	Gardner Highway Department	416 West Broadway	N/A
	Gardner Senior Center	294 Pleasant St	N/A
Post Office	Gardner Post Office	69 Pleasant St	N/A

Asset Type	Name	Location	Community Lifeline
Animal Clinics	Gardner Animal Control Facility	899 West Broadway	Health and Medical
End of Life Facilities	Boucher Funeral Home	110 Nichols St.	Health and Medical
	Smith Funeral Home Inc.	69 Vernon St.	Health and Medical
Grocery	Stop & Shop	384 Timpany Boulevard	Food, Hydration, Shelter
	Price Chopper	560 Main Street	Food, Hydration, Shelter
	Walmart	677 Timpany Boulevard	Food, Hydration, Shelter
	Hannaford Supermarket	21 Timpany Boulevard	Food, Hydration, Shelter
Pharmacy	CVS	314 Main Street	Health and Medical
	Walmart (Pharmacy)	677 Timpany Boulevard	Health and Medical
	Rite Aid	232 Main Street	Health and Medical
	Rite Aid	52 Pearson Boulevard	Health and Medical
	Heywood Hospital (family pharmacy)	242 Green Street	Health and Medical
	Stop & Shop (pharmacy)	384 Timpany Boulevard	Health and Medical
Hardware / Building Supply	Lynde Hardware Store	483 Main Street	N/A
	Aubuchon Hardware	34 Pearson Boulevard	N/A
	Maki Building Supply	35 Linus Allain Avenue	N/A
	Wheelen Supply	114 Main Street	N/A
Dams	Wrights Reservoir Dam (High Hazard)		N/A
	Cowee Pond Dam (High Hazard)	N/A	N/A

Asset Type	Name	Location	Community Lifeline
	Perley Brook Reservoir Dam (High Hazard)	N/A	N/A
	Bents Pond Dam	N/A	N/A
	Old Duck Pond Dam	N/A	N/A
	Crystal Lake Dike	N/A	N/A
	Old Mill Storage Pond Dam	N/A	N/A
	Farm Pond Dam	N/A	N/A
	Stump Pond Dam	N/A	N/A
	Distribution Reservoir Dam	N/A	N/A
	Old Poor Farm Pond Dam	N/A	N/A
	Murdock Pond Dam	N/A	N/A
	Beagle Pond Dam	N/A	N/A
	Parker Pond Dam	N/A	N/A
	Dunn Pond Dam	N/A	N/A
	Ramsdall Pond Dam	N/A	N/A
	Hobbys Pond Dam	N/A	N/A
	Hilchey Pond Dam	N/A	N/A
	Wayside Pond Dam	N/A	N/A
	Mahoney Pond Dam	N/A	N/A

Critical infrastructure like dams and levees provide recreation, water supply, floodplain management, energy, and other essential functions. Dam owners and operators can be private, non-profit, or public. These structures and their owners are a vital component of local hazard mitigation.

The Hazard Potential Classification System for Dams provides an indication of the consequences of failure of a dam in the United States. This system contains three classes I – Low, II – Significant, and III – High, each representing the degree of potential damage to downstream life and property (FEMA, 2004).

The City of Gardner owns and operates 14 dams, as shown in Table 3.4, above. Three of these dams (Wrights Reservoir, Cowee Pond, and Perley Brook Reservoir) are high hazard dams. There are also seven private dams in the City. These dams are assigned the significant hazard potential classification, which means failure or mis-operation will cause loss of human life. Some of these dams are not assigned a classification code.

Potential Future Development

The City's 2025 Master Plan projects an ~7% growth in population from 2025 through 2040, which amounts to approximately 1,500 residents. The Master Plan also predicts housing will see between 8-10% growth from 2025 through 2040, adding approximately 700-900 housing units.

3.2.3. | Systems Assets

Systems are defined as "a collection of components that perform a critical service for the community. Systems are linear type assets. Systems may include horizontal assets associated with linear type assets." (FEMA, 2022).

Table 3.6: Systems Assets

Asset Type	Name	Location	Community Lifeline
Culvert & Bridges	Culverts and Bridges	N/A	Transportation
Roads	Interstates, overpasses, and high priority corridors	N/A	Transportation
Pump Stations	Crystal Lake Pumping Station	99 Heywood Street	Water Systems / Food, Hydration, Shelter
Drinking Water Supply Wells	Snake Pond Well	N/A	Water Systems / Food, Hydration, Shelter
	Cowee Pond	N/A	Water Systems / Food, Hydration, Shelter
	Perley Brook Reservoir	N/A	Water Systems / Food, Hydration, Shelter
	Crystal Lake	N/A	Water Systems / Food, Hydration, Shelter
	Camp Collier	N/A	Water Systems / Food, Hydration, Shelter

Asset Type	Name	Location	Community Lifeline
Natural Gas	Unitil Gas Lines	N/A	Energy (Power & Fuel)
Electricity	National Grid Substation	53 Park Street	Energy (Power & Fuel)
	Transmission Lines	N/A	Energy (Power & Fuel)
Cable	Xfinity Cable, DIRECTV Cable, DISH Cable	N/A	Communications
Communications	WGAW – Gardner Radio Station	N/A	Communications
Gas Stations	Shell Station	4 Oak Street	Energy (Power & Fuel)
Broadband Internet Providers	Xfinity, Gateway Fiber, T-Mobile 5G Home, Verizon 5G	N/A	Communications
Communications	WGAW – Gardner Radio Station	N/A	Communications
Public Alert Systems	CodeRED	N/A	Communications
Gas Stations	Shell Station	4 Oak Street	Energy (Power & Fuel)
	BP Station	221 Main Street	Energy (Power & Fuel)
	Gulf Station	76 City Hall Avenue	Energy (Power & Fuel)
	Shell Station	264 Timpany Boulevard	Energy (Power & Fuel)
	Shell Oil	6 Pearson Boulevard	Energy (Power & Fuel)

Asset Type	Name	Location	Community Lifeline
	Sunoco	17 Pearson Boulevard	Energy (Power & Fuel)
	Hess	19 Pearson Boulevard	Energy (Power & Fuel)
Transfer Station / Sludge Landfill	Gardner Transfer Station	744 West Street	Hazardous Materials
Hazardous Materials Site	National Grid Substation	53 Park Street	Hazardous Materials
	Verizon C.O.	43 West Street	Hazardous Materials
	Pan Am	Union Square	Hazardous Materials
	Data Guide Cable	232 Sherman Street	Hazardous Materials
Rail Yard	Rail Yard	Gardner Freight Rail Yard	N/A

3.2.4. | Natural Resources Assets

Natural Resources are defined as “areas that provide protective function to reduce magnitude of hazard impact and increase resiliency, areas of sensitive habitat that are vulnerable to hazard events, and protection of areas that are important to community objectives, such as the protection of sensitive habitat, provide socio-economic benefits, etc.” (FEMA, 2022).

Table 3.7: Natural Resources Assets

Asset Type	Name	Location	Community Lifeline
Parks	Bailey Brook Park	N/A	N/A
	Bailey Brook Conservation Area	N/A	N/A
	Volney Howe Park	N/A	N/A
	Otter River Conservation Area	N/A	N/A
	Cummings Conservation Area	N/A	N/A
	Gardner City Forest	N/A	N/A

Asset Type	Name	Location	Community Lifeline
	Monument Park	N/A	N/A
	Bullnose Park	N/A	N/A
	Berley Brook	N/A	N/A
	Westminster State Park (North-East Gardner)	N/A	N/A
	Alisauskas	N/A	N/A
	Dunn Park	N/A	N/A
	High Ridge Wildlife Area	N/A	N/A
	Mass Audubon Society	N/A	N/A
	Rome Conservation Area	N/A	N/A
	Lake Wampanoag Wildlife Sanctuary	N/A	N/A
	Ebenezer Keyes Conservation Area	N/A	N/A
Water Resources	Burley Watershed + Tributaries	N/A	N/A
Conservation & Land Trust	Mount Grace Land Conservation Trust	N/A	N/A
	North County Land Trust	N/A	N/A

3.2.5. | Cultural and Historic Resources Assets

Table 3.8: Cultural and Historic Resources Assets

Asset Type	Name	Location	Community Lifeline
Historic Resources	Gardner Museum	28 Pearl Street	N/A
Cemeteries	Green Bower Cemetery	N/A	N/A

Asset Type	Name	Location	Community Lifeline
	Crystal Lake Cemetery	N/A	N/A
	St Josephs Cemetery	N/A	N/A
	Wildwood Cemetery	N/A	N/A
	St John Cemetery	N/A	N/A
Historic Resources Inventory	Elm Street Fire Station	58 Elm Street	N/A
	Heywood, Levi Memorial Library	28 Pearl Street	N/A
	West Gardner Square Historic District	N/A	N/A
	Gardner Uptown Historic District	N/A	N/A
	Heywood-Wakefield Company Complex	206 Central Street	N/A
	238 Additional Registered Historic Resource Inventory Assets (Massachusetts Cultural Resource Information System)	N/A	N/A
Cultural Groups	Acadien Social Club,	N/A	N/A
	American Legion	N/A	N/A
	Deep Sea Club	26 Nicols Street	N/A
	Elks Club	31 Park Street	N/A
	Fraternal Order of Eagles	City Hall Avenue	N/A
	Gardner Deer Club	221 High Street	N/A
	Gardner Fish and Gun Club	538 Clark Street	N/A

Asset Type	Name	Location	Community Lifeline
	Gardner Rifle and Pistol Club	P.O. Box 704,	N/A
	Lithuanian Club (The Lits Club)	23 Airport Road	N/A
	Napoleon Club	271 Park Street	N/A
	Polish American Citizens Club	294 Pleasant Street	N/A
	Rabbit Club	1559 Whitney Street	N/A
	Saint Paul Lodge (Free Masons)	42 Central Street	N/A
	West End Beagle Club	110 Clark Street	N/A

3.2.6. | Economic Assets

Economic assets are defined as entities that produce a financial benefit for the owner or community, while community assets are defined as "Activities that benefit the community by increasing community morale and well-being. Activities may include education and knowledge transfer." (FEMA, 2022).

Table 3.9: Economic Assets

Asset Type	Name	Location	Community Lifeline
Commercial Corridors	North Central Pathway	N/A	Transportation
	Main Street	N/A	Transportation
	Timpany Boulevard	N/A	Transportation
Largest Employers	Heywood Memorial Hospital	242 Green St	Health and Medical
	Mount Wachusett Community College	444 Green St	N/A
	North Central Correctional Institution	500 Colony Rd	N/A
	Wal-Mart	677 Timpany Blvd	N/A

Asset Type	Name	Location	Community Lifeline
	Garlock Printing & Converting	164 Fredette St	N/A
	Gardner Rehabilitation & Nursing Center	59 Eastwood Circle	N/A
	Advance Cable Ties	245 Suffolk Ln	N/A
	Price Chopper	560 Main St	N/A
	New England Woodenware	205 School St #201	N/A
	Denne Crepe Corp	70 Fredette St	N/A
Economic Development & Business Support	Greater Gardner Chamber of Commerce	N/A	N/A
	Wachusett Business Incubator	N/A	N/A
	Community Foundation of North Central Massachusetts	N/A	N/A
	Gardner Square Two	N/A	N/A

4

4. Risk Assessment: Natural Hazards, Asset Vulnerabilities, and Community Impacts

Natural hazards have the potential to induce damage or loss to physical assets, including the structures, infrastructure, and natural, historic, and cultural resources within the City. Natural hazards also have the potential to affect people, including priority populations, municipal processes and operations, and activities that have value to the community.

As explained by FEMA, "in hazard mitigation planning, risk is the potential for damage or loss when natural hazards interact with people or assets. These assets may be buildings, infrastructure or natural and cultural resources. The way natural hazards interact with a community's people, property and assets can result in a disaster. A risk assessment is a robust, data-driven analysis. It explains what might happen. It also finds where the local jurisdiction is vulnerable to hazards" (FEMA, Local Mitigation Planning Handbook, 2023).

4.1. Key Terms & Methods

As previously stated in Section 1.1, Natural Hazards are a source of harm or difficulty created by a meteorological, environmental, or geological event (such as extreme wind events, tornadoes, winter weather as well as earthquakes, flooding, and fires) (FEMA). The natural hazards presented herein are those from the 2023 ResilientMass Plan that apply to Gardner. Because Gardner is not a coastal community, this plan does not discuss Coastal Erosion, Coastal Flooding, or Tsunami.

Average / Extreme Temperatures

Changes in Groundwater

Drought

Earthquakes

	Flooding from Precipitation
	Hurricanes / Tropical Cyclones
	Invasive Species
	Landslides/Mudflows
	Tornadoes
	Wildfire
	Winter Storms / Nor'easters
	Other Severe Weather

For each natural hazard, the following is discussed in accordance with FEMA guidance:

- **B1-a:** How is the hazard described (description)?
- **B1-b:** Where might it happen in Gardner (location)?
- **B1-c:** How severe or intense may it be (extent)?
- **B1-d:** Where has it happened in the past (previous occurrences) and how likely it is to occur (frequency)?
- **B1-e:** How may it change in the future (probability)?
- **B2-a:** Which assets are at risk from it (vulnerability)?
- **B2-b:** What effects will it have on the community assets including populations (impacts)?

The following methods were used to complete each section of the risk assessment:

- **Description:** A description for each natural hazard from the Massachusetts 2023 State Hazard Mitigation and Climate Adaptation Plan (ResilientMass Plan) is provided.
- **Location:** Location is the geographic boundary in which a hazard occurs or the type of environment that is conducive to the hazard. This may include areas larger or smaller than the City of Gardner's jurisdiction. It may also include a specific land cover or topographic environment.

- **Severity/Intensity:** The likely magnitude of the hazard, using industry standard scales where applicable. For example, the National Hurricane Center's categorizations of tropical storms and hurricanes was used to define the range of hurricanes that may affect areas of Massachusetts. When no standard scale is available, a qualitative description is provided.
- **Previous Occurrence(s) and Frequency:** A list or summary of historical occurrences of the natural hazard event within or near Gardner. Frequency refers to how often the hazard has occurred in the past within the geographical area, based on historic records publicly available.
- **Probability of Future Hazard Events:** Probability is the likelihood of a hazard occurring or recurring. This includes the effects of future conditions, including long term weather patterns and temperatures on the type, location, and range of anticipated intensities of the hazard. Climate projections indicate a change in long-term weather patterns. This section identifies how extreme weather now and, in the future, may affect the probability of the natural hazard occurring, and to what degree it may change. In 2018, the Massachusetts Executive Office of Energy and Environmental Affairs created ResilientMA Climate Change Clearinghouse, an online data viewer for local governments and the public to explore climate change science and data, information on community resilience, and decision support tools. The climate change planning efforts that ResilientMA Climate Change Clearinghouse has undertaken have focused on the 2030, 2050, 2070, and 2090 planning horizons, which are defined by the bounding years 2020-2039, 2040-2059, 2060-2079, and 2080-2099, respectively. The viewer, which is now called the ResilientMass Climate and Hazard Viewer, was recently revised in 2022 with the updated climate change projections data developed as part of the Climate Resilient Design Standards Tool and is recommended by the State. Future climate data in this report uses data from the revised version of ResilientMass Climate and Hazard Viewer and the ResilientMass Plan (2023) where available.
- **Vulnerability:** A description of which assets within locations identified to be hazard prone are at risk from the effects of the identified hazard(s). To determine which assets identified in Chapter 3 are located within an area identified to be hazard prone, presently or in the future, the natural hazard profiles presented in this Chapter were utilized. For inland flooding, GIS mapping of assets and areas of flooding were utilized to describe vulnerability, as further described in Section 4.7. For all other hazards, the identified hazard is not mapped or cannot be mapped and therefore a qualitative analysis that relies on local knowledge and rational decision making was used to identify vulnerability. Vulnerability discussions focus on specific assets that are most important and most susceptible to damage or loss from hazards.
- **Impacts:** Consequences or effects of each hazard on the City's assets identified in the vulnerability assessment. The categories below discuss general impacts that can be the result of natural hazards affecting Gardner's assets. The impacts in Table 4.1 are discussed throughout this Chapter.
- **Historical Analysis:** Historical analysis uses data on the impacts and losses of previous hazard events, which can be used to predict the anticipated impacts and losses for a similar future event.

- **Exposure Analysis:** An exposure analysis identifies the existing and future assets in known hazard areas. GIS is often used for this analysis and to make maps to visualize the risk. An exposure analysis can quantify the number, type and value of structures, community lifelines and other assets in areas of identified hazards. It can identify any assets exposed to multiple hazards. Exposure analysis can also help a community understand areas that may be vulnerable if and when buildings, infrastructure and community lifelines are built in hazard-prone areas.
- **Scenario analysis:** A scenario analysis asks "what if" a certain event occurs. This kind of analysis uses a hypothetical situation to think through potential impacts and losses. A scenario analysis can be completed narratively by walking through a scenario with the planning team and documenting what could happen. It can also be completed using modeling. FEMA's Hazus program is one of the most common scenario analysis tools for hazard mitigation. For Gardner, FEMA's Hazus-MH Version 2.2 SP1 was used to estimate potential losses from earthquakes, flooding, and hurricanes.

The categories below discuss general impacts that can be the result of natural hazards affecting Gardner's assets. The impacts are discussed throughout this Chapter.

Table 4.1: Types of Impacts due to Occurrence of Natural Hazards

Impact Category	Description
Human Health & Safety	Loss of life through death; physical injuries including cuts, bruises, broken bones, or amputations; public health crises from spread of disease, bacterial infections, vector-borne illnesses, elevated emergency room visits, and respiratory problems from air pollution, allergens, and mold; psychological impacts including trauma, anxiety, stress, and PTSD.
Displacement & Community Disruption	Forced abandonment of homes due to unsafe living conditions (permanent or temporary); cancellation or postponement of sporting events or other activities important to the community; damage to parks, community centers, or public pools that inhibit recreation; destruction of historic or cultural landmarks.
Property & Building Damage	Damage to physical structures, contents within homes and buildings, and vehicles; structural damage to roofs, walls, or foundations; building collapse or destruction.
Infrastructure Damage	Damage to power lines, communications towers, and water, wastewater, and gas mains resulting in power outages and loss of services and communication; damage to or debris build-up on roads, bridges, railways, or airports rendering them impassable or unsafe; disruption to medical facilities, emergency services, or transportation networks preventing provision of essential services.
Water Resources & Utilities	Disruption to agriculture practices; yield reduction or damage to drinking water wells; increased cost of utilities; disruption of utilities creating travel delays or lack of services.
Economic & Business	Lost wages; closure of or interruption to businesses; increased insurance premiums; increased costs for repairs and rebuilding; decreased property values; disruption of industry and transport of goods and services; decreased tourism revenues.

Impact Category	Description
Government & Municipal Resources	Increased demand for state and municipal government services; cost to repair services; increased need for municipal resources; disruption of resources.
Environmental Contamination	Air pollution from dust and debris; transport of toxic chemicals by floodwaters; release of hazardous materials into soil and water; decreased water quality; sewage release into waterways.
Ecological & Geological	Loss of wildlife; loss or destruction of habitat; disruption to migratory patterns; loss of biodiversity; loss of or damage to natural resources; changes in groundwater temperature; landslides; erosion; removal of topsoil; debris deposit; altered nutrient balance.

4.1.1. | Development Trends Since 2015

Total housing units in Gardner increased from 9,126 (2010 Census) to 9,411 (2020 Census), representing 3% growth. Figure 4.1 shows the geographic distribution of residential address changes between 2020-2025, highlighting areas where development activity has been concentrated.

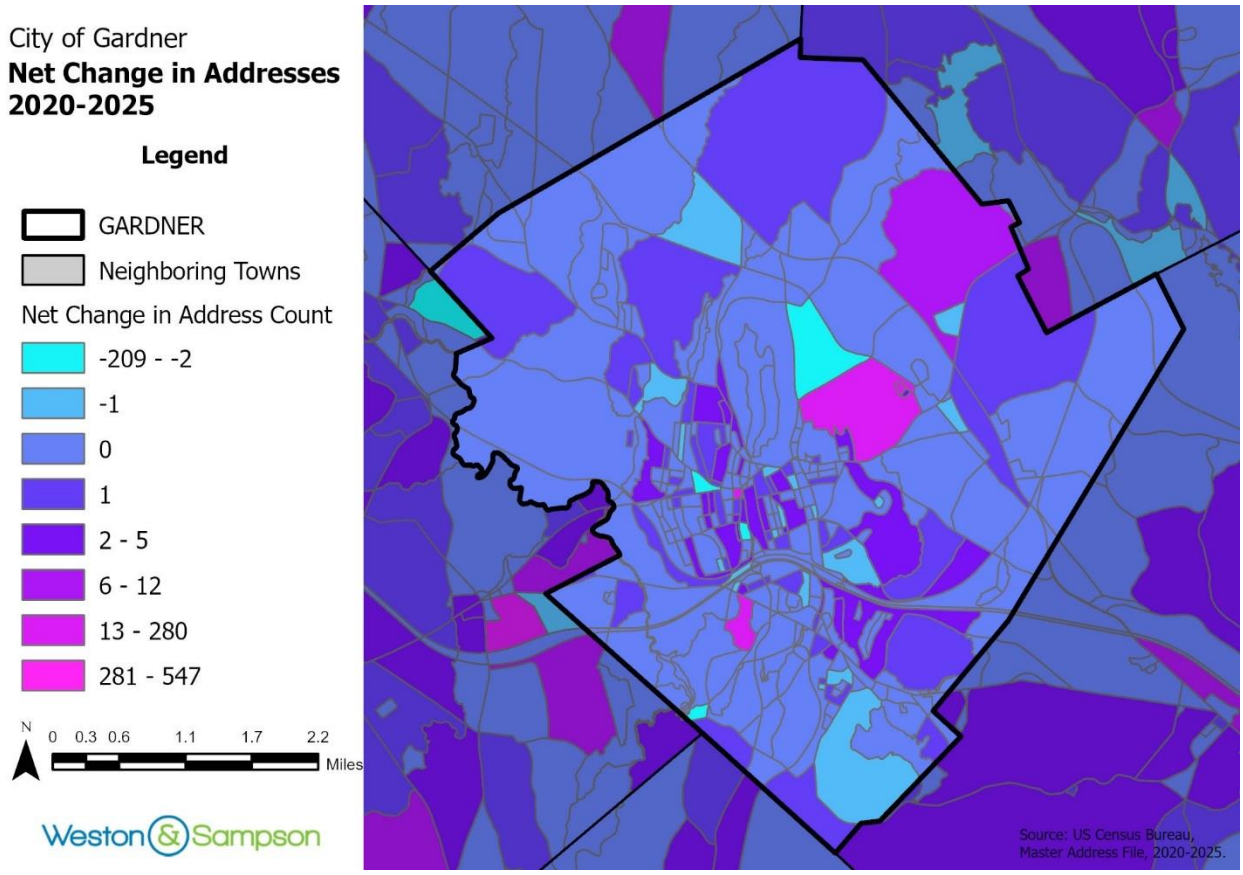
The highest-growth area near Route 140 and Mount Wachusett Community College corresponds to Sapphire Park, a 55+ manufactured housing community approved for 103 lots on leased land, with streets including Ruby Road, Opal Lane, and Topaz Terrace. Development began around 2015 and continued through 2025 in phases. In manufactured housing communities on leased land, Census address counts may reflect pad activation and address formalization over time rather than one-for-one household additions, potentially overstating net housing growth in the highest change category.

Downtown Gardner has experienced significant housing additions through adaptive reuse and new construction. Major projects include a 56-unit workforce housing apartment complex at Rear Main Street/Derby Drive, and multiple building conversions adding dozens of units: the Central Park Building at 280-320 Central Street (28 units), the Bullnose/Shawmut Bank Building at 25 Main Street (14 units), the Garbose Building at 2-10 Parker Street (18 units), the former Gardner News building at 309 Central Street (12 units), conversions at 42-50 and 52 Parker Street (29 apartments), and the Empire Building at 14-24 Parker Street (10 units). These downtown projects contribute to the moderate address increases visible in the city center.

South of Route 2, scattered infill development has occurred on streets including Stephanie Drive, where individual new single-family homes have been constructed on previously undeveloped or underutilized lots. Though the City has seen larger homes built and existing homes enlarged into low lying areas as well as flood prone areas, any new development is subject to current building code for wind and flooding (wave action).

While Gardner's population and total number of households have shown slight declines (or modest stagnation), recent planning documents point to significant future development capacity, particularly in residential, commercial, and industrial land use. A 2010 build-out analysis for the 140 Corridor identified room for 792 new housing units and over 3 million square feet of non-residential floor space (Scanlan, 2010).

Figure 4.1. Net Change in Addresses 2020-2025



Source: Census Master Address File, Weston & Sampson Analysis.

Note: This analysis uses Census address data derived from the U.S. Census Bureau's Master Address File (MAF), which is updated continuously using administrative records, local government submissions, and Census field operations. Net address change between 2020 and 2025 reflects changes in the Census address count, which serves as an indicator of net change in the housing stock, accounting for both additions and removals. Address changes may reflect new construction, demolition, unit reclassification, or corrections to the Census address database. While this measure provides a closer approximation of net housing stock change than building permits alone, it may include administrative updates and does not capture unit characteristics such as tenure, affordability, or occupancy.

4.1.2. | Population Trends Since 2015

Gardner's population declined from approximately 20,770 in 2000 to 20,228 in 2010, then increased approximately 5% to 21,221 in 2020 (U.S. Census Bureau, 2000, 2010, 2020). Estimates from 2023 indicate the population has remained stable at approximately 21,075 residents (2019-2023 ACS). This growth coincides with the 3% increase in housing units from 9,126 (2010 Census) to 9,411 (2020 Census). While UMass Boston Donahue Institute projections anticipate gradual population decline through 2050 to as low as 18,000, Gardner's recent growth trend and ongoing development activity suggest the City may continue to attract new residents (UMass Donahue Institute, 2024).

Significant demographic shifts have affected the community's disaster vulnerability profile (American Community Survey Data Mapping, 2019-2023; American Community Survey Mapping, 2014-2018):

- **Aging Population:** The population age 65 and older increased substantially from 15.3% to 19.5% of total population between 2014-2018 and 2019-2023 (PolicyMap, 2019-2023; PolicyMap, 2014-2018). This represents one of the most significant demographic changes affecting Gardner's hazard vulnerability, as older adults face heightened challenges during disasters due to potential mobility limitations, health concerns, and difficulties with evacuation and sheltering. The number of elderly householders living alone increased from 888 to 1,072 during this same period. Gardner's elderly population, classified as 65 and older, is expected to continue to grow to 28% of the population by 2050 (UMass Donahue Institute, 2024).
- **Disability:** Residents with disabilities increased substantially from 13.6% to 17.8% of the population between 2014-2018 and 2019-2023 (PolicyMap, 2019-2023; PolicyMap, 2014-2018). This 4.2 percentage increase is driven primarily by sharp rises in independent living difficulty (5.4% to 8.8%) and cognitive difficulty (6.1% to 9.0%). These disability types have significant implications for emergency preparedness, evacuation, sheltering, and recovery:
    - Independent living difficulty affects 8.8% of the population, indicating residents who struggle with tasks essential to disaster preparedness and recovery. Among residents 75 and over, 20.8% report independent living difficulty, up from 16.4%.
    - Cognitive difficulty affects 9.0% of the population, up from 6.1%, creating challenges for understanding emergency warnings, following evacuation instructions, and navigating recovery processes.
    - Ambulatory difficulty affects 7.3% of the population, with 29.4% of residents age 75 and over experiencing mobility limitations that affect evacuation capability.
    - Self-care difficulty affects 3.0% of the population, requiring accessible shelter facilities and specialized care during displacement.
    - These disability trends compound the challenges facing Gardner's rapidly aging population and require targeted emergency planning for evacuation assistance, accessible sheltering, and recovery support.
- **Transportation Access:** Households without vehicle access increased from 10.7% to 11.1% of housing units, affecting evacuation capability during flood, wildfire, or hurricane events and limiting access to emergency services and recovery resources (PolicyMap, 2019-2023; PolicyMap, 2014-2018).
- **Youth Population:** The population under 18 declined from 19.7% to 18.5%, though this group remains a significant vulnerable population during disasters, particularly for school-based sheltering and family reunification planning (PolicyMap, 2019-2023; PolicyMap, 2014-2018).
- **Economic Vulnerability:** Poverty rates decreased slightly from 15.0% to 14.3%, though nearly one in seven households still faces economic constraints that limit disaster

preparedness capacity, insurance coverage, and recovery resources (PolicyMap, 2019-2023; PolicyMap, 2014-2018).

- **Communication Access:** Internet access improved substantially from 83.4% to 91.4% of households, enhancing the community's ability to receive emergency alerts and warnings through digital channels, though nearly 9% of households still lack this critical communication tool (PolicyMap, 2019-2023; PolicyMap, 2014-2018).

Spatial Distribution of Vulnerable Populations

Vulnerable populations are not evenly distributed across Gardner. Block group-level data shows the highest concentration of elderly residents (28.09%) in neighborhoods around Elm Street, substantially above the citywide average of 19.5%. Downtown Gardner has the highest concentration of households without vehicle access, with over 12% of housing units lacking vehicles in the core area. These spatial patterns intersect with hazard exposure differently depending on the specific risk, as discussed in each hazard profile below.

4.2. Previous Federal/State Disaster Declarations

To understand the importance of hazard mitigation, it is useful to know the types and frequencies of disasters that occur in Gardner. Since 1985, there have been 22 storms in Gardner that resulted in Federal or State Disaster Declarations in Worcester County, which include the City of Gardner. (FEMA, Disaster Declarations for States and Counties, 2024). These disasters are described in Table 4.2.

Table 4.2: Disaster Declarations in Worcester County

Disaster Name	Date of Event	Disaster Number	Type of Assistance	Areas Under Declaration	MA*
Hurricane Gloria	Sep 27, 1985	DR-751-MA	FEMA Public Assistance	Counties of Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth, Suffolk, Worcester	
Severe Storms, Flooding	Mar 30, 1987 - Apr 13, 1987	DR-790-MA	FEMA Public Assistance; FEMA Individual & Households Program	Counties of Berkshire, Essex, Franklin, Hampshire, Middlesex, Norfolk, Worcester	

Disaster Name	Date of Event	Disaster Number	Type of Assistance	Areas Under Declaration	MA*
Blizzards, High Winds and Record Snowfall	Mar 13, 1993 - Mar 17, 1993	EM-3103-MA	FEMA Public Assistance	All 14 Massachusetts Counties	
Blizzard	Jan. 7-13, 1996	DR-1090-MA	No funding reported	All 14 Massachusetts Counties	
Snowstorm		EM-3165-MA	FEMA Public Assistance	Counties of Berkshire, Essex, Franklin, Hampshire, Middlesex, Norfolk, Worcester	
Snowstorm	Feb 17, 2003 - Feb 18, 2003	EM-3175-MA	FEMA Public Assistance	All 14 Massachusetts Counties	
Snow	Dec 6, 2003 - Dec 7, 2003	EM-3191-MA	FEMA Public Assistance	Counties of Barnstable, Berkshire, Bristol, Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth, Suffolk, Worcester	
Snow	Jan 22, 2005 - Jan 23, 2005	EM-3201-MA	FEMA Public Assistance	All 14 Massachusetts Counties	
Hurricane Katrina Evacuation	Aug 29, 2005 - Oct 1, 2005	EM-3252-MA	FEMA Public Assistance	All 14 Massachusetts Counties	
Severe Storms and Flooding	Oct. 7-16, 2005	DR-1614-MA	FEMA Public Assistance; FEMA Individual & Households Program; FEMA	All 14 Massachusetts Counties	

Disaster Name	Date of Event	Disaster Number	Type of Assistance	Areas Under Declaration	MA*
			Hazard Mitigation Grant Program		
Severe Winter Storm	Dec 11, 2008 - Dec 18, 2008	EM-3296-MA	FEMA Public Assistance	Counties of Berkshire, Bristol, Essex, Franklin, Hampden, Hampshire, Middlesex, Suffolk, Worcester	
Severe Winter Storm and Flooding	Dec.11-18, 2008	DR-1813-MA	FEMA Public Assistance; FEMA Hazard Mitigation Grant Program	All 14 Massachusetts Counties	
Severe Storms and Tornadoes	Jun 1, 2011	DR-1994-MA	FEMA Public Assistance; FEMA Individual & Households Program	Counties of Hampden, Worcester	**X**
Hurricane Irene	Aug 26, 2011 - Sep 5, 2011	EM-3330-MA	FEMA Public Assistance	All 14 Massachusetts Counties	**X**
Severe Storm	Oct 29, 2011- Oct. 30, 2011	EM-3343-MA	No funding reported	Counties of Berkshire, Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Worcester	**X**
Severe Storm and Snowstorm	Oct. 29-30, 2011	DR-4051-MA	FEMA Public Assistance; FEMA Public Assistance Snow Removal; FEMA Hazard Mitigation Grant Program	Counties of Berkshire, Franklin, Hampden, Hampshire, Middlesex, Worcester	**X**

Disaster Name	Date of Event	Disaster Number	Type of Assistance	Areas Under Declaration	MA*
Hurricane Sandy	Oct 27, 2012 - Nov 8, 2012	EM-3350-MA	FEMA Public Assistance	All 14 Massachusetts Counties	**X**
Severe Winter Storm, Snowstorm, and Flooding	Feb. 8-9, 2013	DR-4110-MA	FEMA Public Assistance; FEMA Hazard Mitigation Grant Program	All 14 Massachusetts Counties	**X**
Covid-19	Jan 20, 2020 - May 11, 2023	EM-3438-MA	FEMA Public Assistance	All 14 Massachusetts Counties	**X**
Covid-19 Pandemic	Jan 20, 2020 - May 11, 2023	DR-4496-MA	FEMA Public Assistance: Emergency protective measures - direct federal assistance FEMA Individual Assistance: Crisis Counseling Program	All 14 Massachusetts counties	**X**
Massachusetts Severe Storms and Flooding	Sept. 11-13, 2023	DR-4780-MA	No funding reported	Counties of Bristol and Worcester	
Hurricane Lee	Sept. 15-17, 2023	EM-3599-MA	FEMA Public Assistance; FEMA Individual Assistance	All 14 Massachusetts counties	**X**

*MA Column indicates if disaster resulted in Commonwealth of Massachusetts Emergency Declaration. Source: Information in the table above is available online at: https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties and https://www.fema.gov/disaster/declarations

4.3. Average/Extreme Temperatures

Average/Extreme temperatures includes extreme cold, extreme heat, and the change over time of average temperatures experienced throughout the year in Massachusetts (EOEEA M. &., 2023). Although there is no universal definition, temperatures are considered extreme when they extend outside of the typical range of average conditions for acute or prolonged periods of time. Extremes can vary seasonally and occur in the form of either extreme cold or extreme heat. The 2023 ResilientMass Plan defines extreme temperatures as “those that are far outside the normal seasonal ranges for Massachusetts (EOEEA M. &., 2023).”

