



CITY OF DOVER

CITY COUNCIL – AGENDA

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 28, 2018**
Meeting Time: **7:00 pm**

- 1. CALL TO ORDER**
- 2. MOMENT OF SILENCE**
- 3. PLEDGE OF ALLEGIANCE**
- 4. ROLL CALL ATTENDANCE**
- 5. PROCLAMATIONS/AWARDS**
- 6. APPROVAL OF AGENDA**
- 7. PUBLIC HEARINGS**
 - A. CHAPTER 109, SECTION 31 – FIRE PREVENTION AND LIFE SAFETY**
SPONSORED BY MAYOR WESTON BY REQUEST
 - B. B18024 HANSON STREET RECONSTRUCTION**
(REQUIRES A 2/3 MAJORITY VOTE OF THE CITY COUNCIL)
(CITY COUNCIL VOTE TO OCCUR ON MARCH 14, 2018.)
SPONSORED BY MAYOR WESTON BY REQUEST
- 8. CITIZEN’S FORUM**

*Citizens are invited to speak on any issue pertaining to the business of the City of Dover.
Statements shall be limited to five minutes.*
- 9. CITY MANAGER’S REPORT**
- 10. APPROVAL OF MINUTES**
 - A. February 14, 2018**
- 11. MAYOR’S REPORT**
- 12. UNFINISHED BUSINESS**
 - A. ORDINANCES IN THE 2nd READING**
 - 1. CHAPTER 109, SECTION 31 – FIRE PREVENTION AND LIFE SAFETY**
SPONSORED BY MAYOR WESTON BY REQUEST
 - B. ORDINANCES IN THE 3RD READING**



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C. RESOLUTIONS

- 1. REPROGRAMMING UNEXPENDED BOND PROCEEDS FROM CERTAIN FIRE DEPARTMENT PROJECTS TO PUBLIC SAFETY COMMUNICATIONS UPGRADE PROJECT (REQUIRES A 2/3 MAJORITY VOTE OF THE CITY COUNCIL)**
SPONSORED BY MAYOR WESTON BY REQUEST

13. NEW BUSINESS

A. CONSENT CALENDAR

- 1. RAFFLE – Wentworth-Douglass Foundation – Boothbay Harbor Package**
- 2. RAFFLE – Wentworth-Douglass Foundation – Samoset Resort Package**
- 3. ROAD RACE – Dover Main Street**
- 4. ROAD RACE – Red's Race**
- 5. B18039 DESIGN CONSULTANT FOR SPUR ROAD RECONSTRUCTION**
SPONSORED BY MAYOR WESTON BY REQUEST
- 6. PUBLIC SAFETY COMMUNICATION ADDITIONAL UPGRADES**
SPONSORED BY MAYOR WESTON BY REQUEST

COMMITTEE REPORTS

- | | |
|--|---|
| 1. School Board | 13. Ordinance Committee |
| 2. Planning Board | 14. Parking Commission |
| 3. 400 th Anniversary Committee | 15. Pool Advisory Committee |
| 4. Appointments Committee | 16. Recreation Advisory Board |
| 5. Arena Commission | 17. Solid Waste Advisory Commission |
| 6. Arts Commission | 18. Transportation Advisory Commission |
| 7. Conservation Commission | 19. Joint Building Committee – Dover High School and Regional Career Technical Center |
| 8. Energy Commission | 20. Joint Building Committee – Garrison Elementary School |
| 9. Heritage Commission | 21. Dover Main Street |
| 10. Legislative Liaison | |
| 11. Library Board of Trustees | |
| 12. McConnell Center Advisory Committee | |

B. RESOLUTIONS

- 1. COMMITMENT TO ORGANIC LAND MANAGEMENT PRACTICES**
SPONSORED BY COUNCILOR SHANAHAN
- 2. 2018 MULTI HAZARD MITIGATION PLAN APPROVAL**
SPONSORED BY MAYOR WESTON BY REQUEST
- 3. APPROVAL OF REACH FOR THE TOP THERAPY SERVICES LEASE AGREEMENT**
SPONSORED BY MAYOR WESTON BY REQUEST



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**4. APPROVAL OF ZEBRA CROSSINGS SECOND AMENDMENT TO JULY 15, 2015
LEASE AGREEMENT
SPONSORED BY MAYOR WESTON BY REQUEST**

C. ORDINANCES IN 1ST READING

14. COUNCIL CORRESPONDENCE

A. Letter from xfinity, dated January 24, 2018.

15. COUNCIL MATTERS OF INTEREST

16. ADJOURNMENT



CITY OF DOVER

CITY OF DOVER - RESOLUTION

**Agenda Item#: 7.B.
Public Hearing Only**

Resolution Number: **R – 2018.02.14 – 012**
Resolution Re: B18024 Hanson Street Reconstruction and Reprogram
Capital Project Funding to Hanson St Project

WHEREAS: A Sealed Request for Bid B18024 was issued and received for Hanson Street Reconstruction on January 30, 2018 at 2:00 pm. A prebid meeting was conducted on January 10, 2018 with fourteen firms attending; and

WHEREAS: The City received four bid replies and one non-conforming bid reply. It is the recommendation of the evaluating team to award this project to SUR Construction at the bid rates submitted in the amount of \$908,820.00; and

WHEREAS: The available funding for the Hanson Street project is \$570,000 and \$338,820 of additional funding is needed, and there being other street reconstruction projects that are near completion under budget: and

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT:
The amount of \$338,820 of unexpended bond proceeds is hereby reprogrammed from the identified Community Services Department CIP project for the Hanson Street Reconstruction as follows:

Project Number	Project Description	Available Balance	Reprogram Adjustment	Adjusted Balance
4014.1.300.43121.4751.03142.14	Tolend Rd Reconstruction Project	530,915.00	(205,915.00)	325,000.00
4014.1.300.43121.4751.03151.14	Hanson Street Reconstruction	255,000.00	205,915.00	460,915.00
4015.1.300.43121.4751.03175.15	Silver St Reconstruction	231,607.00	(132,905.00)	98,702.00
4015.1.300.43121.4751.03151.15	Hanson Street Reconstruction	0.00	132,905.00	132,905.00
	Total Available Funding	1,017,522.00	0.00	1,017,522.00

NOTE: This resolution reprograms unexpended bond proceeds and therefore requires a duly advertised public hearing and a 2/3 favorable vote of all members for passage with the vote deferred until at least three (3) days after the public hearing.

AND, FURTHER BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT:

The Purchasing Agent is hereby authorized to issue a Purchase Order to SUR Construction of Rochester NH for Hanson Street Reconstruction at rates provided in conjunction with Bid B18024. The City Manager, or designee, is hereby authorized to contract with the vendor, consistent with the Purchase Order authorized herein.

The amount of this authorization shall be limited so as not to exceed available funding.



CITY OF DOVER

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**Agenda Item#: 7.B.
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Resolution Number: **R – 2018.02.14 – 012**
Resolution Re: B18024 Hanson Street Reconstruction and Reprogram
Capital Project Funding to Hanson St Project

Financing

Account	Description	Appropriation	Balance
5300.1.300.43320.4757.03561.16	Water-Hanson St	150,000.00	150,000.00
5320.1.300.43250.4757.04570.16	Sewer Utilities	285,726.00	12,849.00
5320.1.300.43250.4757.04570.17	Sewer Utilities	300,000.00	57,300.00
5320.1.300.43250.4757.04570.18	Sewer Utilities	300,000.00	94,851.00
4014.1.300.43121.4751.03151.14	Streets - Hanson	460,915.00	460,915.00
4015.1.300.43121.4751.03151.15	Streets - Hanson	132,905.00	132,905.00

AUTHORIZATION

Approved as to Funding: Daniel R. Lynch
Finance Director

Sponsored by: Mayor Karen Weston
By Request

Approved as to Legal
Form and Compliance: Anthony Blenkinsop
General Legal Counsel

Recorded by: Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - RESOLUTION

**Agenda Item#: 7.B.
Public Hearing Only**

Resolution Number: **R – 2018.02.14 – 012**
Resolution Re: B18024 Hanson Street Reconstruction and Reprogram
Capital Project Funding to Hanson St Project

DOCUMENT HISTORY:

First Reading Date: 02/14/2018	Public Hearing Date: 02/28/2018
Approved Date:	Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		

RESOLUTION BACKGROUND MATERIAL:

Document Created by: Purchasing	R-2018.02.14 B18024 Hanson Street Reconstruction
Document Posted on: February 22, 2018	Page 3 of 4



CITY OF DOVER

CITY OF DOVER - RESOLUTION

**Agenda Item#: 7.B.
Public Hearing Only**

Resolution Number: **R – 2018.02.14 – 012**
Resolution Re: B18024 Hanson Street Reconstruction and Reprogram
Capital Project Funding to Hanson St Project

The work consists of new gravels, pavement, granite curbs, concrete sidewalks, pavement markings, replacement of existing drainage systems, repair and replacement of the sewer and water systems including hydrants and water services. It is anticipated that soils at the top of Hanson Street may be contaminated with petroleum. The contractor will need to work with an environmental engineering consultant and NHDES to retrieve, screen and ultimately dispose of contaminated soils encountered during construction.

The firms responding to this Bid must be on the States pre-qualified contractors list for roadwork. The firm shall also provide evidence of having staff with current certification of OSHA-HAZWOPER training available to handle any contaminated soils.

The available funding for the Hanson Street project is \$570,000 and \$338,820 of additional funding is needed. In the FY14 CIP city council approved funding for Tolend Rd reconstruction, this project is complete and has available funding of \$205,915 for reprogramming to another CIP project. In the FY15 CIP city council approved funding for Silver Sr reconstruction, this project is near completion and has available funding of \$132,905 for reprogramming to another CIP project. This resolution does not increase appropriations and does not increase the debt obligations of the city.

Bid Information:

A Sealed Request for Bid B18024 was issued and received for Hanson Street Reconstruction on January 30, 2018 at 2:00 pm.

Award Information:

A purchase order will be issued to the vendor selected to future expenditures as outlined in this resolution.

Purchasing Information:

Type:	Purchase Order	Advertised:	Yes
Invitations Mailed:	510	Number of Responses:	5
Warranty:	Per manufacturer	Terms:	Net 30, FOB Dover
Work Bonded:	Yes	Contract:	Yes
Prices will hold for:	Until completed	Estimated Delivery:	As needed
Recommended Award to:	SUR Construction	Fund:	CIP
Other Approvals Required:	No	References Checked:	Satisfactory
Previously Worked for City:	Yes	Reason for Council Approval:	Purchase to exceed the \$25,000 amount requiring Council approval subsequent to a bid solicitation

[B18024 Bid Documents and Vendor List](#)

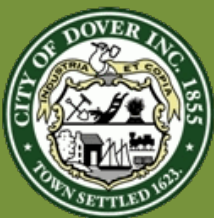
City of Dover

City Manager's Report

February 28, 2018



Waterfront Bluff Excavation
Aerial photo by Michael Gillis



Reporting on January 2018

J. Michael Joyal, Jr.
City Manager

Introduction



Michael Joyal
City Manager

City of Dover's Municipal Leadership Team



Gary Bannon
Recreation Director



Daniel Barufaldi
DBIDA Director



Cathleen Beaudoin
Library Director



Anthony Blenkinsop
City Attorney



Anthony Colarusso
Police Chief



Susan Daudelin
Human Resources
Director



Annie Dove
Information
Technology Director



Eric Hagman
Fire & Rescue Chief



Daniel Lynch
Finance Director



Lena Nichols
Public Welfare
Director



Christopher Parker
Assistant City Manager-
Planning Director



John Storer
Community Services
Director

Report Highlights

Section 1:

Customer-Focused
Outcomes

Section 2:

Product & Process
Outcomes

Section 3:

Leadership & Governance
Outcomes

Section 4:

Financial & Benchmark
Outcomes

Section 5:

Workforce-Focused
Outcomes

Section 6:

Sustainability-Focused
Outcomes

Customer-Focused Outcomes

1

"Ensure overall municipal service delivery remains responsive to needs of community and that response time to citizen concerns is reasonable."

Common Abbreviations:

ACO = Animal Control Officer

MSRO = Middle School Resource Officer

HSRO = High School Resource Officer

WFRO = Whittier Falls Resource Officer

POP – Problem Oriented Policing

SIB – Special Investigations Bureau

CREU = Community Response & Enforcement Unit

DPL = Dover Public Library

F&G = Facilities & Grounds

Planning and Community Development staff continued to work with Legal and Community Services staff to review issues regarding correcting drainage and pedestrian safety issues on Floral Avenue and Brick Road. Staff met with property owners and with outside professional agents to understand ownership, flowage rights and the history of the area.

Planning and Community Development, Parking and Finance staff worked to answer questions related to the request for proposals for a portion of the Waldron Court right of way and land adjacent, which the City owns in the vicinity of the Orchard Street parking lot. Responses for a mixed use project are due in March and will be reviewed by staff, various Boards and Commissions and ultimately the City Council.

Community Development Planner Carpenter and City Engineer White began the environmental review process for the Portland Avenue Sidewalk and Ice Arena Crosswalk project for a proposed 2018 build.

The Facilities, Grounds and Cemeteries handled 156 work orders in the first month of 2018. In Pine Hill Cemetery, employees attended 4 full burials and no ash burials in January.

Responsiveness & Measurables

Planning and Community Development, Police, Inspections and Fire staff worked with Seacoast Charter School on Watson Road to address outstanding permit issues, required for the Change of Use from an office to educational facility. Resolution is expected to be in place within the next 18 months.

As the holiday season came to an end, employees removed Christmas decorations from various locations, unplugged all the decorations from the businesses that helped to keep the City looking festive and packed away all until next year.

Regarding the Facilities, Grounds & Cemetery Division, weather was a factor and with intense cold and snow, crews were busy chasing frozen pipes and trying to keep pipes in many other areas from freezing. Participating in plowing and sand salt operations, as well as shoveling out doorway entries and keeping walkways near the doors safe for foot traffic. Seasonal employees who were home from college came back to work for Christmas break and were very helpful in completing many tasks during the month. Most Facilities Grounds and Cemeteries full time employees plow during snow events.

Seventy-seven work orders pertaining to buildings were addressed. Facilities & Grounds employees worked in the new Customer Service Center after the New Year's flood that occurred on December 31st, when the new backflow preventer in the sally port discharged and the recently renovated ground floor was flooded with 3-5" of water. Items were moved from the sally port area to be stored for shredding or for proper disposal.

A new boiler was installed, by Munson Plumbing and Heating, at the Public Works Facility, replacing a boiler that had issues late in December. Given the lengthy cold snap and the wait time for replacement parts, it was more prudent to move ahead and replace the sixteen year old boiler than to wait and try to repair it. Several buildings experienced frozen water or drain pipes, but fortunately, additional heat helped to thaw these with no damage resulting. Heating concerns continued to be dealt with by employees or Siemens service technicians.

Only four traffic light complaints were addressed, repairing one pedestrian crossing button, and three checking the timing at certain intersections and responding to complaints from the public.

During the month of January 2018, there were four letters generated by the Dover Police Department that were sent to certain licensed liquor establishments in Dover. These letters are sent as a result of analysis of police reports involving overly intoxicated persons. When it is determined that an overly intoxicated person had been over-served, a letter is sent from the police department to the establishment. The letter, along with the police report, is also sent to the NH Liquor Commission's Bureau of Enforcement.

Sergeant Pettingill, the CREU Supervisor, continues to serve as a part-time supervisor for the Strafford County Drug Task Force. In this capacity, he assisted the task force with a number of drug related investigations within the Dover and surrounding communities. During the month of January the Strafford County Drug Task Force, along with Dover police officers, conducted two different operations within Dover as part of a state funded grant patrol called "Operation Granite Shield". Granite Shield is aimed at reducing drug usage and drug sales throughout the state. As part of these two operations in Dover, a number of arrests were made, as well as seizures of heroin/fentanyl and crystallized methamphetamine.

Sergeant Pettingill, along with the Strafford County Drug Task Force, has noted a recent increase in crystal methamphetamine availability and usage in the Tri-City area. Sources indicate that the crystal methamphetamine seized in Strafford County is not being manufactured in the area, but rather shipped in from western parts of the United States.

Sergeant Pettingill has been working with Detective Travaglini on the implementation of drills for students and teachers of the Dover School system designed to prepare the schools for how to respond to emergency incidents. The first district wide drill for all Dover public school staff was conducted on Wednesday January 10th at the conclusion of the class day. Additional drills are planned throughout the remainder of the school year.

***"Customers may forget
what you said but they'll
never forget how you
made them feel."***

Unknown Author

Painting in first floor offices at City Hall was wrapped up by Facilities & Grounds, with those spaces now waiting on new carpet. Items were moved from safe storage on the first floor to new homes in safes located on the ground floor. Large shelving units were dismantled and reassembled in like manner. Filing cabinets and multiple boxes were relocated. The new mail room was relocated. Lock cores were swapped around, as were keypad entry units and a card swipe system was installed.

Eighteen sign issues were resolved, several posts had been hit during plowing operations; two downed by motor vehicles. Post and anchors were replaced as well as any signs that went missing over the past month.

The NH Dept of Labor Inspections Division sent a representative around with one of the F&G employees, for boiler safety inspections, which are due every two years. The monthly elevator inspections and fire extinguisher inspections conducted in house were completed as well.

Employees set up the auditorium for a DOT community meeting on the 30th. Twelve work orders involved delivering supplies or moving items to other locations were dealt with. Ice melt was provided to various buildings.

Three décor lights were reported with bulbs out and one street light being reported out. Two light were repaired in the parking lot at the Public Works Facility.

Twenty-two work orders were generated regarding facilities and grounds issues, including one to board up the Santa house after it was moved from the Courtyard back to the parking lot at the Transportation Station.

Several fallen trees were removed and disposed of, Urban Tree had also worked in Dover over the past weeks removing trees that posed a hazard to the traveling public. The strong winds and the ice storm brought good sized limbs down both in the Pine Hill Cemetery and out on side streets throughout the City. Nine work orders dealt with tree issues.

Also in January, police detectives investigated three unattended deaths. They also assisted the Strafford County Drug Task Force with multiple investigations into illegal narcotics traffic in Dover.

During the month of January, Whittier Falls Resource Officer (WFRO) Plummer met with residents from both Union Court and St. Johns apartments about smoking concerns with other residents. Officer Plummer explained to them what the Dover Housing Authority policy is and how to go about making a complaint about the smoking. Officer Plummer also addressed some other issues that the residents had about things like noise and unwanted people inside the building. Officer Khalsa has seen an increase in homeless persons trespassing in the mills owned by Chinburg Properties. He has made or assisted in several arrests for trespassing. There have also been homeless trespassing in other buildings, to include City owned properties. This is due to the severe cold in the winter months. During each of these contacts, Officer Khalsa continues to discuss housing options with the homeless population, however some are unwilling to accept assistance. Throughout the month, Officer Khalsa assisted with the Strafford County Drug Task force in various capacities to include intelligence gathering, interdiction stops and Operation Granite Shield. Officer Khalsa became aware of a rash of thefts from motor vehicles throughout the City in January. He identified distinct neighborhoods and attempted to determine if there was a pattern. Officer Khalsa checked with local pawn shops to attempt locate any of the stolen articles and potentially identify a suspect. At this time, the cases remain open but are actively being pursued. He continues to work on other quality of life issues in the city to include graffiti when it is discovered. Officer Khalsa has been tracking these reports and will continue to do so as the weather improves and these kinds of issues increase.	During the month of January 2018, 17 registered sex offenders were processed by the Dover Police Department's Special Investigations Bureau (SIB). The processing of a sex offender can range from the annual, semi-annual, quarterly, or initial registration, and can also include a change of address or other information that must be updated. In January 2018 Special Investigations Bureau (SIB) detectives conducted an investigation after receiving information a sex offender had failed to update his employment information with the police department. After the investigation, a Dover man was arrested and charged with a felony level offense for failing to comply with sex offender regulations. Also in January 2018, SIB detectives assisted patrol officers with the investigation of a road rage incident in downtown Dover. As a result, a North Berwick man was charged with felony level criminal threatening. In January 2018, SIB detectives followed up on a report of a man threatening his ex-girlfriend and her family. As a result of the investigation, a Rochester man was charged with misdemeanor level criminal threatening. <table border="1"> <tr> <td> The Police Department worked with SOS Recovery Community Organization to support a grant that SOS submitted to the Open Society Foundation. If funded the grant would result in a partnership with SOS to develop a pre-arrest adult drug diversion program. We expect to be notified if the grant is awarded by May. High School Resource Officer (HSRO) Pike met with school officials to assist with school investigations in determining if criminal activity occurred. Most of this activity is usually centered on potential bullying matters and the use of social media. </td><td> During the month of January 2018, Officer Pike assisted the Dover High School with directing afternoon traffic on multiple occasions on Bellamy Rd. and Alumni Dr. This traffic direction allows for the safe passage of students/faculty crossing Alumni Dr. to the Senior Parking Lot. This activity also allows for the prompt exit of school buses from DHS in conjunction of all other traffic coming and going from the school. Also in January 2018, SIB Det. Andrew Courter completed orientation training in order to assist with the Strafford County Family Justice Center. Library museum passes were borrowed 112 times. </td></tr> </table>	The Police Department worked with SOS Recovery Community Organization to support a grant that SOS submitted to the Open Society Foundation. 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Detectives also conducted multiple background investigations on applicants for police officer and dispatcher positions with the Dover Police Department. During the month of January 2018, the Dover Police Department responded to 2172 incidents throughout the city. Police officers made a total of 728 motor vehicle stops during which they issued a warning or a summons. Officers conducted checks of the Community Trail, the Transportation Center, as well as area parks. They conducted very frequent checks of the parking garage due to concerns of loitering raised by neighboring residents. Officers have also been conducting specific enforcement related to motorists passing stopped school buses and speed in school zones.			

The Traffic Bureau helped coordinate or provided equipment to facilitate event parking, road closures, or provided other traffic control resources for the following activities during the month of January:

Funeral escort and traffic control services, January 12

Tendercrop Farm community bonfire, January 13

Triangle Club grand reopening, January 30

"Santa House" relocation traffic control, January 30

Washington Street water main break, January 31

Officer Brown and K9 Barco participated in 20 hours of training during the month. Additionally, they attended one of the monthly Strafford County Regional Tactical Operations Unit training sessions. This training was put on by New Hampshire State Police EOD. The K9 team was not called out during the month.

January library circulation totaled 22,851 items. (12,162 adult + 7,801 children's print items; plus 2,888 items downloaded including 1,924 audiobooks & eBooks, 885 Hoopla streaming music and movies, and 79 eMagazines).

1,055 people attended, or registered for, 58 free programs at the library during January.

During the month of January, the Highway Division was kept busy with winter storm operations. Roads were pretreated with a brine solution prior to three winter events, applying a total of approximately 10,505 gallons. All City streets and parking lots were plowed and snow was removed as needed. Sidewalks in the downtown and along school routes were cleared after each storm. Spot sanding/salting was performed on icy roadways and sidewalks (and straight sand on all dirt roads) after varying temperatures resulted in slippery conditions. The residential sand/salt pile, located in the Shaw's Lane ball field lot, was restocked and several of the bins in the downtown were also refilled. Employees continued to mix sand and salt for upcoming storms and another order was placed for several more loads of salt.

Mailboxes damaged by plows were either repaired or replaced, as needed. Temporary boxes were provided in some cases in order for residents to receive their mail. Permanent boxes will be installed in the spring, and any lawn damages will be repaired at that time as well.

Due to the large amount of snow fall, crews worked through the night to remove snow piles from the First Street parking lot, Orchard Street parking lot, St. Thomas Street lot and Washington Street parking spots.

When not responding to storm-related events, Public Works crews were busy washing and cleaning out the vehicles. Equipment was also removed from the storage bay so the building could be thoroughly cleaned.

Approximately 1,093.52 tons of salt and 792 yards of sand was delivered to the Public Works facility. One Heavy Equipment Operator remained on site to push each load into the salt shed. Employees made a trip for hot top in the beginning of the month and finished the month using cold patch. Local plants should be opening up in April so that crews won't have to travel to Massachusetts.

In preparation of plowing, crews repaired a sewer manhole on Morin Street. The block structures holding the frame of the catch basins had crumbled and needed to be replaced.

157 new library patrons registered; total active cardholders 14,692. 12 of these new patrons were non-resident Dover workers or students (now 503 in that category).

Police Response to Calls by Priority

January

Priority 1: Immediate

Crimes in progress; injury accidents; alarms
= 194 Responses

Priority 2: Rapid

Crimes/incidents not in progress but require quick response to preserve evidence, locate witnesses or provide for public safety.
= 105 Responses

Priority 3: Timely

Disturbances, noise violations, welfare checks, motor vehicle disturbances, minor collisions
= 454 Responses

Priority 4: As Officers are Available

Non-criminal, crimes reported well after committed; message delivery; tow request, littering, fingerprints; assistance, abandoned vehicles
= 691 Responses

Priority 5: Motor Vehicle Stops

= 1,069/672 Responses

The Dover Police responded to 53% of emergency calls in less than 6 minutes

Dispatch Communications

January

Radio Transmissions
12,121

Phone Calls
7,897

911 Calls Received
419

Lobby Customers
352

Police Alarms Received
118

Police Alarms Cancelled
Prior to Arrival
21

January was a busy month for Fire & Rescue as Fire & Rescue responded to 517 calls for service. 13 of the calls for service were for fires, 294 were for medical emergencies, 23 were for other hazardous situations requiring emergent intervention (natural gas leak for example), 85 were either false or good intent in nature, with the remaining 102 being for non-emergent requests. Of the emergencies, there were 135 times where simultaneous emergencies were occurring with 24 of those times where 3 or more emergencies were occurring at the same time. The busiest day in January for Fire & Rescue was Tuesday, 01/23/2018 when there were 29 calls for service. The slowest day of the month was Sunday, 1/28/2018 with only 5 calls for service occurring with that number being a statistical outlier as the average is 16 calls for service per day!

In the arena of emergency management in January, two EOC (Emergency Operation Center) alert events were enacted. For each event, all department heads and additional appropriate staff were put on notice to monitor in this case, the weather-related events ranging from snow or ice storms to extreme cold. During the course of the events, updates are issued with storm timing, impact information, and any needed preparations.

Customer-Focused Service: *We engage our customers, with a focus on listening to and supporting their needs, anticipating and delivering high quality services and ensuring their satisfaction.*

The library executed 66
U.S. passports in
January.

Inspections worked at are the continuing inspections at the new High School. Inspections also continue at the latest building in progress at Pointe Place as well as the workforce housing building located at the former St. Charles Church property. Inspections along with the Planning Department, also reached agreement in January with the Seacoast Charter School mapping out the last significant requirements that must be achieved over the next two school years, to get full compliance with the code required upgrades that were triggered by the change of use of the old Measured Progress Building from business/office, to educational. The State of New Hampshire has embedded in the State of NH RSA's, a statewide building code and a statewide fire code which Inspection Services must inspect to, and with an educational use being far more stringent than business/office use, this is what triggered those upgrades. The City worked hand and hand with Seacoast Charter School and now that enrollment is full and cash flow is established after the move in a couple of years ago, it is now time to upgrade emergency lighting systems and fire alarm systems. This agreement and timeline for full compliance is an example of the partnership that exists between City departments and a new business, in marching over time to where a building needs to be as required by the building code and fire code. Congratulations Seacoast Charter School!

Inspection Services continued to be steadily busy with a total count for inspections in January conducted and permits issued at 568. Here is the Inspection Services activity breakdown for January:

Inspections - Life Safety	107	Inspections - Plumbing/Mechanical	141	Inspections - Woodstove/Fireplace	0
Inspections - Business	20	Inspections - Blasting	0	Permits Issued - Blasting	1
Inspections - Sprinkler/Alarm	25	Inspections - Health	60	Permits Issued - Building	18
Inspections - Building	101	Inspections - School / Daycare	03	Permits Issued - Certificate of Occupancy	16
Inspections - Electrical	74	Inspections - Oil Burner	02	TOTAL	568

January 2018

Total of Animal Calls for Service: 58

Calls handled by Officers = 32

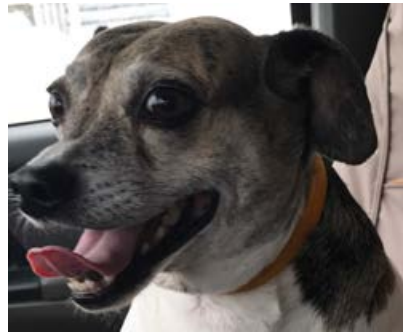
Calls handled by Dispatch = 12

Calls handled by Animal Control = 14

Calls Handled by Officers	
Barking	05
Welfare Checks	07
Loose Animals	06
Found Animals	06
Deceased Opossum	01
Deer Collisions	05
Deceased Cat	01
Lost Animal	01
Calls Handled by Dispatch	
Lost Animals	06
Found Animals	01
Welfare Checks	03
Deceased Deer	01
Sighted Coyote	01
Calls Handled by ACO	
Lost Animals	04
Welfare Checks	05
Found Animals	03
Animal Bites	01
Barking Dog	01

The ACO received 48 voicemail messages and returned those calls. She followed up on two reports initially handled by patrol officers. The ACO enforced one rabies quarantine.

During the month, two loose dogs were taken to K9 Kaos and later returned to their owners. Narissa, a mixed breed, was found wandering on Berkshire Lane. She was let out into her fenced in backyard by her owner and due to high winds on that day, the gate opened and she escaped. Bailey, a Yellow Lab, was found wandering on Middle Road. Bailey was not wearing a collar but scanned positive for an active microchip. The ACO contacted Bailey's owner and learned that Bailey had slipped out of her collar after she had been hooked up on her run.



58 January programs were attended by 1,055 people at the Dover Public Library. These included:

18 story times 320; 4 Family Place workshops 88; Craft session 114; Head Start visit 33; 2 Toddler Yoga sessions 64; Acupuncture class 12; Local author 9; Spy Science 11; Teen Trivia 9; 2 Escape Rooms 20; 3D prints 17; 5 movies 56; 4 Lego Saturdays 136; Game Night 9; 6 Technology classes 27; Book group 13; 2 Book Jar Guesses 26; Paws to Read 8; Teen Advisory Board 8; 2 Little Free Library visits, adding 67 books; 2 Book-A-Librarian appointments, Langdon Place visit 6; and Passports 66.

47 new patrons registered for downloadable audiobooks/eBooks (total = 4,186) and 32

Internet and PC uses by the public totaled 1,358 on library workstations, plus 2,949 via Wi-Fi, plus 31 Chromebook loans. Average Internet use per day was 149.

147 meetings & tutoring sessions were hosted in the library's Lecture Hall, Trustees Room, & Learning Center.

13,468 people visited the library during January, an average of 464 per day (open 29 days).

Pictures below were printed with the Dover Public Library's new, and very cool, 3D printer!



Due to extremely cold temperatures in January the mounted unit was forced to postpone its Coffee with the Cops event. This outreach event is designed to provide an opportunity for the public to have a chance to engage with officers in a casual setting over coffee. This is one way the Dover Police is trying to break down barriers and engage with the community. The new date is scheduled for February 3rd.

The Mounted Unit is very familiar with the transient and homeless population and continues to monitor their whereabouts during the winter. As part of that, the officers help to direct them to resources such as shelter, food sources and other services. During the month of January family members of one specific homeless individual that has mental health issues, spoke with the officers on several occasions to check in on this person's wellbeing. The officers were able to provide a bit of peace of mind to this family that their loved one is alive and doing well considering the fact that he is homeless and the weather was extremely cold. This is just one example of the connection that Mounted Officers are able to make with the public.

Officer Caproni patrolling the downtown on Rasa who celebrated her two year anniversary with the Dover Police Department in January.



In January, Dover Mounted Patrol was responsible for:

- 22 Public Assists
- 14 Parking Assists
- 6 Community Action/Homeless Assists

During the month of January, Officers Caproni and Murch made hundreds of positive community contacts throughout their patrol area which covers the entire downtown business district from New York Street to Silver Street and all the way from the Community Trail to Cocheco Street. These police contacts give the officers and the public a sense of being part of the community together. This is especially important with the children. The officers are told on a daily basis by people they meet how much they appreciate seeing the horses around.

During the extreme cold weather in December and February, the mounted officers fielded many questions about the safety of the horses in the cold. The horses have access to shelter which, more often than not, they choose to forgo. The horses also have full time access to hay which helps to keep them warm when they eat and digest it. Lastly, the horses have access to an automatic watering system which provides them with continuous access to fresh 50 degree water.

Total Permits Issued: January 2018

Permit #	Owner's Last Name	Street #	Street	Description	Type	Map	Lot	Construction Value	Fee
17-461	OKAD OF DOVER, LLC	836	CENTRAL AVENUE	CONST. A TWO STORY BANK WITH DRI	C	37	35	700000	7025
17-491	OKAD OF DOVER, LLC	826	CENTRAL AVENUE	CONST. A RETAIL MULTI-UNIT BLDG.	C	37	36-0-0	1059000	10615
17-511	6 GROVE STREET RESIDENCE	6	GROVE STREET	PERFORM INT. DEMOLITION ONLY	C	31	14-0-0	52000	100
17-533	CITY OF DOVER	50	GARRISON ROAD	CREATE TEMP. CLASSRMS IN GYMNASI	C	I	2-G-0	75000	0
17-535	MY FRIENDS PLACE	368	WASHINGTON STREET	REMOVE WINDOWS & INSTALL SIDING	C	G	18-0-0	1400	35
17-555	OKAD OF DOVER, LLC	826	CENTRAL AVENUE	INSTALL AN 8' BUFFER FENCE	C	37	35,36,	14000	175
17-503	MANCUSO	42	PARSONS LANE	CONST. A SFD W/A 3 CAR GARAGE	R	A	36	125000	1275
17-550	FONGEMIE	20	CHILDS DRIVE	CONST. A GRGE ADD. & FINISH BSMNT	R	N	8-A-H	71000	735
17-558	CHISAMORE	88	EMERALD LANE	CREATE AN ADU IN LL OF A SFD	R	F	22-A-	85160	875
17-559	DEMO	274	DOVER POINT ROAD	FOUNDATION ONLY FOR ADDITION	R	L	103-0-	31700	345
17-560	NEWSKY	74	BELLAMY ROAD	REPLACING 11 WINDOWS	R	H	6-G	4228	65
17-561	STABILE TOWNHOMES AT POI	17,19,21,	ARTISAN WAY	CONST. A 5 TWNHOUSE UNIT BLDG. W/	R	K	19-7	841900	8444
18-001	HORNER	4	SUSANNAHS CROSSING	TO FINISH BSMNT TO INCLUDE A 3/4 BA	R	F	23-A-	9500	250
180-019	BASTIANELLI	74	SPRUCE LANE	4 REPLACEMENT DOORS	R	I	119-0-	12631	155
18-0101	FREDERICK	135	BACK RIVER ROAD	KITCHEN REMODEL INCLUDING ADDIN	R	I	42-0-0	48000	505
18-013	VENABLE	34	STARK AVENUE	STRCTRL UPGRADES FOR ROOFTOP SO	R	17	101-0-	24340	268
18-020	ADAMS	100	GROVE STREET	INSTALL 2 REPLACEMENT WINDOWS	R	30	35-0-0	4167	75
18-022	HUTCHESON	10	TOWLE AVENUE	KITCHEN REMODEL, MOVING BATHRM	R	12	158-0-	40000	425

Permit #	Owner's Last Name	Street #	Street	Description	Type	Map	Lot	Construction Value	Fee
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Total Permits Issued: 18

Total Construction Value: \$3,199,026.00

Total Fees Collected: \$31,367.00

Type of Permits Issued		Certificate of Occupancy's	
Commercial	4	Change of Use	2
Commercial Renovations	2	Commercial	0
Convert 1 to 2 Fmly Dwlg	0	Convert 1 to 2 Fmly Dwlg	0
Two Family Dwelling	0	Two Family Dwelling	0
Multi-Family Dwelling Units	5	Industrial	0
Industrial	0	Renovations	5
Industrial Renovations	0	Manufactured Dwlg	0
Manufactured Dwelling	0	Multi-Family Dwelling Units	0
Single Family Dwelling	1	Single Family Dwellings	7
Renovations Dwelling Unit	9	Accessory Dwelling Unit	2
Demo. of a Dwelling Unit	0		
Accessory Dwelling Unit	1		
		Total	16

NAME	STREET NAME		Total Units	Units Built*	Units left	DATE OF PB SIGNATURE	DATE OF PB APPROVAL	SCRD DATE	PLANNING FILE #	MAP	L0T	EXPIRATION DATE	SCHOOL	Students**
Mixed Use														
Salty Sea	52 New Rochester Rd	A	15	0	15	1/9/2018	12/12/2017	Site	P17-74	40	25	1/9/2023	H	0.5
Cathartes	Washington Street	A	130	0	130	1/9/2018	12/12/2017	Site	P17-66	2	4	1/9/2023	H	3.9
Chinburg	Washington Street	A	54	0	54	9/26/2017	9/12/2017	Site	P17-46	23	14	9/26/2022	H	1.6
Changing Places/Robbins	Mechanic Street	C	15	0	15	11/14/2017	4/25/2017	Site	P17-11	24	98	11/17/2022	H	0.5
Carnegie Hill	Third Street	A	20	0	20	9/12/2017	4/25/2017	Site	P17-02	6	54A	9/12/2022	H	0.6
Third/Grove	Grove Street	A	30	0	30	6/13/2017	3/28/2017	Site	P16-31	31	14	6/13/2022	H	0.9
Old Courthouse	First Street	A	10	0	10	5/23/2017	6/14/2016	Site	P16-15	6	20	5/23/2022	H	0.3
Bradley Commons	Central Ave	A	49	39	10	2/10/2015	9/23/2014	Site	P14-34	27	2/3	2/10/2020	H	1.5
Total: Mixed Use			323	39	85									3.7
Multi-Family:														
Wolcott Holdings	Wolcott Drive	C	6	4	2	8/22/2017	6/13/2017	Site	P17-25	I	73	8/22/2022	G	0.7
Clay Hill	Henry Law Avenue	C	10	0	10	12/4/2015	7/28/2015	Site	P15-17	22	3	12/4/2021	W	1.1
Lilac Gardens	Lilac Ln	A	120	72	48	9/27/2005	9/27/2005	Site	P04-04	H	35C	9/27/2009	W	13.2
Total: Multi-family			136	76	60									15.0
Subdivisions:														
Singh	Couty Farm Cross Road	H	4	0	4		10/24/2017		P17-58	B	6G		H	1.4
Coughlin	Piscataqua Road	H	3	0	3	12/12/2017	7/25/2017	12/14/2017	P17-42	I	94-A/B	12/12/2017	G	1.1
Quantum	Littleworth Road	H	6	0	6	8/2/2017	6/13/2017	8/3/2017	P17-34	H	29A	8/2/2022	W	2.1
Whitney Scott	Topaz Drive	H	9	0	9	1/9/2018	6/13/2017		P17-18	G	9	1/9/2023	W	3.2
Sophie Lane	County Farm Road	H	3	0	3	6/27/2017	5/9/2017	6/28/2017	P17-32	E	32	6/27/2022	H	1.1
Ayer	Eagan Drive	H	17	0	17	11/17/2017	4/11/2017	1/10/2018	P16-25	N	18	11/17/2022	G	6.0
Copley	Pear Drive	H	7	4	3	8/16/2016	6/14/2016	9/1/2016	P16-13	C	2	8/16/2021	H	2.5
Indian Ridge	Emerald Ln	H	49	26	23	8/25/2015	6/23/2015	12/4/2015	P14-58	F	15	8/25/2020	W	17.2
Bellamy Ridge	Red Barn Dr	H	7	3	4	10/13/2015	8/25/2015	10/15/2015	P15-05	I	6-C	10/13/2020	G	2.5
Foster's Way	Fosters Dr	H	5	4	1	9/17/2014	12/17/2013	9/17/2014	P13-49	L	89-1	9/17/2019	G	1.8
Child's Subdivision	Childs Dr	H	19	17	2	4/9/2013	3/28/2013	3/29/2013	P12-20	N	8A-1	3/28/2018	H	6.7
Arch St	Fresian Drive	H	11	0	11	7/30/2013	10/23/2012	8/1/2013	P12-28	11	16	7/30/2018	W	3.9
Labrador Woods	Labrador Dr	H	9	8	1	7/19/2010	5/25/2010	7/19/2010	P10-19	A	51-9	7/19/2014	H	3.2
Hidden Valley Drive	Hidden Valley Dr	H	10	8	2	7/30/2009	3/24/2009	8/4/2009	P09-03	I	94C	7/30/2013	G	3.5
Harbor Hills	Shore Rd	H	16	12	4	8/10/2010	3/23/2010	8/11/2010	P07-39	L	89G	8/10/2014	G	5.6
Paddocks/Tidewater Farms	Saddle Trail Dr	H	9	5	4	2/21/2008	10/23/2007	2/21/2008	P07-43	N	8	2/21/2012	H	3.2
Picnic Rock	Back River Rd	H	21	11	10	10/31/2007	7/10/2007	11/6/2007	P07-32	16	20	10/31/2011	G	7.4
Goldberg/Tolend Rd Prop.	Stocklan Dr, etc	H	72	62	10	10/5/2006	7/14/2005	11/2/2006	P03-36	G	24	10/5/2010	W	25.2
StoneCroft	Carriage Hill Ln	H	11	10	1	8/9/2005	5/24/2005	8/9/2005	P05-18	A	16	8/9/2009	H	3.9
Havenwood Farm at Alden	Boxwood/Wildewood	H	32	27	5	6/6/2005	5/10/2005	6/7/2005	P04-42	B	21	6/6/2009	H	11.2
Weeden	Garrison Rd	H	4	3	1	9/28/2004	6/22/2004	10/4/2004	P04-25	I	1P	9/24/2008	G	1.4
Cornerstone Crossing III	Conerstone Dr	H	18	17	1	7/28/2005	4/12/2005	8/1/2005	P05-13	B	18	7/28/2011	H	6.3
Total: Single Family			342	217	125									119.7
Elderly:														
Pointe Place	Pointe Place	A	116	116	0	8/26/2016	3/22/2016	Site	P16-05	K	19	8/26/2021	G	
Pointe Place	Artisan Way	A	20	10	10	8/26/2016	3/22/2016	Site	P16-05	K	19	8/26/2021	G	
Pointe Place	Sierra Hill Dr	H	31	23	8	12/21/2015	11/19/2014	4/1/2016	P14-56	K	19	12/21/2021	G	
Arbor Woods	Cielo Dr	H	61	58	3	2/20/2007	1/9/2007	2/20/2007	P06-25	H	4	2/20/2011	W	
Total: Elderly			228	207	21									
TOTAL APPROVED UNITS			1029	539	291									138

2

"Ensure overall municipal services meet and/or exceed the highest industry standards given the resources available."

Product and Process Outcomes

Planning and Community Development staff assisted in the review of the City Manager's FY19 to 23 Capital Improvements Program at Planning Board and City Council meetings. Upon approval, by the City Council of the CIP, staff worked with Departments to understand which projects had been approved and what next steps for implementing the projects is. Staff also reviewed the impact on new projects on projects already underway.

Planning and Community Development, Fire and Rescue, Legal and Finance staff worked to dispose of the property located at 179 Locust Street. This property was obtained through tax deed, and was subject to an RFP for reconstruction/ruse. The City Council awarded the sale at its January 24th meeting.

The Assistant City Manager reviewed software for implementation and tracking of City goals and strategic plan implementations. This software should be able to monitor and report to the Council and public process on the service area strategic plans, as well as the City's Master Plan.

Community Development Planner Carpenter met onsite with certain CDBG applicants to review proposed projects in preparation for the 2018 building season.

It Is All About Service

Assistant City Planner Benton attended the Dover Arts Commission meeting on January 8th to discuss the idea of a mural project in the Silver Street tunnel as part of the Community Trail Advisory Committee's 2018 goals to accomplish.

Planning and Community Development staff are working on a request for proposals to retain a consultant to assist staff and the Planning Board with developing design guidelines for future downtown development. The guidelines will be partially paid for with a technical assistance grant from PlanNH.

Planning and Community Development staff worked on refining the proposed Impact Fee increases, being reviewed by the Planning Board. Dover has had impact fees since 2003, and last increased them in 2008. The new fees, if adopted in February, would go into place for newly approved projects and would be used to offset continued impacts created by growth and development, on the City's infrastructure.

Community Development Planner Carpenter prepared several environmental reviews for CDBG funded projects including placement of four bus shelters, improvements to the roof over the Children's Center portion of the McConnell Center, improvements to the Teen Center and certain weatherization projects.

Planning and Community Development staff is reviewing opportunities to coordinate the Strategic Plans better with the City's Master Plan. Specific improvements sought include reviewing the reporting and updating process, to ensure that Departments are able to easily track advancement and progress of Strategic Plan action items. Staff have been asked to provide comments on their plans and the Master Plan implementation. A summary report is being drafted on actions taken to date.

The Assistant City Manager developed workplans for Planning and Community Development staff. These plans identify tasks the department undertakes, which position is responsible for those tasks and how the hours each position works should be allocated to complete these tasks.

Planning and Community Development staff attended a public hearing to review progress made on the Little Bay Bridge project, relocating the Dover toll booth and replacement/rehabilitation of the General Sullivan Bridge. This meeting, held January 31, provided opportunity for feedback from stakeholders on the need to provide safe bike and pedestrian access to the crossing. Planning and Community Development staff began the process of reviewing land use amendments. At the Planning Board meeting held on January 9, the Board held its goal setting. As part of the process, the Board identified areas to consider amendments for in the site review, subdivision and zoning chapters of the Code. In addition, staff worked with the Planning Board to identify members of a rezoning committee which will review opportunities for changing allowed uses in areas of the City to promote a diverse economic development and community development strategy as outlined in the City's Master Plan. Planning staff converted from bi-weekly staff meetings to weekly ones. As part of the change, each meeting also has a topic for discussion. In January topics included working to promote projects and outreach, understanding and updating the Department Strategic Plans and reviewing the position specific workplans developed for the year ahead. The change to weekly meetings, was a result of implementing the Strategic Plan objectives for the Department.	All basketball programs, including Kindershots, Lil' Shots, and Midget program for 3rd and 4th graders are now held at Woodman Park School Gymnasium due to the construction at Garrison Elementary School. Fifth and Sixth graders continued games on Saturdays at the McConnell Center and continued practices during the week at all the elementary schools. The 7th & 8th grade basketball teams resumed games. Six High School boys teams continued schedules, playing Saturday and Sunday afternoons at the McConnell Center. The 18+ Men's Basketball league continued games on Sunday mornings and Thursday evenings at the McConnell Center. The 35+ League plays Monday nights at McConnell, and the 50+ league plays Wednesday nights at McConnell. Badminton continues to be popular on Friday nights. New sessions of Interval Toning, PiYo, and Zumba® all began in January. Sessions run every 6 weeks for each program. Spring Sports Sign-up flyers were made and distributed via email by the schools. Spring Sports Sign-ups will be held on Saturday, February 10th from 9am – 12pm in the McConnell Center Cafeteria. The League Presidents Meeting will be held with the youth sports organizations on Thursday, February 1st.	Through the month of January, the Indoor Pool has seen fair share of High School swimmers. Between Dover High, Oyster River, Berwick Academy, St. Thomas and Spaulding High School swim teams, there are as many as 250 extra swimmers per day. Seacoast Swimming continues its normal training schedule using about 20 hours of pool time every week. Hydrofitness continues this month normally seeing about 15-20 attendants if the weather is favorable. ID Pool patrons are looking forward to the return of Recreational Swim in mid-February after the State High School Swim Meet on February 10th. Adult Lap swimming remains the most popular time period with around 75-100 members visiting us every day. Great Bay Masters continues to use the pool facility bringing about 100 swimmers per week. There were 2 birthday parties held at the pool in January. January continues to be one of the busiest months at the Dover Ice Arena with all hockey leagues, high school teams and recreational programs in full swing. Some Saturdays the arena hosts 5 high school games mixed in and Rock Night ending the evening. Rock Night, on Saturdays, has continued to be very busy with the young adult crowd. It is a fun skate night with great music and disco lights to add to the enjoyment of the young skaters. Great Bay Figure Skating Club continues to hold learn to skate lessons for all ages every Saturday morning. Four birthday parties were held at the ice arena in January.	In addition to all ongoing activities, the Senior Center members continue to use all fitness areas at Dover Recreation. Senior exercise and yoga classes are held Monday through Thursday mornings. Pickleball is offered Tuesday and Friday mornings. Despite the winter weather, this month members saw Sister Act and visited Mohegan Sun. The center hosted a balance workshop with Dr. Dan and started a new art class! Discussions are underway with Skatepark patrons to begin the planning for the relocation of the River St. Skatepark to Maglaras Park now that the removal of the adjacent bluff is underway and will eventually impact the continuing use of the area at some point. The Dover Veterans Park first 400 donated bricks honoring veterans are in storage and will be installed in the spring. Donated brick orders are still coming in very strong and another order will be placed later this winter. At their February meeting, the Parking Commission will discuss the resident parking permit system and its effect on parking space availability for customers of downtown businesses. The current policy allows unlimited permits to residents that qualify by the rules established in the City Ordinance. For example, there are 20 public spaces on the north side of First Street and 22 resident permits leaving few customer spaces.
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The Dover Teen Center calendar for January of 2018 consisted of educational and social programming for its youth participants. For the month, the teen center hosted a total of 510 participants on 19 days of programming, which yielded an average of just under 27 participants per day.

Some program highlights for the month included, but were not limited to the following:

TC Tournament – “9-Ball Billiards” (1/4)
 TC Special Program - “Arts & Crafts Fun Day” (1/9)
 TC Trip! - “UNH Men’s Basketball Game” (1/10)
 TC Trip! – “UNH Men’s Ice Hockey Game” (1/12)
 TC Snack Special – “Pasta Fest” (1/17)
 TC Trip! – “Maine Red Claws Basketball Game” (1/18)
 TC Snack Special – “Steve’s Chili” (1/22)
 TC Snack Special – “Pancake Madness” (1/31)
 TC Arts In Action Program – “Downtown Art Mural Planning Meeting” (1/31)

There were 4 new teen center registrations during the month.



A Teen Center Participant poses with Wild E Cat During the UNH Men’s Basketball game in January



The Community Service program continued to track eight active participants during the month of January 2018. A total of 8.5 community service hours were completed during the month. One of the participants finished his/her assigned hours.

The Dover Diversion Committee met on January 11 and January 16, 2018. As of the end of the month, the breakdown of cases is below:

3 cases already in active Diversion Contracts
 1 successful completion and release
 2 new cases heard during the month
 2 cases awaiting the next meeting.

On January 8, 2018, Officer Dunne, the Middle School Resource Officer, assisted Principal Lyndes administer the district-wide emergency drill. Officer Dunne provided a refresher for the faculty on how to handle the emergency and helped explain the drill. Once the drill was completed, Officer Dunne spoke with the faculty about the decisions made during the drill and answered questions.

On January 8, HSRO Pike assisted DHS Principal Driscoll with the emergency drill that involved the entire faculty. Officer Pike also attended the breakout sessions following the drill.

Left, Dover Teen Center participants participate in the homework club at the Dover Teen Center. UNH interns are always on hand to provide assistance.

In early January the Dover community suffered the untimely death of an 8th grade student. Officer Dunne assisted the school by making herself available for students to speak to if they wished. Officer Dunne worked very closely with the faculty and staff from the school department to assist with supporting the students during the tragedy. This included monitoring reports from that police officers investigated after school hours. Some of these reports involved students sending each other text messages and communications through social media that they were thinking of harming themselves. Officer Dunne acted as a liaison between patrol and the guidance office at DMS to speak with all involved students and their parents to help address their emotions.

On January 26, 2018, DMS started their annual school wide reading activity. At the same time during every school day, all students gather in their homerooms to read the same book, Project Mulberry. Officer Dunne was assigned to assist with the 5th grade team of Mr. Wade and Mrs. Murphy Bean. Officer Dunne reads aloud to the class as the students listened, and asks follow up questions to help their comprehension of the story. This activity will continue through the end of February.

High School Resource Officer (HSRO) Pike continued coordinated efforts with the Auto Technology & Collision students to have a Dover Police Cruiser brought to Dover High School each Thursday to be detailed. No cruisers were detailed, due to scheduling conflicts with Kalway, school closures, exams and the start of a new semester. During the time that Officer Pike has been assigned to DHS, he has had multiple conversations with the students involved in the cleaning of these cruisers. It has proven to be an invaluable conversation starter and ice breaker for the SRO program.

On January 30, 2018, at the request of the Dean's office, Officer Dunne sat with a 5th grade student who was being unruly and throwing items within the office. Officer Dunne spoke with the student at length about her behavior and maintained a regular presence in the office. Officer Dunne's presence was enough to stop the student from throwing items and kicking chairs for the remainder of the day.

On January 31, 2018, Officer Dunne was requested to assist with a recurring behavioral problem occurring on a school bus. Officer Dunne spoke with the students about their disruptive behavior and how it affects the driver's ability to safely deliver them to and from school. The students appeared receptive and no new problems were reported during the afternoon or next morning route.

As is consistent with previous months, Officer Dunne greeted students as they entered the school in the morning and spoke with several parents about the correct use of handicap parking spaces and fire lanes. Officer Dunne completed the DARE curriculum in several of her classrooms and is preparing for DARE graduation in March. Officer Dunne continued to lead the PACT program throughout the month of January.

Whittier Falls Resource Officer (WFRO) Plummer finished his four DARE classes during the month of January. Officer Plummer completed the curriculum with a final exam. All of Officer Plummer's students performed extremely well on the test, which shows that they understood the material delivered. This was another very successful year teaching DARE for Officer Plummer.



Officer Dunne reads Project Mulberry to the class.

WFRO Plummer met with members of DFD and took approximately 10 new bikes of various sizes. These bikes were donated to the toy bank and were left over from the distribution of toys. Officer Plummer has been able to store the bikes and will now have the ability to hand them out to residents in need. Officer Plummer also has a supply of bike helmets that he can also distribute with the bike, promoting biking safety. Officer Plummer has been in conversation with SOCC and DHA to come up with fun and innovative ways to distribute the bikes or reward families/children for community building

During the month of January, WFRO Plummer met with a resident and spoke about the medical marijuana laws and how they applied to DHA policies. Officer Plummer was able to inform the resident about recent law changes and provide the resident with printed material that was designed for easy understanding of the laws. Officer Plummer was also able to provide the resident with safety tips for children around medical marijuana. The resident came to Officer Plummer nervous to speak about the topic and left very comfortable with the laws and ways to deal with the use of his medical marijuana.

Parking Manager Bill Simons has been working on locating alternative parking for when the Robbins block project begins on March 1st. The first challenge will be with the closing of the lot the city was using across from the Citizens Bank drive-thru where upwards of 25 city employees parked for the past three years. These vehicles will need to move back to the Library/McConnell Center lot which normally experiences parking shortages (especially in the winter) already.

Several weeks after the March 1st closing of the employee parking lot, the Locust Street lot, which is used extensively by customers of nearby business will also close. This parking lot was part of the land swap for improvements to the Chestnut Street/Washington Street intersection and the widening of Washington Street in front of the current Robbins building to increase the parking availability there.

The area of Broadway/St. John will also be discussed. The additional of a brew pub and Federal Cigar to the Broadway/Central Ave area as well as the Mechanic Street development may induce the need to regulate the parking in the area.



Parking Enforcement Officer Beth Hawthorn says hello to the horses on a brisk January day.

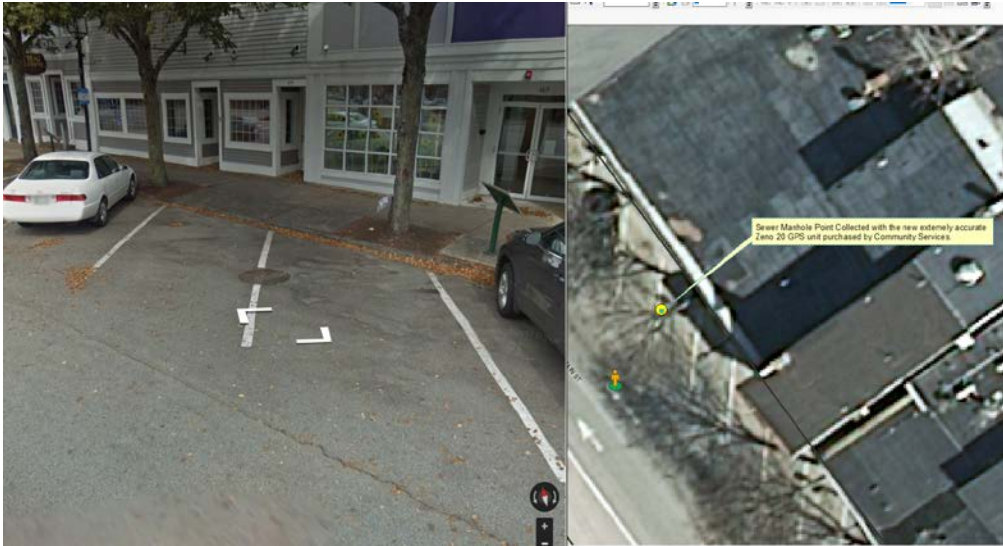
On January 11 and 25, 2018 Sgt. Speidel fulfilled Planning Board Technical Review Committee responsibilities in reviewing an amended set of plans for the mixed use site development at the intersection of Central and Glenwood Avenues, and in reviewing plans for redevelopment of the former Foster's Daily Democrat at 333 Central Avenue.

On January 30, Sgt. Speidel attended a pre-construction conference for the demolition and redevelopment project involving the former Robbins property at 104 Washington Street.

*I can do things you cannot, you can do things I cannot;
together we can do great things.*

Mother Theresa

Tim Pine, Asset Management Technician of the IT Division, will assist and train Community Services staff in use of the new Leica Zeno 20 GPS unit. This is the same GPS unit in use by the IT Office Asset Management team and offers great improvements in both efficiency and accuracy of data collection.



Integrity: *We conduct ourselves at all times in a manner that is ethical, legal and professional, with the highest degree of honesty, respect and fairness.*



Pictured above, Tim Pine is going over the new program with Bill Boulanger.

In the arena of emergency management in January, two EOC (Emergency Operation Center) alert events were enacted. For each event, all department heads and additional appropriate staff were put on notice to monitor in this case, the weather-related events ranging from snow or ice storms to extreme cold. During the course of the events, updates are issued with storm timing, impact information, and any needed preparations.

For Fire & Rescue, one of the most newsworthy events in January was the fire in a residence at 2 Arbor Drive. This fire occurred late in the evening starting in the area of some stored trash outside the building in a carport. A small wind blowing at that time at the building, pushed the fire quickly into the building, as well as destroying two cars in the carport. The residents barely had time to escape and unfortunately, the fire killed three pets. At this time, the fire investigation has narrowed the cause down to a couple of possibilities, both accidental. This investigation was complicated by the fact that the cars fuel tanks had ruptured during the fire, accelerating the fire spread. The picture below taken after the fire during the investigation phase, shows both cars completely burned as well as the wall closest to the two cars, and heavy damage throughout the home.





Pictured right is one happy IT employee! Matt Wentworth is happily showing the new advancement of Dover's enterprise backup solution. As a comparison (pictured left), the stack of 9 tapes is what the old system used to take.

Each tape ran about 4 hours so Matt would swap out 2-3 per day. Assuming that none of the tapes failed to write during the process it would still take days to complete the offsite tape process. Now it is an easy single tape!

This new solution will provide for centralized backup of all municipal data as well as automated replication to a second municipal site's secured storage location. The solution will also offer long term archival on tape as needed. The solution supports the industry standard 3-2-1 backup strategy, to have at least three copies of your data, stored on two different media sets with one backup copy stored offsite.



Advancement + Happy Employee = A Great Day

Another operational project was the establishment of a list that may be good for two years, of individuals who are qualified to work at fire and rescue as firefighter emergency medical technicians or firefighter paramedics. Much time and energy is spent in establishing this list, so that the best potential employees have been identified before a position opens. This process is very labor-intensive starting with the resume review that whittles down the 30+ applications received to approximately 12 or so individuals who are then invited for interviews. That interview process further reduced down that group to approximately 8 who were then asked to attend an all-day assessment center. The all-day assessment center is comprised of a number of critical skill stations that range from the ability of the candidate to speak publicly and represent the organization properly, to core firefighting skills such as searching in full gear and an air pack for simulated trapped fire victims. A special thank you is due to the large number of Fire and Rescue employees who assist in this process in an off-duty capacity as they manage the different skill stations while the attendees are assessed. Without that generous assistance to gauge with real-world skill stations the future of Fire & Rescue, picking the best candidates who really want to be Dover Firefighter's committed to the community would be much more difficult. A special shout out is due to the off-duty members of the Dover Professional Firefighters Association and Dover Professional Fire Officers Association for all the much needed assistance!

Just before the development of the specifications for the purchase of a new ambulance were completed by the ambulance design committee, it was learned that Dodge has a new gasoline motor ambulance package available. Ford, who has produced the previous ambulance chassis, only produces diesel packages for ambulances on a pickup truck chassis. With the industry of Fire and Emergency Medical Services struggling with diesel exhaust regeneration systems, a gasoline motor package is greatly preferred. Exhaust regeneration systems are like a self-cleaning cycle in a home oven, and periodically activate and clean out the exhaust system of diesel trucks. These systems also in most cases, require Diesel Exhaust Fluid tanks that must be filled periodically like the fuel tank on a vehicle, and inject the DEF into the exhaust system as the vehicle operates as part of the exhaust system cleaning process. The problem for the Fire and EMS industry is the extensive idle time on emergency scenes causes the exhaust systems of these vehicles to need frequent regeneration (self-cleaning) cycles which cannot be completed if responding on an emergency call. For over the road trucks, the regeneration cycle can be completed when traveling down the highway for 30 minutes at highway speed. With 4 minute response times on average to emergencies in Dover, and short return trips back to the fire stations, the usage pattern is a mismatch for diesel exhaust regeneration systems. Currently, there is no allowed exemption for these systems on emergency vehicles which is why this is an industrywide problem across the United States. If a vehicle can't complete its regeneration cycle, the motors automatically de-rates into a safe mode reducing power by 25%, until the exhaust system can regenerate. Because of Dodge producing a new gas ambulance package, this package was reviewed by the new ambulance specification committee in January, with the specifications currently being updated with completion projected for February, the bid or group purchase process projected to start in March. Monies were approved by the City Council in December as part of the FY 19 CIP (Capital Improvements Program). The ambulance design community is made up of interested members of the organization of all ranks, with many putting in research time off-duty, to assist in the design of this vehicle that will serve Dover for eight years before being retired with a mileage projected in the vicinity of 100,000 miles and with the equivalent of 300,000 miles of engine idle time. Fire & Rescue thanks these members who have invested many specified hours of off-duty time, visiting other departments to see their ambulances, with the goal of presenting the most efficient and cost-effective ambulance that matches the busy system that Fire & Rescue has. It was through the information learned during these off-duty visits to other departments by these dedicated members, which have moved the specifications to a Dodge Ram ambulance chassis from a Ford chassis and ultimately to the recently discovered gasoline motor ambulance package available for that chassis.