Extreme heat can be defined as a period of excessively hot weather- usually defined as a daily high temperature above 90 degrees Fahrenheit in Massachusetts- which may be accompanied by high humidity (EOEEA M. &., 2023).

Extreme cold is defined as a period of excessively low temperatures, especially with additional wind chill. In Boston, the National Weather Service issues a wind chill advisory when the Wind Chill Temperature index drops below -15 degrees Fahrenheit (EOEEA M. &., 2023).

4.3.1. | Location

Extreme Heat

Extreme heat is often more extreme in concentrated parts of Gardner that have less tree canopy, more pavement, and dark surfaces such as roofs and parking areas that absorb more heat. Public survey responses did not indicate a concern with extreme heat in Gardner, rather more so with extreme cold.

Extreme Cold

Extreme cold can occur throughout Gardner. Extreme cold can disproportionately affect priority community members through the City, especially for people without shelter, those who are stranded, and those who live in home that are poorly insulated or without heat. Several public survey respondents expressed specific concerns about extreme cold, particularly the challenge of maintaining safe indoor temperatures during such events.

4.3.2. | Severity/Intensity

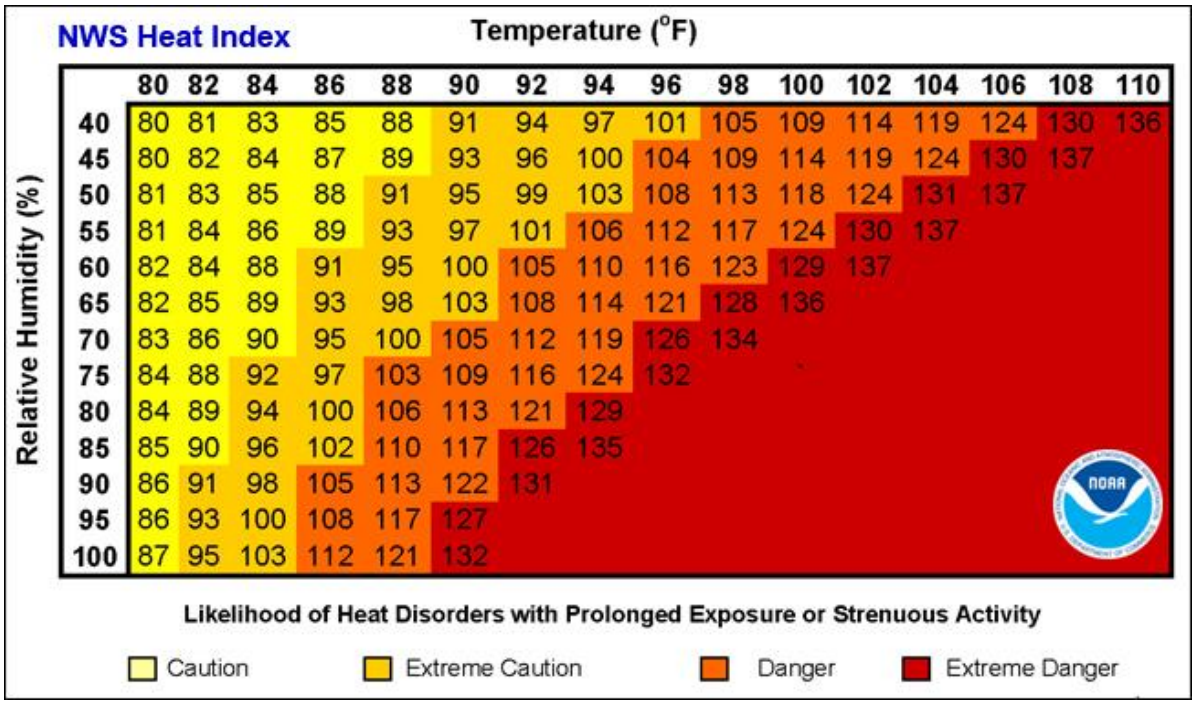
Extreme Heat

Heat waves are an extreme heat phenomenon that affects the City. Heat waves are identifiable as 3 or more consecutive days when maximum temperatures greater than 90°F occur. This implies that there is an extended period of unusually high temperatures, causing stress on everyday operations and physical health (EEA & EOPSS, 2018).

Another extreme heat phenomenon that is relevant for Gardner is the urban heat island (UHI) effect. The term “heat island” describes built-up areas that are hotter than nearby rural or shaded areas. An urban environment like the center of the City also exacerbates the effects of extreme heat through the presence of impervious surfaces. Areas of the City that have more impervious surfaces often have higher land surface temperatures. The ResilientMA Map Viewer shows areas in Gardner with higher land surface temperatures. These areas include the center of the City along Main Street, Parker Street, and West Street. Increased tree canopy and other engineered green infrastructure solutions, such as bioretention basins, rain gardens, green roofs, and highly reflective surfaces, as well as built shade structures have the potential to reduce the UHI effect in Gardner.

Relative humidity can worsen human health effects as temperatures increase. The extent of extreme heat temperatures is generally measured through the NWS Heat Index, which is based both on temperature and relative humidity, and describes a temperature equivalent to what a person would feel at a baseline humidity level. Figure 4.2 presents the heat index chart as published by the National Weather Service and NOAA.

Figure 4.2: NWS Heat Index

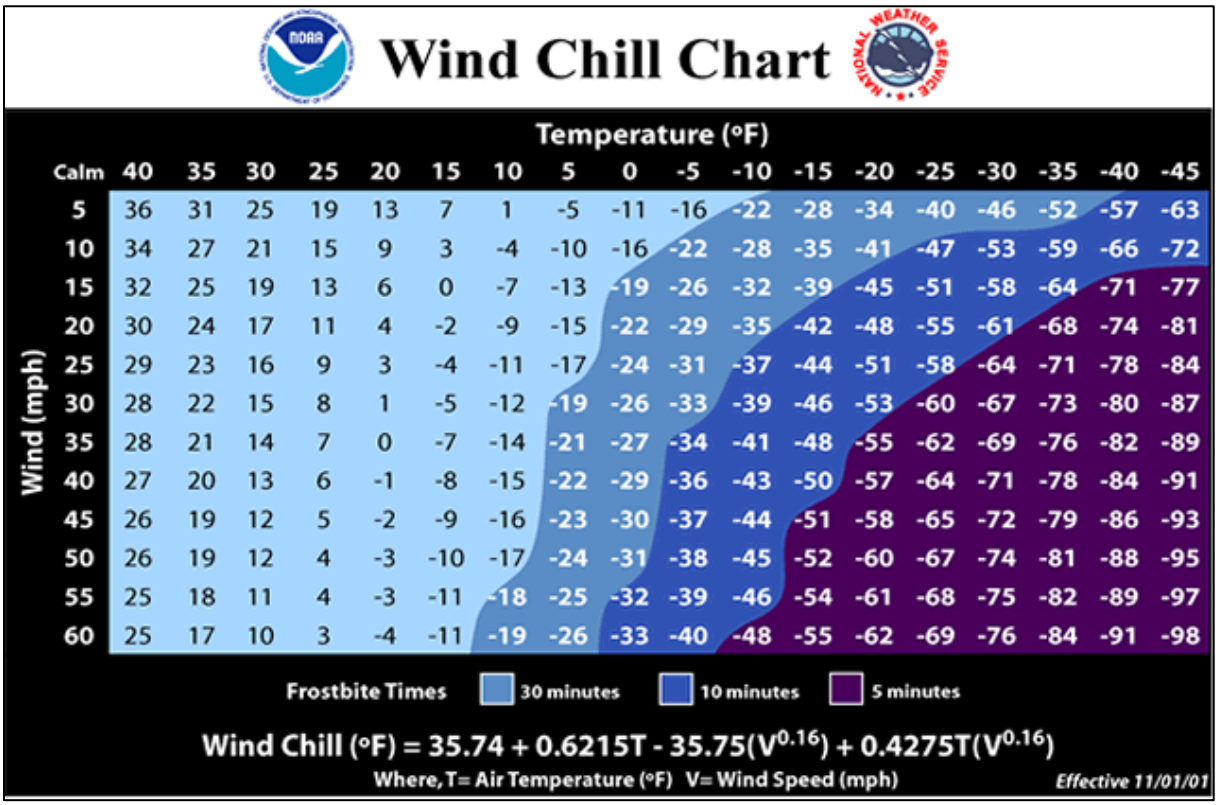


Classification	Heat Index	Effect on the body
Caution	80°F - 90°F	Fatigue possible with prolonged exposure and/or physical activity
Extreme Caution	90°F - 103°F	Heat stroke, heat cramps, or heat exhaustion possible with prolonged exposure and/or physical activity
Danger	103°F - 124°F	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity
Extreme Danger	125°F or higher	Heat stroke highly likely

Extreme Cold

Extreme cold temperatures can be exacerbated by factors such as wind and relative humidity. The extent of extreme cold temperatures is generally measured through the Wind Chill Temperature Index, and Figure 4.3 shows the Wind Chill Temperature Index. As evident from the figure, temperatures can feel colder and cause more damage to human health as wind speeds increase. The NWS issues a Wind Chill Advisory if the Wind Chill Index is forecast to dip to –15°F to – 24°F for at least 3 hours, based on sustained winds (not gusts). For example, frostbite can occur in 30 minutes at warmer than usual temperatures if wind speeds are greater.

Figure 4.3: Wind Chill Chart



4.3.3. | Previous Occurrences and Frequency

Extreme Heat

2022 was one of the hottest and driest summers on record in Massachusetts (EOEEA M. &., 2023). Over the last century, annual air temperatures increased at an average rate of 0.5 degrees Fahrenheit per decade (EOEEA M. &., 2023). Massachusetts' hottest recorded temperature was 107 degrees Fahrenheit in August 1975 (EOEEA M. &., 2023). Its coldest was negative 35 degrees Fahrenheit in February 1943 (EOEEA M. &., 2023). Gardner, like all communities in the Commonwealth, experiences notable heat events. However, none have been recorded at the county level since the Montachusett Regional HMP (2015). In that period, Northern Worcester, where Gardner is located, has experienced zero documented heat or excessive heat events.

Extreme Cold

The 2023 MA State Hazard Mitigation and Climate Adaptation Plan listed notable low temperature events between 1994 and March 2023 (ResilientMass, 2023). Gardner, like all communities in the Commonwealth during these times, experienced these extreme cold events.

Between 2018 and 2022, the National Oceanographic and Atmospheric Administration listed 17 cold warning events in Massachusetts. "In February 2023, an arctic front moved through the region with a dangerously cold airmass that stayed in place on February 3–4. The cold temperatures broke the records for the lowest recorded minimum temperature and resulted in several deaths" (ResilientMass, 2023)."

Locally, since the Montachusett Regional HMP (2015), NOAA's Storm Events database for Northern Worcester has reported 16 extreme cold events. However, the database shows no extreme cold events recorded in the county after 2020 despite continued cold weather occurrences.

Figure 4.4: Low Temperatures in Northern Worcester County

Date	Hazard
1/18/2015	Winter Weather
2/15/2015	Extreme Cold / Wind Chill
2/20/2015	Extreme Cold / Wind Chill
2/21/2015	Winter Weather
2/8/2016	Winter Weather
2/13/2016	Extreme Cold / Wind Chill
3/21/2016	Winter Weather
4/3/2016	Winter Weather
4/4/2016	Winter Weather
12/23/2017	Winter Weather
12/25/2017	Winter Weather
1/23/2018	Winter Weather
2/13/2019	Winter Weather
12/30/2019	Winter Weather
4/18/2020	Winter Weather
10/30/2020	Winter Weather

Source: NOAA Storm Event Database

4.3.4. | Probability of Future Hazard Events, including Due to Climate Change

Extreme weather events are projected to reduce the number of extreme cold events, increase the number of extreme heat events, and shift the average temperature in the Commonwealth higher and shift the seasons the warm seasons forward and lengthen their duration. The effects of these changes will include changes in growing seasons and crops, shifts in habitat and vegetation, warming surface waters, degradation of air quality, impacts on public health, and increased demand for energy and water resources (ResilientMass, 2023).

Extreme Heat

Based on all the recently published reports (IPCC, MA Climate Assessment, GBRAG) temperatures will continue to increase through the 21st century. Summers are expected to get hotter with a greater number of days with maximum temperature above 90°F and above 100°F.

The average summer across the Commonwealth during the years between 1971 and 2000 included 4 days over 90 degrees. "The MA Climate Assessment (Commonwealth of Massachusetts, 2022) predicts that by 2050 the average summer temperature will feel like that of Maryland (average high of 94°F with about 90% humidity), and by 2090 average summer temperatures will feel like that of Georgia (average high of 95°F with 90% humidity)." (ResilientMass, 2023)

The ResilientMass Climate Change Projections Dashboard shows hot days for the years 2030, 2050, 2070, and 2090 on an annual basis for the City of Gardner. Table 4.3 show the contrast between 2030 and 2090 for Hot Days.

Table 4.3: Annual Hot Days Projections for 2030-2090

Watershed Name	Baseline	# of Days Above 90 Degrees Fahrenheit 2030	# of Days Above 90 Degrees Fahrenheit 2050	# of Days Above 90 Degrees Fahrenheit 2070	# of Days Above 90 Degrees Fahrenheit 2090
Miller	4	10	23	35	56
Nashua	5	11	25	36	50

Source: ResilientMass Climate Change Projections Dashboard (Massachusetts Executive Office of Energy and Environmental Affairs, n.d.)

Extreme Cold

The number of days in Gardner that experience extreme cold are expected to decrease due to extreme weather now and in the future. "Winter temperatures have been rising at a faster rate of 1.3°F (0.7°C) per decade on average. Even what seems like a very small rise in temperatures can cause major changes in climate patterns such as rain or snowfall. In Gardner, temperatures are projected to increase significantly over the next century. Winter average temperatures are likely to increase more than those in summer, with major impacts (ResilientMass, 2023)."

The ResilientMass Climate Change Projections Dashboard shows average and cold days for the years 2030, 2050, 2070, and 2090 on an annual basis for the City of Gardner. Table 4.4 shows

the contrast between 2030 and 2090 for Average and Cold Days between the two watersheds, Miller and Nashua, that Gardner is within.

Table 4.4: Annual Cold Days Projections for 2030-2090

Watershed Name	Baseline	# of Days Below 32 Degrees Fahrenheit 2030	# of Days Below 32 Degrees Fahrenheit 2050	# of Days Below 32 Degrees Fahrenheit 2070	# of Days Below 32 Degrees Fahrenheit 2090
Miller	171	28	51	64	83
Nashua	154	28	49	60	72

Source: ResilientMass Climate Change Projections Dashboard (Massachusetts Executive Office of Energy and Environmental Affairs, n.d.)

Vulnerability and Impacts

Extreme temperatures can have severe impacts on Gardner. During instances of extreme heat, the frequency of heat stroke, heat stress, or heat related illness is higher. High temperatures can cause people to lose fluids more quickly than usual, leading to dehydration. Dehydration can cause headaches, dizziness, and fatigue. This is especially true for individuals who work physically demanding jobs outside, such as landscapers or construction workers. These individuals should be considered vulnerable during episodes of extreme heat. Extreme heat can cause materials such as concrete, asphalt, and steel to expand and contract, leading to cracking, warping, and other forms of structural damage. High temperatures also increase the demand on the water supply, which can potentially lead to shortages. High temperatures also increase the risk of wildfires, which can cause significant damage to structures and infrastructure.

Extreme cold scenarios are equally impactful and more common in the state of Massachusetts. Extremely cold temperatures can impact public health, transportation, agriculture, energy, water resources, and infrastructure. The homeless, the elderly, and people with disabilities are especially vulnerable during instances of extreme cold. Cold weather can cause frostbite or hypothermia. Power outages during cold weather events may cause pipes to freeze and burst. Even underground pipes are subject to freezing and bursting, potentially leading to water main breaks. Power outages may also result in the inappropriate use of space heaters or generators in poorly ventilated areas, potentially leading to carbon monoxide poisoning. If extreme cold is accompanied by snow or ice, travel conditions can become extremely dangerous, and public transportation may shut down. Table 4.5 contains vulnerabilities due to extreme temperatures.

Table 4.5: Vulnerability of Gardner's Assets to Extreme Temperatures

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety: • Increased risk of cold-related or heat-related death or illness (hypothermia, frostbite, heat stroke, heat exhaustion, etc.) Populations facing the greatest threat include children, the elderly, the homeless, and those that work outside

Asset Category	Likely Impacts
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Extreme heat can lead to structural damage such as cracking or warping Extreme cold can freeze and damage pipes leading to water leaks and flooding when temperatures rise
Systems	Impacts to transportation systems, and electricity and water systems: • Power grid strain from increased heating or air conditioning use, potentially resulting in power outages • Extreme heat can cause pavement to soften and buckle leading to road closures and transportation disruptions Extreme cold can result in icy road conditions and reduced visibility, making travel hazardous
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Potential increase of wildfires during extreme heat Extreme temperatures may alter migrations, allow for invasive species, decrease crop yields, and adversely affect livestock
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Cancellation of community or sports events due to extreme temperatures

4.3.5. | Impacts

During instances of extreme heat, the frequency of heat stroke, heat stress, or heat related illness is higher. Infrastructure can be damaged from cracking related to heat exposure. Extreme cold scenarios are equally impactful and more common in the state of Massachusetts. Extremely cold temperatures can impact public health, transportation, agriculture, energy, water resources, and infrastructure.

With extreme temperature events, there is a greater need for shelter, especially for vulnerable populations. The Police Department has opened the Gardner City Hall meeting room during periods when outdoor temperatures fall below 20°F, and has also coordinated keeping the Heywood Library and Senior Center open when temperatures drop below 10°F. However, twelve public survey respondents specifically selected the need for additional public shelters or cooling centers, highlighting interest in both heating and cooling support during emergencies. Comments related to extreme cold frequently referenced ice storms and prolonged power outages, including experiences of being "without power for a week," having "no power," or going "days without heat." These responses suggest a significant community concern about maintaining heat during winter outages.

Extreme Temperature and Population and Land Use Changes

The demographic shifts documented in the Population Trends section have significant implications for extreme temperature vulnerability. The increase in elderly residents (from 15.3% to 19.5%), residents with disabilities (from 13.6% to 17.8%), and elderly householders living alone (from 888 to 1,072) creates a

larger population at risk from both extreme heat and cold. The 11.1% of households without vehicle access face barriers reaching cooling or warming centers during temperature emergencies.

If the development continues at recent rates, it may increase impervious surface area through new buildings, parking lots, and roads, which could exacerbate the urban heat island effect, especially if vegetation is removed or replaced with more paved surfaces.

Extended power outages during extreme cold create severe risks for the 1,072 elderly householders living alone, who may be isolated without heat. The 11.1% of households without vehicles face barriers reaching warming centers. Ambulatory difficulty affecting 29.4% of residents age 75 and over creates challenges navigating ice and snow, while self-care difficulty (3.0%) creates challenges when heating systems fail.

4.4. Changes in Groundwater

Groundwater is a renewable, long-term resource that depends on an adequate quantity and quality of water to replenish it (EOEEA M. &., 2023). The quantity and quality of groundwater reflects the cumulative effects of extraction, recharge, and contamination. Groundwater challenges are caused or amplified by other hazards such as sea level rise, extreme temperatures and rising temperatures, drought, extreme precipitation, and other meteorological events. There are three primary categories of risk associated with groundwater in Massachusetts (EOEEA M. &., 2023):

- Rise in groundwater levels
- Groundwater depletion
- Changes in groundwater quality and characteristics

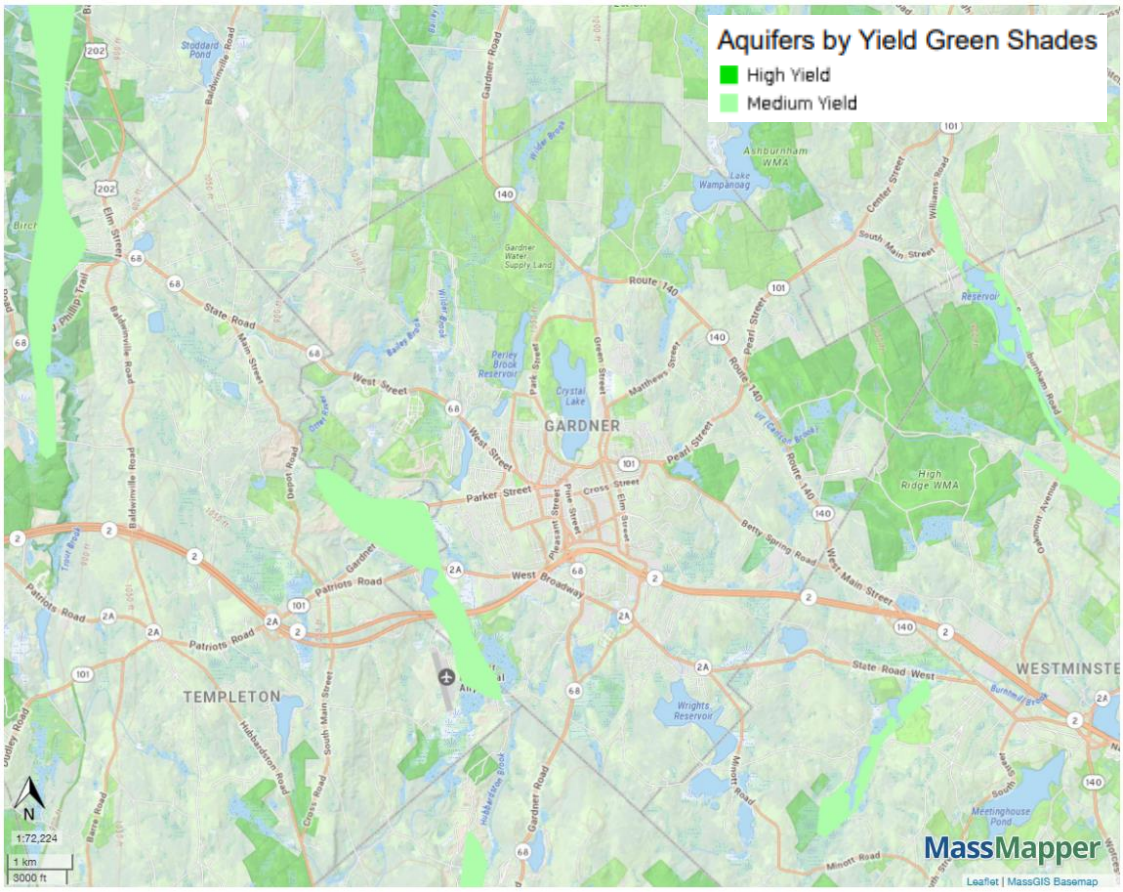
Changes in groundwater can affect human and natural systems. The disruption can generate long-term risk to human life and property. Changes in groundwater can result in interruption, loss, and risk due to human demands and impacts on the resource. Furthermore, infrastructure is built using historical water conditions and parameters. When groundwater levels change outside historical ranges, this can affect critical infrastructure including drainage systems, septic systems, and building foundations (EOEEA M. &., 2023).

4.4.1. | Location

Gardner's drinking water supply includes both groundwater and three local surface water sources: Cowee Pond, Perley Brook, and Crystal Lake, all located within the City. In addition to these surface sources, the Snake Pond well treatment facility provides groundwater to help meet seasonal demand (Veolia, 2023). The Snake Pond Well is located in an aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers that can prevent contaminant migration (Massachusetts Department of Environmental Protection, 2002). The City of Gardner lies within the New England Upland physiographic province. This region is characterized by rugged, hilly terrain underlain by resistant crystalline bedrock, with thin and discontinuous glacial deposits left by the retreat of the last ice age. These glacial sediments, primarily till and outwash, form the basis for localized aquifers, particularly in low-lying areas where sand and gravel have accumulated. The water table in Massachusetts is relatively close to the ground surface, making groundwater accessible but also susceptible to surface contamination

in certain areas. Figure 4.5 shows the mapped aquifers in Gardner, highlighting a medium-yield aquifer that spans Kendall Pond, Snake Pond, and Otter River Conservation Area.

Figure 4.5: Aquifers by Yield in Gardner



Source: MassMapper

4.4.2. | Severity/Intensity

The severity of changes in groundwater depends on the ability of the groundwater system to recharge, the timing of the recharge, and the quality of the water (EOEEA M. &., 2023). Recharge refers to the balance between extraction and replenishment. Extraction can occur via human activity or natural discharge, which can increase when surface water levels drop, particularly during droughts (EOEEA M. &., 2023). Water levels can increase during periods of high precipitation, snowmelt, and inland flooding events. Local characteristics such as topography, hydrology, vegetation, soil conditions, and human activity also have significant impacts on the severity and intensity of changes in groundwater (EOEEA M. &., 2023).

Groundwater rise is driven by precipitation intensity, inland storms, and snow melt. Groundwater rise can result in flooding, contamination and pollution of groundwater and aquifers, and increased inundation of ecosystems, below ground, and at grade assets and infrastructure (EOEEA M. &., 2023).

Groundwater depletion, which results in a lower water table and strained water resources, will be more intense when conditions for groundwater recharge are low. These conditions include increasing frequency of drought, a reduced snowpack, higher rates of evapotranspiration, reduced precipitation, diversion of precipitation away from groundwater recharge areas, and pressure from human consumption and natural discharge into surface water (EOEEA M. &., 2023). Development patterns and river and stream flood management infrastructure also reduce opportunities for groundwater recharge. Recharge rates can vary significantly by region (EOEEA M. &., 2023).

4.4.3. | Previous Occurrences and Frequency

Changes in groundwater levels can be influenced by several factors associated with human actions, shifts in weather patterns, and natural variations. Groundwater levels fluctuate daily, weekly, and seasonally (EOEEA M. &., 2023). Recent analysis has detected long-term variation in groundwater levels over the last 50 years, but the direction of change depends on complex interactions (EOEEA M. &., 2023). While there are several studies that evaluate the changes in groundwater levels in specific locations and at the regional level, there is need for a statewide understanding of factors affecting groundwater (EOEEA M. &., 2023).

4.4.4. | Probability of Future Hazard Events:

Changes in weather patterns can affect the severity of groundwater rise, depletion, and quality due to the following factors: changes in precipitation, changes in temperature, intensity of precipitation, drought, and contamination.

- **Precipitation:** Increased quantities of precipitation can elevate groundwater levels and increase recharge (EOEEA M. &., 2023). However, slow steady snowmelt and rain are more likely to lead to recharge than extreme precipitation events.
- **Temperature:** Rising temperatures will also increase the number of days when evapotranspiration is higher. Evapotranspiration is associated with lower rates of groundwater recharge (EOEEA M. &., 2023). Increased temperatures are also likely to extend the growing season, placing more demands on aquifer reserves via additional water use and evapotranspiration.
- **Intensity of precipitation:** Climate change is expected to change the intensity of precipitation events. High levels of precipitation over short periods affect the ability of the soil and groundwater system to absorb the water, which can lead to reduced recharge and increased runoff resulting in flooding.
- **Drought:** Climate change is projected to affect the severity and duration of drought. Aquifers experience reduced recharge and increased demand for water reserves during drought periods (EOEEA M. &., 2023).
- **Contamination:** Higher precipitation over shorter periods of time can mobilize surface contaminants that can seep into the groundwater. This is particularly a concern in shallow aquifers like those in Massachusetts (EOEEA M. &., 2023). Additionally, contamination may also occur from road salting, which may become more frequent in the future due to increased mixed precipitation events (EOEEA M. &., 2023).

4.4.5. | Vulnerability and Impacts

Groundwater rise can lead to the flooding of below-grade and at-grade utilities, infrastructure, natural environments, living spaces, and workspaces. Rising groundwater levels can also mobilize contaminants in soil and destabilize ground and soil. Groundwater rise can lead to saltwater intrusion to salt-sensitive habitats, vegetation, land uses, and infrastructure. Saltwater intrusion corrodes infrastructure and alters natural habitats.

Decreases in the water table can also have an impact on ecosystems and human health by reducing the availability of freshwater sources. Long-term changes in groundwater levels can also affect structure stability, especially for buildings built on wood pilings.

Groundwater rise can interact with precipitation and drainage in complex ways that can contribute to flooding. Table 4.6 includes potential vulnerabilities associated with changes in groundwater according to the 2023 ResilientMass Plan (EOEEA M. &., 2023).

Table 4.6: Impacts on Gardner from Changes in Groundwater

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Flooding and damage to basements or below grade living areas creating risk of mold and contamination Septic system failure leading to water quality degradation in nearby waterways and increased bacterial exposure
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Damage or loss to below-grade buildings and foundations of buildings due to flooding or unstable soils Damage to building foundations from salinity intrusion
Systems	Impacts to transportation systems, and electricity and water systems: Damage or loss to below-grade or at-grade utilities, infrastructure, roads, and transit including power, heat, water, sewer, and stormwater services due to flooding or unstable soils
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Damage to habitats, natural areas, and wetlands due to reduced freshwater supplies • Saltwater intrusion and inundation of aquifers, wetlands, and ecosystems that cannot adapt to new conditions due to sea level rise Changes to groundwater temperature in urban environments which can amplify heat island effects and stress vegetation and urban trees
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being:

Asset Category	Likely Impacts
	• Increased costs for alternative sources of water such as desalination • Cost of damage from flooding, especially in areas of repetitive loss • Disruption of utility and infrastructure creating travel delays or lack of water, power, or sewer service

Changes in Groundwater and Population and Land Use Changes

Development in areas lacking adequate water infrastructure could negatively impact groundwater levels and place additional strain on the City's water supply. Developed land, particularly residential and commercial on the City's outskirts, has been increasing in recent years. Land use changes and new development may alter recharge rates of groundwater. Additionally, altering wetland areas or riparian zones can change the interaction between surface water and groundwater, affecting recharge and groundwater flow patterns. It is possible that limitations on drinking water quantity and/or quality could affect the desire to develop in Gardner, thereby affecting changes in land use.

4.5. Drought

Drought is an extended duration of time characterized by below normal levels of precipitation. The duration of drought can vary widely and can occur in virtually all climatic zones, with different conditions based on the region-specific precipitation normal. Drought differs from aridity, in which a region experiences low precipitation as a typical or permanent characteristic of the climate (i.e., a desert).

The National Drought Mitigation Center references five common, conceptual definitions of drought (Types of Drought, 2025):

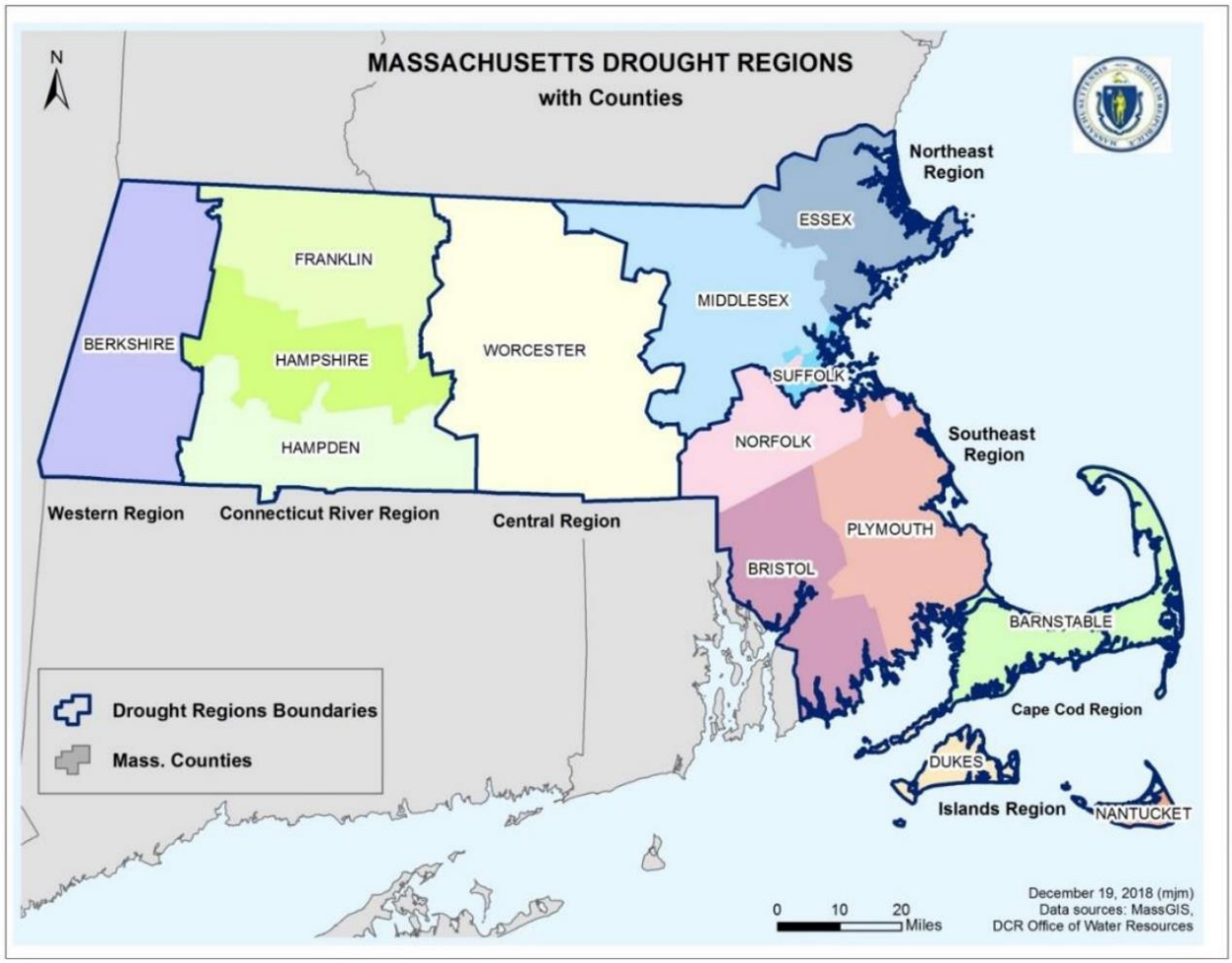
- **Meteorological drought** is when the amount and duration of rainfall in a region is less than normal. It is defined solely by the degree of dryness. Due to climatic differences, what might be considered a drought in one part of the country may not be a drought in another location.
- **Hydrological drought** results when the lack of precipitation affects streamflow, surface water bodies and groundwater such that they are below normal levels. The frequency and severity of hydrological drought is often defined on a watershed or river basin scale.
- **Agricultural drought** occurs when there is not enough water available for a particular crop to grow at a particular time. Agricultural drought is defined in terms of soil moisture deficiencies relative to the water demands of plant life, primarily crops. This type of drought can occur when there are precipitation shortages, soil water deficits, and reduced ground water reservoir levels.
- **Socioeconomic drought** occurs when the demand for an economic good such as water exceeds the supply because of precipitation-related shortfall. This differs from the other types of droughts because its occurrence depends on the processes of supply and demand.

- **Ecological drought** is a deficit in water availability that drives ecosystems beyond thresholds of vulnerability, impacts ecosystem services, and triggers feedback in natural and/or human systems.

4.5.1. | Location

Regions of Massachusetts can experience significantly different weather patterns due to topography, distance from the coast, and a combination of regional, national, and global weather patterns (EOEEA M. &., 2023). The Massachusetts Drought Management Plan organizes the Commonwealth into seven Drought Regions (MEMA, 2023). Gardner is located in the Central Region in Worcester County. A map of the drought regions can be found in Figure 4.6.

Figure 4.6: Drought Regions of Massachusetts



Source: Massachusetts Department of Recreation & Conservation, 2026.

4.5.2. | Severity/Intensity

Droughts in Massachusetts are defined by a number of different indices, as detailed in the Drought Management Plan (MEMA, 2023).

1. **Precipitation.** The Standardized Precipitation Index is based on monthly precipitation totals compiled from DCR's Precipitation Program and the National Weather Service network. The

Standardized Precipitation Index is widely used and can be calculated for a range of lookback periods.

2. **Streamflow.** This index provides an early indication of impacts to rivers, streams, wetlands, and other riparian habitats due to precipitation deficits.
3. **Groundwater.** Due to the length of time required for groundwater recharge, this index provides information on drought impacts over a longer period.
4. **Lakes and impoundments.** This index captures the effect of droughts on surface- water storage, including lakes, ponds, and water supply and flood control reservoirs.
5. **Fire danger.** The Keetch-Byram Drought Index indicates the fire potential and flammability of organic material in the ground by assessing the amount of precipitation required for the top eight inches of soil to be saturated.
6. **Evapotranspiration.** This index is based on the Crop Moisture Index, which assesses the short-term or current conditions of dryness or wetness relative to the water needs of specific crops and can be used to understand potential impacts to agricultural crops.

The state uses the indices described above to determine the onset, end, and severity of droughts. The North American Drought Monitor, shown in Figure 4.7, is also used to define droughts (What is the USDM?, 2025).

Figure 4.7: The North American Drought Monitor

Category	None	D0	D1	D2	D3	D4
Description	Normal or wet conditions	Abnormally Dry	Moderate Drought	Severe Drought	Extreme Drought	Exceptional Drought

Source: National Integrated Drought Information System and NOAA 2026.

4.5.3. | Previous Occurrences and Frequency

Northern Worcester County, which includes the City of Gardner, most recently experienced a period of drought from July 2016 through April 2017 (NOAA Storm Events Database, 2025). According to NOAA, during this period precipitation levels and soil moisture were abnormally low and groundwater conditions were found to be below normal. River and streamflow conditions were also well below normal.

4.5.4. | Probability of Future Hazard Events, including Due to Climate Change

Rising temperatures and changes in precipitation patterns are expected to increase the length, frequency, and intensity of droughts (EOEEA M. &., 2023). Reduced snowpack will affect the ability of groundwater supplies to recharge and the availability of water for the growing period. The likely range of consecutive dry days per year is projected to increase by up to 33 days per year in 2090, compared to the annual statewide-average baseline of 31 days from 1986-2005 (EOEEA M. &., 2023). However, drought may persist with extremely low precipitation days; therefore, consecutive dry days and average dry days per year likely underestimate the potential increase in dry or drought conditions (EOEEA M. &., 2023).

4.5.5. | Vulnerability and Impacts

Droughts can lead to water scarcity, which can affect drinking water supplies, sanitation, and hygiene. Lack of access to safe drinking water can lead to dehydration, malnutrition, and waterborne illnesses, which can be especially harmful to children and vulnerable populations. Droughts can cause the soil to dry out, shrink, and crack, which can lead to settlement and subsidence of buildings. This can result in damage to foundations, walls, and other structural elements. Droughts can impact water infrastructure, including reservoirs, wells, and pipelines. Lower water levels can impact water quality and availability, leading to water rationing and potentially causing damage to infrastructure due to exposure. Finally, droughts can impact soil quality by reducing moisture levels, leading to soil erosion, degradation, and reduced fertility. This can impact agriculture, food production, and ecosystem health. Table 4.7 contains vulnerabilities that may occur in Gardner due to drought.

Table 4.7: Impacts on Gardner Due to Drought

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Increased risk of dehydration, death, heat-related illness, and heat stroke (if the drought coincides with warmer months) Dry soils and wildfires can increase the number of airborne particles such as pollen and smoke with can worsen chronic respiratory illness
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Can cause power outages, especially in areas powered by hydroelectric power plants Drying or cracking of sediments can cause foundation damage to structures or the settlement/ subsidence of buildings
Systems	Impacts to transportation systems, and electricity and water systems: • Reduced water availability can complicate firefighting efforts • Decrease in groundwater supplies may cause shortages or rationing of water Waterways can recede which can limit the size of ship that can navigate shallower waters, potentially impacting the delivery of goods and services
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Damage to wildlife habitat, degradation of air and water quality, wildfires, degradation of landscape quality, loss of biodiversity, soil erosion • Loss of wetlands, lakes, and vegetation

Asset Category	Likely Impacts
	• Impact on crop production and supplies of animal feed Increased potential for fires
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Waterways can recede which can limit the size of ship that can navigate shallower waters, potentially impacting the delivery of goods and services • Potential to drain state and local resources, which can have a significant fiscal impact on local government

Drought and Population and Land Use Changes

Continued housing development could place additional strain on drinking water supply during drought conditions. Drought can affect agricultural lands and farming practices, an economic driver in the Gardner area. Nearly 7% of the City's land cover is agriculture. The presence of drought may result in the migration of farmers to areas where there is better water availability and that land becoming desired for other changes, thereby affecting the population trends and changes in land use.

4.6. Earthquakes

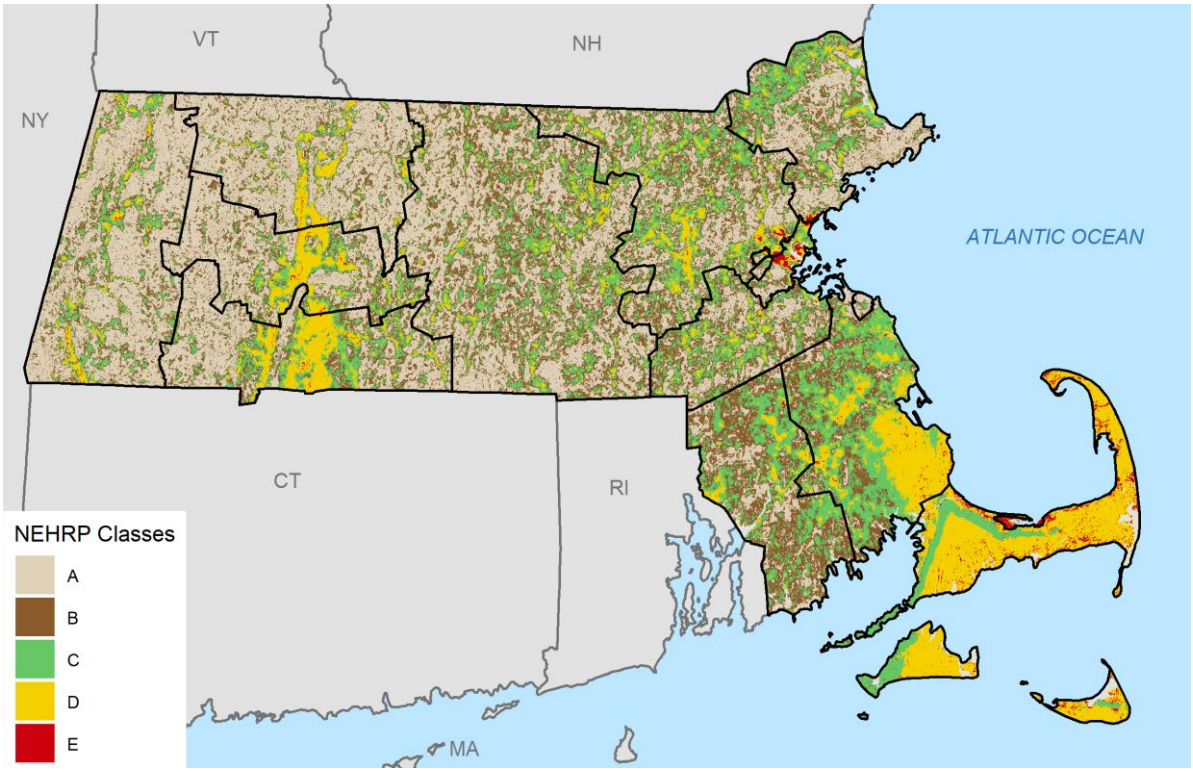
An earthquake is a vibration, sometimes violent, of the earth's surface that follows a release of energy in the earth's crust due to fault fracture and movement (EOEEA M. &., 2023). The magnitude or extent of an earthquake is a seismograph-measured value of the amplitude of the seismic waves (EOEEA M. &., 2023).

4.6.1. | Location

New England earthquake epicenters do not follow the major mapped geologic faults of the region, nor are they confined to any geologic structures of terrains, but they have been detected all over the region (EOEEA M. &., 2023). Therefore, seismologists suggest that an epicenter of a strong earthquake could be located anywhere in Massachusetts.

Ground shaking and the liquefaction resulting from it are the primary causes of earthquake damage. This damage can vary locally due to soil types that can either amplify the shaking or are susceptible to liquefaction (EOEEA M. &., 2023). Therefore, the strength of the earthquake may vary regionally based on soil type. The soil classification system ranges from A to E, where A represents hard rock that reduces ground motions from and earthquake and E represents soft soils that amplify and magnify ground shaking and increases building, infrastructure, and utility damage and losses (EOEEA M. &., 2023). A map of these areas is shown in Figure 4.8.

Figure 4.8: Soil Classifications in Massachusetts



Source: Mabee et al., Updated NEHRP Soil Classification Map of Massachusetts, Massachusetts Geological Survey Miscellaneous Map 23-01 (2023), via MassGIS.

Gardner is a fairly developed area. Earthquakes will have the greatest impact in developed areas where there are taller or larger structures. Areas with less of a built environment will experience a lesser impact.

4.6.2. | Severity/Intensity

Seismic waves are the vibrations from earthquakes that travel through the Earth and are recorded on instruments called seismographs. The magnitude of an earthquake is a seismograph-measured value of the amplitude of the seismic waves. The most widely known scale for earthquake magnitude is the Richter scale, shown in Table 4.8, developed in 1935 as a mathematical device to compare earthquakes. The Richter scale has no upper limit.

Table 4.8: Richter Scale Magnitude and Typical Effects

Richter Magnitude	Earthquake Effects
Less than 3.5	Generally, not felt, but recorded
3.5- 5.4	Often felt, but rarely causes damage
Under 6.0	At most slight damage to well-designed buildings. It can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 km. across where people live.
7.0- 7.9	Major earthquake. It can cause serious damage over larger areas.
8.0 or greater	Great earthquake. It can cause serious damage in areas several hundred kilometers across.

Importantly, it does not express damage: an earthquake in a densely populated area, which results in many deaths and considerable damage, can have the same magnitude as an earthquake in a remote area that causes no damage. It is the presence of vulnerable assets and populations near an earthquake epicenter, combined with the earthquake magnitude, that determines the amount of damage and where that damage takes place.

The severity of an earthquake is based on the observed effects of ground shaking on people, buildings, and natural features. Intensity is expressed by the Modified Mercalli Intensity (MMI) scale, shown in Table 4.9, which describes how strongly an earthquake was felt at a particular location using values ranging from I to XII. Seismic hazards are also expressed in terms of PGA, which USGS defines as the greatest acceleration that "is experienced by a particle on the ground." Table 4.9 summarizes the MMI scale. Note that the typical comparisons between Mercalli intensity and Richter magnitudes are biased toward the type of earthquakes that happen in California. Smaller magnitude earthquakes can be felt over larger regions in New England, so the Mercalli descriptions for "equivalent"-magnitude earthquakes are not always accurate in this region. For example, a 4.2 magnitude is typically considered to be equivalent to MMI II ("felt only by a few persons"); this may be true on the West Coast, but an earthquake of that magnitude in New England can be felt by many more people over a wide area, sometimes so strongly that people get scared and run out of their buildings (as is typically described for an MMI IV or V earthquake) (EOEEA M. &., 2023).

Table 4.9: The Modified Mercalli Intensity Scale

Mercalli Intensity	Equivalent Richter Scale Magnitude	Abbreviated MMI Scale Descriptions		Acceleration (Percent g) (PGA)
I		Detected only on seismographs.	Not felt except by a very few under	< .17

Mercalli Intensity	Equivalent Richter Scale Magnitude	Abbreviated MMI Scale Descriptions		Acceleration (Percent g) (PGA)
			especially favorable conditions.	
II		Some people feel it.	Felt only by a few people at rest, especially on upper floors of buildings.	.17–1.4
III		Felt by people resting; like a truck rumbling by.	Felt quite noticeably by people indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.	.17–1.4
IV		Felt by people walking.	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.	1.4–3.9
V	< 4.8	Sleeping people awake; church bells ring.	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.	3.9–9.2
VI	< 5.4	Trees sway; suspended objects	Felt by all; many frightened. Some	9.2–18

Mercalli Intensity	Equivalent Richter Scale Magnitude	Abbreviated MMI Scale Descriptions		Acceleration (Percent g) (PGA)
		swing; objects fall off shelves.	heavy furniture moved; a few instances of fallen plaster. Damage slight.	
VII	< 6.1	Mild alarm; walls crack; plaster falls.	Damage negligible in buildings of good design and construction, slight to moderate in well-built ordinary structures, considerable in poorly built or badly designed structures; some chimneys broken.	18–34
VIII		Moving cars are uncontrollable; masonry fractures; poorly constructed buildings damaged.	Slight damage in specially designed structures; considerable damage in ordinary substantial buildings, with partial collapse. Great damage in poorly built structures. Chimneys, factory stacks, columns, monuments, and walls fall. Heavy furniture overturned.	34–65
IX	< 6.9	Some houses collapse; ground cracks; pipes break open.	Considerable damage in specially designed structures; well-designed frame structures thrown out of plumb. Great damage in substantial buildings, with partial collapse. Buildings shifted off foundations.	65–124

Mercalli Intensity	Equivalent Richter Scale Magnitude	Abbreviated MMI Scale Descriptions		Acceleration (Percent g) (PGA)
X	< 7.3	Ground cracks profusely; many buildings destroyed; liquefaction and landslides are widespread.	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.	>124
XI	< 8.1	Most buildings and bridges collapse; roads, railways, pipes, and cables are destroyed; general triggering of other hazards occurs.	Few, if any (masonry structures remain standing. Bridges destroyed. Rails bent greatly.	>124
XII	> 8.1	Total destruction; trees fall; ground rises and falls in waves.	Total damage. Lines of sight and level are distorted. Objects thrown into the air.	>124

4.6.3. | Previous Occurrences and Frequency

Earthquakes cannot be predicted and may occur at any time. Since 1963, there have been 151 earthquake events in Massachusetts (USGS 2023), the highest having a magnitude of 3.7 on the Richter scale.

Since the Montachusett Regional HMP, there was one 2.2 magnitude earthquake in Gardner on December 23, 2018 2km W of Gardner. Also, two days before this, there was another similar magnitude earthquake just 3km NNE of Templeton (USGS, n.d.). Both events were minor and are considered relatively weak.

4.6.4. | Probability of Future Hazard Events, including Due to Climate Change

There is no consensus on the effects of climate change on the frequency and severity of earthquakes across the United States or within Massachusetts (EOEEA M. &., 2023).

4.6.5. | Vulnerability and Impacts

In addition to building collapse, earthquakes can cause structural damage to roadways, breakage of water and gas lines, and flooding and fires. Furthermore, landslides can be triggered by earthquakes. An area's vulnerability to an earthquake is based primarily on the density of the population in the region, and the age of the region's buildings and lack of earthquake proof design. Being a fairly populated and developed area, Gardner has the potential to experience devastating impacts from a severe earthquake.

A particularly strong earthquake could be potentially devastating for the City, causing disruptions to daily life and severe structural damage. Using FEMA's Hazus software, potential losses for various earthquake scenarios were estimated and shown in Table 4.10 and potential impacts in Table 4.11.

Table 4.10: Potential Losses for Earthquake Scenarios

Facility Type	Total	At Least Moderate Damage (>50%)		Complete Damage (>50%)		With Functionality >50% On Day 1	
		Mag 5	Mag 7	Mag 5	Mag 7	Mag 5	Mag 7
Hospitals	1	1	1	0	1	0	0
Schools	8	8	8	0	8	0	0
Emergency Op Centers	2	2	2	0	2	0	0
Police Stations	2	2	2	0	2	0	0
Fire Stations	2	2	2	0	2	0	0

Both a magnitude 5 and a magnitude 7 earthquake would be disastrous for the City. Both scenarios result in severe property damage, large amounts of debris generation, displaced households, people seeking public shelter, and losses due to business interruption. A magnitude 7 earthquake would be more detrimental to the City and have greater, more severe impacts. Both a magnitude 5 and magnitude 7 earthquake have the potential to damage schools, fire stations, police stations, and the emergency operations centers according to Hazus. In the event of a magnitude 7 earthquake, it is likely that the police stations, fire stations, and EOCs would sustain almost complete damage. In addition to these critical facilities, approximately 3,251 other buildings are likely to be completely damaged in the event of a magnitude 7 earthquake.

Table 4.11: Potential Impacts for Earthquake Scenarios

	Magnitude 5.0	Magnitude 7.0
Building Stock		
Estimated total number of buildings	5,776	
Estimated total building replacement value (Year 2021 $) (Millions of dollars)	3,081	
Building Damages		
# of buildings sustaining slight damage	1,706	167
# of buildings sustaining moderate damage	904	1,162
# of buildings sustaining extensive damage	238	1,668
# of buildings completely damaged	61	2,768
Population Needs		
# of households displaced	287	5,601
#of people seeking temporary public shelter	153	2,954
# life threatening injuries (depends on time of day)	11	161
# deaths (depends on time of day)	18	258
Debris		
Building debris generated (millions of tons)	0.09	0.70
# of truckloads to clear building debris (@25 tons/truck)	3,680	27,960
Building-Related Economic Loss (Millions of Dollars)		
Income Losses	82.4397	428.0560
Direct Building Losses	478.35	3,209.52
Direct Repairs (transportation and utility)	1,483.34	1,549.68

A summary of overall potential impacts from an earthquake are listed Table 4.12.

Table 4.12: Impacts from Earthquakes on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Loss of life or severe injury • Vehicle accidents • Injury from debris or falling objects First responders are particularly at-risk
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Significant structural damage, especially if buildings are not constructed to withstand seismic forces or if there are insufficient evacuation plans • Critical facilities can be impacted or damaged from ground shaking and falling debris Collapse of buildings or bridges
Systems	Impacts to transportation systems, and electricity and water systems: • Disruption of government operations • Seismic activity can damage communication infrastructure such as phone lines, cell networks, and data networks • Power outages from damaged electrical infrastructure Disruption of gas lines, electric lines, or phone service
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Potential to trigger secondary hazards such as fires, flash flooding, hazardous materials release, slope failure, dam failure, and tsunamis • Contamination of the environment from hazardous materials • Significant injury to animals or livestock Historic buildings may not be able to withstand ground shaking due to outdated construction standards
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Expensive response and recovery efforts can drain local resources • Closure of businesses due to damage • Disruption of delivery services due to dangerous transportation conditions

Earthquakes and Population and Land Use Changes

Gardner's increasing elderly population and residents with disabilities face higher risk during earthquakes due to falls, difficulty responding quickly, and challenges evacuating damaged structures. However, building age and construction standards are more significant factors in earthquake vulnerability than demographic changes. There are no well-documented correlations between earthquakes and land use changes.

4.7. Flooding from Precipitation

4.7.1. | Description

Extreme precipitation events can result in flooding, often characterized as “inland flooding” to distinguish it from coastal flooding. This Section addresses the risks associated with flooding from high precipitation events, which include convective storms (thunderstorms or other typically sudden and extreme precipitation events), nor’easters, and hurricanes. Also included are inland flood events caused by extreme rainfall events, riverine overtopping, overwhelmed stormwater systems, ice jams blocking drainage, and dam failure or overtopping, described in greater detail below.

- Riverine Flooding (EOEEA M. &., 2023): Riverine flooding occurs when excessive rainfall over an extended period collects across a watershed and causes a river to exceed its natural drainage capacity.
- Stormwater Drainage Flooding (EOEEA M. &., 2023): Stormwater drainage flooding is caused by high-intensity rainfall in combination with high amounts of impervious surface area that prevents infiltration. This causes stormwater drainage systems to reach a state of over-capacity.
- Ice Jams (EOEEA M. &., 2023): An ice jam is an accumulation of ice that acts as a natural dam and restricts the flow of a body of water. There are two types of ice jams: a freeze-up jam and a breakup jam. A freeze-up jam usually occurs in early to mid-winter during extremely cold weather when super-cooled water and ice formations extend to nearly the entire depth of the river channel. This type of jam can act as a dam and begin to back up the flowing water behind it. The second type, a breakup jam, forms because of the breakup of the ice cover at ice- out: large pieces of ice move downstream, potentially piling up at culverts, around bridge abutments, and at curves in river channels. Breakup ice jams occur when warm temperatures and heavy rains cause rapid snowmelt. The melting snow, combined with the heavy rain, causes frozen rivers to swell. The rising water breaks the ice layers into large chunks, which float downstream and pile up near narrow passages and obstructions (bridges and dams). Ice jams may build up to a thickness great enough to raise the water level and cause flooding upstream of the obstruction.
- Dam Failure (EOEEA M. &., 2023): As dams are used to impound water by controlling water flow, changes in precipitation intensity and duration can affect dam performance and safety. When reservoir inflows exceed the capacity of a dam’s spillway, rising reservoir water levels can result in increased rates of seepage outflow, destabilization of embankment slopes, and/or dam failure due to overtopping.

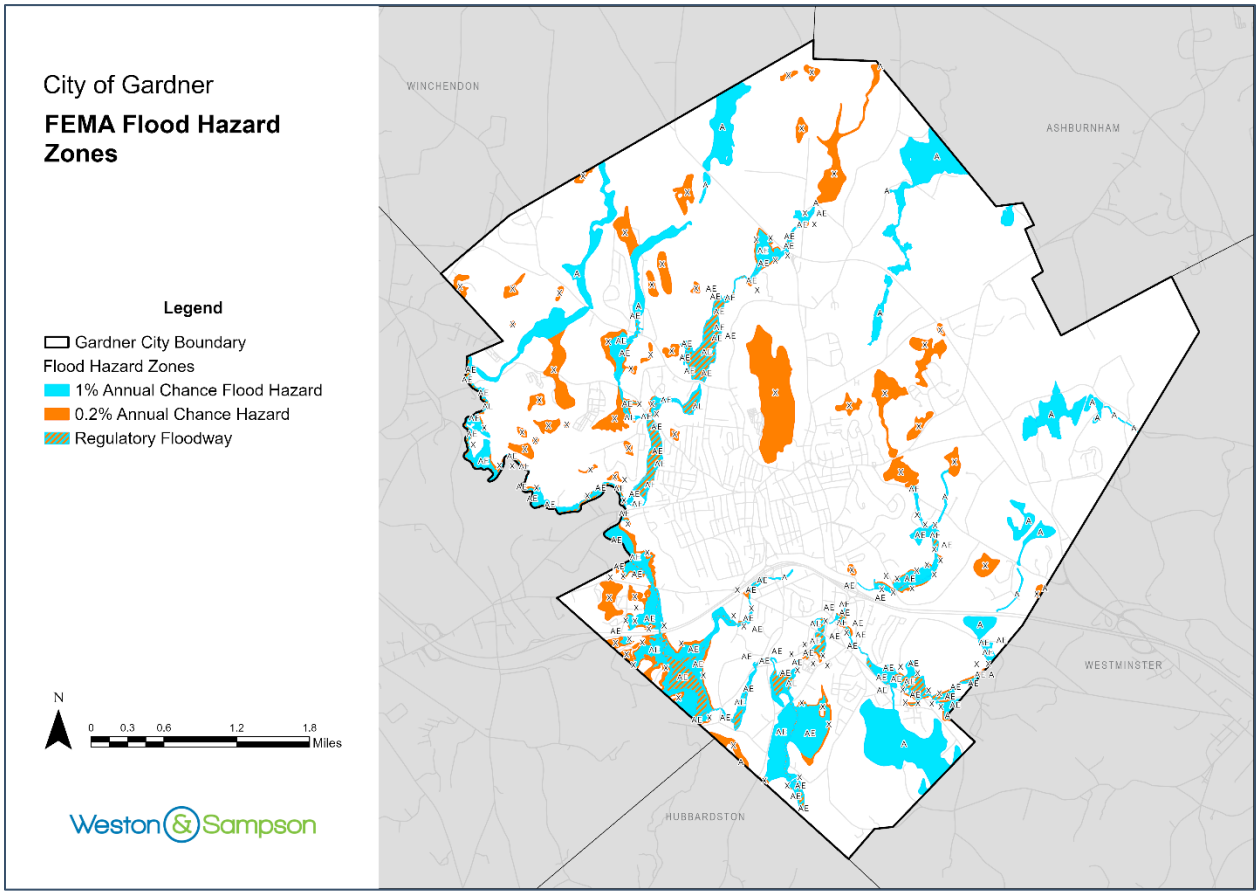
4.7.2. | Location

Flooding can impact all areas of Gardner, but in particular areas with lower elevation and with floodplains are more likely to experience impacts. The Federal Emergency Management Agency (FEMA) characterizes the current hazard using floodplain boundaries. These data include the locations of FEMA flood zones:

- The 1 percent annual chance event (also sometimes referred to as 100-year flood) zones, including A and AE Zones
- The 0.2 percent change event (or 500-year flood) zones, also called X Zones

While A and AE Zones are more likely to experience flooding than X Zones, it is still possible to experience flooding in X Zones. Figure 4.9 shows the flood hazard areas within Gardner.

Figure 4.9: FEMA Flood Hazard Zones within Gardner



Source: MassGIS (Bureau of Geographic Information), FEMA Flood Hazard Zones, derived from FEMA National Flood Hazard Layer (NFHL),as of July 2025.

Specific areas that have the most flooding potential include:

- Gardner Municipal Airport, near the Otter River Conservation Area and Snake Pond
- West Broadway Road, adjacent to Kendall Pond
- Riverside Road, near the Floodswood Conservation Area

- Wrights Reservoir, although outside the boundaries of the City, this reservoir poses a flooding risk to residents alongside the waterbody
- Pearl Street, adjacent to Dunn Pond

Additionally, areas in closer proximity to the 21 dams located in Gardner are at a greater risk of flooding due to dam overtopping. The 21 dams in Gardner are described in Table 4.13 below (USACE, 2025):

Table 4.13: Gardner Dam Information

Dam Name	Hazard Level	Ownership
Wrights Reservoir Dam	High Hazard	Public
Cowee Pond Dam	High Hazard	Public
Perley Brook Reservoir Dam	High Hazard	Public
Bents Pond Dam	Low Hazard	Public
Farm Pond Dam	Low Hazard	Public
Old Duck Pond Dam	Low Hazard	Public
Crystal Lake Dike	N/A	Public
Old Mill Storage Pond Dam	N/A	Private
Farm Pond Dam	N/A	Private
Stump Pond Dam	N/A	Public
Distribution Reservoir Dam	N/A	Public
Old Poor Farm Pond Dam	N/A	Public
Murdock Pond Dam	N/A	Private
Beagle Pond Dam	Significant Hazard	Private
Parker Pond Dam	Significant Hazard	Public
Dunn Pond Dam	Significant Hazard	Public
Ramsdall Pond Dam	Significant Hazard	Private

Dam Name	Hazard Level	Ownership
Hobbys Pond Dam	Significant Hazard	Private
Hilchey Pond Dam	Significant Hazard	Private
Wayside Pond Dam	Significant Hazard	Public
Mahoney Pond Dam	Significant Hazard	Public

There are three high hazard dams in Gardner. These are Cowee Pond Dam, Perley Brook Reservoir Dam, and Wrights Reservoir Dam. These dams are located near residential properties and adjacent roadways, making these areas vulnerable to flooding.

Wrights Reservoir Dam

The Wrights Reservoir Dam is a high hazard, large sized dam located on a tributary to the Otter River in City of Gardner. This dam is an earth embankment dam with a length of 1,000 feet and a structural height of 16 feet, providing flood protection along the Mahoney and Greenwood Brooks.

Cowee Pond Dam

The Cowee Pond Dam is a high hazard, intermediate-sized dam located on approximately 1/8 mile from the intersection of Wheeler Street and Stone Street. This water-supply dam is 15-foot, 200-foot long earth embankment with a concrete paved upstream slope and combination earth embankment/masonry stone wall downstream slope.

Perley Brooke Reservoir Dam

The Perley Brook Pond Dam is classified as a high-hazard structure and is located upstream of several residential and commercial properties where it provides water-supply functions. This dam is 1,000 feet long, with a 50-foot high earth embankment and 35.5-foot diameter reinforced concrete morning glory spillway.

4.7.3. | Severity/Intensity

Return periods are used to represent the average interval between occurrences of particular rainfall events. Rainfall events with greater return periods will have much more rain than a smaller return period, and thus will cause more flooding and greater damage. Table 4.14 below outlines the amount of precipitation that would fall during various return periods in Gardner in a 10-minute event in the year 2025 (NOAA, NOAA Atlas 14 Point Precipitation Frequency Estimates: MA, 2025).

Table 4.14: Rainfall Return Rates in the Year 2030, for site 3052

Return Interval (duration 10m):	1 yr	2 yrs	5 yrs	10 yrs	25 yrs	50 yrs	100 yrs	200 yrs	500 yrs
Depth (inches)	0.461	0.541	0.672	0.78	0.93	1.04	1.16	1.3	1.52

Source: EEA Climate Change Projections Dashboard

Flooding from precipitation can vary in severity and intensity depending on several factors, including the amount and duration of rainfall, topography, soil conditions, land use patterns, and the capacity of drainage infrastructure. Increases in intensity and duration of precipitation on rainy days can lead to flooding, stress on built infrastructure and ecosystems, and impacts on human health.

4.7.4. | Previous Occurrences and Frequency

Of the hazard threats Gardner faces, many residents in the public survey indicated that they are concerned about flooding. A few residents mentioned being out when there was a sudden downpour and a couple residents reported flooding in their basement after major storms that leaves them with repair damages. Several residents indicated that they experience flooding at their homes or businesses with only a few of these residents having flood insurance for the property.

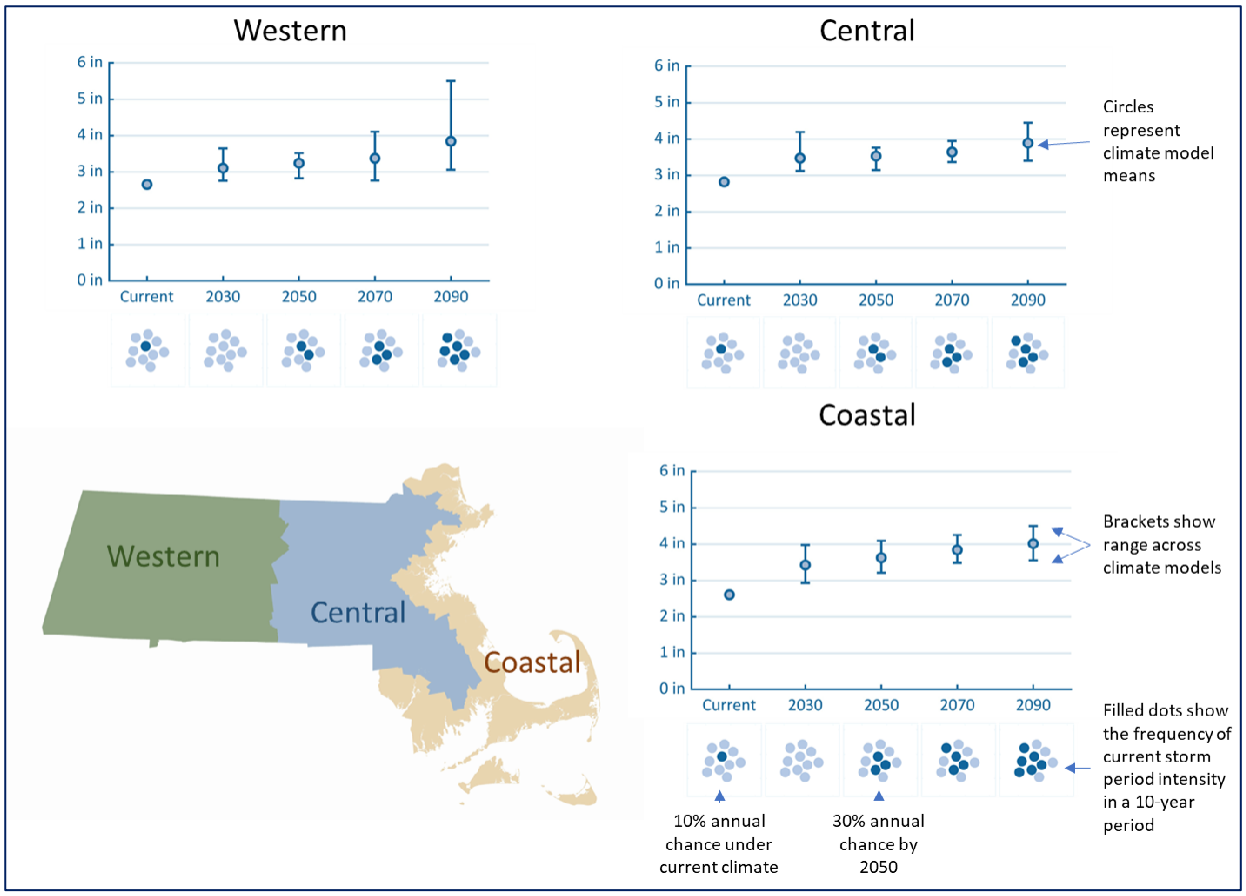
Since the previous Hazard Mitigation Plan in 2015, there have been 141 events of flooding or flash flooding in Worcester County (NOAA, NOAA Storm Events Database, 2025). 38 of those days contained property damage (NOAA, NOAA Storm Events Database, 2025). Damages from these flooding events totaled $411,500 dollars in Worcester County.