January also saw the first of three drills occur for Fire & Rescue this season related to the State of NH Radiological Emergency Plan. Federal Laws require the State of NH to have a Radiological Emergency Response Plan and these drills creatively test agencies such as Dover Fire & Rescue in what their role is and how to respond. Part of that plan requires evacuation of all residents within a 10 mile zone of Seabrook, so systems to achieve that requirement are tested several times a year. Several communities of residents within that zone are designated to come to Dover where they would be processed for State and Federal Aid. Other communities in that zone go to Rochester and Manchester. Most of the costs for the plans and practicing these plans are borne by the Plant Owner – NextEra Energy with NH Homeland Security coordinating the pass through of funding from NextEra to communities such as ourselves. For the drill in January, Fire & Rescue staff practiced converting the Dover Middle School, into a reception center following Dover's host Community Radiological Plan. As part of that Drill, the new EOC in the new Police Station on Chestnut Street, was staffed as well, as shown in the photo below.



Above, two state of NH Homeland Security and Emergency Management evaluators monitor the operation while Assistant Dispatch Supervisor Lyndsey Salantri handles radio communications. Amateur Radio Operator George Whitehead is out of sight to the right, staffing the backup radio system.

Also in January, work continued on developing the specifications for new turnout gear for all of Dover's firefighters. This purchase will bring Fire & Rescue in line with industry safety standards of each firefighter having two sets of turnout gear. Turnout gear has to be custom fit to each firefighter or otherwise, it does not properly protect the firefighter from heat and other hazards found in the firefighting environment. Each set of turnout gear consisting of a pants and coat and bought as a bulk buy, can cost approximately \$2700 apiece. With proper care and laundering, the life expectancy is 10 years. The long-term plan that has been developed recently so each firefighter has two sets of gear, is to buy a set of turnout gear for all members of the department every five years with the gear being retired at the end of its 10-year lifespan. Fire & Rescue is leaning toward specifying Globe manufacturing Athletix style turnout gear though this is expected to be decided in February after more research. For more information on this firefighting turnout gear go to <http://globeturnoutgear.com/turnout-gear/athletix-product> and to <https://www.youtube.com/watch?v=X8q0PMvdENG> and <https://www.youtube.com/watch?v=fRgcc7VnsWc>. Photo one below shows two Dover firefighters in their turnout gear training on a roof cutting operation while the second photo shows the first arriving crews at a fire on Locust Street suppressing the fire. This illustrates several of the hazards that turnout gear must protect firefighters from which includes falls, heat exposure and burns, infectious diseases, all while allowing for mobility to do job tasks.



3

"Effectively continue to communicate with the community at large through various means and support citizen engagement in local governance and community forums, and provide leadership in the implementation of the City's Master Plan."

Leadership and Governance Outcomes

All land-use related boards and commissions gathered on January 9th for the annual Land Use Board Meet & Greet. Approximately 60 volunteers were in attendance. Senior Regional Planner Kyle Pimental of Strafford Regional Planning Commission and Community Development Planner Carpenter provided a presentation on the nearly-completed Climate Adaptation of the Master Plan.

The Assistant City Manager was part of a panel held by the Dover Chamber of Commerce's Economic Summit. The discussion focused on impacts policy makers have had on economic development in Dover over the past 10 years. Further discussion focused on Community Development and its positive impact on the local economy and the need to continue to reinvest in Dover's infrastructure. Also part of the discussion was a look at overall demographic and economic data for the region.

Training for Wentworth-Douglass Hospital staff continue. On January 9th, Vicki Hebert of Dover Coalition for Youth presented a one-hour long training during the hospital's patient care learning series. The training focused on the stigma surrounding addiction and the language that medical professionals can use to lessen that stigma. Trainings are currently scheduled monthly through February.

On January 24th Vicki Hebert of Dover Coalition for Youth and recovery speaker Persephanie Lesperance spoke at the 10th Annual ConvUrgentCare Strategy Symposium in Scottsdale AZ. The conference was attended by about 150 administrators working in Urgent Care facilities across the country. The presentation discussed the opioid epidemic, the stigma attached to it and ways that the media community can be a part of the solution.



Vicki Hebert and recovery speaker Persephanie Lesperance presented at the Annual ConvUrgentCare Symposium in Scottsdale AZ in January.

Also January 2018 Detective Travaglini conducted security evaluations at the First Parish Church and the Dover Rehab Center.

In January 2018, Detective Matthew Travaglini conducted three "Civilian Response to Active Shooters" (CRASE) presentations, one each at St. Mary's Academy, the Seymour Osman Community Center, and the Seacoast Charter School.

The Department of Planning and Community Development continued to update its blog, Facebook page and Twitter feed to communicate with the public. The Department of Planning and Community Development has 465 Facebook (City of Dover NH Planning) friends and 841 followers on Twitter @DoverNHPlanning).

The Department of Planning and Community Development promoted the Dover Community Trail through the Facebook fan page for the trail (with 1,633 fans).

Planning and Community Development staff continued to update the City website with presentations and reports regarding updates to the Stewardship chapter of the Master Plan, Community Trail, and general demographic information. There are now over 440 sources of information listed. This data can be found at <http://www.dover.nh.gov/government/city-operations/planning/planning-documents/index.html>

Act as if what you do makes a difference. It does. ~William James

Planning and Community Development staff is working on a stakeholder engagement manual. This manual will review ways staff can interact with stakeholders on projects, and in the general course of processing plans and implementing Master Plan recommendations. The manual will be developed to work with efforts of other departments and the Media Services office to ensure that staff are industry leaders in outreach and education.

Media Services continues to document the construction of the new high school, including time lapse and aerial footage of the progress. In addition, Media Services is providing assistance with cable-related work at the new school, and is providing communications assistance to the Joint Building Committee's fundraising subcommittee.

Media Services continued production on several video projects and public service announcements in January, including an update on waterfront development, the new high school, storm management and a state Department of Transportation presentation on the Spaulding Turnpike.

In addition, Media Services provided video content and production to help promote community events organized by the Greater Dover Chamber of Commerce and Dover Main Street, including the Dover Art Walk. In January, Media Services distributed numerous media releases, special alerts, social media coverage and video PSAs related to weather and safety.

Media Services in January continued to train and assist high school students with live broadcast production assistance. This work is expected to continue and expand in the coming months.

Media Services prepared and distributed several newsletters in January, including the weekly editions of Dover Download, special announcements, and updates from the Cochecho Waterfront Development Advisory Committee. These newsletters are designed to help communicate a wide variety of information to the public, of general interest and for specific projects and topics, and to instill the city's commitment to community stewardship.

Media Services distributed 33 press releases and numerous updates to the website and social media in December.

In January, DNTV-22 televised live, rebroadcast and made available online 165 public meetings and 4 special events. In addition, Media Services processed archival audio for all televised meetings, as well as additional audio for several boards and commissions, which is available via the city's archive of meetings and meeting minutes. This level of transparency in local governance adheres to the city's commitment to accountability to the public it serves.

In January, Dover Youth to Youth students conducted 3 presentations for the parents of fifth graders in the PACT parent training program. These presentations included a short description of Youth to Youth and how it works and how their child could join. In addition, Y2Y students played roles in the 4 scenarios in Freeze Action Theater. In this training, parents rotate through a series of 4 scenarios, with each scenario representing a different type of conversation you might have with your child about drugs. As the Youth to Youth students replicated each mock situation playing the roles of "teens" and "parents", a moderator paused the action and challenged those in the audience to consider how they might best respond to the situation.

The **TRUTH About Tobacco** program was provided to the entire Horne Street School 4th grade during January. Each of the 5 classrooms received a one-hour presentation on tobacco advertising and consequences provided by three student teams of Youth to Youth members. Picture below.



During January, Y2Y students recorded 4 radio spots on quitting tobacco at the studios of WOKQ.

On January 15th Y2Y students held a press conference announcing the Tobacco 21 initiative to increase the age to purchase tobacco.

On January 18th 3 members of Dover Youth to Youth testified before the NH Senate Health and Human Services Committee in support of Senate Bill 545, the legislation to increase the age to purchase tobacco.



Above, Senator David Watters at a Youth to Youth meeting, explaining the NH legislative process.

On January 15, 2018, Dover Youth to Youth hosted a regional Day of Action. Dover students, accompanied by students from Newmarket, Epping, and Rochester spent the day conducting a variety of projects. These activities included sticker shock at two grocery stores, recording radio PSAs, a press conference, and a team of students brought \$450 worth of groceries to the residential addiction treatment facility Hope on Haven Hill

Sgt. Speidel performed 13 child passenger seat inspections during the month of January. Each safety check takes approximately 30 to 60 minutes and involves a review of child restraint systems in the caregiver's vehicle, instruction on proper child seat installation procedures, and discussion of safety precautions specific to the age group. Sgt. Speidel is a certified Child Passenger Safety technician through the Safe Kids Worldwide program, and the police department provides this service free of charge.

On January 8, 2018, Det. Travaglini coordinated a "CRASE" drill for the Dover public schools.

On January 10 and January 17, Det. Timothy Burt met with local high school students to review crime scene investigations.

The library has 3,721 subscribers to its two monthly e-newsletters.

Library staff posted 165 items to its various social media platforms in January.

The library has 2,552 Facebook followers, 1,381 Pinterest followers, 1,141 Instagram followers, and 929 Twitter followers.

The library blog was viewed 140 times in January.

The Systems and Technology librarian taught six free Excel and Word classes for patrons.

Library volunteers brought books to Langdon Place residents and returned items they had borrowed previously. This is a regular, every-three-week program to bring library items to shut-in residents.

January due to the extreme cold for part of the month, and storms for much of the rest, saw public outreach requests dwindle. This is normal for January and will pick up as spring gets closer. However, Fire & Rescue due to that cold and weather mentioned above, worked frequently with the City Media Coordinator Mike Gillis, to disseminate a number of safety messages through the city media distribution system. These message included asking residents to adopt a hydrant to shovel after each storm, to clear drains, culverts and roofs to prevent flooding and damage, and safety on black ice during freezing rain events.

Financial and Benchmark Outcomes



"Maintain and strengthen financial stability of municipality to include reporting on any financial concerns and addressing them as they may arise during the course of the fiscal year."

Water Rate: \$4.98
Sewer Rate: \$8.52

FY2018 Total Tax Rate: \$25.87

- City: \$9.96
- School: \$10.91
- State Education: \$2.23
- County: \$2.77

Tax Year = April 1 to March 31
Taxes Due in December & June

In early January the Dover Coalition for Youth submitted a semi-annual report to Wentworth-Douglass Hospital along with a request for another year of funding. We are waiting to hear if the funding request will be granted but are optimistic and expect to hear something in February.

A CARA Local Drug Crisis Grant was submitted in January to SAMHSA. If funded the grant would provide \$50,000 per year for up to 3 years to address youth prescription drug and opioid misuse. If awarded funding would start in mid-June. Additionally, the STOP Act continuation application was submitted in January. The continuation funding would provide the Coalition with \$45,000 to address underage drinking.

Passport executions are providing a new source of revenue for the library. At \$25 per application, the library received \$1,650 in revenue during January. During 2017, 358 passports were processed, resulting in \$8,825 in total revenue to the library for the calendar year.

Accountability: *We promote openness and transparency in our operations ensuring that we are accountable for our actions at all times.*

The library debuted a new 8-device public charging station in January. This was paid for by the Friends of the Library (\$759).

[illegible]

NONE

Fiscal transparency is vital to effective local government and the City of Dover makes it a practice to disclose public records, documents and information that contribute to a better informed community and foster efficiency and accountability.

FY2018 Snow Management Summary Report

Date	Condition	Approx.	Total O/T hrs	Total O/T Cost	Contractor Cost	Salt Ton	Salt Cost	Salt/Sand Yard	Salt/Sand Cost	Sand Only	Sand Cost	Salt Brine	Brine Cost	Total Storm Cost
		Accum. Inches												
12/8/2017	School Dept	0.00	0	\$0.00	\$0.00	14	\$744.10	0	\$0.00	0.00	\$0.00	8640	\$691.20	\$1,435.30
12/9/2017	light snow	0.50	449.15	\$14,279.80	\$910.00	267.5	\$14,217.63	89	\$2,130.66	4.50	\$70.88	0	\$0.00	\$31,608.96
12/12/2017	Pickup Garage only	0.00	0	\$0.00	\$385.00	0	\$0.00	0	\$0.00	0.00	\$0.00	0	\$0.00	\$385.00
12/13/2017	School Dept	0.00	0	\$0.00	\$0.00	14	\$744.10	0	\$0.00	0.00	\$0.00	0	\$0.00	\$744.10
12/13/2017	Snow	3.50	117.32	\$3,520.10	\$920.00	415	\$22,057.25	210	\$5,027.40	34.00	\$535.50	0	\$0.00	\$32,060.25
12/18/2017	Snow	3.00	15.45	\$497.23	\$0.00	127	\$6,750.05	3	\$71.82	0.00	\$0.00	0	\$0.00	\$7,319.10
12/19/2017	School Dept	0.00	0	\$0.00	\$0.00	14	\$744.10	0	\$0.00	0.00	\$0.00	0	\$0.00	\$744.10
12/19/2017	Icy Roads	0.00	700.38	\$21,894.51	\$0.00	202.5	\$10,762.88	27	\$646.38	0.00	\$0.00	1920	\$153.60	\$33,457.37
12/22/2017	Snow	5.00	493.07	\$15,437.05	\$2,386.25	326.5	\$17,353.48	177	\$4,237.38	15.00	\$236.25	960	\$76.80	\$39,727.21
12/23/2018	Snow	1.50	156.88	\$5,520.02	\$1,807.50	88.75	\$4,717.06	294	\$7,038.36	0.00	\$0.00	0	\$0.00	\$19,082.94
12/25/2017	Snow	7.00	559.12	\$13,954.16	\$5,151.25	65.5	\$3,481.33	40.5	\$969.57	4.50	\$70.88	0	\$0.00	\$23,627.18
12/27/2017	Pickup Garage only	0.00	0	\$0.00	\$1,075.00	0	\$0.00	0	\$0.00	0.00	\$0.00	0	\$0.00	\$1,075.00
12/29/2017	Snow	0.25	17.12	\$567.61		19	\$1,009.85	79.5	\$1,903.23	0.00	\$0.00	6550	\$524.00	\$4,004.69
1/2/2018	School Dept	0.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	8.00	\$126.00	0	\$0.00	\$126.00
1/2/2018	Snow removal	0.00	78.38	\$2,608.06	\$0.00	0	\$0.00	5	\$119.70	0.00	\$0.00	0	\$0.00	\$2,727.76
1/4/2018	Snow	11.00	591.78	\$19,174.41	\$7,435.50	155	\$8,238.25	333.5	\$7,983.99	6.00	\$94.50	0	\$0.00	\$42,926.65
1/7/2018	Snow removal	0.00	129.77	\$4,211.40	\$3,825.00	4	\$212.60	14	\$335.16	0.00	\$0.00	0	\$0.00	\$8,584.16
1/10/2018	Snow removal	0.00	126.75	\$4,080.01	\$0.00	0	\$0.00	14	\$335.16	0.00	\$0.00	0	\$0.00	\$4,415.17
1/17/2018	School Dept	0.00	0	\$0.00	\$0.00	0	\$0.00	16	\$383.04	0.00	\$0.00	0	\$0.00	\$383.04
1/17-18-19/18	Snow	8.00	338.66	\$11,005.61	\$4,177.50	376.75	\$20,024.26	129	\$3,088.26	6.00	\$94.50	0	\$0.00	\$38,390.13
1/19/2018	Pickup Garage only	0.00	0	\$0.00	\$860.00	0	\$0.00	0	\$0.00	0.00	\$0.00	0	\$0.00	\$860.00
1/22-24/2018	Snow	2.00	249.43	\$7,751.41	\$770.00	115.75	\$6,152.11	768	\$18,385.92	0.00	\$0.00	\$0.00	\$0.00	\$33,059.44
2/1/2018	Icy Roads	0.00	0	\$0.00	\$70.00	252	\$13,393.80	6	\$143.64	0.00	\$0.00	10505	\$840.40	\$14,447.84
2/2/2018	Icy Roads	0.00	0	\$0.00	\$70.00	175.5	\$9,327.83	25	\$598.50	9.00	\$141.75	0	\$0.00	\$10,138.08
2/5/2018	Icy Roads	0.00	0	\$0.00	\$70.00	18	\$956.70	10.5	\$251.37	7.50	\$118.13	0	\$0.00	\$1,396.20
2/7/2018	Snow	5.00	451.07	\$14,351.06	\$3,281.25	198	\$10,523.70	388	\$9,288.72	6.00	\$94.50	0	\$0.00	\$37,539.23
2-9/15-18	Icy Roads	0.00	7.1	\$274.56	\$0.00	0	\$0.00	80.5	\$1,927.17	0.00	\$0.00	0	\$0.00	\$2,201.73
2/17/2018	Snow*	8.00	339.27	\$11,379.71	\$2,161.25	238.5	\$12,676.28	32	\$766.08	0.00	\$0.00	0	\$0.00	\$26,983.32
		54.75	4820.7	\$150,506.71	\$35,355.50	3,073.25	\$163,343.24	2,741.50	\$65,631.51	100.50	\$1,582.88	9,430.00	\$1,594.80	\$418,014.63

* not all contractor costs have been received

PO Report

January 31, 2018

DAC	PO Date	PO No.	Vendor Name	Amount
Executive	01/10/2018	201806019	CCMSI	\$5,187.65
Community Services Department	01/22/2018	201806336	BROX INDUSTRIES, INC.	\$5,197.96
Community Services Department	01/10/2018	201806020	FISHER AUTO PARTS 451 / FED. AUTO PARTS	\$5,209.73
Planning	01/29/2018	201806534	COMMUNITY PARTNERS	\$5,502.00
Recreation	01/22/2018	201806341	SCOREBOARD ENTERPRISES, INC.	\$5,650.00
Community Services Department	01/22/2018	201806340	NORMAN R. GAGNON CONSTRUCTION, LLC	\$5,700.00
Planning	01/29/2018	201806537	HOMELESS CENTER FOR STRAFFORD COUNTY	\$6,202.00
Executive	01/10/2018	201806023	PRIMEX-P/C GROUP	\$6,273.00
Recreation	01/24/2018	201806440	ADVANCED ROOF MANAGEMENT, INC	\$6,496.80
Planning	01/29/2018	201806533	AIDS RESPONSE OF SEACOAST	\$6,502.00
Community Services Department	01/03/2018	201805844	SHOEM CORP.	\$7,275.00
Planning	01/29/2018	201806543	COMPETITIVE ENERGY SERVICES, LLC.	\$7,500.00
Executive	01/23/2018	201806379	MITCHELL MUNICIPAL GROUP, P.A.	\$7,616.82
Planning	01/29/2018	201806535	CROSS ROADS HOUSE, INC.	\$8,019.00
Planning	01/29/2018	201806538	MY FRIENDS PLACE-CDBG GRANTS/SUBSIDYS	\$10,102.00
Fire and Rescue	01/24/2018	201806475	GC/AAA FENCES, CO., INC.	\$11,680.00
Police	01/03/2018	201805851	PORTSMOUTH FORD	\$21,348.00
Recreation	01/29/2018	201806547	NEW ENGLAND FITNESS DISTRIBUTORS, INC.	\$22,904.00
Community Services Department	01/24/2018	201806477	THE DIRT DOCTORS, LLC	\$23,700.00
Planning	01/29/2018	201806540	STRAFFORD CAP-CDBG GRANTS & SUBSIDYS	\$25,000.00
Planning	01/29/2018	201806541	WOODMAN INSTITUTE	\$47,425.00
Recreation	01/24/2018	201806478	DOCK DOCTORS, LLC. (THE)	\$149,000.00
City Finance Office	01/24/2018	201806483	ALBERT E. SOUTHER	\$165,000.00
Community Services Department	01/03/2018	201805834	DOVER LANDFILL REMEDIAL ACTION TRUST	\$247,544.00
Community Services Department	01/04/2018	201805882	WRIGHT-PIERCE	\$261,019.00

City of Dover

Expenditures of Major Funds

January 31, 2018

(General Fund Includes County, School and Debt Service)

	<u>Budget</u>	<u>Range To Date</u>	<u>Year To Date</u>	<u>% Year To Date</u>	<u>Budget Balance</u>	<u>Encumbrance</u>	<u>Budget Available</u>	<u>% Available</u>
EXPENDITURES								
1000 General Fund								
City Council	\$ 542,058	\$ 31,423	\$ 281,054	52.0%	\$ 261,004	\$ 175,596	\$ 85,409	15.8%
Executive	1,039,875	60,762	682,034	66.0	357,841	226,483	131,359	12.6
Finance	1,785,034	135,973	1,045,330	59.0	739,704	551,169	188,536	10.6
Planning	696,427	50,218	381,478	55.0	314,949	227,150	87,799	12.6
Misc General Government	1,158,599	37,347	538,603	46.0	619,996	69,000	550,996	47.6
Police	8,952,632	728,730	5,287,493	59.0	3,665,139	2,347,660	1,317,479	14.7
Fire & Rescue	8,981,979	746,324	5,439,793	61.0	3,542,186	2,157,278	1,384,908	15.4
Community Service Public Works	7,148,652	574,247	3,098,770	43.0	4,049,882	1,557,435	2,492,447	34.9
Recreation	2,221,921	188,760	1,201,889	54.0	1,020,032	484,480	535,551	24.1
Public Library	1,377,030	99,512	752,353	55.0	624,677	414,272	210,405	15.3
Public Welfare	856,608	47,883	356,262	42.0	500,346	102,844	397,502	46.4
Debt Service	12,014,563	1,008,624	1,027,920	9.0	10,986,643	35,778	10,950,865	91.1
Other Financing Sources/Uses	3,809,937	122,875	860,128	23.0	2,949,809	-	2,949,809	77.4
School	52,113,315	4,417,957	24,196,418	46.0	27,916,897	26,766,351	1,150,546	2.2
Intergovernmental	8,723,284	-	8,713,747	100.0	9,537	-	9,537	0.1
Sub-total : 1000 General Fund	\$ 111,421,914	\$ 8,250,635	\$ 53,863,272	48.3%	\$ 57,558,642	\$ 35,115,495	\$ 22,443,148	20.1%
3213 Parking Activity Fund								
Police	\$ 856,716	\$ 60,925	\$ 309,063	36.0%	\$ 547,653	\$ 132,068	\$ 415,585	48.5%
Sub-total : 3213 Parking Activity Fund	\$ 856,716	\$ 60,925	\$ 309,063	36.1%	\$ 547,653	\$ 132,068	\$ 415,585	48.5%
3320 Residential Solid Waste Fund								
Community Service Public Works	\$ 1,134,688	\$ 103,605	\$ 527,294	46.0%	\$ 607,393	\$ 427,954	\$ 179,440	15.8%
Sub-total : 3320 Residential Solid Waste Fund	\$ 1,134,688	\$ 103,605	\$ 527,294	46.5%	\$ 607,393	\$ 427,954	\$ 179,440	15.8%
3381 McConnell Center Fund								
Recreation	\$ 938,007	\$ 27,849	\$ 221,515	24.0%	\$ 716,492	\$ 166,008	\$ 550,484	58.7%
Sub-total : 3381 McConnell Center Fund	\$ 938,007	\$ 27,849	\$ 221,515	23.6%	\$ 716,492	\$ 166,008	\$ 550,484	58.7%
3410 Recreation Special Revenue Fund								
Recreation	\$ 573,091	\$ 28,690	\$ 281,681	49.0%	\$ 291,410	\$ 97,087	\$ 194,323	33.9%
Sub-total : 3410 Recreation Special Revenue Fund	\$ 573,091	\$ 28,690	\$ 281,681	49.2%	\$ 291,410	\$ 97,087	\$ 194,323	33.9%
5300 Water Fund								
Community Service Public Works	\$ 5,405,641	\$ 297,479	\$ 2,333,167	43.0%	\$ 3,072,474	\$ 677,520	\$ 2,394,954	44.3%
Sub-total : 5300 Water Fund	\$ 5,405,641	\$ 297,479	\$ 2,333,167	43.2%	\$ 3,072,474	\$ 677,520	\$ 2,394,954	44.3%
5320 Sewer Fund								
Community Service Public Works	\$ 7,955,449	\$ 506,758	\$ 3,501,689	44.0%	\$ 4,453,760	\$ 1,065,954	\$ 3,387,806	42.6%
Sub-total : 5320 Sewer Fund	\$ 7,955,449	\$ 506,758	\$ 3,501,689	44.0%	\$ 4,453,760	\$ 1,065,954	\$ 3,387,806	42.6%
6100 Dovernet Fund								
Other Financing Sources/Uses	\$ 1,588,411	\$ 92,233	\$ 631,736	40.0%	\$ 956,675	\$ 364,054	\$ 592,622	37.3%
Sub-total : 6100 Dovernet Fund	\$ 1,588,411	\$ 92,233	\$ 631,736	39.8%	\$ 956,675	\$ 364,054	\$ 592,622	37.3%
Total : EXPENDITURES	\$ 129,873,917	\$ 9,368,175	\$ 61,669,417	47.5%	\$ 68,204,500	\$ 38,046,139	\$ 30,158,361	23.2%

City of Dover

Revenues of Major Funds January 31, 2018

(General Fund Includes Property Taxes and Education Revenues)

	Budget	Range To Date	Year To Date	% Year To Date	Budget Balance	Encumbrance	Budget Available	% Uncollected
REVENUES								
1000 General Fund								
Taxes	\$ 81,343,226	\$ 1,448,142	\$ 43,258,739	53.0%	\$ 38,084,487	\$ -	\$ 38,084,487	(46.8)%
Licenses & Permits	6,156,724	561,270	3,654,453	59.0	2,502,271	-	2,502,271	40.6
Intergovernmental	2,329,263	123,361	2,177,892	94.0	151,371	-	151,371	6.5
Charges for Services	3,552,922	423,423	2,322,831	65.0	1,230,091	-	1,230,091	34.6
Miscellaneous Revenue	698,537	77,891	467,805	67.0	230,732	-	230,732	33.0
Education	16,843,130	4,157,314	10,185,309	60.0	6,657,821	-	6,657,821	39.5
Operating Transfers In	393,575	-	-	0.0	393,575	-	393,575	100.0
Other Financing Sources	95,000	-	22,400	24.0	72,600	-	72,600	76.4
Sub-total : 1000 General Fund	\$ 111,412,377	\$ 6,791,401	\$ 62,089,429	56.0%	\$ 49,322,948	\$ -	\$ 49,322,948	44.3%
3213 Parking Activity Fund								
Licenses & Permits	\$ 192,840	\$ 27,705	\$ 155,586	81.0%	\$ 37,254	\$ -	\$ 37,254	19.3%
Parking Income	508,876	41,654	358,549	70.0%	150,327	-	150,327	29.5%
Parking Fines	155,000	19,651	105,859	68.0%	49,141	-	49,141	31.7%
Other Financing Sources	0	-	-	0.0	0	-	0	0.0
Sub-total : 3213 Parking Activity Fund	\$ 856,716	\$ 89,010	\$ 619,994	72.0%	\$ 236,722	\$ -	\$ 236,722	27.6%
3320 Residential Solid Waste Fund								
Intergovernmental	\$ 10,000	\$ -	\$ -	0.0%	\$ 10,000	\$ -	\$ 10,000	100.0%
Charges for Services	930,000	78,963	578,761	62.0%	351,239	-	351,239	37.8%
Miscellaneous Revenue	0	28	243	0.0	(243)	-	(243)	0.0
Other Financing Sources	68,582	-	-	0.0	68,582	-	68,582	100.0
Sub-total : 3320 Residential Solid Waste	\$ 1,008,582	\$ 78,991	\$ 579,004	57.0%	\$ 429,578	\$ -	\$ 429,578	42.6%
3381 McConnell Center Fund								
Miscellaneous Revenue	\$ 709,772	\$ 57,974	\$ 394,637	56.0%	\$ 315,135	\$ -	\$ 315,135	44.4%
Operating Transfers In	228,135	21,654	166,152	73.0	61,983	-	61,983	27.2
Sub-total : 3381 McConnell Center	\$ 937,907	\$ 79,628	\$ 560,789	60.0%	\$ 377,118	\$ -	\$ 377,118	40.2%
3410 Recreation Special Revenue Fund								
Charges for Services	\$ 437,015	\$ 62,657	\$ 247,781	57.0%	\$ 189,234	\$ -	\$ 189,234	43.3%
Miscellaneous Revenue	15,500	543	2,446	0.2	13,054	-	13,054	84.2
Operating Transfers In	15,500	-	-	0.0	15,500	-	15,500	100.0
Other Financing Sources	80,934	-	-	0.0	80,934	-	80,934	100.0
Sub-total : 3410 Recreation Special Revenue Fund	\$ 548,949	\$ 63,200	\$ 250,227	46.0%	\$ 298,722	\$ -	\$ 298,722	54.4%
5300 Water Fund								
Charges for Services	\$ 5,233,333	\$ 215,802	\$ 1,883,490	36.0%	\$ 3,349,843	\$ -	\$ 3,349,843	64.0%
Miscellaneous Revenue	70,500	2,979	38,192	54.0	32,308	-	32,308	45.8
Sub-total : 5300 Water Fund	\$ 5,303,833	\$ 218,780	\$ 1,921,682	36.0%	\$ 3,382,151	\$ -	\$ 3,382,151	63.8%
5320 Sewer Fund								
Intergovernmental	\$ 3,910	\$ -	\$ 962,021	24604.0%	\$ (958,111)	\$ -	\$ (958,111)	-24504.1%
Charges for Services	7,013,094	354,023	2,518,289	36.0	4,494,805	-	4,494,805	64.1
Miscellaneous Revenue	57,000	4,825	48,124	84.0	8,876	-	8,876	15.6
Other Financing Sources	690,557	-	-	0.0	690,557	-	690,557	100.0
Sub-total : 5320 Sewer Fund	\$ 7,764,561	\$ 358,848	\$ 3,528,434	45.0%	\$ 4,236,127	\$ -	\$ 4,236,127	54.6%
6100 Dovernet Fund								
Charges for Services	\$ 1,061,910	\$ 56,934	\$ 565,546	53.0%	\$ 496,364	\$ -	\$ 496,364	46.7%
Miscellaneous Revenue	25,000	-	25,000	1.0	-	-	-	0.0
Operating Transfers In	-	-	-	0.0	0	-	0	0
Other Financing Sources	179,314	-	-	0.0	179,314	-	179,314	100.0
Sub-total : 6100 Dovernet Fund	\$ 1,266,224	\$ 56,934	\$ 590,546	47.0%	\$ 675,678	\$ -	\$ 675,678	53.4%
Total : REVENUES	\$ 129,099,149	\$ 7,736,791	\$ 70,140,104	54.0%	\$ 58,959,045	\$ -	\$ 58,959,045	45.7%

City of Dover

Arena - General Fund Revenue & Expenditure Report (Including Arena Debt Service attributed to the General Fund) January 31, 2018

	<u>Budget</u>	<u>Range To Date</u>	<u>Year To Date</u>	<u>% Year To Date</u>	<u>Budget Balance</u>	<u>Encumbrance</u>	<u>Budget Available</u>	<u>% Available</u>
Revenue	1,265,250	189,576	758,402	59.9	506,848	0	506,848	40.1
Expenditures	991,394	99,550	530,685	53.5	460,709	249,714	210,995	21.3
Debt Service								
Principal	241,823	0	0	-	241,823	0	241,823	100.0
Interest	32,033	0	0	-	32,033	0	32,033	100.0
	0	90,026	227,716	0.0	(227,716)	(249,714)	21,998	269.6

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Public Safety Communications Upgrade:

Project Description: Police, Fire and Community Services radio communication platforms are in need of an upgrade. This project will upgrade the current system to a microwave communication system capable of supporting current technology. The project will upgrade all Community Services mobile radios to a digital GPS based system, and will upgrade all Fire Department mobile, portable and base radios from analog to digital. The system will expand other city services such as remote water meter reading as well as provide a platform for city wide data communications.

Current Update: Captain Breault continues to oversee the Public Safety Communications Improvement Project, which is funded as part of the Capital Improvements Program. The project includes replacing outdated public safety radio equipment that is at or near the end of its useable life. The project will increase public safety radio communications broadcast and receive strength by the installation of three new radio towers. During the month of December crews from Allstate Tower Inc. erected the 150' towers and the equipment shelters.

Last Update: Captain Breault continues to oversee the Public Safety Communications Improvement Project, which is funded as part of the Capital Improvements Program. The project includes replacing outdated public safety radio equipment that is at or near the end of its useable life. The project will increase public safety radio communications broadcast and reception strength by the installation of three new radio towers.

During the month of October crews from Allstate Tower Inc. constructed the foundations for the towers, the tower equipment shelters and emergency generators. Also, as part of the radio improvements project, during the month of October new mobile digital radios were installed in 70 Community Services vehicles.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

City Hall – Structural / Safety Improvements / Atrium Replacement (Community Services)

Project Description: This project makes repairs to the Municipal Building. Repairs include replacement of existing elevator atrium structure, where panels and joints need replacement or repair. The steel clock tower will be painted, refurbishing of the gold leaf on the lower tower dome and repair as needed of the louvers.

Current Update: Skovic Construction continues work on this project, which includes replacement of the vertical glass curtain wall, reconstruction of the glass ceilings on ground and second floor by replacing them with heated metal roofing. Due to last week's warm weather the contractor was able to get the electric melting system installed with the electrician. They have also cut the reglets for the new flashing into the perimeter masonry. Upcoming weeks they will be installing the copper roofing, then the staging will come down.



Last Update:

Skovic Construction has begun work on the atrium replacement project, which includes replacement of the vertical glass curtain wall, reconstruction of the glass ceilings on ground and second floor by replacing them with heated metal roofing. To date the new curtain walls on the first and second floor are in place and the second floor glass ceiling has been replaced with a solid structure.

City Hall – Customer Service Center (Planning Department)

Project Description: With the relocation of the Police Department from the ground floor of City Hall, the Council authorized the creation of a customer service center, where the City Clerk/Tax Collection office as well Water/Sewer billing and the Parking Bureau will all be located off a common lobby, to enhance the efficiency of the customer experience.

Current Update:

Clean up and moisture remediation has been completed, waiting to start repairs to walls and furniture replacement.

Assistant City Planner Benton coordinated other improvements to City Hall such as the installation of the new Customer Service Center sign on the Locust Street entrance and Department signage throughout the building to match the historic integrity of City Hall.

Last Update:

The Customer Service Center on the Ground Floor of City Hall opened on November 13 to the public. A punch list of items was created and continued being worked on in December for the Ground Floor. The Customer Service Center is home to the City Clerk/Tax Collector office, Water & Sewer Billing Office, and Parking Bureau. The Information Technology Department also now resides on the Ground Floor. After an issue with the sprinkler on December 31st, more work to some of the walls, flooring, and furniture will be necessary.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

HVAC Citywide Building Transducer Replacement (Community Services)

Project Description: This project provides replacement of 14 HVAC System Control Modules in 6 city buildings, including the Public Works Facility, McConnell Center and Library

Current Update:

Library plans are under review for cost estimation verification by Martini Northern due to the excessive figure presented with the plans. Awaiting funding.

Last Update:

HVAC Siemens panels in municipal buildings are being replaced, in process, City Hall underway at this time, the McConnell Center Arena, Indoor Pool are complete, Public Works had one panel replaced and two or three smaller to do in the future. The Library panel will be done when the HVAC project is underway.

Library plans are under review for cost estimation verification by Martini Northern due to the excessive figure presented with the plans. Awaiting funding.

Park Improvements – Amanda Howard (Recreation)

Project Description: This neighborhood park, serving the residents of Elmwood Avenue, Fairview Avenue, Atlantic Avenue and Cross Street is will be updated to create a more user friendly experience while still honoring the memory of Amanda Howard.

Current Update:

Project has not begun yet.

Last Update:

Park Improvements – Veteran’s Park (Recreation)

Project Description: A memorial to those who served our Country will be constructed on the lawn of the McConnell Center. This park will feature a plaza and salutes those who served all branches of the armed services.

Current Update:

The Dover Veterans Park project continues to move along with the brick and granite installation happening this month. Donated brick orders are still coming in very strong. A dedication ceremony is planned for Veterans Day, November 11th.

Last Update:

The Dover Veterans Park project continues to move along with the site work underway and donated brick orders coming in very strong. A dedication ceremony is planned for Veterans Day, November 11th.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Multi Use Trail Development (Planning Department)

Project Description: This work will bring the trail along Central Avenue/Durham Road to Daley Drive, constructing trail heads and trails running parallel to the Bellamy River over land of the Dover Middle and High Schools connecting to Bellamy Road. From here, users will be able to connect through Bellamy Park to trails parallel to the Bellamy River, along property fronting on NH Route 155.

Current Update:

Assistant City Planner Benton continues to facilitate the Transportation Alternatives Program (TAP) project to expand the Community Trail with help from CLD Consulting Engineers and the Community Trail Advisory Committee. The project is in review to be able to go out to bid for construction however easements need to be in place first so Assistant City Planner Benton and Assistant City Manager Parker are negotiating and drafting those easement documents with the assistance from the City's Legal Counsel. The project is still on schedule to be fully completed by the end of 2018. This is all part of the \$320,000 federal grant to design, engineer, and construct improvements to the Community Trail south of Fisher Street and north of Fourth Street.

The Planning Department is under negotiations with an engineering firm to complete Phase IV of the Community Trail through a second round of TAP funds. Assistant City Planner Benton and Assistant City Manager Parker met with the engineering firm on January 29th to discuss the cost proposal. The project is proposing to continue the trail from the future trailhead at Route 108 and Rutland Street to the Middle School and High School, paving a new walk way along the school fields into Bellamy Park, then behind the multi-family housing units and terminating this phase at Route 155.

Assistant City Planner Benton, Media Services, and the Community Trail Advisory Committee continue to modify a short video to promote the Dover Community Trail.

Last Update:

Assistant City Planner Benton continues to facilitate the Transportation Alternatives Program (TAP) project to expand the Community Trail with help from CLD Consulting Engineers and the Community Trail Advisory Committee. The project is in the final design stage. The project is still on schedule to be fully completed by the end of 2018. This is all part of the \$320,000 federal grant to design, engineer, and construct improvements to the Community Trail south of Fisher Street and north of Fourth Street. Assistant City Planner Benton and Assistant City Manager Parker met with Downeast Energy on October 24th to discuss the possibility of obtaining a formal trail easement.

The Planning Department received a municipality agreement from NH DOT in order to begin the next phase of the TAP funds that Dover was approved to receive. The project is proposing to continue the trail from the future trailhead at Route 108 and Rutland Street to the Middle School and High School, paving a new walk way along the school fields into Bellamy Park, then behind the multi-family housing units and terminating this phase at Route 155. The City went out to bid for design/engineering services in August and selected a firm to continue negotiations further before requesting an award of bid.

Planning and Community Development staff completed development contracts for all recipients of FY18 CDBG funding.

Assistant City Planner Benton, Media Services, and the Community Trail Advisory Committee are working on a short video to promote the Dover Community Trail.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

General Street Improvements (Community Services)

Project Description: Annual road paving based on road surface management program.

Current Update:

Contractors finished up with the paving and gravel shoulders on Chestnut Street, Spruce Lane, Fourth Street and Leighton Way.

Last Update:

In the month of September, Spruce Lane was reclaimed and cement injected with a base coat. This was from Back River Road to Mast Road.

In the month of October, the contractor will be raising structures and applying the top coat. Another contractor milled Chestnut Street from the RR tracks to Central Avenue. Fourth Street was milled from the Fourth Street Bridge to Chestnut Street.

Approval has been received for additional paving work through City Council.

Street Lighting Improvements (Community Services)

Project Description: LED lights provide improved nighttime visibility and safety through better color rendering, more uniform lighting distributions and the elimination of many dark areas between poles. LEDs reduce direct and reflected uplight which are the primary causes of urban sky glow. There is typically a 40-80% energy savings (depending on incumbent lighting source and lighting design criteria), and a potential 50-75% street lighting maintenance savings.

Current Update:

Affinity Lighting commenced installation and has installed one gateway at the Police Station. Once that gateway was installed the LED light change over started. Four hundred and twenty four LED lights were changed out as well as four hundred and twenty four smart controls were installed.

Last Update:

A Purchase Order has been issued to Affinity Lighting. An initial delivery of 1,568 lighting fixtures has been delivered to Community Services. A total of 1,781 lights are slated for replacement. GIS work will be completed the Week of October 9 to map & locate all street lights. A final review of the proposed lighting plan will be completed late-October, with installation of the new LED's expected to begin by the first of November. The conversion process is expected to last throughout the month of November.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Street Reconstruction – Roberts Road (Community Services)

Project Description: This project will reconstruct the road as well as drainage improvements. This project will supplement the general street improvements.

Current Update:

The Conservation Commission and the Planning Board reviewed and endorsed/approved a Wetland Permit Application and Conditional Use Application. The Wetland Permit has been submitted to the NHDES for approval. The project also received a NHDES Shoreland Protection Permit for work adjacent to the Piscataqua River. Holden Engineering is finalizing design and bid specifications. Staff anticipate putting the project out for construction bids in February. The overall project will include the reconstruction of roadway to include an improved roadway bed and standardized pavement width. Drainage improvements will be incorporated.

Last Update:

Engineering received engineering consultant proposals on October 17, 2017. Holden Engineering was selected, and the contract will go to City Council for approval in November.

Street Reconstruction – Bellamy Road (Community Services)

Project Description: This project will design and construct improvements for drainage, sidewalks and street reconstruction from 66 Bellamy Road to Durham Road.

Current Update:

Funding has been approved. Waiting on approval of Route 108 Corridor Study to make sure project conforms to recommendations of Study.

Last Update:

Funding has been approved. Waiting on approval of Route 108 Corridor Study to make sure project conforms to recommendations of Study.

Street Reconstruction & Water Main Replacement – Tanglewood Drive (Community Services)

Project Description: This is a road reconstruction project for the entire street. In addition to drainage and roadway improvements, there is water service and main work being accomplished.

Current Update:

Street is slated for reconstruction including new drainage. Design is on hold until survey work can be completed along Spruce Lane and Old Garrison Road, as new drainage infrastructure from Tanglewood will likely tie in there.

Last Update:

Street is slated for reconstruction including new drainage. Design is on hold until survey work can be completed along Spruce Lane and Old Garrison Road, as new drainage infrastructure from Tanglewood will likely tie in there.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Street Reconstruction – Keating / Birchwood (Community Services)

Project Description: This project will design and construct improvements for drainage, sidewalks, water/sewer and street reconstruction on Birchwood, Emmet, Keating, Renaud, and Shamrock.

Current Update:

Road – top coat of paving on recently paved roadways and driveway. Landscaping and other miscellaneous improvements will be completed as part of project completion. Minor drainage improvements may be included based on the winter and spring conditions.

Water- no attentional water work anticipated other than raising structures to final pavement elevation.

Sewer- no attentional sewer work anticipated other than raising structures to final pavement elevation.

Last Update:

Utility work has continued primarily on Renaud Ave. and Stark Ave. We continued to encounter ledge. Birchwood Place and Emmet Lane received sidewalks and individual driveways. The contractor reconstructed and paved Shamrock Lane, Keating Ave., and Hayes Lane. We began to reconstruct Renaud Ave. We will continue to reconstruct Renaud Ave. and will add curbing, sidewalk and retaining walls throughout the neighborhood in November.

Street Reconstruction – Spur Road (Community Services)

Project Description: Project would reclaim, inject concrete base and repave Spur Road. The design of this project will take into account elements, as outlined in the City's Complete Streets/Traffic Calming policy.

Current Update:

RFP's for design services are currently being reviewed.

Last Update:

RFP for design is currently being advertised.

Street Reconstruction & Water Main Replacement – Richardson Drive (Community Services)

Project Description: This project will design and construct improvements for drainage, curbing and street reconstruction for the whole road.

Current Update:

Work has been suspended for the winter and anticipate returning to do top coat of pavement in April of 2018. The following work will be completed in the spring:

Road – top coat of paving on recently paved roadways and driveway. Minor drainage improvements may be included based on the winter and spring conditions.

Water- no attentional water work anticipated other than raising structures to final pavement elevation.

Sewer- no attentional sewer work anticipated other than raising structures to final pavement elevation.

Last Update:

Work has been suspended for the winter and anticipate returning to do top coat of pavement in April of 2018. Other contractors may be present to connect individual services to the recently installed municipal sewer line. These will be private contracts between the residents and contractor.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Street Reconstruction – Oak / Ham / Ela / Broadway (Community Services)

Project Description: This Complete Street project will design and repair the infrastructure in the Oak, Ham, Ela and Broadway area of the city. The project will include improvements to streets, water/sewer drainage, roadways and sidewalks.

Current Update:

This project is contingent on new Broadway Railroad Culvert, as this entire neighborhood will drain downstream to an already overloaded drainage system.

Last Update:

This project is contingent on new Broadway Railroad Culvert, as this entire neighborhood will drain downstream to an already overloaded drainage system.

Intersection Reconstruction – Sixth / Venture Drive (Community Services)

Project Description: This project will include the design and reconfiguration of the intersection of Sixth Street and Venture Drive. The changes will widen the turning lanes and accommodate larger vehicle, which run into issues turning onto and from Venture Drive.

Current Update:

Engineering will move forward with hiring a consultant to design a wider entrance on venture drive. This will involve relocation poles and underground electrical services.

Last Update:

Pavement had been restriped to better facilitate truck traffic. Things seemed to improve, which may negate need to widen intersection. Need to verify with Economic Development Department. Funding could be re-programmed for traffic signal cameras.

Street Reconstruction – Floral Avenue & Brick Road (Community Services)

Project Description: This project will design and construct improvements for drainage, sidewalks and street reconstruction from Central Avenue to Oak Street on this pair of roads.

Current Update:

City staff has continued to work with abutters prior to formalizing the design. It is the intention to include the following work in this project:

Road – reconstruction of roadway to include an improved roadway bed with a standardized pavement width and pedestrian sidewalks. Drainage improvements will be incorporated.

Water- connect the existing water line in Floral Avenue to the existing line in Oak Street.

Sewer- construction new sewer mains and services from Oak Street to the top of High Ridge Avenue. Extend sewer main to homes along Floral Avenue to eliminate long service runs.

Last Update:

City staff has continued to work with abutters prior to formalizing the design.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

General Sidewalk Improvements (Community Services)

Project Description: Annual management program for sidewalk replacements.

Current Update:

Staff are assessing potential sidewalk projects for the 2018 season.

Last Update:

Sidewalk construction/reconstruction was completed on Locust Street from Silver Street to the 93rd Street on the west side and from Silver Street to 84th Locust Street on the east side. Work was also completed along the front of 191 Washington Street and along the front of 63 Fourth Street. This concludes the sidewalk work for the 2017 construction season.

Sidewalk – Upper Whittier Street (Community Services)

Project Description: Design sidewalk on Whittier Street between Glenwood Ave and Sixth Street. The sidewalk location will be determined by the design.

Current Update:

Survey/design work will be initiated this winter. The goal is to be ready for bidding by spring 2018.

Last Update:

Survey work will be initiated this fall. Limits of the right-of-way need to be established before design can begin. Engineering staff will design in-house. Goal is to be ready for bidding by spring 2018.

Varney Brook Pump Station Upgrade (Community Services)

Project Description: This project will update the Varney Brook Pump station, which is the City's third largest pump station. The plant had to be shut down and flow had to be bypassed due to equipment failures. The station handles all flows from the southern end of Dover, and pumps directly to the Waste Water Treatment Plant on Middle Road.

Current Update:

No activity.

Last Update:

City Council has approved the scope of work for the design with Wright-Pierce.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Storm Drain Replacement – Broadway RR Culvert (Community Services)

Project Description: This project includes replacing a deteriorating granite box culvert, which is undersized, under the railroad tracks at Red's Shoe Barn with a 72" drain line. The culvert accepts all the drainage from the New York Street, Ham Street and Ela Street portions of the city.

Current Update: The City has reached an agreement with Red's for an easement. The City has acquired the easement from the railroad. The city is pursuing the final easements and moving forward with the wetlands permitting.

Last Update:

City pursuing eminent domain on the RR for the easement. An agreement has been reached with Red's on condition of an easement.

Central & South End Stations – Heating Plant (Fire Department)

Project Description: Replacement of boiler and apparatus floor heaters

Current Update:

In January, progress continued on developing the specifications for the replacement of the heating systems for both the South End Fire Stations and the Central Fire Stations. A direct vented Lochinvar high efficiency boiler model has been chosen as the replacement boiler. In addition to that, the project scope objectives have evolved, to move to installing in each fire station, two smaller boilers versus replacing the one larger boiler in kind that each station has currently. The idea is 80% of the time, only one boiler will be needed to be running and when there are peak cold times, both boilers will run. The advantage in addition to more efficient operation and cost savings than what currently happens, is if there is a boiler failure, there is always at least one boiler operating while the other boiler gets repaired. Fire & Rescue has learned in the current manufacturing environment, it can take days to weeks even with a rush order, to get replacement parts for boilers in some instances. Because of that, Fire and Rescue is reducing the risk of requiring emergency temporary heat in a fire station due to a heating boiler failure. When this project is completed, all three fire stations will have two boiler systems each and a degree of redundancy that comes with that, in the event of a boiler failure. In addition to defining the boiler model, it was determined that by buying for boilers of the same size, there will be a bulk buy discount that will save the City money and initial cost estimates for these boilers and the conversion, appears to be within the budget money appropriated. Fire & Rescue will be working in February with the City's contracted heating vendor on installation pricing and or bid specifications under the guidance of purchasing department.

Last Update:

The goal is by the end of December, to have a bid package ready to go out for both.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Water Main Replacement – Main Street / Washington Street (Community Services)

Project Description: Replacement of existing 8-inch cast iron main on Main Street from Broadway to Washington Street. Replacement includes main on Washington Street from Main Street to Lower Square.

Current Update:

Underwood Engineers has been hired to complete the design of the new water main. They are currently surveying portions of lower Washington Street and Main Street.

Last Update:

Underwood has started on the survey and design.

Street / Sidewalk Reconstruction & Water/Drainage/Sewer Reconstruction – Hanson Street (Community Services)

Project Description: This project will be a total reconstruction of the street and sidewalks along this urban street, connecting Central Avenue with Henry Law Avenue. Included in the reconstruction will be an updating of water and drainage utilities.

Current Update:

Construction bids were received on January 30th, staff expects to award the bid in February and start construction in March or April. Overall project to include:

Road – reconstruction of roadway to include sidewalks and improved roadway bed. Drainage improvements will be incorporated.

Water- reconstruction of water line from the intersection of Henry Law Ave to Central Ave., including services.

Sewer- reconstruction of sewer line and services from the intersection of Henry Law Avenue to a point in-front of 17 Hanson Street.

Last Update:

Engineering staff reviewed and revised reconstruction plans that were completed in 2015. The project was put out to bid in December, with contractors expected to submit bids in January of 2018. Overall project to include:

Road – reconstruction of roadway to include sidewalks and improved roadway bed. Drainage improvements will be incorporated.

Water- reconstruction of water line from the intersection of Henry Law Ave to Central Ave., including services.

Sewer- reconstruction of sewer line and services from the intersection of Henry Law Avenue to a point in-front of 17 Hanson Street.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Water & Sewer Main Replacement – Spaulding Turnpike (Community Services)

Project Description: NH DOT is expanding the Spaulding Turnpike at Dover Point. There are conflicts with the water lines in the DOT's right-of-way and the water line must be relocated to avoid those conflicts. Part of agreement upon original construction of the Spaulding Turnpike stated all utilities placed in the right-of-way after construction will be the responsibility of the municipality. Thus making the relocation of the water lines the responsibility of the City of Dover.

Current Update: Temporary sewer pumps are in place and will continue to operate until the permanent crossings are done in two years. Housing to protect the pumps for winter are under construction.

Last Update: Temporary sewer pumps are in place and will continue to operate until the permanent crossings are done in two years. Housing to protect the pumps for winter have been constructed.

Water & Sewer Main Replacement – Oak/Broadway/Ela (Community Services)

Project Description: Replaces sewer mains on Oak Street, Broadway, Florence Street & Rose Street

Current Update: This project is contingent on new Broadway Railroad Culvert, as this entire neighborhood will drain downstream to an already overloaded drainage system.

Last Update:

Sewer Inflow / Infiltration Mitigation (Community Services)

Project Description: . Description: During periods of heavy rainfall and snow melt, clean water enters the sewer distribution system and occasionally causes surcharging of the system resulting in the bypass of untreated sewerage to the Bellamy and Cochecho Rivers. This storm water is known as Inflow and Infiltration and must be reduced. It enters the systems through leaking manholes, pipes, roof leaders, basement drains and catch basins discharging to the sewer system.

Current Update:

City Council has approved a contract extension for Wright-Pierce. They have begun cleaning and TV work in the downtown area.

Last Update:

The city received results from two rain events. Wright-Pierce is waiting for results from two more rain events to put into a wastewater model.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Cochecho Riverfront Site Preparation (Planning Department)

Project Description: This project will focus on the improvements to the City's waterfront parcel, to create a developable site for private investment. Work includes removing the aggregate from the "bluffs" as well as raising the elevation of the parcel to mitigate impacts of sea level rise

Current Update:

Planning and Community Development staff continued to assist the Cochecho Waterfront Development Advisory Commission in its pursuit of developing the City's River Street parcel. Staff organized and attended meetings of the Developer Review sub-committee on January 8th, 10th and 11th, with the first two meeting being interviews of the 6 developers that submitted response to the RFQ. The CWDAC meeting was held on January 16th. Staff appeared on Open Mike with Dana Lynch on January 3rd to promote the waterfront development process. Staff attended a pre-permitting meeting on January 11th in Concord with DES and other agencies to discuss design plans and permitting requirements. Staff met with the Finance Director on January 17th to discuss the waterfront TIF financing and projected expenditures for the waterfront. Staff organized and attended meeting of the Park Design sub-committee on January 30th to review the building design options.

Last Update:

Staff organized and attended a meeting on December 5th between City technical staff and consultants from Horsley Witten to review the development plans. The CWDAC meeting was held on December 19th. Staff worked with Purchasing Agent to receive and open the developer RFQ submittals on December 6th. Staff attended a City Council meeting on December 13th for the award of the public dock bid and approval of a donation from the Great Bay Rowing Club. Staff organized and attended a meeting of the RFQ Review Sub-committee on December 15th to review the 6 submittals. Staff attended a waterfront pre-blast meeting on December 20th with representatives from Severino Trucking and Maine Drilling & Blasting.

Cochecho Riverfront Park / Dock Development (Planning Department)

Project Description: This project will focus on the improvements to the Cochecho Riverbank and extension of the Riverwalk Park to allow for recreational access and activities as well as the extension of utilities and site improvements, landscape work and parking areas. Also docks and water access areas will be included to encourage activities to begin in the near future.

Current Update:

The planned Paddlesports dock is funded by the LWCF grant award of \$150,000 contract with the Doc Doctors was awarded with a planned installation this spring. This will be combined with other Waterfront development plans to begin the improvements to the park overall in the next year.

Last Update:

The Paddlesports dock construction project went out to bid this month for the second time. The bids were received and The Dock Doctors of Vermont is the selected contractor which was sent to the City Council and approved at its December meeting and with plans for a spring construction schedule. Great Bay Rowing contributed \$19,000 toward the total cost of \$149,000.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Cochecho River Dredge Cell Closure (Planning Department)

Project Description: As part of the dredging of the Cochecho River, a storage cell for the soil removed from the river bed was created alongside Maglaras Park. Additional material were inserted into the cell as well, and working with the partners, the cell is being capped and closed, per a DES permit.

Current Update: Project currently on hold.

Last Update:

Cochecho Riverfront Bank Stabilization (Planning Department)

Project Description: This project focuses on the improvements to the Cochecho Riverbank, to ensure that the soil erosion that currently occurs is curtailed, and stabilized, so that development of the adjacent waterfront property can be undertaken.

Current Update:

Staff attended a pre-permitting meeting on January 11th with various state and federal permitting agencies and the city's consultants to discuss numerous environmental issues. These included shoreland stabilization design options based on the historical uses of the property and erosion issues of the riverbank during flooding events. Both structural and living shoreline designs were discussed. Several larger trees along the riverbank will be preserved during construction to provide wildlife habitat. The consultants are working to complete 75% design plans that can be used to file the required permit applications.

Last Update:

The City has hired Horsley Witten Group for assistance with developing plans for the redevelopment of the waterfront, including engineering plans for the stabilization of the shoreline along the Cochecho River. These design plans will be incorporated into the park design plans. Meetings will be held with the various state and federal permitting agencies throughout the process. The schedule is for the final plans to be completed by June of 2018.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Fire Apparatus / Vehicles- Fire Quint/Pumper Replacement (Fire Department)

Project Description: Replacement of 2000 Smeal pumper/Quint Replacement of 1994 Becker Pumper

Current Update:

Also in December, the next to last shop order review of the new Quint vehicle by the specification committee, which is a full ladder truck with the attack capability of a fire engine, was completed with a few minor changes required in the shop order language. Paint was matched to the fleet of existing vehicles, and other details finalized.

The expectation is this vehicle will last 20 years, respond on approximately 10,000 incidents, and accumulate in the vicinity of 150,000 miles and 12,000 motor hours based on current usage patterns. When delivered in 6 to 7 months approximately, the vehicle will look close to this design taken from the manufacturer's website at: <https://e-one-aerials.com/metro-100-quint-micro.html>

Last Update:

The EONE factory is finishing the production order and final production drawings that are the next step, after the engineering meeting that was held in September with the department representatives that visited the factory. That production order and drawings package should arrive in Dover in November where the committee will review it carefully and approve, and or make final minor changes. The vehicle then enters the production line with delivery expected between mid-May and mid – June as it looks currently...

McConnell Center Generator (Fire Department)

Project Description: Emergency Generator – McConnell Center

Current Update:

Installation was completed in December on the McConnell Center Emergency Power Generator and Transfer Switch. Wiring, installation, and site work was finished with the help of Community Services, Eversource, and Martineau Electric staff. As of the writing, the generator and transfer switch is operational and can power the McConnell Center, which is the City's primary shelter location as designated by various emergency plans.

What is left for work is the installation of a fence on top of the concrete wall pictured here, and around the front of the generator, transformer, and transfer switch. A pre-bid meeting was facilitated by City Purchasing Agent Ann Legere in December with bids due back in January. When this project is finished, a 5-year attempt at protecting the McConnell Center ends. This \$300,000 project was made possible by a grant that covered \$100,000 of the installation costs, coupled with funding from the City's Capital Improvements Program. This grant was competed for and ultimately obtained from, NH Homeland Security and Emergency Management.

Last Update:

In other project news, progress on the CIP approved and partially grant funded emergency power generator installation in the McConnell Center, which is the City's primary shelter space should a shelter be needed in Dover, is progressing and is moving through the planning phase. The transfer switch which will automatically start the generator and power the building when an outage occurs, arrived for storage at the Community Services Garage until installation time occurs. The photos below show Fleet Services Manager Sam Crowley unloading the transfer switch from the delivery truck, and Bill Boulanger and Simon Bell from Martineau Electric looking at where the power feed comes into the main electrical room in the McConnell Center. This project is a team project with Community Services providing much of the excavation work for the generator and transfer switch installation in conjunction with Martineau Electric who is the approved installation vendor. Community Service also completed in September which is shown in the last picture, exploratory digging on the St. Thomas Street side of the McConnell Center around the electrical transformer that feeds the building, to expose the location of conduits and other utilities necessary for the installation of the transfer switch and generator.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Water System Facilities Upgrade (Community Services)

Project Description: Project will continue with the reconstruction of the city's wellheads and water treatment facilities. Phase III of this project includes refurbishing the Hughes Well Facility, connecting the Hughes Well to French Cross WTP, chemical treatment facility for DPH-1 and Ireland Well and the replacement of the Bellamy Recharge Facility.

Current Update:

Water facilities plan Phase 1

4 sites under this contract

North End Tank: The North End Tank will be completed, as part of the Phase 1 project, June 1st. The work has already been completed but the City is not able to sign off on this portion until all of the Phase 1 projects have been completed.

Calderwood & Campbell chemical feed building, and rebuilding old well house:

City Staff installed new piping outside of the Calderwood Chemical building. This will, hopefully, resolve the turbulence issue that has not been allowing both wells to run at the same time. The generator at Campbell Well is not able to run under full load. This is still an outstanding item for the contractor to find a solution.

Lowell Ave: Progress is moving along with a projected startup date of spring 2018. City Staff is being trained on all of the new equipment as it is being installed and tested out.

Water Facilities Phase 2

7 sites under this contract (No change in activity)

New meter, and Drive building to replace Smith and Cummings sites, as well as new submersible pump for Cummings Well, Plans and Spec are complete

Develop new wells at Willand Pond and build common building similar to Smith and Cummings for metering and drives, under design not 30% yet, survey and borings underway

Somersworth Interconnect- Under design to be incorporated within the Willand Pond Building to add metering and booster pumps. Under design. Not 30% yet, survey and boring underway

Raw water line from Willand Pond to Smith and Cumming raw line at Smith well site

Under design not 30% yet, survey and boring underway

Garrison hill tank rehab – under design, not 30% yet

Isinglass River recharge pump relocation - Under design not 30% yet, relocating recharge station out of the flood plain

Review of River quality Isinglass and Bellamy. The State of New Hampshire is requiring water quality reports for both rivers due to the city wants to use both rivers for recharge. Just started work

Last Update:

The City's water production has been steadily running at 2.0 to 2.5 Million Gallons per Day (mgd) for the month. Production should hold steady around 2.2 mgd throughout the winter. Currently, wells in operation are Ireland Well, Campbell Well, Calderwood Well, Hughes Well, DPH1 and French Cross Water Treatment Plant. Smith Well and Cummings Well are not operating due to construction of the Lowell Avenue Plant. Griffin Well is off due to the PFOA issue. The Dover Utilities Commission is still working on the water ban for next spring and summer if needed. The Calderwood Chemical building was started. Calderwood Well is being connected to the new system. Once the system has been calibrated and debugged the contractor will be tying Campbell Well to the system. Phase 2 of the facility plan has begun. Underwood Engineers is beginning the design work. This includes the wells and building for Willand Pond, a new raw line from Willand Pond to Smith Well and Cummings Well sites, interconnecting with Somersworth, Smith Well and Cummings Wells' new common building, Garrison Hill rehab, the Isinglass recharge relocation and assessing the water quality for Bellamy River and the Isinglass River.