4.7.5. | Probability of Future Hazard Events, including Due to Climate Change

Scientists expect that there will be more precipitation overall in Massachusetts, on an annual basis and in most years (EOEEA M. &., 2023). Higher temperatures will mean the moisture-holding capacity of the atmosphere increases, but also that evaporation rates are higher. Patterns to date suggest that annual precipitation is likely to be more variable and fall over fewer days, but that precipitation will be more intense on days when it does rain or snow (EOEEA M. &., 2023).

Figure 4.10 below shows projected precipitation intensity and frequency over time in the central region of Massachusetts, where Gardner is located. The graph shows changes in the expected size of a 10-year return period rainstorm (i.e., a storm, defined in terms of equal or greater precipitation within 24 hours, that has 10 percent chance of occurring in a given year) and the expected frequency of rainstorms that would meet the current 10-year return period size (EOEEA M. &., 2023).

Figure 4.10: Projected Precipitation Intensity and Frequency through 2090



Source:

Under the current climate, the 10-year return period event is roughly 2.9 inches. By the end of the century, the intensity of the 10-year return period event is expected to increase to almost 4 inches in a day.

The ResilientMass Climate Change Projections Dashboard allows users to view climate projections data for specific cities or towns Gardner on different planning horizons. Table 4.15 shows the total precipitation percent change for Gardner from 2030 to 2090, as well as days above 1 inch of rain and days above 2 inches of rain. By 2090, total precipitation will have increased in Gardner by 12.2%.

Table 4.15: Total Precipitation percent change for Gardner from 2030 to 2090

Climate Projection	2030	2050	2070	2090
Total Precipitation (Percent Change)	6	8	9.8	12.2
Days Above 1 inch	1	1	2	2
Days Above 2 inches	0	0	2	1

4.7.6. | Vulnerability and Impacts

Precipitation flooding includes stormwater flooding, riverine flooding, and flooding from dam overtopping. Riverine flooding is most likely to impact areas closest to bodies of water, while stormwater flooding can occur anywhere in the City. Dam overtopping can impact areas adjacent to and downstream of the dam. Dams are categorized as “high hazard”, “significant hazard” and “low hazard”. Higher hazard dams post a greater risk to downstream populations. Gardner has three high hazard and eight significant hazard dams.

Much of the infrastructure in Gardner, including bridges, stormwater systems, and roadways were designed based on historical rain events. With increased frequency and severity of storm events, inland flooding could become an increased vulnerability for the City to manage. Recently, more frequent occurrences of flood events larger than the historic have occurred and put vital infrastructure at risk. Potential vulnerabilities related to inland flooding are listed in Table 4.16.

Gardner has mostly been impacted by flooding through road closures and loss of crops.

Dam Vulnerability

Wrights Reservoir Dam

From the most recent inspection conducted (2023), the dam was found to be in satisfactory condition. Identified deficiencies or potential items of concern included trees and low standing brush within 20 feet of the dam and dike embankments, and vehicle erosion and rutting of dike crest. Additionally, the operation and maintenance manual (O&M) was developed in 1966, when the dam was constructed, and should be updated.

The dam’s downstream area includes High Street which includes industrial and residential properties. In the event of rapid, uncontrolled release of water from the dam, a flood wave will travel along Mahoney Brook through the center of South Gardner through Travers Pond, Bents Pond, Ramsdall Pond, and downstream of the Otter River. The floodwave from both the Dam and Dike would cause widespread flooding in the City of Gardner and the Town of Templeton.

As climate change drives more intense rainfall, higher runoff volumes, and greater storm variability, the structural and hydraulic pressures on the dam are expected to increase, raising both the likelihood and severity of potential failure. Because the dam sits directly upstream of low-lying marshy areas along Broadway Street, where several commercial properties and residences are located, a breach at maximum pool under these future climate conditions could produce life-threatening flash flooding and extensive damage. The downstream area contains a mix of homes, businesses, critical utilities, and major transportation routes, meaning that failure would likely result in loss of life and significant harm to industrial, commercial, and public infrastructure.

Cowee Pond Dam

Based on the most recent inspection report, the dam was found to be in fair condition. Noted deficiencies include seepage at the toe of the dam, bulging of masonry walls on the downstream slope, sinking of spillway training walls, and an inoperable low-level outlet (LLO). The inoperable LLO is significant because it removes the owner's ability to lower the impoundment during an emergency, limiting options to reduce the load on the dam and the size of any resulting flood wave.

The dam's downstream area includes residential and commercial properties, with at least four downstream jurisdictional dams that could fail in series, including the high hazard Perley Brook Reservoir

Dam. In the event of a rapid, uncontrolled release, a flood wave would travel downstream through Gardner and into Templeton.

As climate change drives more intense rainfall and greater storm variability, the existing structural deficiencies increase the likelihood and severity of potential failure.

Perley Brook Reservoir Dam

Based on the most recent inspection report (2025), the dam was found to be in satisfactory condition. Noted deficiencies included varmint activity near the downstream toe, a small washout near the pumping station, broken pipe hangers on the exposed transmission piping, moderate to heavy tree and brush growth on the lower downstream slope near the stilling basin, and debris accumulation within the discharge channel.

The dam's downstream area includes numerous residential and commercial properties. This includes a natural stream bed of Perley Brook which leads into Beagle Club Pond. In the event of rapid, uncontrolled release of water from the dam, a flood wave will travel along Perley Brook and into the Otter River, through the City of Gardner and the Town of Templeton. The flood wave would cause widespread flooding in Gardner and Templeton.

As climate change drives more intense rainfall, higher runoff volumes, and greater storm variability, the structural and hydraulic pressures on the dam are expected to increase, raising both the likelihood and severity of potential failure. Because the structure serves as a water-supply dam, maintaining safe storage levels and structural integrity is especially critical; rising inflows during extreme precipitation can push the dam beyond its intended operating range, increasing overtopping and destabilization risks.

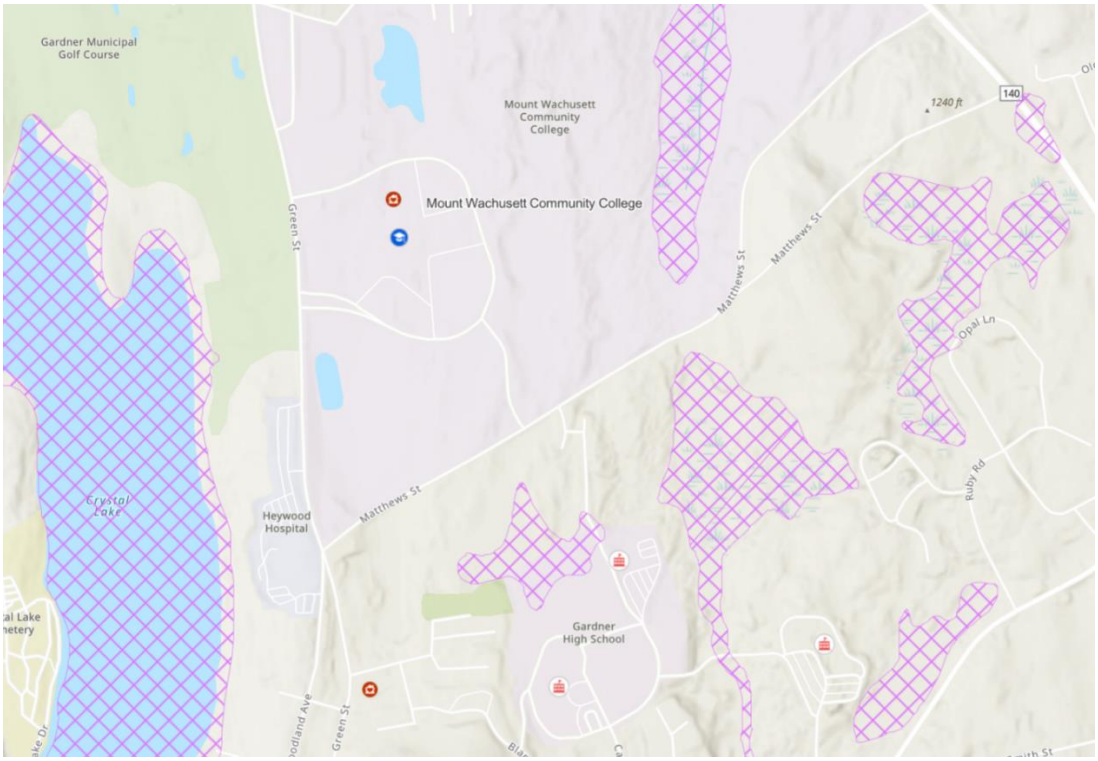
Significant Hazard Dams

Two significant hazard dams in Gardner lack EAPs, Hilchey Pond Dam and Ramsdall Dam. Crystal Lake Dike, which is in downtown Gardner is unrated. This dike lacks a spillway which is of concern in the event of failure.

Hazus Vulnerability

According to the Massachusetts GEAR tool, shown in Figure 4.11, some community assets that are at risk of flooding due to their proximity to mapped flood zones include Gardner High School, Mount Wachusett Community College, Meridan Gymnastics and Youth Fitness Preschool, Mechanic Child Care and Head Start Center, First Baptist Church, and Annunciation Parish.

Figure 4.11: Community Assets at Risk of Inland Flooding



Source: MA GEAR Tool

Using FEMA's Hazus software, potential losses during the 100-year and 500-year flood events were estimated. As seen in Table 4.14, both the 100- and 500-year flood event have the potential to displace many people from their homes, generate a few tons of debris, and cause losses due to business interruption. In the event of a 500-year flood, it is possible that 20 people could be displaced from their homes, and 246 tons of debris could be generated. This will have further economic repercussions for the City as clean-up after an event can be expensive.

Table 4.16: Potential Losses for Flooding Scenarios

	100 Year	500 Year
Building Stock		
Estimated total number of buildings	5,776	
Estimated total building replacement value (Year 2021 $) (Millions of dollars)	3,081	
Building Damages		
Damage Level 1-10	0	2
Damage Level 11-20	0	2
Damage Level 21-30	0	0

	100 Year	500 Year
Damage Level 31-40	0	0
Damage Level 41-50	0	0
Damage Level >50 (Substantial)	0	0
Population Needs		
# of displaced people	7	19
# of people seeking short term shelter	28	68
Debris		
Total debris generated (tons)	57	246
Finishes (tons)	29	100
Structure (tons)	16	83
Foundation (tons)	12	62
# of truckloads to clear building debris (@25 tons/truck)	3	10
Value of Damage		
Building Loss (Year 2021 $) (Millions of Dollars)	1.50	4.67
Total Losses Due to Business Interruption (Year 2021 $) (Millions of Dollars)	1.89	3.91

An overall summary of potential impacts from flooding is listed in Table 4.18.

Table 4.17: Impacts from Flooding on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Loss of life or severe injury • Vehicle accidents • Injury from debris or falling objects First responders are particularly at-risk
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Significant structural damage, especially if buildings are not constructed to withstand seismic forces or if there are insufficient evacuation plans

Asset Category	Likely Impacts
	• Critical facilities can be impacted or damaged from ground shaking and falling debris Collapse of buildings or bridges
Systems	Impacts to transportation systems, and electricity and water systems: • Disruption of government operations • Seismic activity can damage communication infrastructure such as phone lines, cell networks, and data networks • Power outages from damaged electrical infrastructure Disruption of gas lines, electric lines, or phone service
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Potential to trigger secondary hazards such as fires, flash flooding, hazardous materials release, slope failure, dam failure, and tsunamis • Contamination of the environment from hazardous materials • Significant injury to animals or livestock Historic buildings may not be able to withstand ground shaking due to outdated construction standards
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Expensive response and recovery efforts can drain local resources • Closure of businesses due to damage • Disruption of delivery services due to dangerous transportation conditions

Precipitation Flooding and Population and Land Use Changes

Gardner's housing stock grew 3% between 2010 and 2020, with continued development activity downtown and along the Route 140 corridor. Nearly 30% of the City's land cover is already classified as residential. High-density residential areas, particularly those near Downtown Gardner, within surrounding inner neighborhoods, and along multi-family zoning corridors, are likely to generate the greatest amount of stormwater runoff.

The 11.1% of households without vehicle access face evacuation challenges during flood events. Households in poverty (14.3%) may lack flood insurance and resources for recovery. The concentration of vehicle-less households in downtown Gardner intersects with some flood-prone areas.

At the same time, the City is advancing initiatives to reduce impervious cover and balance conservation with growth through overlay districts, conservation restrictions, and flexible zoning tools. Flooding from heavy precipitation is expected to influence land-use patterns, as areas prone to riverine or stormwater flooding may become less desirable for development or redevelopment. Residents currently living in these

areas may relocate, and over time, repeatedly flooded developed areas may transition back to natural or restored conditions. Similarly, natural areas that are currently flood-prone may remain undesirable for future development.

4.8. Hurricanes / Tropical Cyclones

4.8.1. | Description

Hurricanes originate from tropical storms, which form rotating cloud systems, developing over tropical or subtropical waters.

- **Tropical Depression:** A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less.
- **Tropical Storm:** A tropical cyclone with maximum sustained winds of 39 to 73 mph (34 to 63 knots).
- **Hurricane:** A tropical cyclone with maximum sustained winds of 74 mph (64 knots) or higher. In the western North Pacific, hurricanes are called typhoons; similar storms in the Indian Ocean and South Pacific Ocean are called cyclones.
- **Major Hurricane:** A tropical cyclone with maximum sustained winds of 111 mph (96 knots) or higher, corresponding to a Category 3, 4 or 5 on the Saffir-Simpson Hurricane Wind Scale.

The term “tropical” refers both to the origin of these systems, which usually form in tropical regions of the globe, and their formation in maritime tropical air masses. The term “cyclone” refers to such storms’ cyclonic nature, with counterclockwise wind flow in the Northern Hemisphere and clockwise wind flow in the Southern Hemisphere (EOEEA M. &., 2023).

A tropical storm system is characterized by a low-pressure center and numerous thunderstorms that produce strong winds and heavy rain. Tropical storms strengthen when water evaporates from the ocean and is released as the saturated air rises, resulting in condensation of the water vapor contained in the moist air. These storms are fueled by a different heat mechanism than other cyclonic windstorms, such as nor’easters and polar lows. The characteristic that separates tropical cyclones from other cyclonic systems is that at any height in the atmosphere, the center of a tropical cyclone will be warmer than its surroundings—a phenomenon called “warm core” storm systems (EOEEA M. &., 2023).

4.8.2. | Location

Despite being located inland, Gardner is still vulnerable to the impacts of hurricanes and tropical cyclones. While coastal areas are typically more directly affected by hurricanes, Gardner’s vulnerability lies in the potential for severe weather conditions and flooding that can accompany tropical storms as they move inland. Heavy rainfall associated with hurricanes can lead to flash flooding, especially in low-lying areas or regions with poor drainage systems. Strong winds from hurricane remnants can also cause city-wide damage to structures, uproot trees, and disrupt power lines, impacting the local community.

4.8.3. | Severity/Intensity

Hurricanes are measured according to the Saffir-Simpson scale, described in Table 4.18 below. This scale categorizes hurricanes from 1 (minimal) to 5 (catastrophic) based on their intensity. This is used to estimate the property damage and flooding expected from a hurricane landfall. The determining factor of the scale is wind speed. All wind speeds are assessed using the U.S. one-minute average, meaning the highest wind that is sustained for one minute (EOEEA M. &., 2023).

Table 4.18: Saffir-Simpson Hurricane Scale

Scale No. (Category)	Winds (mph)	Potential Damage
1	74–95	Minimal: Damage is primarily to shrubbery and trees, mobile homes, and some signs. No real damage is done to structures.
2	96–110	Moderate: Some trees topple, some roof coverings are damaged, and major damage is done to mobile homes.
3	111–129	Extensive: Large trees topple, some structural damage is done to roofs, mobile homes are destroyed, and structural damage is done to small homes and utility buildings.
4	130–156	Extreme: Extensive damage is done to roofs, windows, and doors; roof systems on small buildings completely fail; and some curtain walls fail.
5	>157	Catastrophic: Roof damage is considerable and widespread, window and door damage is severe, there are extensive glass failures, and entire buildings could fail.

Tropical storms and depressions, while generally less dangerous than hurricanes, can still cause widespread damage, disruption, injury, and loss of life. They produce powerful wind gusts and torrential rains and can possibly result in tornadoes. These storms often lose their strength as they move inland due to increased surface friction and loss of the warm ocean as an energy source (EOEEA M. &., 2023).

4.8.4. | Previous Occurrences and Frequency

Tropical storms and hurricanes have occurred in the proximity of the Commonwealth about once every two years on average. NOAA's National Hurricane Center estimates that a Category 3 hurricane could occur once every 50–60 years (EOEEA M. &., 2023). Northern Worcester County has had one tropical storm event since the previous hazard mitigation plan in 2015. This occurred on August 4, 2020 (NOAA, NOAA Storm Events Database, 2025). This event caused $57,000 in property damage.

4.8.5. | Probability of Future Hazard Events, including Due to Climate Change

Historic events and models of future conditions suggest that climate change will cause the intensity of tropical storms and hurricanes to increase (EOEEA M. &., 2023). However, uncertainty over the relationship between the frequency of tropical cyclones and climate change remains (EOEEA M. &., 2023). The Massachusetts Climate Assessment identifies a possible increase in tropical cyclone frequency of nearly 50 percent by the end of the century (Massachusetts, 2022).

4.8.6. | Vulnerability and Impacts

Hurricane force winds can destroy buildings and mobile homes. Items that are not secured can quickly become airborne debris that can cause severe injury. Hurricanes can also spawn tornadoes. Heavy rain associated with hurricanes can cause extreme flooding. Hurricane rain and winds can result in downed trees and tree limbs, blocked roads, and downed telephone and power lines. This can severely disrupt transportation routes and communication channels. The elderly and those with mobility issues are of particular concern during hurricane or tropical storm events.

Using FEMA's Hazus software, potential losses for a Category 2 and Category 4 storm were estimated. Both storms have the potential to greatly impact the City of Gardner by causing property damage, debris generation, and business interruptions, as seen in Table 4.19. In the event of a Category 4 storm, almost 650 buildings might sustain minor damage. A category 4 storm also has the potential to generate 6,005 tons of debris which will require extensive, expensive clean-up by the City.

Table 4.19: Potential Impacts on Infrastructure from a Category 2 and Category 4 storm event

	Category 2	Category 4
BUILDING STOCK		
Estimated total number of buildings	5,776	
Estimated total building replacement value (Year 2021 $) (Millions of Dollars)	3,081	
BUILDING DAMAGES		
# of buildings sustaining minor damage	126	647
# of buildings sustaining moderate damage	9	93
# of buildings sustaining severe damage	0	5
# of buildings destroyed	0	4

	Category 2	Category 4
POPULATION NEEDS		
# of displaced people	0	0
# of people seeking temporary public shelter	0	0
DEBRIS		
Total debris generated (tons)	1,863	6,005
Tree debris generated (tons)	115	2,578
Brick/wood debris generated (tons)	748	3,427
Concrete/steel debris generated (tons)	0	0
# of truckloads to clear building debris (@25 tons/truck)	30	137
VALUE OF DAMAGE (Thousands of Dollars)		
Total property damage	9,919.35	37,883.14
Total losses due to business interruption	582.56	4,166.93

An overall summary of vulnerabilities from hurricanes is shown in Table 4.20.

Table 4.20: Impacts from Hurricanes and Tropical Storms on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Death and Injury • Mental health impacts such as anxiety or PTSD • Displacement Loss of property
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Damage to buildings from high winds, flying debris, or flooding • Power outages Damage to critical facilities is possible
Systems	Impacts to transportation systems, and electricity and water systems: • Damage to transportation infrastructure such as roads or bridges can impact emergency responses and daily travel • Damage to telecommunications infrastructure can disrupt communications

Asset Category	Likely Impacts
	• Widespread power outages can disrupt critical facilities, emergency response centers, water treatment plants, and hospitals • Water supply interruptions from flooding or damage to water treatment plants and pipelines • Flooding can overwhelm wastewater systems causing contamination and health risks Utility services such as gas may be disrupted
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Historic buildings may not be able to withstand high winds • Increased coastal erosion Potential for flash flooding and storm surge
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Decreased economic activity • Expensive response and recovery costs • Damage to businesses or business closures • School closures

Hurricanes/Tropical Cyclones and Population and Land Use Changes

The 11.1% of households without vehicle access would face evacuation challenges if a hurricane or tropical storm required evacuation. Residents with disabilities, particularly those with ambulatory or independent living difficulty, face additional evacuation barriers. Because Gardner is so far inland, it is unlikely that hurricanes and tropical cyclones will have a significant impact on population trends. There is currently little documented correlation between hurricanes/tropical cyclones and land use changes.

4.9. Invasive Species

4.9.1. | Description

The term invasive species can apply to both flora (plants) and fauna (animals). This Section will focus on plants and insects (referred to as pests) specifically. The Massachusetts Invasive Plant Advisory Group (MIPAG) was founded in 1995 by the Executive Office of Energy and Environmental Affairs to inform the Commonwealth about the presence and management of invasive species. MIPAG defines invasive species as meeting the following four base criteria (MIPAG, 2022):

- non-indigenous to Massachusetts,
- demonstrates the potential for rapid and widespread dispersion and establishment,

- has the potential to disperse over spatial gaps,
- exists in high numbers in natural habitats.

Invasive species have biological traits that give them competitive advantages over native species, particularly because they are not restricted by the biological controls of their native habitat. As a result, invasive species can outcompete natural communities, displacing many natives and causing widespread economic and environmental damage (EOEEA M. &., 2023).

Pests exacerbate the problems that invasive plant species pose. Pests often prey on native plant species, causing pre-mature death and creating gaps in the eco-system for invasive species to fill. Certain pests, while not necessarily detrimental to the environment, can pose a threat to public health.

4.9.2. | Location

Invasive species are a widespread problem that have that potential to impact the entirety of Gardner, although the impacts of these species vary by location, elevation, ecosystem, and habitat type, as well as land and water uses. Locations with the greatest susceptibility include natural areas, waterways and wetlands, roadsides and disturbed areas, agriculture areas, and areas that are landscaped with non-native species.

The ability of invasive species to travel far distances (via either natural mechanisms once established or accidental human transport) allows them to propagate rapidly over a large area. Similarly, in open freshwater ecosystems, invasive species can spread quickly, as there are generally no physical barriers (other than physiological tolerances) to prevent establishment, and commercial and recreational water activities provide ample opportunities for transport to new locations.

4.9.3. | Severity/Intensity

The geographic extent, severity, and intensity of invasive species varies greatly depending on the species in question and other factors, such as the availability of hospitable natural or artificial habitats, availability of disturbed habitats and ecosystems, and the range that the invasive species can inhabit (EOEEA M. &., 2023). Quantifying the extent of and resultant damage from invasive species can be challenging. Accurately mapping their distribution and population is difficult due to their uneven distribution, dispersal mechanisms and speed, and impact from human activities. (EOEEA M. &., 2023). Invasive species may establish and spread in areas where they have not been previously documented and may not be noticed until they reach high population densities.

4.9.4. | Previous Occurrences and Frequency

Because the presence of invasive species is ongoing rather than a series of discrete events, it is difficult to quantify the frequency of these occurrences. However, increased rates of global trade and travel have created many new pathways for the dispersion of species outside their natural ranges. As a result, the frequency with which these threats have been introduced has increased significantly with globalization. Increased international trade in ornamental plants is particularly concerning because many of the invasive plant species in the U.S. were originally imported as ornamentals or for medicinal purposes.

Mass Audubon contains an up-to-date list of invasive species within Massachusetts. Currently, they have 72 plant species that are scientifically categorized by the Massachusetts Invasive Plant

Advisory Group (MIPAG) as “Invasive,” “Likely Invasive,” or “Potentially Invasive.” These species include Norway Maple, Japanese Knotweed, and Tree-of-heaven (Audubon, n.d.).

4.9.5. | Probability of Future Hazard Events, including Due to Climate Change

There are a multitude of factors that can determine the ability of invasive species to survive and propagate and climate change is impacting many of them. Factors include temperature, carbon dioxide concentration, habitat disturbances, changes in seasonal patterns, and available nutrients (EOEEA M. &., 2023). Climate change is already altering these variables.

Additionally, increased risks to ecosystems from flooding, fires, drought, and heat are already creating stress to native flora and fauna, making it easier for invasive species to outcompete them (EOEEA M. &., 2023). Extreme weather events, which are increasing due to climate change, may lead to increased establishment of invasive species.

4.9.6. | Vulnerability and Impacts

Invasive species can have far reaching impacts on the City of Gardner and its surrounding areas. Invasive species can sometimes outcompete native species, resulting in the extinction of local flora or fauna. Invasive species can be direct predators for local flora and fauna. This can disrupt or upset ecosystems. Additionally, invasive species have the potential to spread disease. Vulnerabilities associated with invasive species can be found in Table 4.21.

Table 4.21: Impacts from Invasive Species on Gardner

Asset Category	Likely Impacts
People	Impacts to people’s health, welfare, and safety, including underserved communities and socially vulnerable populations: • Increased potential for vector-borne diseases • Invasive species can bring new diseases or aggravate existing health problems
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Japanese knotweed is known to decrease streambank stability and contribute to topsoil erosion which can contribute to flood damage
Systems	Impacts to transportation systems, and electricity and water systems: • Facilities that rely on biodiversity or the health of the surrounding ecosystems such as outdoor recreation areas or agricultural/forestry operations could be vulnerable • Japanese knotweed is known to decrease streambank stability and contribute to topsoil erosion which can contribute to flood damage
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Die-off of native species that are unable to complete with invasive species • Loss of biodiversity • Loss of ecosystem function • Potential loss of species that were culturally important

Asset Category	Likely Impacts
	• Japanese knotweed can contribute to streambank destabilization and erosion
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Increased cost of ongoing control efforts • Economic impact from loss of crops, aquaculture, and public goods such as water quality

Invasive Species and Population and Land Use Changes

Research shows that urbanization can create environmental conditions that promote and favor invasive species (Carlon & Dominoni, 2024). As Gardner develops, changes in landscaping may create conditions that may introduce or provide space for invasive species. Additionally, certain land-use types create environmental conditions that make it more difficult for native species to survive, which can in turn give invasive species a competitive advantage. Highly altered landscapes, such as dense urban areas, transportation corridors, industrial zones, or heavily managed agricultural land, often experience soil disturbance, reduced habitat complexity, fragmented ecosystems, and increased human activity. These stressors tend to suppress sensitive native species while favoring fast-growing, adaptable, and disturbance-tolerant invasive species. As a result, the structure of the landscape can unintentionally promote the establishment and spread of invasive species. Thoughtful planning and sustainable landscaping practices can help control their spread. Despite this, invasive species are unlikely to have a major effect on land use decisions within the City.

4.10. Landslides / Mudflows

4.10.1. | Description

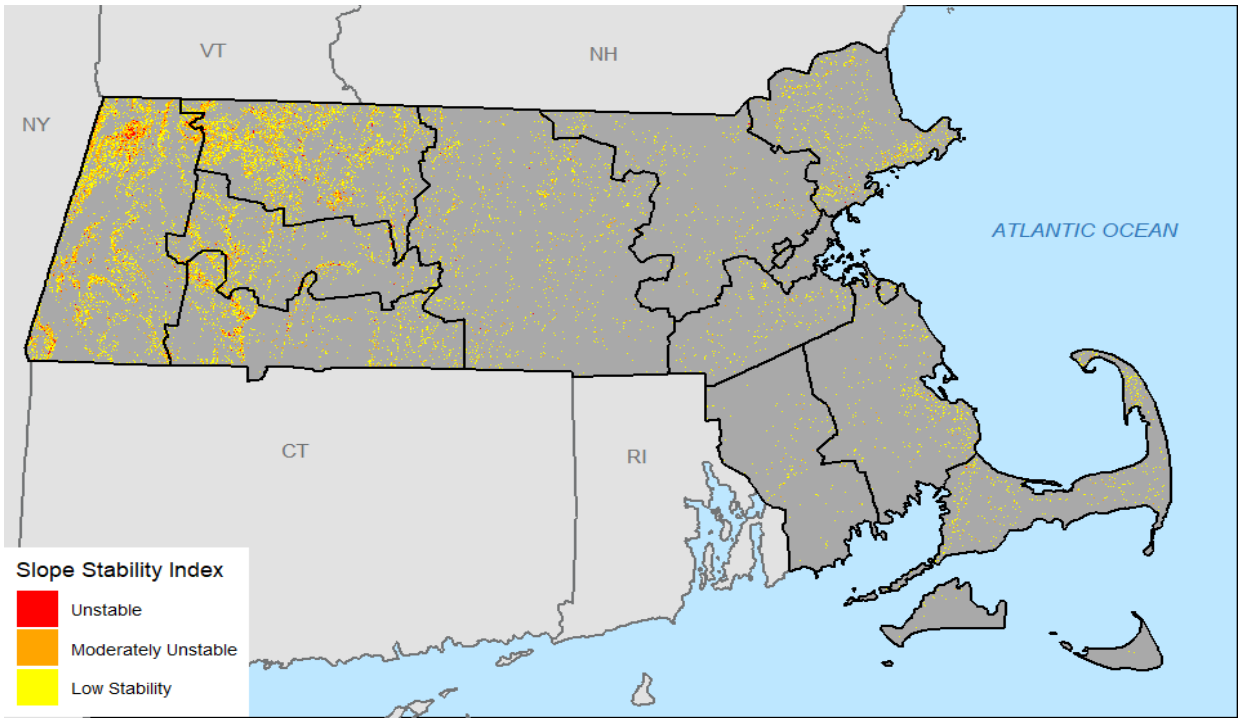
A landslide or mudflow is the movement of rocks, earth, or debris down a slope. The most common types of landslides in Massachusetts included translational debris slides, rotational slides, and debris flows (EOEEA M. &., 2023). Most of these events are caused by a combination of unfavorable geologic conditions, steep slopes, and/or excessive water or saturated soils leading to excess pore pressures in the subsurface (EOEEA M. &., 2023).

In Massachusetts, landslides tend to be more isolated in size and pose threats to linear systems and networks such as highways, roadways, rail, and utilities (EOEEA M. &., 2023). Landslides typically occur in more remote and less populated areas.

4.10.2. | Location

Landslides and mudflows are most likely to occur in areas of elevation changes or higher slopes. The 2013 slope stability map in Figure 4.12 categorizes areas of Massachusetts into stability zones, and the categorization is correlated to the probability of instability in each zone.

Figure 4.12: Slope Stability in Massachusetts



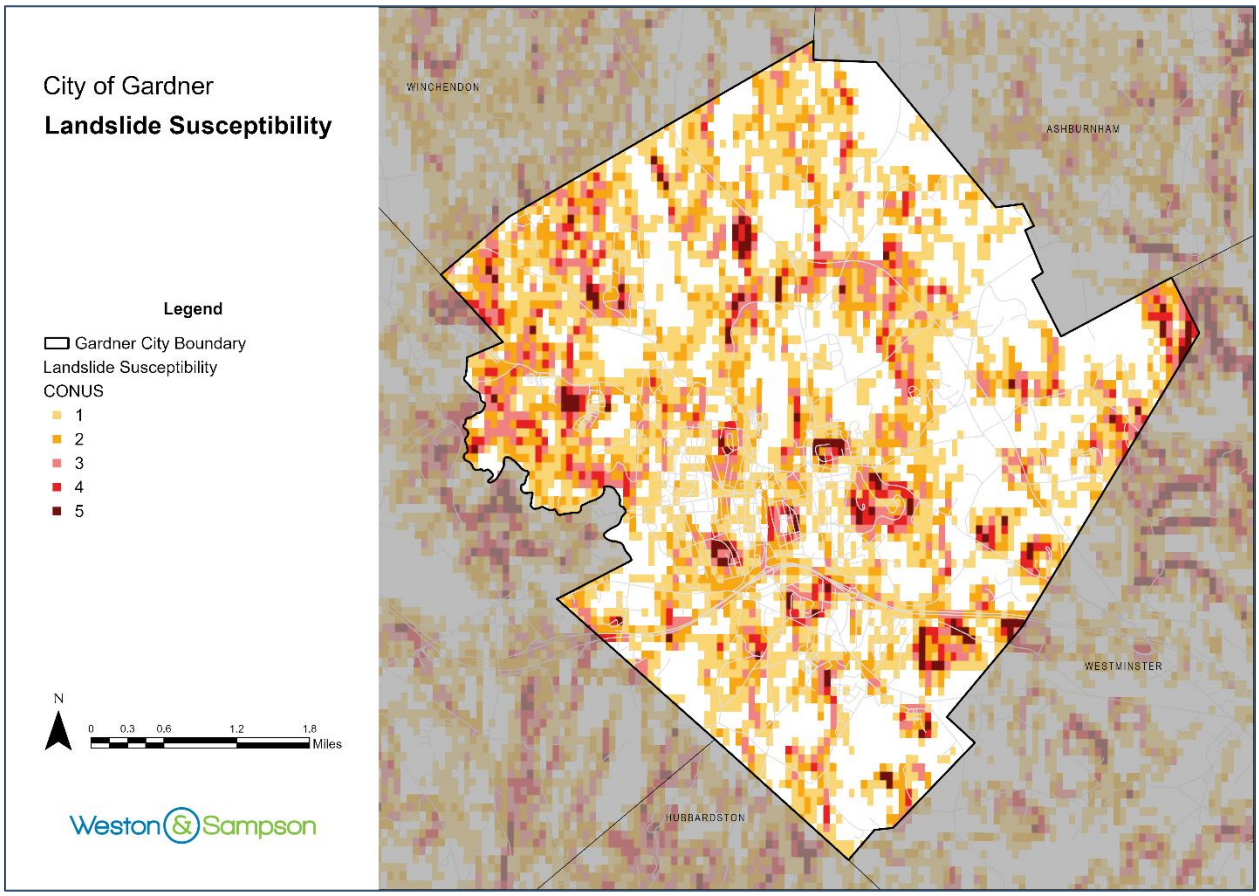
Source: MassGIS (Bureau of Geographic Information), Slope Stability Index.

While Gardner is located in an area not typically associated with high landslide or mudflow risk compared to regions with steeper terrain or more frequent heavy rainfall, there are still factors that could contribute to localized risks. These include areas of the City with slopes that are prone to instability, especially those that have been altered by human activities such as construction or landscaping. Soil characteristics such as loose or poorly compacted soils, particularly if they are situated on slopes, can increase vulnerability. Saturated soils have lower stability, and limited vegetation cover can cause erosion and reduce water absorption from the soil.

4.10.3. | Severity/Intensity

Variables that contribute to the potential occurrence of landslide activity include soil properties, topographic position and slope, and historical incidence (EOEEA M. &., 2023). Predicting a landslide is difficult and data are limited and hard to collect due to limited monitoring instruments and lack of eyewitness accounts. As a result, estimations of the severity of landslides are informed by previous occurrences as well as an examination of landslide susceptibility. Information about previous landslides can provide insight on where landslides may occur and what types of damage may result. It is important to note, however, that susceptibility only identifies areas potentially affected and does not imply a timeframe when a landslide might occur (EOEEA M. &., 2023). Figure 4.13 provides a map using USGS U.S. Landslide Inventory and Susceptibility data.

Figure 4.13: Landslide Susceptibility within City of Gardner



Source: U.S. Geological Survey (USGS), Landslide Susceptibility Map of the Conterminous United States (CONUS)

4.10.4. | Previous Occurrences and Frequency

Landslides commonly occur shortly after other major natural disasters, such as extreme precipitation events, wildfire, earthquakes, and floods, which can slow response and recovery efforts, including emergency response, evacuations, debris removal, restoration of services, and stabilization efforts. Many landslide events occur in remote areas and are unobserved or reported, making it difficult to account for the frequency of landslides, the scale of such events, and the geographic range. In general, landslides are most likely during periods of higher-than-average rainfall, with the intensity of the rainfall being an important factor, as well as the health of the soil. Areas that have experienced disturbance due to wildfire, drought, invasive species, recent development, or vegetation or tree removal are more likely to experience landslides.

There are no records of significant landslides or mudflows in Gardner.

4.10.5. | Probability of Future Hazard Events, including Due to Climate Change

It is difficult to determine the probability of future occurrences due to a lack of available data. However, it is thought that impacts of climate change on the duration and intensity of rainfall events, wildfire, drought, and invasive species will result in an increase in the frequency of

landslides and may result in an increase in the areas at risk from landslides (EOEEA M. &., 2023). Another factor is the changes in the intensity and type of land uses in areas with high risk for landslides (EOEEA M. &., 2023).

4.10.6. | Vulnerability and Impacts

Landslides or mudflows can cause significant damage to trees, structures, roadways, cars, and other built infrastructure. This damage can result in blocked transportation routes, road closures, general disruption to daily life, and costly repairs. Vulnerabilities associated with landslides in Gardner are located in Table 4.22.

Table 4.22: Impacts from Landslides/Mudflows on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Death or Injury • Loss of property
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Collapse of buildings or other damage • Damage to critical infrastructure
Systems	Impacts to transportation systems, and electricity and water systems: • Blocked or damaged roadways or bridges • Potential to impact utility services such as power, water, or gas lines • Road closures
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Increased erosion
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Cancellation of community events • Possible business or school closures

Landslides/Mudflows and Population and Land Use Changes

Residents with mobility limitations face challenges evacuating during landslide or mudflow events. Land clearing for new development may further destabilize slopes, increasing the likelihood of such hazards. However, these risks are not expected to significantly influence future land use patterns or population growth within the area.

4.11. Other Severe Weather

4.11.1. | Description

Other severe weather refers to conditions such as high winds, thunderstorms, lightning, thunder, hail, and extreme precipitation events.

4.11.2. | Location

Severe weather can impact all of Gardner, but there are factors that create increased vulnerability. Areas of Gardner that are more exposed or have fewer natural windbreaks, such as hills, ridges, or open fields, may experience stronger winds. Additionally, areas with sparse vegetation or where trees have been removed posed an increased risk of impacts from high winds.

Areas with steeper slopes or valleys may experience more localized heavy rainfall. Low lying areas and locations with inadequate drainage are at higher risk of flooding from extreme precipitation.

The types of severe weather outlined in this Section oftentimes occur simultaneously, with one bringing on the other. Certain weather conditions, such as thunderstorms, nor'easters, or tropical cyclones, can bring strong winds and precipitation to the region.

4.11.3. | Severity/Intensity

The severity of thunderstorms, high winds, and extreme precipitation events vary in Gardner. Storms can be quick and moderate or long and intense. Oftentimes, severity increases when these types of severe weather occur simultaneously. For example, impacts from thunderstorms can be exacerbated by high winds and extreme precipitation.

4.11.4. | Previous Occurrences and Frequency

Severe weather occurs fairly frequently in Gardner. Since the previous Hazard Mitigation Plan in 2015, there have been 55 events in Gardner and Northern Worcester County with heavy rain, lightning, strong wind, or thunderstorm wind (NOAA, NOAA Storm Events Database, 2025). There have been 0 injuries from severe weather since the previous Hazard Mitigation Plan in 2015 (NOAA, NOAA Storm Events Database, 2025). In total, severe weather has caused $177,200 of property damage since the previous plan update in 2015 (NOAA, NOAA Storm Events Database, 2025).

4.11.5. | Probability of Future Hazard Events, including Due to Climate Change

Massachusetts is highly likely to continue experiencing high wind events based on previous occurrences. Though the effect of climate change on high winds is not certain, based on recent data, it appears likely that high wind events will increase because of more frequent severe weather events in the future (EOEEA M. &., 2023).

Massachusetts experiences between nine and 27 thunderstorm days each year (EOEEA M. &., 2023), and is likely to continue experiencing thunderstorms. Data supports the trend of slightly increased frequency (EOEEA M. &., 2023).

Extreme precipitation projections by the U.S. Geological Survey indicate that the coast will experience the greatest number of high-intensity rainfall days, but increased precipitation will occur in every region of the Commonwealth (EOEEA M. &., 2023). Higher temperatures due to climate change are anticipated to increase the moisture-holding capacity of the atmosphere.

4.11.6. | Vulnerability and Impacts

Severe storms, high winds, and heavy precipitation can have a wide range of effects on people, structures, systems, and resources. First and foremost, in the absence of proper shelter, people

are subject to serious injury or even death from hail, lightning, and high winds. Thunderstorms can cause power outages, which can disrupt daily life and impact essential services. They can also cause damage to electrical infrastructure, such as power lines, transformers, and substations. Severe thunderstorms can also strain public safety resources, including emergency services, law enforcement, and medical facilities. They can also cause wildfires from lightning strikes. High winds have the capability of blowing down tree limbs and creating flying debris that can injure people or block roads. Vulnerabilities associated with severe weather are located in Table 4.23.

Table 4.23: Impacts from Other Severe Weather on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Death and injury • Mental health impacts such as anxiety and PTSD • Displacement
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Falling objects, trees, or debris can damage buildings or critical infrastructure • Fallen power lines • High winds and hail can damage buildings or infrastructure
Systems	Impacts to transportation systems, and electricity and water systems: • Airport closures • Electrical infrastructure damage • Communications disruptions from damage to telecommunications infrastructure • Power outages • Transportation disruptions from heavy rain, strong winds, or flooding • Severe storms can overwhelm water treatment plants and wastewater facilities leading to contamination and water supply disruptions
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Flash floods or riverine flooding • Potential for wildfire due to lightning strikes • Potential for tornadoes to form
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Severe storms may cause business closures

Asset Category	Likely Impacts
	• Cancellations of community or sporting events

Other Severe Weather and Population and Land Use Changes

Residents with disabilities and elderly residents face heightened vulnerability to severe weather due to mobility limitations, preexisting health conditions, or reduced access to emergency services. The improvement in internet access (from 83.4% to 91.4%) enhances the community's ability to receive emergency alerts, though nearly 9% of households still lack this communication tool. Land use changes can influence the intensity and local impacts of severe weather events. However, within Gardner, such changes are expected to have minimal influence on the occurrence of these events.

4.12. Severe Winter Storms

4.12.1. | Description

Winter storms are a regular hazard in Gardner, often taking the form of nor'easters, blizzards, and ice storms. Among these, ice storms are a major concern for residents due to their potential to cause widespread power outages, hazardous travel conditions, and tree damage. Severe winter storms typically develop when cold and warm air masses collide, creating powerful extratropical cyclones that bring heavy precipitation and strong winds. These events can significantly disrupt daily life and pose risks to infrastructure and public safety. Extratropical cyclones have cold air at their core and can be accompanied by either weak or strong winds (EOEEA M. &., 2023). Blizzards and ice storms in Massachusetts can range from an inconvenience to extreme events that cause significant impacts and require a large scale, coordinated response.

The National Weather Service defines a blizzard as a winter snowstorm with sustained or frequent wind gusts of up to 35 miles per hour or more, accompanied by falling or blowing snow that reduces visibility to or below a quarter of a mile over at least a three-hour period (Service, Winter Storms and Blizzards, 2025). Blizzards are also often associated with extreme temperatures.

Freezing rain is defined by liquid rain falling and freezing on contact with old objects, creating ice buildups (EOEEA M. &., 2023). Even a small amount of ice can cause significant impacts, but an ice storm by the National Weather Service's definition is a half inch of ice accumulation across any location (Service, Winter Watch, Warning, and Advisory Definitions, 2024).

A nor'easter is a storm that occurs along the East Coast of North America with winds from the northeast. A nor'easter is characterized by a large counterclockwise wind circulation around a low-pressure center that often results in heavy snow or rain and high winds. Nor'easters can occur any time of year but occur most frequently between September and April. The storm radius of a nor'easter is often as much as 100 miles across, and nor'easters can last between 12 hours and 3 days, affecting multiple tide cycles and causing extended heavy precipitation in an area (EOEEA M. &., 2023). Sustained wind speeds of 20 to 40 miles per hour are common during a nor'easter, with short-term wind speeds gusting up to 50 to 60 miles per hour (EOEEA M. &., 2023).

4.12.2. | Location

The entire City of Gardner is at risk from the hazard of severe winter storms. These storms can bring heavy snow which can paralyze inland cities or regions, limiting or eliminating access to some areas. Many

residents expressed concern about winter storms, particularly ice storms, as a significant hazard for the City. While all areas of the City are susceptible to these events, locations with major roads and dense tree coverage face elevated risks. Ice accumulation on roads can create dangerous driving conditions, increase the likelihood of traffic accidents, and disrupt transportation and emergency response. Similarly, ice-laden trees are more prone to breaking, which can damage property, down power lines, and cause localized power outages, further amplifying the storm's impact on the community.

4.12.3. | Severity/Intensity

Snowfall is a component of multiple hazards, including nor'easters and other severe winter storms. Since 2005, the Regional Snowfall Index (RSI) has become the descriptor of choice for measuring winter events that affect the eastern two-thirds of the U.S. The RSI ranks snowstorm impacts on a scale from 1 to 5, as shown in Table 4.24. It also includes population as a variable.

The RSI is a regional index. Each of the six climate regions in the eastern two-thirds of the nation (as identified by the NOAA National Centers for Environmental Information) has a separate index, calculated according to region-specific parameters and thresholds. The RSI is important because, with it, a storm event and its societal impacts can be assessed in the context of a region's historical events (EOEEA M. &., 2023).

Table 4.24: The Regional Snowfall Index (RSI)

Category	RSI Value	Northeast Threshold	Description	Number of Events in New England (1973–2022)
1	1–3	Less than 4 inches	Notable	75
2	3–6	4–10 inches	Significant	23
3	6–10	10–20 inches	Major	7
4	10–18	20–30 inches	Crippling	4
5	18.0+	30+ inches	Extreme	3

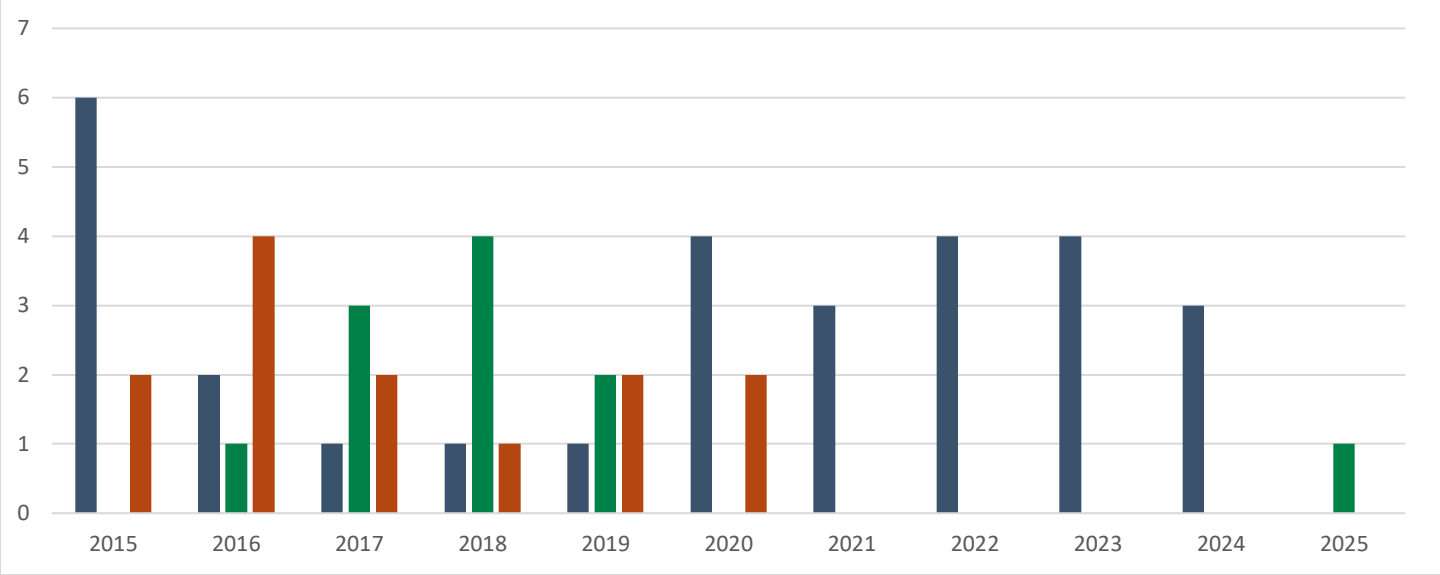
4.12.4. | Previous Occurrences and Frequency

One of Gardner's most significant weather events, as identified by the public survey, was the 2008 ice storm. The storm left many residents without power for an entire week, creating serious challenges related to heating, hot water, and electricity. Prolonged outages affected daily routines, forced residents to rely on temporary accommodations or alternative heat sources, and increased health and safety risks. In addition, numerous residents reported extensive damage from downed trees, which blocked roads, damaged homes and vehicles, and disrupted public services.

Worcester County, which includes Gardner, experienced 53 severe winter weather events since the previous hazard mitigation plan update in 2015 (NOAA, NOAA Storm Events Database, 2025). An aggregated graph of winter weather events by year, based on NOAA data is presented

in Figure 4.14 below. The combined property damage from these winter events totaled $82,500 (NOAA, NOAA Storm Events Database, 2025).

Figure 4.14: Winter Weather Events in Gardner since 2015



Source: NOAA National Centers for Environmental Information, Storm Events Database.

4.12.5. | Probability of Future Hazard Events, including Due to Climate Change

Gardner already experiences significant winter weather, including ice storms and nor'easters, making it almost certain that severe winter storms will continue to occur annually. However, it is unclear how much the frequency of these storms will change in Massachusetts over the next few decades as a result of climate change. Extreme weather events, including extreme precipitation events, are expected to become more frequent. With rising temperatures, more of this precipitation is likely to fall as rain rather than snow (EOEEA M. &., 2023). However, there has been little information on the climate trends of nor'easters (EOEEA M. &., 2023).

Figure 4.15: Boston News Reporting Winter Storm in Gardner

Source : 7NEWS Boston (WHDH), Flakes flying in Gardner as storm moves through, December 16, 2022.

While evidence for frequency is not clear, climate change is likely to increase the intensity of winter storms. Increased sea surface temperature in the Atlantic Ocean due to climate change will cause air moving north over the ocean to hold more moisture. As a result, when these fronts meet cold air systems moving from the north, an even greater amount of precipitation than normal can be anticipated to fall on Massachusetts (EOEEA M. &., 2023).

4.12.6. | Vulnerability and Impacts

Severe winter weather has the potential to paralyze the entire City. Heavy snow and ice can yield dangerous travel conditions and result in public transportation closures. Prolonged closures of roads and public transportation systems can inhibit the delivery of critical services or the ability to obtain vital resources. Heavy snow has the capacity to cause power outages or frozen pipes. Extended power outages, the cost of snow removal, and repairing damages can have severe economic impacts on smaller communities. The elderly and the sick are populations of particular

concern during these events. Table 4.25 contains vulnerabilities associated with severe winter weather.

Table 4.25: Impacts from Severe Winter Weather

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Death and injury • Increased instances of frostbite and hypothermia • Stranded or isolated communities
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Heavy snow loads may cause roof collapse • Increased heating demands • Frozen pipes
Systems	Impacts to transportation systems, and electricity and water systems: • Power outages • Transportation disruptions due to low visibility, icy road conditions, or heavy snow • Communications disruptions from damaged infrastructure due to ice and freezing rain • Water supply interruptions caused by frozen pipes that burst
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Historic buildings may not be capable of handling snow loads and may be more susceptible to roof collapse • Flooding may occur after rapid melting of snow • Chemicals used to treat roadways may contaminate natural environments and water bodies if used in large quantities
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Increased heating costs • Disruption of essential services • Reduced economic activity • Expensive response and recovery costs • School closures

Severe Winter Storms and Population and Land Use Changes

The increase in elderly householders living alone (from 888 to 1,072) and residents with disabilities creates heightened vulnerability to winter storms, particularly during extended power outages. The 11.1% of households without vehicle access face barriers reaching emergency services or shelters. Residents with ambulatory difficulty face challenges navigating ice and snow. Youth populations may be indirectly

affected through school closures or disruptions to daily activities. There is no documented connection between land use changes and the occurrence or severity of winter storms in Gardner.

4.13. Tornadoes

4.13.1. | Description

A tornado is a narrow, violently rotating column of air that extends from the base of a cumulonimbus cloud to the ground. The observable aspect of a tornado is the rotating column of water droplets, which captures dust and debris in the column (EOEEA M. &., 2023). Tornadoes are the most violent of atmospheric storms. Tornadoes tend to form when cold, dry air clashes with warm, humid air (EOEEA M. &., 2023).

The following are common factors in tornado formation (EOEEA M. &., 2023):

- Very strong winds in the middle and upper levels of the atmosphere
- Clockwise turning of the wind with height (i.e., from southeast at the surface to west aloft)
- Increasing wind speed in the lowest 10,000 feet of the atmosphere (i.e., 20 miles per hour at the surface and 50 miles per hour at 7,000 feet)
- Very warm, moist air near the ground, with unusually cool air aloft
- A forcing mechanism such as a cold front or leftover weather boundary from previous shower or thunderstorm activity

Tornadoes can form along severe thunderstorm squall lines, from individual supercell thunderstorms, or from tropical cyclones. Most tornadoes occur in the late afternoon and evening hours when the temperatures are the highest. The most common months for tornadoes to occur in Massachusetts are June, July, and August (EOEEA M. &., 2023).

4.13.2. | Location

Gardner, like much of the Commonwealth, is not located in a region known for frequent tornado activity. Tornadoes can develop anywhere in Massachusetts, with the state averaging several per year, typically during the spring and summer months when severe thunderstorms and frontal systems are most common. While flat, open terrain is generally more conducive to tornado formation, tornadoes can form and travel across any landscape. While certain regions of the country experience significantly higher tornado frequency, Gardner may be affected by similar severe weather systems capable of producing tornadoes and should note New England has seen notable destructive tornado events, including the 1953 Worcester tornado and the 2011 Springfield tornado.

Just in September 2025 a wall cloud observed formed over the City, part of a storm system that produced a tornado in nearby Holden (Boston 25, 2025).

Figure 4.16: Boston News Reports a Wall Cloud Forming Above Gardner

Source:

4.13.3. | Severity/Intensity

Massachusetts ranks 35th among the states for frequency of tornadoes, 14th for frequency of tornadoes per square mile, 21st for injuries, and 12th for cost of damage (EOEEA M. &., 2023).

The National Weather Service rates tornadoes using the Enhanced Fujita scale (EF scale), shown in Table 4.26, which does not directly measure wind speed but rather the amount of damage created. This scale derives three-second gusts estimated at the point of damage based on the assignment of one out of eight degrees of damage to a range of different structure types. These estimates vary with the height of a damaged structure (damage above the ground) and exposure of the event. This method is considerably more sophisticated than the original Fujita scale, and it allows surveyors to create more precise assessments of tornado severity after an event (EOEEA M. &., 2023).

Table 4.26: The Enhanced Fujita Scale

EF-Scale	Class	Wind Speed (mph)	Wind Speed (km/h)	Description
EF-0	Weak	65-85	105-137	Gale

EF-Scale	Class	Wind Speed (mph)	Wind Speed (km/h)	Description
EF-1	Weak	86-110	138-177	Moderate
EF-2	Strong	111-135	178-217	Significant
EF-3	Strong	136-165	218-266	Severe
EF-4	Violent	166-200	267-322	Devastating
EF-5	Violent	>200	>322	Incredible

4.13.4. | Previous Occurrences and Frequency

Massachusetts experiences far fewer tornadoes than other parts of the country. However, an occurrence is still possible. There have been ten tornado events reported in Worcester County since the last Hazard Mitigation Plan update in 2015, but none that have touched down in Gardner.

While the number of tornadoes is small in Massachusetts compared to other areas of the country, the Commonwealth experiences between two to five tornadoes per year and past tornadoes have caused significant damage (EOEEA M. &., 2023). Given these factors, the likelihood that a tornado event will occur within the Commonwealth is high.

4.13.5. | Probability of Future Hazard Events, including Due to Climate Change

Current climate models predict an increase in severe thunderstorms, which have the potential to produce tornadoes. However, it is unclear if tornado frequency will increase with climate change. Some studies suggest there will be a decrease in the number of tornado days, but an increase in the number of tornadoes per day. Given that less than 10 percent of severe thunderstorms produce tornadoes, it is difficult to draw firm conclusions about the processes leading up to a tornado and how these processes might be influenced by climate change (EOEEA M. &., 2023). Additionally, given that the tornado record only dates to 1950 in the United States and varies significantly from year to year, it is difficult to identify long-term trends (EOEEA M. &., 2023).

4.13.6. | Vulnerability and Impacts

Given the general but non-location specific risk, mitigation measures to reduce the risk of high winds that tornadoes and other extreme weather events generate should focus on the assets and populations most at risk, such as mobile homes and other manufactured buildings; people with characteristics that make them most at risk from tornadoes; and lifeline infrastructure, including utilities, infrastructure, and critical assets such as hospitals and schools (EOEEA M. &., 2023). Removing debris, storing hazardous waste and materials, and removing or enclosing critical equipment and assets located on roofs or outside of structures can make a significant difference in reducing the damage from tornadoes and other high-wind events (EOEEA M. &., 2023).

Tornadoes can cause severe injury or even death. Tornadoes can destroy homes, businesses, and other structures, leaving people without shelter and their possessions destroyed or lost. Tornadoes can also cause economic impacts, such as lost wages, business interruption, and increased insurance premiums. Infrastructure such as power lines, communication towers, water mains, and gas mains are vulnerable to tornadoes. Damage to such infrastructure can cause power outages, disruptions to communication, and water contamination. Tornadoes can also disrupt transportation systems, including roads, railways, and airports, by blocking them with debris, making them impassable or unsafe to use. Vulnerabilities associated with tornadoes can be found in Table 4.27.

Table 4.27: Impacts from Tornadoes on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Death or injury • Flying debris can cause death or injury • Mental health impacts such as anxiety or PTSD • Displacement
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Damage to buildings and infrastructure from high winds and flying debris • Critical facility damage • Power outages
Systems	Impacts to transportation systems, and electricity and water systems: • Damage to roadways, bridges, and other transportation infrastructure can disrupt daily travel • Damage to telecommunications infrastructure can disrupt communications • Downed power lines can cause power outages • Damage to water treatment plants, pump stations, or water distribution systems can lead to a loss of clean drinking water and sanitation services
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Uprooting or damaging trees • Destroyed vegetation or altered landscapes • Downed utility lines can cause wildfires
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Decreased economic activity • Business closures • School closures

Tornadoes and Population and Land Use Changes

As discussed in the Section on population trends, the percentage of residents over 65 has increased since 2015 and is expected to rise even further in the future. Older adults are particularly vulnerable during tornado events due to potential mobility limitations, health concerns, and the challenges of quickly seeking shelter. While tornadoes are relatively uncommon in Gardner, they pose significant risk to this population when they do occur. Despite this, tornadoes are unlikely to have a measurable impact on overall population trends in the City. Approximately 130 or 1.37% of Gardner's housing units are mobile homes, which are at greater risk in the event of a tornado. These are concentrated in specific areas of the City, and make up to 6% of the housing units in South Gardner (PolicyMap, 2019-2023). Planning and preparedness efforts, including community warning systems and accessible emergency shelters, are essential to reduce risk and protect residents. Land use changes do not influence the occurrence or intensity of tornadoes, though they can affect the severity of damage if a tornado strikes developed areas.

4.14. Wildfires

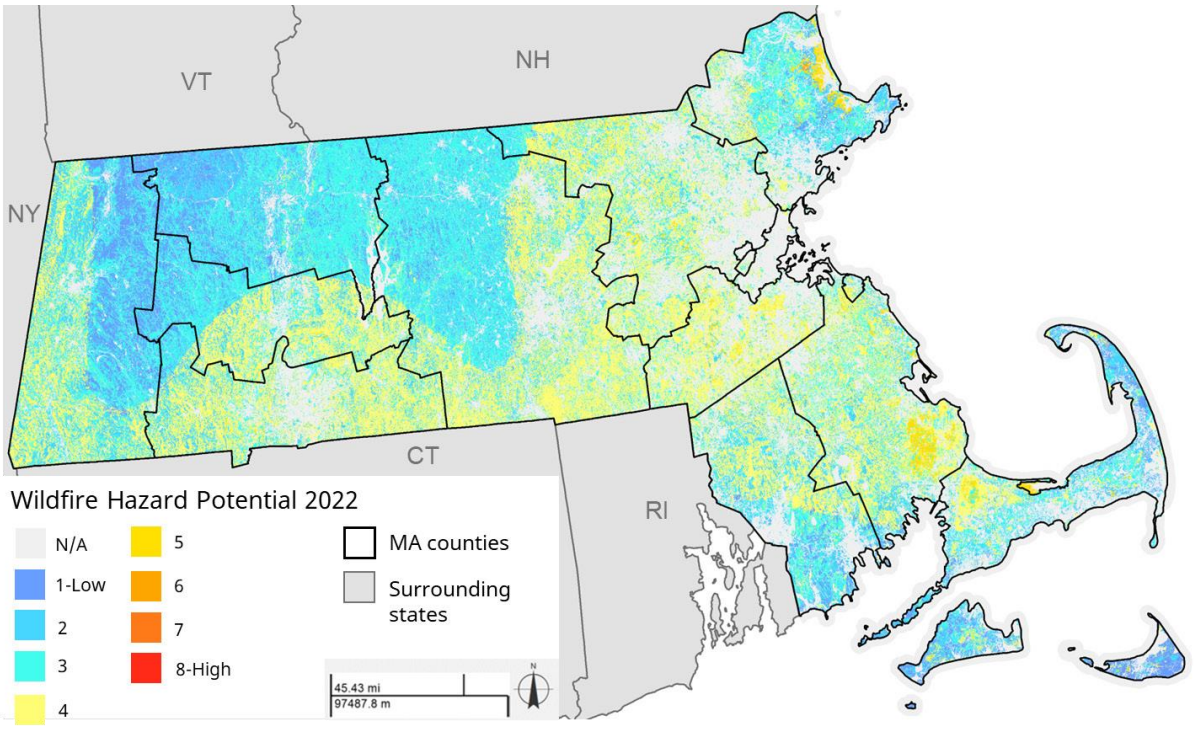
4.14.1. | Description

A wildfire is an uncontrolled, unplanned fire that spreads through natural or unnatural vegetation (EOEEA M. &., 2023). Wildfires in Massachusetts are caused by natural events (such as lightning) and human activity. Wildfires often begin unnoticed but spread quickly, igniting brush, trees, and potentially homes. Fast-moving fires typically occur from March to June. Deep-burning duff fires can occur in the drier months of June through November. April is historically the month in which wildfire danger is the highest. However, drought, snowpack level, and local weather conditions can impact the timing and length of the fire season (EOEEA M. &., 2023).

4.14.2. | Location

The risk of wildfire in Gardner is fairly low as shown in Figure 4.17 below. The figure shows wildfire hazard potential on a scale from 1 (low) to 8 (high).

Figure 4.17: Wildfire Hazard Potential



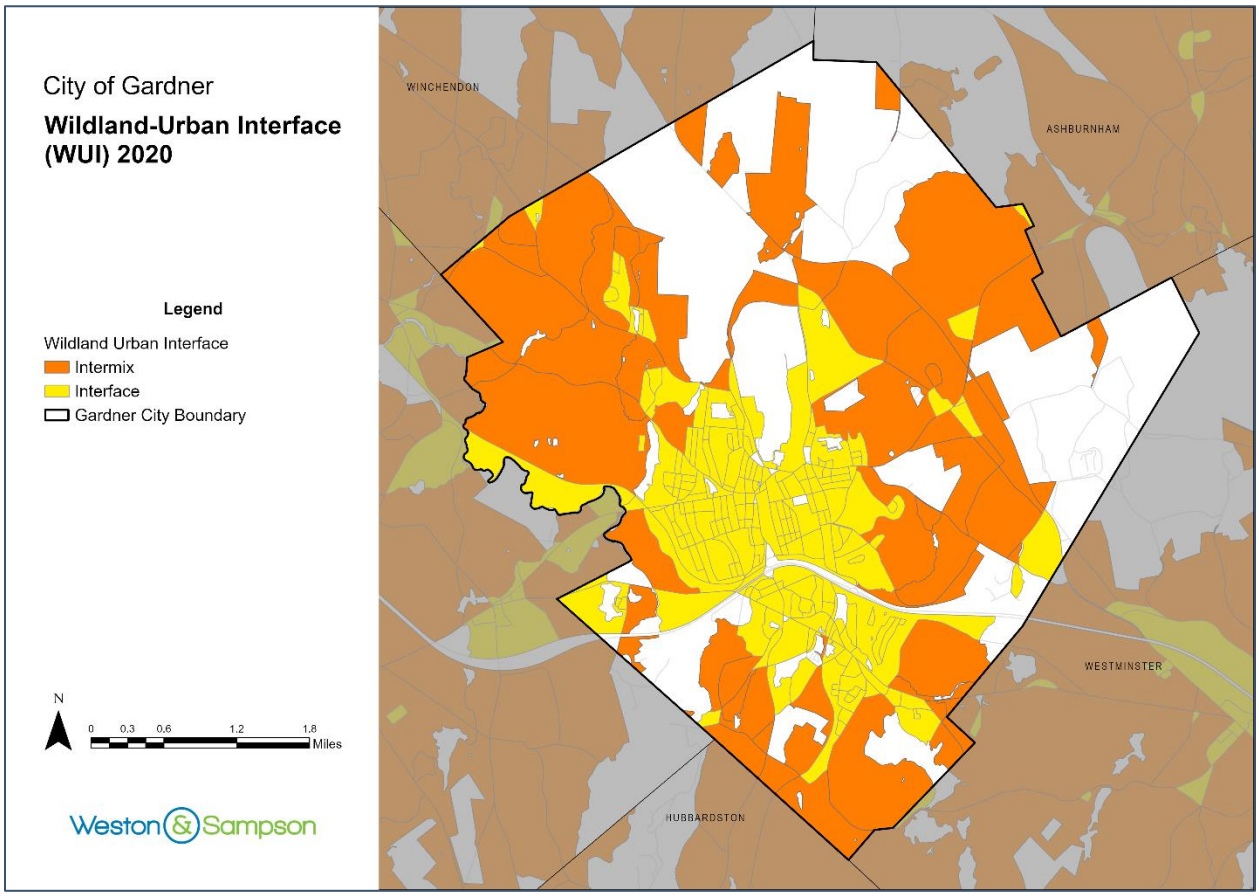
Source: U.S. Forest Service, Wildfire Hazard Potential (WHP), 2022.

Gardner contains significant wildland-urban interface areas, particularly on the City's outskirts where residential development is interspersed with forested land. Weather conditions such as drought, low humidity, and high winds can increase wildfire risk and allow fires to spread rapidly when they do occur. Wildfire risk also increases near roadways as they can be started by human activities such as discarded cigarettes and sparks from vehicles. The Wildland-Urban Interface (WUI) dataset, available from the U.S. Forest Service, is a valuable tool for identifying areas that may be at increased risk from wildfire. The WUI is divided into two main types of areas:

- **Intermix areas** are places where homes and other development are scattered within wildland vegetation, with more than 50 percent of the surrounding land vegetated. In these areas, the proximity of structures to flammable vegetation increases the likelihood of wildfire impacting homes directly.
- **Interface areas** are developed locations with less vegetation cover but within close proximity (1.5 miles) of large, contiguous wildland areas. These areas are at risk primarily because wildfires from adjacent wildlands can spread to nearby structures.

The locations of these areas are shown in Figure 4.18. Downtown Gardner is primarily classified as interface, meaning it has lower vegetation cover but is located within proximity of large, contiguous wildland areas. The City's outskirts are classified as intermix, where homes and structures are interspersed directly within wildland vegetation.