CAPITAL IMPROVEMENT PLAN PROJECT UPDATES

Enterprise Park II (Economic Development)

In the past twelve months, DBIDA has identified three potential Park II sites.

1. Elk's Property on Dover Pointe Rd.
 - a. Outcome: Cost of asking price plus infrastructure costs exceeded the value of the site for development at this time. Proposal was made but the asking price was well beyond what was viable for our purposes.
2. Ray Property on Littleworth Rd.
 - a. Outcome: The property was found to include a high percentage of wetlands configured in a way that precluded its use for a Park II.
3. Eldredge Property on Production Dr.
 - a. Outcome: Rezoned successfully. Subsequently found to have a high percentage of wetlands configured in a way that precluded its use for development purposes.
4. Another property in the Littleworth area is being considered. Contact has been made with a representative of the owner who has not decided to sell at this time, but may consider a longterm lease to buy in the future, not now.
5. Another potential property/ set of properties is being pursued both on 6th St. and on Indian Brook Rd. for Park II use. Rezoning will be required to make this work. This project is still in early stages to get the rezoning supported by the Planning Board.

Workforce-Focused Outcomes

5

"Continue to recruit, retain and support training of employees and volunteers necessary to fulfill service delivery needs of community."

During the month of January, several officers were recertified in the use of the Intoxilyzer machine which is used for testing breath samples from people suspected of driving while intoxicated. These officers are Officers Letendre, Brown, Khalsa, Mitrushi, Dunne, Courter, and Gebers.

On January 24, 2018, Lieutenants Beaulieu, Martinelli, Dolleman and Gould along with Sergeants Collopy, Harrington, Nadeau and Pettingill all attended familiarization training put on by the Strafford County Regional Tactical Operations Unit. The training was designed to teach the supervisors about the tactical team, its function, and what to expect during a callout.

The Assistant City Manager continued the second year of the Certified Public Managers program offered by the State of New Hampshire. This program is designed to educate managers and supervisors on management techniques and policies. Two sessions were held in January: knowledge management and information dispersal.

Stewardship: *We service as trusted stewards of the public's financial, environmental, social and physical resources seeking to responsibly utilize, conserve and sustain for current and future generations.*

Assistant City Planner Benton and Assistant City Manager attended an internal training on Microsoft Project on January 22 with other City employees.

Assistant City Planner Benton attended an All-Hazards Training Transportation Recovery Plan Training Course on January 30-31st at NH Department of Environmental Services at Pease.

Keegan Glidden, Utilities Maintenance Mechanic, attended the Drinking Water System Operator Basics Course sponsored by the New Hampshire Water Works Association. This thirteen week course is being held in Concord, NH. At the end of the thirteen weeks, he will be qualified to test for a Distribution Operator I license.

On January 30, 2018, Officer Yerardi attended Crime Scene for First Responders. The training is designed to familiarize police officers to recognize, preserve and collect evidence at crime scenes.

Also during the month of January, several members of the police department attended Harassment training presented by Primex. The training was mandatory for all city employees and has continued into February.

William Boulanger, Deputy Director of Community Services, Richard Fowler, Maintenance Mechanic III, and Sharon Sirois, Superintendent of Facilities, Grounds and Cemetery, attended the Operator Training Session sponsored by the New Hampshire Water Works Association. This session was held on Pease Tradeport in Portsmouth, NH.

Fire and Rescue in January, welcomed Quinn Duffy to the organization as a Firefighter/Advanced EMT filling the open position that occurred in December when Firefighter/EMT Scott Lloyd, departed after several months of employment, for other opportunities. Quinn arrives at Fire & Rescue after working the last year at Durham Fire, and is looking forward to the dual role fire and transport emergency medical services system that Fire and Rescue has here in Dover. Welcome Quinn!



Fire and Rescue in January, saw the paramedic level employees due for recertification by the end of March, complete the required refresher training program. This was held in conjunction with Wentworth Douglass Hospital, at WDH and fulfilled the recertification requirements per the National Registry of EMT's. For more information on these requirements, go to <https://www.nremt.org/rwd/public/document/paramedic-recert> . The National Registry transitioned starting in 2016, to the National Continual Competency program model known as the NCCP. Between this refreshers training program mentioned above, and monthly scheduled training sessions for all Fire & Rescue employees while on-duty around calls for service, the following requirements are met:

30 hours of national curriculum content, 15 hours of local and state components, and 15 hours of individual content. These hours of continuing education are the minimum with additional hours required for additional certifications. With half of our employees recertifying every year as the recertification cycle is two-year's in duration, much time is expended organizationally in meeting these requirements. As a side note, training delivery is ultimately the responsibility of Division Chief of Training and Safety – Michael "Micky" Drouin.

Also in January, the four suppression shifts received training on a new paperless process for completing the State of NH required, report for each time a department member treats anyone in the community medically. Fire & Rescue is leveraging the tablet technology used during emergency responses, to move to the paperless and submission processes. This process has many layers as internal department staff, Wentworth Douglass Hospital, and our relatively new ambulance billing service Enhanced Management Services/Quick Med Claims, must be able to access those reports and share information, with the State of NH EMS reporting system, TEMSIS. For more information on TEMSIS, go to <https://www.nhtems.org/default.cfm?page=about> . With Fire & Rescue responding on over 3200 emergency medical responses annually, going paperless will save considerable time and resources. It will also improve the speed of reimbursement from the required ambulance response billing that brings into the City's General Fund, approximately 1.3 million dollars in revenue annually. Much of this transition, is being overseen by Fire & Rescue's Division Chief of EMS, Michael McShane.

The library was awarded a national Special Recognition Award by the U.S. Department of State for its performance as a first-year Passport Acceptance Facility. Cathy Beaudoin and Susan Dunker traveled to Washington DC on January 29 for the award ceremony at the Bureau of Consular Affairs.

Employment:

January

Separations – 4

1	Community Services
1	Police
2	Recreation

New Hires – 4

1	Fire
2	Recreation
1	Library

Stewardship: We service as trusted stewards of the public's financial, environmental, social and physical resources seeking to responsibly utilize, conserve and sustain for current and future generations.

Congratulations!

Employee Name	Division	Years of Service	Employee Name	Division	Years of Service
McCulloch, Jamie	W/S Billing	24			
Openo, Phuong	Library	19			
Anagnos, James M	Fire Department	18			
Rabideau, Matthew	F&G	18			
Nichols, Lena C	Public Welfare	15			
Orringer, Scott L	Fire Department	14			
Pike, Edward F Jr	Police	12			
Ambrose, Joshua R	Fire Department	9			
Jerard, Jason E	Parking	9			
Gillis, Michael P	Info Tech	8			
Weinberger, Christina	Library	5			
Jarvis, Linda L	Senior Center	4			
Byrd, Maxwell L	Library	2			
Nason, Cody C	Fire Department	2			

February Anniversaries

Sustainability-Focused Outcomes

6

"Develop strategies and implement programs that encourage the efficient use and preservation of natural resources by municipal services and throughout the community."

The Planning and Community Development Department was notified that one of two proposed projects was selected for a summer 2018 UNH Sustainability Fellowship. The fellow will spend ten full weeks working out of the Planning Department under the guidance of Assistant City Planner Piekut. The fellow will use the Sustainability Indicator Management & Analysis Platform (SIMAP) to measure the carbon and nitrogen footprints of municipal operations. This is a pilot project to adapt the SIMAP tool from campus to municipal applications.

Planning and Community Development staff are working with Competitive Energy Services to release and review a Request for Proposals for the development of a solar photovoltaic array on the roof of the Dover High School.

January saw Fire & Rescue's aerial ladder truck's aerial ladder and outrigger systems, inspected and nondestructively tested per industry standards by NETS, National Engineering and Testing Services. This was the first time Fire & Rescue used NETS for this important industry standard inspection, joining the informal group of fire departments in the area over the last several years, who have shifted to using NETS. NETS located in Rhode Island, now annually schedules several weeks of time in January for New Hampshire departments needing Aerial Tests, located in the Seacoast and Lakes Region's. NETS fills the void Fire & Rescue has faced as the two previous companies Fire & Rescue used for the service, no longer do these inspections in this region. Because of aligning with this informal group of departments who choose to use NETS in January each individually, NETS provides a discounted rate to every department with NETS being half of what Underwriters Laboratory charged Fire & Rescue for the same service four years ago. For more information, go to <http://nets-fire.com/>.

The non-destructive inspection and testing process includes looking for cracks in the aerial, welds, torque box, turntable, stabilizers, and fasteners by employing methods that must be consistent with ASTM E 1316, Standard Terminology for Nondestructive Testing.

The tests the NDT technician employs also depend on an aerial device's construction material and can include the ultrasonic pulse-echo straight beam by contact method, manual ultrasonic for measuring thickness, magnetic particle inspection, liquid-penetrate inspection (three types used to find cracks in aluminum), hardness testing (five different types of tests), acoustics emissions testing (two types), and eddy current testing (determines electrical conductivity). In the case of Fire & Rescue's Truck 1, the inspection and testing process identified a few outrigger welds that were showing deterioration, and highlighted some operational parts that though functional, are at the time to schedule repair. Since the inspection, the welds have been fixed and parts are on order for replacement in February. Interested in what an Aerial Ladder torque box is, that is the structure that supports the aerial ladder and transfers the load to the frame of the vehicle and outrigger system down to the ground. The first photo below taken last fall at the E-One factory where the new Quint that is ordered will be built soon, shows a torque box, frame, and outrigger system of a new ladder truck as it progresses down the assembly line. Fire & Rescue's Truck 1 has a similar structure built into it, and is part of what was tested by NETS. The second photo shows Truck 1's aerial operating at a fire in Rochester during the summer of 2016, demonstrating the physical load that must be transferred by the above mentioned pieces, to the ground ultimately. Ultimately, the national standard required testing process keeps an aerial ladder equipped vehicle safe for the firefighters that operate it, and as a side note, is required by Insurance Services Organization (ISO) and referred to in previous monthly reports as that entity rates Fire & Rescue on a 5 year cycle. Fire & Rescue is currently experiencing an ongoing ISO review, with the latest review cycle expected to end soon with a rating result expected around mid-spring.



J. MICHAEL JOYAL, JR.
CITY MANAGER



CITY OF DOVER

CITY COUNCIL – MINUTES

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 14, 2018**
Meeting Time: **7:00 pm**

1. CALL TO ORDER

2. MOMENT OF SILENCE

3. PLEDGE OF ALLEGIANCE

Councilor Williams led the Pledge of Allegiance.

4. ROLL CALL ATTENDANCE

Present: Mayor Weston, Deputy Mayor Carrier, Councilor Ciotti, Councilor Gasses, Councilor Keane, Councilor Muffett-Lipinski, Councilor Shanahan, Councilor Thibodeaux, and Councilor Williams

Also Present: City Manager Joyal, City Attorney Blenkinsop, and City Clerk Lavertu.

5. PROCLAMATIONS/AWARDS

6. APPROVAL OF AGENDA

Deputy Mayor Carrier moved to add an Appointments Committee Report.
Councilor Gasses moved to add a Conservation Commission Report and a Climate Adaption Master Plan Steering Committee Report.
Councilor Muffett-Lipinski moved to add a School Board Report.
Councilor Williams moved to add a Recreation Advisory Board Report.
Deputy Mayor Carrier moved to approve the Agenda as amended; seconded by Councilor Shanahan.
Vote: 9/0.

7. PUBLIC HEARINGS

A. CHAPTER 166 – VEHICLES AND TRAFFIC: SECTIONS 37 and 57 SPONSORED BY COUNCILOR CIOTTI

Mayor Weston, seeing no one wishing to speak, closed the Public Hearing.

B. REPROGRAMMING UNEXPENDED BOND PROCEEDS FROM CERTAIN FIRE DEPARTMENT PROJECTS TO PUBLIC SAFETY COMMUNICATIONS UPGRADE PROJECT (REQUIRES A 2/3 MAJORITY VOTE OF THE CITY COUNCIL) (CITY COUNCIL VOTE TO OCCUR ON FEBRUARY 28, 2018.) SPONSORED BY MAYOR WESTON BY REQUEST

Mayor Weston, seeing no one wishing to speak, closed the Public Hearing.



CITY OF DOVER

CITY COUNCIL – MINUTES

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 14, 2018**
Meeting Time: **7:00 pm**

8. CITIZEN'S FORUM

Citizens are invited to speak on any issue pertaining to the business of the City of Dover. Statements shall be limited to five minutes.

Mayor Weston, seeing no one wishing to speak, closed the Citizen's Forum.

9. CITY MANAGER'S REPORT

City Manager Joyal said he submitted his report in writing. He referred to City Council emails regarding the potholes on Oak Street and said the City's staff decided to close the road to patch the road along with Rollinsford fixing the areas that were their responsibility.

Mayor Weston asked about the plowing issues letter that was sent out.

Community Services Director Storer discussed the three or four warning letters regarding improper snow removal.

Deputy Mayor Carrier moved to accept the City Manager's Report; seconded by Councilor Ciotti.

Vote: 9/0.

10. APPROVAL OF MINUTES

A. January 24, 2018 – Regular Meeting

B. January 27, 2018 – Goal Setting Workshop

Deputy Mayor Carrier moved for the approval of the Minutes; seconded by Councilor Keane.

Vote: 9/0.

11. MAYOR'S REPORT

Mayor Weston listed the events she attended: Optima Bank ribbon cutting, Government Affairs Meeting, the Art Walk, and the Arts Center Grand Opening. She discussed the 400th Celebration Committee and recommended the following appointments:

Deborah Ballok

Elizabeth Burr

Nicole Desjoulais Paulick

Guy Eaton

Zachary Koehler

Kathleen Morrison

Kathleen Shannon

Doug Steele

Sarah Wheeler

Cathy Beaudoin – Woodman Institute representative

Amanda Evans-Brown – Dover Main Street representative

Morgan Faustino – Chamber of Commerce representative

Mayor Weston

Deputy Mayor Carrier



CITY OF DOVER

CITY COUNCIL – MINUTES

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 14, 2018**
Meeting Time: **7:00 pm**

Deputy Mayor Carrier moved to accept the Mayor's Report; seconded by Councilor Williams.
Vote: 9/0.

12. UNFINISHED BUSINESS

A. ORDINANCES IN THE 2nd READING

B. ORDINANCES IN THE 3RD READING

1. **CHAPTER 166 – VEHICLES AND TRAFFIC: SECTIONS 37 and 57** SPONSORED BY COUNCILOR CIOTTI

Councilor Ciotti moved for its adoption; seconded by Councilor Thibodeaux.
Councilor Ciotti moved to substitute as a whole; seconded by Councilor Muffett-Lipinski.
City Attorney Blenkinsop gave an overview of the changes to the Ordinance.
Roll Call Vote: 9/0.

C. RESOLUTIONS

1. **REPROGRAMING UNEXPENDED BONDING AUTHORIZATION FOR WWTP SLUDGE DEWATERING PROJECT TO WWTP BUILDING IMPROVEMENTS PROJECT (REQUIRES A 2/3 MAJORITY VOTE OF THE CITY COUNCIL)** SPONSORED BY MAYOR WESTON BY REQUEST

Deputy Mayor Carrier moved for its adoption; seconded by Councilor Thibodeaux.
Mayor Weston gave an overview of the Resolution to the Council.
Roll Call Vote: 9/0.

13. NEW BUSINESS

A. CONSENT CALENDAR

1. **BLOCK PARTY – Greater Dover Chamber of Commerce – Shark in the Park**
2. **BLOCK PARTY – Greater Dover Chamber of Commerce – Headliner Series**
3. **BLOCK PARTY – Greater Dover Chamber of Commerce – Children's Series**
4. **BLOCK PARTY – Greater Dover Chamber of Commerce – Apple Harvest Day**
5. **ROAD RACE – Greater Dover Chamber of Commerce – Apple Harvest Day**
6. **ROAD RACE – SIX03 Endurance**
7. **BLOCK PARTY – SIX03 Endurance**
8. **BLOCK PARTY – Seacoast Growers Association**

9. **PURCHASE OF AERATION BLOWER REPLACEMENT AT WASTE WATER TREATMENT PLANT**
SPONSORED BY MAYOR WESTON BY REQUEST



CITY OF DOVER

CITY COUNCIL – MINUTES

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 14, 2018**
Meeting Time: **7:00 pm**

10. AUTHORIZATION TO ENTER INTO MULTI YEAR ELECTRICITY AND NATURAL GAS SUPPLY CONTRACTS

SPONSORED BY MAYOR WESTON BY REQUEST

COMMITTEE REPORTS

1. **School Board**
2. Planning Board
3. 400th Anniversary Committee
4. **Appointments Committee**
5. Arena Commission
6. Arts Commission
7. **Conservation Commission**
8. Energy Commission
9. Heritage Commission
10. Legislative Liaison
11. Library Board of Trustees
12. McConnell Center Advisory Committee
13. Ordinance Committee
14. Parking Commission
15. Pool Advisory Committee
16. **Recreation Advisory Board**
17. Solid Waste Advisory Commission
18. Transportation Advisory Commission
19. **Joint Building Committee – Dover High School and Regional Career Technical Center**
20. Joint Building Committee – Garrison Elementary School
21. Dover Main Street
22. **Climate Adaption Master Plan Steering Committee**

Deputy Mayor Carrier moved for the adoption of the Consent Calendar; seconded by Councilor Muffett-Lipinski.

Deputy Mayor Carrier added a Joint Building Committee – Dover High School and Regional CTC Report.

Mayor Weston asked the Council if they had items they would like pulled for further discussion.

Councilor Thibodeaux pulled Item #13.A.9.

Deputy Mayor Carrier pulled the highlighted Committee Reports.

Councilor Ciotti discussed the Farmer's Market move from Sixth Street to Henry Law Park, which has a lot more room.

Mayor Weston asked for a roll call vote on the remaining items on the Consent Calendar.

Roll Call Vote: 9/0.

Deputy Mayor Carrier moved for the adoption of Item #13.A.9.; seconded by Councilor Thibodeaux.

Community Services Director Storer gave an overview of the Resolution to the Council.

Roll Call Vote: 9/0.

Councilor Muffett-Lipinski gave an overview of the School Board Report to the Council.

Deputy Mayor Carrier moved to accept the School Board Report; seconded by Councilor Thibodeaux.

Vote: 9/0.

Deputy Mayor Carrier gave an overview of the Appointments Committee Report to the Council, and recommended the following new appointments:

Jason Aube – Conservation Commission as an alternate member

Casandra Lanton – Pool Advisory Committee as a regular member

Ron Lanton – Utilities Commission as an alternate member

Abigail Lyon – Conservation Commission as an alternate member



CITY OF DOVER

CITY COUNCIL – MINUTES

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 14, 2018**
Meeting Time: **7:00 pm**

Brian Shields – Solid Waste Advisory Commission as an alternate member
Deputy Mayor Carrier moved for their approval; seconded by Councilor Ciotti.
Vote: 9/0.

Deputy Mayor Carrier listed the reappointment recommendations:
Otis Perry – Dover Utilities Commission
Donald Cichon – Trustees of the Trust Fund
Deputy Mayor Carrier moved for their approval; seconded by Councilor Thibodeaux.
Vote: 9/0.

Deputy Mayor Carrier said the Boards are almost all full, and he credited it to the Leadership Academy.
Deputy Mayor Carrier moved to accept the Appointments Committee Report; seconded by Councilor Shanahan.
Vote: 9/0.

Councilor Gasses gave an overview of the Conservation Commission Report to the Council.
Deputy Mayor Carrier moved to accept the Conservation Commission Report; seconded by Councilor Ciotti.
Vote: 9/0.

Councilor Williams gave an overview of the Recreation Advisory Board Report to the Council.
Deputy Mayor Carrier moved to accept the Recreation Advisory Board Report; seconded by Councilor Keane.
Vote: 9/0.

Deputy Mayor Carrier gave an overview of the Joint Building Committee – Dover High School and Regional CTC Report.
Deputy Mayor Carrier moved to accept the Joint Building Committee – Dover High School and Regional CTC Report; seconded by Councilor Thibodeaux.
Vote: 9/0.

Councilor Gasses gave an overview of the Climate Adaptation Master Plan Steering Committee Report to the Council.
Deputy Mayor Carrier moved to accept the Climate Adaptation Master Plan Steering Committee Report; seconded by Councilor Keane.
Vote: 9/0.

B. RESOLUTIONS

1. B18024 HANSON STREET RECONSTRUCTION



CITY OF DOVER

CITY COUNCIL – MINUTES

Meeting Type: **Regular Meeting**
Meeting Location: **City Hall, Council Chambers**
Meeting Date: **Wednesday, February 14, 2018**
Meeting Time: **7:00 pm**

**(REQUIRES A 2/3 MAJORITY VOTE OF THE CITY COUNCIL)
(TO BE REFERRED TO A PUBLIC HEARING ON FEBRUARY 28, 2018, WITH
CITY COUNCIL VOTE OCCURRING ON MARCH 14, 2018.)**
SPONSORED BY MAYOR WESTON BY REQUEST

Deputy Mayor Carrier moved to refer to a public hearing on February 28, 2018;
seconded by Councilor Shanahan.

Vote: 9/0.

C. ORDINANCES IN 1ST READING

**1. CHAPTER 109, SECTION 31 – FIRE PREVENTION AND LIFE SAFETY
(TO BE REFERRED TO A PUBLIC HEARING ON FEBRUARY 28, 2018)**
SPONSORED BY MAYOR WESTON BY REQUEST

Deputy Mayor Carrier moved to refer to a public hearing on February 28, 2018;
seconded by Councilor Muffett-Lipinski.

Vote: 9/0.

14. COUNCIL CORRESPONDENCE

15. COUNCIL MATTERS OF INTEREST

Mayor Weston discussed SB 193 (School Choice). She said she wrote a letter to the NH Governor asking that he not sign the Bill.

City Manager Joyal discussed the Council meeting schedule and said he will be scheduling a Workshop for February 21, 2018. He said the City Council photo will be taken on February 28, 2018, 15 minutes before the 7:00 pm meeting.

16. ADJOURNMENT

Councilor Muffett-Lipinski moved to adjourn; seconded by Councilor Keane.
Vote: 9/0.



CITY OF DOVER

CITY OF DOVER - ORDINANCE

Agenda Item#: 12.A.1.

Ordinance Number: O – 2018.02.14 - 002
Ordinance Title: Fire Prevention and Life Safety
Chapter: 109
Section: 31 Water Main Tie-In Fees

The City of Dover Ordains:

1. PURPOSE

The purpose of this ordinance is to include the language of 109-31 Water Main Tie-In Fees into the body of Chapter 109.

2. AMENDMENT

Chapter 109 entitled “Fire Prevention and Life Safety” is hereby amended by reinstating Section 31, Water Main Tie-In Fees as follows:

109-31. Water Main Tie-In Fees.

Notwithstanding any other provision of law to the contrary, in the event that a fire suppression sprinkler system is required by this ordinance, all permit or tie-in fees which are otherwise imposed by law for access to City of Dover water mains shall be waived.

3. TAKES EFFECT

This Ordinance shall take effect upon passage and publication of notice as required by RSA 47:18.

REQUIRES A PUBLIC HEARING

AUTHORIZATION

Approved as to Funding:

Daniel R. Lynch
Finance Director

Sponsored by:

Mayor Karen Weston

Approved as to Legal
Form and Compliance:

Anthony Blenkinsop
General Legal Counsel

Recorded by:

Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - ORDINANCE

Agenda Item#: 12.A.1.

Ordinance Number: O – 2018.02.14 - 002
Ordinance Title: Fire Prevention and Life Safety
Chapter: 109
Section: 31 Water Main Tie-In Fees

DOCUMENT HISTORY:

First Reading Date: 02/14/2018	Public Hearing Date: 02/28/2018
Approved Date:	Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor, Karen Weston		
Deputy Mayor, Robert Carrier		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		

ORDINANCE BACKGROUND MATERIAL:

It has been discovered that Section 31, while listed in the chapter index, was erroneously omitted from the chapter text during a revision in 2009.



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 12.C.1.

Resolution Number: **R – 2018.01.24 – 009**
Resolution Re: Reprogramming Unexpended Bond Proceeds from certain Fire Department projects to Public Safety Communications Upgrade project

WHEREAS: On January 17, 2007 the City Council adopted the Debt Financing authorization for FY2008 CIP projects, which included \$2,950,000 for North End Fire Station and on July 14, 2010 the City Council reprogrammed a portion of bond proceeds to be used for Central Fire Station improvements; and

WHEREAS: On November 19, 2016 the City Council adopted the Debt Financing authorization for FY2018 CIP projects, which included \$217,000 for McConnell Center Emergency Generator; and

WHEREAS: The City has completed these projects under budget resulting in unexpended bond proceeds, which can be reprogrammed to other CIP projects and there is an identified need for additional funding for the Public Safety Communications Upgrade; and

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT: The amount of \$52,943.92 of unexpended bond proceeds is hereby reprogrammed from the identified Fire Department CIP projects to Public Safety Communications Upgrade project as follows:

		Available	Reprogram	Adjusted
Project Number	Project Description	Balance	Adjustment	Balance
4008.1.220.42280.4720.02202.08	Fire Station North End Construction	10,971.11	(10,971.11)	0.00
4008.1.220.42280.4725.02203.08	Fire Central Station Improvements	12,024.00	(12,024.00)	0.00
4008.1.210.42120.4741.02151.08	Public Safety Communications Upgrade	0.00	22,995.11	22,995.11
4018.1.220.42230.4741.02259.18	Emergency Shelter Generator	29,948.81	(29,948.81)	0.00
4018.1.210.42120.4741.02151.18	Public Safety Communications Upgrade	0.00	29,948.81	29,948.81
	Total Available Funding	52,943.92	0.00	52,943.92

NOTE: This resolution reprograms unexpended bond proceeds and therefore requires a duly advertised public hearing and a 2/3 favorable vote of all members for passage with the vote deferred until at least three (3) days after the public hearing.

AUTHORIZATION

Approved as to Funding: Daniel R. Lynch
Finance Director

Sponsored by: Mayor Karen Weston
By Request

Approved as to Legal
Form and Compliance: Anthony Blenkinsop
General Legal Counsel

Recorded by: Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 12.C.1.

Resolution Number: **R – 2018.01.24 – 009**
Resolution Re: Reprogramming Unexpended Bond Proceeds from certain
Fire Department projects to Public Safety Communications
Upgrade project

DOCUMENT HISTORY:

First Reading Date: 01/24/2018	Public Hearing Date: 02/14/2018
Approved Date:	Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 12.C.1.

Resolution Number: **R – 2018.01.24 – 009**
Resolution Re: Reprogramming Unexpended Bond Proceeds from certain Fire Department projects to Public Safety Communications Upgrade project

RESOLUTION BACKGROUND MATERIAL:

On January 17, 2007 the Dover City Council approved the FY08-FY13 six-year Capital Improvements Program (CIP), which included an appropriation in FY08 for the construction of the North End Fire Station. On July 14, 2010 the Dover City Council approved transferring funded from the North End Fire Station project to Central Fire Station Improvements project. On November 19, 2016 the Dover City Council approved the FY18-FY23 six-year Capital Improvements Program (CIP), which included an appropriation in FY18 for Emergency Shelter Generator at the McConnell Center.

These Fire Department CIP projects are completed under budget and therefore there is unexpended bond proceeds to be utilized on other CIP projects. This request is being made as a result of the Police Department, Fire Department and Community Services Department evaluating the Public Safety Communications Upgrade project that is currently in progress and identifying a need for additional funding to provide for enhanced upgrades to the City's public communication systems.

Zetron Digital Station Alerting:

As the project developed, staff became aware that older analog technology had been initially recommended for fire station alerting functions, as it also aligned with the technology of similar hardware being used to provide contractual dispatching services to the Town of Rollinsford. Further review disclosed that digital station alerting hardware meets current safety standards that analog does not, specifically providing a constant monitoring of the station alerting signals (including notification if a signal breakdown occurs between the Dispatch Center and any of the (3) Dover fire stations.) Also provides for more functionality in the way stations and crews are notified of emergencies, and allows for future system development using current technology. The committee determined the additional cost was justified, and an agreement with the Town of Rollinsford was suggested in that they would assume the full cost for the purchase and maintenance of the analog equipment that drives their current system.

SCADA:

Initial bid proposal included independent signal monitoring of primary functions in the equipment shelters at each of the systems radio towers, including temperature controls, smoke detection, power surge/loss and unauthorized entry. Recently, with ongoing development of the City's SCADA system, the Community Services Department began work to enhance their notification system of critical infrastructure (City wells, water/sewer pumping stations) and to consolidate signal monitoring. It was determined that communications tower equipment could be tied into the same system as all other City equipment being monitored, providing for a more reliable means to monitor the new communications system. With over \$900,000.00 of infrastructure value in the newly designed communications system, the committee feels the additional cost of integrating into the City's SCADA monitoring system (vs a stand-alone system) is justified.

This resolution does not authorize any additional appropriation. The City Council previously authorized the appropriation for the Fire Department CIP projects. This resolution does not authorize an increase in the indebtedness of the City. The City Council previously authorized debt financing the identified Fire Department CIP projects. This resolution reprograms funding from the identified Fire Department CIP projects to the Public Safety Communications Upgrade project.



PERMIT APPLICATION
CITY OF DOVER, NEW HAMPSHIRE

Check (☒) the type of application:

RAFFLE* ☒, TAG* _____, BLOCK PARTY** _____,

Fill In Completely and Return To City Clerk -- PLEASE NO LATER THAN 30 DAYS PRIOR TO EVENT

Organization Name: Wentworth-Douglass Foundation
Federal Tax ID number for Organization: 510491062
Check (☒) Nature of Organization:
Religious _____, Educational _____, Charitable ☒, Civic _____, Sports _____, Veterans _____, Fraternal or Political _____, Other _____
(Describe) _____
Contact Person: Emily Moore Day Time Telephone: (603)740-3292
Address: 789 Central Avenue, Dover, NH Email emily.moore@wdhospital.com
Purpose of Permit: Raffle for Wentworth-Douglass Hospital
Date of Event: 06/25/2018 Specific Time: 5:00 p.m.
Location of Event: Cochecho Country Club; 145 Golf Rd. Dover, NH 03820

*****RAFFLE / TAG PERMITS*****

Prize (s) To Be Awarded: BoothBay Harbor Package; Two nights with two rooms per night, four players of 18 holes, 2 hour boat ride, access to fitness center & \$500 gift card to be used at Paul's Steak House.

Cost of Ticket: \$25 or 5/5100 Date of Drawing: 06/25/2018
Place of Drawing: Cochecho Country Club; 145 Gold Rd. Dover, NH 03820

* NOTICE TO RAFFLE AND TAG PERMIT APPLICANTS: Please be advised the City will verify that your organization is in compliance with the regulations of N.H. Charitable Trusts Unit of the Attorney General's Office prior to the acceptance of your application. The police department may contact you to obtain additional information. Please provide a way for us to contact you during the day so the request can expedited. Information on these requirements may be found at

<http://www.doi.nh.gov/charitable-trusts/faq.htm>

*****BLOCK PARTY PERMITS*****

**NOTICE TO BLOCK PARTY APPLICANTS: STREET CLOSURES, TRAFFIC DETOURS, AND/OR PARKING RESTRICTIONS MUST BE ARRANGED WITH THE POLICE DEPARTMENT

Block Party Location (attach map if more than one street is affected): _____
Police Department Block Party Approval Signature: _____
Printed Name: _____

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT. I UNDERSTAND THAT THIS PERMIT IS ISSUED BY THE CITY COUNCIL PER the provisions of RSA 287-A, RSA 31:91 and/or RSA 286 and I agree to abide by the same.

SIGNATURE OF APPLICANT: Emily J. Moore DATE: 6/2/18
(duly authorized)

PRINTED NAME: Emily J. Moore

Licensing Board Approval AD Date: 2/12/18

1/2015

<http://www.dover.nh.gov/Assets/government/city-operations/1form/finance/city-clerk-tax-collection/Application%20Raffle.pdf>



PERMIT APPLICATION
CITY OF DOVER, NEW HAMPSHIRE

Check (✓) the type of application:

RAFFLE* ☒, TAG* ☐, BLOCK PARTY** ☐,

Fill In Completely and Return To City Clerk -- PLEASE NO LATER THAN 30 DAYS PRIOR TO EVENT

Organization Name: Wentworth-Douglass Foundation

Federal Tax ID number for Organization: 510491062

Check (✓) Nature of Organization:

Religious ☐, Educational ☐, Charitable ☒, Civic ☐, Sports ☐, Veterans ☐, Fraternal or Political ☐, Other ☐
(Describe) _____

Contact Person: Emily Moore Day Time Telephone: (603)740-3292

Address: 789 Central Avenue, Dover, NH Email emily.moore@wdhospital.com

Purpose of Permit: Raffle for Wentworth-Douglass Hospital

Date of Event: 06/25/2018 Specific Time: 5:00 p.m.

Location of Event: Cochecho Country Club; 145 Golf Rd. Dover, NH 03820

*****RAFFLE / TAG PERMITS*****

Prize (s) To Be Awarded: The Samoset Resort Package (two nights stay, dining/spa package, two rounds of golf for two)

Cost of Ticket: \$25 or 5/\$100 Date of Drawing: 06/25/2018

Place of Drawing: Cochecho Country Club; 145 Golf Rd. Dover, NH 03820

* NOTICE TO RAFFLE AND TAG PERMIT APPLICANTS: Please be advised the City will verify that your organization is in compliance with the regulations of N.H. Charitable Trusts Unit of the Attorney General's Office prior to the acceptance of your application. The police department may contact you to obtain additional information. Please provide a way for us to contact you during the day so the request can expedited. Information on these requirements may be found at

<http://www.doj.nh.gov/charitable-trusts/faq.htm>

*****BLOCK PARTY PERMITS*****

**NOTICE TO BLOCK PARTY APPLICANTS: STREET CLOSURES, TRAFFIC DETOURS, AND/OR PARKING RESTRICTIONS MUST BE ARRANGED WITH THE POLICE DEPARTMENT

Block Party Location (attach map if more than one street is affected): _____

Police Department Block Party Approval Signature: _____

Printed Name: _____

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT. I UNDERSTAND THAT THIS PERMIT IS ISSUED BY THE CITY COUNCIL PER the provisions of RSA 287-A, RSA 31:91 and/or RSA 286 and I agree to abide by the same.

SIGNATURE OF APPLICANT: Emily J. Moore DATE: 6/2/18
(duly authorized)

PRINTED NAME: Emily J. Moore

Licensing Board Approval (Signature) Date: 6/2/18

1/2015

<http://www.dover.nh.gov/Assets/government/city-operations/1form/finance/city-clerk-tax-collection/Application%20raffle.pdf>



PERMIT APPLICATION
CITY OF DOVER, NEW HAMPSHIRE

Check(☒) the type of application:

PARADE** ☒ , ROAD TOLL*** _____,

Fill In Completely and Return To City Clerk – PLEASE NO LATER THAN 30 DAYS PRIOR TO EVENT

Organization Name: Dover Main Street

Federal Tax ID number for Organization: 02-0509406

Check(☒) Nature of Organization:

Religious____, Educational____, Charitable____, Civic____, Sports____, Veterans____, Fraternal or Political____, Other____

Name/Description of Event (if applicable): Run Before You Crawl

Contact Person: Jessica Smith Day Time Telephone: 603-396-1637

Address: 100 Main St #145 Email: Jsmith@winterbrook.com

Date of Event: March 10 Specific Time: 9:30 am

Location of Event (if parade, attach course description or map): starts @ train station

*****PARADE PERMITS*****

****NOTE: ALL REQUESTS FOR PARADE PERMITS MUST HAVE PARADE ROUTE APPROVED BY THE POLICE DEPT. BEFORE GOING ON THE COUNCIL AGENDA**

Police Department Parade Route Approval Signature: _____

Printed Name: Sgt. Marn Speidel Check Here If Parade Route Is Attached: ☒

*****ROAD TOLL PERMITS*****

*****NOTE: SOLICITING DONATIONS IS PROHIBITED FROM THE ROADWAY WITHOUT SPECIAL PERMISSION FROM THE POLICE DEPARTMENT**

Road Toll Location: _____

Police Department Road Toll Approval Signature: _____

Printed Name: _____

Unless expressly waived in writing by the Licensing Board, the Organization agrees to defend, indemnify, and hold harmless the City of Dover from any claims, losses, and/or damages arising out of the event, and to name the City of Dover as an additional insured on its general liability insurance policy in amounts of not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) in the aggregate. The Organization/Applicant shall provide the City a certificate of insurance evidencing such additional insured status no less than fifteen (15) days prior to the event.

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT. I UNDERSTAND THAT THIS PERMIT IS ISSUED BY THE CITY COUNCIL per the provisions of RSA 287-A, RSA 31:91 and/or RSA 286 and I agree to abide by the same.

SIGNATURE OF APPLICANT: ERIK ROY DATE: 01-31-2018

PRINTED NAME: Roy, ERIK

Licensing Board Approval (Signature) Date: 2/12/18



Run Before You Crawl 5K & Pub Crawl

Dover, New Hampshire



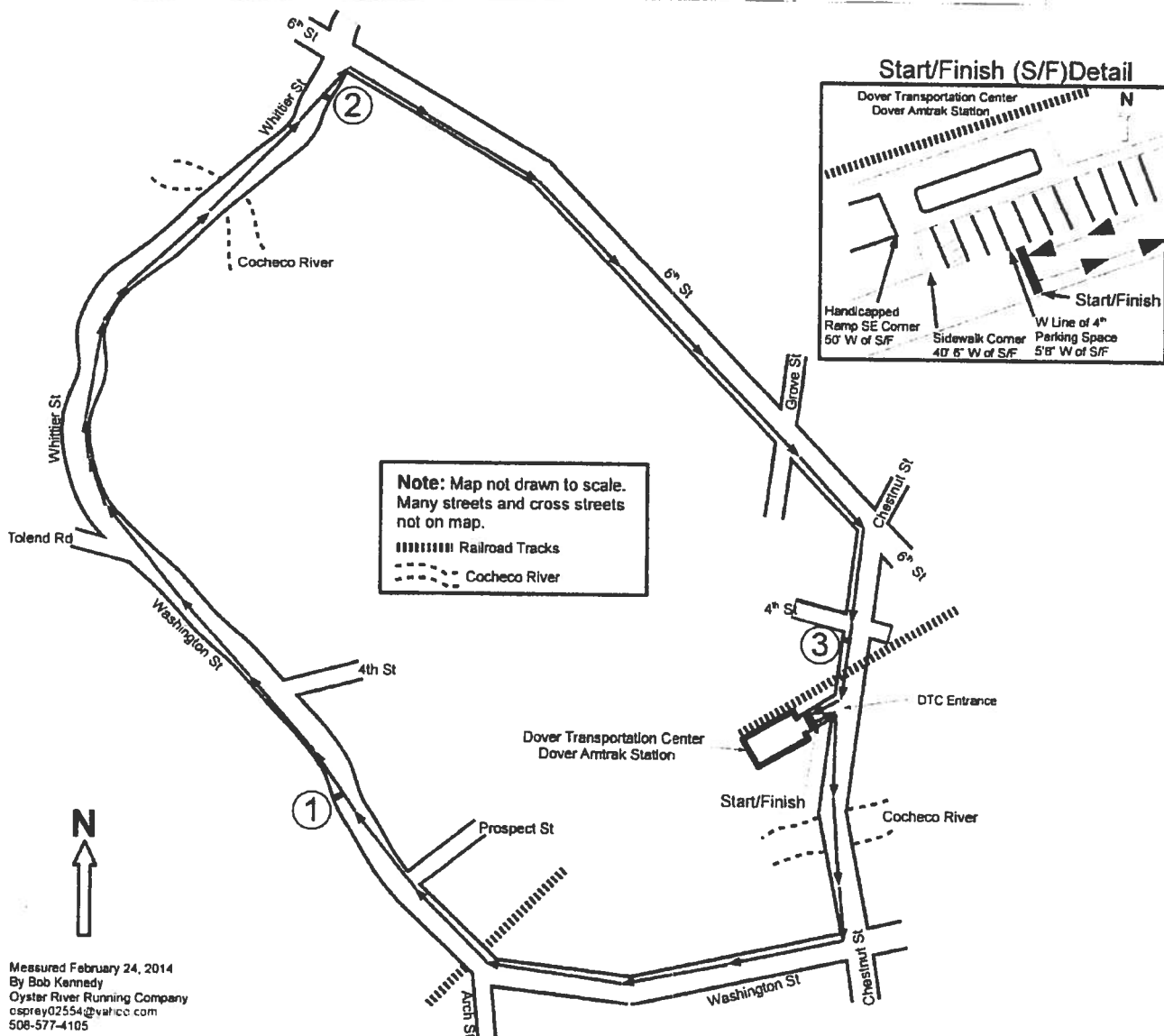
RUN BEFORE YOU CRAWL 5K & PUB CRAWL
USATF CERTIFICATE NH14005TY
EFFECTIVE 3-3-14 TO 12-31-24

Start/Finish, and all mile markers are marked with White Paint (UP = Utility Pole).

Start/Finish: On north side of Dover Transportation Center (DTC) parking driveway 40 ft 6 inches E of sidewalk corner for the Amtrak Train Station, 50 ft E of southeast corner of the Amtrak Train Station handicapped ramp, and 5 ft 8 inches E of the west line of the 4th (2nd non handicapped) parking space from the Station. **Mile 1:** On northeast side of Washington St opposite northwest corner of Taylor Rd and about 5 ft SE of UP PSNH 4 64 VZ 34 on opposite side.

Mile 2: Marked on east side of Whittier St 30 ft NE of UP PSNH67 17S VZ 2S and about 120 NE of intersection of Cassily Ln and Whittier St.

Mile 3: On west side of Chestnut St in the intersection of Chestnut and 4th Streets, and about 13 ft N of UP 4/4 53 with Stop Sign on southwest corner of the intersection.





PERMIT APPLICATION
CITY OF DOVER, NEW HAMPSHIRE

Check(✓) the type of application:

PARADE** ☒ ROAD TOLL*** ☐

Road Race

Fill In Completely and Return To City Clerk -- PLEASE NO LATER THAN 30 DAYS PRIOR TO EVENT

Organization Name: Red's Race
Federal Tax ID number for Organization: 020366120 (Community Partners - one of the organizers we have used this previously)
Check(✓) Nature of Organization:

Religious ☐ Educational ☐ Charitable ☒ Civic ☐ Sports ☐ Veterans ☐ Fraternal or Political ☐ Other ☐

Name/Description of Event (if applicable): Red's Race 5 Miler

Contact Person: Christine Kozlowski Day Time Telephone: (603) 953-5022

Address: 11 Towle Ave Dover, NH 03820 Email: C.kozlowski@dover.nh.us

Date of Event: April 8, 2018 Specific Time: Race starts @ 10:00 AM (Check-in at City Hall begins at 8:00 AM)

Location of Event (if parade, attach course description or map): See attached

*****PARADE PERMITS*****

**NOTE: ALL REQUESTS FOR PARADE PERMITS MUST HAVE PARADE ROUTE APPROVED BY THE POLICE DEPT. BEFORE GOING ON THE COUNCIL AGENDA

Police Department Parade Route Approval Signature: _____
Printed Name: _____ Check Here If Parade Route Is Attached: _____

*****ROAD TOLL PERMITS*****

***NOTE: SOLICITING DONATIONS IS PROHIBITED FROM THE ROADWAY WITHOUT SPECIAL PERMISSION FROM THE POLICE DEPARTMENT

Road Toll Location: _____
Police Department Road Toll Approval Signature: _____
Printed Name: _____

Unless expressly waived in writing by the Licensing Board, the Organization agrees to defend, indemnify, and hold harmless the City of Dover from any claims, losses, and/or damages arising out of the event, and to name the City of Dover as an additional insured on its general liability insurance policy in amounts of not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) in the aggregate. The Organization/Applicant shall provide the City a certificate of insurance evidencing such additional insured status no less than fifteen (15) days prior to the event.

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT. I UNDERSTAND THAT THIS PERMIT IS ISSUED BY THE CITY COUNCIL per the provisions of RSA 287-A, RSA 31:91 and/or RSA 286 and I agree to abide by the same.

SIGNATURE OF APPLICANT: Christine Kozlowski DATE: 2/6/18

(duly authorized)

PRINTED NAME: Christine Kozlowski

Licensing Board Approval _____ Date: _____

1/2015



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/27/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER FIAI/Cross Insurance 1100 Elm Street Manchester NH 03101		CONTACT NAME: Renee Skillings PHONE (A/C, No. Ext.): (603) 669-3218 FAX (A/C, No.): (603) 645-4331 E-MAIL ADDRESS: rskillings@crossagency.com	
INSURED Behavioral Health & Developmental Strafford County Services of Strafford County 113 Crosby Road, Ste 1 Dover NH 03820		INSURER(S) AFFORDING COVERAGE INSURER A: Philadelphia Indemnity Ins Co INSURER B: AIG Property Casualty Company INSURER C: INSURER D: INSURER E: INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 17/18

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PROJECT ☐ LOC OTHER:			PHPK1731094	11/1/2017	11/1/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMP/OP AGG \$ 3,000,000 Employee Benefits \$ 1,000,000
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ALL OWNED AUTOS ☐ SCHEDULED AUTOS HIRED AUTOS ☐ NON-OWNED AUTOS			PHPK1731111	11/1/2017	11/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Medical payments \$ 5,000
A	☒ UMBRELLA LIAB ☒ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 10,000			PHUB605327	11/1/2017	11/1/2018	EACH OCCURRENCE \$ 3,000,000 AGGREGATE \$ 3,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WC012883756 (3a) NH All Offices Included	11/16/2016	11/16/2017	☒ PER STATUTE ☐ OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
A	Professional Liability			PHPK1731094	11/1/2017	11/1/2018	Limit \$1,000,000
A	Directors & Officers			PHSD1290178	11/1/2017	11/1/2018	Limit \$5,000,000 Ded: \$35,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Red's Road Race for a Better Community 4/8/18. Woodman Park School; Dover Housing Authority; Dover Adult Learning Center; Community Action Partnership of Strafford County; Monarch School; Community Partners; Wentworth Douglass Hospital; The City of Dover; The Dover Race Series & Seymour Osman Community Center are included as additional insured with respects to the CGL as per written contract.

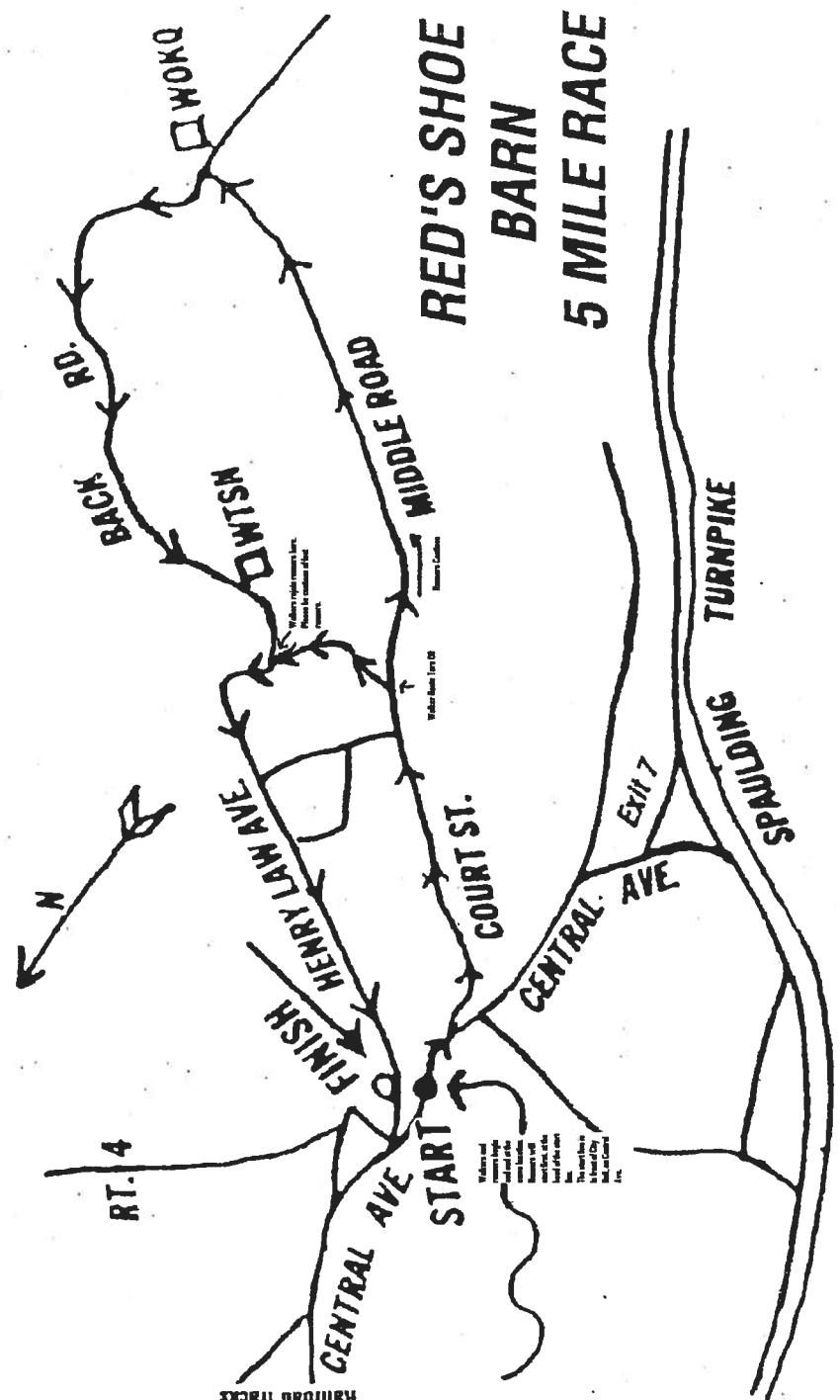
CERTIFICATE HOLDER

Community Partners 113 Crosby Road Dover, NH 03820	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Michael Guarino/DL3
--	--

RED'S
SHOE
BARN

DUNKIN'
DONUTS

Railroad Tracks



RED'S SHOE
BARN
5 MILE RACE

CENTRAL AVE

Exit 7

SPAIN'S TURNPIKE

Red's Race Walking Route

- The walking route goes up Central on to Court St.
- From Court St, Walkers then take a right in to the cemetery at entrance #4.
- Walkers walk thru cemetery (there is a specific course in the cemetery), meandering toward S. Pine St.
- Walkers take a left on to S. Pine St. to Central Ave.
- Then, a right on to Central, then another right down Hanson St. to Henry Law.. then finally, a left on Henry Law to finish.



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.A.5.

Resolution Number: **R – 2018.02.28 – 013**
Resolution Re: B18039 Design Consultant for Spur Road Reconstruction

WHEREAS: A Sealed Request for Bid B18039 was issued and received for professional design consulting services for Spur Road Reconstruction on January 30, 2018 at 2:30 pm. A prebid meeting was conducted on January 10, 2018 with fourteen firms attending; and

WHEREAS: The City received eight bid replies and evaluations were conducted. A short list of top candidates was created and cost proposals were opened. It is the recommendation of the evaluating team to award this project to Underwood Engineers Inc at the bid rates submitted in the amount of \$284,300.00

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT:

The Purchasing Agent is hereby authorized to issue a Purchase Order to Underwood Engineers Inc of Portsmouth NH for design services for Spur Rd at rates provided in conjunction with Bid B18039. The City Manager, or designee, is hereby authorized to contract with the vendor, consistent with the Purchase Order authorized herein.

The amount of this authorization shall be limited so as not to exceed available funding.

Financing

Account	Description	Appropriation	Balance
5320.1.300.43250.4757.04537.01	Utility Spur Rd	15,549.11	15,549.11
5300.1.300.43320.4757.03562.17	Water Spur Rd	1,971,950.79	1,971,950.79
4017.1.300.43121.4751.03151.17	Streets Spur Rd	1,700,000.00	1,700,000.00

AUTHORIZATION

Approved as to Funding: Daniel R. Lynch
Finance Director

Sponsored by: Mayor Karen Weston
By Request

Approved as to Legal
Form and Compliance: Anthony Blenkinsop
General Legal Counsel

Recorded by: Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.A.5.

Resolution Number: **R – 2018.02.28 – 013**

Resolution Re: B18039 Design Consultant for Spur Road Reconstruction

DOCUMENT HISTORY:

First Reading Date:

Public Hearing Date:

Approved Date:

Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.A.5.

Resolution Number: **R – 2018.02.28 – 013**
Resolution Re: B18039 Design Consultant for Spur Road Reconstruction

RESOLUTION BACKGROUND MATERIAL:

The City of Dover is requesting proposals for consulting services for the design of Spur Road Reconstruction Project. This area consists of approximately 13,200 LF of roadway with associated drainage and water main components. The Consultant will provide engineering services for the design, specifications, and bid documents and clarifications for this project.

The project entails roadway reconstruction with cement injection, approximately 3,800 LF of new 12 inch water main installation, replacement of a turnpike water main crossing and drainage inspections and possible improvements.

The City is committed to a multi-modal approach to roadway design, particularly in urban residential areas. The wish is for streets and ways to be designed and operated to be safe and accessible for all users regardless of age, physical ability or mode of transport. The selected Consultant must be able to demonstrate familiarity with the Complete Streets and Traffic Calming principles in the rehabilitation and replacement of existing streets. The consultant will investigate possible road widening for bike lanes and/or sidewalks.

Bid Information:

A Sealed Request for Bid B18039 was issued and received for Spur Road Reconstruction on January 30, 2018 at 2:30 pm.

Award Information:

A purchase order will be issued to the vendor selected to future expenditures as outlined in this resolution.

Purchasing Information:

Type:	Purchase Order	Advertised:	Yes
Invitations Mailed:	338	Number of Responses:	8
Warranty:	Per manufacturer	Terms:	Net 30, FOB Dover
Work Bonded:	No	Contract:	Yes
Prices will hold for:	Until completed	Estimated Delivery:	As needed
Recommended Award to:	Underwood Engineers Inc	Fund:	CIP
Other Approvals Required:	No	References Checked:	Satisfactory
Previously Worked for City:	Yes	Reason for Council Approval:	Purchase to exceed the \$25,000 amount requiring Council approval subsequent to a bid solicitation

[Bid Documents and Vendor List](#)



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.A.6.

Resolution Number: **R – 2018.02.28 – 014**

Resolution Re: Public Safety Communication Additional Upgrades

WHEREAS: The National Association of State Procurement Offices (NASPO ValuePoint) is a State Government Cooperative Purchasing Group that has established several procurement contracts through bid solicitations. One such contract is Public Safety Communication Equipment. NASPO awarded an agreement to Motorola Solutions, Inc for such equipment and City Council approved a \$465,000 contract via resolution [R-2017.07.26-086](#); and

WHEREAS: Two Way Communications, in conjunction with Motorola Solutions, has submitted a proposal for additional upgrades for all three fire stations totaling \$51,792.34; and

WHEREAS: Per 3-37B, Exemptions to Competitive Bidding of the Dover Purchasing Procedure, the purchasing agent may, with approval of the City Manager, waive bidding procedures when purchasing through the state of New Hampshire or at state bid prices, other governmental agencies or cooperative buying groups.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT:

The Purchasing Agent is hereby authorized to issue Purchase Orders to Two Way Communications of Portsmouth NH and Motorola Solutions, Inc. of Atlanta, GA for additional public safety communication equipment and installation in the amount not to exceed \$51,792.34. The City Manager, or designee, is hereby authorized to contract with the vendor, consistent with the Purchase Order authorized herein.

The amount of this authorization shall be limited so as not to exceed available funding.

Financing

Account	Description	Appropriation	Balance
4018.1.210.42120.4741.02151.18	Public Safety Communication Upgrades	29,948.81	29,948.81
4008.1.210.42120.4741.02151.08	Public Safety Communication Upgrades	22,995.11	22,995.11

AUTHORIZATION

Approved as to Funding: Daniel R. Lynch
Finance Director

Sponsored by: Mayor Karen Weston
By Request

Approved as to Legal
Form and Compliance: Anthony Blenkinsop
General Legal Counsel

Recorded by: Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.A.6.

Resolution Number: **R – 2018.02.28 – 014**

Resolution Re: Public Safety Communication Additional Upgrades

DOCUMENT HISTORY:

First Reading Date:

Public Hearing Date:

Approved Date:

Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.A.6.

Resolution Number: **R – 2018.02.28 – 014**

Resolution Re: Public Safety Communication Additional Upgrades

RESOLUTION BACKGROUND MATERIAL:

On July 26, 2017 City Council approved the Public Safety Communication Upgrade project in the amount of \$465,000.00.

Zetron Digital Station Alerting:

As the project developed, staff became aware that older analog technology had been initially recommended for fire station alerting functions, as it also aligned with the technology of similar hardware being used to provide contractual dispatching services to the Town of Rollinsford. Further review disclosed that digital station alerting hardware meets current safety standards that analog does not, specifically providing a constant monitoring of the station alerting signals (including notification if a signal breakdown occurs between the Dispatch Center and any of the three (3) Dover fire stations). Also provides for more functionality in the way stations and crews are notified of emergencies, and allows for future system development using current technology. The committee determined the additional cost was justified, and a Memorandum of Understanding with the Town of Rollinsford is underway in that they would assume the full cost for the purchase and maintenance of the analog equipment that drives their current system and reimburse the City of Dover \$13,354.61 paid in installments over the next three years.

SCADA:

Initial bid proposal included independent signal monitoring of primary functions in the equipment shelters at each of the systems radio towers, including temperature controls, smoke detection, power surge/loss and unauthorized entry. Recently, with ongoing development of the City's SCADA system, the Community Services Department began work to enhance their notification system of critical infrastructure (City wells, water/sewer pumping stations) and to consolidate signal monitoring. It was determined that communications tower equipment could be tied into the same system as all other City equipment being monitored, providing for a more reliable means to monitor the new communications system. With over \$900,000.00 of infrastructure value in the newly designed communications system, the committee feels the additional cost of integrating into the City's SCADA monitoring system (vs a stand-alone system) is justified.

Purchasing Information:

Type:	Purchase Order	Advertised:	NA
Invitations Mailed:	NA	Number of Responses:	NA
Warranty:	Per manufacturer	Terms:	Net 30, FOB Dover
Work Bonded:	Yes	Contract:	Yes
Prices will hold for:	Until Delivered	Estimated Delivery:	2018
Recommended Award to:	Two Way Communications & Motorola Solutions	Fund:	FY18 CIP
Other Approvals Required:	No	References Checked:	Satisfactory
Previously Worked for City:	Yes	Reason for Council Approval:	Purchase to exceed the \$25,000 amount requiring Council approval



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.1.

Resolution Number: **R – 2018.02.28 – 015**

Resolution Re: Commitment to Organic Land Management Practices

WHEREAS: The City of Dover is committed to eliminating the exposure of our citizens, both children and adults, to chemicals that are known, or suspected to be, toxins or carcinogens, while striving to lead our community by example and by promotion of policies, regulations and practices that eliminate exposure to toxic compounds; and

WHEREAS: Organic land management practices using only non-toxic methods is a proven practice that establishes an approach to managing mechanical and/or physical controls to eliminate the need for using toxic pesticides; and

WHEREAS: Organic land management requires accurate pest identification, frequent monitoring for pest presence, determining appropriate action levels, and properly combining biological, cultural, physical, and, only when deemed necessary, use of least toxic pesticides in a way that minimizes health, environmental, and economic risks; and

WHEREAS: Organic land management will reduce both the presence of toxins in the environment of our City, but will also reduce the introduction of unnecessary nutrients into the watershed of our rivers and the Great Bay.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT:

It shall be the policy of the City of Dover to utilize sound land management practices, and the use of least toxic compounds only when necessary, in the maintenance and protection of City property, thereby minimizing, if not eliminating, exposure to toxic pesticides on the part of our citizens and the environment;

AND, FURTHER BE IT RESOLVED;

The City Manager shall develop and execute a plan to transition the City to eliminate the use of synthetic fertilizers on City property. This plan will culminate in the substantial elimination of the use of synthetic fertilizers by the 2020 growing season.

AUTHORIZATION

Approved as to Funding:

Daniel R. Lynch
Finance Director

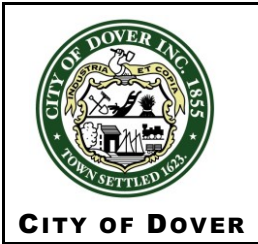
Sponsored by: Councilor Dennis Shanahan

Approved as to Legal
Form and Compliance:

Anthony Blenkinsop
General Legal Counsel

Recorded by:

Karen Lavertu
City Clerk



CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.1.

Resolution Number: **R – 2018.02.28 – 015**

Resolution Re: Commitment to Organic Land Management Practices

DOCUMENT HISTORY:

First Reading Date:	Public Hearing Date:
Approved Date:	Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsay Williams, At Large		
Total Votes:		
Resolution does does not pass.		

RESOLUTION BACKGROUND MATERIAL:

This resolution requires that organic land management practices involving only least toxic pesticides be utilized in maintaining City owned property and that these practices be shared and promoted for use by the public in maintaining private property throughout the community.

There are numerous resources that tabulate lists of least toxic products, (e.g., the United States Environmental Protection Agency's minimum risk products list or materials listed as organic by non-profit organizations such as the Organic Materials Review Institute) to facilitate the choice of materials.

Organic land management is an effective and environmentally sensitive approach to pest and turf management that relies on a combination of common-sense best management practices without the use of toxic pesticides. Organic land management uses current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with a variety of pest control methods, is used to manage pest damage by economical means, and with minimal hazard to people, property, and the environment.

The City has invested considerable effort and financial resources to reduce the discharge of nutrients from our wastewater treatment plant, a singular point source of unwanted nutrients. More careful application of fertilizers as part of an organic land management practice by the City will decrease our contribution of nutrients to the waters of the Great Bay. Promotion of this policy of organic land management also demonstrates to the community at large that the City is a leader in the stewardship of our natural resources.