Figure 4.18: Wildland-Urban Interface Map for Gardner



Source: Radeloff, V.C. et al., University of Wisconsin–Madison Silvis Lab, Wildland-Urban Interface (WUI), 2020.

A resident who participated in the public survey identified the Kelton Street area, near Route 140 and Camp Collier, as particularly vulnerable to wildfire. This area is surrounded by extensive forest cover adjacent to Dunn State Park and falls within the City's intermix WUI, where residential development is interspersed with dense wildland vegetation. They noted that the presence of standing dead wood and dense vegetation in the area could serve as fuel for fires, increasing the likelihood of rapid fire spread. This observation highlights the need for targeted vegetation management and community awareness efforts to reduce wildfire risk in this part of the City.

4.14.3. | Severity/Intensity

The National Wildfire Coordinating Group classifies wildfires based on how many acres are burned (EOEEA M. &., 2023). There are seven classes of wildfires:

- **Class A:** 0.25 acre or less
- **Class B:** more than 0.25 acre, but less than 10 acres
- **Class C:** 10 acres or more, but less than 100 acres
- **Class D:** 100 acres or more, but less than 300 acres
- **Class E:** 300 acres or more, but less than 1,000 acres

- **Class F:** 1,000 acres or more, but less than 5,000
- **Class G:** 5,000 acres or more

4.14.4. | Previous Occurrences and Frequency

Several notable wildfires have occurred in Massachusetts history, although none has ever resulted in a disaster declaration by the U.S. Federal Emergency Management Agency. Wildfires in the Commonwealth tend to be around five acres (EOEEA M. &., 2023). Due to the relatively small size of the incidents compared to larger fires in California and other parts of the West, it can be difficult to consistently track and record these fires since they are not federally declared events. As such, it is difficult to compile a consistent historical record of wildfires for the Commonwealth. In 2017, DCR began working to improve fire reporting data.

There have been no urban or brush fires since the previous hazard mitigation plan update.

4.14.5. | Probability of Future Hazard Events, including Due to Climate Change

Precipitation changes, prolonged drought, rising temperatures, and increased frequency of lightning are expected to contribute to increased frequency and severity of wildfire. As droughts become more frequent and severe, forest types that do not usually burn and are not fire adapted will be more likely to burn. Wildfires are projected to increase worldwide by 14% by 2030, 30% by 2050, and 50% by 2100 (EOEEA M. &., 2023).

4.14.6. | Vulnerability and Impacts

Wildfires can have extensive and far-reaching impacts. First and foremost, wildfire smoke can contain harmful pollutants that can cause respiratory problems, especially for people with pre-existing conditions like asthma or COPD. Exposure to smoke can also lead to eye irritation, headaches, and other health effects. Wildfires can also cause physical injuries such as burns and can even potentially be fatal. During wildfire events, people may be displaced from their homes due to the need to evacuate. Wildfires can cause severe structural damage to homes and businesses alike, as well as other property. The loss of personal possessions and cherished belongings can have emotional and financial impacts on individuals and families. Wildfires can destroy or damage critical lifelines such as power lines, water treatment facilities, and transportation infrastructure. This can lead to disruptions in basic services such as electricity, clean water, and transportation. Wildfires can cause soil erosion and other changes to the landscape that impact water quality. This can lead to contamination of drinking water supplies. Wildfires can also impact air quality, which can have implications for the health of individuals and for the operation of critical infrastructure such as airports. Lastly, wildfires can decimate natural landscapes as well as local populations of flora and fauna. Table 4.28 contains vulnerabilities associated with wildfires.

Table 4.28: Impacts from Wildfires on Gardner

Asset Category	Likely Impacts
People	Impacts to people's health, welfare, and safety, including underserved communities and socially vulnerable populations: • Death or injury

Asset Category	Likely Impacts
	• Displacement or evacuation • Loss of property • Mental health impacts such as anxiety or PTSD • Worsening of chronic respiratory illnesses due to smoke and increased particles in the air
Structures	Impacts to buildings, facilities, lifelines, and critical infrastructure: • Burning structures • Charring of exterior surfaces • Damage to roofs, walls, or windows • Heat generated by wildfires can weaken or melt building materials
Systems	Impacts to transportation systems, and electricity and water systems: • Wildfire can damage utility infrastructure, including power lines, gas pipelines, and water lines, leading to disruptions in services • Damage to infrastructure such as roads or bridges can disrupt travel and emergency responses
Natural / Cultural / Historic Resources	Impacts to ecosystems, natural habitats, community areas, historical facilities and locations, and cultural resources: • Wildfires can decimate habitats and harm or displace wildlife • Displacement of wildlife can lead to conflicts with human populations • Post-fire landscapes are vulnerable to colonization by invasive plant species which can outcompete native vegetation and disrupt ecosystem function
Economic and Community Assets	Impacts to people's ability to work and make a living, and impacts to activities that benefit the community by increasing community morale and well-being: • Increased insurance claims • Reduced economic activity in areas affected by wildfire • Need for emergency shelters • Expensive response and recovery costs

Wildfire and Population and Land Use Changes

Wildfire vulnerability in Gardner is driven primarily by land use patterns rather than demographic changes. The concentration of intermix WUI areas on the City's outskirts, where residential development is interspersed with forest, creates the primary exposure. Residents with mobility limitations in these areas would face evacuation challenges.

Land use changes may impact the way that fire travels through the City. As development increases, buildings may be constructed closer together, making fires harder to contain if they begin in a developed area. It is possible that wildfires will affect land use changes in the long term, especially if wildfires become more common in the developed area of Gardner. Conversely, expanding conservation or natural areas

may also increase wildfire risk if these areas are not actively managed to reduce fuel loads and maintain defensible conditions.

Since the previous plan update, residential development and redevelopment have occurred in areas classified as Wildland–Urban Interface, including both interface and intermix zones. This has increased the number and value of structures exposed to wildfire risk. However, new construction and substantial improvements are subject to current Massachusetts building and fire codes, which address ignition resistance, emergency access, and water supply for fire suppression. As a result, while exposure has increased in some WUI areas, structural vulnerability is generally lower than that of older development. Wildfire risk in these areas remains influenced by vegetation conditions, fuel continuity, and seasonal weather patterns, and continued mitigation and vegetation management are necessary to limit future vulnerability.

4.15. Summary

Table 4.29 provides definitions of hazard location, extent, frequency, and probability. The definitions support the basis of determination in Table 4.30.

Table 4.29: Definitions of Hazard Location, Extent, Frequency, and Probability

Hazard Extent (Severity/Intensity)	
Minor	Limited damages to property, no damage to public infrastructure (roads, bridges, trains, airports, public parks, etc.); contained geographic area (i.e., one or two neighborhoods); essential services (utilities, hospitals, schools, etc.) not interrupted; no injuries or fatalities.
Serious	Scattered major property damage (more than 10% destroyed); some minor infrastructure damage; wider geographic area (several communities); essential services briefly interrupted up to 1 day; some minor injuries.
Extensive	Consistent major property damage (more than 25%); major damage public infrastructure damage (up to several days for repairs); essential services are interrupted from several hours to several days; many injuries and possible fatalities.
Catastrophic	Property and public infrastructure destroyed (more than 50%); essential services stopped for 30 days or more, multiple injuries and fatalities.
Present Frequency of Hazard	
Very Low	Occur less frequently than once in 100 years (less than 1% chance per year).
Low	Occur from once in 50 years to once in 100 years (1% to 2% chance per year).
Medium	Occur from once in 5 years to once in 50 years (2% to 20% chance per year).
High	Occur more frequently than once in 5 years (greater than 20% chance per year).

Hazard Extent (Severity/Intensity)	
Future Probability of Hazard	
Very Low	Occur less frequently than once in 100 years (less than 1% chance per year).
Low	Occur from once in 50 years to once in 100 years (1% to 2% chance per year).
Medium	Occur from once in 5 years to once in 50 years (2% to 20% chance per year).
High	Occur more frequently than once in 5 years (greater than 20% chance per year).
Location of Hazard	
N/A	Hazard has not yet affected City area
Small	Less than 10% of the City is or could be affected by the hazard
Medium	Between 10-50% of the City is or could be affected by the hazard
Large	More than 50% of the City is or could be affected by the hazard

Table 4.30, below, provides a summary of the natural hazards affecting Gardner. This evaluation considers historical records, the extent, frequency, location, and anticipated future probability. Information regarding future projections for specific scenarios is not available for every natural hazard, each hazard section contains best available science and discusses projections in the context of specific future scenarios when available and appropriate.

Table 4.30: Summary of the Natural Hazards Affecting Gardner

Natural Hazard	Previous Occurrence of Hazard Event in Gardner	Present			Future
		Extent	Frequency	Location	Probability of Occurrence
Average / Extreme Temperatures	Yes	Minor	Low	Large	High
Changes in Groundwater	Yes	Minor	Low	Large	High
Drought	Yes	Minor	Low	Large	Low
Earthquakes	Yes	Catastrophic	Very Low	Large	High
Flooding from Precipitation	Yes	Serious	High	Medium	High
Hurricanes / Tropical Storms	Yes	Serious	Low	Medium	Medium to High

Natural Hazard	Previous Occurrence of Hazard Event in Gardner	Present			Future
		Extent	Frequency	Location	Probability of Occurrence
Invasive Species	Yes	Minor	High	Medium	Med
Landslides / Mudflows	No	Minor	Very Low	N/A	Low
Other Severe Weather	Yes	Serious	Medium	Large	High
Severe Winter Storms	Yes	Extensive	Medium	Large	High
Tornadoes	Yes	Catastrophic	Very Low	Medium	Medium
Wildfires	No	Minor	Very Low	Medium	Medium

5

5. Community Capabilities

The City of Gardner has a unique set of capabilities, in the form of laws, polices, programs, staff, funding, and other resources to carry out the HMP and to increase local climate resilience. This Chapter reviews the City's capabilities and describes the resources Gardner has available to accomplish hazard mitigation and reduce disaster losses now and in the future. There are five types of mitigation capabilities in accordance with FEMA's Local Mitigation Planning Handbook:

1. Compliance with the National Flood Insurance Program.
2. Planning and regulatory capabilities are the codes, ordinances, policies, laws, plans, and programs that guide growth and development.
3. Administrative and technical capabilities are the City's staff, skills, and tools.
4. Financial capabilities are the resources to fund mitigation actions.
5. Education and outreach capabilities are programs and methods that can communicate about and encourage risk reduction.

In each Section, the City's existing capabilities and gaps in capabilities are discussed.

5.1. National Flood Insurance Program Compliance

Communities across the country build their floodplain management capabilities by participating in the National Flood Insurance Program (NFIP). The NFIP supports flood risk reduction before and after disasters. It helps reduce the socioeconomic impact of floods. The NFIP allows property owners and renters in participating communities to purchase federal flood insurance policies to recover financial losses after a flood. To participate in the NFIP, communities adopt and enforce floodplain management policies to reduce the effects of flooding.

5.1.1. | Existing Capabilities

Staff Resources

There are staff that handle compliance for the NFIP in Gardner. Compliance is handled by the City Engineer, Conservation Agent, and Emergency Management team.

In Gardner, Massachusetts, the Engineering Department oversees local regulations applicable to flood hazard areas, including implementation of FEMA Flood Insurance Rate Maps and administration of the

Floodplain Overlay District. The Conservation Commission and Building Department also play supporting roles in ensuring compliance with state and local floodplain regulations.

Fire and Police generally are involved in review of damage following a natural hazard event.

Regulation

The City of Gardner entered the National Flood Insurance Program on July 2nd, 1981 (https://www.fema.gov/cis/MA.pdf). The initial Flood Insurance Rate map became effective on July 2nd, 1981 (https://www.fema.gov/cis/MA.pdf). The current effective FIRM date is July 8th, 2025 (FEMA Map Service Center) and was formally adopted into the floodplain management bylaw in summer 2025. All construction in Gardner is held to the requirements and standard in the bylaw.

Building in the floodplain is regulated by the City's Planning Board and the Conservation Commission through the Floodplain Overlay District (Chapter 675, §750) local bylaw. The Floodplain Overlay District applies to all Special Flood Hazard Areas (SFHAs) mapped by FEMA. Within this overlay, development that increases flood levels is prohibited, and all new construction or substantial improvement must use flood-resistant design, anchoring, and materials. Utilities must also be protected from flood damage.

The City's Health Department reviews any septic system construction in the floodplain. Monitoring and compliance throughout the construction process may be overseen by the Conservation Commission, the City Engineer, or the Building Commissioner.

Following a disaster event, the City of Gardner implements its Substantial Improvement (SI) and Substantial Damage (SD) provisions in accordance with its local Floodplain Overlay District zoning ordinance and FEMA requirements.

After a damaging event such as a flood, fire, or storm, property owners in mapped Special Flood Hazard Areas (SFHAs) are required to submit cost estimates for any repairs or improvements. The Building Commissioner, in coordination with the City Engineer and Conservation Commission, evaluates whether the proposed improvements or repairs meet the 50% threshold of the structure's pre-damage market value, as defined in FEMA regulations (44 CFR § 59.1).

If a structure is determined to be substantially improved or substantially damaged, the City requires full compliance with current floodplain management standards, including elevating the structure to at least Base Flood Elevation (BFE), using flood-resistant materials, securing proper building permits, and ensuring utilities and systems are designed to resist flood impacts. These determinations are recorded and retained as part of the City's floodplain management files and reviewed during NFIP audits or Community Assistance Visits (CAVs).

Community Rating System

The City of Gardner does not currently participate in FEMA's Community Rating System Program (https://www.fema.gov/cis/MA.pdf).

Insurance Summary

According to MEMA, as of June 30, 2025, there are no NFIP repetitive loss or properties located in the City of Gardner.

NFIP Compliance History

The City is not aware of any outstanding NFIP compliance issues.

Capability Gaps

Based on evaluation with the NFIP Compliance and no participation in the CRS, the following gaps in capabilities are identified and can be incorporated into the mitigation strategy:

- The City of Gardner does not currently participate in the Community Rating System (CRS), missing opportunities for flood insurance premium discounts and enhanced floodplain management incentives.
- Limited public awareness and outreach regarding flood risk and NFIP program benefits.

5.2. Planning and Regulatory Capabilities

Planning and regulatory capabilities encompass a wide range of tools such as codes, bylaws, policies, laws, plans, and programs that guide growth and development. These capabilities play a crucial role in either supporting risk reduction or creating areas that are more vulnerable to disasters. These strategies are aimed at breaking the cycle of disaster damage and reconstruction. Additionally, effective law and regulation for disaster risk reduction are critical in shaping choices for sustainable development and building resilience to disasters.

Gardner has over 4,000 acres of permanently conserved land, protecting Gardner's water resources and provides flood attenuation and storage.[2]

[Information about new developments and their impacts on community vulnerability to natural hazards.]

New development and redevelopment activities in Gardner are reviewed through zoning, site plan review, stormwater, and if necessary, wetlands permitting processes to ensure that projects do not increase the community's vulnerability to natural hazards. Development proposals are evaluated for potential impacts related to flooding, stormwater runoff, slope stability, emergency access, and resilience of critical infrastructure. Where appropriate, projects are required to incorporate mitigation measures such as stormwater management systems, erosion and sediment controls, floodplain compliance, utility upgrades, and protection of natural buffers and wetlands. These standards help ensure that future growth supports community resilience and does not exacerbate existing hazard risks, particularly in areas vulnerable to flooding, severe storms, and climate-related impacts.

5.2.1. | Existing Capabilities

The following discusses Gardner's current planning and regulatory capabilities to address natural hazards.

Building Code

A challenge for the capabilities of a community can be the use of an updated building code which reflects industry best practices and standard of care. Currently, the City of Gardner utilizes the Massachusetts State Building Code (780 CMR, Ninth Edition) (based on the 2015 ICC codes), with a transition in progress to the Tenth Edition, which became effective October 11, 2024, with a concurrency allowance expiring June 30, 2025. According to the mass.gov website, "the Massachusetts State Building Code includes international model codes and state specific amendments adopted by the Board of Regulations and Standards (BBRS). The BBRS regularly updates the state building codes as new information and technology becomes available and change is warranted." The Massachusetts building code addresses natural hazards

[2] City of Gardner Community Resilience Building Workshop Summary of Findings. September 30, 2020.

through elevation requirements aligning with guidance from FEMA, hazard-resistant standards from ASCE 24 and ASCE 7, recognition of floodplain overlay districts, and enforcement.

Land Use / Development Bylaws and Regulations

The following discusses various municipal codes related to natural hazard mitigation and climate change resilience.

Wetland's Protection Bylaw

The Gardner Wetlands Protection Ordinance (Gardner, General Bylaws Chapter 650, Adopted October 1, 2011) was instituted to implement and extend the Massachusetts Wetlands Protection Act (MGL Ch. 131, §40) by protecting wetland resource areas and buffer zones (100 ft for wetlands, 200 ft for rivers/streams), and includes no-disturb and no-build zones near sensitive resources.

Stormwater Management and Erosion Control Bylaw

The City of Gardner Stormwater Management Ordinance (Chapter 565, with implementing regulations, Adopted November 6, 2020) was instituted to establish standards to prevent soil erosion, control stormwater runoff quantity and quality, protect water and aquatic resources, and ensure compliance with MS4/NPDES requirements.

City Floodplain District Bylaw

The Floodplain Overlay District (Zoning Code § 675-750, Adopted February 22, 2018) was instituted to regulate development in flood-prone areas to preserve the groundwater table, protect public health and safety, ensure proper drainage, and minimize flood damage in compliance with NFIP standards.

Open Space Residential Bylaw

The Open Space Residential Development Bylaw (Zoning Code § 675-810, Adopted October 18, 2025) was instituted to encourage cluster development that conserves open space, including natural features like wetlands and floodplains, through a special permit granted by the Planning Board.

Local Plans

There are a variety of local plans that inform and relate to the Hazard Mitigation Plan. These plans include:

- City of Gardner Master Plan 2025
- City of Gardner Open Space and Recreation Plan (2020-2027)
- City of Gardner Comprehensive Emergency Management Plan (CEMP)
- Gardner Stormwater Management Program Plan (SWMPP)
- Gardner Community Development Strategy (CDS)
- Gardner Housing Production Plan (HPP)

These plans present an opportunity for synthesized planning efforts. Action items found in these plans can and should be aligned with action items identified in the hazard mitigation plan, and vice versa. The full list of local and regional plans is available in Chapter 2.

Capability Gaps

Based on evaluation with the planning and regulatory capabilities, the following gaps in capabilities are identified and can be incorporated into the mitigation strategy:

- Further opportunities for interdepartmental and interagency collaboration.

- Limited tracking and monitoring of plan implementation.

5.3. Administrative and Technical Capabilities

Administrative and technical capabilities are the City's staff, skills and tools, as well as capacity. They also include the ability to access, coordinate and implement natural hazard mitigation resources effectively. Administrative and technical capabilities are "people-powered" capabilities. This category includes other public and private sector resources, such as county, regional, quasigovernmental or nongovernmental agencies, community-based organizations, and grassroots groups.

5.3.1. | Existing Capabilities

The following discusses Gardner's current administrative and technical capabilities to address natural hazards.

Staff Capacity and Training

City of Gardner is well-staffed and committed to hazard response. Hazard response responsibilities are distributed across several key departments and organizations: Fire Department, Police Department, Emergency Management Department, Health Department & Board of Health, Public Works, and local National Guard unit.

Staff across relevant departments do not consistently receive training in hazard mitigation planning, climate adaptation, emergency response coordination, or evolving federal and state requirements (e.g., NFIP, CRS, FEMA grant programs), which limits institutional knowledge and capacity to implement best practices effectively.

Gardner's Emergency Management Director is Paul Topolski, Director of Civil Defense.

Internal and External Communications

Communication during a disaster is critical for ensuring the safety and well-being of the affected community.

One key lesson from COVID-19 that the steering committee shared was the daily value of using the Incident Command System (ICS) to manage emergency operations and streamline reimbursement processes.

Gardner communicates with residents through the following means:

- Gardner's Website
- Gardner's Social Media Networks
- Reverse 911 Notification System (The City has over 15,000 registered phone numbers)[3]
- Schools have radio communications.
- City Hall has an emergency beacon/button.
- Emergency personnel use broadcast media including the local radio station WGAW at 1340 AM.

[3] City of Gardner Community Resilience Building Workshop Summary of Findings. September 30, 2020.

- Information can be broadcasted from emergency vehicles and over the public safety agency radio systems.
- The Police and Fire Departments have done wellness checks during ice storms in the past, with a focus on older adults.

Regional Coordination and Collaboration

Natural hazards do not adhere to jurisdictional boundaries and therefore regional coordination and collaboration during a disaster event is crucial for an effective response.

- The City of Gardner is an active member of the Montachusett Regional Planning Commission (MRPC) and is also a signatory to the Montachusett Metropolitan Planning Organization (MMPO) under the MRPC umbrella. This collaboration involves comprehensive and transit planning efforts.
- Gardner frequently collaborates with Leominster and Fitchburg, through each city's Mayor's Office as well as between department heads.
- Gardner has partnered with Westminster for animal control.
- Gardner is negotiating with Winchendon to provide veterans' services from FY 2025–2027, pending final approval by the Finance Committee.
- While the City of Gardner does not currently coordinate with other municipalities for use of their emergency shelters, the city does have the ability to work with Leominster and Fitchburg for additional shelters as needed..
- The City of Gardner has a mutual aid agreement with Montachusett Mutal Aid Association, which coordinates emergency response support, including fire, police, and emergency medical services, across multiple municipalities in the region. These agreements allow Gardner to request and provide assistance during emergencies such as fires, natural disasters, or large-scale incidents.

Local Committees and Task Forces

City Council Committees

Gardner's City Council operates several standing committees that review specific policy areas before full council votes. Common committees include: Finance Committee, Planning and Development Committee, Public Safety Committee, Community Services Committee, and Licensing Committee.

Conservation Commission

The Conservation Commission oversees local wetlands protection and open space conservation and reviews projects under the Massachusetts Wetlands Protection Act locally.

Historic Commission

The Historic Commission preserves and promotes Gardner's historic sites and architecture, as well as, reviews changes to properties in historic districts.

Recreation Commission

The Recreation Commission plans and manages parks, playgrounds, and community recreation programs.

Emergency Management Commission

The Emergency Management Commission coordinates local disaster preparedness, response planning, and public education. This group works closely with the Emergency Management Director and regional partners.

Traffic & Safety Commission

The Traffic & Safety Commission addresses traffic patterns, signage, pedestrian safety, and road improvements.

Affordable Housing Trust

The Affordable Housing Trust focuses on strategies to increase affordable housing options in Gardner.

Downtown Revitalization Task Force

The Downtown Revitalization Task Force is dedicated to economic development and beautification of downtown Gardner.

Youth & Family Advisory Committee

The Youth & Family Advisory Committee focuses on programs and services benefiting children and families.

Assistance from Non-Governmental Organizations

Gardner Community Action Committee

Gardner Community Action offers food assistance, housing support, and family services to economically disadvantaged individuals in Gardner and surrounding towns.

Montachusett Veterans Outreach Center

A center providing services to veterans, including housing assistance, case management, and emergency support.

Growing Places

Growing Places supports individuals and families in North Central Massachusetts through education, employment, and housing services.

Community Foundation of North Central Massachusetts

This philanthropic organization supports charitable initiatives across the region.

Gardner Emergency Housing Mission

This group offers emergency and transitional housing assistance to families in crisis.

Gardner Square Two

A community center offering various programs and services to local residents.

Mount Grace Land Conservation Trust

A land trust that protects land and natural resources in the region through conservation efforts.

NewVue Communities

A nonprofit focused on community development and affordable housing.

North Central Massachusetts Chamber of Commerce

Supports business growth and economic development in the area.

North County Land Trust

A land trust dedicated to conserving open spaces and natural habitats in North Central Massachusetts.

Open Sky Community Services

A community service that provides behavioral health and human services to individuals and families.

Wachusett Business Incubator

An incubator that entrepreneurs and small businesses through resources and mentorship.

5.3.2. | Capability Gaps

Based on evaluation with the administrative and technical capabilities, the following gaps in capabilities are identified and can be incorporated into the mitigation strategy:

- Lack of formal training programs in hazard mitigation.
- The City has not formally assessed EOC staffing needs, and ICS is not consistently used as the standard operating framework.

5.4. Financial Capabilities

Financial capabilities are the resources to fund mitigation actions. Talking about funding and financial capabilities is important because mitigation actions have different costs. Mitigation actions like outreach programs are lower cost and often use staff time and existing budgets. Other actions, like earthquake retrofits, could require substantial funding from local, state and federal partners.

5.4.1. | Existing Capabilities

The following financial methods have been identified as being used in the recent past to fund mitigation activities:

- Capital improvement project funding
- Authority to levy taxes for specific purposes
- Fees for water, gas, or electric
- State funding programs
- Impact fees for new development
- Incurring debt through general obligation bonds and/or special tax bonds
- Other federal funding programs

5.4.2. | Capability Gaps

The Steering Committee indicated the desire and need to apply for state and federal grant funding for additional monies for hazard mitigation activity. The City of Gardner should target FEMA funding sources such as the Hazard Mitigation Grant Program, Flood Mitigation Assistance grants, or Building Resilient Infrastructure and Communities grants. There are also state-level grant programs available such as the Municipal Vulnerability Preparedness Action Grant. Historically, a barrier to applying for these grants has been staff capacity.

5.5. Education and Outreach

Education and outreach to the community are vital components of both preparedness and response. These capabilities are programs and methods that can communicate about and encourage risk reduction and may be run by the City or a community-based partner.

5.5.1. | Existing Capabilities

- The City actively uses its official website for updates on City projects, emergency alerts, events, and public notices.
- The City has social media channels (Facebook and X) to disseminate news, event announcements, public meeting notices, and service infrastructure.
- The city has an opt in phone messaging service that the city offers for residents on notices about weather, closures, parking bans, and other matters.

5.5.2. | Capability Gaps

Based on evaluation with the education and outreach capabilities, the following gaps in capabilities are identified and can be incorporated into the mitigation strategy:

- Lack of formal training programs in hazard mitigation.
- The City has not formally assessed EOC staffing needs, and ICS is not consistently used as the standard operating framework.

5.6. Community Input on Capabilities

According to public input received during development of this plan, the City has a solid foundation of emergency response capabilities, particularly in public safety services and day-to-day operations. Residents generally recognize the City's ability to respond to routine incidents, while noting opportunities to strengthen coordination, communication, and infrastructure resilience to better prepare for natural hazard events.

According to public input received during development of this plan, Gardner could improve preparedness for natural hazards by enhancing communication and emergency notification systems; continuing to invest in tree maintenance and vegetation management to reduce storm-related impacts; addressing drainage and stormwater infrastructure concerns in areas prone to flooding; maintaining roadways and debris management practices; and strengthening coordination and planning for emergency response.

Figure 5.1: Community Input on Gardner's Capabilities for Natural Hazard Preparedness.

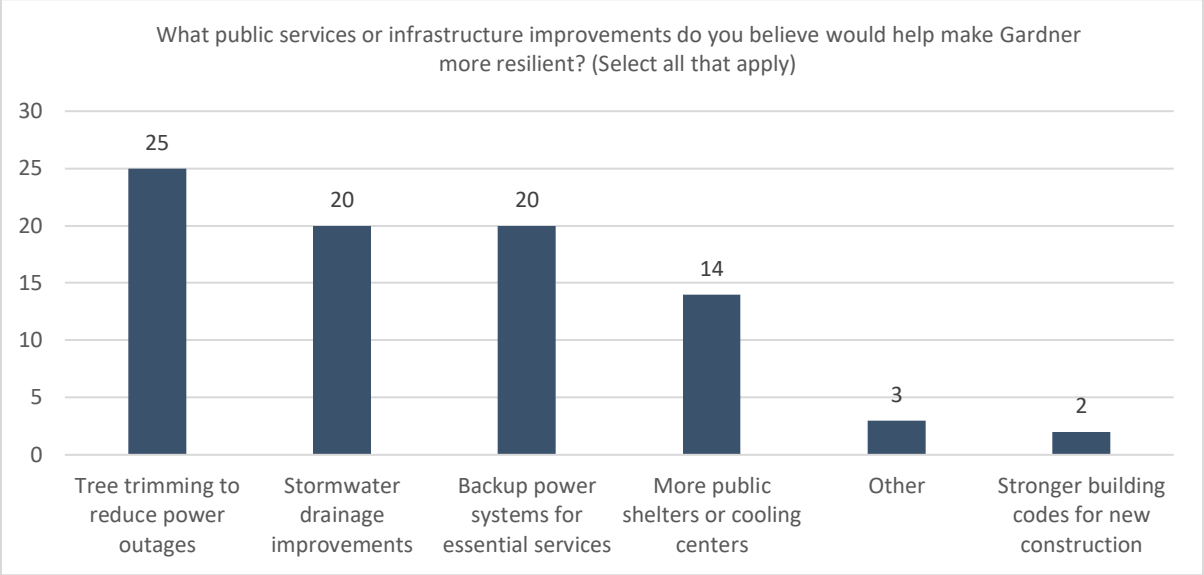
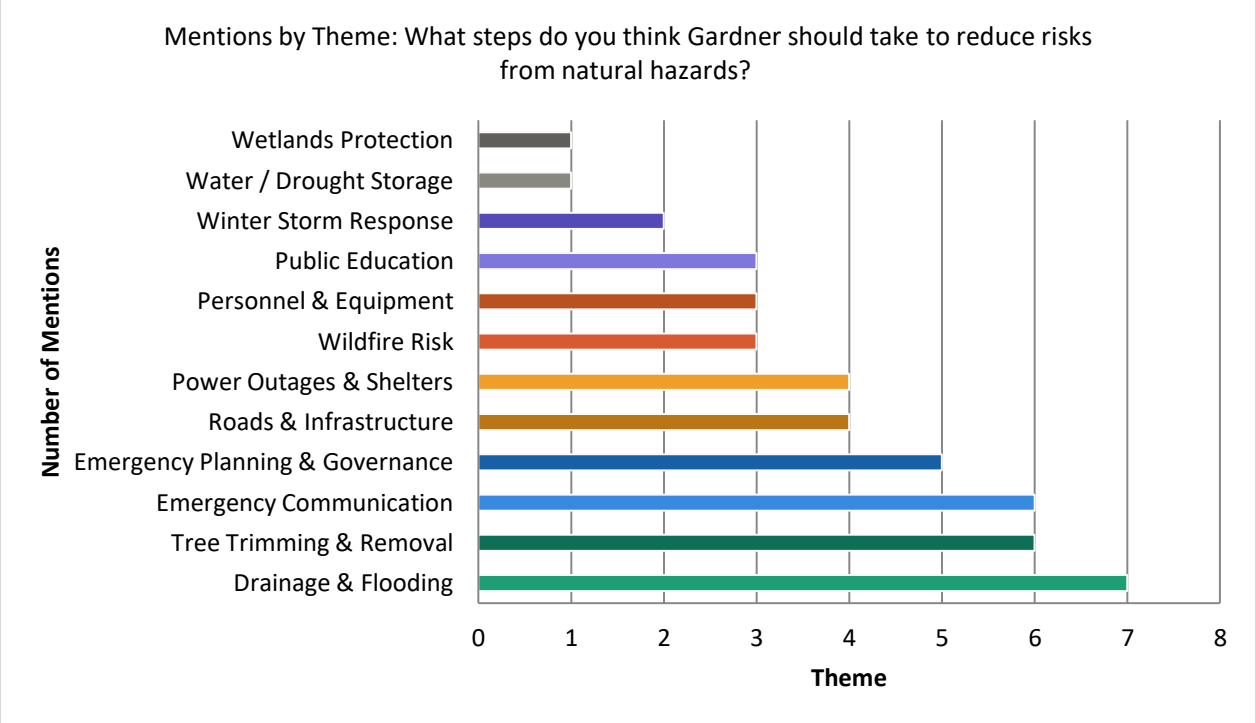


Figure 5.2: Community Input on Potential Natural Hazard Preparedness Improvement



6

6. Mitigation Actions

The mitigation actions are one of the most important components of the Hazard Mitigation Plan. They serve as the blueprint for reducing the potential losses identified in the risk and vulnerability assessment. They can be a measure, project, plan, or activity proposed to achieve the City's mission and goals and reduce current and future vulnerabilities described in the risk assessment (Chapter 4).

There are many different types of hazard mitigation actions that generally fall into the following four categories (FEMA, Local Mitigation Planning Handbook, 2023):

Local Plans and Regulations: These actions include government authorities, policies or codes that influence the way land and buildings are developed and built.

Structure and Infrastructure Projects: These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.

Natural Systems Protection and Nature-based Solutions: This type of action can include green infrastructure and low impact development, nature-based solutions, Engineering with Nature and bioengineering to incorporate natural features or processes into the built environment.

Education and Awareness Programs: These types of actions keep residents informed about potential natural disasters. Many of these types of actions are eligible for funding through the FEMA HMA program.

Through the stakeholder and community engagement process discussed in Chapter 2, mitigation actions and an action plan for implementation were developed to help achieve the mitigation goals (See Chapter 1 Section 1.4 for mitigation goals). This provides a framework to prioritize and implement actions to reduce risks from hazards. Chapter 6 reviews the mitigation actions created in 2015 as a part of the

Montachusett Natural Hazard Mitigation Plan and outlines mitigation actions for Gardner for the next five years.

6.1. Status of 2015 HMP Mitigation Actions

City staff reviewed the mitigation measures identified in the Montachusett Natural Hazard Mitigation Plan 2015 Update and determined whether measures identified in that plan had been implemented or deferred. For implemented projects, they were categorized as either complete or in progress, with the latter referring to projects were still under development or had begun but not yet completed. If measures had been deferred, the Local Hazard Mitigation Committee (LHMC) evaluated whether the measure should be deleted or carried forward into this 2025 Hazard Mitigation Plan Update. The decision on whether to delete or retain a particular measure was based on the LHMC's assessment of the continued relevance or effectiveness of the measure and whether the deferral of action on the measure was due to the inability of the City to take action on the measure.

Table 6.1 lists all mitigation actions from the Montachusett Natural Hazard Mitigation Plan 2015 Update and their current status.