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.2.

Resolution Number: **R – 2018.02.28 – 016**

Resolution Re: 2018 Multi Hazard Mitigation Plan Approval

WHEREAS: The City of Dover received funding from the NH Office of Homeland Security and Emergency Management fiscal year 2016 Pre-Disaster Mitigation (PDM) Grant Program and assistance from Strafford Regional Planning Commission in the preparation of the Dover, NH Multi- Hazard Mitigation Plan Update 2018; and

WHEREAS: Several public planning meetings were held between October 31, 2017 and December 27, 2017 regarding the development and review of the Dover, NH Multi-Hazard Mitigation Plan Update 2018; and

WHEREAS: The Dover, NH Multi-Hazard Mitigation Plan Update 2018 identifies several potential future projects to mitigate hazard damage in the City of Dover; and

WHEREAS: A duly noticed public meeting was held by the Dover City Council on February 21, 2018 to review the Dover, NH Multi-Hazard Mitigation Plan Update 2018.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL THAT:

The 2018 Update of the Dover, NH Multi-Hazard Mitigation Plan is hereby approved.

AUTHORIZATION

Approved as to Funding:

Daniel R. Lynch
Finance Director

Sponsored by: Mayor Karen Weston
By request

Approved as to Legal
Form and Compliance:

Anthony Blenkinsop
General Legal Counsel

Recorded by:

Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.2.

Resolution Number: **R – 2018.02.28 – 016**

Resolution Re: 2018 Multi Hazard Mitigation Plan Approval

DOCUMENT HISTORY:

First Reading Date:

Public Hearing Date:

Approved Date:

Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsay Williams, At Large		
Total Votes:		
Resolution does does not pass.		

RESOLUTION BACKGROUND MATERIAL:

The attached plan, which is updated every five years, is a planning document identifying specific hazards and approaches to be pursued for mitigating them. This current update to the plan has been approved by FEMA and requires City Council adoption. The community must have a Hazardous Mitigation Plan in order to apply for grants and to be able to seek reimbursement from FEMA. The City Council has reviewed, discussed and approves by passage of this resolution the 2018 Update to the Dover, NH Hazard Mitigation Plan. The vote to approve does not obligate any funds to be expended, it identifies potential needs and strategies to be pursued for planning purposes.

Multi-Hazard Mitigation Plan Update 2018

City of Dover, NH



Adopted 2006

Updated February 1, 2013

Updated XX, 2018

Submitted to the New Hampshire Homeland Security & Emergency Management

By the

City of Dover, NH

with Strafford Regional Planning Commission

This project was funded from the fiscal year 2016 Pre-Disaster Mitigation (PDM) Grant Program, which was awarded to the Department of Safety, Division of Homeland Security and Emergency Management (HSEM) from the Federal Emergency Management Agency (FEMA).

Acknowledgements

This plan was created through a grant from New Hampshire Homeland Security and Emergency Management (HSEM). The following organizations have contributed invaluable assistance and support for this project:

The 2006 and 2013 Dover Multi-Hazard Mitigation Committee
New Hampshire Homeland Security Emergency Management (HSEM)
City of Dover

The 2018 City of Dover Multi-Hazard Mitigation Planning Committee

14 people have attended meetings and/or been instrumental in completing this plan:

- | | |
|-------------------------|---|
| • Eric Hagman | Fire Chief/EMD, City of Dover |
| • Anthony Colarusso | Police Chief, City of Dover |
| • Christopher G. Parker | Assistant City Manager, Planning & Strategic Initiatives, City of Dover |
| • Dave White | City Engineer, City of Dover |
| • Susan Daudelin | Director of Human Resources/Executive, City of Dover |
| • Jim Maxfield | Building Official, City of Dover |
| • Dan Barufaldi | Economic Development Director, City of Dover |
| • Gary Bannon | Recreation Department Director, City of Dover |
| • Kathleen Meyers | Asset Management Admin/IT, City of Dover |
| • Lena Nichols | Director of Welfare, City of Dover |
| • Cathy Beaudoin | Library Director, City of Dover |
| • Mike Gillis | Media Services Manager, City of Dover |
| • Jon Storer | Community Services Director, City of Dover |
| • Bill Boulanger | Deputy Director of Community Services, City of Dover |

Plan Prepared and Authored By
Kyle Pimental, Principal Regional Planner
Strafford Regional Planning Commission
150 Wakefield Street, Suite 12
Rochester, NH 03867
603-994-3500
www.strafford.org

Date of Conditional Approval from HSEM: 2/13/18

Date of Adoption by City:

Date of Final Approval from FEMA:

Cover: Cocheco River flooding outdoor deck of the Tavern Grill at the Falls (formerly Kelley's Row); 2006
Photo credit: Richard Driscoll, Former Assistant Fire Chief, Dover Fire & Rescue

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Executive Summary

This Plan was revised and updated to meet statutory requirements and to assist the City of Dover in reducing and mitigating future losses from natural and man-made hazardous events. An initial edition of this Plan was developed and presented to FEMA in 2006. The plan was revised in 2013, and was updated in 2018 to reflect the most recent information obtained through the evolution of the hazard mitigation program at the State. This update was developed by Strafford Regional Planning Commission (SRPC) and participants from the Multi-Hazard Mitigation Planning Team. This team was made up by the Fire Chief/EMD, Police Chief, Planning Director/Assistant City Manager, City Engineer, Director of Human Resources/Executive, Building Official, Economic Development Director, Recreation Department Director, Asset Management Admin/IT, Director of Welfare, Library Director, Media Services Manager, Community Services Director, and Deputy Director of Community Services.

The Plan references historical events, as well as identifies specific vulnerabilities that are likely to impact the City. Overall threats include:

- ∴ 5 hazards rated as having a High overall risk in Dover: flooding (riverine/extreme rain event), hurricanes & tropical storms, severe winter storms, severe thunderstorms, and public health threats
- ∴ 3 hazards rated as having a Moderate overall risk in Dover: hazardous materials, tornado and downburst, and coastal flooding (storm surge and sea-level rise)
- ∴ 6 hazards rated as having a Low overall risk in Dover: extreme temperatures, drought, flooding (dam failure), earthquake and landslide, wildfire, and cyber-attacks

Each hazard was provided with a description and information on the hazard's extent, past events and impacts, potential future impacts to the community, and potential loss estimates. As part of this analysis, the planning team reviewed past and existing mitigation strategies and made updates for improvement. Lastly, the planning team developed a series of new mitigation actions to be completed over the course of this plan's five-year cycle. Each mitigation action was prioritized using the STAPLEE Method and responsibilities for implementation were identified.

This plan provides an updated list of Critical Facilities and Key Resources (CF/KR) categorized as follows: Emergency Response Facilities (ERF), Non-Emergency Response Facilities (NERF), Critical Facilities (CF), Vulnerable Populations to Protect (VPP), and Water Resources (WR). All critical assets were inventoried and mapped.

The revision process included reviewing other City Hazard Plans, technical manuals, federal and state laws, the State Hazard Mitigation Plan, research data, and other available mitigation documents from multiple sources. Combining elements from these sources, the Planning Team was able to produce this integrated multi-hazards plan and recognizes that such a plan must be considered a work in progress.

The City of Dover received conditional approval on February 13, 2018. A public meeting was held and the plan was adopted by the City Council on XX, 2018. The Plan received formal approval from FEMA on XX, 2018.

In addition to periodic reviews there are three specific situations, which require a formal review of the plan. The plan will be reviewed:

- ∴ Annually to assess whether the existing and suggested mitigation strategies have been successful and remain current in light of any changes in federal state and local regulations and statutes. This review will address the Plan's effectiveness, accuracy and completeness in regard to the implementation strategy. The review will address any recommended improvements to the Plan, and address any weaknesses identified that the Plan did not adequately address. This report will be filed with the City Council.
- ∴ Every five years the Plan will be thoroughly reviewed, revised and updated using the same criteria outlined above. At that time it is expected to be thoroughly reviewed and updated as necessary. The public will be allowed and encouraged to participate in that five year revision process.
- ∴ After any declared emergency event, the EMD using the same criteria outlined above.
- ∴ If the City adopts any major modifications to its land use planning documents, the jurisdiction will conduct a Plan review and make changes as applicable.



Flooding at Henry Law Park, 2016

Chapter 1: Multi-Hazard Mitigation Planning Process

Authority

Dover's original Multi-Hazard Mitigation Plan was prepared pursuant to Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Act), herein enacted by Section 104 of the Disaster Mitigation Act of 2000 (DMA) (P.L. 106-390). This Act provides new and revitalized approaches to mitigation planning. Section 322 of DMA 2000 emphasizes the need for State, local and tribal entities to closely coordinate mitigation planning and implementation efforts. This revised multi-hazard plan will be referred to as the "Plan". Dover's Plan has been prepared by the Multi-Hazard Mitigation Planning Team with the assistance and professional services of Strafford Regional Planning Commission (SRPC) under contract with New Hampshire Homeland Security Emergency Management (HSEM) operating under the guidance of Section 206.405 of 44 CFR Chapter 1 (10-1-2010 Edition). This plan is funded, in part, by HSEM through grants from FEMA (Federal Emergency Management Agency). Funds from matching funds for team member's time are also part of the funding formula.

Purpose and History

The ultimate purpose of Disaster Mitigation Act of 2000 (DMA) is to:

- *establish a national disaster hazard mitigation program –*
- *reduce the loss of life and property, human suffering, economic disruption and disaster assistance costs resulting from natural disasters; and*
- *provide a source of pre-disaster hazard mitigation funding that will assist States and local governments (including Indian tribes) in implementing effective hazard mitigation measures that are designed to ensure the continued functionality of critical services and facilities after a natural disaster.*

DMA 2000 amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act by, among other things, adding a new section "322 – Mitigation Planning" which states:

As a condition of a receipt of an increased Federal share for hazard mitigation measures under subsection (e), a State, local, or tribal government shall develop and submit for approval to the President a mitigation plan that outlines processes for identifying the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government.

HSEM's goal is for all New Hampshire communities to complete a local multi-hazard plan as a means to reduce future losses from natural and man-made events before, during, or after they occur. HSEM has outlined a process whereby communities throughout the state may become eligible for grants and other assistance upon completion of this multi-hazard plan. The state's regional planning commissions are charged with providing assistance to selected communities to help develop local plans.

Dover's Multi-Hazard Mitigation Plan is a planning tool for reducing future losses from natural and man-made disasters as required by the Disaster Mitigation Act of 2000.

The DMA places new emphasis on local mitigation planning. It requires local a local jurisdiction to prepare and adopt a FEMA approved jurisdiction-wide Hazard Mitigation Plan as a condition for receiving Hazard Mitigation Assistance (HMA) project grants and other grants every five years. In addition to updating their plans every five years to continue program eligibility, local governments should review the plan yearly.

Jurisdiction and Scope of the Plan

This Plan addresses only one jurisdiction: the City of Dover, NH. The Plan addresses 15 types of natural and man-made hazards that may affect the City:

- Flooding (Riverine/Extreme Rain Event)
- Flooding (Dam Failure)
- Coastal Hazards (Storm Surge & Sea-Level Rise)
- Hurricane & Tropical Storms
- Tornado & Downburst
- Severe Winter Storms
- Severe Thunderstorms
- Wildfire
- Earthquake/Landslide
- Extreme Temperatures
- Drought
- Public Health Threats
- Hazardous Material
- Cyber Attacks
- Domestic Terrorism

It describes each hazard and identifies past occurrences of hazard events and assesses probability of future hazard events in the City. The Plan assesses the vulnerability of key infrastructure and critical facilities; existing residential buildings and other structures within Dover; and future development. The Plan also addresses the administrative, technical, and physical capacity of emergency response services and response coordination between federal, state, and local entities.



Flooding on the Snows Court, 2016

Multi-Hazard Mitigation Goals

The City’s multi-hazard goals are based on the State of New Hampshire Multi-Hazard Mitigation Plan (2013) goals and include:

- *Ensure the protection of the general population, citizens and guests of Dover New Hampshire, before during and after a hazard.*
- *Protect existing properties and structures through mitigation activities.*
- *Provide resources to residents of Dover, when needed, to become more resilient to hazards that impact the city’s critical support services, critical facilities, infrastructure, economy, environment, historical & cultural treasures and private property.*
- *Support the Presidential Policy Directive (PPD-8) through prevention, mitigation, preparedness, and response and recovery actions.*
- *Work regionally to identify, introduce and implement cost effective hazard mitigation measures in order to accomplish the city’s goals.*
- *Develop and implement programs to promote hazard mitigation to protect infrastructure throughout the city to reduce liability with respect to natural and human-caused hazards generally.*
- *To address the challenges posed by climate change as they pertain to increasing risks in the city’s infrastructure and natural environment.*

Multi-Hazard Mitigation Planning Process

Overview

The Plan was developed and updated with substantial local, state, and federal coordination. The completion of this new multi-hazard plan required significant planning preparation and represents the collaborative efforts of the City of Dover, an ad-hoc local Multi-Hazard Mitigation Planning Committee, and SRPC. The Committee followed an established ten step multi-hazard mitigation planning process (see box, right).

The Committee met four times over a two month period to discuss the range of hazards included in this plan as well as brainstorm mitigation needs and strategies to address these hazards and their impacts on people, business, and infrastructure in the City. All meetings were geared to accommodate brainstorming, open discussion, and an increased awareness of potential threats to the City. This process results in significant cross talk regarding all types of natural and man-made hazards.

Ten Step Multi-Hazard Mitigation Planning Process
1. Establish and Orient a Hazard Mitigation Planning Committee
2. Identify Past and Potential Hazards
3. Identify of Hazards and Critical Facilities
4. Assess Vulnerability – Estimating Potential Losses
5. Analyze Development Trends
6. Identify Existing Mitigation Strategies and Proposed Improvements
7. Develop Specific Mitigation Measures
8. Prioritize Mitigation Measures
9. Prepare Mitigation Action Plan
10. Adopt and Implement the Plan

Committee Meetings

The Plan is being developed with substantial local, state and federal coordination; completion of this new multi-hazard plan required significant planning preparation. All meetings are geared to accommodate brainstorming, open discussion and an increased awareness of potential threats to the City. Below is a brief summary of each meeting. Meeting agendas and sign-in sheets are included in the Plan's Appendix B.

Meeting # 1: October 31, 2017

Members present: Jim Maxfield (Building Official/Inspection Services), Kathleen Meyers (Asset Management Admin/IT), Lena Nichols (Director of Welfare), Dan Barufaldi (Director of Economic Development), Susan Daudelin (Director of Human Resources/Executive), Anthony Colarusso (Police Chief), Cathy Beaudoin (Library Director), Mike Gillis (Media Services Manager), John Storer (Community Services Director), Gary Bannon (Emergency Shelter Manager/Recreation Director), Eric Hagman (Fire Chief/EMD), Dave White (City Engineer/Community Services), and Christopher Parker (Assistant City Manager/Planning).

Strafford Regional Planning Commission (SRPC) staff provided a brief overview of the update process and the federal requirements set forth in the City's grant. This included information on the five-year plan cycle, eligibility of future funding opportunities, and the City's existing plan that is set to expire on 2/1/18. SRPC staff detailed the in-kind match documentation, committee responsibilities, and steps towards successful adoption.

SRPC, and the committee, reviewed the draft community profile chapter. Committee members provided the following feedback:

1. The City will provide local housing data to ensure more accurate housing unit information
2. The City will provide 2017 building permit data that will be added into the plan
3. SRPC will include additional build-out information that was updated in the 2014 land use analysis master plan chapter

SRPC, and the committee, reviewed the draft asset inventory chapter. Committee members provided the following feedback:

1. Revisions to Table 4: Emergency Response Facilities (ERF) include:
 - a. City Hall remains a primary facility due to its administrative and IT-based functions
 - b. Removal of two helipad locations (Liberty Mutual and Dover High School)
 - c. Add the following facilities: McConnell Center (primary shelter); Dover Middle School (radiological emergency preparedness reception center); Woodman Park (back-up shelter); and Dover High School (will function as the primary back-up shelter once completed in August, 2018)
 - d. The Fire Chief will gather all local evacuation routes that have already been identified in other emergency management plans for inclusion
2. Revisions to Table 5: Non-Emergency Response Facilities (NERF) include:
 - a. Add Dover Transportation Center (Amtrak) on Chestnut Street

- b. Add NH Park and Ride (Exit 9 off US 16) as potential logistics and staging area during emergencies
 - c. Add both River Street and Varney Brook pump stations
- 3. Revisions to Table 6: Critical Facilities (CF) include:
 - a. Add Stonewall (Mast Road) pump station
 - b. Add both water towers (Garrison Hill and Long Hill Road)
 - c. The City will reach out to Eversource to determine where the power substation in Rochester is located
 - d. The Fire Chief will gather Unitil regulating stations are located
 - e. The City Engineer will contact Eversource to determine the location of all switching stations
 - f. Add three new communication towers on Garrison Hill, Long Hill Road, and Middle Road
 - g. Remove combine antenna on City Hall and the cell tower on Garrison Ave
 - h. SRPC will work with the City to obtain GIS information for as many critical facilities as possible
 - i. Note that both Sawyer Mill dams (lower and upper) are scheduled for removal
 - j. Include the fish ladder for Central Ave Dam (Cochecho Falls)
 - k. Identify the Whittier Street Bridge as under construction and formerly a redlist bridge
 - l. SRPC will work with both the Fire Chief and Police Chief to determine the most critical intersections for inclusion; a more detailed prioritization will be recommended as a new mitigation strategy
- 4. Revisions to Table 8: Vulnerable Populations to Protect (VPP) include:
 - a. Combine Dover High School with Regional Career Technical Center
 - b. Add Dover Alternative School (50 Alumni Drive)
 - c. Remove Westwood Nursery
 - d. Add Honey Hill School, Seacoast Charter School (171 Watson Road), and Little Tree (383 Sixth Street)
 - e. SRPC will work with the City to get an accurate listing of active day cares and preschools
 - f. The Assistant City Manager will provide additional assisted living and nursing home information
- 5. Revisions to Table 9: Water Resources (WR) include:
 - a. Add the following groundwater wells:
 - i. DPH-1
 - ii. Willand Pond
 - iii. Lowell WTP, Bouchard Well WTP, and Griffin Well WTP
 - iv. Potential additional well at Shaws Lane, which would provide additional irrigation capacity for the athletic fields (this is under investigation)
 - b. Add fire hydrant as an emergency interconnection with Somersworth (pending 2018)
 - c. SRPC will follow up with the Fire Chief to inquire if there are any locations along the rivers that can be used as auxiliary fire aid

SRPC, and the committee, reviewed the all the past mitigation strategies. Committee members provided the following feedback:

- 1. The Assistant City Manager would provide more information on the Environmental Management Systems project

2. The Committee requested more time to review the table and would email SRPC staff with additional comments

The next meeting was set for November 14th at 10AM at the McConnell Center. SRPC staff indicated that materials would be sent out prior to the meeting date to give the committee adequate time to be prepared to discuss agenda items.

Meeting # 2:

Members present: Members present: Jim Maxfield (Building Official/Inspection Services), Kathleen Meyers (Asset Management Admin/IT), Dan Barufaldi (Director of Economic Development), Anthony Colarusso (Police Chief), Cathy Beaudoin (Library Director), Mike Gillis (Media Services Manager), John Storer (Community Services Director), Gary Bannon (Emergency Shelter Manager/Recreation Director), Eric Hagman (Fire Chief/EMD), and Christopher Parker (Assistant City Manager/Planning).

SRPC staff opened the meeting by reviewing the notes from the October meeting with the Planning Committee; there were no additional comments. SRPC briefly went over the to-do list and asked that identified committee members submit their tasks as soon as possible for inclusion into the plan.

Next, the Planning Committee reviewed the City's National Flood Insurance Program (NFIP) status and past floodplain management actions. Past actions included: sending out flood insurance brochures to existing residents and new homeowners located in the flood zone¹ (handouts were also made available at City Hall); encouraging the City to participate in the Community Rating System (CRS) to reduce flood insurance rates; sending one municipal staff member to receive Certified Floodplain Managers (CFM) training; including a question about properties in the floodplain into the City's LEAN review process; and working with a property owner on Snows Court to donate a repetitive loss structure to the City for conversion into a public park.

The Planning Committee then discussed the descriptions of each hazard. Below is a summarized list of additional data that will be included into the Plan:

1. Flooding
 - a. Add information on the 1896 ice jam event; add information about the ice jam that happened in the 1900's that impacted the Dover Point Bridge.
 - b. Include additional areas that were impacted from flooding, such as Willand Pond, which flooded the boat launch, walking trails, the parking lot, and parts of New Rochester Road; residential homes on Littleworth Road near Barbadoes Pond; the Children's Museum; the Madbury Apartments on Knox Marsh Drive; areas near Dean Drive and French Cross Road; and the mill buildings (#5) along Central Ave and Main Street.
 - c. Add impacts from dams outside the City – specifically Milton Dam (Milton) and Bow Lake (Barrington).

¹ It should be noted that the brochure distribution was completed before the adoption of the 2015 map updates and the City should complete another mail-out with information on the new maps.

2. Hurricane and Tropical Storms
 - a. Minor impacts during Hurricane Sandy, included periods of heavy rain and short-term power outages
 - b. Minor impacts during Tropical Storm Irene, included periods of heavy rain, downed branches, and short-term power outages.
3. Tornado and Downburst
 - a. In July, 2017 there was a significant microburst that impacted a handful of residential homes and a few small businesses along Tolend and French Cross roads. According to Fosters.com there were a number of downed trees that blocked roads, took down power lines and hit homes and cars.
 - b. In October, 2017 a wind storm that was accompanied with heavy rain produced sustained winds of 60 mph that resulted in wide-spread power outages caused by downed trees and power lines. Upwards of 45% of the City was without power, which included Wentworth Douglass Hospital, and all the schools were cancelled for at least one day.
4. Severe Winter Weather
 - a. Impacts for the Ice Storm of 1998 included long-term power outages (upwards of 7+ days), 1 fatality associated with carbon monoxide poisoning, school closures, and challenges with traffic at busy intersections.
 - b. Impacts for the Ice Storm of 2008 included long-term power outages (there were a lot of impacts to transmission lines outside the state), and school closures.
 - c. Impacts for the Blizzard of 2013 included snow removal challenges.
 - d. Impacts for the Blizzard of 2015 included snow removal challenges, economic impacts in the downtown, and line of site issues due to high snow banks along sidewalks and pedestrian intersections.
 - e. Additional events to add are the Halloween Snow Event (2011), which produced heavy, wet snow and leaf-on conditions that resulted in downed trees and caused major power outages throughout the City, and the Thanksgiving Day snow event in late November (2017), which also produced heavy, wet snow that resulted in sporadic power outages and disrupted travel plans for the holiday weekend, including major delays at airports and hazardous travel on local and state roadways.
5. Severe Thunderstorms and Lightning
 - a. Past strikes have occurred at the wastewater treatment facility on Middle Road.
 - b. The SCADA antenna on Garrison Hill has been hit before.
 - c. A woman was struck on Governor Sawyer Lane during a storm event – fortunately this event did not result in a fatality.
 - d. Hail has caused significant damage to vehicles during storms.
6. Wildfire
 - a. There were multiple brush fires back in 1985; however, many of those problematic areas have since been developed.
 - b. Many of the downed trees and fuel load near Bellamy Park have been cleaned up in associated with the maintenance and upkeep of the Frisbee golf course.
 - c. The potential risk for large scale wildfires within the City is low (natural breaks); however, more rural areas adjacent to Tolend Road towards Barrington may be more susceptible.

7. Earthquakes and Landslide

- a. All new construction has to be engineered and designed to handle appropriate seismic activity.
- b. The Planning Committee recognizes that some of the older structures within the City may be more vulnerable. It is unclear as to the impacts to the mill buildings if a large earthquake were to hit.

8. Extreme Temperatures

- a. The City sends out advisory notices whenever the National Weather Service issues cold/heat index warnings.
- b. The McConnell Center is opened as a cooling station at least once or twice on average during the summer months. Likewise, the McConnell Center is opened as a heating station at least once or twice on average during the winter months.
- c. During prolonged heat waves, the City extends hours for the outdoor pool and dials back outdoor programs to ensure public safety.

9. Drought

- a. The City, in partnership with the Strafford Regional Planning Commission, will be considering adopting new water efficiency regulations to address water usage during future drought scenarios.

10. Public Health Threats

- a. NHDES has offered a free water testing program (documents arsenic levels and assesses biological activity for a variety of bacteria), in which Dover has chosen to participate in. SRPC staff would follow up with NHDES to determine if any results for Dover are available to include into the plan.
- b. Contamination of public drinking water wells to elevated levels of the unregulated contaminant perfluorooctane sulfonic acid (PFOS) has become an emerging threat; however, natural occurring radionuclides (radium, uranium) found in private drinking water supplies is also an important public safety hazard.
- c. Dover has experienced 13 confirmed drug overdose fatalities in 2017; 12 in 2016, and 12 in 2015. Substance abuse, specifically the opioid epidemic, has directly impacted Dover's workforce – with the restaurant business getting hit particularly hard. This problem has also impacted the crime rate, with increases in the cases of car break-ins and credit card fraud.
- d. The City is currently exploring options to limit, or potentially ban, pesticide and herbicide spraying protocols. There was some concern that this wide-spread ban may have an adverse impact if there was to be a vector-borne disease breakout that needed spraying. This topic is still being discussed at the City Council, and Chris Parker would give an update to the Committee at the next meeting in December.
- e. The Dover High School is a Point of Dispensing (POD) location for large-scale vaccinations. In 2016, the City's Police and Fire Departments participated in a state-wide drill to simulate the distribution of medications, vaccines, or medical supplies to a large community of people during an emergency.
- f. During construction of the new police department, low levels of arsenic were found; however, the levels were low enough where it was dumped into the City's dredge cell.

11. Hazardous Materials

- a. Add the two large heating vendors on Fourth Street and Broadway (fuel storage).
- b. Add Route 4 to the transportation corridors.

- c. Add the Pan-Am rail line (propane and fuel oil).
- d. Add the Unitol distribution system for natural gas and the Ecoline pipeline, which transports purified methane gas from the Waste Management's Turnkey Recycling and Environmental Enterprise (TREE) in Rochester to the University of New Hampshire.
- e. Dover is within the 50-mile ingestion pathway if the Seabrook Station Nuclear Power Plant were to have a nuclear release.
- f. The Planning Committee could only recall one hazardous spill associated with a truck accident. It took place on the off-ramp on Route 4 westbound to Durham; a semi-tractor trailer truck that was carrying propane flipped over.
- g. The City's Fire Department has responded to sporadic calls for locomotive fires at the rail yard.
- h. The City identified the Newington Sea-3 expansion project as an important hazardous materials threat. This import/export project includes three 90,000-gallon tanks and associated chilling and pumping equipment in order to refrigerate and bulk store pressurized propane that is being railed in.

12. Coastal Hazards

- a. There has been some significant erosion of the shoreline along the Bellamy River, in close proximity to Spur Road. This has resulted in ongoing repairs of docks and deck issues.

The Planning Committee expressed interested in adding both cyber-attacks and domestic terrorism to the list of potential hazards. SRPC agreed to work on these hazards and present them at the meeting in December.

SRPC asked that the Committee review Table 12: Hazard Vulnerability Assessment Tool, and come prepared to discuss changes to the overall threat levels at the next meeting.

The next meeting was set for December 12th at 10AM at the McConnell Center. SRPC staff indicated that materials would be sent out prior to the meeting date to give the committee adequate time to be prepared to discuss agenda items.

Meeting # 3:

Members present: Members present: Kathleen Meyers (Asset Management Admin/IT), Anthony Colarusso (Police Chief), Eric Hagman (Fire Chief/EMD), Cathy Beaudoin (Library Director), Christopher Parker (Assistant City Manager/Planning), John Storer (Community Services Director), and Lena Nichols (Director of Welfare).

SRPC staff opened the meeting by reviewing the notes from the November 14th meeting with the Planning Committee; there were no additional comments. SRPC briefly went over the to-do list and asked that identified committee members submit their tasks as soon as possible for inclusion into the plan.

Next, the Planning Committee reviewed and ranked each of the identified hazards using the hazard vulnerability assessment tool. The results are as follows:

- ∴ **5** hazards rated as having a **High** overall risk in Dover: flooding (riverine/extreme rain event), hurricanes & tropical storms, severe winter storms, severe thunderstorms, and public health threats
- ∴ **3** hazards rated as having a **Moderate** overall risk in Dover: hazardous materials, tornado and downburst, and coastal flooding (storm surge and sea-level rise)
- ∴ **6** hazards rated as having a **Low** overall risk in Dover: extreme temperatures, drought, flooding (dam failure), earthquake and landslide, wildfire, and cyber-attacks

The Planning Committee then discussed existing mitigation strategies (refer to Table 21: Existing Programs and Policies). The committee determined what the effectiveness was of each existing program and provided an update. Some actions existing programs, due to their relevance to other plans were combined.

Lastly, Planning Committee began brainstorming potential mitigation actions. A few ideas were developed; however, it was determined that it would be a better use of everyone's time if SRPC could send the committee a copy of the action table over the next two weeks and ask that members fill it out and come prepared for the final meeting in December.

The next meeting was set for December 27th at 10AM at the McConnell Center. SRPC staff indicated that materials would be sent out prior to the meeting date to give the committee adequate time to be prepared to discuss agenda items.

Meeting #4: December 27, 2017

Members present: Dave White (City Engineer/Community Services), Anthony Colarusso (Police Chief), Cathy Beaudoin (Library Director), Christopher Parker (Assistant City Manager/Planning), Lena Nichols (Director of Welfare), Mike Gillis (Media Services Manager), and Eric Hagman (Fire Chief/EMD).

SRPC staff opened the meeting by reviewing the notes from the December 12th meeting with the Planning Committee; there were no additional comments. SRPC briefly went over the to-do list and asked that identified committee members submit their tasks as soon as possible for inclusion into the plan.

SRPC staff explained that there were no hard copies of the maps, due to issues with the office printer. Instead, the maps were shown on a projector and would be emailed to the committee after the meeting for final review and any additional comments.

Next, the Planning Committee continued to develop new mitigation actions for inclusion in the plan. Each action was discussed as a group in order to determine the following criteria: hazard type, action category, responsible party, timeframe, location, and potential funding sources. Once a complete list was developed, the Planning Committee used the STAPLEE method to organize each of the actions. SRPC would be tasked with final organization of all new strategies and existing actions that were being carried over from the 2013 Plan.

The meeting ended with next steps for conditional approval, City adoption, and final FEMA adoption.

Public Involvement

Public involvement is an important part of the planning process. A local Multi-Hazard Mitigation Planning Committee (the Committee) was formed to guide and oversee the development of this Plan. Members of the City Council, Conservation Commission, Planning Department; Police, Fire, and Highway Departments; and local business owners, interested organizations, and Dover residents were invited to participate on the Committee. Community officials were encouraged to contact as many people as they could to participate in the planning process. Members of the public and other stakeholders from neighboring communities were also informed of and encouraged to attend the Committee's meetings.



To build awareness of the Plan and opportunity to be involved, an announcement about the Plan update was included on the Strafford Regional Planning Commission's website and information about the Plan was included in SRPC's news updates in order to ensure that adjacent communities were aware of Dover's committee meetings and had the opportunity to attend. A public notice, stressing the public nature of the process, was posted on the City's website and notices were hung at City Hall in advance of each Committee meeting. The Committee met four times between October 31, 2017 and December 27, 2017. All feedback from participants of the planning committee was

incorporated into the Plan. There was no participation from surrounding communities. There was no other public participation in the plan update process.

The public will have the opportunity for future involvement as the Plan will be periodically reviewed and the public will be invited to participate in all future reviews and updates to this plan. There will also be a public meeting before each formal review and before any change/update is sent to HSEM.

Once final approval by HSEM has been received, copies of the Plan will be distributed to the relevant City Departments and personnel, HSEM, and FEMA and other state and local governmental entities; the Plan will then be distributed by these entities per requirements. Copies of the Plan will remain on file at the Strafford Regional Planning Commission (SRPC) in both digital and paper format.

Adoption and Integration

Once approved by the Planning Committee, the Plan will be forwarded to HSEM for Conditional Approval. Upon review and conditional approval by HSEM, the City Manager will host a workshop with the City Council to review the revised Plan, and will hold a public meeting to consider public comments and must promulgate a signed Resolution to Adopt the Plan.

Elements of the Plan will be incorporated into other planning processes and documents, such as the City's Master Plan, Capital Improvement Plan, and Emergency Operations Plan. The City will refer to this Multi-Hazard Mitigation, as appropriate, in other documents.

Chapter 2: Community Profile

Overview

The City of Dover is located in the center of the Seacoast region and is the easterly gateway to the White Mountains and Lakes region of New Hampshire. It is about 12 miles Northwest from Portsmouth, 40 miles east of Concord. The City of Somersworth is to the northeast; Eliot, Maine is to the east, from which it is separated by the eastern branch of the Piscataqua River; and the Town of Madbury is to the southwest. With a population of 30,534 (according to the 2015 American Community Survey), Dover has experienced roughly an 11.6% increase in total population since 2000 (26,993). This population increase mimics the regional demographic trend of Strafford County, which experienced a 10.9% increase between 2000 and 2010 and represents one of the fastest growing areas in the state of New Hampshire



Map 1: Dover Locus Map (Source: SRPC, 2017)

The City of Dover covers a total area of 29.1 square miles (18,592.1 acres), with a land area of 26.8 square miles (17,130.4 acres) and a water area of 2.3 square miles (1,461.7 acres). The principal watersheds are the Cochecho River, which has its source in New Durham, and the Bellamy River, which rises in Barrington. These two rivers take a southeasterly course through the City, where the Cochecho River unites with the Salmon Falls River. The City extends along a four-mile long peninsula to the south between the Salmon Falls and Bellamy Rivers. Where the land ends the rivers merge to form the Piscataqua River. According to the [Dover C-RiSe Report](#) [2017], the inland coastal portion of Dover that is most susceptible to coastal flooding is located in low areas along the Bellamy River; the Piscataqua River; at the confluence of the Cochecho River and the Salmon Falls River; and along the shores of Little Bay. Many of these areas are all within the coastal floodplain area, making them particularly vulnerable to flooding from seasonal high tides, coastal storms, and sea-level rise

Dover's land use pattern is well established, with little remaining undeveloped land within its urban core. The downtown is surrounded by land zoned residential, commercial and industrial, and important natural resources. Dover is bisected by the Spaulding Turnpike (NH Route 16) which connects northern New Hampshire and the Seacoast region. Additionally, NH and US Routes 4 travel through Dover, as do Routes 155, 108 and 9. It borders eight New Hampshire communities, and is easily accessible by three Maine communities.²

There are no mountains or high hills within the city boundary as it lies within a coastal plain. The average elevation is 80 feet. The highest place in the city is Garrison Hill, about 284 feet, on the border with the Town of Rollinsford. From the top of the hill, a bird's-eye view of the city can be obtained. In the southern part of the city, there are several gentle swells of lands, which provide a delightful view of Little Bay area, adjacent shores and distant mountains.

² City of Dover, New Hampshire Master Plan. 2015 Land Use Analysis Chapter.

Housing

In the period between 2011 and 2015, Dover experienced an overall increase of 567 total housing units (roughly 4.2%). Dover experienced the lowest number of total housing units in 2011, and the highest in 2015. According to housing tenure data for that same 5-year time period, the total renter-occupied unit counts increased by 8.5% while owner-occupied housing units decreased by 4.4%. During this time period, the vacant housing units significantly increased by 35.6% and total occupied housing units stayed relatively the same, with a small increase of 1.9%. As of 2015, Dover's occupied housing units are roughly 51.5% owner-occupied and 48.5% renter occupied. Vacant housing units varied from a high of 921 in 2015 to a low of 593 in 2011. Currently, the City exhibits a 6.8% vacancy rate; this rate does not take into consideration Dover's limited seasonal homes. The 2010 Census estimates (not shown) that 82 homes in the City are for seasonal, recreational, or occasional use. Unfortunately, these estimates are not available for other years, but if these numbers are substituted in 2015, a slightly more accurate vacancy rate would be 6.2%.

Table 1: Housing Data 2011 - 2015

	2011	2012	2013	2014	2015	% Change 2011-2015
Total Housing Units	13,022	13,252	13,190	13,447	13,589	+4.2%
Occupied Housing Units	12,429	12,512	12,435	12,586	12,668	+1.9%
Owner Occupied Housing Units	6,806	6,495	6,260	6,375	6,521	-4.4%
Renter Occupied Housing Units	5,623	6,017	6,175	6,211	6,147	+8.5%
Vacant Housing Units	593	740	755	861	921	+35.6%

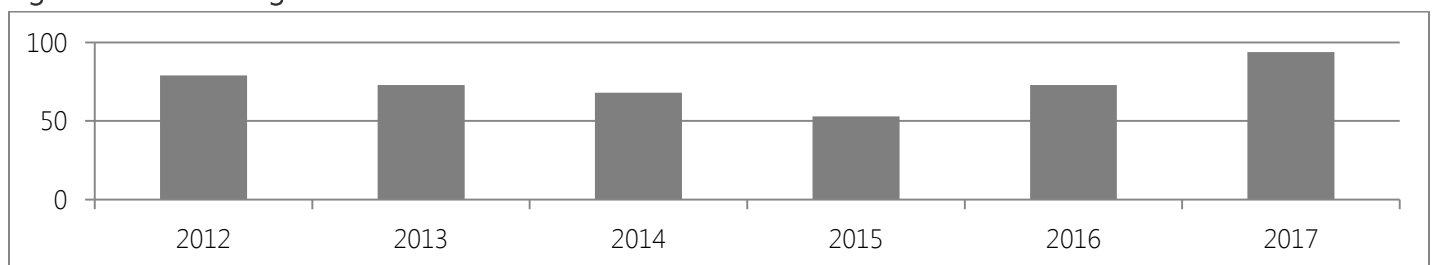
Source: U.S. Census Bureau, American Community Survey 5-Year Estimates

NOTE: More localized total housing units' data from the City's Planning Department shows a slight discrepancy for years 2012-2015. Total housing units equal 13,814; 13,909; 14,024; and 14,094 respectively.

Building Permit Data

According to the data that was received from the City, a total of 440 building permits have been issued from 2012 through 2017. Dover experienced an average of roughly 73 new structures (mostly single-unit residential, with some mixed use, manufactured, and commercial/industrial development) between 2012 and 2017. Figure 1 (below) shows that Dover has seen relatively consistent growth with no discernible drops or spikes. This data represents the best available information at the time of the preparation of the Plan; however, it should be noted that the issuance of a building permit does not always directly correlate with new development.

Figure 1: New Building Permits 2012 - 2017



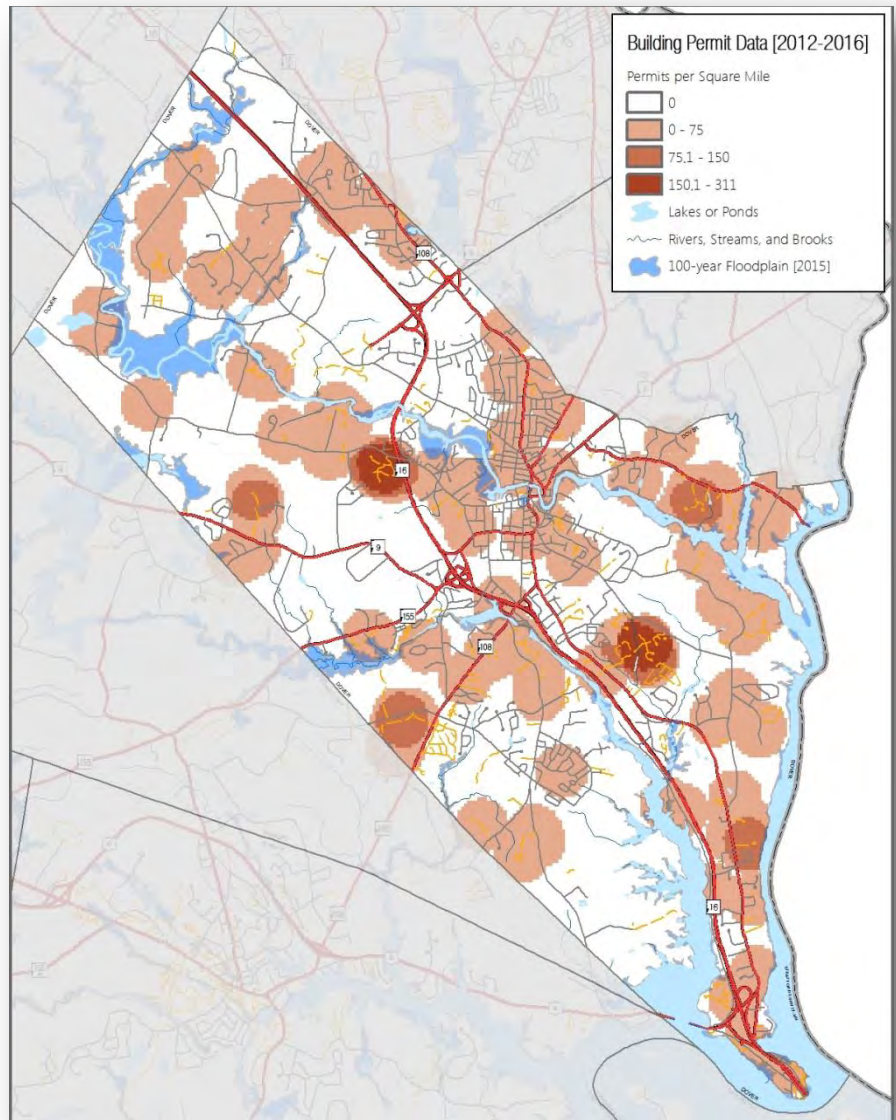
Source: Dover's Building Official and Inspection Services Department

Development Trends

A GIS density analysis was completed using building permit data collected from 2012 – 2016 in order to identify and map clusters of development.

The results indicate that the predominant development type over the last several years has been residential and has been largely scattered throughout the city along existing transportation corridors. Some of the higher densities are located in the following areas: Emerald Lane; Melody Terrace and Stocklan Circle; Childs Drive; Cielo Drive; Shore Lane; and along roadways adjacent to Thornwood Lane, including Teresa Drive, Julia Drive, and Sierra Drive.

As mentioned above, the issuance of a building permit does not always directly correlate with new development and these maps should be used for general planning purposes only.



Map 2: Development Density Map (Source: SRPC/Dover, 2017)

By looking at these past development trends the City recognizes that it will continue to grow in the coming years and will continue to monitor and improve their floodplain management regulations, as needed, for all subdivision and site plan proposals in order to reduce or eliminate flood damage.

Development within the FEMA Floodplain

According to a simple GIS analysis, of all the building permits issued over the course of the last five years (2012 – 2016), there were zero homes identified to be within the FEMA floodplain; however, a follow-up analysis was completed to select locations that may be within 75 to 100 feet adjacent to the FEMA floodplain. The results of that analysis indicated that only three potential locations were in close proximity to the floodplain and are shown on Map 3. It is important to note building permit data does not always correlate directly with new construction; permits may refer to renovations or additions to existing structures.

Over the course of the last five years, there were only three new residential building permits issues that were within an estimated 75-100 feet of the FEMA floodplain. It is unclear as to the exact location of those structures and whether or not they are vulnerable to flooding. The locations of those three building permits are identified in more detail in Table 2 below.

Table 2: Building Permits Within Floodplain

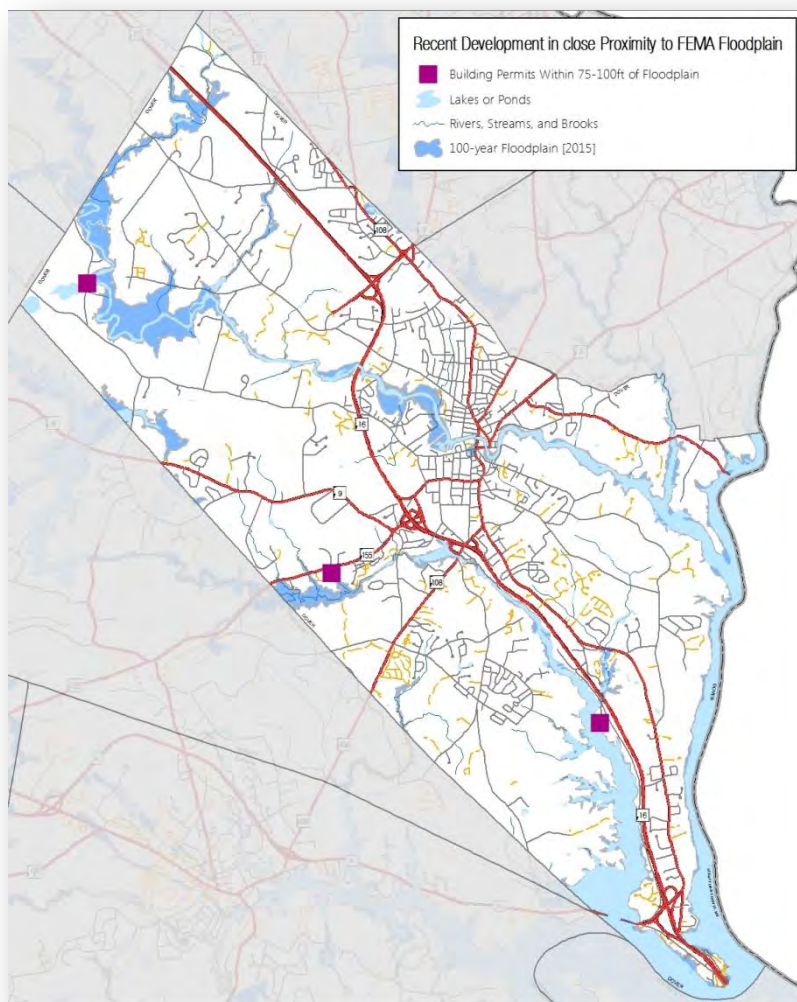
Location	Year	Type
Lilac Lane	2013	Single Family
Nute Road	2014	Single Family
Glen Hill Road	2014	Single Family

[Source: City of Dover, 2017]

As shown on Map 3, over the course of the last five years, Dover has successfully steered almost all new developments away from existing and potential flooding dangers; however, as more extreme precipitation events occur Dover will need to continue to proactively plan for future flooding scenarios. Along with guiding development away from vulnerable areas, the City has also revised and improved its floodplain management.

In 2012, the City updated its floodplain regulations and adopted more stringent freeboard requirements, which require the lowest floor of residential and non-residential structures that are new construction or substantial improvements to be elevated two feet above base flood elevation. Given that most new development has not taken place within the FEMA floodplain, and with the addition of more stringent floodplain regulations, the community's vulnerability has been reduced.

Looking ahead, the City will use this Plan as a guide to determine where past hazards have been documented and try to steer potential development away from these hazard areas.



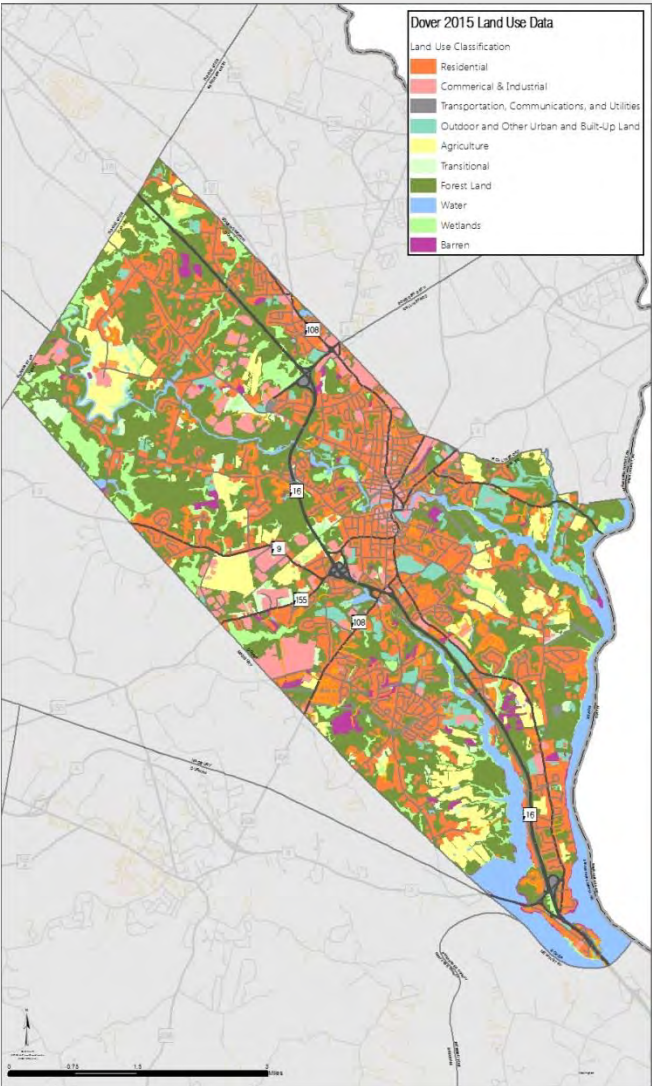
Map 3: Building Permits within the FEMA Floodplain (Source: SRPC/OEP, 2017)

Land Use Changes

It is much easier to identify and analyze regional land use trends, compared to strictly looking at land use conversion changes at the local level; however, this data remains an important component of long-term planning efforts. As previously mentioned, Dover has experienced a significant population increases over the course of the last decade. This has resulted in an increase in the amount of land converted to residential use over the span of the last fifteen years. See Table 3 for a more detailed analysis of land use changes of time.

According to the 2015 regional land use layer, roughly 25% (4,725 acres) of the city’s total acreage is currently classified as residential, scattered throughout the city and along existing road corridors. Dover did not experience a substantial increase in residential land use conversion in the last five years (>2%). Nor did the city see any major changes in commercial and industrial uses, agriculture, or wetlands. The city experienced roughly a 1.5% loss of forest land due to land conversion.

The City’s ongoing Master Plan update process hopes to improve existing land use regulations which may include zoning amendments, as necessary, to help guide development.



Map 4: 2015 Land Use Data (Source, GRANIT, 2017)

Table 3: Land Use Data 2010 - 2015

Land Use Classification	Acres (2010)	% of total acreage	Acres (2015)	% of total acreage	5-year (+/-) % change
Residential	4,724.9	25.4%	4,926.3	26.5%	+1.1%
Commercial & Industrial	991.1	5.3%	1,011.0	5.4%	+0.1%
Agriculture	1,442.3	7.8%	1,439.7	7.7%	-0.1%
Forest Land	6,590.4	35.4%	6,308.4	33.9%	-1.5%
Wetlands	1,145.3	6.2%	1,138.6	6.1%	-0.1%
TOTAL	18,592.1	80.1%	18,592.1	79.7	N/a

This analysis does not include: transportation, communications, and utilities; outdoor and other urban built-up land; transitional; open water; and barren lands, which together make up the remaining 20-21%.

Chapter 3: Asset Inventory

Critical Facilities and Key Resources

This chapter includes Critical Facilities and Key Resources (CF/KR) within the City of Dover that were identified by the Committee during the update of this plan.

FEMA describes the term ‘critical facilities’ as all manmade structures or other improvements that, because of their function, size, service area, or uniqueness, have the potential to cause serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if they are destroyed, damaged, or if their functionality is impaired.³ These facilities include all public and private facilities that a community considers essential for the delivery of vital services for the protection of the community, such as emergency operations centers, shelters, or utilities.⁴

“Critical facilities, and the functions they perform, are the most significant components of the system that protects the health, safety, and well-being of communities at risk.”

-FEMA Critical Facility
Design Considerations

Tables include a list of CF/KR, including the type of facility and building, and the address of the CF/KR, if available. Appendix D contains a correlating map set. Facilities in bold are located in other communities and are not mapped.

Table 4: Emergency Response Facilities (ERF)

ERF's are primary facilities and resources that may be needed during an emergency response

Facility	Type	Address
City Hall	Administrative (Information Technology)	288 Central Ave
Police Station	Primary Emergency Operations Center	46 Chestnut Street
Liberty North End Fire Station	Back-up Emergency Operations Center	262 Sixth Street
Central Fire Station	Fire	9-11 Broadway
South End Fire Station	Fire	25 Durham Road
McConnell Center	Primary Emergency Shelter	61 Locust Street
Dover High School (August, 2018)	Primary Back-Up Emergency Shelter	25 Alumni Drive
Woodman Park	Back-Up Emergency Shelter	11 Towle Ave
Communication Tower	Primary Communication Tower	46 Chestnut Street
Dover Middle School	Radioactive Reception Center	16 Daley Drive
State Shed	Emergency Fuel	Indian Brook Drive
Public Works Garage	Emergency Fuel (diesel only)	271 Mast Road
Wentworth Douglass Hospital	Medical Facility	789 Central Ave
Helipad Locations	Emergency Medical Evacuation	Wentworth Douglass Hospital Industrial Park Drive Bellamy Fields
Evacuation Routes	Evacuation Planning	State Routes 4, 9, 16, 108, 155 Spaulding Turnpike Interstate 95 (Exit 5)

³ https://www.fema.gov/media-library-data/20130726-1557-20490-2839/fema543_chapter1.pdf

⁴ Ibid

Table 5: Non-Emergency Response Facilities (NERF)

NERF's are facilities considered essential, that although critical, not necessary for the immediate emergency response effort.

Facility	Type	Address
Water Treatment Plant	Water Plant	Lowell Avenue
Water Treatment Plant	Water Plant	Griffin Well
Water Treatment Plant	Water Plant	French Cross Road
Wastewater Treatment Plant	Wastewater Plant	Middle Road
Solid Waste/Recycling Center	Residential Waste	265 Mast Road
Pump Station(s)	Pump Station	River Street Varney Brook (Gerrish Road)
Dover Transportation Center	Transportation Center	Chestnut Street
NH Park and Ride	Potential Logistics and Staging Area	Indian Brook Drive (Exit 9)

Table 6: Critical Facilities (CF)

CF are important structures that may be vulnerable during a hazardous event

Facility	Type	Address
Pump Station(s)	Pump Station	River Street
		Charles Street
		Mill Street
		Crosby Road
		Middle School (Daley Drive)
		Varney Brook (Gerrish Road)
		Piscataqua (Wentworth Terrace)
		Boston Harbor Road
		Leighton Way
		Brickyard (Isaac Lucas Circle)
		Mast Road
		Spruce Drive
		Cochecho Street
		County Farm Road
		Strafford (New Rochester Road)
Distribution Substation(s)	Power Substation	Cranbrook Drive
		Watson Road
		Hampshire Circle
Water Tower	Water Reservoir	Mount Pleasant (Back Road)
		Clay Hill (Sullivan Drive)
		Stonewall (Mast Road)
Smaller Substation(s)	Smaller Voltage Substation	75 Cochecho Street
		Miles Lane (Madbury)
		483 Portland Street (Rochester)
		Garrison Hill
		Long Hill Road
		36 Dover Point Rd (Stark Avenue)
		7 Drew Road
		71 Littleworth Rd
		799 Central Ave (Wentworth Douglass)

Table 6: Critical Facilities (CF)

Natural Gas Stations	Gas Regulator Stations	Rutland Street at Silver Street Sixth Street at Maple and Horne Street Gulf Road toward Eliot Bridge
Switching Stations	Switching Stations	193 Knox Marsh Road
Communication Tower(s)	Communication Function	Mast Road Garrison Hill Long Hill Road Middle Road
Sawyers Mill Upper Dam	*High Hazard Dam	Bellamy River
Sawyers Mill Lower Dam	High Hazard Dam	Bellamy River
Watson Waldron Dam	**Low Hazard Dam	Cochecho River
Central Ave Dam and Fish Ladder (Cochecho Falls)	Low Hazard Dam	Cochecho River
Redden Pond Dam	Low Hazard Dam	Redden Pond
Thornwood Commons Pond	****Significant Hazard Dam	Varney Brook

* A High Hazard dam has a high hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in probable loss of human life.

**A Low Hazard dam has a low hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in no possible loss of life and low economic loss to structures/property.

*** A Significant Hazard dam has a low hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in no possible loss of life but major economic loss to structures or property

NOTE: The Sawyer Upper and Lower dams are currently being evaluated for removal in 2018.

Critical Intersections	Critical Transportation	Indian Brook & Central Ave New Rochester & Hotel Dr Indian Brook & Weeks Lane Central Ave & Weeks lane Central Ave & Glenwood Central Ave & Morin St Central Ave & Merry St Central & Washington Central & Broadway Main & Chapel Washington St & Chestnut St Indian Brook & Members Way Indian Brook & Sixth St Indian Brook & Exit 9 NB Ramp Indian Brook & Exit 9 SB Ramp Central Ave & Silver St Silver St & Locust St Silver St & Arch St Central Ave & Exit 7 NB (Burger King) Central Ave & Locust St Central Ave & Mill St Exit 7 South Bound Durham Rd & Back River Rd Central Ave & Old Rollinsford Oak & Portland Littleworth Rd & Knox Marsh Rd
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Table 6: Critical Facilities (CF)

		New Rochester & Longhill Sixth St & Venture Way Sixth St & Whittier St Central Ave & Oak St Oak & Broadway Chestnut St & First St Central Ave & Stark Ave Durham Rd & Mast Rd Route 4 & Boston Harbor Rd Durham Rd & Daley Dr (South End Fire)
Bridge (057/173)	Transportation (City Owned)	Sixth Street over Blackwater Brook
Bridge (079/140)	Transportation (City Owned)	Watson Road over Cochecho River
Bridge (111/132)	Transportation (City Owned)	Whittier Street over Cochecho River
Bridge (120/098)	Transportation (City Owned)	Bellamy Road over Bellamy River
Bridge (120/118)	Transportation (City Owned)	Washington Street over PAR
Bridge (123/126)	Transportation (City Owned)	Fourth Street over Cochecho River
Bridge (128/122)	Transportation (City Owned)	Chestnut Street over Cochecho River
Bridge (130/099)	Transportation (City Owned)	NH108 over Bellamy River
Bridge (131/123)	Transportation (City Owned)	NH108 (SB) over Cochecho River
Bridge (134/122)	Transportation (City Owned)	NH108 (NB) over Cochecho River
Bridge (136/123)	Transportation (City Owned)	Washington St. over Cochecho River
Bridge (069/046) (6 tons)	Transportation (State)	Oak Street over PAR (Rollinsford)
Bridge (109/106)	Transportation (State)	NH9 over BMRR
Bridge (169/130)	Transportation (State)	Gulf Road over Fresh Creek
Bridge (174/034)	Transportation (State)	US4 over Bellamy River
Bridge (182/123)	Transportation (State)	Gulf Road over Salmon Falls River
Bridge (084/165)	Transportation (Turnpike Bureau)	NH16 over Long Hill Road
Bridge (101/150)	Transportation (Turnpike Bureau)	Indian Brook Drive over NH16
Bridge (104/143)	Transportation (Turnpike Bureau)	Glenwood Ave over NH16
Bridge (105/133)	Transportation (Turnpike Bureau)	NH16 over Cochecho River
Bridge (105/138)	Transportation (Turnpike Bureau)	Sixth Street over NH16
Bridge (106/125)	Transportation (Turnpike Bureau)	Tolend Road over NH16
Bridge (106/133)	Transportation (Turnpike Bureau)	NH16 over Cochecho River
Bridge (113/111)	Transportation (Turnpike Bureau)	NH16 (SB) over BMRR
Bridge (113/112)	Transportation (Turnpike Bureau)	NH16 (NB) over BMRR
Bridge (121/106)	Transportation (Turnpike Bureau)	Silver Street over NH16
Bridge (127/104)	Transportation (Turnpike Bureau)	Cataract Ave over NH16
Bridge (132/101)	Transportation (Turnpike Bureau)	NH16 (SB) over NH108/PAR
Bridge (132/102)	Transportation (Turnpike Bureau)	NH16 (NB) over NH108/PAR
Bridge (160/083)	Transportation (Turnpike Bureau)	Gerrish Road over NH16
Bridge (174/034)	Transportation (Turnpike Bureau)	NH16 over New Bellamy Lane
Bridge (181/039)	Transportation (Turnpike Bureau)	US4 (WB) over NH16
Bridge (200/023) - Closed	Transportation (Turnpike Bureau)	General Sullivan over Little Bay
Bridge (201/024)	Transportation (Turnpike Bureau)	NH16 (NB) over Little Bay
Bridge (201/025)	Transportation (Turnpike Bureau)	NH16 (SB) over Little Bay

Table 6: Critical Facilities (CF)

Bridge (132/130)	Transportation (Railroad)	PAR over Broadway Street
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Bridges have been identified by the NHDOT Bridge Design Bureau; Dams have been identified by the NHDES, Water Division

Note: According to NHDOT, there are two **REDLIST** bridges in the City of Dover, and one in Rollinsford along the municipal boundary

Table 7: Vulnerable Populations to Protect (VPP)

Vulnerable populations can be defined broadly to include those who are not able to access and use the standard resources offered in disaster preparedness and planning, response, and recovery

Facility	Type	Address
Woodman Park	Elementary School	11 Towle Ave
Garrison	Elementary School	50 Garrison Road
Horne Street	Elementary School	78 Horne Street
Middle School	Middle School	16 Daley Drive
High School and Regional Career Technical Center	Senior High School	25 Alumni Drive
Dover Alternative School	Special Education Program	50 Alumni Drive
Cochecho Academy of the Arts	College-Preparatory School	40 Hampshire Circle
St. Thomas Aquinas	Catholic High School (Private)	199 Dover Point Road
Portsmouth Christian Academy	College-Preparatory School (Private)	20 Seaborne Drive
Saint Mary Academy	Catholic School (Private)	222 Central Ave
Children in Motion	Preschool/Daycare	274 County Farm Road
My School	Preschool/Daycare	118 Locust Street
Dover Children's Home	Preschool/Daycare	207 Locust Street
Happy Helpers Preschool	Preschool/Daycare	6 Heather Lane
JB's Learning House	Preschool/Daycare	25 Mathes Hill Drive
Strafford County Head Start	Preschool/Daycare	62A Whittier Street
Strafford County YMCA	Preschool/Daycare	21 Daley Drive
Strafford County YMCA	Preschool/Daycare	50 Garrison Road
Strafford County YMCA	Preschool/Daycare	78 Horne Street
Strafford County YMCA	Preschool/Daycare	11 Towle Ave
WDH Early Learning	Preschool/Daycare	789 Central Ave
Michelle Michaud's Daycare	Preschool/Daycare	6 Wallace Drive
Our House for Girls	Preschool/Daycare	576 Central Ave
Shannonigans Childcare	Preschool/Daycare	168 Mast Road
Stay & Play Early Learning	Preschool/Daycare	9 Nelson Street
Dover Daycare Learning	Preschool/Daycare	32 Saint Thomas Street
Honey Tree Learning	Preschool/Daycare	36 Olive Meadows Lane
Cross Road Children's Center	Preschool/Daycare	18 French Cross Road
Peter Cotton Tail Preschool Daycare	Preschool/Daycare	42 Long Hill Road
Shenanigans Early Learning	Preschool/Daycare	2 Apache Street
Honey Hill Child Care	Preschool/Daycare	57 Central Ave
Seacoast Charter School	Preschool/Daycare	171 Watson Road
Little Tree Education	Preschool/Daycare	383 Sixth Street
Bright Beginnings Daycare	Preschool/Daycare	50 Back River Road
Garrison City Early Childhood Center	Preschool/Daycare	103/105 Durham Road

Our Little Ones	Preschool/Daycare	7 Birch Drive
Lu Daycare	Preschool/Daycare	7 Tennyson Ave
Susie's Daycare	Preschool/Daycare	28 Tennyson Ave
Little Lamb Nursery	Preschool/Daycare	31 Tennyson Ave
Miss Patty's Children Center	Preschool/Daycare	49 Piscataqua Road
Melissa's After School Care	Preschool/Daycare	42 Pearl Street
Riverside Rest Home	Nursing Home	276 County Farm Road
Saint Ann House	Nursing Home	195 Dover Point Road
Langdon Place	Nursing Home	60 Middle Road
Wentworth Home	Assisted Living	795 Central Ave
Bellamy Fields	Assisted Living	150 Garrison Road
Watson Fields	Assisted Living	201 Watson Road
Wadleigh House	Assisted Living	10 Summer Street
Residence at Silver Square	Assisted Living	100 Sterling Way
Mast Landing Senior Care Housing	Assisted Living	250 Mast Road
Johnson Creek Village	Assisted Living	301 Durham Road
Pointe Place Memory Care	Assisted Living	Pointe Place
Cochecho River Manor	Assisted Living	262 County Farm Road
My Friends Place	Homeless Shelter	368 Washington Street

Table 8: Water Resources

Sources of water that may be of potential use during emergencies.

Facility	Type	Address
Water Tower	Water Reservoir	Garrison Hill
		Long Hill Road
		Griffin Well
		Ireland Well
		Calderwood Well
		Campbell Well
		Smith & Cummings Well
		Hughes Well
		Bouchard Well
		DPH-1
		Willand Pond
		Lowell Ave - WTP
		Bouchard Well - WTP
		Griffin Well – WTP
Groundwater Wells	Public Water Supply	Shaws Lane (potential, 2018)
		Pudding Hill Aquifer
		Hoppers Aquifer
		Route 9
		Old Rochester Road
		& Hickory Lane
		Upper Factory
		115 Industrial Park
Surface Water (Bellamy and Isinglass Rivers)	Aquifer Recharge Stations (Secondary Public Water Supply)	
Willand Pond	Auxiliary Fire Aid	
Fire hydrant	Hydrant to Hydrant Emergency Water Interconnection (<i>Somersworth</i>)	
Cistern(s)	Auxiliary Fire Aid	

Chapter 4: Vulnerable Structures and Potential Loss

Critical Facilities/Key Resources and Other Assets

It is important to identify critical facilities and other structures that are most likely to be damaged by hazards. A GIS-based analysis was completed to determine, spatially, which critical facilities and key resources (CF/KR) within the city intersected with the FEMA floodplain, identified past and potential flooding areas from previous hazard mitigation updates, or the 6.3ft of sea-level rise with a storm surge. Table 9 lists the 24 CF/KRs located within those areas with a potential loss value estimate of \$78,072,582 at 100%.

Table 9: Vulnerable Critical Facilities/Key Resources

CF/KR and Other Assets	Hazard	100% of Structure Value
Critical Facilities		
<i>Dams</i>		
Central Ave Dam and Fish Ladder	FEMA Floodplain & Past Flooding	The Dam Bureau at NHDES has looked into assessing values for state-owned dams with marginal success. They considered bond ratings, market value, and construction costs. They also developed a formula that calculated the cubic feet of water impounded as a monetary value. Because dams serve different purposes (recreational, hydro-power), assessed values are hard to estimate and cannot be determined.
Watson Waldron Dam	Past Flooding	
<i>Bridges</i>		
Whittier Street over Cochecho River	FEMA Floodplain	\$2,904,000 (121 x 24 x \$1,000)
NH108 (SB) over Cochecho River	FEMA Floodplain & Past Flooding	\$3,360,000 (140 x 24 x \$1,000)
NH108 (NB) over Cochecho River	FEMA Floodplain, Past Flooding, Sea Level Rise (6.3ft w/ storm surge)	\$2,424,000 (101 x 24 x \$1,000)
Sixth Street over Blackwater Brook	FEMA Floodplain & Past Flooding	\$384,000 (16 x 24 x \$1,000)
Chestnut Street over Cochecho River	FEMA Floodplain	\$4,992,000 (208 x 24 x \$1,000)
Washington St. over Cochecho River	FEMA Floodplain, Past Flooding, Sea Level Rise (6.3ft w/ storm surge)	\$3,960,000 (165 x 24 x \$1,000)
Fourth Street over Cochecho River	FEMA Floodplain & Past Flooding	\$4,296,000 (179 x 24 x \$1,000)
Bellamy Road over Bellamy River	FEMA Floodplain & Past Flooding	\$408,000 (17 x 24 x \$1,000)
NH108 over Bellamy River	FEMA Floodplain	\$2,232,000 (93 x 24 x \$1,000)

CF/KR and Other Assets	Hazard	100% of Structure Value
US4 over Bellamy River	FEMA Floodplain & Sea Level Rise (6.3ft w/ storm surge)	\$27,336,000 (1,139 x 24 x \$1,000)
Gulf Road over Salmon Falls River	FEMA Floodplain	\$11,736,000 (489 x 24 x \$1,000)
NH16 over Cochecho River	FEMA Floodplain	\$6,456,000 (269 x 24 x \$1,000)
Watson Road over Cochecho River	Past Flooding	\$3,480,000 (145 x 24 x \$1,000)
PAR over Broadway Street	Past Flooding	\$1,200,000 (50 x 24 x \$1,000)

Critical Transportation Assets

Central Ave and Washington Street	Past Flooding	N/A
Route 4 & Boston Harbor Road	Sea Level Rise (6.3ft w/ storm surge)	N/A

Pump Stations

Boston Harbor Pump Station	Sea Level Rise (6.3ft w/ storm surge)	\$110,378 (building + contents)
Mill Street Pump Station	Sea Level Rise (6.3ft w/ storm surge)	\$431,472 (building + contents)
Wentworth Terrace Pump Station	Sea Level Rise (6.3ft w/ storm surge)	\$1,311,151 (building + contents)
Watson Road Pump Station	Past Flooding	\$490,722 (building + contents)

Water Resources

Hughes Well (Water Supply)	FEMA Floodplain	\$560,859 (building + contents)
Willand Pond (Auxiliary Fire Aid)	FEMA Floodplain	N/A
Total		\$78,072,582

Note: The approximate assessed value for the bridges was calculated by multiplying \$1,000.00 per square foot of bridge. This estimate was provided by the Bridge Design Bureau at NHDOT and includes all cost (engineering, consulting and in-house design, construction, etc.) to build a new bridge.

The GIS analysis completed by Strafford Regional Planning Commission showed that no emergency or non-emergency response facilities fell within the FEMA floodplain, any past identified flooding areas, or the 6.3ft of sea-level rise + a storm surge scenario. The data did reflect significant impacts to the City's transportation infrastructure, specifically bridges – both City and State owned. It should be noted that due to limitations with the mapping data, it was impossible to determine what the extent of the damage would be at each location; however it is safe to say that these areas are likely vulnerable to flooding under a variety of scenarios.

Other infrastructure included two dams, four pump stations, two critical intersections, one well, and one fire aid. Fire aids, like Willand Pond, are intentionally located in close proximity to waterbodies to allow fire trucks to draft water during an emergency; therefore, they will inherently be vulnerable to flooding issues and do not raise big concerns for the City.

Buildings and Utilities

It is difficult to ascertain the amount of damage that could be caused by a natural or man-made hazard because the damage will depend on the hazard's extent and severity, making each hazard event somewhat unique. The assumption used here when calculating the damage to property is equal to: 0-1%, 1-5%, or 5-10% of Dover's structures, depending on the nature of the hazard, whether or not the hazard is localized, and its economic impact.

The total local assessed value included in this analysis is **\$2,089,293,400** including **\$2,029,935,600** for buildings and **\$59,357,800** for utilities. Based on this assumption, the potential loss from any of the identified hazards under a low, medium, and high damage scenario of buildings and utilities would range from **\$0 to \$20,892,934 (low)** or **\$20,892,934 to \$104,464,670 (medium)** or **\$104,464,670 to \$208,929,340 (high)** based on the 2016 Dover City valuation. Table 10 provides more detail on these estimated economic losses.

Table 10: Economic Loss Data

Local Assessed Valuation				
	Total Assessed Value (2016)	Economic Loss		
		Low 1% Damage	Medium 5% Damage	High 10% Damage
Buildings				
Residential	\$1,431,850,700	\$14,318,507	\$71,592,535	\$143,185,070
Manufactured Housing	\$33,924,500	\$339,245	\$1,696,225	\$3,392,450
Commercial Industrial	\$564,160,400	\$5,641,604	\$28,208,020	\$56,416,040
Total Buildings	\$2,029,935,600	\$20,299,356	\$101,496,780	\$202,993,560
Utilities				
Public Water	-			
Gas	\$23,789,500	\$237,895	\$1,189,475	\$2,378,950
Electric	\$35,568,300	\$355,683	\$1,778,415	\$3,556,830
Total Utilities	\$59,357,800	\$593,578	\$2,967,890	\$5,935,780
Net Valuation Building and Utilities	\$2,089,293,400	\$20,892,934	\$104,464,670	\$208,929,340

Source: NH Department of Revenue Administration. 2016 Annual Report. Assessed value does not include value of land or local exemptions. (<https://www.revenue.nh.gov/mun-prop/property/equalization-2016/documents/tbc-alpha.pdf>)

Human loss of life was not included in the potential loss estimates, but could be expected to occur, depending on the severity and type of the hazard.

Chapter 5: National Flood Insurance Program (NFIP)

The Office of Strategic Initiatives, (OSI) administers the National Flood Insurance Program (NFIP) in New Hampshire. The NFIP is a partnership between a community and the federal government. Communities participate by agreeing to adopt and enforce a floodplain management ordinance designed to reduce future flood risks and in return all residents in those participating communities (whether in floodplain or not) can purchase flood insurance. Currently 217 communities (92 percent) that participate in the NFIP have adopted at least the minimum standards of the NFIP.

Through FEMA's Community Assistance Program, OSI provides technical assistance to communities and the public on floodplain management and helps to promote sound land use planning techniques that will reduce flood losses. OSI conducts Community Assistance Visits to ensure that communities participating in the NFIP are meeting program goals.

Dover's National Flood Insurance Program Status

According to FEMA's Community Status Book Report, Dover has been a member of the National Flood Insurance Program (NFIP) since April 15, 1980. The City has significant portions of land and property in the 100-year floodplain specifically along the mainstem of the Cochecho River and its tributaries (Blackwater Brook, Clark Brook, Reyners Brook); Fresh Creek; the Salmon Falls River; the Bellamy River; and the Piscataqua River. There are also portions of land in the 100-year floodplain around the Bellamy Reservoir. According to a previous GIS analysis, the City has an estimated 214 parcels with structures that fall within the floodplain, with a value of \$30,016,754; however, this analysis was completed prior to the delineation of the new FEMA flood maps and may no longer be accurate.

Article VII of the City's Zoning Ordinance (as revised 7/22/2015) outlines the City's floodplain development regulations. The City of Dover recognizes the need to minimize the potential loss of life and property during periods of flooding regulating the alteration and/or the development of those areas of special flood hazard identified by FEMA. The following regulations shall apply to all lands designated as areas of special flood hazard by FEMA in its "Flood Insurance Study for the County of Strafford, N.H." dated September 30, 2015,

According to information from the FEMA Community Overview (as of 5/31/2017) provided by NH OSI Assistant Planner Kellie Shamel, Dover has 78 total policies (49 single family homes, 3 multi-family homes, 14 other residential structures, and 12 non-residential homes) in the floodplain hazard area. There have been 29 paid loss claims totaling \$861,259 with five repetitive loss⁵ claims totaling \$287,439.84. The five repetitive losses are all residential structures, including one single family home, three apartment buildings, and one multi-family dwelling. Three of the repetitive loss properties have flood insurance (two of these properties have been transferred to the NFIP's Special Direct Facility as they have been identified as having a high frequency of losses or a high value of claims); two do not have insurance. Of the 78 total policies, 55 are standard and preferred risk policies and are not required. Standard and preferred risk offers policies for buildings that are located in moderate-to-low risk areas (B, C, and X Zones).

⁵ Repetitive losses are defined as residential property that is covered under an NFIP flood insurance policy and that has had at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; as well as at least two separate claims payments that have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any ten-year period, and must be greater than 10 days apart.

Table 11: Dover's Insurance Zone Policies

Zone	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Loses	Amount of closed Paid Loses	Repetitive Loses
AE Zones	21	\$54,754	\$6,162,000	3	\$23,726.58	1
A Zones	2	\$4,820	\$410,500	9	\$430,412.59	2
B,C & X Zone						
Standard	22	\$14,139	\$4,477,200	10	\$349,763.72	1
Preferred	33	\$12,324	\$9,875,000	7	\$57,356.55	1
TOTAL	78	\$86,037	\$20,924,700	29	\$861,257.00	5

In order to remain NFIP compliant, Dover has implemented a number of actions, including:

- ∴ In 2011, a FEMA Community Assistance Visit (CAV) was completed (the previous CAV was completed in 2004). The results did not find any major problems with the existing floodplain management regulations. The report indicated that the City's building permit application did not include the question as to whether the property was in a floodplain. The Planning Committee did not believe this question was included in the building permit application; however, it was suggested to be added into their ongoing LEAN review process.
- ∴ The City sent out flood insurance brochures to existing residents and new homeowners located in the flood zones (information on the 2015 map updates needs to be sent out again). Brochures are available at City Hall.
- ∴ The City is actively pursuing options to join the Community Rating System to reduce flood insurance rates.
- ∴ Dover sent one municipal staff member to receive Certified Floodplain Managers training.
- ∴ Dover is currently working with a property owner on Snows Court to donate a repetitive loss structure to the City for conversion into a public park.
- ∴ In 2015, the City adopted new floodplain maps, which were delineated as part of the Coastal NH Floodplain Mapping Update, to include all lands designated as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its "Flood Insurance Study for the County of Strafford, NH" dated September 30, 2015, are declared to be part of the Dover Zoning Ordinance and are hereby incorporated by reference.
- ∴ In 2015, Dover made the decision to enforce regulations that exceed the NFIP minimum standards by adopting freeboard regulations, which require the lowest floor of residential and non-residential structures that are new construction or substantial improvements to be elevated two feet above base flood elevation.
- ∴ In 2016, Dover participated in a training workshop conducted by the New Hampshire Office of Energy and Planning, NH GRANIT, and the Strafford Regional Planning Commission. The purpose of this workshop was to provide an introduction to the FEMA's Flood Risk Products, present community-specific flood risk data and information, and show how the flood risk data and information can be used in planning initiatives to increase flood resiliency. Dover is actively using data from FEMA's Risk Mapping, Assessment, and Planning (Risk MAP).

Chapter 6: Hazards & Mitigation Strategies

Overview

This section describes the location and extent of hazards that could impact the City of Dover, presents past hazard events in the City or elsewhere in New Hampshire, and discusses their rank order placement. The Multi-Hazard Mitigation Planning Committee investigated past and potential hazards using a variety of sources and techniques, including but not necessarily limited to interviewing City historians and other citizens; researching historical records archived at the City Library; scanning old newspapers; reading published City histories; consulting various hazard experts; and extracting data from the NH Hazard Mitigation Plan and other state and federal databases. Past and potential hazards were mapped where spatial data was available.

Rating Probability, Severity, and Overall Risk of Future Disasters

The nature of each hazard type and the quality and availability of corresponding data made the evaluation of hazard potential difficult. The Multi-Hazard Planning Committee considered what data was at hand and used its collective experience to formulate statements of impact or potential. Each hazard type was rated using a hazard vulnerability assessment tool (refer to Table 12).

This tool estimates the probability of occurrence, severity, and overall risk of an event using a projected number system answering questions, which answer High (3), Moderate (2), and Low (1). A zero (0) score meant that there is no likelihood the hazard would impact the City in the next 25 years. The ranges established for the average to determine severity were:

- ∴ High = >3
- ∴ Moderate = 2
- ∴ Low = 1 or below

The overall risk is a numeric indication developed by multiplying the total numbers of the probability and the severity.

Probability of Occurrence

Probability is based on a limited objective appraisal of a hazard's probability using information provided by relevant sources, observations and trends. The Planning Committee discussed and rated probability of each hazard.

- ∴ **High:** There is a very strong likelihood (67-100% chance) that Dover will experience a hazardous event within the next 25 years. Score = 3
- ∴ **Moderate:** There is moderate likelihood (34-66% chance) that Dover will experience a hazardous event within the next 25 years. Score = 2
- ∴ **Low:** There is little likelihood (0-33% chance) that Dover will experience a hazardous event within the next 25 years. Score = 1

Severity

Severity is an estimate generally based on a hazard's impact human, property and business. The Planning Committee discussed the severity of each hazard. The severity was calculated by the average of human, property and business.

- ∴ High: The total population, property, commerce, infrastructure and services of the City are uniformly exposed to the effects of a hazard of potentially great magnitude. In a worst case scenario there could be a disaster of major to catastrophic proportions. Score = 3
- ∴ Moderate: The total population, property, commerce, infrastructure and services of the City are exposed to the effects of a hazard of moderate influence; or the total population, property, commerce, infrastructure and services of the community is exposed to the effects of a hazard, but not all to the same degree; or an important segment of population, property, commerce, infrastructure or service is exposed to the effects of a hazard. In a worst case scenario there could be a disaster of moderate to major, though not catastrophic, proportions. Score = 2
- ∴ Low: A limited area or segment of population, property, commerce, infrastructure or service is exposed to the effects of a hazard. In a worst case scenario there could be a disaster of minor to moderate proportions. Score = 1

Overall Risk

The overall risk number can help Dover weigh the hazards against one another to determine which hazard is most detrimental. This is calculated by multiplying the Probability of Occurrence score by the average of the Severity score (human, property, and business impacts).

- ∴ High: There is a great risk of this hazard in Dover. Score = 7 or greater
- ∴ Moderate: There is moderate risk of this hazard in Dover. Score = 4-6
- ∴ Low: There is little risk of this hazard in Dover. Score = 0-3

Hazards Ratings in Dover, NH

The Committee determined that the hazards are distributed as follows:

- ∴ **5** hazards rated as having a **High** overall risk in Dover: flooding (riverine/extreme rain event), hurricanes & tropical storms, severe winter storms, severe thunderstorms, and public health threats
- ∴ **3** hazards rated as having a **Moderate** overall risk in Dover: hazardous materials, tornado and downburst, and coastal flooding (storm surge and sea-level rise)
- ∴ **6** hazards rated as having a **Low** overall risk in Dover: extreme temperatures, drought, flooding (dam failure), earthquake and landslide, wildfire, and cyber-attacks

Table 12 is the City's vulnerability assessment tool, which provides more information on the multi-hazard threat analysis that was completed during a brainstorming session with the Planning Committee.

Hazard Vulnerability Table

Table 12: Hazard Vulnerability Assessment Tool – City of Dover

Impact Rankings 0 – N/a 1-Low 2-Moderate 3-High	Human Impact <i>Probability of death or injury</i>	Property Impact <i>Physical losses and damages</i>	Business Impact <i>Interruption of service</i>	Severity <i>Average of human, property, and business impacts</i>	Probability <i>Likelihood this will occur within 25 years</i>	Overall Threat <i>Low = 0-3 Moderate = 4-6 High = > 7 (Severity x probability)</i>
Hazard Event						
Flooding (<i>Riverine/Extreme Rain Event</i>)	2	3	3	2.7	3	8.0
Hurricane & Tropical Storms	2	3	3	2.7	3	8.0
Severe Winter Storms	2	3	3	2.7	3	8.0
Severe Thunderstorms	2	3	3	2.7	3	8.0
Public Health Threats	3	3	2	2.7	3	8.0
Hazardous Materials	2	2	2	2.0	3	6.0
Tornado & Downburst	2	3	2	2.3	2	4.7
Coastal Flooding (<i>Storm surge and sea-level rise</i>)	1	3	2	2.0	2	4.0
Cyber Attacks	1	1	3	1.7	2	3.3
Extreme Temperatures	1	1	1	1.0	3	3.0
Drought	1	1	1	1.0	2	2.0
Flooding (<i>Dam Failure</i>)	1	2	1	1.3	1	1.3
Earthquake & Landslide	1	1	1	1.0	1	1.0
Wildfire	1	1	1	1.0	1	1.0

Declared Disasters and Emergency Declarations

Table 13: Presidentially Declared Disasters (DR) 1990-October 2016 impacting the City of Dover

Date Declared	Event	Date of Event	Source	Program	Amount (Statewide)	Remarks
September 9, 1991	Hurricane Bob	August 18-20, 1991	FEMA 917-DR	PA	\$2,293,449	Severe storm and wind; no power; trees knocked down
October 29, 1996	Severe Storms & Flooding	Oct 20-23, 1996	FEMA 1144-DR	PA	\$2,341,273	Severe storms, flooding
January 15, 1998	Ice Storm	January 7-35, 1998	FEMA 1199-DR	PA/IA	\$12,446,202	Major tree damage, electric power interrupted for many days; schools were closed
May 25, 2006	Severe Storm & Flooding	May 12-23, 2006	FEMA 1643-DR	PA/IA	\$17,691,586	Severe storm causing; massive flooding; road closures; evacuations
April 27, 2007	Severe Storm & Flooding	April 15-23, 2007	FEMA 1695-DR	PA/IA	\$26,826,780	Severe storms and flooding.
August 11, 2008	Severe Storms, Tornado, & Flooding	July 24, 2008	FEMA 1782-DR	PA	\$3,673,097	Severe storms; tornado; and wind damage
January 2, 2009	Severe Winter Storm	December 11-23, 2008	FEMA 1812-DR	DFA/PA	\$14,898,663	Winter storm; snow removal; some people without power for a week
March 29, 2010	Severe Winter Storm	February 23-March 3, 2010	FEMA 1892-DR	PA	\$6,841,093	Severe winter storm; minor power outages; no major damage

Date Declared	Event	Date of Event	Source	Program	Amount (Statewide)	Remarks
September 3, 2011	Tropical Storm Irene	August 26 – Sept 6, 2011	FEMA 4026-DR	PA	\$17,684,244	Powerful gusts of wind and periods of heavy rain; no major damage; a few trees down, but no long-term power outages or closures.
March 19, 2013	Severe Snow and Blizzard	February 9-11, 2013	FEMA 4105-DR	PA	\$6,153,471	Emergency protective measures; snow removal assistance; and cost-sharing basis for emergency work.
March 25, 2015	Severe Snow & Snowstorm	January 26-29, 2015	FEMA 4209-DR	PA	\$4,939,214	Emergency protective measures; snow removal assistance; cost-sharing basis for emergency work; economic impacts in the downtown; and line of site issues due to high snow banks along sidewalks and pedestrian intersections.
August 9, 2017	Severe Storms and Flooding	July 1-2, 2017	FEMA 4329-DR	PA	\$6,218,291	Strafford County was not included in the designated counties; however, the City did experience minor flooding impacts, associated with drainage issues in various parts of the City.
12 declarations totaling approximately \$122,007,363						
Program Key: PA: Public Assistance, IA: Individual Assistance, DFA: Direct Federal Assistance						

Table 14: Emergency Declaration (EM) 1990-October 2016 impacting the City of Dover

Date Declared	Event	Date of Event	Source	Program	Amount (Statewide)	Remarks
March 16, 1993	Heavy Snow	March 13-17, 1993	FEMA 3101-EM	PA	\$832,396	Snow removal; high winds.
March 28, 2001	Snow Emergency	March 5-7, 2001	FEMA 3166-EM	PA	\$3,433,252	Snow removal
March 11, 2003	Snow Emergency	February 17-18, 2003	FEMA 3177-EM	PA	\$2,288,671	Snow removal
March 30, 2005	Snow Emergency	January 22-23, 2005	FEMA 3207-EM	PA	\$3,611,491	Snow removal
December 13, 2008	Severe Winter Storm	December 11-23, 2008	FEMA 3297-EM	DFA/PA	\$900,000	Winter storm; snow removal
November 1, 2011	Severe Winter Storm	October 29-30, 2011	FEMA 3344-EM	PA	Data not available	Heavy, wet snow and leaf-on conditions that resulted in downed trees and caused major power outages throughout the City
October 30, 2012	Hurricane Sandy	October 26-31, 2012	FEMA 3360-EM	PA	\$643,660	Minor impacts, including periods of heavy rain and short-term power outages
7 emergency declarations totaling approximately \$11,709,470						
Program Key: PA: Public Assistance, DFA: Direct Federal Assistance						

Flooding

Overview	
Hazard Type	Flooding
Location/Extent	Cochecho River and its tributaries (Blackwater Brook, Clark Brook, Reyners Brook); Fresh Creek; the Salmon Falls River; the Bellamy River; the Piscataqua River; and areas surrounding the Bellamy Reservoir.
Vulnerability	
Severity	2.7
Probability	3.0
Overall Threat	8.0 (high)

Description of the Hazard

Riverine flooding is the most common natural disaster to impact New Hampshire. Riverine flooding occurs when surface water runoff introduced into streams and rivers exceeds the capacity of the natural or constructed channels to accommodate the flow. As a result, water overflows the river banks and spills out into adjacent low lying areas.⁶ Floods are most likely to occur in the spring due to the increase in rainfall and the melting of snow; however, floods can occur at any time of the year because of heavy rains, hurricane, or a Nor'easter.

New Hampshire's climate ranges from moderate coastal to severe continental, with annual precipitation ranging from about 35 inches in the Connecticut and Merrimack River valleys, to about 90 inches on top of Mount Washington. Localized street flooding occasionally results from severe thundershowers, or over larger areas, from more general rain such as tropical cyclones and coastal "nor'easters." More general and disastrous floods are rare, but some occur in the spring from large rainfall quantities combined with warm, humid winds that rapidly release water from the snowpack. Causes of flooding that could potentially affect Dover include:

The "100-year flood" Term:

The "100-year flood" is a term often used to describe a flood that has a 1% chance of occurring in any year. But the phrase is misleading, and often causes people to believe these floods happen every 100 years on average. The truth is, these floods can happen quite close together, or not for long stretches of time, but the risk of such a flood remains constant from year to year. The 100-year-flood term was originated to delineate areas on a map to determine what properties are subject to the National Flood Insurance Program. Properties within the 100-year-floodplain, as defined by the Federal Emergency Management Agency, have special requirements and mortgage holders will require owners to carry flood insurance on these properties.

[Source: The Nurture Nature Center: Focus on Floods]

- ∴ 100-year rainstorm event
- ∴ Severe tropical storm (hurricane or tropical storm) that can bring torrential rainfall in excess of that from a 500-year storm.
- ∴ Rapid snow pack melt in spring can be a significant potential flooding source, given the northern, relatively cold location and climate of Dover
- ∴ River ice jams, which could occur, although the Army Corps of Engineers Ice Jam Database contains no record of ice jams in Dover; however, the Planning Committee identified two historic ice jams that caused significant damage. The first was in 1896, known locally as "Dover's Black Day", resulted in large chunks of ice that rushed down the Cochecho River producing an extensive amount of damage. According the WMUR.com

⁶ FEMA Training Chapter 2 Types of Floods and Floodplains

(<https://training.fema.gov/hiedu/docs/fmc/chapter%202%20-%20types%20of%20floods%20and%20floodplains.pdf>)

Dover experienced the destruction of five bridges, the loss of the Bracewell Building (a 700-pound piece of granite from the foundation is said to have made it all the way downriver to New Castle), and damage to the Cochecho Sawyer Mills. The busy shipping industry, which saw more than 200 vessels come to port each year, was completely wiped out. The second took place sometime in the 1900s (the Planning Committee could not determine the exact date) and impacted the Dover Point Bridge.

∴ Dam breach or failure.

Extent of the Hazard

Flooding can occur in any area of the City but is more likely to occur within the 100-year floodplain, downstream of dams, along river and stream banks, near wetlands and road crossings, and other low-lying areas. Dover has approximately 13.6% (2,532.1 acres) of its area in 100-yr. floodplain (see Map 5). It should be noted that this estimation is likely overstated due to the fact that the FEMA floodplain contains open water. If the tidal portions along the Cochecho, Piscataqua, and Bellamy rivers were removed the approximate acreage may be more accurately depicted as 5.1% (944.1 acres)

Based on extent of the floodplain, the City has significant portions of land and property in the 100-year floodplain specifically along the mainstem of the Cochecho River and its tributaries (Blackwater Brook, Clark Brook, Reyners Brook); Fresh Creek; the Salmon Falls River; the Bellamy River; and the Piscataqua River. There are also portions of land in the 100-year floodplain around the Bellamy Reservoir.

Although flooding of the full extent of this floodplain by definition would require a 100-year storm, smaller storms with a higher annual probability of occurrence could still flood significant portions of that floodplain. Structures that could be impacted by a 100-year storm could also be affected by smaller, more frequent flooding. There are a large number of structures within this floodplain. It is likely that the 100-year floodplain will change in area when flood maps are continually updated to reflect changes in development patterns and better mapping technology and current precipitation data.



Flooding on the Cochecho River at Henry Law Park, 2006

According to the C-RiSe assessment report, the inland coastal portion of Dover that is most susceptible to coastal flooding is located in low areas along the Bellamy River; the Piscataqua River; at the confluence of the Cochecho River and the Salmon Falls River; and along the shores of Little Bay. Many of these areas are all within the coastal floodplain area, making them particularly vulnerable to flooding from seasonal high tides, coastal storms, and sea-level rise.

Past Events and Impacts

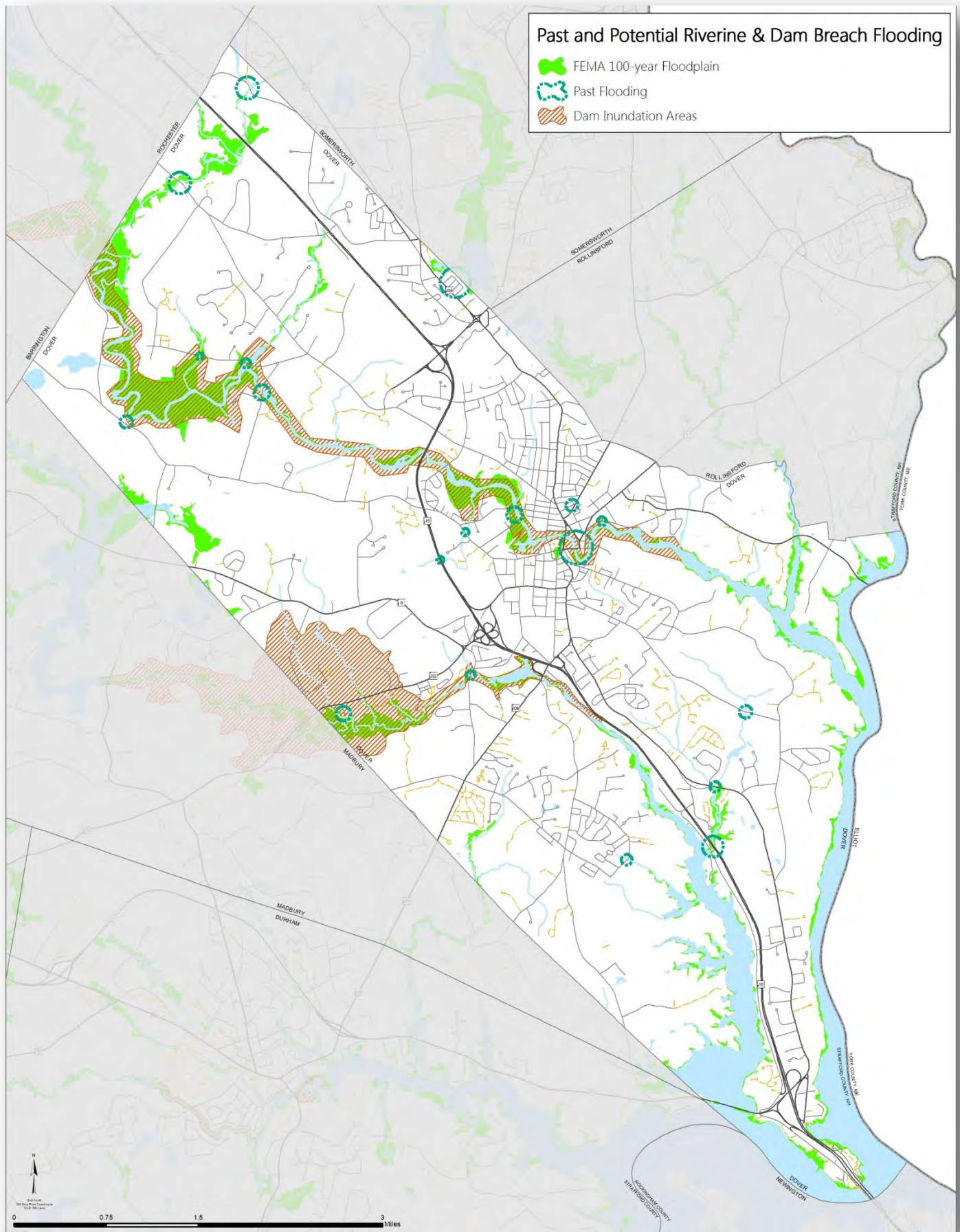
Although the storm could not be classified, a 1936 event was described at the time as causing "the greatest damage in New Hampshire's history" (Fahey 1936). Two other consequential flooding events took place in 2006 and 2007, both of which were considered 100-year events. During those events, there were several areas where Dover experienced severe impacts to local transportation infrastructure, including: Middle Street over Canney Brook, County Farm Road over Jackson Brook, Blackwater Road over Blackwater Brook, and Watson Road over the Cochecho River.



Cochecho River Dam, October 2017

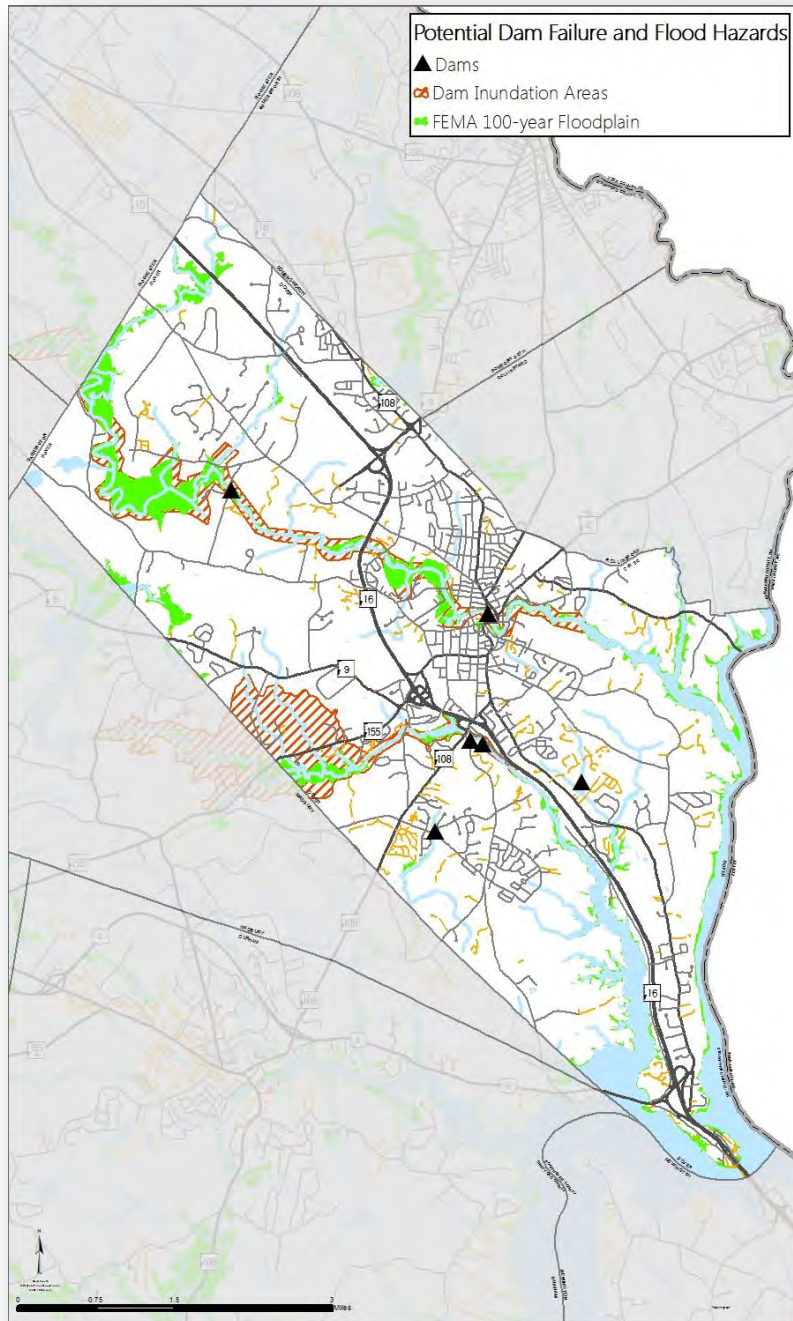
The Planning Committee identified several other locations that have experienced frequent flooding issues in the past, including: Willand Pond, which flooded the boat launch, walking trails, the parking lot, and parts of New Rochester Road; residential homes on Littleworth Road near Barbadoes Pond; the Children's Museum; the Madbury Apartments on Knox Marsh Drive; areas near Dean Drive and French Cross Road; and the mill buildings (#5) along Central Ave and Main Street.

Other areas that needed repairs and upgrades were Broadway (new culvert design), Richardson Drive (narrowed the road to reduce impervious coverage and improve stormwater infiltration), and Keating Ave (best management practices for drainage and stormwater improvements). The City has also updated its stormwater regulations and installed multiple rain gardens in the Berry Brook watershed to help reduce flooding.



Dam Failure

Dam failure could potentially result in flooding in Dover. According to the NHDES 2015 database, there are a total of 28 active dams (there are an additional 26 dams that are classified as ruins, removed, breached, not built, pending, or exempt). There are two high hazard dams in Dover (Sawyer Mill Upper and Lower dams); however, both these dams are being considered for removal. There is one significant hazard dam (Thornwood Commons Pond), and three low hazard dams (Watson Waldron, Central Ave at Cochecho Falls, and Redden Pond)



Map 6: Dam Inundation Zones (Source: NHDES, 2015)

While the NHDES Dam Bureau has determined that the Sawyer Mills dams have a high hazard class, the Planning Committee felt strongly that the Central Ave dam should be considered to be the highest risk for loss of life and damage to private and public property due to its close proximity to the downtown Mill buildings and private property downstream.

There are two delineated dam inundation zones that have origins outside the City's borders. One is located east of the Bellamy Reservoir dam that follows the Bellamy River. If this dam were to fail there would likely be significant impacts to areas along Crosby Road, stretches of Route 155, and portions of Bellamy Road. The other is located east of Bow Lake that follows the Cochecho River. Impacts to areas adjacent to County Farm Road, Watson Road, Whittier Street, Fourth Street, and Chestnut Street would be likely. To the best of the committee's knowledge there have been no recent major dam failures in the City; however, the Planning Committee did express concern of potential dam failures at the Milton Three Ponds dam in Milton, the Bow Lake dam in Barrington, and the Bellamy Reservoir dam in Madbury.

In 2006, it was feared that the Milton Three Ponds dam would fail; however, the dam was never breached, is continually inspected, and is in good condition.

A more comprehensive list of dams, their associated classifications, and inspection schedules in Dover are located in Table 15.

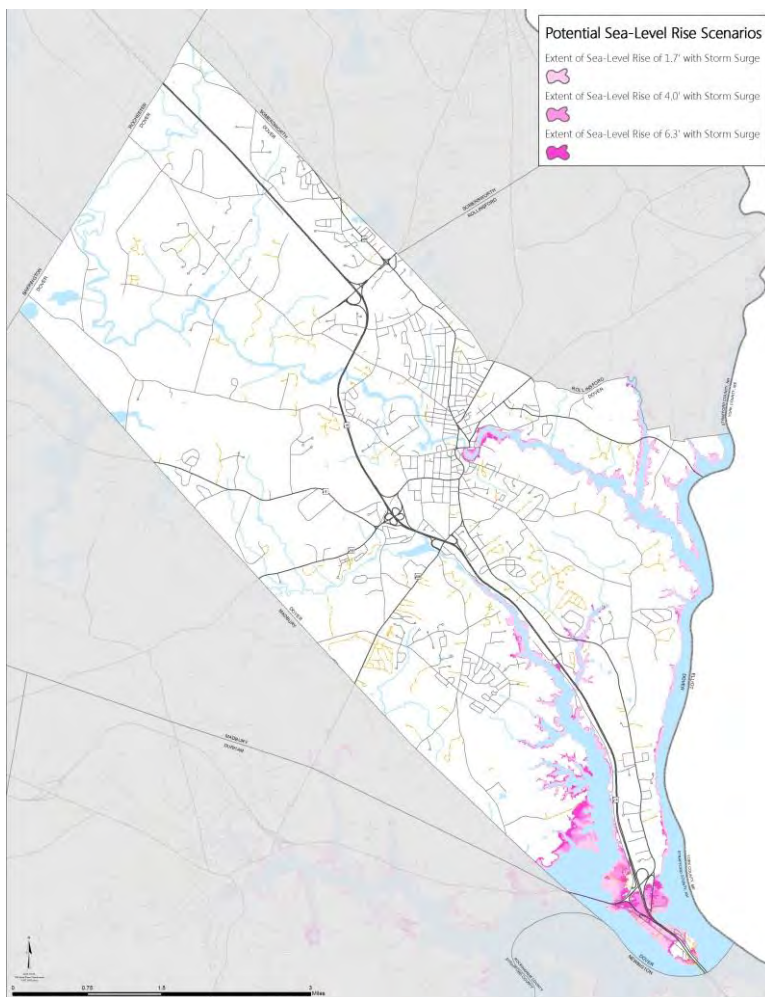
Table 15: Active Dams in Dover

Dam Classification	Classification Definition	Number of Dams in Dover	Inspection Interval (Years)
High	Dam that has a high hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in probable loss of human life.	2	2
Significant	Dam that has a significant hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in no probable loss of lives but major economic loss to structures or property.	1	4
Low	Dam that has a low hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in no possible loss of life and low economic loss to structures/property.	3	6
Non-Menace	Dam that is not a menace because it is in a location and of a size that failure of misoperation of the dam would not result in probable loss of life or loss to property.	22	6

Coastal Flooding and Sea-Level Rise

According to the C-RiSe vulnerability assessment, Dover can expect to see impacts along the Bellamy River; the Piscataqua River; at the confluence of the Cocheco River and the Salmon Falls River; and along the shores of Little Bay. There are a handful of critical facilities impacted, including water and sewer pipes, transmission lines, seven pump stations, and two dams. Several transportation assets are impacted, including evacuation routes on Routes 16 and 4, future NHDOT projects, and local urban compact areas that should also be considered during long-term planning efforts. Dover also can expect to experience impacts to residential homes on Spur Road, Boston Harbor Road/Dover Point Road, and Wentworth Terrace.

Key findings for Dover are based on evaluation of the 1.7 feet (intermediate-low), 4.0 feet (intermediate), and 6.3 feet (highest) sea-level rise projections at the year 2100 and these sea-level rise projections with the 100-year storm surge. Map 7 provides the spatial extend of the three different sea-level rise scenarios.



Map 7: Future Sea-Level Rise + Storm Surge Scenarios

Potential Future Impacts on the Community

Overall, flooding potential in Dover is high and flood conditions will continue to affect the City. Both seasonal flooding and flooding due to extreme weather events have the potential to occur during all seasons. Future sea-level rise may impact certain low-lying, tidal areas.

Estimated Potential Losses

Based on the high hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$208,929,340 in estimated potential losses from flooding.

Hurricane and Tropical Storms

Overview	
Hazard Type	Hurricane and Tropical Storms
Location/Extent	City-wide
Severity	2.7
Probability	3.0
Overall Threat	8.0 (high)

Description of the Hazard

A hurricane is the term used for tropical cyclones that occur in the Northern Hemisphere east of the International Dateline to the Greenwich Meridian. Tropical cyclones originate over tropical or subtropical waters and are characterized by organized deep convection and a closed surface wind circulation about a well-defined center. These events are called typhoons if they occur west of the International Dateline. Hurricane season in the Atlantic runs from June 1 to November 30.

According to the State Hazard Mitigation Plan (2013) tropical cyclones with maximum sustained winds of less than 39 mph are called tropical depressions. Once the tropical cyclone reaches winds of at least 39 mph, they are typically called a tropical storm and assigned a name. If the winds reach 74 mph or greater, they are upgraded and called a hurricane.

Extent of the Hazard

Hurricanes may impact all areas of the City. The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating system based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures.

Scale Number (Category)	Sustained Winds (MPH)	Damage	Storm Surge
1	74-95	Minimal: Unanchored mobile homes, vegetation and signs.	4-5 feet
2	96-110	Moderate: All mobile homes, roofs, small crafts, flooding.	6-8 feet
3	111-130	Extensive: Small buildings, low-lying roads cut off.	9-12 feet
4	131-155	Extreme: Roofs destroyed, trees down, roads cut off, mobile homes destroyed. Beach homes flooded.	13-18 feet
5	More than 155	Catastrophic: Most buildings destroyed. Vegetation destroyed. Major roads cut off. Homes flooded.	Greater than 18 feet

Past Impacts and Events

These severe tropical storms may occur anytime from early spring to late fall, and in general are less common than other storms, e.g. nor'easters. As wind events, historically hurricanes have caused damage in Dover, most notably in 1938 and 1954 (Hurricane Carol).

The NOAA National Climatic Data Center's Storm Events database (NCDC 2017) does not list any Hurricanes as directly affecting Strafford County from January 1, 2007 to July 31, 2017; however, Strafford County did experience impacts from Hurricane Sandy. Hurricane Sandy was the last hurricane to hit the region during the period of October 26 to November 8, 2012. Local impacts included periods of heavy rain and short-term power outages.

The database does report one tropical storm event, which is detailed as follows:

Tropical Storm Irene (August 28, 2011) - brought a prolonged period of strong and gusty winds and heavy rain to the state. The high winds snapped or uprooted numerous trees throughout the state causing more than 160,000 customers to lose electrical and/or communication services. The heavy rains caused rivers and streams throughout the state to flood causing damage to bridges, roads, and property. The strongest winds across the state began Sunday morning in southern areas and spread northward during the day. Winds continued to be gusty overnight as the storm moved away from the area. Observed maximum wind gusts included 63 mph at Portsmouth, 52 mph at Concord, and 51 mph at Manchester. On the top of Mt. Washington, winds gusted to 104 mph as the storm approached and 120 mph as it moved away. The combination of wet soil and the prolonged period of strong and gusty winds brought down numerous trees throughout the state. One person was killed and three people were injured across the state due to falling trees or branches. Rainfall amounts across the state ranged from 1.5 to 3 inches across southeastern New Hampshire. Local impacts included periods of heavy rain, downed branches, and short-term power outages.

Potential Future Impacts on Community

Based on historical data and statistical predictors, the Atlantic Basin averages approximately 12 total named storms per year. Six of those storms will become hurricanes with three becoming a category three or higher. With variability in sea-level pressure and sea-surface temperatures in the Atlantic Ocean, it is difficult to predict with certainty the number of storms in any given year. It is even more difficult to determine which of those storms will make landfall. Because Dover is located in closer proximity to the New Hampshire coast, wind speeds may still hold their coastal strength; however, significant impacts would be dependent on the exact track of these concentrated storms.

Dover remains vulnerable to hurricane hazards, including: high winds, heavy rainfall, and inland flooding; therefore the recurrence potential of hurricane and tropical storm hazards is moderate. Given that the 2017 Atlantic hurricane season was hyperactive, which featured 17 named storms (tying it with 1936 as the fifth-most active season since reliable records began in 1851) and three that were major hurricanes (Harvey, Irma, and Maria), it is likely that the region will be impacted by a significant storm of tropical origin within the foreseeable future.

Estimated Loss Potential

Based on the high hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$208,929,340 in estimated potential losses from impacts associated from hurricanes and tropical storms.

Tornado & Downburst

Overview	
Hazard Type	Tornado & Downburst
Location/Extent	City-wide – dependent upon tornado track
Severity	2.3
Probability	2
Overall Threat	4.7 (moderate)

Description of the Hazard

A tornado is a violent windstorm characterized by a twisting, funnel shaped cloud with winds in excess of 200 mph, often accompanied by violent lightening, peripheral high winds, severe hail, and severe rain. Tornadoes develop when cool air overrides a layer of warm air, causing the warm air to rise rapidly. The atmospheric conditions required for the formation of a tornado include great thermal instability, high humidity, and the convergence of warm, moist air at low levels with cooler, drier air aloft. Most tornadoes remain suspended in the atmosphere, but if they touch down they become a force of destruction.

Tornadoes produce the most violent winds on earth, at speeds of 280 mph or more. In addition, tornadoes can travel at a forward speed of up to 70 mph. Damage paths can be in excess of one mile wide and 50 miles long. Violent winds and debris slamming into buildings cause the most structural damage. A tornado is usually accompanied by thunder, lightning, heavy rain, and a loud "freight train" noise. In comparison to a hurricane, a tornado covers a much smaller area but can be more violent and destructive.

A downburst is a severe localized wind blasting down from a thunderstorm. These "straight line" winds are distinguishable from tornadic activity by the pattern of destruction and debris. Downbursts fall into two categories: microburst, which covers an area less than 2.5 miles in diameter and macroburst, which covers an area at least 2.5 miles in diameter.

Extent of the Hazard

The Fujita Scale is the standard scale for rating the severity of a tornado as measured by the damage it causes. The scale measures wind speeds of 65 to greater than 200 miles per hour. The damage path of a tornado can be in excess of one mile wide and 50 miles long, whereas a downburst is typically less than 2.5 miles. Downbursts can have wind speeds of 150 miles per hour.

Enhanced Fujita Scale	
EF-0	65–85 mph winds
EF-1	86–110 mph
EF-2	111–135 mph
EF-3	136–165 mph
EF-4	166–200 mph
EF-5	>200 mph

Past Impacts and Events

Tornadoes are rare in New Hampshire. The NCDC Storm Events database (NCDC 2017) lists only seven tornadoes that have impacted Strafford County since 1950. One was an EF-0 event (65-85 mph); one was an EF1 event (73-112 mph); and five were EF2 events (111-135 mph). Over the course of the past six decades, there haven't been any fatalities, 0 injuries, but approximately \$2.9 million in property damages associated with tornados. The majority of property damage was sustained during an event that took place in 1981. The most recent touchdown was in 2008. There have been no direct impacts in Dover.

Table 16: Tornado Data for Strafford County

Date	Magnitude	Death	Injuries	Property Damages
06/09/1953	EF1	0	0	250
05/14/1963	EF2	0	0	25,000
05/03/1976	EF2	0	0	250,000
06/22/1981	EF2	0	0	2,500,000
08/02/1993	EF0	0	0	5,000
07/06/1999	EF2	0	0	0
07/24/2008	EF2	0	0	126,000
TOTAL		0	0	\$2,906,000

Between 1991 and 2010, the average annual number of tornadoes in New Hampshire was one.⁷ Though the frequency of tornado events in New Hampshire is not great, the state has experienced large tornados throughout its history. An early example is the tornado that struck the state in September 1821. This tornado was reported to have tracked from the Connecticut River, near Cornish, and terminating near Boscawen. When the skies cleared, 6 people were dead, hundreds injured and thousands homeless.

In 1998 an F2 tornado in Antrim, N.H. blew down a 45-foot by 12-foot section of the Great Brook Middle School. Witnesses reported seeing a funnel cloud, and the weather service, after an inspection, confirmed it was a tornado. According to the June 2, 1998 edition of the Eagle Tribune, John Jensenius from the National Weather Service in Gray, Maine estimated that the twister cut a path half a mile long, up to 100 yards wide, and was on the ground for several minutes.

In July 2008, an F2 tornado and high winds created a path of destruction through five New Hampshire counties that destroyed homes, displaced families, downed trees and forest lands and closed major state roadways. The impact to residents was extensive, with over 100 homes rendered uninhabitable. Phone and electric service was cut off to over 12,500 customers. One fatality is attributed to a building collapse, and local hospitals reported numerous physical injuries associated with this severe storm.⁸ Since the July 2008 tornado, the NCDC Storm Events database reports that nine tornados have hit New Hampshire; however, none have hit Strafford County. The most recent event occurred in July 2016 in Pittsburg.

⁷ NOAA. U.S. Tornado Climatology (<https://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology>)

⁸ New Hampshire Department of Safety. State of NH Natural Hazard Mitigation Plan 2013. Homeland Security and Emergency Management.

Downburst activity is very prevalent throughout the State. However, the majority downburst activity is mostly unrecognized unless a large amount of damage has occurred. Several of the more significant and recent events are highlighted below:

- ∴ Central, NH – July 6, 1999 – Damages: Two roofs blown off structures, downed trees, widespread power outages, and damaged utility poles and wires; two fatalities.
- ∴ Stratham, NH – August 18, 1991 – Damages: \$2,498,974 worth of damages; five fatalities.
- ∴ Moultonborough, NH – July 26, 1994 – Damages: Downed trees, utility poles and wires. Approximately 1,800 homes without power and 50-60 homes damages.
- ∴ Bow, NH – September, 6, 2011 – Damages: City Auto in Bow had 15 campers damaged and estimated \$200,000 in damage.

In July, 2017 there was a significant microburst that impacted a handful of residential homes and a few small businesses along Tolend and French Cross roads. According to Fosters.com there were a number of downed trees that blocked roads, took down power lines and hit homes and cars.

In October, 2017 a wind storm that was accompanied with heavy rain produced sustained winds of 60 mph that resulted in wide-spread power outages caused by downed trees and power lines. Upwards of 45% of the City was without power, which included Wentworth Douglass Hospital, and all the schools were cancelled for at least one day.



October microburst event, 2017 [Source: Fosters.com]

While tornadoes are not common, they would cause significant impacts in the City. The probability of reoccurrence of a downburst may be higher. A tornado or downburst can impact the entire jurisdiction and may cause greater damage in the community center.

Potential Future Impacts on Community

There have been 7 reported tornadoes over the course of 67 years in Strafford County; the average annual probability of recurrence, therefore, is 10.4% ($7/67 \times 100$). The probability may be slightly higher if local reports of tornadoes were considered; however, this 10.6% probability is for all of Strafford County – not just Dover. The actual probability for Dover should be much lower, considering the great dependence of impact upon the actual track of any tornado. The NCDC identified two tornadoes that touched down relatively close (Strafford and New Durham) to the City, which would suggest the average annual probability of recurrence to be less than 3%. The tornado recurrence probability for Dover, therefore, is relatively low.

Estimated Loss Potential

Based on the moderate hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$104,464,670 in estimated potential losses from impacts associated from tornadoes and downbursts.

Severe Winter Weather

Overview	
Hazard Type	Severe Winter Weather
Location/Extent	City-wide
Severity	2.7
Probability	3.0
Overall Threat	8.0 (high)

Description of the Hazard

Winter snow and ice events are common in New Hampshire. The National Climatic Data Center (NCDC 2017) Storm Events database reports 60 severe winter weather events, which include: 2 blizzards, 51 heavy snow events, 1 ice storm, and 6 winter storms (nor'easters) that have impacted Strafford County from January, 1 2007 to July 31, 2017.



March Nor'easter, March 2017 [Source: WMUR.com]

Heavy snow typically brings significant snow removal costs along with delays in transportation schedules. Wet snow can result in major infrastructure damage from heavy snow loads and has been the cause of human harm during long periods of shoveling, including back injuries and in some cases heart attacks to older individuals. The most severe damage, though, often comes from ice storms and winter nor'easters.

The State's Multi-Hazard Mitigation Plan Update 2013 identifies four types of winter storms:

- ∴ *Heavy snowstorms*: A storm that deposits four or more inches of snow (or 10 cm) in a twelve-hour period
- ∴ *Blizzards*: A violent snowstorm with winds blowing at a minimum speed of 35 miles (56 kilometers) per hour and visibility of less than one-quarter mile (400 meters) for three hours
- ∴ *Nor'easter*: A large weather system traveling from south to north, passing along the coast. As the storm's intensity increases, the resulting counterclockwise winds which impact the coast and inland areas in a Northeasterly direction. Winds from a Nor'easter can meet or exceed hurricane force winds.
- ∴ *Ice Storms*: An event that occurs when a mass of warm, moist air collides with a mass of cold, arctic air. The less dense warm air will rise and the moisture may precipitate out in the form of rain. When this rain falls through the colder, denser air and comes in contact with cold surfaces, ice will form and may continue to form until the ice is as thick as several inches.

Extent of the Hazard

Snow and ice storms are a City-wide hazard.

Sperry-Piltz Ice Accumulation Index

The Sperry-Piltz Ice Accumulation Index, or SPIA Index, is a forward-looking, ice accumulation and ice damage prediction index that uses an algorithm of researched parameters that, when combined with National Weather Service forecast data, predicts the projected footprint, total ice accumulation, and resulting potential damage from approaching ice storms. It is a tool to be used for risk management and/or winter weather preparedness.

Past Events and Impacts

Four events of those listed in the NCDRC database are of particular note for their severity:

The Sperry-Piltz Ice Accumulation Index, or "SPIA Index" – Copyright, February, 2009

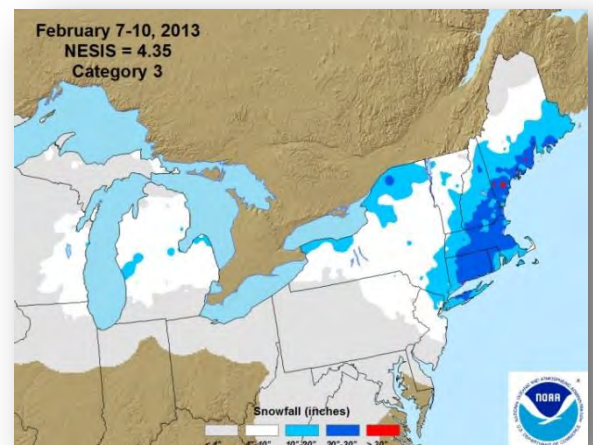
ICE DAMAGE INDEX	* AVERAGE NWS ICE AMOUNT (in inches) * Revised October, 2011	WIND (mph)	DAMAGE AND IMPACT DESCRIPTIONS
0	< 0.25	< 15	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	0.10 – 0.25 0.25 – 0.50	15 – 25 < 15	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
2	0.10 – 0.25 0.25 – 0.50 0.50 – 0.75	25 – 35 15 – 25 < 15	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
3	0.10 – 0.25 0.25 – 0.50 0.50 – 0.75 0.75 – 1.00	>= 35 25 – 35 15 – 25 < 15	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days.
4	0.25 – 0.50 0.50 – 0.75 0.75 – 1.00 1.00 – 1.50	<= 35 25 – 35 15 – 25 < 15	Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
5	0.50 – 0.75 0.75 – 1.00 1.00 – 1.50 > 1.50	>= 35 >= 25 >= 15 Any	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

The Ice Storm of 1998: (January 7th – 9th) was a severe ice storm that is recognized as the worst event in recent memory. Ice accreted several inches thick on trees, power lines, and other exposed surfaces causing many people in those areas to lose electrical service. Statewide, the storm knocked out power to about 55,000 customers, an estimated 125,000 people. Those impacted had to contend with snow, additional freezing rain, rain, slippery roads, falling ice and other debris, sub-zero temperatures, strong winds, and dangerous wind chills. Local impacts included long-term power outages (upwards of 7+ days), 1 fatality associated with carbon monoxide poisoning, school closures, and challenges with traffic at busy intersections.

The Ice Storm of 2008 (December 11th – 12th) was a major winter storm that brought a mixture of snow, sleet, and freezing rain. The greatest impact in the state was in southern and central New Hampshire where a significant ice storm occurred. Following the ice storm, recovery and restoration efforts were negatively impacted by additional winter weather events that passed through the state. The freezing rain and sleet ranged from 1 to 3 inches, ice accretion to trees and wires in these areas generally ranged from about a half inch to about an inch. The weight of the ice caused branches to snap, and trees to either snap or uproot, and brought down power lines and poles across the region. About 400,000 utility customers lost power during the event, with some customers without power for two weeks. Property damage across northern, central and southeastern NH was estimated at over \$5 million. Local impacts included long-term power outages (impacts to transmission lines outside the state), and school closures.

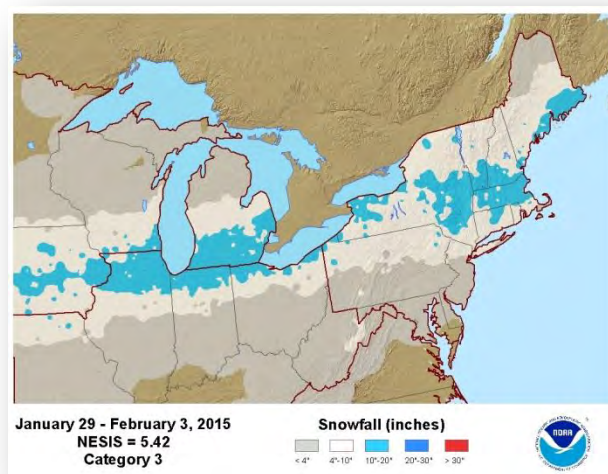
The Blizzard of 2013 – NEMO (February 8th–9th) was an area of low pressure developed rapidly off the Carolina coast late on the 7th and early on the 8th. The storm moved very slowly northeast during the 8th and 9th as it continued to intensify. By the morning of the 10th, the storm was located just to the east of Nova Scotia. The storm brought heavy snow, high winds,



and blizzard conditions to the southeastern part of the state. Snowfall amounts were generally 18 inches or more in the southeast where blizzard conditions caused considerable blowing and drifting snow. In western and northern sections, snowfall amounts were in the 4 to 18 inch range. Southeastern New Hampshire had blizzard conditions for about 3 to 10 hours.