Table 6.1: Status of Last HMP Mitigation Actions

Description of Action	Implementation Responsibility/ Status	Status	Notes
Increase awareness by educating property owners regarding actions that they can take to reduce risk to property by hosting an Open House at the Fire Department, Develop and Distribute an Educational Pamphlet on Fire Safety and Prevention (SAFE PROGRAM) (SENIOR SAFE) and wildfire prevention.	Fire Department	This action has been carried forward from the previous 2008 HMP. Action will continue to be undertaken annually.	The LHMC is looking to get further feedback on educational actions.
Increase hazard education and risk awareness to public by Collecting, Updating, and Disseminating Information on Local Radio/TV Stations to educate the public and alert them of emergency information including shelter locations and other instructions related to all natural hazards	Emergency Management Director	This action has been carried forward from the previous 2008 HMP. This action is to be undertaken periodically.	The LHMC would like to expand engagement on social media and to create compelling graphics related to hazards The LHMC suggested circulating flyers for upcoming weather events on what residents can / should do to prepared. Also, mentioned

Description of Action	Implementation Responsibility/ Status	Status	Notes
			utilizing the City's text message system.
Inventory Supplies at Existing Shelters and Develop a Needs List and Storage Requirements to ensure the available of adequate supplies during a natural hazard. Supplies must be adequate to eliminate or reduce risk to human life.	Emergency Management Planning Committee, School Facilities Manager	This action was completed as a part of the 2008 HMP, but it will be discontinued for the 2025 HMP.	Supplies are kept mobile to be able to move to shelters as needed.
Maintain the Low Pressure Water Hydrants to ensure existing mitigation infrastructure is in good condition.	Fire Department, Department of Public Works	New action developed as a part of the 2008 HMP, but it will be discontinued for the 2025 HMP.	LHMC provided that this action is no longer feasible.
Identify all structures throughout the town that need to be Elevated above the Base-Flood Elevation. Once identified educate those property owners about mitigation	Building Inspector, Fire Department	Carried forward from the 2008 HMP due to time constraints, and will be included in the 2025 HMP.	
Develop a priority list and possibly seek funding through the Hazard Mitigation Grant Program (HMGP) for the replacement of undersized culverts throughout the City to reduce or eliminate flooding risk.	City Council, Highway Department	Carried forward from the 2008 HMP due to time constraints, and will be included in the 2025 HMP.	
Educate property owners regarding options for mitigating their properties from flooding through outreach programs that address measures that residents can take (i.e. installing backflow valves, securing debris, etc.)	Emergency Management Director, Fire Department	This action was a new action from the 2015 HMP. Action will continue to be undertaken annually.	

Description of Action	Implementation Responsibility/ Status	Status	Notes
Continue participation in the National Flood Insurance Program to enable property owners to purchase insurance protection against flood losses.	City Council, Conservation Commission	The City continues its participation in this program.	
Evaluate and relocate furnaces, water heaters, and electrical equipment in municipal owned buildings that are located in areas prone to flooding to reduce flood damage.	Emergency Management Director, Fire Department	Carried forward from the 2008 HMP due to time constraints and lack of municipal funding. Will be continued going forward.	
Utilize interactive mapping application prepared by MRPC/CMRPC to update critical infrastructure and simulate real time evacuation scenarios to mitigate hazards to the public.	Emergency Management Director	New action from the 2015 HMP and will be continued for the 2025 HMP.	
Install "beaver diverters" and water control devices to mitigate flooding caused by beaver dams.	Department of Public works	Action carried forward from 2008 HMP and to be undertaken as needed.	
Hire trapper for removal of beavers to mitigate flooding caused by beaver dams.	Department of Public works	Action carried forward from 2008 HMP and to be discontinued for the 2025 HMP.	LHMC recommended focusing on beaver diverters due to permitting challenges with removal of beavers. Generally, beaver removal is only required in emergencies and is not a high priority.
Implement recommendations regarding natural hazard mitigation in existing planning documents including the five year action plan of the open space and	Conservation Commission, City Council, Planning Board, Emergency Management Director	Action carried forward from 2008 HMP and to be undertaken as needed.	

Description of Action	Implementation Responsibility/ Status	Status	Notes
recreation plan and the emergency evacuation plan.			

6.2. Mitigation Action and Adaptation Strategy for 2026-2031

The Core Team developed an updated mitigation action and adaptation strategy for this HMP Update. The actions were developed from a multi-faceted approach, including the following:

- Local Hazard Mitigation Committee Meetings
- Hazard, Asset and Vulnerability Analysis
- Discussions with City Staff
- Review of community plans as well as dam inspections and EAPs

The actions include both specific projects and recognize broader results to be achieved by implementing a project. The level of specificity differs based on the input received and the currently available data associated with the mitigation action. In some cases, actions are broader because the specific steps to accomplish the result may not be determined at this point in time. These actions will all be tracked and updated during the annual plan maintenance and review, discussed in greater detail in Chapter 7.

6.2.1. | Prioritization of Potential Actions

The mitigation strategy, or action plan, is the heart of the plan and the primary tool to get funding, assign priorities, guide decisions, and track progress in future plan updates.

The LHMC used the STAPLEE system to assist in prioritizing certain actions over others. Each of the STAPLEE criteria (as shown in Table 6.2) were assigned a score from 1-3 (as shown in Table 6.3). This process and the scoring rubric are presented below.

Table 6.2: STAPLEE Criteria

Letter	Criteria	Details
S	Social	Does the measure treat people fairly? Does it adversely affect one segment of the population? Will it cause Social Disruption?
T	Technical	Will it work? Does it create more problems than it solves? Is it the most useful action in light of the goals?
A	Administrative	Is there capacity to implement and manage the project? (staff, technical experts, funding) Is there an ongoing administrative requirement that will be required (who will maintain)?

Letter	Criteria	Details
P	Political	Is there political support to implement and maintain the action? Who are the stakeholders? Did they get to participate? Is there public support to implement and maintain the action?
L	Legal	Does your organization have the authority to implement? Is there a clear and legal basis or precedent for the activity? Are there liability implications and/or legal consequences?
E	Economic	Is it cost-beneficial? Is there funding? Does it contribute to the local economy or economic development? Does it reduce direct property losses or indirect economic losses?
E	Environmental	Does it comply with environmental regulations or have adverse environmental impacts?

Table 6.3 STAPLEE Scoring Rubric

Scoring Rubric	Score
Very Favorable / High Priority	3
Neutral	2
Not Favorable	1

These were then divided into low (15–19), medium (20–27), and high (27–34) priorities by score. The prioritized list of Gardner's 2026-2031 Mitigation Actions, with STAPLEE scoring is available in Appendix C.

6.2.2. | Gardner's 2026 - 2031 Mitigation Actions

For each mitigation action considered to be part of the 5-year plan, the following characteristics were defined such that the City is able to tie the actions to the risk assessment and mitigation goals, define who is responsible for implementing/ administering the identified mitigation action, understand general cost and benefit of an action, understand available funding source(s), determine the expected timeframe for the action, and confirm consistency with and integration into other local plans.

- **Action #:** Number for quick reference.
- **Action Description:** Brief narrative describing the action.
- **Hazards/Risks Addressed:** Actions may mitigate a single or multiple hazards, which will be indicated for each action. All the hazards discussed in Chapter 4 were addressed when developing the priority list, and there is at least one action associated with each hazard. Some actions address all hazards and are listed as such.
- **Goals Addressed:** This column lists which goals the mitigation action aims to accomplish. Some actions contribute toward more than one goal. The goals are listed in Section 1.4.

- **Responsible Party:** Many hazard mitigation actions and climate adaptation measures will require a multi-department strategy where several departments share responsibility. The designation of implementation responsibility is assigned to a primary department based on the responsibility of each department.
- **Partner Agencies:** Some mitigation actions may require cooperation with outside entities, such as Massachusetts state departments, neighboring communities, regional organizations, or private entities. In those cases, the relevant entities are included in additional to the City department.
- **Overall Priority:** This column shows the ranking based on the process described in Section 6.3.1.
- **Cost Estimate:** Costs listed in the mitigation action spreadsheet are estimated and are based on the cost of similar projects and professional estimates. Actual costs may vary based on the specific site, project, and scope of work. Cost estimates should be verified during the financial planning stage of a project.
- **Potential Funding Source:** The City's general funds are considered a default potential funding source unless the City pursues additional funding. Annually, the City funds various capital needs through its operating funds and aggressively seeks out grants and other funding sources to address City needs. The identification of potential funding sources is preliminary and may vary depending on numerous factors. These factors include, but are not limited to, changes in grant eligibility criteria, program objectives, and funding availability. The funding sources identified are not a guarantee that a specific project will be eligible for, or receive, funding. Upon adoption of this plan, the local representatives responsible for implementation should begin to explore potential funding sources in more detail. Potential grants were assigned based on eligibility and competitiveness, but the recommendations may not be comprehensive. Please note that grant eligibility and scoring criteria should also be reviewed prior to applying. Grants may also only be a source of funding for a single stage of a project. In many cases, the actions will require a combination of funding sources.
- **Timeframe to Start:** This column indicates whether or not the action is in progress. If the action is not yet in progress, the estimated time remaining until the project starts is listed.
- **Estimated Timeline for Completion:** This column indicates the estimated timeline for completing the mitigation action.
- **Integration Status:** It is crucial that the Hazard Mitigation Plan be aligned with other long-range planning documents for the City of Gardner. This column demonstrates areas where mitigation actions overlap with the intent of other planning documents.
- **Integration Opportunity into Local Plans:** For successful implementation of mitigation actions, they must be incorporated into local plans. This column indicates where mitigation actions may be integration into another local plan or planning mechanism.

The mitigation strategy, or action plan, is the heart of the plan and the primary tool to get funding, assign priorities, guide decisions, and track progress in future plan updates.

Table 6.4 presents the prioritized list of Gardner's 2026-2031 Mitigation Actions.

Table 6.4: Gardner 2026-2031 Mitigation Actions

Source	Action	Action Detail	Score	Prioritization	Goals Addressed	Hazard Address
achusett nal HMP	Educate the public through local radio/TV stations and social media	Increase hazard risk awareness by collecting, updating, and disseminating information on local radio/TV stations and social media to educate and alert the public of emergency information including shelter locations and other instructions related to all natural hazards. (All Hazards)	31	High	1,4	All Hazard
achusett nal HMP	Utilize the interactive mapping application prepared by MRPC/CMRPC	Utilize the interactive mapping application prepared by MRPC/CMRPC to update critical infrastructure and simulate real time evacuation scenarios to mitigate hazards to the public. (All Hazards)	29	High	1,2,4	All Hazard
achusett nal HMP	Implement recommendations from previous plans	Implement recommendations regarding natural hazard mitigation in existing planning documents, including the most recent master plan. (All Hazards)	22	Medium	3,4,5	All Hazard
achusett nal HMP	Identify vulnerable structures needed for elevation	Identify all structures throughout the town that need to be elevated above the Base-Flood Elevation. Once identified, educate those property owners about mitigation. (Flooding)	24	Medium	1, 2	Flooding
achusett nal HMP / MVP Grant (2021)	Prioritize and replace undersized culverts	Conduct a citywide culvert assessment to evaluate structural conditions, vulnerability to climate-driven hazards, and opportunities for ecological restoration, resulting in a prioritized list of undersized or vulnerable culverts for retrofit or replacement with estimated design costs and funding sources, and pursue implementation funding through FEMA's Hazard Mitigation Grant Program (HMGP) to reduce flooding risk and enhance Gardner's ecological infrastructure.(Flooding)	21	Medium	1, 5	Flooding
achusett nal HMP	Educate property owners on flood mitigation	Educate property owners regarding options for mitigating their properties from flooding through outreach programs that address measures that residents can take (i.e., installing backflow valves, securing debris, etc.). (Flooding)	24	Medium	1, 4	Flooding
achusett nal HMP	Participate in the NFIP	Continue participation in the National Flood Insurance Program (NFIP) to enable property owners to purchase insurance protection against flood losses. (Flooding)	28	High	1, 3	Flooding
achusett nal HMP	Evaluate and relocate equipment in municipal buildings	Evaluate and relocate furnaces, water heaters, and electrical equipment in municipal owned buildings that are located in areas prone to flooding to reduce flood damage. (Flooding)	20	Medium	1, 3, 5	Flooding

Source	Action	Action Detail	Score	Prioritization	Goals Addressed	Hazard Address
achusett nal HMP	Install "beaver diverters" and water control devices	Install "beaver diverters" and water control devices to mitigate flooding caused by beaver dams. (Flooding)	15	Low	1	Flooding
achusett nal HMP	Increase awareness of fire risk reduction for property owners through an open house	Increase awareness by educating property owners about actions that they can take to reduce risk to their property by hosting an Open House at the Fire Department, and develop and distribute an educational pamphlet on fire safety and prevention and wildfire prevention. (Wildfire)	31	High	1,4	Wildfire
Action Grant	Create a spillway for Crystal Lake	This project proposes constructing a spillway on the northwest side of Crystal Lake to prevent future overtopping and flooding of downtown Gardner, beginning with a feasibility and hydrology study to assess downstream impacts and potential floodplain expansion, and ultimately involving coordination among the City, USACE, Dam Safety, and the Golf Commission to design and build a combination vegetated swale and piped spillway through the golf course into Perley Brook Reservoir. (Flooding)	15	Low	1, 2, 5	Flooding
Action Grant	Continue to protect land, with an emphasis on parcels with multiple hydrological benefits.	Conduct a citywide hydrological and conservation assessment to identify and protect high-priority parcels that provide multiple hydrological and ecological benefits, using hydrological modeling (e.g., a 10" rain event) to guide land conservation and flood mitigation efforts, update FEMA flood maps, assess long-term flooding issues such as beaver dams, and pursue land acquisition or conservation restrictions in partnership with land trusts and the OSRP committee to enhance landscape connectivity and climate resilience. (Flooding)	21	Medium	2, 5	Flooding
Action Grant	Create a downtown livability and connectivity vision plan that creates climate-resilient infrastructure.	Develop a downtown livability and connectivity vision plan that enhances climate resilience through green infrastructure improvements, such as shade trees, rain gardens, complete streets, and daylighted streams, while strengthening pedestrian linkages to nearby open spaces and incorporating strategies for climate-resilient housing. (Flooding)	18	Low	3	Flooding
Action Grant	Conduct a community needs assessment related to emergency needs and communication networks.	Conduct an assessment of the City's emergency response capacity and emergency communication, and identify ways in which these can be improved to meet the demands of future climate-related hazards. (All Hazards)	28	High	1, 4, 5	All Hazards

Source	Action	Action Detail	Score	Prioritization	Goals Addressed	Hazard Address
ction Grant	Conduct a study regarding the benefits of dam removal for higher risk dams.	Conduct a study regarding the benefits of dam removal for higher risk dams with greater ecological restoration potential. Hilchey Pond Dam is a higher risk dam that was identified during the MVP process and should be considered for removal and restoration, along with others. Include strategies for invasive species management and flood improvements. (Invasive Species, Flooding)	18	Low	2, 3	Invasive Species, Flooding
ction Grant	Conduct a study of stormwater management at the sludge landfill.	Conduct a study of stormwater management at the sludge landfill and determine the best management practices that could be implemented to upgrade the existing on-site stormwater system. (Flooding)	20	Medium	2, 3	Flooding
unity Survey	Develop a Priority Hazard Tree and Utility Corridor Management Plan	Complete a hazard tree assessment along priority roadways and utility corridors, identify vulnerable segments, and establish a coordinated maintenance and removal schedule with National Grid to reduce outage and access risks during storms.	31	High	1,3	Hurricanes Winter Storms, Tornados
unity Survey	Evaluate Municipal Facilities for Use as Warming and Cooling Centers and Identify Needed Upgrades	Assess municipal buildings for their suitability to serve as future warming and cooling centers, including evaluation of backup power capacity, HVAC performance, ADA access, and operational needs. Develop a prioritized list of facilities and recommended upgrades to ensure reliable sheltering during extreme temperature events or prolonged outages.	27	High	1,2	Extreme Temperatu s, Hurrican Winter Storms
unity Survey	Conduct a Neighborhood-Level Assessment of Chronic Local Flooding Areas and Implement Priority Drainage Improvements	Identify neighborhoods and road segments with recurring localized flooding, conduct site-level drainage assessments to understand contributing factors, and develop a prioritized set of small to medium drainage improvements such as additional inlets, regrading, or green-infrastructure retrofits.	34	High	1,5	Flooding
unity Survey	Enhance the City's Emergency Communication and Public Alerting Capabilities	Improve emergency notification systems by integrating multi-channel alerts (SMS, voice, web), expanding language access, and developing standardized protocols for issuing alerts for snow and ice events, flooding, and extended power outages.	32	High	4	All Hazards

Source	Action	Action Detail	Score	Prioritization	Goals Addressed	Hazard Address
unity Survey	Improve Winter Storm Emergency Response and Road Treatment Operations	Strengthen the City's ability to maintain safe travel during winter storms by evaluating current plow routes, staffing levels, equipment needs, and treatment practices, identifying priority emergency access routes; and implementing operational improvements such as revised plow sequencing, expanded pre-treatment with brine or anti-icing materials, enhanced treatment of known ice-prone locations, and targeted equipment upgrades to support reliable winter operations.	32	High	4	Winter Storms
cal Review of & Committee ack	Update Hydrologic & Hydraulic, Dam Breach, and Stability Analyses for City-Owned High Hazard Dams	Conduct updated H&H and dam breach analyses for Wrights Reservoir Dam, Cowee Pond Dam, and Perley Brook Reservoir Dam to leverage improved data sources (e.g., LiDAR, updated soils and land use data) and align with current engineering best practices, including cascading dam failure modeling. For Cowee Pond Dam, include stability analyses to support future planning for dam safety improvements. Results will help prioritize investments and strengthen emergency planning.	27	High	1, 2	Flooding
cal Review of & Committee ack	Implement Dam Safety Improvements at Cowee Pond Dam	Building on updated analyses, develop and implement a repair plan to enhance the condition of Cowee Pond Dam. Improvements may address areas identified through ongoing inspections, including seepage management, masonry wall stabilization, spillway training wall repairs, and restoration of the low-level outlet to ensure the City maintains the ability to manage impoundment levels during emergency conditions.	18	Low	1, 2, 5	Flooding
cal Review of & Committee ack	Conduct Dam Breach Tabletop Exercise	Conduct a tabletop exercise simulating a dam breach emergency scenario to strengthen coordination among City departments, emergency responders, and downstream communities. The exercise should incorporate updated dam breach analysis results and existing Emergency Action Plans to evaluate and refine notification procedures, evacuation protocols, and resource deployment.	34	High	1, 4, 5	Flooding
cal Review of & Committee ack	Develop and Update Emergency Action Plans for Significant Hazard Dams	Develop or update plans as needed to align with current state requirements for significant hazard dams.	32	High	1,2,3,4,5	Flooding

7

7. Plan Maintenance

Hazard Mitigation Plans are intended to serve as living documents. In order to be impactful, they must be regularly updated to reflect the current state of hazards, vulnerabilities, goals, strategies, and public sentiment. The three main components of plan maintenance are: *monitoring*, *evaluating*, and *updating* the plan.

Included in this Chapter is a multi-pronged strategy to always keep the HMP as effective as possible. Monitoring, evaluating, and updating the plan will be intertwined with public engagement, integration with other local, regional, and state planning mechanisms, and plan implementation. These processes will run on an ongoing basis with the expectation there is coordination and collaboration between monitoring, evaluating, and updating the plan.

The Mayor's Office, with the City Council's guidance and oversight, will:

- Track the progress of the HMP Mitigation Actions (see Section 7.1);
- Reconvene the Core Team annually to monitor, evaluate, update, and integrate the plan (see Sections 7.1, 7.2, 7.3, and 7.4);
- Share HMP progress with the public once a year (see Section 7.5);
- Make all monitoring information publicly available (see Section 7.1);
- Notify the public when new information has been posted or updated (see Section 7.5);
- Provide the public opportunities to give input on this information (see Section 7.5).

7.1. Monitoring the Plan

According to FEMA, monitoring means tracking the implementation of the HMP over time.

- **Who:** The Mayor's Office will take ownership of monitoring the plan.
- **How:** The Mayor's Office will monitor the status of mitigation actions (Chapter 6) through an internal tracking system using Excel. This should be made publicly available.
- **When:** Monitoring will take place on an ongoing basis with annual meetings to formally update the status of Mitigation Actions. In advance of this meeting, the Mayor's Office will send out notices to the Core Team that will include a shared document where all Core Team members can

collaborate to review status of mitigation actions and identify any new mitigation actions that may be under consideration or in progress as part of ongoing City efforts.

7.2. Evaluating the Plan

According to FEMA, evaluating means assessing the effectiveness of the plan at achieving its stated purpose and goals.

- **Who and When:** The Core Team will meet annually to evaluate the effectiveness of the plan. The Core Team may also be called to meet after a major event or storm to evaluate the effectiveness of the plan.
- **How:** The Core Team will:
    - Review the 2026 HMP Goals; and
    - Discuss how mitigation actions are or are not meeting 2026 HMP Goals and where improvements or adjustments may be needed (e.g., re-prioritization of projects, integrating with other planning processes more effectively, adding new data to climate projections, etc.

7.3. Updating the Plan

The following discusses plan updates under three circumstances:

- Maintaining eligibility with FEMA
- Major disasters
- HMP requirements

7.3.1. | Plan Updates to Maintain FEMA Funding Eligibility

According to FEMA, updating means reviewing and revising the HMP at least once every five years.

Hazard Mitigation Plans expire five years from the date approved by FEMA. To maintain eligibility for certain types of non-emergency disaster assistance from FEMA, an entity such as the City of Gardner must have an approved active Hazard Mitigation Plan.

Hazard Mitigation Plans should be reviewed and updated at least every five years. The Mayor's Office will initiate the process to complete a comprehensive update to the HMP. As a best practice, the comprehensive update should be initiated approximately 18 months prior to this HMP's expiration. This process generally includes:

- Re-engaging the Core Team;
- Considering expansion of the Core Team;
- Confirming FEMA's and MEMA's most recent requirements and guidance;
- Gathering updated information and relevant documents;
- Defining a list of stakeholders (such as the Stakeholders discussed in Chapter 2);

- Initiating an outreach and engagement process;
- Undertaking the planning steps to prepare required Hazard Mitigation Plan sections; and
- Completing and reviewing the draft Plan and submitting for approval.

The City may elect to complete this process in-house or with guidance from an outside contractor.

7.3.2. | Plan Updates Due to Major Disaster Events or New Conditions

FEMA recommends that HMPs also be revisited and updated after a major disaster event (a State or Federally declared disaster) or if new conditions significantly change risk (such as new climate projections or local risk and vulnerability assessment efforts). The Mayor's Office will initiate the process to complete any updates needed in these circumstances. The decision to update the plan will be based on the annual monitoring and evaluation process.

7.4. Integrating the HMP

In order to be impactful, the HMP must be effectively integrated into other City planning mechanisms. This will increase co-benefits of hazard mitigation projects, streamline planning and implementation activities, and help secure funding for mitigation projects.

Integrating the ideas, information, and strategy of a mitigation plan into other planning mechanisms can be achieved through plan integration. Plan integration involves a two-way exchange of information and incorporation of ideas and concepts between hazard mitigation plans and other planning mechanisms. Some ways Gardner can integrate the ideas, information, and strategy of a mitigation plan into other planning mechanisms are:

- **Next Master Plan and Open Space Plan:** Community planning mechanisms can be integrated into hazard mitigation plans to ensure that community needs and concerns are considered when developing hazard mitigation strategies.
- **Building and Zoning Regulations:** The local hazard mitigation plan can integrate with building and zoning regulations, if they are being updated, to ensure that new construction and development are designed to withstand potential hazards.
- **Partnerships:** Developing strong partnerships between planners and emergency managers in neighboring communities can help to fully integrate land use and hazard planning efforts

Integration will be a topic of discussion at each annual update meeting. HMP goals and mitigation actions will be integrated into other City planning mechanisms. At each annual Core Team meeting, there will be an update on the progress of integration of mitigation actions into relevant planning mechanisms and a discussion of other planning mechanisms that should be integrated into the next five-year HMP update.

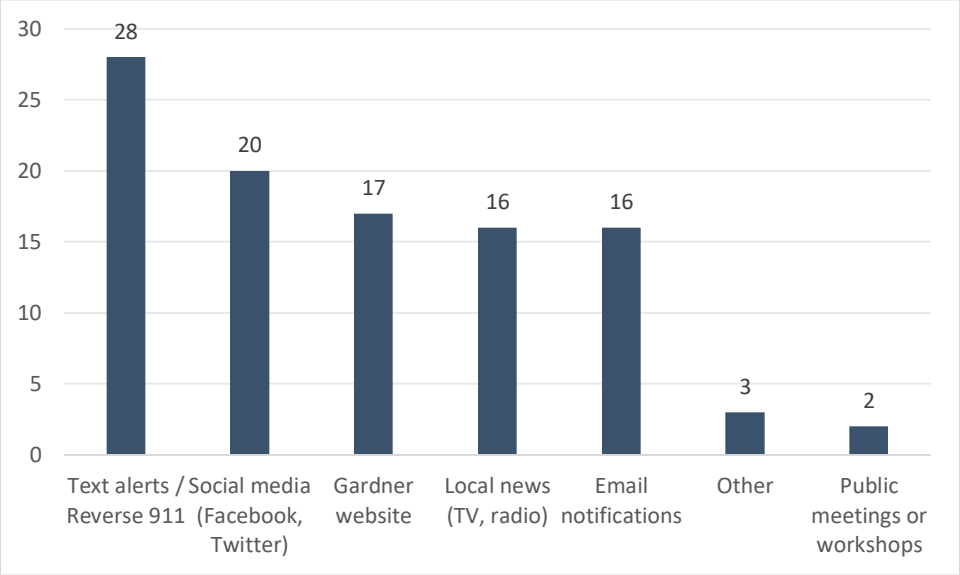
7.5. Public Participation throughout Plan Maintenance

Public engagement is a critical part of the plan maintenance process. Public input, education, and support are crucial to ensuring that the plan is effective, equitable, and impactful.

A coordinated public engagement effort will be led by the Mayor's Office.

The public survey indicated that residents would like to be informed about future plan updates via emails from the City, fact sheets on the City website, or social media.

Figure 7.1: Community feedback related to best methods to receive information on hazard mitigation



Write-in responses under "Other" highlighted a preference for direct voice contact during emergencies, including phone calls and police vehicle PA announcements as backups when power or internet is unavailable.

The City anticipates undertaking the following public outreach and engagement activities in alignment with the annual evaluation, monitoring, and plan update meetings, as well as with large storms or events at the discretion of the Core Team and Mayor's Office.

- **Public Education:** The City will annually provide:
  - A website update on the HMP;
  - A brief update to the City Council and a public meeting; and
  - An email blast and social media posts to advertise the website and City Council update.
- **Public Input:** Each year,
  - Attendees to the City Council meeting can provide input and ask questions
  - Interested parties will be invited to attend the Core Team annual update meeting to provide input on the HMP progress.

8

8. Adoption

Once the draft of the Gardner Hazard Mitigation Plan is reviewed by the Local Hazard Mitigation Committee, Stakeholders, and the general public, the Plan is reviewed by MEMA and FEMA. When the Plan is finally approved by FEMA, it enters into the five year "maintenance" phase.

This Section describes the timeline for plan adoption and includes documentation of the Plan adoption by the City Council.

8.1. Timeline for Plan Adoption

The timeline for Plan Adoption is as follows:

The Gardner Hazard Mitigation Plan 2026 was submitted to MEMA and EEA	Date TBD
MEMA reviewed the Plan and returned it to the City with required edits	Date TBD
The Gardner Hazard Mitigation Plan was submitted to FEMA for final review	Date TBD
FEMA issued an Approved Pending Adoption status	Date TBD
The City Council officially adopted the Hazard Mitigation Plan 2026 during a regularly scheduled meeting.	Date TBD

8.2. Plan Adoption

The Certificate of Adoption is provided on the following page.

CITY OF Gardner, MASSACHUSETTS

RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF Gardner ADOPTING THE 2026 HAZARD MITIGATION PLAN UPDATE

WHEREAS the City Council recognizes the threat that natural hazards pose to people and property within the City of Gardner; and

WHEREAS the City of Gardner has prepared a multi-hazard mitigation plan, hereby known as the City of Gardner 2026 Hazard Mitigation Plan, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS the City of Gardner 2026 Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Gardner from the impacts of future hazards and disasters; and

WHEREAS the City Council authorizes Departments to execute their responsibilities demonstrated in the 2026 Hazard Mitigation Plan; and

WHEREAS adoption by the City Council demonstrates its commitment to hazard mitigation and achieving the goals outlined in the City of Gardner 2026 Hazard Mitigation Plan Update; now therefore be it

Resolved: That in accordance with M.G.L. 40 §4 or the charter and bylaws of the City of Gardner, the City Council adopts the City of Gardner 2026 Hazard Mitigation Plan Update. While content related to the City of Gardner may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Gardner to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of _____ in favor and _____ against, and _____ abstaining, this _____ day of _____, 2026.

City Council President:

By: _____ (print name)

Mayor:

By: _____ (print name)

ATTEST:

By: _____ City Clerk (print name)

APPROVED AS TO FORM:

By: _____ City Solicitor (print name)

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 2, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: An Ordinance to Amend Attachment F of Chapter 8 of the Code of the City of Gardner, thereof entitled "Primary Non-Union Compensation Schedule" to add the positions of Golf Administrative Assistant and Transfer Station Safety Program Development and Compliance Coordinator

Dear Mr. President and Councilors,

I hereby submit a proposed ordinance amendment to the City's Primary Non-Union Compensation Schedule based on recent actions taken by various departments of the City.

The Golf Commission recently voted to make their Administrative Assistant position a weekly stipend position rather than an hourly position. This ordinance codifies this vote of the commission to have all employee compensation consistent in the same location.

The other position in this ordinance proposal relates to the Director of Public Health's request for the creation of a new Transfer Station Safety Program Development and Compliance Coordinator position.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDINANCE TO AMEND EXHIBIT F OF CHAPTER 8 OF THE CODE OF THE CITY OF GARDNER, THEREOF ENTITLED "PRIMARY NON-UNION COMPENSATION SCHEDULE" TO ADD STIPENDED POSITIONS

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARDNER AS FOLLOWS:

SECTION 1:

That the following be added to Section 4 of Exhibit F of Chapter 8 of the Code of the City of Gardner, thereof entitled "Special":

Golf Administrative Assistant	4	$1,885.42	Monthly

SECTION 2:

That this ordinance take effect upon passage and publication as required by law.

CITY OF GARDNER GOLF COURSE COMMISSION

Golf Commission Office William Frank,
Eaton St., Gardner, MA 01440
95 Pleasant St, Room 217 Dan Berry,
152 Eaton St., Gardner, MA 01440
(978) 632-1900 x8055 (978) 632-9703
Course Website:

Superintendent City Hall 100

Pro Manager Gardner, MA 01440

alevasseur@gardner-ma.gov Golf

www.gardner-ma.gov gardnergolfcourse.com o

May 15, 2026

Mayor Michael Nicholson
95 Pleasant Street
Gardner, MA 01440

RE: Administrative Assistant Position

Dear Honorable Mayor:

The Golf Commission would like to transition a part-time Administrative Assistant position from hourly paid rate to a stipend. This stipend would be paid monthly from golf course funds at a rate of $1,885.42 per month. This position hours would fluctuate between 5 to 19 hours per week depending on the time of year and would report directly to the Golf Course Superintendent.

Thank you for your attention to this matter and if you have any questions, please call me at 978-821-6425.

Respectfully submitted,

Jeffrey J Gallant

Jeffrey J Gallant, Chairman
City of Gardner
Golf Commission

The City of Gardner
City Council

PRESENTED BY

Brad Heglin

AN ORDINANCE TO INCREASE OVERSIGHT OF
PROFESSIONAL DEVELOPMENT AND TRAVEL

Be it ordained by the City Council:

SECTION 1. The Code of the City of Gardner is hereby amended by adding the following new.

Section 1: Whenever an employee, or official of the City of Gardner seeks to make an expenditure from a line item titled 'Professional Development and Travel', approval must first be obtained from the relevant department head and the Mayor. Such approval may only be granted after the requestor has provided written explanation of the requested expenditure in a format to be determined by the Mayor, but shall include a description of the expense including total cost, explanation of its benefit, and rationale as it relates to the employee's or official's duties for the City of Gardner.

Section 2: These records shall be filed with the City Auditor. The City Auditor shall quarterly provide a report of these expenditures to the City Council Finance Committee, or in another manner as determined by the City Council.

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 16, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: An Order Transferring Salary Appropriations from the City Clerk Department to Auditor Department Expenses

Dear Mr. President and Councilors,

As we close out the Fiscal year, please see the attached transfer request City Clerk Department Salaries to Auditor Department Expenses.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDER TRANSFERRING $30,530.88 FROM THE CITY CLERK SALARY APPROPRIATION TO AUDITOR DEPARTMENT EXPENSE APPROPRIATIONS

ORDERED:

That the amount of $30,530.88.00 be transferred from City Clerk Clerical Salary and Wage Line of the City Clerk Department Budget (11161-51012) as follows:

Auditor Department Professional Services.....$30,530.88.00
(11135-52190)

CITY of GARDNER
Office of the City Auditor
Karen Butler, City Auditor
95 Pleasant Street, Room 126
Gardner, MA 01440
Phone: 978-632-1900 ext. 8020 • Fax: 978-630-3778
Email: kbutler@gardner-ma.gov

Mayor Michael Nicholsan
City Hall
Gardner, Ma 01440

Dear Mayor Nicholson:

I am requesting an appropriation from available funds in the amount of $25,030.88 to cover a shortfall in my departmental budget for Professional Services, to cover the increase costs for the interim outside auditing firm that help cover the 3 month vacancy in the Auditor role.

Thank you for your consideration

Sincerely,

Auditor Butler

CITY of GARDNER
Office of the City Auditor
Karen Butler, City Auditor
95 Pleasant Street, Room 126
Gardner, MA 01440
Phone: 978-632-1900 ext. 8020 • Fax: 978-630-3778
Email: kbutler@gardner-ma.gov

Mayor Michael Nicholsan
City Hall
Gardner, Ma 01440

Dear Mayor Nicholson:

I am requesting an appropriation transfer of $5,500 from salary expense to Professional Services to cover a shortfall in my departmental budget for Professional Services, to cover the increase costs for the interim outside auditing firm that help cover the 3 month vacancy in the Auditor role.