The NCDC Regional Snowfall Index for the stations near Dover reported between 18 and 24 inches of snow (Rochester and Nottingham) and 12 to 18 inches (between Epson and Northwood) from February 8-February 10, 2013. According to the NH Union Leader, wind gusts of over 30-miles-per hour were expected to occur with the storm; however, the NH Electric Co-op reported only minor power outages.⁹ Local impacts included snow removal challenges.

The Blizzard of 2015 – JUNO (January 26th – 28th) was area of low pressure developed off the Delmarva peninsula on Monday, January 26th, and intensified rapidly as it moved slowly northward through the 27th. Snow spread northward across the region Monday night and became heavy on Tuesday, the 27th. Winds became strong during the day Tuesday leading to blizzard conditions at times along and inland from the coast. The snow persisted into Tuesday night in many areas with blowing and drifting snow. Snowfall amounts ranged from 10 to more than 30 inches across much of the southeastern part of the state.



Juno was ranked on the NESIS as a 'major' event based on the area affected, the amount of snow, and the number of people living in the path of the storm. The Regional Snowfall Index for the station near Dover reported between 18 and 24 inches from January 25-January 28th, 2015¹⁰. Similar to the storm in 2013, this snow storm brought heavy bands of snow and wind, causing blizzard-like conditions. Local impacts included snow removal challenges, economic impacts in the downtown, and line of site issues due to high snow banks along sidewalks and pedestrian intersections.

Other, less recent events were also damaging. The nor'easter of December 7, 1996 was especially damaging to power systems and is described in the NCDC database as "the most extensive and costliest weather related power outage in the state's history," at least until 1996 when that database entry was made. The 1998 ice storm probably surpassed this storm in power systems impact. This storm is thought to have been of the same magnitude as the one that occurred in the region in 1929, indicating a return period of approximately 70 years (CRREL 1998).

⁹ New Hampshire Union Leader. February 9, 2013.

<http://www.unionleader.com/apps/pbcs.dll/article?AID=/20130209/NEWS1101/130209041/0/OPINION02>

¹⁰ <http://gis.ncdc.noaa.gov/map/viewer/#app=cdo&cfg=rsi&theme=rsi>

Extended Power Failures

When discussing extended power failure in this plan, it is referring to power failure that can last for a period of days or weeks. Many things can cause power failure: downed power lines (due to storm, wind, accident, etc.); failure of public utilities to operate or failure of the national grid. Extended power failure can present not only lighting difficulties but also challenges to heating, water supply and emergency services. In Dover, there have been extended power outages on occasion; the worst in recent years was the ice storm of 2008 where power was out for over a week in some places. Additional events to add are the Halloween Snow Event (2011), which produced heavy, wet snow and leaf-on conditions that resulted in downed trees and caused major power outages throughout the City, and the Thanksgiving Day snow event in late November (2014), which also produced heavy, wet snow that resulted in sporadic power outages and disrupted travel plans for the holiday weekend, including major delays at airports and hazardous travel on local and state roadways.

Potential Future Impacts on Community

Dover will continue regularly to receive impacts from severe, regional winter weather events.

Estimated Loss Potential

Based on the high hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$208,929,340 in estimated potential losses from impacts associated from severe winter weather.

Severe Thunderstorms & Lightning

Overview	
Hazard Type	Severe Thunderstorm and Lightning
Location/Extent	City-wide (sporadic)
Severity	2.7
Probability	3.0
Overall Threat	8.0 (high)

Description of the Hazard

As defined by NOAA, a thunderstorm is a rain shower during which thunder is heard. Because thunder comes from lightning, all thunderstorms have lightning. A thunderstorm is the result of convection, which is the upward atmospheric motion that transports whatever is in the air (such as moisture) with it. A thunderstorm is classified as severe if it has hail one inch or greater, winds gusting in excess of 50 knots (57.5 mph), or a tornado. Thunderstorm-related hazards that could impact Dover include: high winds and downburst, lightning, hail, and, torrential rainfall. Thunderstorms and severe thunderstorms are a City-wide hazard. They are most likely to occur in spring and summer.

Lightning can cause significant, sometimes severe, damage. Lightning strikes can cause direct damage to structures and serious injury or death to people and animals. Extensive damage also commonly results from secondary effects of lightning, such as electrical power surges, wildfire, and shockwave. According to lightning fatality data collected by the National Oceanic and Atmospheric Administration (NOAA) over the last decade, lightning kills an average of 32 people each year in the United States. There were 320 fatalities (254 were men; 66 were women) in the United States from 2007 to 2017.

Extent of the Hazard

Lightning heats air to a temperature of 50,000 degrees Fahrenheit and causes the air to expand and contract rapidly, which causes thunder. A lightning strike occurs very quickly but can occur multiple times during a storm.

Past Events and Impacts

Thunderstorms are common in New Hampshire but can be considered generally less severe than in other areas of the country, such as the Great Plains states. Severe thunderstorms do occur in New Hampshire, though. The NCDC database lists 53 reported events of severe thunderstorm winds in Strafford County from January 1, 2007 to July 31, 2017. Three events took place in in Dover. On June 6, 2010 a severe thunderstorm produced multiple reports of trees down in Dover; on June 24, 2010 a severe thunderstorm snapped a utility pole in half and downed numerous trees in Dover; and on July 20, 2017 a severe thunderstorm downed trees on Route 9 in Dover.

There were no reported lightning strike related deaths in New Hampshire. The NCDC database lists four reported lightning events in Strafford Country from January 1, 2007 to July 31, 2017; none of which occurred in Dover. The Planning Committee identified the wastewater treatment facility (Middle Road) and the SCADA antenna at Garrison Hill as places that have been hit in the past. There was also one woman struck by lightning on Governor Sawyer Lane during a storm event – fortunately this event did not result in a fatality.

Finally, hail is a fairly common part of thunderstorms in New Hampshire, but damaging hail is apparently not. The damage that can result from hail is mostly to cars and windows. The NCDC Storm Events database lists 52 reported hailstorms in Strafford County from January 1, 2007 to July 31, 2017. Five of these events took place in Dover. On June 5, 2007 a severe thunderstorm produced hail varying in size from 0.75 to 1.75 inches; on July 6, 2007 a severe thunderstorm produced 0.75 inch hail; on July 18, 2008 a severe thunderstorm produced 0.75 inch hail; on June 24, 2010 a severe thunderstorm produced 1 inch hail; and on June 1, 2011 a severe thunderstorm produced hail varying in size from 0.88 to 1 inch. Hail has caused significant damage to vehicles during storms.

Potential Future Impacts on Community

The annual recurrence probability of thunderstorms in general is effectively 100%. Dover will continue to experience thunderstorms and should expect to sustain significant damage periodically.

Table 17: Lightning Activity Scale	
Lightning Activity Level (LAL)	Conditions
LAL1	No thunderstorms activity
LAL2	Isolated thunderstorms
LAL3	Widely scattered thunderstorms
LAL4	Scattered thunderstorms
LAL5	Numerous thunderstorms
LAL6	Widely scattered, scattered, or numerous DRY thunderstorms

Estimated Loss Potential

Based on the high hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$208,929,340 in estimated potential losses from impacts associated from severe thunderstorms and lightning.

Wildfire

Overview	
Hazard Type	Wildfire
Location/Extent	City-wide (Unfragmented, wooded areas)
Severity	1.0
Probability	1.0
Overall Threat	1.0 (low)

Description of the Hazard

Wildfire is defined as an uncontrolled and rapidly spreading fire. A forest fire is an uncontrolled fire in a woody area. Forest fires occur during drought and when woody debris on the forest floor is readily available to fuel the fire. Grass fires are uncontrolled fires in grassland areas. Dover is an urban city with a limited forested landscape. Exposure to natural factors such as lightning that can cause wildfires is consequently high and can occur throughout the jurisdiction.

Extent of the Hazard

The National Wildfire Coordinating Group (NWCG) categorizes the size of a wildfire in six classes depending on acres burned, ranging from less than ¼ acre to greater than 5,000 acres (see box to the right). The US Forest Service's surface fire behavior fire characteristics chart illustrates primary fire behavior values including the spread rate and the intensity of the fire, which can be used to compare predicted and observed fire behavior and to describe potential fire behavior.¹¹

The National Wildfire Coordinating Group (NWCG) defines the size of a wildfire as:

Class A - one-fourth acre or less;

Class B - more than one-fourth 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 acres;

Past Impacts and Events

Wildfires in New Hampshire historically have tended to run in 50-yr cycles, which can be observed starting from the 1800s. This 50-year cycle is partially based upon human activities and, therefore, may not prove to be accurate into

¹¹ How to Generate and Interpret Fire Characteristics Charts for Surface and Crown Fire Behavior.
(https://www.fs.fed.us/rm/pubs/rmrs_gtr253.pdf)

¹¹ New Hampshire Department of Safety. State of NH

the future.¹² The peak in wildfires in the late 1940's and early 1950's is thought to be related to the increased fuel load from trees downed in the 1938 hurricane. Here, 60 years later, New Hampshire officials are again concerned about the high fuel load created by the 1998 and 2008 ice storms that hit New Hampshire. The NCDC Storm Events database lists 0 reported wildfires in Strafford County from January 1, 2007 to July 31, 2017. Locally, there were multiple brush fires back in 1985; however, many of those problematic areas have since been developed. Many of the downed trees and fuel load near Bellamy Park have been cleaned up in association with the maintenance and upkeep of the Frisbee golf course. The potential risk for large scale wildfires within the City is low (natural breaks); however, more rural areas adjacent to Tolend Road towards Barrington may be more susceptible.

Potential Future Impacts on Community

The probability of occurrence of wildfires in the future is effectively impossible for the Hazard Mitigation Committee to predict due to the dependence of wildfire on the occurrence of the causal hazards and the variability of numerous factors that affect the severity of a wildland fire. In general, if a wildfire occurred in one of the large, unfragmented woodland areas, the cost of the timber loss would probably be in the range of several million dollars.

Estimated Loss Potential

Based on the low hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$20,892,934 in estimated potential losses from impacts associated from wildfire.

Earthquakes & Landslide

Overview	
Hazard Type	Earthquake & Landslide
Location/Extent	City-wide and areas with steep slopes (>25%)
Severity	1.0
Probability	1.0
Overall Threat	1.0 (low)

Description of the Hazard

The USGS defines an earthquake as a term used to describe both sudden slip on a fault, and the resulting ground shaking and radiated seismic energy caused by the slip, or by volcanic or magmatic activity, or other sudden stress changes in the earth. Earthquakes can cause buildings and bridges to collapse, disrupt gas, electric and phone lines, and often cause landslides, flash floods, fires, avalanches, and tsunamis. Larger earthquakes usually begin with slight tremors but rapidly take the form of one or more violent shocks, and are followed by vibrations of gradually diminishing force called aftershocks.¹³ Earthquakes in the Northeast are not associated with specific known faults.

¹² New Hampshire Department of Safety. State of NH Natural Hazard Mitigation Plan 2013. Homeland Security and Emergency Management.

¹³ The Northeast States Emergency Consortium Earthquake Hazards. <http://nesec.org/earthquakes-hazards/>. Viewed on 8/10/15

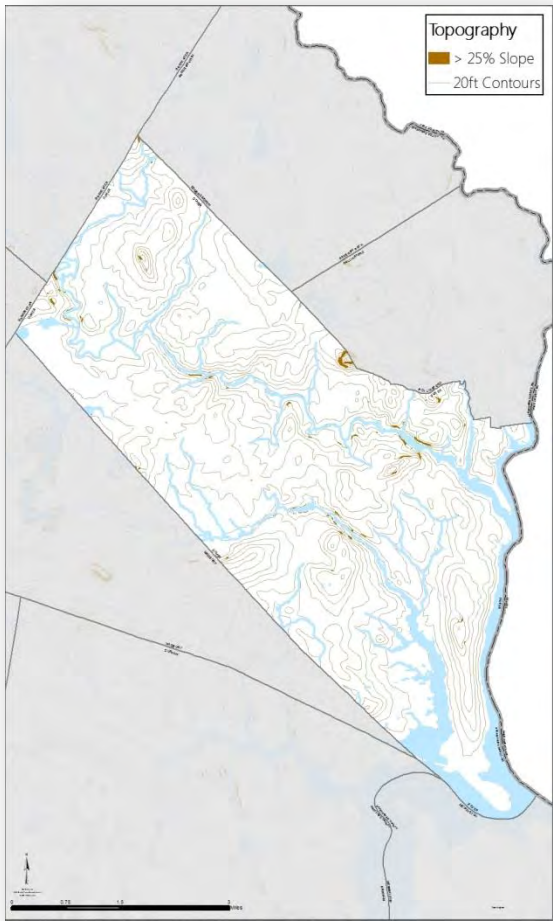
Due to the geology of the region, the area impacted by an earthquake in the Northeast can be up to 40 times greater than the same magnitude event occurring on the West coast. Earthquakes can occur at any time without warning. An earthquake can impact all areas of the jurisdiction. People at greatest risk from earthquakes are those who live in unreinforced masonry buildings build on filled land or unstable soil.¹⁴

Landslides could occur in Dover in areas with steep slopes, where soils and loose bedrock formations would tend to slough off and move en masse downhill under gravity. Earthquakes could readily cause landslides, as could ground saturation from extended heavy precipitation events. Given seismic or precipitation events that could initiate landslide, landslide hazard is likely quite high in steep slope areas; however, there are only approximately 58.1 acres (<1%) of steep slopes greater than 25% in Dover.

Extent of the Hazard

The magnitude and intensity of an earthquake is measured by the Richter scale and the Modified Mercalli Intensity (MMI) scale, respectively. The Richter magnitude scale was developed in 1935 by Charles F. Richter of the California Institute of Technology as a mathematical device to compare the size of earthquakes. The magnitude of an earthquake is determined from the logarithm of the amplitude of waves recorded by seismographs. Adjustments are included for the variation in the distance between the various seismographs and the epicenter of the earthquakes.

The Modified Mercalli Intensity (MMI) scale was developed in 1931 by the American seismologists Harry Wood and Frank Neumann. This scale, composed of 12 increasing levels of intensity that range from imperceptible shaking to catastrophic destruction, is designated by Roman numerals. It does not have a mathematical basis; instead it is an arbitrary ranking based on observed effects actually experienced at a given place and therefore has a more meaningful measure of severity.¹⁶



Map 8: Steep Slopes in Dover (Source: SRPC, 2015)

MODIFIED MERCALLI SCALE		RICHTER SCALE	
I.	Felt by almost no one.	2.5	Generally not felt, but recorded on seismometers.
II.	Felt by very few people.	3.5	Felt by many people.
III.	Tremor noticed by many, but they often do not realize it is an earthquake.		
IV.	Felt indoors by many. Feels like a truck has struck the building.		
V.	Felt by nearly everyone; many people awakened. Swaying trees and poles may be observed.		
VI.	Felt by all; many people run outdoors. Furniture moved, slight damage occurs.	4.5	Some local damage may occur.
VII.	Everyone runs outdoors. Poorly built structures considerably damaged; slight damage elsewhere.		
VIII.	Specially designed structures damaged slightly, others collapse.	6.0	A destructive earthquake.
IX.	All buildings considerably damaged, many shift off foundations. Noticeable cracks in ground.		
X.	Many structures destroyed. Ground is badly cracked.	7.0	A major earthquake.
XI.	Almost all structures fall. Very wide cracks in ground.	8.0 and up	Great earthquakes.
XII.	Total destruction. Waves seen on ground surfaces, objects are tumbled and tossed.		

¹⁴ <http://nesec.org/earthquakes-hazards/>
¹⁵ USGS. Earthquake Hazard Program. <http://earthquake.usgs.gov/learn/glossary/?term=Richter%20scale>. Viewed on 8/10/15
¹⁶ USGS. Earthquake Hazard Program. <http://pubs.usgs.gov/gip/earthq4/severitygip.html>. Viewed on 8/10/15

Past Impacts and Events

Due to the state's location in an area of moderate seismic activity earthquakes are a common event in New Hampshire, but significantly damaging earthquakes are not. The Northeast States Emergency Consortium (NESEC, 2016) website presents a history of earthquake in the Northeast and documents that New Hampshire is an area of high earthquake probability. Three hundred and sixty earthquakes occurred in New Hampshire from 1638 to 2007. Approximately 40-50 earthquakes are detected in the Northeast annually.¹⁷ However, New Hampshire has only experienced ten earthquakes of significant magnitude (Richter Magnitude 4.0 or greater) in that time period (one was located in Maine). There have been no major earthquake or landslide events. Locally, all new construction has to be engineered and designed to handle appropriate seismic activity. The Planning Committee recognizes that some of the older structures within the City may be more vulnerable. It is unclear as to the impacts to the mill buildings if a large earthquake were to hit.

Earthquakes are on average an annual occurrence but significant quakes have an annual probability of occurrence (based on the 1638 to 2012 period) of about 2.7%.

Table 18: Notable Historic Earthquakes in NH 1638-2012 (Magnitude 4.0 or Greater)

Location	Date	Intensity MMI Scale	Magnitude Richter Scale
Central New Hampshire	June 11, 1638	-	6.5
Portsmouth	November 10, 1810	V	4.0
Near Hampton	July 23, 1823	IV	4.1
Ossipee	October 9, 1925	VI	4.0
Ossipee	December 20, 1940	VII	5.5
Ossipee	December 24, 1940	VII	5.5
West of Laconia	January 19, 1982	-	4.7
Northeast of Berlin	October 20, 1988	-	4.0
Southeast of Berlin	April 6, 1989	-	4.1
Hollis Center (Maine)	October 16, 2012	-	4.0

[Source: Northeast States Emergency Consortium, 2016]

Potential Future Impacts on Community

Earthquakes could readily cause landslides, as could ground saturation from extended heavy precipitation events. Given seismic or precipitation events that could initiate landslide, landslide hazard is likely quite high in steep slope areas. The Hazard Mitigation Committee did not have the expertise available to analyze the actual probability of landslide in Dover; however, to the best of the committee's knowledge no significant landslides have ever occurred. The USGS (1997) classifies landslide incidence regionally as very low (less than 1.5% of land area involved). The local probability in Dover however, will depend on specific soil/rock types and upon the probability of initiating events.

¹⁷ <http://nsec.org/earthquakes-hazards/>

Estimated Loss Potential

Based on the low hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$20,892,934 in estimated potential losses from impacts associated from earthquakes and landslides.

Extreme Temperatures

Overview	
Hazard Type	Extreme Temperatures
Location/Extent	City-wide
Severity	1.0
Probability	3.0
Overall Threat	3.0 (low)

Description of the Hazard(s)

Extreme temperatures can be describes as heat waves and cold waves (or winter storm and extreme winter conditions).

A *heat wave* is a prolonged period of excessively hot and sometimes also humid weather relative to normal climate patterns of a certain region. Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children, and those who are sick or overweight are more likely to succumb to extreme heat. Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the "urban heat island effect."¹⁸

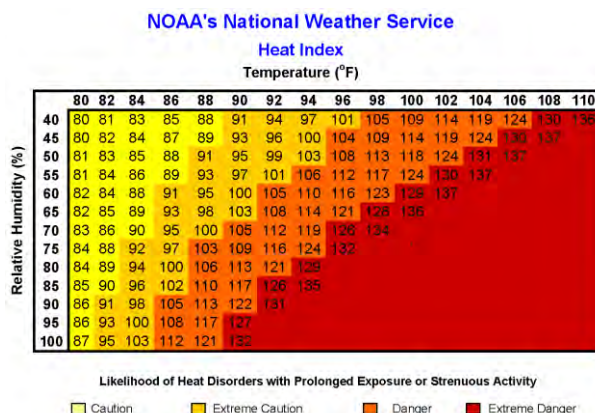
A *cold wave* can be both a prolonged period of excessively cold weather and the sudden invasion of very cold air over a large area. Along with frost it can cause damage to agriculture, infrastructure, and property. Cold waves, heavy snowfall and extreme cold can immobilize an entire region. Even areas that normally experience mild winters can be hit with a major snowstorm or extreme cold. Winter storms can result in flooding, storm surge, closed highways, blocked roads, downed power lines and hypothermia.

¹⁸ International Federation of Red Cross and Red Crescent Societies. Climatological hazards: extreme temperatures.
<http://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/definition-of-hazard/extreme-temperatures/>

Extent of the Hazard

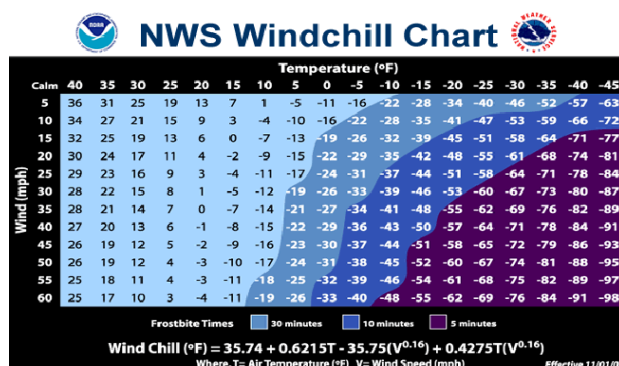
Extreme Heat

Extreme heat events can be described as periods with high temperatures of 90°F or above. The graph to the right displays the likelihood of heat disorders with prolonged exposure or strenuous activity.



Extreme Cold

What constitutes extreme cold varies by region. Characteristics of an extreme cold event in northern states include temperatures at or below zero for an extended period of time. According to the National Weather Service (NWS), extreme cold is a daily concern during the winter months for northern states. The NWS Windchill Temperature index calculates the dangers from winter winds and freezing temperatures (Source: NWS)



The City sends out advisory notices whenever the National Weather Service issues cold/heat index warnings.

Past Impacts and Events

According to a 2014 study of climate change by Climate Solutions New England, Climate Change in Southern New Hampshire, from 1970 to 1999, southern New Hampshire experienced an average of seven days per year above 90°F each year. This is projected to increase to 22 days per year under a low emissions scenario to nearly 50 days per year under a high emissions scenario. Between 1980 and 2009, an average of one day per year reached 95°F in southern New Hampshire. By the end of the century, the number of days per year over 95°F is expected to increase as much as six to 22 days per year. Additionally, the average daytime maximum temperature on the hottest day is expected to increase to as much as 98°F to 102°F (depending on the emissions scenario), compared to the historical average of 93°F.¹⁹ Between 1960 and 2012, there was an average of 8.3 days per year (or 0.8 days/decade) greater than 90°F recorded in Durham (the closest of four stations to Dover included in the study). During this time the hottest day of the year averaged 95.0°F.²⁰ Whenever the City experiences a prolonged heat wave, there are extended hours for the outdoor pool and dialed back outdoor programs to ensure public safety. The McConnell Center is opened as a cooling station at least once or twice on average during the summer months.

Between 1960 and 2012, the average temperature of the coldest day of the year was -14.5°F in Durham (the closest of four stations to Dover included in the study).²¹ Between 1980 and 2009, there were an average of 164 days per year under 32°F and 16 days per year under 0°F in southern New Hampshire. By the end of the century, southern

¹⁹ Wake, C. et al. "Climate Change in Southern New Hampshire; Past, Present, and Future." Climate Solutions of New England. 2014

²⁰ Ibid

²¹ Ibid

New Hampshire is expected to see 20 fewer days below 32°F and only about 2 to 5 days per year under 0°F. Locally, the McConnell Center is opened as a heating station at least once or twice on average during the winter months.

Potential Future Impacts on Community

Annual average temperatures may increase on average by 3-5°F by 2050 and 4-8°F by 2100²²

Estimated Loss Potential

Based on the low hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$20,892,934 in estimated potential losses from impacts associated from extreme temperatures.

Drought

Overview	
Hazard Type	Drought
Location/Extent	City-wide
Severity	1.0
Probability	2.0
Overall Threat	2.0 (low)

Description of the Hazard

A drought is defined as a long period of abnormally low precipitation, especially one that adversely affects growing or living conditions. The impacts of droughts are indicated through measurements of soil moisture, groundwater levels, and stream flow. The effect of drought on these indicators is variable during any particular event. For example, frequent minor rainstorms can replenish the soil moisture without raising groundwater levels or increasing streamflow. Low streamflow also correlates with low ground-water levels because ground water discharge to streams and rivers maintains streamflow during extended dry periods. Low streamflow and low ground-water levels commonly cause diminished water supply.

Drought is a regional hazard and can impact the entire jurisdiction. Agricultural land and residents who use dug, shallower wells may be more vulnerable to the effects of drought.

Extent of the Hazard

The National Drought Monitor classifies the duration and severity of the drought using precipitation, stream flow, and soil moisture data coupled with information provided on a weekly basis from local officials. There are five magnitudes of drought outlined in the New Hampshire State Drought Management Plan: Exceptional, Extreme, Severe, Moderate, and Abnormally Dry. At the development of this Plan, Dover was several months removed from an extreme drought.

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Past Impacts and Events

While the impacts of drought are typically not as damaging and disruptive as floods or storm events, the impacts of long term drought or near drought conditions can impact crops and the water supply.

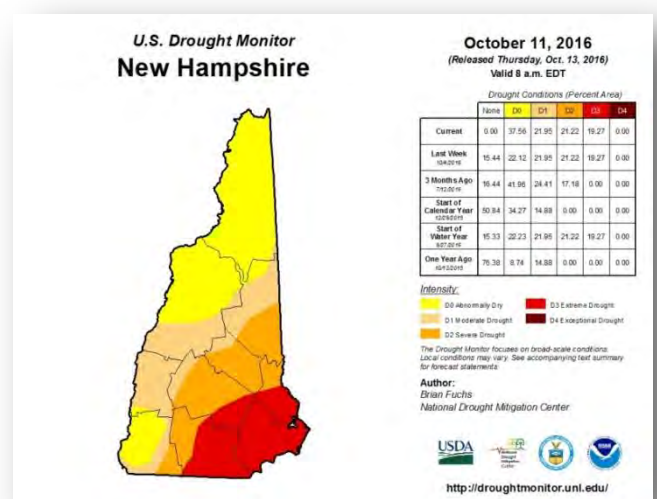
Periods of drought have occurred historically in New Hampshire. Six droughts of significant extent and duration were evident in the 20th century as noted below in Table 2.5. The most severe drought recorded in New Hampshire occurred from 1960 to 1969. This drought encompassed most of the northeastern United States (1956-1966). The drought of 1929-1936 was the second worst and coincided with severe drought conditions in large areas of the central and eastern United States. The drought of 2001-2002 was the third worst on record.²³

Table 19: Severe Drought Conditions in New Hampshire

Dates	Area Affected	Magnitude	Remarks
1929 – 1936	Statewide	-	Regional; recurrence interval 10 to > 25 years
1939 – 1944	Statewide	Severe Moderate	Severe in southeast NH and moderate elsewhere in the State. Recurrence interval 10 to > 25 years.
1947 – 1950	Statewide	Moderate	Recurrence interval 10 to >25 years
1960 – 1969	Statewide	Extreme	Longest recorded continuous spell of less than normal precipitation. Encompassed most of the northeast US. Recurrence interval >25 years.
2001 – 2002	Statewide	Severe	Recurrence interval 10 to >25 years
2015-2016	Central & Southern NH	Moderate	Recurrence interval cannot yet be determined

In more recent years, drought has again become a problem in New Hampshire. In 1999, a drought warning was issued by the Governor's Office. In March 2002, all counties in New Hampshire with the exception of Coos County were declared in Drought Emergency. This was the first time that low-water conditions had progressed beyond the Level Two, Drought Warning Stage.

Normal precipitation for the state averages 40 inches per year. During the summer of 2015, most of central and southern New Hampshire experienced its most recent drought, the first since 2001 – 2002 (was the 3rd worst on record, exceeded only by the national droughts of 1956-1966 and 1941-1942). While many communities experienced record snowfall totals this past winter (2014-2015), the lack of rainfall and higher-than-average temperatures resulted in river and groundwater levels to be lower than average. This resulted in the implementation of local water conservation plans throughout the region.



²³ NHDES. Drought Management Program. Publications. *NH Drought Historical Events*. Viewed on 8/10/15. <http://des.nh.gov/organization/divisions/water/dam/drought/documents/historical.pdf>

Drought conditions continued and intensified into 2016 in New Hampshire and in Southeast New Hampshire in particular. The drought was due to a combination of a below average snowpack in the spring, little precipitation to recharge the groundwater, an increase of evapotranspiration (the process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants) in the summer, and the inability of New Hampshire watersheds to store large volumes of water due to their geology.

In October 2016, at the peak of the drought, nearly 20% of the state was categorized as being in extreme drought. One hundred and sixty community water systems had reported implementing a water restriction or ban, and 13 municipalities had reported implementing voluntary or mandatory outdoor use bans in the state. Dover implemented a voluntary conservation request and asked all water users to conserve water and limit outdoor water use except for hand watering of vegetable gardens, flower gardens and new plantings, and to shut off automatic irrigation systems. The Dover Utilities Commission did not enact mandatory water restrictions on residents but did implement conservation measures for watering on City-owned recreational fields during the drought.

In 2018, the City, in partnership with the Strafford Regional Planning Commission, will be considering adopting new water efficiency regulations to address water usage during future drought scenarios.

Potential Future Impacts on Community

The National Drought Mitigation Center website (NDMC 2004) emphasizes that reliable drought prediction for regions above 30°N latitude is effectively impossible. With extreme variation in environmental conditions due to climate change possibly on the rise and population increases, drought probability may grow in the future and put more of a strain on long-term water resources. Currently, drought possibility seems moderate. The large amount of water resources and relatively sparse population in New Hampshire have tended to minimize the impacts of drought events in the region, but this regional protection may be endangered in the future with increases in drought frequency or severity, especially in the State’s densely populated areas along the seacoast and south-central NH.

Estimated Potential Losses

Based on the low hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$20,892,934 in estimated potential losses from drought.

Public Health Threats

Overview	
Hazard Type	Public Health Threats
Location/Extent	City-wide
Severity	2.7
Probability	3.0
Overall Threat	8.0 (high)

Description of the Hazard

Epidemic

As defined by the CDC, an epidemic is "the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time."²⁴ In addition to being categorized by the type of transmission (point-source or propagated), epidemics may occur as outbreaks or pandemics. As defined in the State Hazard Mitigation Plan, an outbreak is a sudden increase of disease that is a type of epidemic focused to a specific area or group of individuals. A pandemic is an epidemic that spreads worldwide, or throughout a large geographic area.

Epidemics may be caused by infectious diseases, which can be transmitted through food, water, the environment or person-to-person or animal-to-person (zoonoses), and noninfectious diseases, such as a chemical exposure that causes increased rates of illness. Infectious disease that may cause an epidemic can be broadly categorized into the following groups²⁵:

- Foodborne (Salmonellosis, Ecoli)
- Water and Foodborne (Cholera, Giardiasis)
- Vaccine Preventable (Measles, Mumps)
- Sexually Transmitted (HIV, Syphilis)
- Person-to-Person (TB, Aseptic meningitis)
- Arthropodborne (Lyme, West Nile Virus)
- Zoonotic (Rabies, Psittacosis)
- Opportunistic fungal and fungal infections (Candidiasis).

An epidemic may also result from a bioterrorist event in which an infectious agent is released into a susceptible population, often through an enhanced mode of transmission, such as aerosolization (inhalation of small infectious disease particles).²⁶ For the purposes of this Plan, widespread drug and substance abuse may also be considered epidemics.

The Dover High School is a Point of Dispensing (POD) location for large-scale vaccinations. In 2016, the City's Police and Fire Departments participated in a state-wide drill to simulate the distribution of medications, vaccines, or medical supplies to a large community of people during an emergency.

Lyme Disease

Lyme disease, which is spread to humans by the bite of an infected tick, is a growing threat in New Hampshire. New Hampshire has one of the highest rates of Lyme disease in the U.S.

²⁴ Slate; <http://www.slate.com/id/2092969/>

²⁵ New Hampshire Department of Safety. State of NH Natural Hazard Mitigation Plan 2013. Homeland Security and Emergency Management.

²⁶ Ibid

Radon

Radon is a radioactive gas which is naturally occurring as a result of the typical decay of uranium commonly found in soil and rock (especially granite). Radon has carcinogenic properties and is a common problem in many states; New Hampshire has some isolated areas that are among the highest levels of radon in the United States according to the US Environmental Protection Agency (EPA). Whether or not a particular type of granite emanates radon is dependent on the geochemistry of that particular granite, some types are a problem and some are not. In other parts of the country, radon is associated with certain black shales, sandstones, and even limestones. The EPA has estimated that radon in indoor air is responsible for about 13,600 lung cancer deaths in this country each year (EPA document, EPA 811-R-94-001, 1994).²⁷

Arsenic

Arsenic is a semi-metal element that is odorless and tasteless. Arsenic is a hazard because it can enter drinking water supplies, either from natural deposits in the earth or from agricultural and industrial practices.²⁸ Wells drilled into New Hampshire's bedrock fractures have about a 1 in 5 probability of containing naturally occurring arsenic above 10 parts per billion. In addition, wells within short distances (~50 feet) can present very different water quality because of our highly fractured bedrock. Arsenic in water has no color or odor, even when present at elevated levels. Therefore, the only way to determine the arsenic level in your well water is by testing.

The Planning Committee identified that the contamination of public drinking water wells to elevated levels of the unregulated contaminant perfluorooctane sulfonic acid (PFOS) has become an emerging threat; however, natural occurring radionuclides (radium, uranium) found in private drinking water supplies is also an important public safety hazard.

Extent of the Hazard

Public health threats are events or disasters that can affect an entire community.

Past Impacts and Events

Epidemic

While not an infectious disease outbreak, New Hampshire is currently among those states in the Northeast combating a serious opioid epidemic, which according to the Union Leader has resulted in 479 expected drug overdose deaths since 2012. As of November 2017, Dover had experienced 13 confirmed drug overdose fatalities in 2017; there were 12 in 2016 and 12 in 2015. Leading causes have been from heroin and/or fentanyl. New Hampshire has some of the highest percentages of illicit drug use among young adults in not just the Northeast, but the entire country. Carfentanyl has emerged as an additional drug that is causing significant problems. Substance abuse, specifically the opioid epidemic, has directly impacted Dover's workforce – with the restaurant business getting hit particularly hard. This problem has also impacted the crime rate, with increases in the cases of car break-ins and credit card fraud.

²⁷ Ibid

²⁸ EPA. Arsenic in Drinking Water. (<http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/index.cfm>)

Lyme Disease

The number of New Hampshire residents diagnosed with Lyme disease has increased over the past 10 years, with significant increases occurring since 2005.²⁹ In 2009, the rate of cases of Lyme disease reported in New Hampshire residents was 108 cases per 100,000 persons, which is significantly higher than the Healthy People 2010 science-based 10-year national objective for improving the health of all Americans objective of 9.7 cases per 100,000 persons.³⁰ From 2009 to 2013, reported cases of Lyme disease in New Hampshire increased by approximately 20% from 1416 cases per year to 1691 cases per year.³¹ Rockingham, Strafford, and Hillsborough counties had the highest rates of disease in 2008-2009. In 2012, there were 172 reported cases of Lyme disease in Strafford County.³²

Radon

Exposure is a significant hazard in New Hampshire. According to a NH Bureau of Environmental & Occupational Health (BEOH) study looking at >15,000 indoor radon test results in single-family dwellings, households in northern, eastern, and southeastern regions of New Hampshire especially tend to have nominally high concentrations of radon in air or water (BEOH 2004); however, values in excess of the US Environmental Protection Agency's 4.0 picocurie per liter (pCi/L) action guideline have been found in nearly every community in New Hampshire. Values exceeding 100 pCi/L have been recorded in at least eight of New Hampshire's ten counties. The highest indoor radon reading in New Hampshire known to NHDES is greater than 1200 pCi/L; higher values probably exist.

In Dover, between 20.0 – 29.9% of homes tested by homeowners from 1987 to 2008 tested at or above the radon action level of 4.0 pCi/L. The probability of significant radon exposure is fairly high.³³

Arsenic

From 1975 until 2001, the federal maximum contaminant limit (MCL) for arsenic in water supplied by public water systems was 50 parts per billion, because the health effects of exposure to lower concentrations was not recognized. Based on an exhaustive review of the new information about arsenic's health effects, in January 2001 EPA established a goal of zero arsenic in drinking water. At the same time, EPA adopted an enforceable MCL of 10 parts per billion (ppb) based on balancing treatment costs and public health benefits. Studies have shown that chronic or repeated ingestion of water with arsenic over a person's lifetime is associated with increased risk of cancer (of the skin, bladder, lung, kidney, nasal passages, liver or prostate) and non-cancerous effects (diabetes, cardiovascular, immunological and neurological disorders). The same studies found that dermal absorption (skin exposure) of arsenic is not a significant exposure path; therefore, washing and bathing do not pose a known risk to human health.³⁴ Locally, the Planning Committee identified that during construction of the new police department, low levels of arsenic were found; however, the levels were low enough where it was dumped into the City's dredge cell.

²⁹ 2011 New Hampshire State Health Profile; Improving Health, Preventing Disease, Reducing Costs for All. NH Division of Public Health Services Department of Health and Human Services. <http://www.dhhs.nh.gov/dphs/documents/2011statehealthprofile.pdf>

³⁰ HealthyPeople.gov. About Healthy People. Accessed April 2014. Available at: <http://healthypeople.gov/2020/about/default.aspx>

³¹ NHDHHS. State of New Hampshire Tickborne Disease Prevention Plan. March 31, 2015. <http://www.dhhs.state.nh.us/dphs/cdcs/lyme/documents/tbdpreventionplan.pdf>

³² 2011 New Hampshire State Health Profile; Improving Health, Preventing Disease, Reducing Costs for All. NH Division of Public Health Services Department of Health and Human Services. <http://www.dhhs.nh.gov/dphs/documents/2011statehealthprofile.pdf>

³³ NHDES https://www.des.nh.gov/organization/divisions/air/pehb/ehs/radon/documents/radon_by_town.pdf

³⁴ New Hampshire Environmental Services. Drinking Water and Groundwater Bureau. Arsenic in Drinking Water Fact Sheet.

In 2017, NHDES offered a free water testing program (documents arsenic levels and assesses biological activity for a variety of bacteria), in which Dover has chosen to participate in. Data from this research project was not available at the time of this plan update; however, the City should follow up later in 2018 for results.

Potential Future Impacts on Community

With the occurrence of worldwide pandemics such as SARS, H1N1 and Avian Flu, Dover could be susceptible to an epidemic and subsequent quarantine. While all individuals are potentially vulnerable to the hazard of an epidemic, epidemics often occur among a specific age group or a group of individuals with similar risk factors and exposure.³⁵ Lyme disease will continue to impact public health, and with changes in climate, in particular warmer winters, higher rates of Lyme disease will be an ongoing concern.

The City is currently exploring options to limit, or potentially ban, pesticide and herbicide spraying protocols. There was some concern that this wide-spread ban may have an adverse impact if there was to be a vector-borne disease breakout that needed spraying. This topic is still being discussed at the City Council, and remains unresolved.

Radon, arsenic, and other potential groundwater containments will continue to need to be addressed. There have been reports by the EPA that lung cancer deaths nationwide can be attributed to radon exposure, but nothing inclusive has been determined at this point. With assistance from epidemiological health experts, for future plan updates the Committee may be able to use the life-table or concentration risk analysis methodologies in the EPA study (EPA 2003) together with demographic and behavioral health data to arrive at a reasonable estimate of risk.

The heroin and drug epidemic remains an ongoing problem.

Estimated Potential Losses

Based on the high hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$208,929,340in estimated potential losses from impacts associated from public health threats.

Hazardous Materials

Overview	
Hazard Type	Hazardous Materials
Location/Extent	City-wide
Severity	2.0
Probability	3.0
Overall Threat	6.0 (moderate)

³⁵ New Hampshire Department of Safety. State of NH Natural Hazard Mitigation Plan 2013. Homeland Security and Emergency Management.

Description of the Hazard

Hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Many products containing hazardous chemicals are used and stored in homes routinely. These products are also shipped daily on the nation's highways, railroads, waterways, and pipelines. Chemical manufacturers are one source of hazardous materials, but there are many others, including service stations, hospitals, and hazardous materials waste sites. Hazardous materials continue to evolve as new chemical formulas are created.

Extent of the Hazard

Incidents involving hazardous materials could potentially occur at any residence or business or along any road; however, it is more likely that a spill would occur along the Spaulding Turnpike; Routes 4, 9, 155, and 108; and the Pan-Am rail line (propane and fuel oil). The Planning Committee identified several other areas of concern, including: two large heating vendors on Fourth Street and Broadway that have large fuel storage tanks; the Unitil distribution system for natural gas; and the Ecoline pipeline, which transports purified methane gas from the Waste Management's Turnkey Recycling and Environmental Enterprise (TREE) in Rochester to the University of New Hampshire. Lastly, Dover is within the 50-mile ingestion pathway if the Seabrook Station Nuclear Power Plant were to have a nuclear release.

Past Impacts and Events

The Planning Committee could only recall one hazardous spill associated with a truck accident. It took place on the off-ramp on Route 4 westbound to Durham; a semi-tractor trailer truck that was carrying propane flipped over due to excessive speed. The City's Fire Department has responded to sporadic calls for locomotive fires at the rail yard.

Potential Future Impacts on Community

The Pan-Am rail line, because of the sheer quantity, is one of the largest future threats to the City. As the rail line travels through the City, it crosses important natural resource features including waterbodies (Kelly Brook, Knox Marsh Brook, and Cochecho River), wetlands, and forested land; industrial complexes; and passes through the economic core of the downtown (Chestnut Street, Third Street, Fourth Street, and Main Street). Any derailment would have significant impacts for the City.

The City identified the Newington Sea-3 expansion project as an important hazardous materials threat. This import/export project includes three 90,000-gallon tanks and associated chilling and pumping equipment in order to refrigerate and bulk store pressurized propane that is being railed in.

Estimated Potential Losses

Based on the moderate hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$104,464,670 in estimated potential losses from hazardous materials impacts.

Coastal Hazards

Overview	
Hazard Type	Coastal Hazards
Location/Extent	Bellamy River; the Piscataqua River; at the confluence of the Cocheco River and the Salmon Falls River; and along the shores of Little Bay.
Severity	2.0
Probability	2.0
Overall Threat	4.0 (moderate)

Description of the Hazard

Coastal hazards are often associated with storm surge, extreme precipitation events, and sea-level rise can be devastating to human health and safety, public and private structures and facilities, and the economies of coastal and inland coastal communities.

Extent of the Hazard

Dover is an inland coastal community, one of seventeen communities in the New Hampshire Coastal Zone, but has limited risk and vulnerability in regard to flooding caused by wave action. However storm surges brought on by large storm events like hurricanes and nor'easters, accompanied by high tides and potential sea level rise are valid concerns around low-lying areas along the Bellamy River; the Piscataqua River; at the confluence of the Cocheco River and the Salmon Falls River; and along the shores of Little Bay.



King Tide Event at Hilton Park, November 2017 (Source: SRPC)

Past Impacts and Events

There has been some significant erosion of the shoreline along the Bellamy River, in close proximity to Spur Road. This has resulted in ongoing repairs of docks and deck issues.

Potential Future Impacts on Community

In 2014, the Coastal Risk and Hazards Commission (CRHC) released their Sea-Level Rise, Storm Surges, and Extreme Precipitation in Coastal New Hampshire: Analysis of Past and Projected Future Trends report that provides the best available and relevant scientific information to inform decision-makers. The report projects that New Hampshire's coast could see a range of 0.6ft to 2.0ft of sea level rise by the year 2050. By 2100, that range could be from 1.6ft all the way to 6.6ft depending on different emission scenarios.

In 2017, NOAA released a report titled Global and Regional Sea Level Rise Scenario for the US that indicates global sea-level projections may be in the range of 6.6ft to 8.9ft of rise by 2100 under the highest scenario. These results take into consideration the instability of the Antarctic ice-sheet and indicate that these higher outcomes may be more likely than previously thought. While these projections are based on models and there is always a high level of uncertainty, the trend continues to go up – not down.

According to the CRHC report annual precipitation (not extreme events) is expected to increase by as much as 20% with most increases occurring during winter and spring during this century. Extreme precipitation events are expected to increase in frequency and in the mount of precipitation produced; however it is unclear as to how much those events will increase.

Estimated Potential Losses

Based on the moderate hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$104,464,670 in estimated potential losses from coastal hazard impacts.

Cyber Attacks

Overview	
Hazard Type	Cyber Attacks
Location/Extent	City-wide
Severity	1.7
Probability	2.0
Overall Threat	3.3 (low)

Description of the Hazard

The field of cyber security is primarily concerned with protecting against damage and disruption to or theft of hardware, software, or information. Due to the variety of services they provide, local government organizations collect, store, and work with large amounts of personal data and other sensitive information. While the security of this information has always been important, increasing use of digital networks to store and transmit that information makes the security of those networks a priority. Furthermore, local governments provide critical services such as police, fire, utilities, and other services, and disruption to these services could be devastating for residents. Types of cyber threat include:³⁶

- Malware: Malicious software that can damage computer systems, including monitoring system activity, transferring information, or even taking control of computers or accounts. This includes a wide variety of viruses, Trojans, ransomware, and other programs that are usually installed by clicking on infected links, files, or email attachments.

³⁶ Sullivan, Megan. 8 Types of Cyber Attacks Your Business Needs to Avoid (<http://quickbooks.intuit.com/r/technology-and-security/8-types-of-cyber-attacks-your-business-needs-to-avoid/>)

- Phishing: These attacks come in the form of emails, often disguised as a trusted or legitimate source, that attempt to extract personal data.
- Denial of Service: This is a large-scale attack designed to disrupt network service by overloading the system with connection requests. These attacks are more likely to impact large, high-profile organizations, but such attacks can occasionally have residual impacts on other organizations in the same network.
- Man in the Middle: By imitating an end user (e.g. an online bank), an attacker can extract information from a user. The attacker can then input that information to the end user to access additional information, including sensitive data such as personal or account information.
- Drive-by Downloads: Malware installed on a legitimate website causes a system to download a program simply by visiting that website. This program then downloads malware or other files directly to the user's system.
- Malvertising: This attack type downloads malware or other files to your computer when you click on an infected advertisement.
- Rogue Software: Attackers use pop-up windows to mimic legitimate anti-virus or other security software in order to trick users into clicking on links to download malware or other files.
- Sponsored Attacks: These threats, which could be perpetrated by state or non-state actors, include specific attacks to damage or disrupt infrastructure such as utilities or wastewater facilities.

Extent of the Hazard

Cyber threats are a City-wide hazard that have the potential to impact any location if critical services are disrupted, or any resident, business, contractor, or employee whose information is stored in city records in the event of a data breach. The severity of any impact depends upon the type of incident – targeted phishing attacks may be focused upon a single employee or account, while malware attacks could impact an entire department or gain access to an entire database of personal information.

Past Impacts and Events

A global ransomware attack began on May 12, 2017 that impacted more than 100,000 organizations in 150 countries.³⁷ Ransomware is a type of malware that encrypts a user's files, making them inaccessible, and demands a ransom to return access. While ransomware has existed for years, it is becoming more prevalent. An IBM study of the impacts of ransomware found that nearly 40% of all spam emails contain a ransomware attachment, up from 0.6% in 2015.³⁸ The FBI estimates that over \$1 billion in ransoms were paid by businesses and consumers in 2016 compared to \$24 million in 2015.³⁹

The Durham Police Department was the victim of a ransomware attack in June 2014. The attack originated from a phishing attack that linked to a Dropbox account containing malware. The malware locked access to files in a shared directory, effectively preventing the department from filing or accessing reports, sending and receiving emails, or researching the record management system. In this case, damage was limited by the fact that the officer who opened

³⁷ <http://www.npr.org/sections/thetwo-way/2017/05/14/528355526/repercussions-continue-from-global-ransomware-attack>

³⁸ IBM X-Force. Ransomware: How consumers and businesses value their data. 2016

³⁹ <http://www.nbcnews.com/tech/security/ransomware-now-billion-dollar-year-crime-growing-n704646>

the file did not have local administrative rights to make changes to the computer or system. The Durham IT department was able to restore service by isolating and identifying infected computers and drives before reimaging computers and replacing system files with external backups. These preventative measures of limiting administrative rights and backing up data regularly to external servers meant that the biggest impact was the network downtime necessary to restore the computers and servers, and recovery was relatively quick. In total, it took the Town three days to restore full service (police servers were unavailable for two days) at a cost of \$3,500.

There have been no cyber-attacks in Dover.

Potential Future Impacts on Community

Dover is most likely to be at risk from malware, phishing, and other methods of acquiring personal information. These threats may be targeted, as in the case of phishing emails sent to employee accounts, or threats that individuals encounter during their regular computer usage. Cyber threats are also constantly evolving in order to find new weaknesses in anti-virus software and other network defenses. As noted above, ransomware has become an increasingly prevalent form of malware in recent years, and is likely to continue to be a threat in years to come.

Estimated Potential Losses

Based on the low hazard ranking and assessed value of residential, commercial, and utilities structures, there is approximately \$20,892,934 in estimated potential losses from cyber-attacks.

Hazards Not Included in this Plan

The State of New Hampshire identifies avalanches as a hazard in the State Multi-Hazard Mitigation Plan Update of 2013. Avalanches are not included in this Plan for the City of Dover. Avalanches were not identified by the present or past Planning Committee as a local hazard due to the fact that there are no significant mountains or topographical features, where avalanches would be likely to or have occurred in the past. The City will re-evaluate the need to include additional hazards to this Plan during subsequent updates of the Plan.

The Planning Committee also discussed several forms of domestic/foreign terrorism, including: active shooter events in schools, municipal buildings, or other large crowd public events; deliberate contamination to regional and local water supplies; and specific targets to the rail system (transporting passengers, freight, and shale oil). It should be noted that while Dover, itself, may not be a likely location for a foreign attack, the Seacoast of New Hampshire – generally speaking – has a much higher vulnerability. Targets such as the Portsmouth Naval Shipyard, Pease International Trade port, the Seabrook Station Nuclear Power Plant, and the numerous oil storage tanks along the Piscataqua River are all potential targets that would impact surrounding communities in varying degrees. While these threats remain important, there are other – more specific – emergency preparedness documents and protocols that are better suited to address these concerns and therefore are not included in this plan.

Chapter 7: Action Plan

Past Mitigation Strategies

During past updates the Planning Committee developed a list of strategies to implement over the course of the Plan's life-cycle. Table 20 summarizes those strategies, and provides updated information as to if the strategy was accomplished or not.

Table 20: Accomplishments Since Last Plan Adoption

Proposed Mitigation Action	Update 2018
<u>1. Police Dispatch Radio Replacement</u> – A new radio system and console are needed to replace the existing Motorola Gold Elite System, which is 11 years old. Motorola is no longer manufacturing replacement parts and will only be available for the next few years. The system is essential to communicate to Police, Fire, EMS, and Community Services.	<u>Completed Action.</u> In 2016, using city funds, in combination with a grant, the city purchased new radios for community services, police, and fire. Currently, the city is in the midst of constructing four new communication towers that will allow for a microwave transmission link to improve point-to-point communications (see action 34).
<u>2. Police Facility Design and Construction</u> – Design, engineering and construction of a plan to construct a new police facility. This new facility would act as a backup EOC.	<u>Completed Action.</u> In March 2016, the new police facility was completed and currently serves as the primary emergency operations center for the city. The former police facility space at city hall is currently being rehabbed and will function as a customer services center for residents.
<u>3. South End Station Generator Replacement</u> – Essential replacement of 1991 Station generator. The life expectancy is 20 years.	<u>Completed Action.</u> In 2015, a dual fuel (diesel/gas) generator was purchased through an emergency preparedness grant.
<u>4. Bridge Replacement at Whittier Street</u> – Bridge has been placed on state aid Bridge Replacement Program for 2013. The bridge deck has been repaired with temporary fix.	<u>Completed Action.</u> Replacement of the bridge is currently wrapping up. The new bridge has been installed and the roadway approaches were just paved. The new bridge will be open by Thanksgiving 2017, with final paving in early 2018.
<u>5. Street Reconstruction at Piscataqua and Rabbit Road</u> – Design and reconstruction of Piscataqua and Rabbit Road.	<u>Deferred Action.</u> The road received a thin pavement overlay in the summer of 2017. The project remains in the city's capital improvements program (CIP); but it has been moved out to FY 2022.
<u>6. Street Reconstruction at Silver Street</u> – This project would design the replacement of drainage, sidewalks, and roadway on Silver Street.	<u>Completed Action.</u> This project was completed in 2016, and included upgrades to water, sewer, drainage, and sidewalks; new traffic lights; benches; lightning; COAST stops; and bike lanes. Currently, the city is conducting a downtown wayfinding to improve signage and navigation.

Proposed Mitigation Action	Update 2018
<u>7. Street Reconstruction at Broadway</u> – Design and proposed reconstruction including drainage curb, sidewalk, and road construction.	<u>Deferred Action.</u> This project is expected to be completed over the course of three phases. <i>Phase I. Red's Railroad Box Culvert Replacement.</i> The city is finalizing all necessary easements and has completed all design plans. Construction is slated to begin in 2018. <i>Phase II. Reconstruction of Broadway and Oak:</i> The city plans to hire a consultant to assist in the design plans for upgrades to water, sewer, drainage, curbs, and sidewalks on Floral Ave, High Ridge Drive, and Brick Road. This project remains in the city's CIP. <i>Phase III. Oak/Ham/Ela Area Reconstruction.</i> After all the drainage improvements have been completed, the city will begin reconstruction work in these areas. This project remains in the city's CIP.
<u>8. Environmental Management Systems (EMS) Computer/Software Upgrade</u> – Upgrade of computer and current telephone modem dependent system to IP/cable network with upgraded software for managing heating and cooling systems in several municipal buildings; McConnell Center, Library, City Hall, Indoor Pool, Arena, and Public Works.	<u>Completed Action.</u> The CIP in 2017 included the EMS project. It was an upgrade of computer and current telephone modem dependent system to IP/cable network with upgraded software for managing heating and cooling systems in several municipal buildings i.e. McConnell Center, Library, City Hall, Indoor Pool, Arena and Public Works. The upgrade provides improved reliability of communication between remote locations and control center and increase efficiency of operating staff.
<u>9. Pump Station Equipment Replacement and Maintenance</u> – Equipment upgrades and replacements for several sewer-pumping stations, including backup power to at least 3 or 4 of the stations.	<u>Ongoing Action.</u> New construction of the Leighton Way pump station has been completed. The Varney Brook pump station on Gerrish Road is currently out to bid for reconstruction. The Cochecho Street pump station remains the city's CIP. Currently, three stations don't have back-up generators; however, those that do not have stand-by power do have outside hook-ups.
<u>10. Purchase up to 5 generators</u> – Needed for the Water Treatment Plant.	<u>Completed Action.</u> Reconstruction at the water treatment plant on Lowell Ave is ongoing and expected to be completed by the summer of 2018. Both Calderwood and Campbell stations have been reconstructed, with only a few punch-list items that may need until spring 2018 for completion. Reconstruction at Smith and Cummings has been designed and construction is set to begin in 2018 and completed by 2019. All three projects include generators. The city has also purchased a portable generator using HSEM funding in 2013 and bought an additional one using city funds in 2014.

Proposed Mitigation Action	Update 2018
<u>11. 2-Way radio system upgrade</u> – A new radio system would allow better communication with CS staff and other departments.	<u>Completed Action.</u> All new radio systems have been installed for the community service trucks. There is still a need to coordinate efforts with ongoing work with the communication towers.
<u>12. 3" & 4" Pump and Hoses</u> – Community Services staff uses these pumps to pump from flooded areas to non-flooded areas during emergency events.	<u>Ongoing Action.</u> The city continued to purchase pump and hoses on an as needed basis through the city's operating budget.
<u>13. Atlantic Avenue Reconstruction</u> – This road is a main artery in and out of the city. Reconstruction is to replace the major drainage component of the road.	<u>Deferred Action.</u> This project remains in the city's capital improvements program (CIP), currently projected for FY2020.
<u>14. Chainsaws</u> – Are used during emergency situations such as trees down caused by ice and windstorms.	<u>Completed Action.</u> The city bought two new chainsaws in 2017. Crews were sufficiently equipped to address storm damage of 10/30/2017.
<u>15. Clam bucket for loader</u> – Used during emergency situations such as trees down caused by ice and windstorms.	<u>Completed Action.</u> The City did acquire a clamshell bucket for removal of trees/debris. It was utilized during storm of 10/30/2017
<u>16. County Farm Road Bridge Replacement</u> – Would provide additional access in and out of the North End area of the City.	<u>Deferred Action.</u> In 2017, the city submitted this project to the NHDOT state aid bridge replacement program. This project remains in the city's capital improvements program (CIP) and is an important link to Rochester. Important infrastructure, including the court house, human society, hospice center, as well as a number of residential neighborhoods would be better served and less vulnerable to isolation issues if this project is completed.
<u>17. Message Boards</u> – Used for evacuation plans, flooded areas, street closures and other emergency events.	<u>Ongoing.</u> The city purchased two new message boards in 2015. The city has expressed interest in purchasing a few additional boards as they are currently under-equipped.
<u>18. New Bucket Truck</u> – The current truck is 20 yrs. old and a replacement is needed for traffic lights and tree removal during emergency events.	<u>Ongoing.</u> The old truck was replaced in 2013; however the new bucket truck has experienced chronic problems with the lift mechanism. Additionally, the crew does not feel it is sufficiently stable to reach higher levels in order to cut trees. As a result, the city routinely hires a contractor for any tree work.

Proposed Mitigation Action	Update 2018
<u>19. New Wood Chipper</u> – To provide additional resources to assist in clean up after an emergency event.	<u>Deferred Action.</u> Due to funding restraints there has been no action taken by the city.
<u>20. Oak Street Railroad Bridge Replacement</u> – Current bridge is only a 6-ton limit and is a major access thruway for both Dover and Rollinsford.	<u>Deferred Action.</u> In 2017, the city submitted this project to the NHDOT state aid bridge replacement program. This bridge lies on the boundary with Rollinsford. If approved for funding, unless a funding agreement was executed, under State Law Dover and Rollinsford would be expected to prorate construction costs on the basis of population.
<u>21. Oak/Ham/Ela Area Reconstruction</u> – This area sees major flooding during rain events. Incorporates drainage and road construction. Also a main artery in and out of the City.	<u>Removed Action.</u> This project is part of Action #7.
<u>22. Old Colony Drainage</u> – Two or three home have major flooding during heavy rain events and winter melting. New drainage would resolve this problem.	<u>Deferred Action.</u> There has been no action taken by the city.
<u>23. Piscataqua Road Reconstruction</u> – Major access for the Southern end of the City. Need of new drainage, culverts, and road reconstruction.	<u>Removed Action.</u> This project is part of Action #5.
<u>24. Outer Sixth Street Replace Bridge & Culvert</u> – Major overflows during heavy rain events. Replace bridge and raise the road. Provide additional access in and out of the North End area of the City.	<u>Deferred Action.</u> In 2017, the city submitted this project to the NHDOT state aid bridge replacement program. Due to funding restraints, work is unlikely unless State Aid is granted.
<u>25. Portable 4" Pump</u> – To be used at sewer pump stations to pump from the wet well to a gravity main during power outages.	<u>Completed Action.</u> The city purchased two 4" pumps during the dredging of the Cochecho River. There are two additional pumps (4" and 6") that were purchased for the Spaulding Turnpike construction. Once construction is completed, those pumps will return to the city.
<u>26. Portable Generator</u> – Will be used to replace the current 20 yr. old portable generator for both water wells and sewer pump stations.	<u>Completed Action.</u> A generator was purchased in 2013 using a HSEM grant.

Proposed Mitigation Action	Update 2018
<u>27. Portable Light</u> – Will be used during emergency events such as flooded areas, water breaks and loss of power.	<u>Completed Action.</u> The city purchased a truck mounted light in 2015. The light is kept at the community services department. There is a need for an additional light.
<u>28. Raise County Farm Road</u> – Maintain access to the Strafford County Complex, which includes the rest home, court, hospice care and jail.	<u>Deferred Action.</u> Due to funding restraints there has been no action taken by the city. This is not currently in the city's CIP. It is important to note that if the County Farm bridge replacement project is completed, this project will be removed.
<u>29. Red's Railroad Box Culvert Replacement</u> – Existing culvert has partially collapsed and is in need of replacement. This culvert drains the urban area between Broadway and Central Avenue to Oak Street, over 100 acres.	<u>Removed Action.</u> This project is part of Action #7.
<u>30. River Gauges</u> – Would be installed on the bridges crossing the major rivers to assist emergency personnel during flooding events.	<u>Deferred Action.</u> Due to funding restraints there has been no action taken by the city. The City may be required to install a gage on the Bellamy River related to its drinking water recharge project. The city needs to determine if the river gauge at Whittier Street is going to remain or not.
<u>31. Sewer Jet</u> – Equipment would replace the current 15-year-old unit.	<u>Deferred Action.</u> This project remains in the city's capital improvements program (CIP); however it has been moved out to FY2020.
<u>32. St. Thomas Street Drainage</u> – Flooding occurs in this area due to the age of the infrastructure. Needs new design/reconstruction.	<u>Deferred Action.</u> Due to funding restraints there has been no action taken by the city. This is not currently in the city's CIP.
<u>33. Stand-by Power for Pump Stations</u> – Currently there are three pump stations that do not have standby power: Spruce Drive, Strafford Road, and Cranbrook Lane. Need to upgrade standby power at Varney Brook, Wentworth Terrace, Crosby Road, Boston Harbor and County Farm Road.	<u>Completed Action.</u> All sewer pump stations, with the exception of Spruce Drive, Strafford Road, and Cranbrook Lane have generator back-up. The three remaining stations have been wired for temporary generator hook-ups. The Varney Brook station will have a generator as part of the reconstruction project.
<u>34. Stand-by Power for Radio Towers</u> – The City currently has two radio towers for the SCADA system. This equipment would be used to maintain power during outages.	<u>Completed Action.</u> The city is constructing 4 new communications towers (radio, microwave), which will be completed in 2017-2018) that will all have stand-by power. The two communications towers used for SCADA on the water tanks remain.