Thank you for your consideration

Sincerely,

Auditor Butler

The City of Gardner
City Council

PRESENTED BY

Brad Heglin

AN ORDINANCE TO INCREASE FINANCIAL TRANSPARENCY, FINANCIAL GOVERNANCE, AND BUDGET PREPAREDNESS

Be it ordained by the City Council:

SECTION 1:

Section 1: Part IV of the City Code is hereby amended by adding the following new chapter:

Chapter XX - Budgeting and Financial Oversight

§XX-1 Revenue Projections

A. The Mayor shall annually by February 1, submit to the Finance Committee of the City Council, or in another manner as determined by the City Council, a report of expected revenues for the upcoming fiscal year that shall include:
    a. A description of all revenue sources
    b. A chart containing:
        i. The current fiscal year revenue projections
        ii. The current fiscal year to date revenue collections
        iii. The previous five (5) years of revenue separated by source

§XX-2 Spending Reports

A. The City Auditor shall submit to the Finance Committee of the City Council, or in another manner as determined by the City Council, reports on current expenditures in accordance with the following schedule:
    a. On or before October 30, for the first quarter of the fiscal year;
    b. B. On or before January 31, for the second quarter of the fiscal year; and
    c. On or before the last day of each month during the third and fourth quarters of the fiscal year.

B. Each report shall include current expenditures by line item and shall identify any line item that:
    a. Is projected to exceed its appropriation; or
    b. Is being expended at a rate materially higher than expected based upon the portion of the fiscal year that has elapsed and remains.

§XX-3 Revenue Reports

A. The City Auditor shall submit at the end of the first three quarters of the fiscal year to the Finance Committee of the City Council, or in another manner as determined by the City Council, a report containing the current fiscal year revenue projections compared to the current fiscal year to date revenue collections.

§XX-4 Five-Year Financial Forecast

A. The Mayor shall annually submit to the Finance Committee of the City Council, or in another manner as determined by the City Council, no later than March 1, a five-year financial forecast that includes projected revenues, expenditures, debt service obligations, collective bargaining obligations known at the time, and any projected budget gaps.

§XX-5 Revenue Variance Reporting

A. If, at any time during the fiscal year, the City Auditor determines that total General Fund revenues are projected to be less than ninety-five percent (95%) of the revenues appropriated in the annual operating budget, the City Auditor shall notify the Mayor and City Council in writing. Within thirty (30) days of such notification, the Mayor shall submit to the City Council and Finance Committee a report identifying:
    a. The causes of the projected revenue shortfall;
    b. The estimated magnitude of the shortfall;
    c. Any actions already taken to address the shortfall; and
    d. Any additional measures proposed to maintain a balanced budget.

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 23, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Accepting a Donation of $5,000.00 from Lynn Barrieau, in Memory of Deputy Chief Rock Barrieau (ret.), For Gardner Police Department Community Policing Programs

Dear Mr. President and Councilors,

Ms. Lynn Barrieau has been a constant support of the City's Junior Police Academy and Community Policing Programming since the untimely passing of her late husband, retired Deputy Police Chief Rock Barrieau.

Ms. Barrieau has donated $5,000.00 to support the Gardner Police Department's Community Policing Programs.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ACCEPTANCE OF DONATIONS AND GIFTS

COMMUNITY POLICING DONATIONS

VOTED: That the City of Gardner is authorized to accept certain donations for the Community Policing Program and gifts for use by the Police Department, said acceptance in accordance with the provisions of Chapter 44, Section 53A½ of the General Laws.

Donation in the amount of $5,000 by donor Lynn Barrieau.

CITY OF GARDNER POLICE DEPARTMENT

200 Main Street
Gardner, Massachusetts 01440
Phone: (978) 632-5600
Fax: (978) 632-9045

Eric P. McAvene
Chief of Police

Nicholas P. Maroni
Deputy Chief of Police

June 23, 2026

The Honorable Michael J. Nicholson, Mayor
Gardner City Hall
95 Pleasant Street
Gardner, MA 01440

Re: Acceptance of $5,000 donation from Lynn Barrieau, in the memory of Deputy Chief Rock Barrieau (ret.), toward Gardner Police community policing programs

Dear Mayor Nicholson,

The Gardner Police Department has received another donation to our community policing program in the amount of $5,000 from Lynn Barrieau, in memory of her husband, retired Gardner Police Deputy Chief Rock Barrieau.

Lynn has been a constant supporter of the Gardner Police Department's Community Policing Program since Rock's passing in February 2017. Past donations have gone to help pay for equipment and extras for the Junior Police Academy and other community outreach programs. We would not be able to continue improve, expand and enhance the program without Lynn's support.

Rock Barrieau was one of Gardner's first permanently assigned community policing officers back in the early 1990's. His community engagement efforts went on long before and long after he moved on from that assignment. We are humbled and honored to keep his memory alive through our continued community policing efforts. We will be renaming the annual Junior Police Academy in 2026 to honor Rock's memory and legacy.

We are grateful for the generosity of Lynn Barrieau and her family. I am asking that this donation be accepted by the city as gifts, as required by law.

Very truly yours,

Eric P. McAvene
Chief of Police

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 23, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Accepting a Donation to the City of Gardner from Keller Partners Co. of an American Flag flown over the US Capitol Building to Commemorate the 250th Anniversary of the United States

Dear Mr. President and Councilors,

Keller Partners, Co., the City's on-call grant writing firm, has donated a flag that was recently flown over the US Capitol building in Washington DC to the City to commemorate the nation's semiquincentennial anniversary.

The flag has an approximate value of $58.00

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ACCEPTANCE OF DONATIONS AND GIFTS

FLAG DONATION

VOTED: That the City of Gardner is authorized to accept a certain donation of a flag flown over the US Capitol for use by the Executive Department, said acceptance in accordance with the provisions of Chapter 44, Section 53A½ of the General Laws.

Donation of a flag flown over the U.S. Capitol with an approximate value of $58.

Mayor

From: Thomas Keller <tkeller@kellerpartnersco.com>
Sent: Monday, June 15, 2026 8:00 AM
To: Mayor
Cc: Rachel Roberts (Mayor's Office); Jon Boehmer
Subject: [EXTERNAL] Flag Flown Over US Capitol for Gardner

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CAUTION: This email originated from a sender outside of the City of Gardner mail system. Do not click on links or open attachments unless you verify the sender and know the content is safe.

Hi Mayor,

Keller Partners is pleased to have a flag flown over the US Capitol Building in Washington, DC, for the City of Gardner, in honor of our nation's 250th Birthday Celebration! We appreciate Senator Markey's assistance with this request.

You should receive the flag and certificate in July. Enjoy the celebration with a special "stars and stripes!"

God bless the USA,

Tom and Team

--
Thomas C. Keller
Managing Principal

Keller Partners & Company, LLC
1201 Fifteenth Street, NW, Suite 400, Washington, DC 20005
Mobile: +1(202) 841-5283 | Office: +1(202) 207-1145
Email: tkeller@kellerpartnersco.com Website: www.KellerPartnersCo.com

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City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 23, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Accepting a Donation of a 2026 Chevrolet Pick Up Truck for the Gardner Police Department K9 Program

Dear Mr. President and Councilors,

Salvadore Chevrolet has donated a 3-year lease of a 2026 Chevrolet Pick Up Truck with option to purchase at the end of the term to the Gardner Police Department to assist in the K9 program.

The lease has an approximate value of $53,000.00.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

ACCEPTANCE OF DONATIONS AND GIFTS

POLICE K9 PROGRAM DONATIONS

VOTED: That the City of Gardner is authorized to accept certain donations for the Police K9 Program and gifts for use by the Police Department, said acceptance in accordance with the provisions of Chapter 44, Section 53A½ of the General Laws.

Donation of a leased 2026 Chevrolet Pick Up Truck with an approximate value of $53,000.

CITY OF GARDNER POLICE DEPARTMENT

200 Main Street
Gardner, Massachusetts 01440
Phone: (978) 632-5600
Fax: (978) 632-9045

Eric P. McAvene
Chief of Police

Nicholas P. Maroni
Deputy Chief of Police

June 23, 2026

The Honorable Michael J. Nicholson, Mayor
Gardner City Hall
95 Pleasant Street
Gardner, MA 01440

Re: Acceptance of a donated 3-year pick up truck lease from Salvadore Chevrolet.

Dear Mayor Nicholson,

On June 5, 2026, the Gardner Police Department received a donated 3-year pick up truck lease for use by K9 Rocky and his handler, Officer Joshua Willis. The overall value of the truck was $53,000. As the donation only includes the lease period, we will plan to purchase the truck at the end of the lease for market value rate.

We are thankful and appreciative of the support given to the Gardner Police Department by the entire Salvadore Family and Salvadore Chevrolet. The program would not continue to grow without generosity from local business and residents.

Thank you for your time and I ask that this donation be accepted by the city as gifts, as required by law.

Very truly yours,

Eric P. McAvene
Chief of Police

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 22, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Authorizing the City to Enter into a Tax Increment Exemption (TIE) Agreement for the Property Located at 94 Pleasant Street.

Dear Mr. President and Councilors,

As you are aware, after more than a quarter of a century of dealing with the property located at 94 Pleasant Street in land court, the City took the property by eminent domain and later sold the property to Matias Capital, LLC for housing development following the required request for proposal (RFP) process as outlined in the General Laws.

Unlike communities that are designated as Gateway Cities by the Commonwealth, Gardner does not qualify for funding assistance for housing development for market rate housing. However, this is some of the housing that has the largest demand in Gardner.

As a way to make the project of converting this property into a fully market rate facility, the developer has requested that the City enter into a Tax Increment Exemption (TIE) agreement with the City to allow the financing on the project to work without having to utilize affordable unit tax credits.

In these agreements, the value of the land is frozen and the value of the property is incrementally increased over a period of years until the full amount of taxes are paid in the final year of the agreement, after which the property is taxed at its full value.

With the concerted effort the City has made recently to support housing growth, along with the considerable history the City has had with this property, I am in full support of this request and believe it to be in the best interest of the City.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

A MEASURE AUTHORIZING THE CITY TO ENTER INTO A TAX INCREMENT EXEMPTION (TIE) AGREEMENT FOR HOUSING DEVELOPMENT AT THE PROPERTY LOCATED AT 94 PLEASANT STREET

WHEREAS, the City of Gardner took the property located at 94 Pleasant Street by eminent domain on August 12, 2022, and

WHEREAS, prior to this taking, the City of Gardner had been in land court due to back taxes on this property since 1996, and

WHEREAS, the City sold this property to Matias Capital LLC on January 15, 2025, and

WHEREAS, the City of Gardner does not qualify for various housing funding opportunities that are offered to larger communities known as Gateway Cities that would promote the development of market rate housing in the City, and

WHEREAS, the City currently has an affordable housing stock exceeding the states recommended levels, and

WHEREAS, the City of Gardner has made a concerted effort to promote housing development across the City to combat the Housing Crisis facing the region and the Commonwealth as a whole,

NOW THEREFORE BE IT VOTED:

That the City of Gardner is hereby authorized to enter into a Tax Increment Exemption (TIE) agreement with Arque Capital, a subsidiary of Matias Capital, LLC, pursuant to the attached proposed agreement in order to convert the property located at 94 Pleasant Street into six (6) residential units of housing.

FY27 Assessment

Building	$ 241,500.00
Ex Features	$ -
Outbld	$ -
Land	$ 70,800.00
Total	$ 312,300.00

		%taxable FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40	FY41	FY42
	AT 100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	50%	30%	80%	100%
New Building	$ 1,129,200.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 338,760.00	$ 564,600.00	$ 338,760.00	$ 903,360.00	$ 1,129,200.00
Land	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,801.00	$ 70,802.00	$ 70,803.00	$ 70,804.00	$ 70,805.00
	$ 1,200,000.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 70,800.00	$ 409,561.00	$ 635,402.00	$ 409,563.00	$ 974,164.00	$ 1,200,005.00

	Annual Assessment under TIE	Exempt Value	Total Value	Exempt Tax (adjust rate)	
FY28	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY29	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY30	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY31	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY32	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY33	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY34	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY35	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY36	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY37	$70,800	$1,129,200	$1,200,000	$15,549	13.77
FY38	$409,561	$790,439	$1,200,000	$10,884	
FY39	$635,402	$564,598	$1,200,000	$7,775	
FY40	$409,563	$790,437	$1,200,000	$10,884	
FY41	$974,164	$225,836	$1,200,000	$3,110	
FY42	$1,200,005	-$5	$1,200,000	$0	

Full Value 1,200,000

Yearly Tax Bill is based on the values in column B

Colums D and E just show what they're saving

MATIAS COMPANIES

Real Estate Development | Gardner, Massachusetts

★ ALL MARKET RATE ★

PUBLIC – PRIVATE PARTNERSHIP

PROPOSAL

94 Pleasant Street • Gardner, MA 01440

Historic Rooming House → 6 Market-Rate Residential Units
Complete Gut Rehabilitation | 3 Stories + Basement | 4,535 SF

6	$1,483,514	$104,400	7.15%	$0
RESIDENTIAL UNITS	TOTAL PROJECT COST	GROSS ANNUAL RENT	DEVELOPER YIELD (NET BASIS)	CURRENT CITY TAX REVENUE

PRESENTED TO

Mayor Michael Nicholson | City of Gardner, Massachusetts

THE OPPORTUNITY

94 Pleasant Street is a long-vacant rooming house assessed at $1 — generating zero tax revenue for Gardner. A complete gut rehabilitation will deliver 6 market-rate residential units with no income restrictions. The project requires a targeted public-private partnership to bridge the capital gap that exists in all small-city workforce housing markets. City tools (TIF + CDBG) cost Gardner nothing it currently collects — and create $10,000+ per year in new tax revenue once the TIF expires.

CITY ASKS — ALL COMPATIBLE WITH MARKET-RATE UNITS:

TIF	CDBG	NEPA	PERMIT
100% / 20 Years	$100K — Blight Elim.	Initiate This Week	2-Week Expedited Review

PUBLIC–PRIVATE PARTNERSHIP

PROPOSAL

★ ALL MARKET RATE ★ FEE STRUCTURE ANALYSIS

94 Pleasant Street, Gardner MA 01440

Rooming House → 6 Market-Rate Units I 4,535 SF I 3 Stories + Basement

Presented to Mayor Michael Nicholson I April 2026

UNIT	FLOOR	SIZE	MARKET RENT	ANNUAL INCOME	NOTES
1BR – Unit A	2nd Floor	523 SF	$1,350 / mo	$16,200	Renovated, modern finish
1BR – Unit B	2nd Floor	569 SF	$1,350 / mo	$16,200	Renovated, modern finish
1BR – Unit A	3rd Floor	523 SF	$1,350 / mo	$16,200	Renovated, modern finish
1BR – Unit B	3rd Floor	569 SF	$1,350 / mo	$16,200	Renovated, modern finish
2BR	1st Floor	998 SF	$1,750 / mo	$21,000	Largest unit — premium rent
2BR	Basement	715 SF	$1,550 / mo	$18,600	Below-grade — discounted
TOTAL / AVG	**6 Units**	**3,897 SF**	**$1,458 avg**	**$104,400 GPR**	**No income restrictions**

SECTION 1 — SOURCES & USES I COMPLETE FEE STRUCTURE I CAPITAL GAP ANALYSIS

The complete Sources & Uses below shows all project costs **including developer-retained fees.** The GC Fee (10% of hard costs) and Developer Fee (8% of hard costs) both flow back to the developer — meaning the **net third-party cash at risk is $1,082,438** after grants. At Gardner market rents, private capital alone cannot bridge the gap at any fee structure. Public tools are required to bring the development yield to a financeable threshold.

USES — FULL FEE STRUCTURE	
Land / Acquisition	$1
Hard Costs — Subcontractors (4,535 SF × $250/SF)	$1,133,750
GC Fee (10% of hard costs — developer retained)	$113,375
Contingency (5% of hard costs)	$56,688
Soft Costs (A&E, permits, legal, title)	$89,000
Developer Fee — 50% Upfront (4% of hard costs)	$45,350
TOTAL CASH REQUIRED AT CLOSING	**$1,438,164**
Developer Fee — 50% Deferred (due at C.O.)	$45,350
GROSS TOTAL PROJECT COST	**$1,483,514**

GROSS TOTAL PROJECT COST

$1,483,514

4,535 SF gut rehab incl. GC fee + developer fee

CAPITAL GAP (GROSS BASIS)

$579,021

Private market alone — no public tools

NET CASH AT RISK*

$1,082,438

*After grants; fees flow back to developer

STABILIZED VALUE — ALL MARKET RATE, NO TIF	
Gross Potential Rent	$104,400 / yr
Vacancy (7%)	($7,308)
Effective Gross Income	$97,092
OpEx (full taxes + 5% self-mgmt)	($29,255)
Net Operating Income	$67,837
Market Cap Rate — Gardner, MA	7.50%
STABILIZED VALUE (no public tools)	**$904,493**

CAPITAL GAP (no public support, full gross TPC)	**($579,021)**

SECTION 2 — CLOSING THE GAP I TOOLS THAT REQUIRE ZERO AFFORDABILITY RESTRICTIONS

CONTRIBUTION	AMOUNT	RUNNING GAP
Capital Gap (Gross TPC – Market Value, no public tools)	—	($579,021)
TIF: 20yr / 100% exemption — NOI uplift adds $128K value	$128,000	($451,021)
City of Gardner: CDBG — Blight Elimination objective	$100,000	($351,021)
HUD Lead Hazard Reduction Grant (Worcester County HAP)	$75,000	($276,021)
Mass Save Deep Energy Retrofit Rebates	$22,000	($254,021)
Developer: Self-GC savings (10% fee vs 15% market markup)	$56,688	($197,333)
Developer: Fee Deferral — 50% of dev fee deferred to C.O.	$45,350	($151,983)
Developer: GC + Dev fee income absorbed into project basis	$151,983	CLOSED ✓
TOTAL PARTNERSHIP CONTRIBUTIONS	**$579,021**	**DEAL PENCILS**

WHY CDBG WORKS WITHOUT AFFORDABILITY RESTRICTIONS

HUD CDBG's **"Elimination of Slums or Blight"** national objective requires **zero income restrictions** — completely separate from the LMI Benefit objective that requires affordable units. 94 Pleasant St qualifies: assessed at $1, gut rehab required, documented blight. Gardner can fund the rehab without restricting a single unit.

CITY ASKS — ALL MARKET RATE COMPATIBLE

1. TIF: 100% / 20 yrs / CO-based trigger
2. CDBG $100K: Blight Elimination objective
3. Initiate NEPA environmental review this week
4. Letter of support for HUD Lead grant
5. Expedited 2-week permit review timeline

SECTION 3 — STABILIZED PRO FORMA WITH PARTNERSHIP I GROSS TPC vs. NET CASH AT RISK RETURNS

	NO PARTNERSHIP	TIF ONLY	FULL PPP
Gross Potential Rent	$104,400	$104,400	$104,400
Vacancy (7%)	($7,308)	($7,308)	($7,308)
Effective Gross Income	$97,092	$97,092	$97,092
Property Taxes	($9,600)	$0 (TIF)	$0 (TIF)
OpEx (5% self-mgmt, ins., reserves)	($19,655)	($19,655)	($19,655)
Net Operating Income	$67,837	$77,437	$77,437
Value @ 7.5% cap rate	$904,493	$1,032,493	$1,032,493
Value @ 7.0% cap rate	$969,100	$1,106,243	$1,106,243
DEVELOPER RETURN ANALYSIS			
Gross TPC (net of grants)	$1,483,514	$1,483,514	$1,286,514
Net Cash at Risk (net of grants/fees)	$1,483,514	$1,483,514	$1,082,438
Dev Yield — Gross TPC basis	4.57%	5.22%	6.02%
Dev Yield — Net Cash at Risk basis	4.57%	5.22%	7.15% ✓
BRRRR Refi @ 75% LTV (7.0% cap)	—	—	$829,682 ■

COMMUNITY BENEFIT — GARDNER

6 fully market-rate residential units

Zero affordability restrictions on any unit

Eliminates blighted rooming house permanently

$1.48M total private investment in Gardner

Currently $0 taxes — TIF costs city nothing

After TIF: $10,000+/yr new tax revenue

BRRRR EXIT PATH — DEVELOPER RECYCLES CA

Stabilize & hold → refi at cert. of occupancy

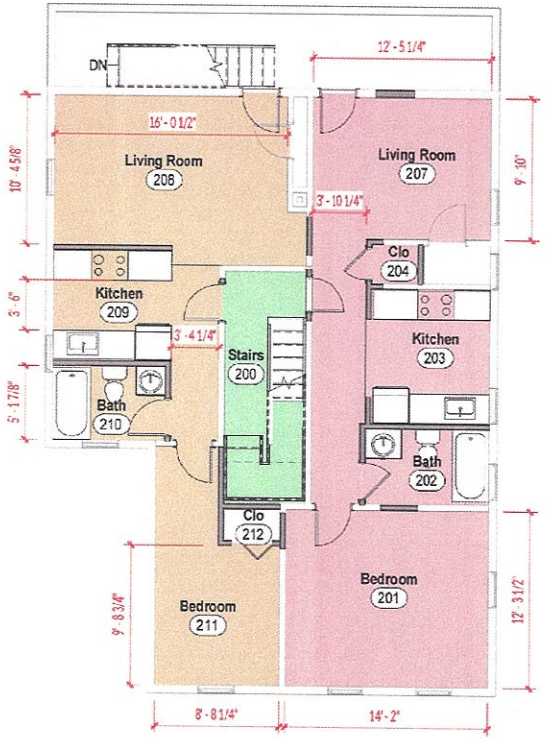
Value @ 7.0% cap: $1,106,243

75% LTV refi proceeds: $829,682

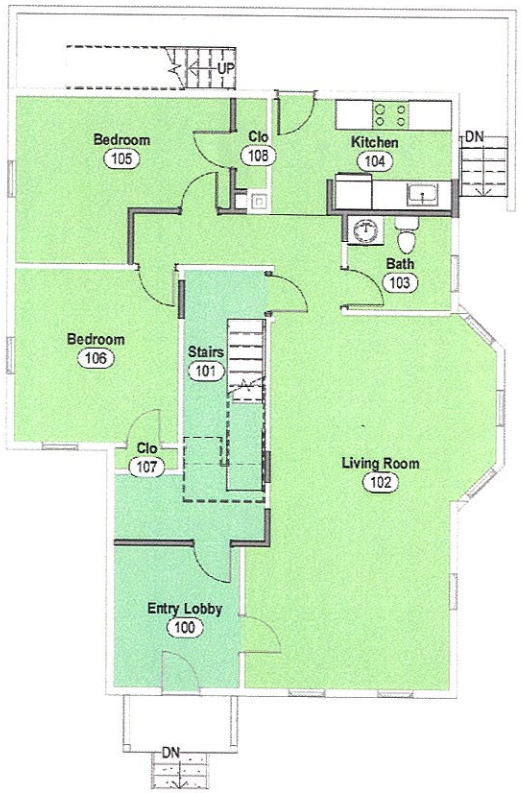
Developer recoups equity → repeats in Gardner

Fee structure transparency: The GC Fee (10%, $113,375) and Developer Fee (8%, $90,700 — 50% upfront / 50% deferred to C.O.) are both retained by the developer and flow back as income. Net third-party cash at risk after grants: **$1,082,438.** Development yield on this basis: **7.15%** — a healthy return for a Gardner workforce deal. **TIF costs the city $0** — the property currently generates zero tax revenue. CDBG under Slum/Blight Elimination places **zero income restrictions** on any unit. Every $1 of city support unlocks $4+ in private investment and creates $10,000+/yr in new tax revenue after TIF expires.

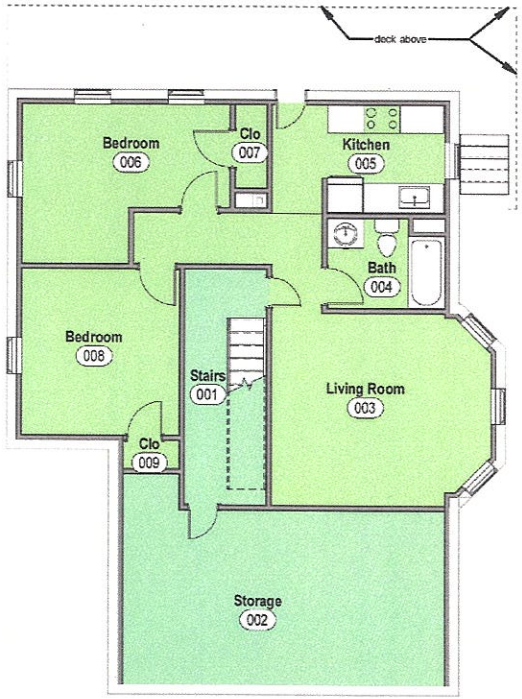
Matias Companies I matias@matiascompanies.com I Plans: Studio 26 Design Collaborative, Sheet A-2, 2/23/2026 I GC Fee: 10% retained I Dev Fee: 8% (50% upfront / 50% deferred) I All units 100% market rate



3 Typical 2nd & 3rd Floor Plan
1/8" = 1'-0"



2 1st Floor Plan
1/8" = 1'-0"



1 Basement Floor Plan
1/8" = 1'-0"

STUDIO 26 Design Collaborative
99 MARKET STREET LOWELL, MA 01852
www.studio26design.com/

Existing Building- Multi-Family Conversion

94 Pleasant St
Gardner, MA 01440

No.	Description	Date

Preliminary Design

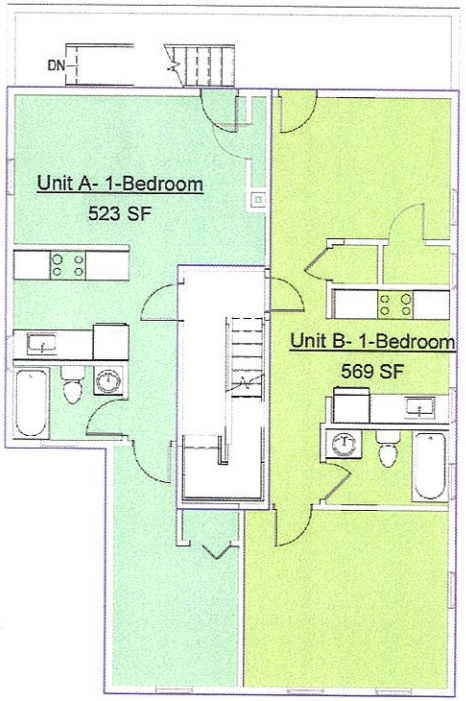
Project number	25-25
Date	2026-2-23
Drawn by	-
Checked by	-

A-1

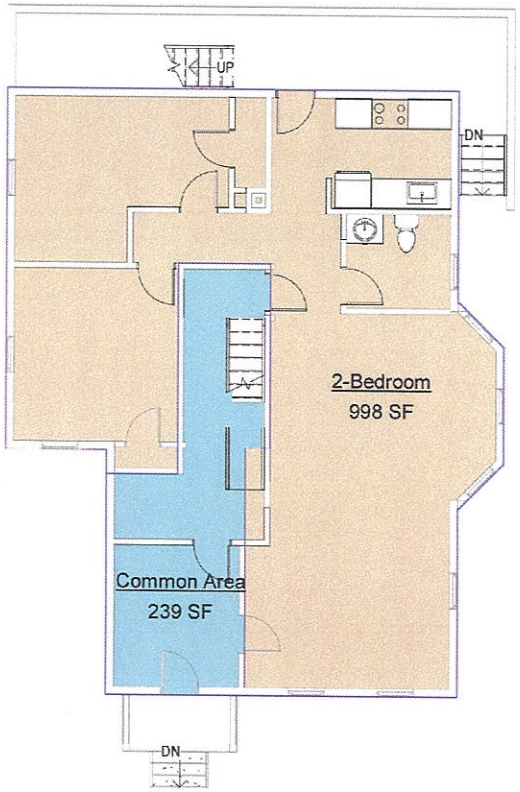
Scale 1/8" = 1'-0"

2/23/2026 8:55:53 AM

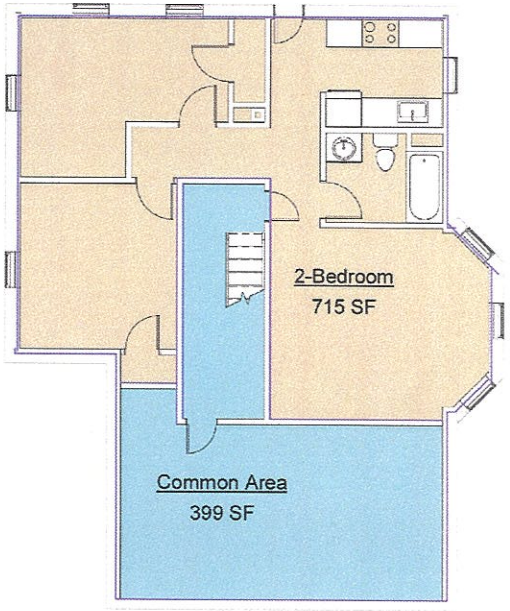
11875



3 Typical 2nd & 3rd Floors
1/8" = 1'-0"



2 1st Floor
1/8" = 1'-0"



1 Basement Floor
1/8" = 1'-0"

STUDIO 26 Design Collaborative
99 MARKET STREET LOWELL, MA 01852
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Existing Building- Multi-Family Conversion

94 Pleasant St
Gardner, MA 01440

No.	Description	Date

Preliminary Design

Project number	25-25
Date	2026-2-23
Drawn by	-
Checked by	-

A-2

Scale 1/8" = 1'-0"

2/23/2026 8:55:53 AM

City of Gardner - ***Executive Department***

Mayor Michael J. Nicholson

June 25, 2026

Hon. George C. Tyros, Council President
And City Councilors
Gardner City Hall, Rm 121
95 Pleasant Street
Gardner, MA 01440

RE: A Measure Transferring $4,016.00 from City Council Salary And Wages Account to Greenwood Memorial Pool Minor Equipment for Signage at the Greenwood Memorial Pool

Dear Mr. President and Councilors,

As you are aware, the City Council approved funding to re-do the roof and siding of the Greenwood Memorial Pool buildings.

With this work being completed, this attached appropriation transfer request is being put forward to purchase new signage for the side of the building facing Park Street.

The quote and renderings for the project are here attached.

I would like to thank Councilor Judy Mack for spearheading this project and getting it off the ground to continue to improve the pool facility.

Respectfully Submitted,

Michael J. Nicholson
Mayor, City of Gardner

AN ORDER TRANSFERRING THE SUM OF $4,016.00 FROM CITY COUNCIL SALARY AND WAGES ACCOUNT TO THE GREENWOOD POOL MINOR EQUIPMENT ACCOUNT

ORDERED:

That the sum of FOUR THOUSAND SIXTEEN DOLLARS AND NO CENTS ($4,016.00) be transferred from the City Council Salary and Wage Account (11111-51010) to the Greenwood Memorial Pool Minor Equipment Account (16621-52050) for the purchase of new signage to the pool facility.

Lyman Signs
49 State Road Phiilipston, MA 01331
info@lymansigns.com
(978) 249-6672

www.lymansigns.com

Quote 30369

Greenwood Pool Building Letters

QUOTE DATE
Thu, 06/25/2026

QUOTE EXPIRY DATE
Sat, 07/25/2026

TERMS
Due on receipt

REQUESTED BY
City of Gardner

CONTACT INFO
Brandon Hughey
bhughey@gardner-ma.gpv

#	ITEM	QTY	UOM	U.PRICE	TOTAL (EXCL. TAX)	TAXABLE
1	**Gemini Plastic Letters** 15" Letters "GREENWOOD MEMORIAL POOL" 10" Letters "Established 1915" 2" Plastic Bars.	1	Unit	$2,845.69	$2,845.69	Y
2	**Boom Truck installation with 2 installers** Boom Truck installation with 2 installers	6	Each	$195.00	$1,170.00	N

This estimate good for 30 days, unless otherwise specified. When you approve this quote, you are agreeing to pay 100% of the quoted price. We require a 50% deposit to begin work on your project, unless otherwise specified. Once we receive your deposit, we'll schedule your project and email you an estimated completion date. The remaining balance is due upon completion of your order.
Need to make changes?
No problem - but please realize, changes to quantity or specifications will affect your price. We will provide you with an updated quote based on the changes.
If job requires excavation, removal of unexpected large rocks or ledge will be an extra charge. If return trip needs to be made because of damage to materials shipped directly to site additional charges may apply. Misinformation of site conditions, existing structures, accessibility to existing structures, ability to drive on fields or track etc. may result in return trips and additional charges. Final electrical connection are to be made by an electrician and are not included in this estimate unless specified.

Subtotal:	**$4,015.69**
Sales Tax (0%):	**$0.00**
Total:	**$4,015.69**

Downpayment (50.0 %)	**$2,007.84**

SIGNATURE: **DATE:**

Reference # 11706329

Quote Details

Quote Date	June 25, 2026
Reference #	11706329
Job Name	Greenwood Pool
RTF	N/A

Partner Details

Partner ID	102056
Partner Name	Lyman Signs
Contact Name	Jake Lyman
Contact Email	jake@lymansigns.com
Contact Phone	9782496672

Product Line 1: Formed Plastic; Plastic Letters

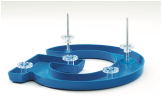
Letter 1

Line Text	GREENWOOD
Sets	1
Font	Custom Flat
Height	15"
Approx. Depth	1"
Color	White (5687)
Sheens	Gloss
Mounting Option	Combination
*Install Pattern	Included

Material
Plastic

Font
Custom Flat

Color
White (5687)



Mounting Option
Combination

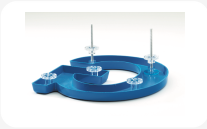
Letter 2

Line Text	MEMORIAL POOL
Sets	1
Font	Custom Flat
Height	15"
Approx. Depth	1"
Color	White (5687)
Sheens	Gloss
Mounting Option	Combination
*Install Pattern	Included

Material
Plastic

Font
Custom Flat

Color
White (5687)



Mounting Option
Combination

Letter 3

Line Text	Established 1915
Sets	1
Font	Custom Flat
Height	10"
Approx. Depth	3/4"
Color	White (5687)
Sheens	Gloss
Mounting Option	Combination
*Install Pattern	Included

Material
Plastic

Font
Custom Flat

Color
White (5687)

Mounting Option
Combination

Bars

Bar 1

Height	2"
Length	36"
Color	White (5687)
Sheens	Gloss
Sets	2
Mounting Option	Combination
*Install Pattern	Included

Material
Plastic

Color
White (5687)

Mounting Option
Combination

GREENWOOD
MEMORIAL POOL
Established 1915