Proposed Mitigation Action	Update 2018
<u>35. Tire Excavator</u> – Would be used for cleaning drainage ditch lines throughout the City.	<u>Completed Action.</u> The city purchased a tire excavator in 2015.
<u>36. Tree Program</u> – Using the City GPS and GIS program to identify all City trees. Also determine the health and potential hazards.	<u>Deferred Action.</u> The city has hired a GIS technician that will eventually complete this task; however, work will not begin until all other major infrastructure data collection has been completed. The city is in need of one more GPS unit.
<u>37. Purchase generators</u> –To power traffic lights at five critical intersections: Weeks Crossing, Central & Broadway, Central & Washington, NH9, and NH155. There is also consideration for: Glenwood & Central, Sixth and Whittier.	<u>Ongoing Action.</u> The city purchased three generators in 2014, which are housed at the facilities and grounds building, and are used at the Weeks Crossing, Central & Broadway, Central & Washington, NH9, and NH155 intersections. The Glenwood & Central intersection will be under construction and have an assessment for additional hook-ups. After the October 2017 storm, estimates have been developed to outfit more intersections with backup power.
<u>38. Needs Assessment</u> – Conduct a needs assessment for stormwater infrastructure.	<u>Completed Action.</u> The city is currently following guidance from the new MS4 permit, which includes: GPS locating all stormwater infrastructure and conducting catch basin inspections and cleaning on a biennial basis.
<u>39. Central Falls Dam project</u> – Investigate the structural integrity of retaining wall to determine if future repairs are needed.	<u>Ongoing Action.</u> The Public Works Department has put \$1,100,000 in the pending CIP to repair the 40 year old retaining wall adjacent to the Central Falls dam and the fish ladder located off Central Ave downtown. FY2019 will be for design engineering \$(100,000), and FY2020 will be for construction (1,000,000).
<u>40. Interconnection Study</u> – Work off of the completed interconnection study to link municipality's water utilities together to provide emergency aid to each other and create a regional water system.	<u>Ongoing Action:</u> The city has moved into Phase II of this project. The city hired a consultant to design two new wells at Willand Pond that will be constructed in 2018. As part of that project, Dover will construct a permanent connection with Somersworth. The city is also installing a hydrant on Hickory Lane and Old Rochester Road for additional fire aid.
<u>41. Develop a Fact Sheet</u> – Safety measures that residents can take to lessen the effect of hazards.	<u>Completed Action.</u> The city has hired a media services manager to improve outreach and engagement, as well as link with ongoing Police and Fire services to increase situational awareness during storms to residents. The city's online presence has improved with the use of social media and is referenced in the City's Strategic Plan to strengthen.

Status Update:

Completed Action – This program continues to be an implemented mitigation action item since the last updated plan was developed

Deferred Action – At the time of developing this plan, more time is required for completion

Removed Action – This existing program is no longer a priority to the City

Ongoing Action – This program will occur throughout the life of the plan

Existing Mitigation Strategies

During the update the Planning Committee developed a list of existing programs and strategies that were ongoing planning mechanisms to help reduce impacts from future hazards. Table 21 summarizes those programs, and provides information on the effectiveness, any changes in priority, and a list of recommendations to improve them during the next life-cycle of this plan.

Table 21: Existing Programs and Policies

Existing Program	Description	Effectiveness	2018 Update
Building Codes	Establishes regulations for the design and installation of building systems	Excellent	The City is currently using the 2009 IBC and is waiting for the state to adopt the new codes. At the time of this plan update, the state building code review board was trying to get legislation passed to adopt the 2015 codes (House Bill 92).
Local Emergency Operations Plan (LEOP)	Defined notification procedures and actions that should be taken in different emergency situations.	Excellent	This was last fully updated in 2015 by a grant funded contractor with minor updates in 2016 and 2017 to reflect new EOC in new Police Station. The City's 2009 Disaster Plan is rolled into this document and was removed from this list.
Storm Drain Infrastructure Improvements	Responsible for catch basins, culverts cleaning, ditch maintenance, structure upkeep and maintenance for the entire City in compliance with MS4 stormwater regulations	Excellent	The City has implemented a catch basin cleaning schedule (1/2 each year), which includes assessments and necessary repairs. The City remains in full compliance with MS4 permit requirements and has allocated upwards of \$300,000 in the annual budget for storm drain infrastructure maintenance and improvements.
Tree Maintenance	Utility companies and NHDOT have tree maintenance programs to clear trees and limbs from power lines and roadways.	Good	The City addresses tree cutting and maintenance on an as needed basis with their existing bucket truck, and has a \$20,000 annual budget for contracting services to handle higher more dangerous trees. Eversource has their own maintenance schedules they adhere to on a yearly basis.
Evacuation and Notification	Evacuation and notification procedures are defined in Dover's LEOP.	Excellent	News updates and evacuation notification are broadcasted on channels 22 and 95, and also sent out to residents through press releases, electronic email alerts, and posted on the City's website and to social media outlets including Facebook, WebEOC, and Twitter. The City also uses the statewide notification system and may use the school's notification phone system on an as needed basis to reach students, parents, teachers, and other school employees.

Existing Program	Description	Effectiveness	2018 Update
Emergency Back-Up Power and Emergency Shelters	Offers temporary shelter during extended periods without power	Excellent	The police station acts as the primary emergency operations center (EOC). The Liberty North End Fire Station serves as the back-up EOC. Both are equipped with generators. The remaining two fire stations have emergency generators, along with the Middle School, City Hall, and Public Works building. Woodman Park is fitted for partial power. The McConnell Center (partial funding from a HSEM grant) acts as the primary emergency shelter. The Dover High School (August 2018) serves as the primary back-up emergency shelter and Woodman Park serves as the back-up emergency shelter. The communication towers are all equipped with back-up power, as well as the majority of the pump stations. Those without – have access to portable generators.
Hazardous Materials Response Team	The City of Dover is a member of the START Hazardous Materials Emergency Response Team, a regional effort to combine resources to mitigate hazardous materials incidents. On-going training, education and acquisition of resources are important for the team.	Excellent	Dover's ongoing training is up-to-date. Dover has 9 employees on the team and houses one response trailer. Dues from participating communities in the region fund the team training recertification requirements that apply under federal law, and needed equipment.
Floodplain Management Ordinance	Local ordinance to regulate development in the floodplain.	Good	In 2015, the City adopted new floodplain maps and freeboard regulations, which require the lowest floor of residential and non-residential structures that are new construction or substantial improvements to be elevated two feet above base flood elevation.
Shoreline Water Quality Protection Act	Establishes minimum standards for the subdivision, use and development of the shorelands along the state's larger waterbodies	Excellent	State requirements are on portions of the Cochecho River, Bellamy River, Barbadoes Pond, Cochecho Mill Dam, Farm Pond, Fresh Creek Pond, Sawyers Mill Dam, Watson-Waldron Dam, and Willand Pond are referenced in the City's zoning as an overlay district. Dover's local regulations are more stringent than current state requirements and will be continually monitored for revisions on an as needed basis.

Existing Program	Description	Effectiveness	2018 Update
Master Plan	A guiding document used to manage Dover's growth and development through local land use regulations.	Excellent	Dover is committed to updating a Master Plan chapter on a yearly basis. The last several years include the development of the Stewardship Chapter and an update to their existing Transportation Chapter. Currently, the City is in the midst of developing a climate adaptation chapter that will address climate-related impacts such as, sea-level rise, extreme precipitation events, storm surge, vector-borne diseases, drought, etc. At the end of each year, the Assistant City Manager reports to the City Council at their March meeting on what actions have been undertaken and completed.
Dover Host Plan	The Plan is part of the New Hampshire Radiological Emergency Preparedness (REP) Program and contains the planning information and procedures specific to the City of Dover.	Excellent	The 2017-2018 revision has been approved by FEMA and currently awaiting Dover's promulgation. Exercises are scheduled to test Dover specific requirements as a Host Community in spring of 2018. NH HSEM staff have been refreshing Fire & Rescue in 2017 on radiological equipment usage and emergency response in preparation for the 2018 exercises
Emergency Planning for Potable Water Supplies	The purpose of the Plan is to assess the vulnerability of the municipal water system in regards to extreme conditions or events. The Plan covers the entire city, and was last revised in 2008.	Excellent	The Planning Committee was unaware if this plan had been updated; however, was able to provide information on how the City has implemented its recommendations through the following activities: moving ahead with the interconnection study with Somersworth, land protection efforts around existing aquifers, groundwater exploration and research, and the future installation of the Shaws Lane well.
Capital Improvements Program (CIP)	A program that helps to address improvement projects over a period of time.	Excellent	This six year program links infrastructure spending to the goals and values outlined in the City's Master Plan. The City Council adopted the CIP for fiscal years 2019-2024 at their December, 2017 meeting.

Effectiveness:

Excellent – The existing program works as intended and is exceeding its goals

Good – The existing program works as intended and meets its goals

Average – The existing program does not work as intended and/or does not meet its goals

Poor – The existing program is negatively impacting the community

2018 Update: Recommendations for improvement

The Planning Committee's Understanding of Multi-Hazard Mitigation Strategies

The Planning Committee determined that any strategy designed to reduce personal injury or damage to property that could be done prior to an actual disaster would be listed as a potential mitigation strategy.

This decision was made even though not all projects listed in Tables 22 (New Mitigation Actions) and 23 (Implementation Plan) are fundable under FEMA HMA grant programs. The Planning Committee determined that this Plan was in large part a management document designed to assist the City Council and other City officials in all aspects of managing and tracking potential emergency planning strategies. For instance, the Planning Committee was aware that some of these strategies are more properly identified as readiness issues. The Planning Committee did not want to "lose" any of the ideas discussed during these planning sessions and thought this method was the best way to achieve that objective.

The Planning Committee identified 10 new strategies and is carrying over an additional 20 from the previous (2013) iteration to implement during the life of this Plan. These strategies are intended to supplement existing programs and the ongoing and not yet completed mitigation strategies identified in previous plan updates. When identifying new strategies, the Planning Committee balanced a number of factors including capacity to implement strategies, priority projects, existing strategies, policies, and programs, the hazard ranking, and whether a strategy will reduce risk associated with multiple hazards.

Future Mitigation Strategies

The Committee identified several new mitigation strategies to reduce vulnerability to hazards. The Committee focused on identifying the best appropriate strategies for the community and the hazards it is most vulnerable based on the vulnerability assessment. Some of the mitigation strategies are strategies for multiple hazards. The goal of each proposed mitigation strategy is reduction or prevention of damage from a multi-hazard event.

New mitigation strategies are listed in Table 22, which also includes a feasibility assessment and prioritization of each hazard.

Feasibility & Prioritization

A technique known as a STAPLEE evaluation, which was developed by FEMA, was used to evaluate new mitigation strategies based on a set of criteria (see below). The STAPLEE method is commonly used by public administration officials and planners.

S	Social:	Is the proposed strategy socially acceptable to the community? Is there an equity issue involved that would result in one segment of the community being treated unfairly?
T	Technical:	Will the proposed strategy work? Will it create more problems than it solves?
A	Administrative:	Can the community implement the strategy? Is there someone to coordinate and lead the effort?
P	Political:	Is the strategy politically acceptable? Is there public support both to implement and to maintain the project?
L	Legal:	Is the community authorized to implement the proposed strategy? Is there a clear legal basis or precedent for this activity?
E	Economic:	What are the costs and benefits of this strategy? Does the cost seem reasonable for the size of the problem and the likely benefits?
E	Environmental:	How will the strategy impact the environment? Will it need environmental regulatory approvals?

The Committee evaluated each mitigation strategy using the STAPLEE and ranked each of the criteria as poor, average, or good. These rankings were assigned the following scores: *Poor=1; Average=2; Good=3*.

The following questions were used to guide further prioritization and action:

- Does the action reduce damage?
- Does the action contribute to community objectives?
- Does the action meet existing regulations?
- Does the action protect historic structures?
- Can the action be implemented quickly?

The prioritization exercise helped the committee evaluate the new hazard mitigation strategies that they had brainstormed throughout the multi-hazard mitigation planning process. While all actions would help improve the City's multi-hazard and responsiveness capability, funding availability will be a driving factor in determining what and when new mitigation strategies are implemented.

Table 22: Future Mitigation Actions & STAPLEE

New Mitigation Project	S	T	A	P	L	E	E	Total
Implement an action identified in the City's Strategic Plan to develop a community-wide risk reduction plan	3	3	2	3	3	3	3	20
			Capacity issues to implement					
Ensure that all new and proposed CIP projects are required to consider the impacts from climate change, including sea-level rise and increases in extreme precipitation.	3	3	3	3	3	3	3	21
Review all existing CIP projects that are in design phase to ensure they are considering impacts from climate change, including sea-level rise and increases in extreme precipitation.	3	3	3	3	3	3	3	21
Develop and complete drainage improvements and shoreland stabilization along Cochecho River in coordination with waterfront development project.	3	3	3	3	3	2	1	18
						Cost associated with project	NHDES permitting issues	
Develop a framework for an ongoing public education campaign on all-hazard preparation and self-resiliency for the 3 day - 72 hour event. The campaign will build off efforts currently underway with the elementary students, and will include a series of public service announcements for general and seasonal events.	3	3	2	3	3	3	3	20
			Capacity issues to implement					

New Mitigation Project	S	T	A	P	L	E	E	Total
Update and resend floodplain management brochure that was completed a few years ago (prior to the 2015 FEMA map adjustments and revisions to the City's floodplain ordinance). The updated brochure will include additional information on flood risk, revised freeboard and building permit requirements, and suggested flood-proofing techniques for homeowner to consider.	3	3	3	3	3	3	3	21
Review the updated floodplain model ordinance from Office of Strategic Initiatives and update the City's floodplain ordinance, as needed.	3	3	3	3	3	3	3	21
Determine the appropriate locations for additional warming/cooling stations throughout the city.	3	3	3	3	3	3	3	21
Continue to implement the ongoing signalization project to install cameras at all 33 traffic lights locations to alleviate congestion areas and adjust timings as needed. This project will increase capacity to coordinate direction and traffic flow, as well as help during emergency widespread evacuation protocols.	3	3	3	3	3	2	3	20
						Large cost if no grant are available		
Incorporate changes into the City's Site Plan and/or Subdivision Regulations based on the state's model water efficiency landscaping ordinance.	3	3	3	3	3	3	3	21
*Street Reconstruction at Piscataqua and Rabbit Road – Design and reconstruction of Piscataqua and Rabbit Road.	3	3	3	3	3	3	3	21

New Mitigation Project	S	T	A	P	L	E	E	Total
*Street Reconstruction at Broadway – Design and proposed reconstruction including drainage curb, sidewalk, and road construction.	3	3	3	3	3	3	3	21
*Pump Station Equipment Replacement and Maintenance – Equipment upgrades and replacements for several sewer-pumping stations, including backup power to at least 3 or 4 of the stations.	3	3	3	3	3	3	3	21
*Purchase 3" & 4" Pump and Hoses – Community Services staff uses these pumps to pump from flooded areas to non-flooded areas during emergency events.	3	3	3	3	3	3	3	21
*Atlantic Avenue Reconstruction – This road is a main artery in and out of the city. Reconstruction is to replace the major drainage component of the road.	3	3	3	3	3	3	3	21
*County Farm Road Bridge Replacement – Would provide additional access in and out of the North End area of the City.	3	3	3	3	3	3	3	21
*Message Boards – Used for evacuation plans, flooded areas, street closures and other emergency events.	3	3	3	3	3	3	3	21
*New Bucket Truck – The current truck is 20 yrs. old and a replacement is needed for traffic lights and tree removal during emergency events.	3	3	3	3	3	3	3	21

New Mitigation Project	S	T	A	P	L	E	E	Total
*New Wood Chipper – To provide additional resources to assist in clean up after an emergency event.	3	3	3	3	3	3	3	21
*Oak Street Railroad Bridge Replacement – Current bridge is only a 6-ton limit and is a major access thruway for both Dover and Rollinsford.	3	3	3	3	3	3	3	21
*Old Colony Drainage – Two or three home have major flooding during heavy rain events and winter melting. New drainage would resolve this problem.	3	3	3	3	3	3	3	21
*Outer Sixth Street Replace Bridge & Culvert – Major overflows during heavy rain events. Replace bridge and raise the road. Provide additional access in and out of the North End area of the City.	3	3	3	3	3	3	3	21
*Raise County Farm Road – Maintain access to the Strafford County Complex, which includes the rest home, court, hospice care and jail.	3	3	3	3	3	3	3	21
*River Gauges – Would be installed on the bridges crossing the major rivers to assist emergency personnel during flooding events.	3	3	3	3	3	3	3	21
*Sewer Jet – Equipment would replace the current 15-year-old unit.	3	3	3	3	3	3	3	21

New Mitigation Project	S	T	A	P	L	E	E	Total
*St. Thomas Street Drainage – Flooding occurs in this area due to the age of the infrastructure. Needs new design/reconstruction.	3	3	3	3	3	3	3	21
*Tree Program – Using the City GPS and GIS program to identify all City trees. Also determine the health and potential hazards.	3	3	3	3	3	3	3	21
*Purchase generators –To power traffic lights at five critical intersections: Weeks Crossing, Central & Broadway, Central & Washington, NH9, and NH155. There is also consideration for: Glenwood & Central, Sixth and Whittier.	3	3	3	3	3	2	3	20
						Budget constraints		
*Central Falls Dam Project – investigate structural integrity of structure of retaining wall.	3	3	3	3	3	2	2	19
						Budget constraints	Possible environmental effects	
*Interconnection Study – Work off of the completed interconnection study to link municipality’s water utilities together to provide emergency aid to each other and create a regional water system.	3	3	3	1	2	1	3	16
				Potential problems with a regional water system	Legal issues on who pays what	Budget constraints		

*Ongoing and deferred actions from the 2013 Plan. Previous STAPLEE scores were reaffirmed.

Implementation Schedule for Prioritized Strategies

After reviewing the finalized STAPLEE numerical ratings, the Team prepared to develop the Implementation Plan (Table 23). To do this, the Team developed an implementation plan that outlined the following:

- ∴ Type of hazard
- ∴ Affected location
- ∴ Type of Activity
- ∴ Responsibility
- ∴ Funding
- ∴ Cost Effectiveness; and
- ∴ Timeframe

The following questions were asked in order to develop an implementation schedule for the identified priority mitigation strategies.

WHO? Who will lead the implementation efforts? Who will put together funding requests and applications?

WHEN? When will these actions be implemented, and in what order?

HOW? How will the community fund these projects? How will the community implement these projects? What resources will be needed to implement these projects?

In addition to the prioritized mitigation projects, Table 23, Implementation Plan, includes the responsible party (WHO), how the project will be supported (HOW), and what the timeframe is for implementation of the project (WHEN).

Table 23: Implementation Plan

New Mitigation Project	Type of Hazard	Affected Location	Type of Activity	Responsibility	Funding	Cost Effectiveness	Timeframe
							Ongoing
						Low = < \$5,000	6 months - 1 year
						Medium = \$5,000 - \$10,000	1 - 2 years
						High = > \$10,000	2 - 5 years
Implement an action identified in the City's Strategic Plan to develop a community-wide risk reduction plan	Multi-Hazard	City-wide	Planning	Fire & Rescue	Operating Budget (potential grants)	High	4 years
Ensure that all new and proposed CIP projects are required to consider the impacts from climate change, including sea-level rise and increases in extreme precipitation.	Multi-Hazard	City-wide	Planning	Planning Department	Operating Budget	Low	2 years
Review all existing CIP projects that are in design phase to ensure they are considering impacts from climate change, including sea-level rise and increases in extreme precipitation.	Multi-Hazard	City-wide	Planning	Planning Department	Operating Budget	Medium	6 months – 1 year
Develop and complete drainage improvements and shoreland stabilization along Cochecho River in coordination with waterfront development project.	Coastal Flooding	River Street	Structure & Infrastructure	Planning Department & Community Services	TIFF Funded	High	1 – 2 years

Develop a framework for an ongoing public education campaign on all-hazard preparation and self-resiliency for the 3 day - 72 hour event. The campaign will build off efforts currently underway with the elementary students, and may include a series of public service announcements for general and seasonal events.	Multi-Hazard	City-wide	Education & Awareness	Fire & Rescue	Operating Budget (potential grants)	Medium	2 years
Update floodplain management brochure that was completed a few years ago (prior to the 2015 FEMA map adjustments and revisions to the City's floodplain ordinance). The updated brochure may include additional information on flood risk, revised freeboard and building permit requirements, and suggested flood-proofing techniques for homeowner.	Flooding	Areas within the FEMA floodplain	Education & Awareness	Planning Department	Operating Budget	Low	1 year
Review the updated floodplain model ordinance from Office of Strategic Initiatives and update the City's floodplain ordinance, as needed.	Flooding	Areas within the FEMA floodplain	Planning & Regulatory	Planning Department	Operating Budget	Medium	1 year
Determine the appropriate locations for additional warming/cooling stations throughout the city.	Extreme Temperatures	City-wide	Planning	Fire & Rescue	Operating Budget	Low	2 years
Continue to implement the ongoing signalization project to install cameras at all 33 traffic lights locations to alleviate congestion areas and adjust timings as needed. This project will increase capacity to coordinate direction and traffic flow, as well as help during emergency widespread evacuation protocols.	Multi-hazard	City-wide	Structure & Infrastructure	Community Services	Operating Budget (CMAQ grant)	High	3 years

Incorporate changes into the City's Site Plan and/or Subdivision Regulations based on the state's model water efficiency landscaping ordinance.	Drought	City-wide	Planning & Regulatory	Planning Department	NHDES Local Source Water Grant	Low	1 year
*Street Reconstruction at Piscataqua and Rabbit Road – Design and reconstruction of Piscataqua and Rabbit Road.	Flooding	Piscataqua and Rabbit Road	Structure & Infrastructure	Community Services	Debt Financed	HIGH. Piscataqua Rd is a thoroughfare to Rte. 4 and in need of repair. Rabbit Rd is a small road off of Piscataqua that needs improvements and due to its close proximity to the larger project it makes economic sense to combine them. \$1 million is projected in the CIP (\$500K FY21 and \$500K FY22)	2 - 5 years
*Street Reconstruction at Broadway – Design and proposed reconstruction including drainage curb, sidewalk, and road construction.	Flooding	Broadway & Oak, Ham, and Ela	Structure & Infrastructure	Community Services	Debt Financed	HIGH. Broadway is a major artery of the City that receives heavy traffic and is in need of upgrades. \$2 million was approved in the FY16 CIP. Work will commence in calendar year 2018.	6 months - 1 year
*Pump Station Equipment Replacement and Maintenance – Equipment upgrades and replacements for several sewer-pumping stations, including backup power to at least 3 or 4 of the stations.	Multi-Hazard	Pump station locations	Equipment Upgrade	Community Services	Operating Budget	HIGH. These stations must continue to be in top operating condition in order to prevent violations. Only 3 pump stations currently do not have generators. The CIP includes \$75,000/annually for the next 5 years.	Ongoing
*Purchase 3" & 4" Pump and Hoses – Community Services staff uses these pumps to pump from flooded areas to non-flooded areas during emergency events.	Flooding	City-wide	Equipment Purchase	Community Services	CIP & Grant Funding	LOW. This remains ongoing. This project would be funded through the sewer and drainage budget and would have an estimated cost of about \$5,000. Purchases have been made depending on remaining budget at year's end.	Ongoing

*Atlantic Avenue Reconstruction – This road is a main artery in and out of the city. Reconstruction is to replace the major drainage component of the road.	Flooding	Atlantic Ave	Structure & Infrastructure	Community Services	CIP & Grant Funding	HIGH. The water main has been replaced and the remainder of the project is ready for design. An amount of \$1.5 million is included in the FY20 CIP.	1 - 2 years
*County Farm Road Bridge Replacement – Would provide additional access in and out of the North End area of the City.	Multi-Hazard	County Farm Road	Structure & Infrastructure	Community Services	CIP & Grant Funding	HIGH. A new bridge in this location would reduce traffic on Tolend Road and provide an additional route to and from Barrington and Rochester. The City submitted a State Aide Application the NHDOT Bridge Program summer 2017. Waiting to receive an official cost estimate from NHDOT.	2 - 5 years
*Message Boards – Used for evacuation plans, flooded areas, street closures and other emergency events.	Multi-Hazard	City-wide	Equipment Purchase	Community Services	CIP & Grant Funding	HIGH. Message boards will be paid for by the operating budget and will cost \$30,000 apiece.	Ongoing
*New Bucket Truck – The current truck is 20 yrs. old and a replacement is needed for traffic lights and tree removal during emergency events.	Multi-Hazard	City-wide	Equipment Purchase	Community Services	CIP & Grant Funding	HIGH. The City acquired a new bucket truck in 2013, but it has experienced chronic problems with the lift mechanism. Additionally, it is unstable to reach higher levels to trim trees. As a result the City routinely hires contractors for tree services. Evaluate upgrade/replacement.	Ongoing
*New Wood Chipper – To provide additional resources to assist in clean up after an emergency event.	Multi-Hazard	City-wide	Equipment Purchase	Community Services	CIP & Grant Funding	HIGH. This equipment purchase will be funded through the Public Works heavy equipment budget and will have an estimated cost of \$60,000.	1 - 2 years

*Oak Street Railroad Bridge Replacement –Current bridge is only a 6-ton limit and is a major access thruway for both Dover and Rollinsford.	Multi-Hazard	Oak Street RR Bridge	Structure & Infrastructure Project	Community Services	"Reserve Funding & Grant Funding	HIGH. Replace aging, sub-standard wood & iron bridge with new structure. In 2017, the City submitted this project to the NHDOT state aid bridge replacement program. This bridge lies on the boundary with Rollinsford. If approved for funding, unless a funding agreement was executed, under State Law Dover and Rollinsford would be expected to prorate construction costs on the basis of population. Waiting on official cost estimate from NHDOT, but expected to be in excess of \$2.5M.	2 - 5 years
*Old Colony Drainage – Two or three home have major flooding during heavy rain events and winter melting. New drainage would resolve this problem.	Flooding	Old Colony	Structure & Infrastructure Project	Community Services	Debt Financed	HIGH. Project would include the installation of drainage on Old Colony Road to prevent homes from flooding. Project would include paving of the street. The estimated cost will be \$75,000.	1 - 2 years
*Outer Sixth Street Replace Bridge & Culvert – Major overflows during heavy rain events. Replace bridge and raise the road. Provide additional access in and out of the North End area of the City.	Flooding	Outer Sixth Street	Structure & Infrastructure Project	Community Services	CIP & Grant Funding	HIGH. Public Works/Bridge Improvements estimate this project to cost \$1,000,000 with design and maintenance. The City submitted a State Aide Application the NHDOT Bridge Program summer 2017. Waiting to receive an official cost estimate from NHDOT.	2 - 5 years
*Raise County Farm Road – Maintain access to the Strafford County Complex, which includes the rest home, court, hospice care and jail.	Flooding	County Farm Road	Structure & Infrastructure Project	Community Services	Debt Financed	HIGH. This project has not made the projected 5-year CIP. It may hinge on receiving State Aide assistance to replace the County Farm Bridge. Other projects have taken precedent.	2 - 5 years
*River Gauges – Would be installed on the bridges crossing the major rivers to assist emergency personnel during flooding events.	Flooding	Major rivers	Equipment Purchase & Construction	Community Services	CIP & Grant Funding	MEDIUM. This equipment purchase will be funded through the storm water budget and will cost an estimated \$15,000 apiece.	1 - 2 years

*Sewer Jet – Equipment would replace the current 15-year-old unit.	Multi-Hazard	City-wide	Equipment Purchase	Community Services	CIP & Grant Funding	HIGH. This equipment purchase will be funded through the Public Works heavy equipment budget. An amount of \$281,250 is included in the FY20 CIP.	2 - 2 years
*St. Thomas Street Drainage – Flooding occurs in this area due to the age of the infrastructure. Needs new design/reconstruction.	Flooding	St. Thomas Street	Structure & Infrastructure Project	Community Services	CIP & Grant Funding	HIGH. This project has an estimated cost of \$1,800,000. It is not currently in the 5-year CIP due to other competing priorities.	2 - 5 years
*Tree Program – Using the City GPS and GIS program to identify all City trees. Also determine the health and potential hazards.	Multi-Hazard	City-wide	Equipment Purchase	Community Services	CIP & Grant Funding	HIGH This project will be funded through the operating budget in the CIP plan and will have an estimated cost of \$20,000.	2 - 5 years
*Purchase generators –To power traffic lights at five critical intersections: Weeks Crossing, Central & Broadway, Central & Washington, NH9, and NH155. There is also consideration for: Glenwood & Central, Sixth and Whittier.	Multi-Hazard	Critical locations	Equipment Purchase	Community Services	Local & Grants	MEDIUM. The City bought two new generators for the traffic lights. The City is currently reviewing the potential for uninterruptable power supplies (UPS) as well as the acquisition and installation of additional backup generators. Portable generators with transfer switches installed might be \$5,000 each.	Ongoing
*Central Falls Dam Project – investigate structural integrity of structure of retaining wall.	Flooding & Dam Breach	Cochecho River Headwall	Structure & Infrastructure Project & Prevention	Community Services & Planning	Debt Financed	HIGH. The City has included an estimated cost of \$100,000 for design in the FY19 CIP and \$1 million for construction in the FY20 CIP.	1 - 2 years
*Interconnection Study – Work off of the completed interconnection study to link municipality's water utilities together to provide emergency aid to each other and create a regional water system.	Multi-Hazard	City-wide	Local Planning	Community Services	Local & Grants	HIGH. Phase II of the interconnection project, which will construct a permanent connection with Somersworth, has an estimated cost of \$1.3 million. The City qualified for 100% grant from the NH Groundwater Trust Fund. Design is currently underway.	Ongoing
*Deferred or ongoing actions from the 2013 Plan. Previous implementation notes were reaffirmed. Ongoing actions will be completed throughout the life of the plan.							

Chapter 8: Monitoring, Evaluation, and Updating the Plan

Introduction

A good mitigation plan must allow for updates where and when necessary, particularly since communities may suffer budget cuts or experience personnel turnover during both the planning and implementation states. A good plan will incorporate periodic monitoring and evaluation mechanisms to allow for review of successes and failures or even just simple updates.

Multi-Hazard Plan Monitoring, Evaluation, and Updates

To track programs and update the mitigation strategies identified through this process, the City will review the multi-hazard mitigation plan annually or after a hazard event. Additionally, the Plan will undergo a formal review and update at least every five years and obtain FEMA approval for this update or any other major changes done in the Plan at any time. The Emergency Management Director is responsible for initiating the review and will consult with members of the multi-hazard mitigation planning team identified in this plan. The public will be encouraged to participate in any updates and will be given the opportunity to be engaged and provide feedback through such means as periodic presentations on the plan at city functions, annual questionnaires or surveys, and posting on social media/interactive websites. Public announcements will be made through advertisements in local papers, postings on the City website, and posters disseminated throughout the City. A formal public meeting will be held before reviews and updates are official.

Changes will be made to the Plan to accommodate projects that have failed or are not considered feasible after a review for their consistency with STAPLEE, the timeframe, the community's priorities or funding resources. Priorities that were not ranked high, but identified as potential mitigation strategies, will be reviewed as well during the monitoring and update of the plan to determine feasibility of future implementation. In keeping with the process of adopting this multi-hazard mitigation plan, a public meeting to receive public comment on plan maintenance and updating will be held during the annual review period and before the final product is adopted by the City Council. Chapter 9 contains a representation of a draft resolution for Dover to use once a conditional approval is received from FEMA.

Integration with Other Plans

Both the 2006 and 2013 plans were used during periodic updates to the Dover Master Plan. Input on impacts to roads and other critical infrastructure from hazards was included in relevant master plan sections. Both plans were also used during capital improvements planning updates and the C-RiSe vulnerability assessment.

This multi-hazard plan will only enhance mitigation if balanced with all other city plans. Dover will take the necessary steps to incorporate the mitigation strategies and other information contained in this plan with other city activities, plans and mechanisms, such as comprehensive land use planning, capital improvements planning, site plan regulations, and building codes to guide and control development in the City of Dover, when appropriate. The local government will refer to this Plan and the strategies identified when updating the City's Master Plan, Capital

Improvements Program, Zoning Ordinances and Regulations, and Local Emergency Action Plan. The City Council and the Hazard Mitigation Committee will work with City officials to incorporate elements of this Plan into other planning mechanisms, when appropriate. The Emergency Management Director along with other members of the Hazard Mitigation Committee will work with the Planning Board to suggest including information developed for the updated Hazard Mitigation Plan into appropriate City's Master Plan chapters. In addition, the City will review and make note of instances when this has been done and include it as part of their annual review of the Plan.

Chapter 9: Plan Adoption

Conditional Approval Letter from HSEM

Good afternoon!

The Department of Safety, Division of Homeland Security & Emergency Management (HSEM) has completed its review of the Dover, NH Hazard Mitigation Plan and found it approvable pending adoption. Congratulations on a job well done!

With this approval, the jurisdiction meets the local mitigation planning requirements under 44 CFR 201 pending HSEM's receipt of electronic copies of the adoption documentation and the final plan.

Acceptable electronic formats include Word or PDF files and must be submitted to us via email at HazardMitigationPlanning@dos.nh.gov. Upon HSEM's receipt of these documents, notification of formal approval will be issued, along with the final Checklist and Assessment.

The approved plan will be submitted to FEMA on the same day the community receives the formal approval notification from HSEM. FEMA will then issue a Letter of Formal Approval to HSEM for dissemination that will confirm the jurisdiction's eligibility to apply for mitigation grants administered by FEMA and identify related issues affecting eligibility, if any. If the plan is not adopted within one calendar year of HSEM's Approval Pending Adoption, the jurisdiction must update the entire plan and resubmit it for HSEM review. If you have questions or wish to discuss this determination further, please contact me at Kayla.Henderson@dos.nh.gov or 603-223-3650.

Thank you for submitting the Dover, NH Hazard Mitigation Plan and again, congratulations on your successful community planning efforts.

Sincerely,

Kayla J. Henderson
Hazard Mitigation Planning
NH Homeland Security and Emergency Management
33 Hazen Drive
Concord, NH 03301
NEW: 603-223-3650
603-223-3609 (fax)

Signed Certificate of Adoption

To be inserted upon receipt from Dover City Council.

Final Approval Letter from FEMA

To be inserted upon receipt from FEMA.

Appendices

Appendix A: Bibliography

Appendix B: Planning Process Documentation

Appendix C: Summary of Possible All-Hazard Mitigation Strategies

Appendix D: Technical and Financial Assistance for All-Hazard Mitigation

Hazard Mitigation Grant Program (HMGP)

Pre-Disaster Mitigation (PDM)

Flood Mitigation Assistance (FMA)

Appendix E: Maps

Appendix A: Bibliography

Documents

- Local Mitigation Plan Review Guide, FEMA, October 1, 2011
- Multi-Hazard Mitigation Plans
 - Town of Rollinsford, 2016
- State of New Hampshire Multi-Hazard Mitigation Plan (2013) - State Hazard Mitigation Goals
- Disaster Mitigation Act (DMA) of 2000, Section 101, b1 & b2 and Section 322a
<http://www.fema.gov/library/viewRecord.do?id=1935>
- Economic & Labor Market Information Bureau, NH Employment Security, 2015; Census 2010 and Revenue Information
- NCDC [National Climatic Data Center, National Oceanic and Atmospheric Administration]. 2017. Storm Events

Photos

- Richard Driscoll, (former) Assistant Fire Chief, Dover Fire & Rescue
- Kyle Pimental, Principal Regional Planner, Strafford Regional Planning Commission

Appendix B: Planning Process Documentation

Agendas

City of Dover, New Hampshire

Hazard Mitigation Committee Meeting #1

October 31, 2017
10:00AM – 11:30AM

McConnell Center, Room 305
61 Locust Street
Dover, NH 03820

Agenda

1. Introductions
2. Update process and the requirements of the grant
3. Responsibilities, in-kind match documentation, and the steps towards successful adoption
4. Review Chapter 2: Community Profile (attachment)
5. Review Chapter 3: Asset Inventory (attachment)
6. Review Chapter 7: Action Plan – Past Mitigation Strategies (attachment)
7. Adjourn

City of Dover, New Hampshire

Hazard Mitigation Committee Meeting #2

November 14, 2017
10:00AM – 11:30AM

McConnell Center, Room 305
61 Locust Street
Dover, NH 03820

Agenda

1. Introductions
2. Old Business
 - a. Review Meeting Notes (*Meeting_Notes_103117.docx*)
 - b. Review To Do List (*To_Do_List_103117.docx*)
3. New Business
 - a. Review Chapter 5: Floodplain Management (*Chapter5_Floodplain_Management.docx*)
 - b. Review Chapter 6: Hazard Descriptions (*Chapter6_Hazard_Descriptions.docx*)
 - c. Review Chapter 6: Hazard Vulnerability Ranking (*Chapter6_Hazard_Vulnerability_Ranking.docx*)
4. Next meeting date
5. Adjourn

City of Dover, New Hampshire

Hazard Mitigation Committee Meeting #3

December 12, 2017
10:00AM – 11:30AM

McConnell Center, Room 305
61 Locust Street
Dover, NH 03820

Agenda

1. Introductions
2. Old Business
 - a. Review Meeting Notes (*Meeting_Notes_111417.docx*)
 - b. Review To Do List (*To_Do_List_111417.docx*)
3. New Business
 - a. Review Chapter 6: Hazard Vulnerability Ranking (*Chapter6_Hazard_Vulnerability_Ranking.pdf*)
 - b. Review Table 21: Existing Programs and Policies (*Existing_Strategies.docx*)
 - c. Brainstorm new actions and fill in Table 22: Future Mitigation Actions (*Mitigation_Actions.xls*)
4. Steps to adoption
5. Final meeting date
6. Adjourn

City of Dover, New Hampshire

Hazard Mitigation Committee Meeting #4

December 27, 2017
10:00AM – 12:00PM

McConnell Center, Room 305
61 Locust Street
Dover, NH 03820

Agenda

1. Introductions
2. Old Business
 - a. Review Meeting Notes (*Meeting_Notes_121217.docx*)
3. New Business
 - a. Brainstorm new actions and fill in Table 22: Future Mitigation Actions (*Mitigation_Actions.xls*)
 - b. Go through STAPLEE Method to rank each action (*STAPLEE_Method.docx*)
 - c. Review GIS maps (not available at this time – will be brought to meeting)
4. Next steps
5. Adjourn

City of Dover, New Hampshire

Hazard Mitigation Meeting #1

October 31, 2017
10:00AM – 12:00PM

McConnell Center, Room 305
Dover, NH 03820

ATTENDANCE SHEET

Name	Position Title/ Department Affiliation	E-mail	Time spent reviewing materials
Jim MAXFIELD	Bldg OFFICIAL INSPECTION SERVICES / DFR	j.maxfield@dover.nh.gov	—
Kathleen Meyers	Asset Management Admin / IT	k.meyers@dover.nh.gov	—
KENA NICHOLS	DIRECTOR - WELFARE	k.nichols@dover.nh.gov	—
DAN BARUFALDI	DIRECTOR - Economic Development	d.barufaldi@dover.nh.gov	.25
Susan Daudelin	Director of Human Resources / Executive	s.daudelin@dover.nh.gov	—
Anthony Colarusso	Police Chief	a.colarusso@dover.nh.gov	.20
Cathy Beaudoin	Library Director	c.beaudoin@dover.nh.gov	—
Mike Gillis	Media Services Manager	m.gillis@dover.nh.gov	—
John Storer	Community Services Director	j.storer@dover.nh.gov	.25
Gary Bannon	Emergency Shelter Manager Recreation Director	g.bannon@dover.nh.gov	.50
ERIC HAGMAN	FIRE CHIEF / E.M.S.	e.hagman@dover.nh.gov	.50
Dave White	City Engineer / Community Services	d.white@dover.nh.gov	.5
Christopher Parker	Asst. City Mgr. / Planning	c.parker@dover.nh.gov	.50

G

City of Dover, New Hampshire

Hazard Mitigation Meeting #2

November 14, 2017
10:00AM – 12:00PM

McConnell Center, Room 305
Dover, NH 03820

ATTENDANCE SHEET

Name	Position Title/ Department Affiliation	E-mail	Time spent reviewing materials
John B. Storer	Community Services		0.5 hrs
Gary Bannon	Recreation		.5
Eric Hagman	Fire/Rescue		.75
Cathy Beaudoin	Library Director		.5
Mike Gillis	Media Services Manager		.5
DAN BARUFALDI	ECONOMIC DEVELOPMENT		0.5 hrs
Kathleen Meyers	IT - Asset Manage.		1 hr.
Jim MAXFIELD	BUILDING DEPARTMENT / FIRE RESCUE		1 1/2 hrs
Tony Colarusso	Police Chief		.5
Chris Parker	Planning		1 hr

City of Dover, New Hampshire

Hazard Mitigation Meeting #3

December 12, 2017
10:00AM – 12:00PM

McConnell Center, Room 305
Dover, NH 03820

ATTENDANCE SHEET

Name	Position Title/ Department Affiliation	E-mail	Time spent reviewing materials
Kathleen Meyers	Asset Management Admin. / IT	k.meyers@dover.nh.gov	.25
Tony Colaprusso	Police Chief	a.colaprusso@dover.nh.gov	1 hour
ERIC HAGMAN	Fire Chief / EMD	e.hagman@dover.nh.gov	2 hours
Cathy Beaudoin	Library Director	c.beaudoin@dover.nh.gov	1 hr.
Christopher Parker	Ass. CM	c.parker@dover.nh.gov	1 hr
John Storer	Public Works Director	j.storer@dover.nh.gov	2 hrs
LEAH C NICHOLS	DOVER WELFARE	l.nichols@dover.nh.gov	1 hr

City of Dover, New Hampshire

Hazard Mitigation Meeting #4

December 27, 2017
10:00AM – 12:00PM

McConnell Center, Room 305
Dover, NH 03820

ATTENDANCE SHEET

Name	Position Title/ Department Affiliation	E-mail	Time spent reviewing materials
Dave White	City Eng	d.white@dover.nh.gov	.25
Tony Colarusso	Police Chief	a.colarusso@dover.nh.gov	.30
Cathy Beaudoin	Library Director	c.beaudoin@dover.nh.gov	.30
Christopher Parker	Asst. City Mgr	c.parker@dover.nh.gov	.5
LENA NICHOLS	WELFARE DIRECTOR	l.nichols@dover.nh.gov	.5
Mike Gillis	Media Services Mgr	m.gillis@dover.nh.gov	.5
ERIC HAGMAN	Fire Chief	e.hagman@dover.nh.gov	.5

Appendix C: Summary of Possible All-Hazard Mitigation Strategies

I. RIVERINE MITIGATION

A. Prevention

Prevention measures are intended to keep the problem from occurring in the first place, and/or keep it from getting worse. Future development should not increase flood damage. Building, zoning, planning, and/or code enforcement personnel usually administer preventative measures.

1. **Planning and Zoning⁴⁰** - Land use plans are put in place to guide future development, recommending where - and where not - development should occur and where it should not. Sensitive and vulnerable lands can be designated for uses that would not be incompatible with occasional flood events - such as parks or wildlife refugees. A Capital Improvements Program (CIP) can recommend the setting aside of funds for public acquisition of these designated lands. The zoning ordinance can regulate development in these sensitive areas by limiting or preventing some or all development - for example, by designating floodplain overlay, conservation, or agricultural districts.
2. **Open Space Preservation** - Preserving open space is the best way to prevent flooding and flood damage. Open space preservation should not, however, be limited to the floodplain, since other areas within the watershed may contribute to controlling the runoff that exacerbates flooding. Land Use and Capital Improvement Plans should identify areas to be preserved by acquisition and other means, such as purchasing easements. Aside from outright purchase, open space can also be protected through maintenance agreements with the landowners, or by requiring developers to dedicate land for flood flow, drainage and storage.
3. **Floodplain Development Regulations** - Floodplain development regulations typically do not prohibit development in the special flood hazard area, but they do impose construction standards on what is built there. The intent is to protect roads and structures from flood damage and to prevent the development from aggravating the flood potential. Floodplain development regulations are generally incorporated into subdivision regulations, building codes, and floodplain ordinances.
 - a. **Subdivision Regulations:** These regulations govern how land will be divided into separate lots or sites. They should require that any flood hazard areas be shown on the plat, and that every lot has a buildable area that is above the base flood elevation.
 - b. **Building Codes:** Standards can be incorporated into building codes that address flood proofing for all new and improved or repaired buildings.
 - c. **Floodplain Ordinances:** Communities that participate in the National Flood Insurance Program are required to adopt the minimum floodplain management regulations, as developed by FEMA. The regulations set minimum standards for subdivision regulations and building codes. Communities may adopt more stringent standards than those set forth by FEMA.

⁴⁰ All zoning should be carefully reviewed on a consistent basis by municipal officials to make sure guidelines are up-to-date and towns are acting in accordance with best management practices.

4. **Stormwater Management** - Development outside of a floodplain can contribute significantly to flooding by covering impervious surfaces, which increases storm water runoff. Storm water management is usually addressed in subdivision regulations. Developers are typically required to build retention or detention basins to minimize any increase in runoff caused by new or expanded impervious surfaces, or new drainage systems. Generally, there is a prohibition against storm water leaving the site at a rate higher than it did before the development. One technique is to use wet basins as part of the landscaping plan of a development. It might even be possible to site these basins based on a watershed analysis. Since detention only controls the runoff rates and not volumes, other measures must be employed for storm water infiltration - for example, swales, infiltration trenches, vegetative filter strips, and permeable paving blocks.
5. **Drainage System Maintenance** - Ongoing maintenance of channel and detention basins is necessary if these facilities are to function effectively and efficiently over time. A maintenance program should include regulations that prevent dumping in or altering water courses or storage basins; regrading and filling should also be regulated. Any maintenance program should include a public education component, so that the public becomes aware of the reasons for the regulations. Many people do not realize the consequences of filling in a ditch or wetland, or regrading.

B. Property Protection

Property protection measures are used to modify buildings subject to flood damage, rather than to keep floodwaters away. These may be less expensive to implement, as they are often carried out on a cost-sharing basis. In addition, many of these measures do not affect a building's appearance or use, which makes them particularly suitable for historical sites and landmarks.

1. **Relocation** - Moving structures out of the floodplain is the surest and safest way to protect against damage. Relocation is expensive, however, so this approach will probably not be used except in extreme circumstances. Communities that have areas subject to severe storm surges, ice jams, etc. might want to consider establishing a relocation program, incorporating available assistance.
2. **Acquisition** - Acquisition by a governmental entity of land in a floodplain serves two main purposes: 1) it ensures that the problem of structures in the floodplain will be addressed; and 2) it has the potential to convert problem areas into community assets, with accompanying environmental benefits. Acquisition is more cost effective than relocation in those areas that are subject to storm surges, ice jams, or flash flooding. Acquisition, followed by demolition, is the most appropriate strategy for those buildings that are simply too expensive to move, as well as for dilapidated structures that are not worth saving or protecting. Acquisition and subsequent relocation can be expensive, however, there are government grants and loans that can be applied toward such efforts.
3. **Building Elevation** - Elevating a building above the base flood elevation is the best on-site protection strategy. The building could be raised to allow water to run underneath it, or fill could be brought in to elevate the site on which the building sits. This approach is cheaper than relocation, and tends to be less disruptive to a

neighborhood. Elevation is required by law for new and substantially improved residences in a floodplain, and is commonly practiced in flood hazard areas nationwide.

4. **Floodproofing** - If a building cannot be relocated or elevated, it may be floodproofed. This approach works well in areas of low flood threat. Floodproofing can be accomplished through barriers to flooding, or by treatment to the structure itself.
 - a. **Barriers:** Levees, floodwalls and berms can keep floodwaters from reaching a building. These are useful, however, only in areas subject to shallow flooding.
 - b. **Dry Floodproofing:** This method seals a building against the water by coating the walls with waterproofing compounds or plastic sheeting. Openings, such as doors, windows, etc. are closed either permanently with removable shields or with sandbags.
 - c. **Wet Floodproofing:** This technique is usually considered a last resort measure, since water is intentionally allowed into the building in order to minimize pressure on the structure. Approaches range from moving valuable items to higher floors to rebuilding the floodable area. An advantage over other approaches is that simply by moving household goods out of the range of floodwaters, thousands of dollars can be saved in damages.
5. **Sewer Backup Protection** - Storm water overloads can cause backup into basements through sanitary sewer lines. Houses that have any kind of connection to a sanitary sewer system - whether it is downspouts, footing drain tile, and/or sump pumps, can be flooded during a heavy rain event. To prevent this, there should be no such connections to the system, and all rain and ground water should be directed onto the ground, away from the building. Other protections include:
 - a. Floor drain plugs and floor drain standpipe, which keep water from flowing out of the lowest opening in the house.
 - b. Overhead sewer - keeps water in the sewer line during a backup.
 - c. Backup valve - allows sewage to flow out while preventing backups from flowing into the house.
6. **Insurance** - Above and beyond standard homeowner insurance, there is other coverage a homeowner can purchase to protect against flood hazard. Two of the most common are National Flood Insurance and basement backup insurance.
 - a. **National Flood Insurance:** When a community participates in the National Flood Insurance Program, any local insurance agent is able to sell separate flood insurance policies under rules and rates set by FEMA. Rates do not change after claims are paid because they are set on a national basis.
 - b. **Basement Backup Insurance:** National Flood Insurance offers an additional deductible for seepage and sewer backup, provided there is a general condition of flooding in the area that was the proximate cause of the basement getting wet. Most exclude damage from surface flooding that would be covered by the NFIP.

C. Natural Resource Protection

Preserving or restoring natural areas or the natural functions of floodplain and watershed areas provide the benefits of eliminating or minimizing losses from floods, as well as improving water quality and wildlife habitats. Parks, recreation, or conservation agencies usually implement such activities. Protection can also be provided through various zoning measures that are specifically designed to protect natural resources.

1. **Wetlands Protection** - Wetlands are capable of storing large amounts of floodwaters, slowing and reducing downstream flows, and filtering the water. Any development that is proposed in a wetland is regulated by either federal and/or state agencies. Depending on the location, the project might fall under the jurisdiction of the U.S. Army Corps of Engineers, which in turn, calls upon several other agencies to review the proposal. In New Hampshire, the N.H. Wetlands Board must approve any project that impacts a wetland. Many communities in New Hampshire also have local wetland ordinances.

Generally, the goal is to protect wetlands by preventing development that would adversely affect them. Mitigation techniques are often employed, which might consist of creating a wetland on another site to replace what would be lost through the development. This is not an ideal practice since it takes many years for a new wetland to achieve the same level of quality as an existing one, if it can at all.

2. **Erosion and Sedimentation Control** - Controlling erosion and sediment runoff during construction and on farmland is important, since eroding soil will typically end up in downstream waterways. Because sediment tends to settle where the water flow is slower, it will gradually fill in channels and lakes, reducing their ability to carry or store floodwaters.
3. **Best Management Practices** - Best Management Practices (BMPs) are measures that reduce non-point source pollutants that enter waterways. Non-point source pollutants are carried by storm water to waterways, and include such things as lawn fertilizers, pesticides, farm chemicals, and oils from street surfaces and industrial sites. BMPs can be incorporated into many aspects of new developments and ongoing land use practices. In New Hampshire, the Department of Environmental Services has developed Best Management Practices for a range of activities, from farming to earth excavations.

D. Emergency Services

Emergency services protect people during and after a flood. Many communities in New Hampshire have emergency management programs in place, administered by an emergency management director (very often the local police or fire chief).

1. **Flood Warning** - On large rivers, the National Weather Service handles early recognition. Communities on smaller rivers must develop their own warning systems. Warnings may be disseminated in a variety of ways, such as sirens, radio, television, mobile public address systems, or door-to-door contact. It seems that multiple or redundant systems are the most effective, giving people more than one opportunity to be warned.

2. **Flood Response** - Flood response refers to actions that are designed to prevent or reduce damage or injury, once a flood threat is recognized. Such actions and the appropriate parties include:
 - a. Activating the emergency operations center (emergency director)
 - b. Sandbagging designated areas (Highway Department)
 - c. Closing streets and bridges (police department)
 - d. Shutting off power to threatened areas (public service)
 - e. Releasing children from school (school district)
 - f. Ordering an evacuation (Board of Selectmen/emergency director)
 - g. Opening evacuation shelters (churches, schools, Red Cross, municipal facilities)

These actions should be part of a flood response plan, which should be developed in coordination with the persons and agencies that share the responsibilities. Drills and exercises should be conducted so that the key participants know what they are supposed to do.

3. **Critical Facilities Protection** - Protecting critical facilities is vital, since expending efforts on these facilities can draw workers and resources away from protecting other parts of the City. Critical facilities fall into two categories:
 - a. **Buildings or locations vital to the flood response effort:**
 - i. Emergency operations centers
 - ii. Police and fire stations
 - iii. Highway garages
 - iv. Selected roads and bridges
 - v. Evacuation routes
 - b. **Buildings or locations that, if flooded, would create disasters:**
 - i. Hazardous materials facilities
 - ii. Schools

All such facilities should have their own flood response plan that is coordinated with the community's plan. Schools will typically be required by the state to have emergency response plans in place.

4. **Health and Safety Maintenance** - The flood response plan should identify appropriate measures to prevent danger to health and safety. Such measures include:
 - a. Patrolling evacuated areas to prevent looting
 - b. Vaccinating residents for tetanus
 - c. Clearing streets
 - d. Cleaning up debris

The Plan should also identify which agencies will be responsible for carrying out the identified measures. A public information program can be helpful to educate residents on the benefits of taking health and safety precautions.

E. Structural Projects

Structural projects are used to prevent floodwaters from reaching properties. These are all man-made structures, and can be grouped into the six types discussed below. The shortcomings of structural approaches are:

- Can be very expensive
 - Disturb the land, disrupt natural water flows, & destroy natural habitats.
 - Are built to an anticipated flood event, and may be exceeded by a greater-than expected flood
 - Can create a false sense of security.
1. **Diversions** - A diversion is simply a new channel that sends floodwater to a different location, thereby reducing flooding along an existing watercourse. Diversions can be surface channels, overflow weirs, or tunnels. During normal flows, the water stays in the old channel. During flood flows, the stream spills over the diversion channel or tunnel, which carries the excess water to the receiving lake or river. Diversions are limited by topography; they won't work everywhere. Unless the receiving water body is relatively close to the flood prone stream and the land in between is low and vacant, the cost of creating a diversion can be prohibitive. Where topography and land use are not favorable, a more expensive tunnel is needed. In either case, care must be taken to ensure that the diversion does not create a flooding problem somewhere else.
 2. **Levees/Floodwalls** - Probably the best known structural flood control measure is either a levee (a barrier of earth) or a floodwall made of steel or concrete erected between the watercourse and the land. If space is a consideration, floodwalls are typically used, since levees need more space. Levees and floodwalls should be set back out of the floodway, so that they will not divert floodwater onto other properties.
 3. **Reservoirs** - Reservoirs control flooding by holding water behind dams or in storage basins. After a flood peaks, water is released or pumped out slowly at a rate the river downstream can handle. Reservoirs are suitable for protecting existing development, and they may be the only flood control measure that can protect development close to a watercourse. They are most efficient in deeper valleys or on smaller rivers where there is less water to store. Reservoirs might consist of man-made holes dug to hold the approximate amount of floodwaters, or even abandoned quarries. As with other structural projects, reservoirs:
 - a. are expensive
 - b. occupy a lot of land
 - c. require periodic maintenance
 - d. may fail to prevent damage from floods that exceed their design levels
 - e. may eliminate the natural and beneficial functions of the floodplain.
 4. **Channel Modifications** - Channel modifications include making a channel wider, deeper, smoother, or straighter. These techniques will result in more water being carried away, but, as with other techniques mentioned, it is important to ensure that the modifications do not create or increase a flooding problem downstream.

5. **Dredging:** Dredging is often cost-prohibitive because the dredged material must be disposed of in another location; the stream will usually fill back in with sediment. Dredging is usually undertaken only on larger rivers, and then only to maintain a navigation channel.
6. **Drainage Modifications:** These include man-made ditches and storm sewers that help drain areas where the surface drainage system is inadequate or where underground drainage ways may be safer or more attractive. These approaches are usually designed to carry the runoff from smaller, more frequent storms.
7. **Storm Sewers** - Mitigation techniques for storm sewers include installing new sewers, enlarging small pipes, street improvements, and preventing back flow. Because drainage ditches and storm sewers convey water faster to other locations, improvements are only recommended for small local problems where the receiving body of water can absorb the increased flows without increased flooding. In many developments, streets are used as part of the drainage system, to carry or hold water from larger, less frequent storms. The streets collect runoff and convey it to a receiving sewer, ditch, or stream. Allowing water to stand in the streets and then draining it slowly can be a more effective and less expensive measure than enlarging sewers and ditches.

F. Public Information

Public information activities are intended to advise property owners, potential property owners, and visitors about the particular hazards associated with a property, ways to protect people and property from these hazards, and the natural and beneficial functions of a floodplain.

1. **Map Information** - Flood maps developed by FEMA outline the boundaries of the flood hazard areas. These maps can be used by anyone interested in a particular property to determine if it is flood-prone. These maps are available from FEMA, the NH Homeland Security and Emergency Management (HSEM), the NH Office of Energy and Planning (OEP), or your regional planning commission.
2. **Outreach Projects** - Outreach projects are proactive; they give the public information even if they have not asked for it. Outreach projects are designed to encourage people to seek out more information and take steps to protect themselves and their properties. Examples of outreach activities include:
 - a. Presentations at meetings of neighborhood groups
 - b. Mass mailings or newsletters to all residents
 - c. Notices directed to floodplain residents
 - d. Displays in public buildings, malls, etc.
 - e. Newspaper articles and special sections
 - f. Radio and TV news releases and interview shows
 - g. A local flood proofing video for cable TV programs and to loan to organizations
 - h. A detailed property owner handbook tailored for local conditions. Research has shown that outreach programs work, although awareness is not enough. People need to know what they can do about the hazards, so projects should include information on protection measures. Research also shows that locally designed and run programs are much more effective than national advertising.

3. **Real Estate Disclosure** - Disclosure of information regarding flood-prone properties is important if potential buyers are to be in a position to mitigate damage. Federally regulated lending institutions are required to advise applicants that a property is in the floodplain. However, this requirement needs to be met only five days prior to closing, and by that time, the applicant is typically committed to the purchase. State laws and local real estate practice can help by making this information available to prospective buyers early in the process.
4. **Library** - Your local library can serve as a repository for pertinent information on flooding and flood protection. Some libraries also maintain their own public information campaigns, augmenting the activities of the various governmental agencies involved in flood mitigation.
5. **Technical Assistance** - Certain types of technical assistance are available from the NFIP Coordinator, FEMA, and the Natural Resources Conservation District. Community officials can also set up a service delivery program to provide one-on-one sessions with property owners. An example of technical assistance is the *flood audit*, in which a specialist visits a property. Following the visit, the owner is provided with a written report detailing the past and potential flood depths and recommending alternative protection measures.
6. **Environmental Education** - Education can be a great mitigating tool if people can learn what not to do before damage occurs. The sooner the education begins the better. Environmental education programs for children can be taught in the schools, park and recreation departments, conservation associations, or youth organizations. An activity can be as involved as course curriculum development or as simple as an explanatory sign near a river. Education programs do not have to be limited to children. Adults can benefit from knowledge of flooding and mitigation measures; decision makers, armed with this knowledge, can make a difference in their communities

II. EARTHQUAKES

A. Preventive

1. Planning/zoning to keep critical facilities away from fault lines
2. Planning, zoning and building codes to avoid areas below steep slopes or soils subject to liquefaction
3. Building codes to prohibit loose masonry overhangs, etc.

B. Property Protection

1. Acquire and clear hazard areas
2. Retrofitting to add braces, remove overhangs
3. Apply Mylar to windows and glass surfaces to protect from shattering glass
4. Tie down major appliances, provide flexible utility connections
5. Earthquake insurance riders

C. Emergency Services

1. Earthquake response plans to account for secondary problems, such as fires and hazardous material spills

D. Structural Projects

1. Slope stabilization

III. DAM FAILURE

A. Preventive

1. Dam failure inundation maps
2. Planning/zoning/open space preservation to keep area clear
3. Building codes with flood elevation based on dam failure
4. Dam safety inspections
5. Draining the reservoir when conditions appear unsafe

B. Property Protection

1. Acquisition of buildings in the path of a dam breach flood
2. Flood insurance

C. Emergency Services

1. Dam condition monitoring
2. Warning and evacuation plans based on dam failure

D. Structural Projects

1. Dam improvements, spillway enlargements
2. Remove unsafe dams

IV. WILDFIRES

A. Preventive

1. Zoning districts to reflect fire risk zones
2. Planning and zoning to restrict development in areas near fire protection and water resources
3. Requiring new subdivisions to space buildings, provide firebreaks, on-site water storage, wide roads, multiple accesses
4. Building code standards for roof materials and spark arrestors
5. Maintenance programs to clear dead and dry brush, trees
6. Regulation on open fires

B. Property Protection

1. Retrofitting of roofs and adding spark arrestors
2. Landscaping to keep bushes and trees away from structures
3. Insurance rates based on distance from fire protection

C. Natural Resource Protection

1. Prohibit development in high-risk areas

D. Emergency Services

1. Fire Fighting

V. WINTER STORMS

A. Prevention

1. Building code standards for light frame construction, especially for wind-resistant roofs

B. Property Protection

1. Storm shutters and windows
2. Hurricane straps on roofs and overhangs
3. Seal outside and inside of storm windows and check seals in spring and fall
4. Family and/or company severe weather action plan & drills:
 - a. include a NOAA Weather Radio
 - b. designate a shelter area or location
 - c. keep a disaster supply kit, including stored food and water
 - d. keep snow removal equipment in good repair; have extra shovels, sand, rock, salt and gas
 - e. know how to turn off water, gas, and electricity at home or work

C. Natural Resource Protection

1. Maintenance program for trimming trees and shrubs

D. Emergency Services

1. Early warning systems/NOAA Weather Radio
2. Evacuation plans

Appendix D: Technical & Financial Assistance for All-Hazard Mitigation

FEMA's Hazard Mitigation Assistance (HMA) grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. Currently, FEMA administers the following HMA grant programs⁴¹:

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)

FEMA's HMA grants are provided to eligible Applicants (States/Tribes/Territories) that, in turn, provide sub-grants to local governments and communities. The Applicant selects and prioritizes subapplications developed and submitted to them by subapplicants. These subapplications are submitted to FEMA for consideration of funding. Prospective subapplicants should consult the office designated as their Applicant for further information regarding specific program and application requirements. Contact information for the FEMA Regional Offices and State Hazard Mitigation Officers is available on the FEMA website, www.fema.gov.

HMA Grant Programs

The HMA grant programs provide funding opportunities for pre- and post-disaster mitigation. While the statutory origins of the programs differ, all share the common goal of reducing the risk of loss of life and property due to Natural Hazards. Brief descriptions of the HMA grant programs can be found below. For more information on the individual programs, or to see information related to a specific Fiscal Year, please click on one of the program links.

A. Hazard Mitigation Grant Program (HMGP)

HMGP assists in implementing long-term hazard mitigation measures following Presidential disaster declarations. Funding is available to implement projects in accordance with State, Tribal, and local priorities.

What is the Hazard Mitigation Grant Program?

The Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. Authorized under Section 404 of the Stafford Act and administered by FEMA, HMGP was created to reduce the loss of life and property due to natural disasters. The program enables mitigation measures to be implemented during the immediate recovery from a disaster.

Who is eligible to apply?

Hazard Mitigation Grant Program funding is only available to applicants that reside within a presidentially declared disaster area. Eligible applicants are:

- State and local governments
- Indian tribes or other tribal organizations

⁴¹ Information in Appendix E is taken from the following website and links to specific programs unless otherwise noted; <http://www.fema.gov/government/grant/hma/index.shtm>

- Certain non-profit organizations

Individual homeowners and businesses may not apply directly to the program; however a community may apply on their behalf.

How are potential projects selected and identified?

The State's administrative plan governs how projects are selected for funding. However, proposed projects must meet certain minimum criteria. These criteria are designed to ensure that the most cost-effective and appropriate projects are selected for funding. Both the law and the regulations require that the projects are part of an overall mitigation strategy for the disaster area.

The State prioritizes and selects project applications developed and submitted by local jurisdictions. The State forwards applications consistent with State mitigation planning objectives to FEMA for eligibility review. Funding for this grant program is limited and States and local communities must make difficult decisions as to the most effective use of grant funds.

For more information on the **Hazard Mitigation Grant Program (HMGP)**, go to:

<http://www.fema.gov/government/grant/hmgp/index.shtm>

B. Pre-Disaster Mitigation (PDM)

PDM provides funds on an annual basis for hazard mitigation planning and the implementation of mitigation projects prior to a disaster. The goal of the PDM program is to reduce overall risk to the population and structures, while at the same time, also reducing reliance on Federal funding from actual disaster declarations.

Program Overview

The Pre-Disaster Mitigation (PDM) program provides funds to states, territories, Indian tribal governments, communities, and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.

Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations. PDM grants are to be awarded on a competitive basis and without reference to state allocations, quotas, or other formula-based allocation of funds.

C. Flood Mitigation Assistance (FMA)

FMA provides funds on an annual basis so that measures can be taken to reduce or eliminate risk of flood damage to buildings insured under the National Flood Insurance Program.

Program Overview

The FMA program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP).

FEMA provides FMA funds to assist States and communities implement measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program.

Types of FMA Grants

Three types of FMA grants are available to States and communities:

- Planning Grants to prepare Flood Mitigation Plans. Only NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project grants
- Project Grants to implement measures to reduce flood losses, such as elevation, acquisition, or relocation of NFIP-insured structures. States are encouraged to prioritize FMA funds for applications that include repetitive loss properties; these include structures with 2 or more losses each with a claim of at least \$1,000 within any ten-year period since 1978.
- Technical Assistance Grants for the State to help administer the FMA program and activities. Up to ten percent (10%) of Project grants may be awarded to States for Technical Assistance Grants

Appendix E: Maps

Maps

- Emergency Response Facilities
- Non-Emergency Response Facilities
- Critical Facilities
- Vulnerable Populations to Protect
- Water Resources

Emergency Response Facilities & Past and Potential Hazards

2018
Hazard Mitigation Plan

DOVER, NH

Emergency Response Facilities Legend

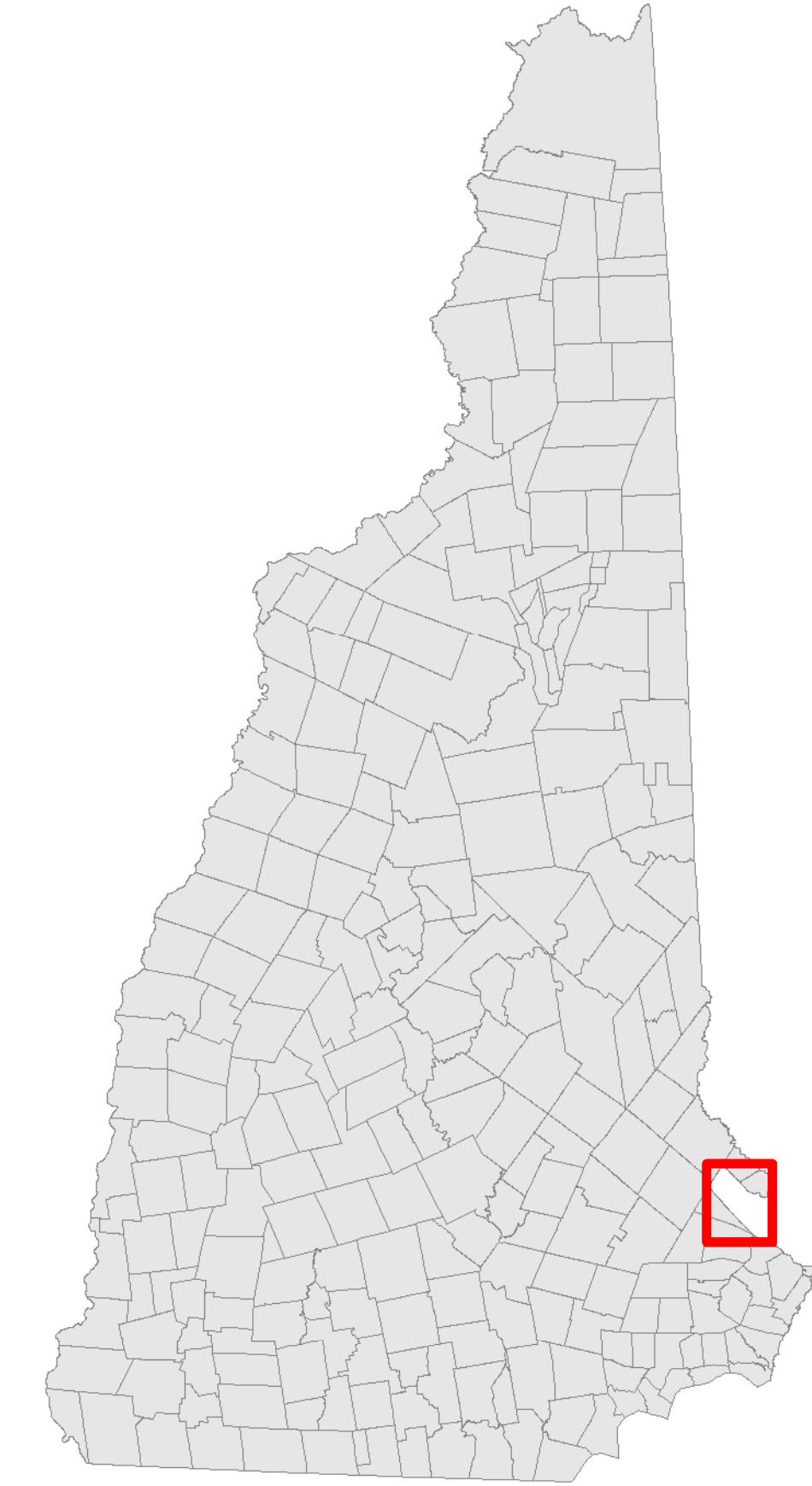
- Facility Type
- Administrative (Information Technology)
 - Back-Up Emergency Shelter
 - Back-up Emergency Operations Center
 - Emergency Fuel
 - Emergency Fuel (diesel only)
 - Emergency Medical Evacuation
 - Fire
 - Medical Facility
 - Primary Back-Up Emergency Shelter
 - Primary Emergency Operations Center
 - Primary Emergency Shelter
 - Radioactive Reception Center
 - Evacuation Routes

Past and Potential Hazards

- Past Flooding
- Dam Inundation Areas
- FEMA 100-year Floodplain
- Extent of Sea-Level Rise of 1.7' with Storm Surge
- Extent of Sea-Level Rise of 4.0' with Storm Surge
- Extent of Sea-Level Rise of 6.3' with Storm Surge

Base Features

- Municipal Boundary
- Rivers, Brooks, Streams
- Lakes and Ponds
- Roads [NHDOT, 2017]
 - State
 - Local
 - Private

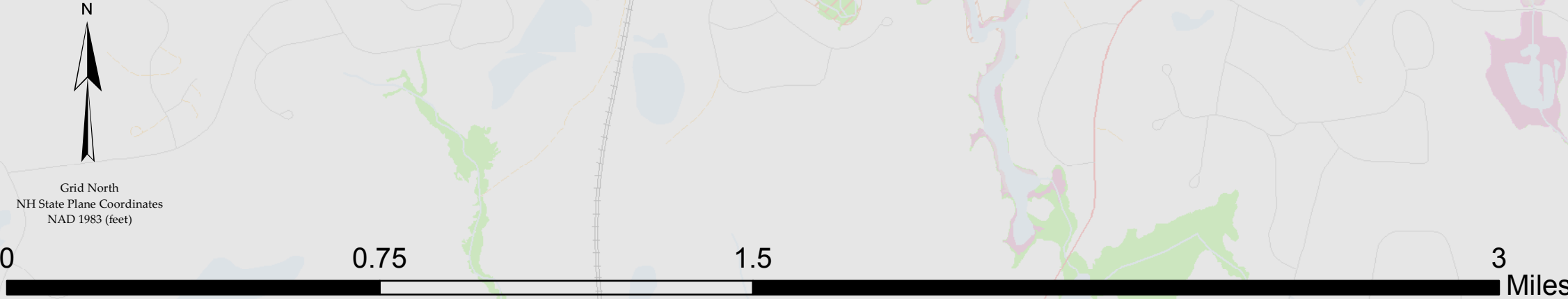
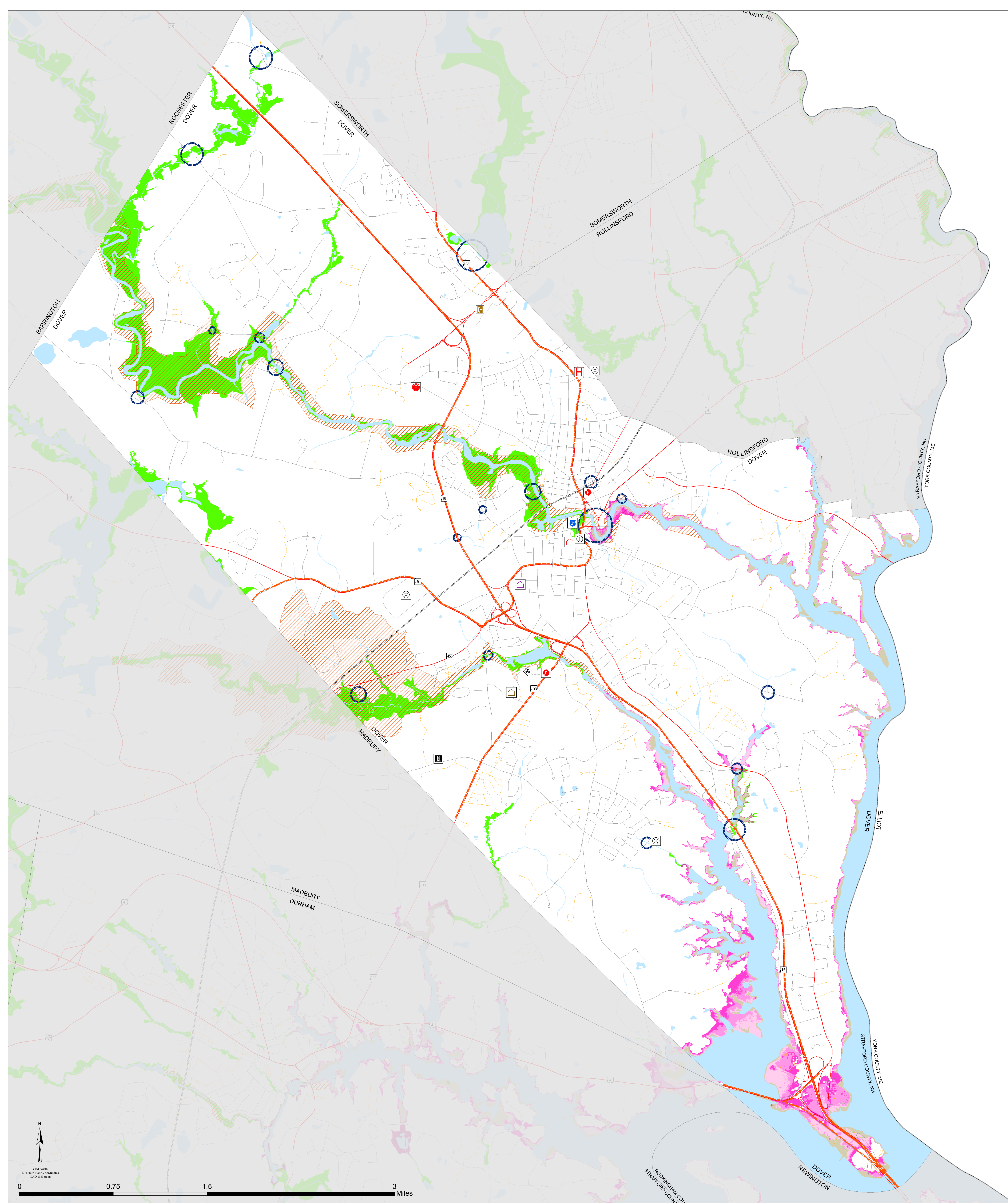


Prepared by: Strafford Regional Planning Commission
150 Wakefield St., Suite 112, Rochester, NH 03867
T: (603) 994-3500 F: (603) 994-3504 E: srpc@strafford.org
Emergency Response Facilities & Past and Potential Hazards
Date: December 2017
Path: M:\Region\CEM_haz_min\2017_2018_Updates\Dover\Maps\Final_Maps\ERF_Final

Maps prepared by Strafford Regional Planning Commission
are for planning purposes only.

DATA SOURCES

Base features are from USGS 1:24,000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center, Durham, NH. Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Complex Systems Research Center, under contract to the NH Office of State Planning, and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. OSP, CSRC and the cooperating agencies make no claim as to the validity or reliability or to any implied uses of these data.



Non-Emergency Response
Facilities &
Past and Potential Hazards
2018
Hazard Mitigation Plan
DOVER, NH

Non-Emergency Response Facilities

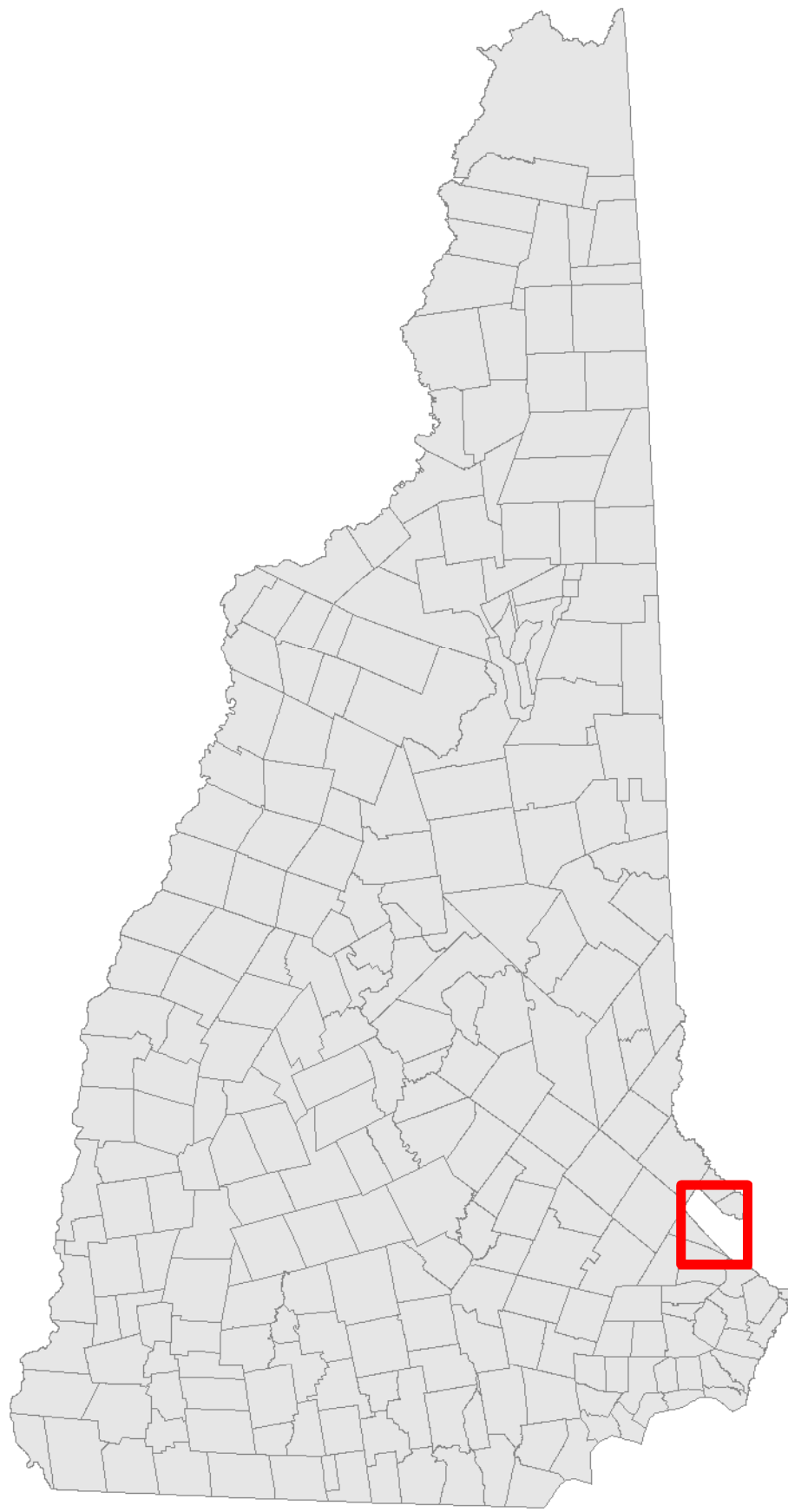
- Facility Type
- Potential Logistics and Staging Area
 - Pump Station
 - Residential Waste
 - Transportation Center
 - Wastewater Plant
 - Water Plant

Past and Potential Hazards

- Past Flooding
- Dam Inundation Areas
- FEMA 100-year Floodplain
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- Extent of Sea-Level Rise of 4.0' with Storm Surge
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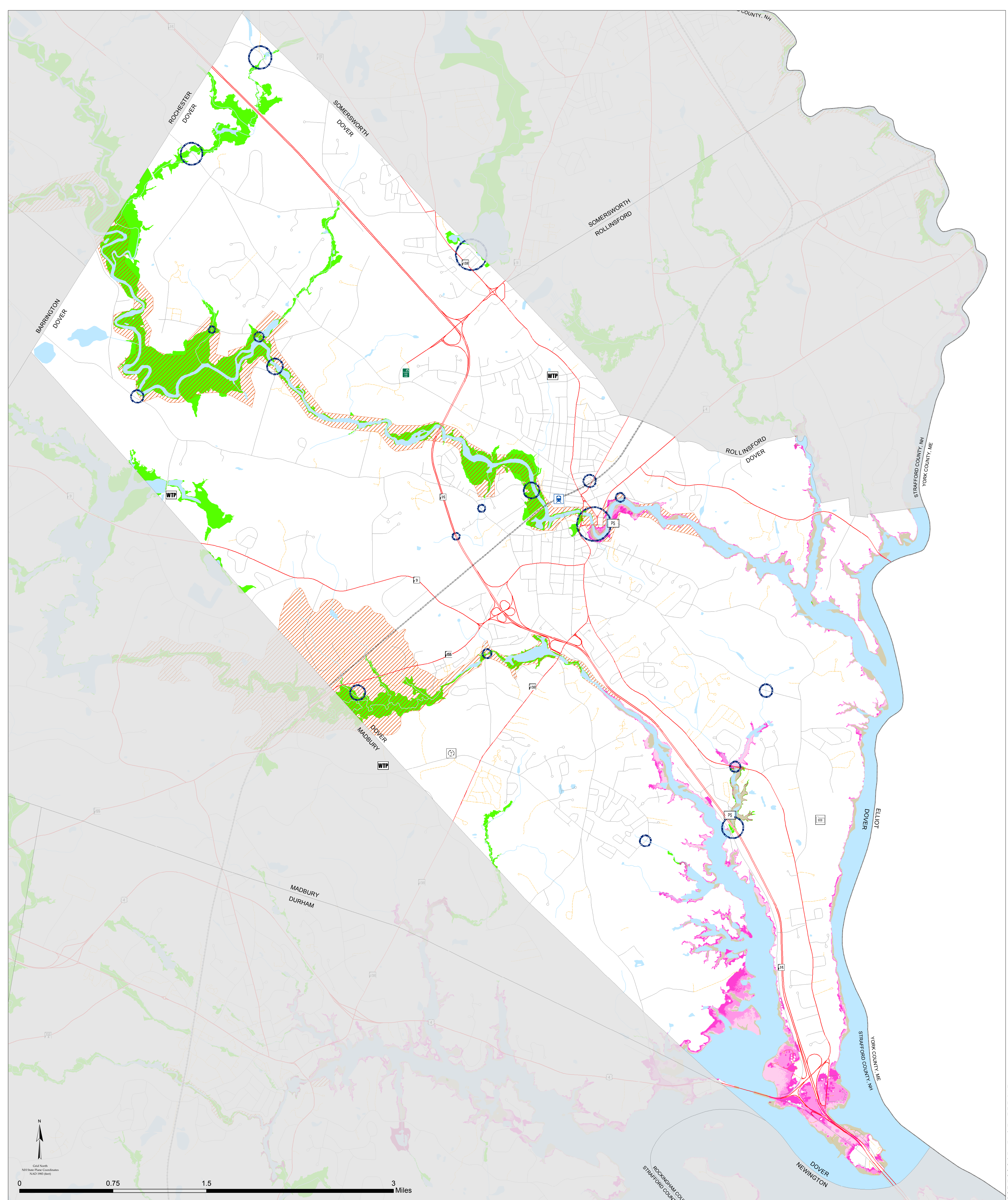
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Critical Infrastructure & Past and Potential Hazards

2018
Hazard Mitigation Plan

DOVER, NH

Critical Infrastructure Legend

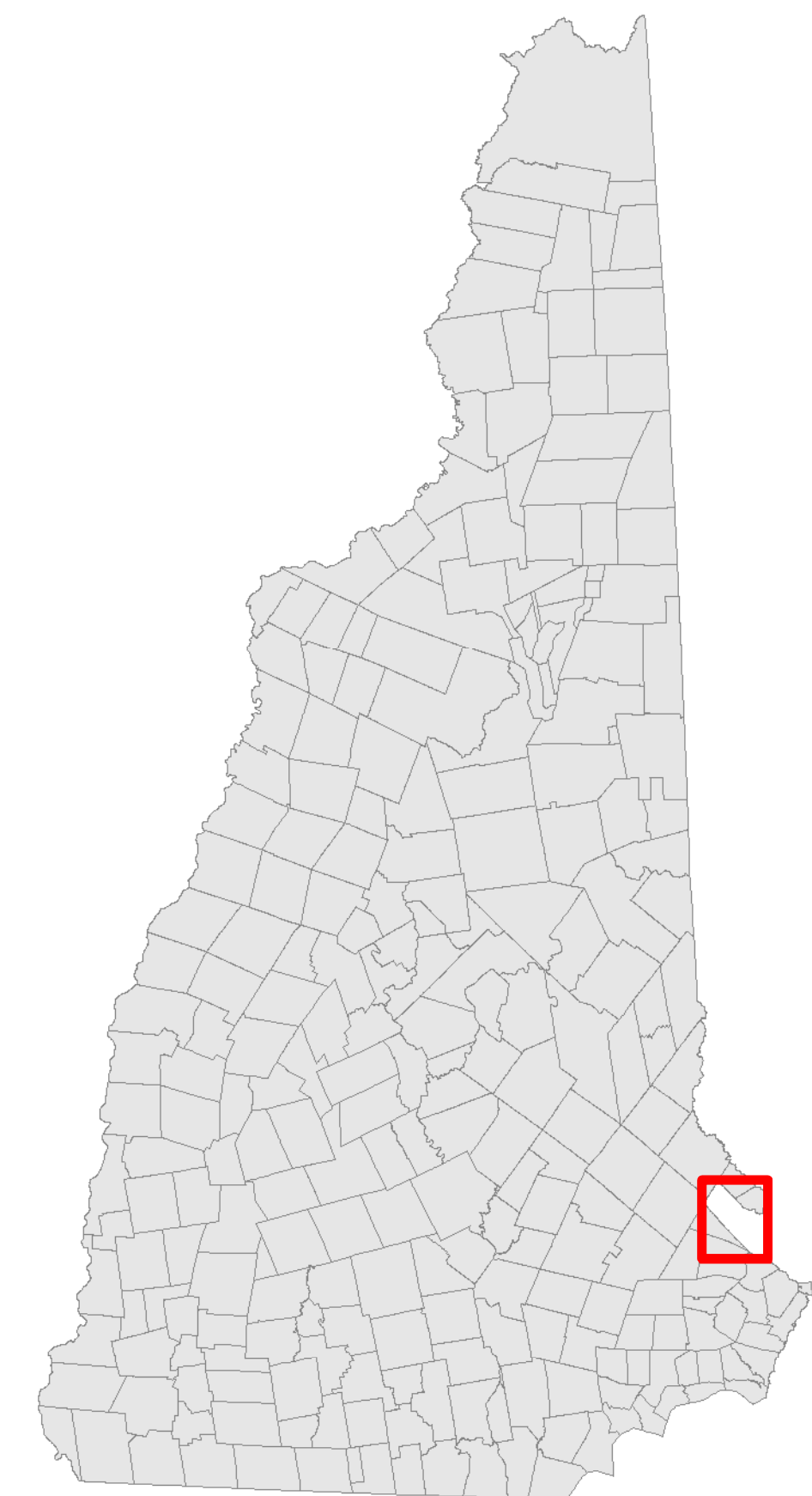
- Facility Type
- Critical Transportation
 - Low Hazard Dam
 - High Hazard Dam
 - Significant Hazard Dam
 - Pump Station
 - Transportation (City Owned)
 - Transportation (State)
 - Transportation (Turnpike Bureau)
 - Water Reservoir

Past and Potential Hazards

- Past Flooding
- Dam Inundation Areas
- FEMA 100-year Floodplain
- Extent of Sea-Level Rise of 1.7' with Storm Surge
- Extent of Sea-Level Rise of 4.0' with Storm Surge
- Extent of Sea-Level Rise of 6.3' with Storm Surge

Base Features

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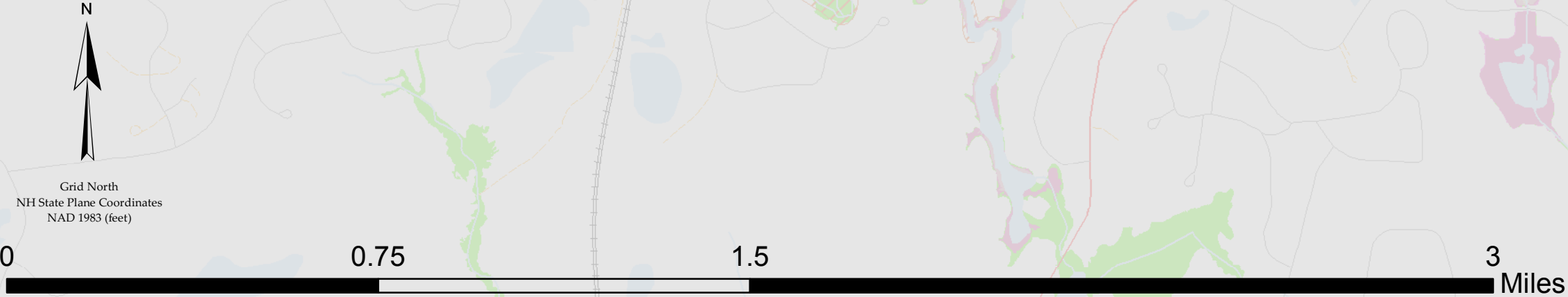
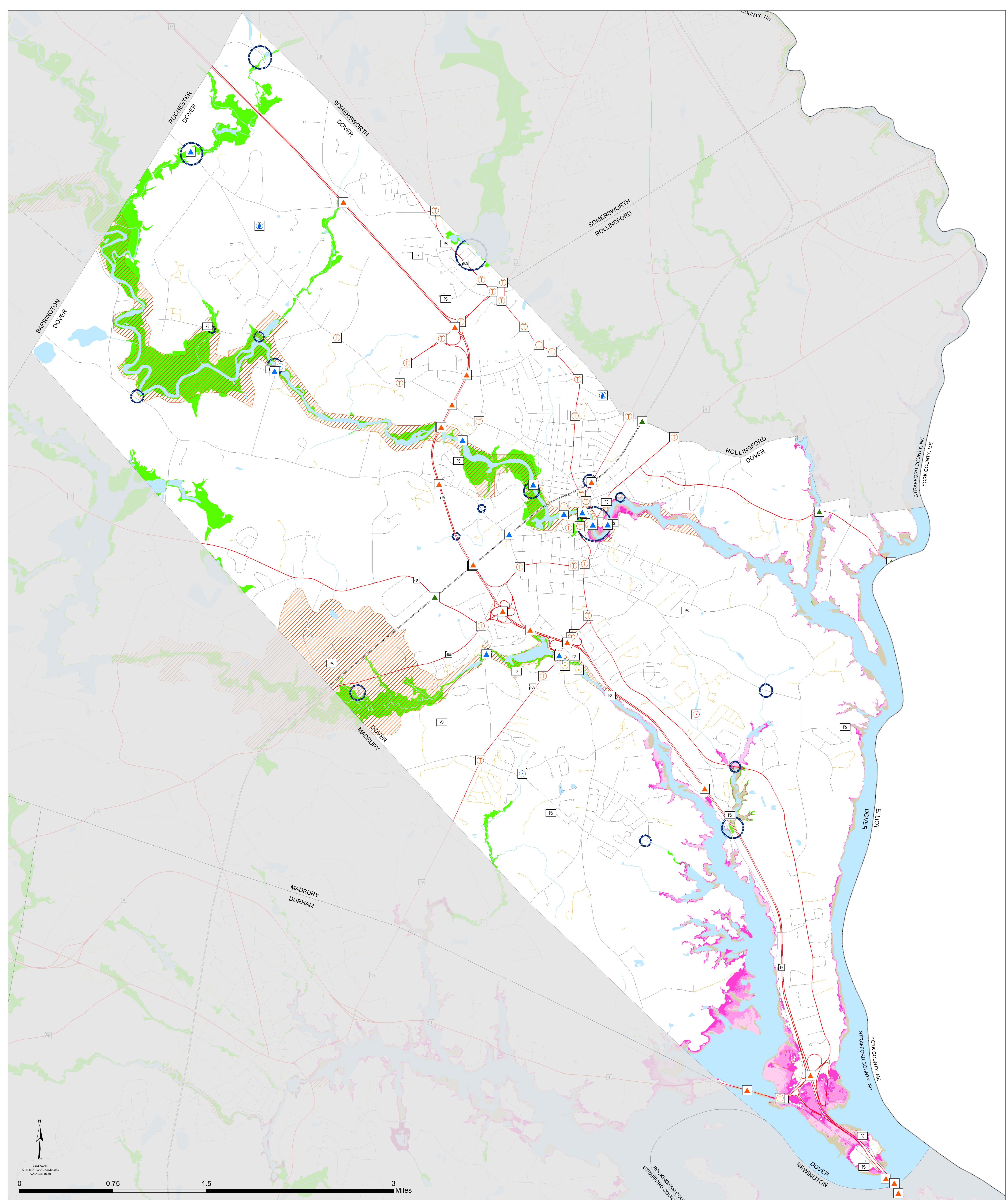


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Date: December 2017
Path: M:\Region\DEM_haz_min\2017_2018_Updates\Dover\Map\Final_Map\CL_Final_public

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Vulnerable Populations to
Protect & Past and
Potential Hazards

2018
Hazard Mitigation Plan

DOVER, NH

Vulnerable Populations to Protect

Facility Type

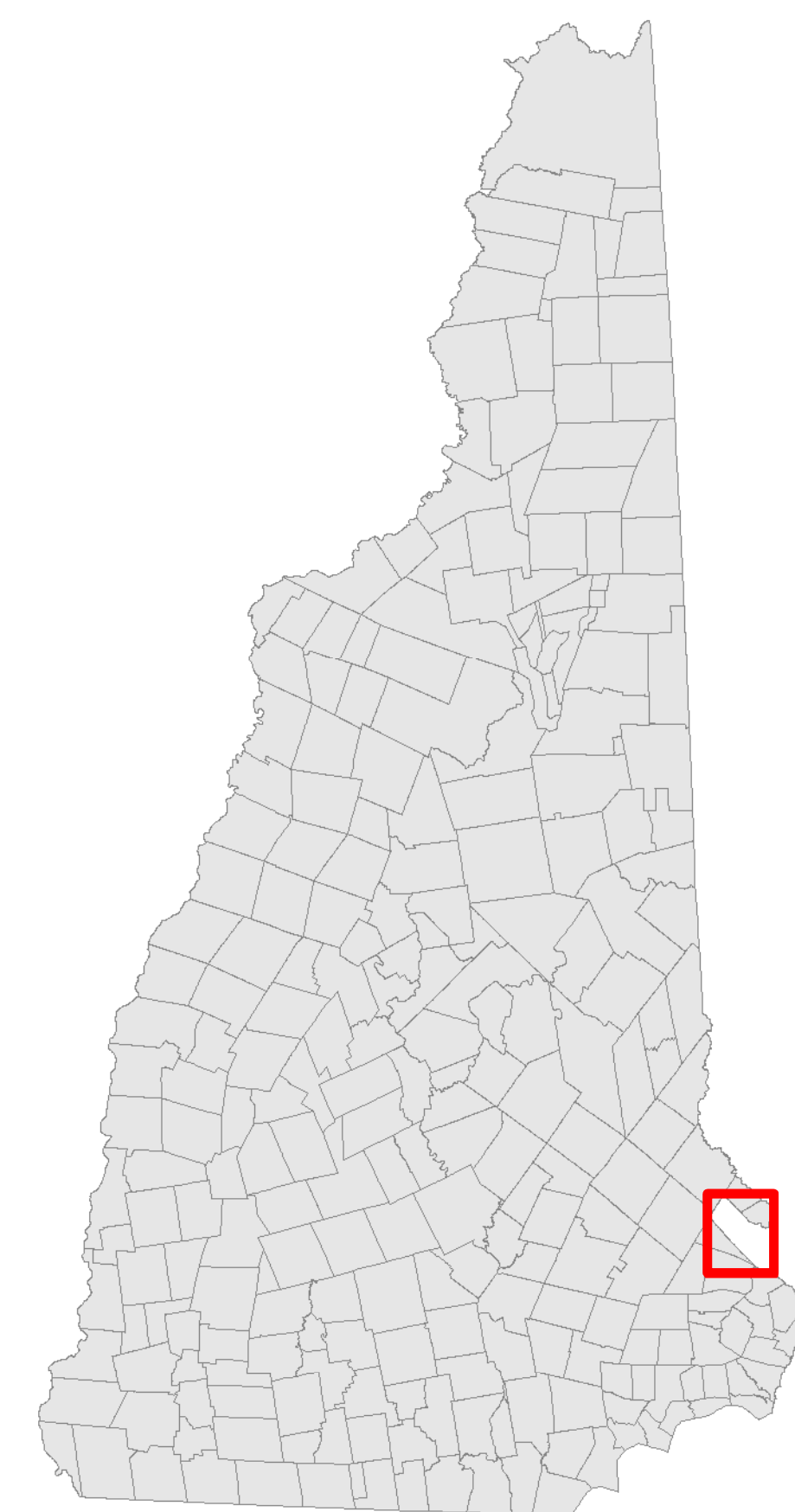
- Assisted Living
- Catholic School (private)
- College-Preparatory School
- Elementary School
- Homeless Shelter
- Middle School
- Nursing Home
- Preschool/Daycare
- Senior High School
- Special Education Program

Past and Potential Hazards

- Past Flooding
- Dam Inundation Areas
- FEMA 100-year Floodplain
- Extent of Sea-Level Rise of 1.7' with Storm Surge
- Extent of Sea-Level Rise of 4.0' with Storm Surge
- Extent of Sea-Level Rise of 6.3' with Storm Surge

Base Features

- Municipal Boundary
- Rivers, Brooks, Streams
- Lakes and Ponds
- Roads [NHDOT, 2017]
 - State
 - Local
 - Private

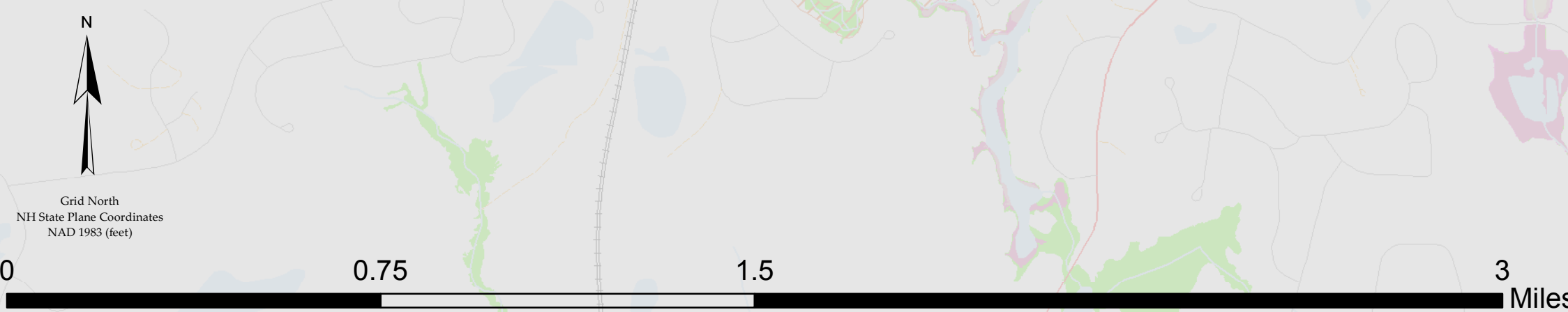
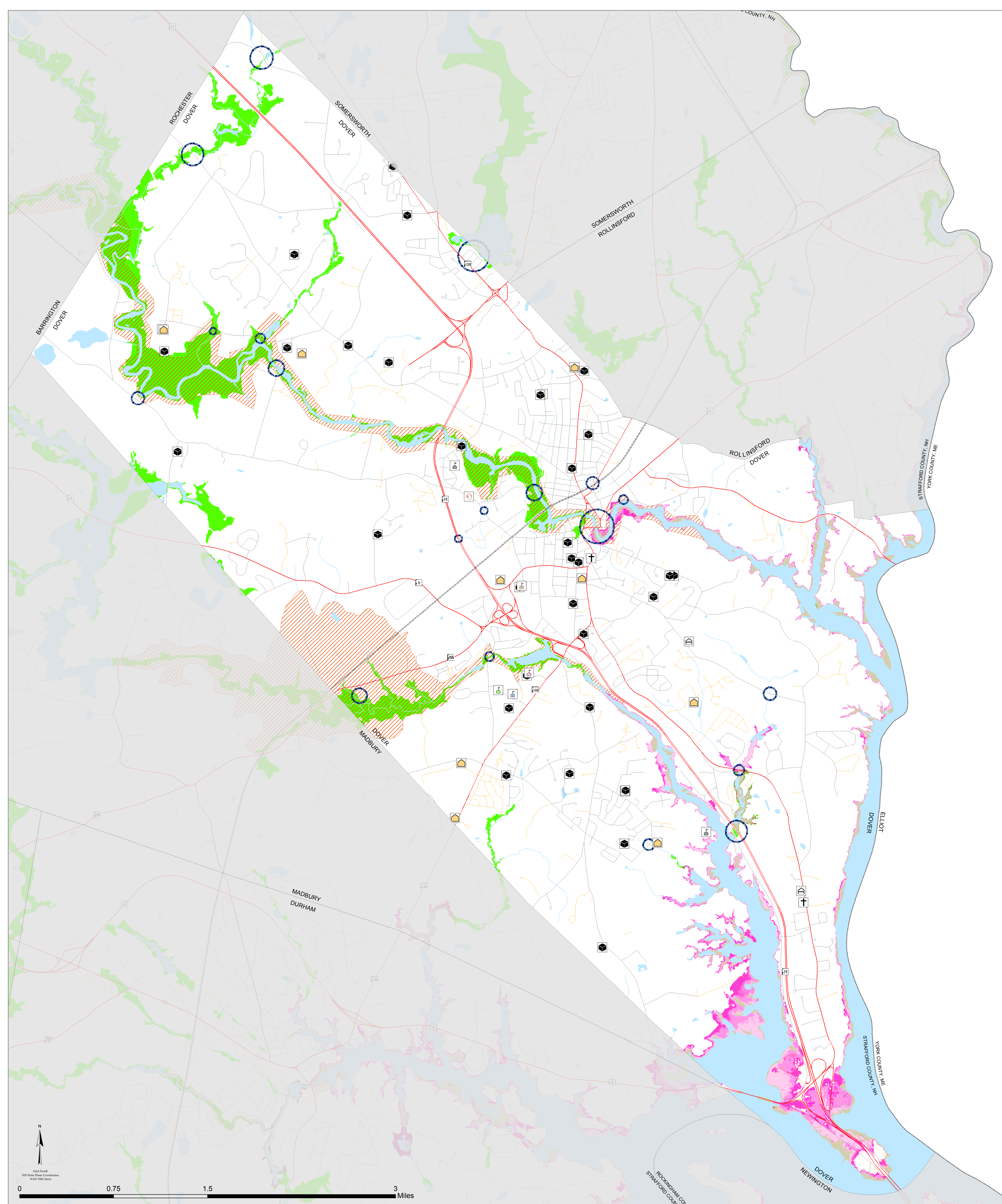


Prepared by: Strafford Regional Planning Commission
150 Wakefield St., Suite 112, Rochester, NH 03867
T: (603) 994-3500 F: (603) 994-3504 E: srpc@strafford.org
Emergency Response Facilities & Past and Potential Hazards
Date: December 2017
Path: M:\Region\CEM_haz_min\2017_2018_Updates\Dover\Maps\Final_Maps\VPP_Final_Public

Maps prepared by Strafford Regional Planning Commission
are for planning purposes only.

DATA SOURCES

Base features are from USGS 1:24,000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center, Durham, NH. Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Complex Systems Research Center, under contract to the NH Office of State Planning, and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. OSP, CSRC and the cooperating agencies make no claim as to the validity or reliability or to any implied uses of these data.



Water Resources &
Past and Potential Hazards

2018
Hazard Mitigation Plan
DOVER, NH

Water Resources Legend

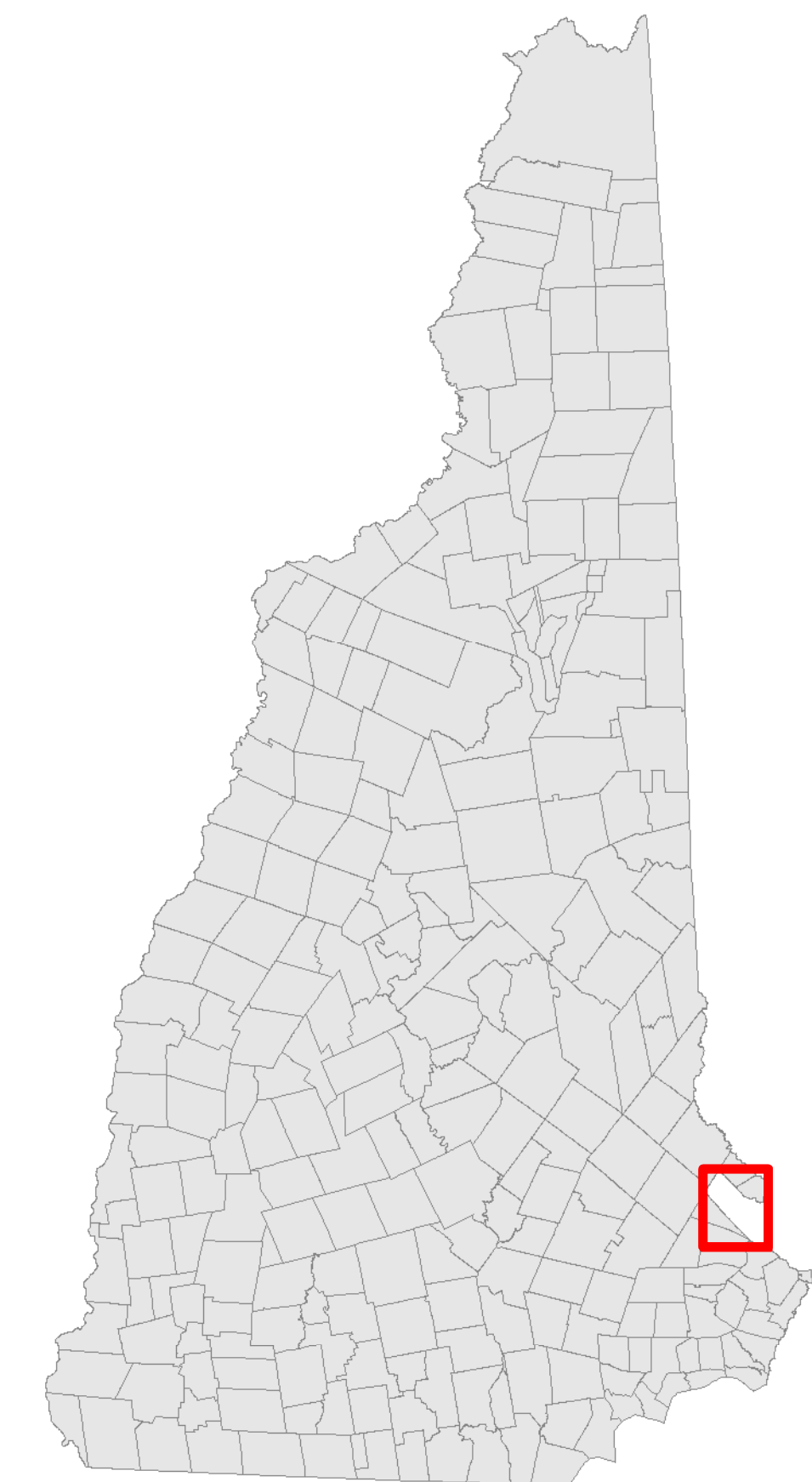
- Facility Type
- Aquifer Recharge Station
 - Auxiliary Fire Aid
 - Hydrant to Hydrant Emergency Water Interconnection
 - ⊕ Water Reservoir

Past and Potential Hazards

- Past Flooding
- Dam Inundation Areas
- FEMA 100-year Floodplain
- Extent of Sea-Level Rise of 1.7' with Storm Surge
- Extent of Sea-Level Rise of 4.0' with Storm Surge
- Extent of Sea-Level Rise of 6.3' with Storm Surge

Base Features

- Municipal Boundary
 - Rivers, Brooks, Streams
 - Lakes and Ponds
- Roads [NHDOT, 2017]
- State
 - Local
 - Private

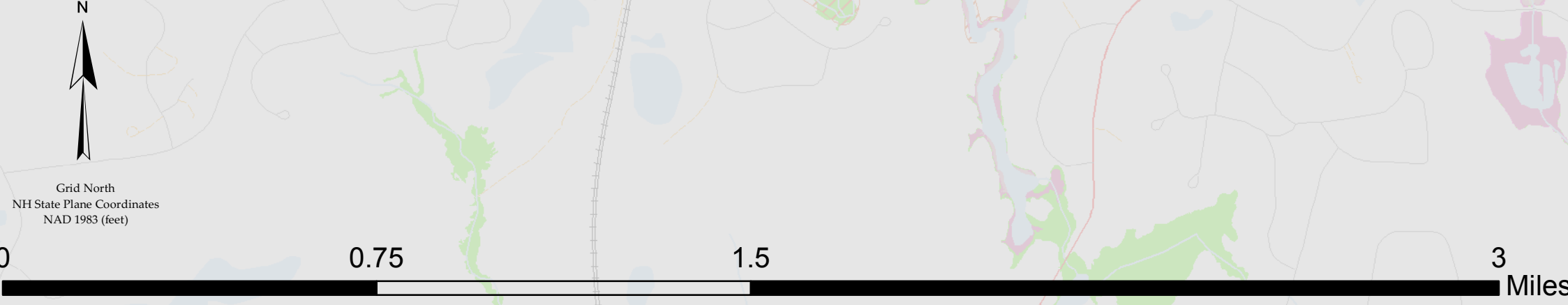
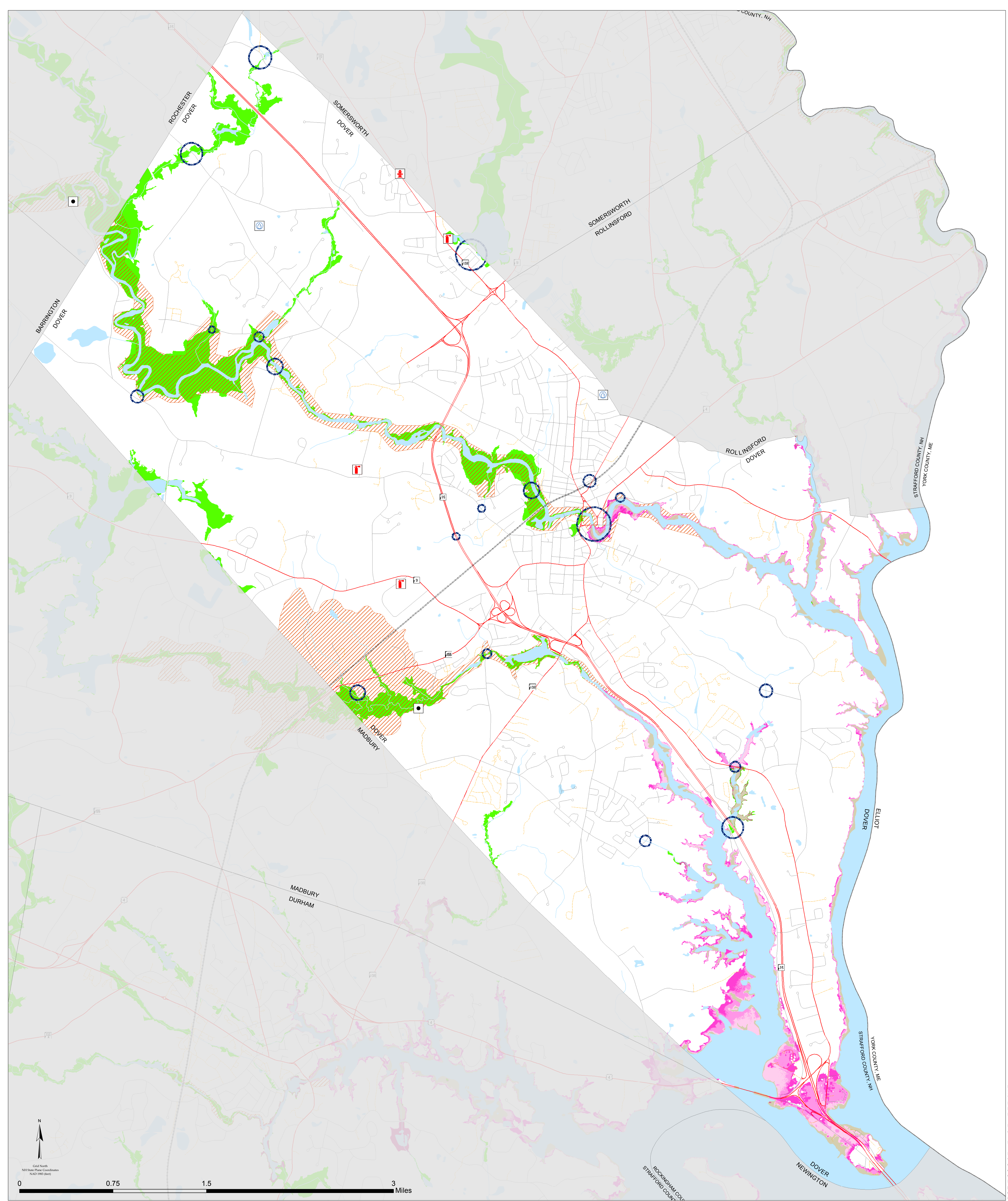


Prepared by: Strafford Regional Planning Commission
150 Wakefield St., Suite 112, Rochester, NH 03867
T: (603) 994-3500 F: (603) 994-3504 E: srpc@strafford.org
Emergency Response Facilities & Past and Potential Hazards
Date: December 2017
Path: M:\Region\DEM_haz_min\2017_2018_Updates\Dover\Maps\Final_Maps\WR_Final_Public

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CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.3.

Resolution Number: **R – 2018.02.28 – 017**
Resolution Re: **Approval of Reach for the Top Therapy Services Lease Agreement**

WHEREAS: Reach for the Top Therapy Services is an existing tenant at the McConnell Center in Rooms 330, 331, 332 and 333; and

WHEREAS: That Reach for the Top Therapy Services and the City would like to renew the lease between the City and Reach for the Top Therapy Services with additional space at the McConnell Center, namely Room 328.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL:

The City Manager is authorized to sign a Lease Agreement with Reach for the Top Therapy Services for rental of Rooms 328, 330, 331, 332 and 333.

AUTHORIZATION

Approved as to Funding:	Daniel R. Lynch Finance Director	Sponsored by: Mayor Karen Weston By request
Approved as to Legal Form and Compliance:	Anthony Blenkinsop General Legal Counsel	
Recorded by:	Karen Lavertu City Clerk	

 CITY OF DOVER	CITY OF DOVER - RESOLUTION	
	Agenda Item#: 13.B.3. Resolution Number: R – 2018.02.28 – 017 Resolution Re: Approval of Reach for the Top Therapy Services Lease Agreement	

DOCUMENT HISTORY:

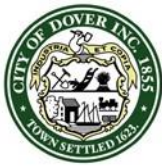
First Reading Date: Approved Date:	Public Hearing Date: Effective Date:
---------------------------------------	---

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		

RESOLUTION BACKGROUND MATERIAL:

See attached proposed Reach for the Top Therapy Services Lease Agreement.



CITY OF DOVER

288 CENTRAL AVENUE
DOVER, NH 03820
WWW.DOVER.NH.GOV
603.516.6000

LEASE AGREEMENT

THIS LEASE AGREEMENT made this ____ day of _____, 2018, by and between **REACH FOR THE TOP THERAPY SERVICES**, a New Hampshire non-profit corporation of 61 Locust Street, Dover, New Hampshire 03820, (hereinafter referred to as “LESSEE”), and the **CITY OF DOVER**, New Hampshire, of 288 Central Avenue, Dover, New Hampshire 03820 (hereinafter referred to as “LESSOR”).

WITNESSETH:

That IN CONSIDERATION of the mutual promises contained herein, and FOR OTHER GOOD AND VALUABLE CONSIDERATION contained herein, the parties agree as follows:

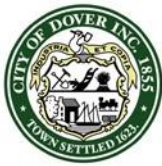
1. Description and Term.

That the LESSOR does hereby demise and lease to the LESSEE the Space within the City’s McConnell Center located at 61 Locust Street, Dover, New Hampshire, which Space is intended to contain 4,077 square feet and more particularly identified on the McConnell Center Plans dated February 6, 2006 as Rooms 328, 330, 331, 332 and 333 (the “Space”).

In conjunction with the use of the Space, LESSEE shall have the right to use parking spaces for its employees in the adjacent City Parking lot to the rear of the Public Library during LESSEE’s normal operations. Additionally, parking spaces may be available on streets adjacent to the McConnell Center. It is agreed the parking spaces will not be reserved and are available on a first come first served basis with no signage designating parking spaces to the LESSEE. The LESSOR does not guarantee the availability of parking spaces. The parking spaces may be subject to relocation within the entire parking lot at the sole discretion of the City of Dover.

The term of LESSEE’s Lease Agreement shall be for two (2) years beginning on March 1, 2018 and ending on February 28, 2020. There shall be an option to renew for additional two (2) year terms at the LESSEE’S request pursuant to Paragraph 7.

Monthly rent shall be paid the first of each month to the City of Dover. If a term commences on a day other than the 1st of a month, that month’s rent shall be prorated based on the number of days in the month. The first year’s rent charges are based upon space allocation of 4,077 square feet and calculated using the following components:



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Component	Rate	Assessment	
		Annual	Monthly
Fixed Rent	\$ 6.50	\$26,500.50	\$2,208.38
Capital Reserve	\$ 0.40	\$ 1,630.80	\$ 135.90
Operations and Maintenance *	\$ 7.06	\$28,783.62	\$2,398.64
Other as agreed	<u>\$ 0.00</u>	<u>\$ 0.00</u>	<u>\$ 0.00</u>
Total Rent Assessment	\$13.96	\$56,914.92	\$4,742.91

(*) Operations and Maintenance costs are variable based upon actual costs as outlined in Section 2.

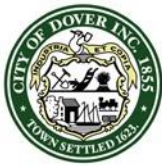
2. Operations and Maintenance.

The LESSEE shall be responsible for payment of all Operations and Maintenance costs associated with the Space, including utilities (electricity, water, gas, heat) and shared custodial, snow removal and associated supplies. Operations and Maintenance costs of this Lease Agreement is established at \$7.06/sf and will be paid as part of the monthly total rent invoice. Thereafter these costs shall be revised annually and prorated per square foot based upon the previous year's actual cost of operating and maintaining the building. The total square footage of leased space in the McConnell Center is 53,753 square feet. The annual revision of Operations and Maintenance costs shall occur in February and take effect the following July 1st.

3. Condition of Premises.

The LESSOR leases the Space "as is". LESSEE shall be solely responsible for all associated costs for desired original and future build-out of the Space; and plans for such build-out must be reviewed for potential approval by LESSOR. LESSEE shall be solely responsible for insuring all improvements and contents of the Space and shall name LESSOR as an additional insured.

LESSOR shall, at its own expense, maintain and keep the building in good structural order and repair including, but not limited to, all partitions, doors, windows, fixtures and equipment. In addition, LESSOR shall, at its own expense, make normal repairs and maintain performance of the leased Space, as needed, including, without limitation, the replacement of broken glass, interior repainting, the repair of floors, and the keeping of windows and doors watertight. LESSOR shall also, at its expense, maintain in good operating condition all plumbing, electrical, heating, sprinkling, air conditioning and other utility systems. All items herein mentioned shall be maintained in as good order and repair as they were at the date of the commencement of the term of this Lease



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Agreement, reasonable wear and damage by accident, fire or other insured against casualty excepted. LESSEE and LESSOR will perform a walk through to evaluate condition of the Space prior to occupancy.

LESSOR agrees to maintain the Space in condition fit for its intended use and to make all necessary repairs of which LESSOR is aware, including adequate heat and water, and a sound physical structure. Furthermore, LESSOR will maintain the grounds and remove the common area rubbish and maintain and keep reasonably free from snow and ice the parking areas, sidewalks and entrances/exits to building.

4. Access to Premises.

The LESSOR shall also have the right to enter upon the Space at all reasonable times to inspect same and to expel the LESSEE if the LESSEE shall fail to comply with or breach in any way this Lease Agreement. The LESSOR shall provide the LESSEE with reasonable notice of any inspections of or visits to the Space.

5. Unavoidable Casualty and Eminent Domain.

In the event of an unavoidable casualty, including fire, not arising as a result of the negligence or intentional conduct of the LESSEE whereby the Space or any portion of it is destroyed or damaged so as to be unfit for use or occupancy, the LESSOR specifically reserves the option of terminating this Lease Agreement. However, that in the event of total destruction or damage which is the equivalent of total destruction, this Lease Agreement shall automatically terminate.

In the event the Space shall be taken either under threat of eminent domain or by eminent domain proceedings in whole, then this Lease Agreement shall be terminated and the rent shall be pro-rated and returned to the LESSEE as of the date of such taking. A condemnation award shall belong exclusively to the LESSOR.

6. Use.

The LESSEE shall only use the Space in compliance with the City's ordinances, rules and regulations. Additionally, the Space shall be used for charitable non-profit purposes only. No residential use shall be permitted.

7. Renewal of Lease Agreement.

At least sixty (60) days but no earlier than one hundred twenty (120) days prior to the expiration of the initial term of this Lease Agreement or the expiration of an additional term, the LESSEE shall notify the LESSOR in writing of the LESSEE's intention to exercise its option to extend the term of the Lease Agreement for an additional period as set forth in Section 1 herein.

8. Subletting and Assignment.

LESSEE shall neither sublet nor assign the Space or the associated parking spaces under any circumstances without prior written consent by the LESSOR.

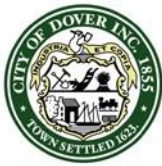
9. Personal Property.

In the event that at the end of the term or upon any earlier termination of this Lease Agreement including, but not limited to, termination for failure of the LESSEE to perform as required hereunder, there remains personal property of the LESSEE in the Space, the LESSOR is authorized to dispose of said property after giving written notice of its intent to do so to the LESSEE at the last known address of the LESSEE.

10. Default/Early Termination.

In the event the LESSEE fails to perform its obligations under this Lease Agreement, this Lease Agreement is defaulted, and the LESSOR is entitled to immediate occupation and possession of the Space and the associated parking spaces. If the LESSEE shall default in the observance or performance of any conditions or covenants on LESSEE's part to be observed or performed, under or by virtue of any provisions of this Lease Agreement, the LESSOR, without being under any obligation to do so and without thereby waiving such default, may remedy such default at the expense of the LESSEE. If the LESSOR makes any expenditure or incurs any obligations for payment in connection therewith including, but not limited to, attorney's fees, such sums paid or obligations incurred shall be paid to the LESSOR as additional rent. In the event that there is damage to the Space due to the LESSEE's actions or inactions, or the LESSEE fails to make any utility payments when due, the Lease Agreement may be immediately terminated at the option of the LESSOR.

Both the LESSEE and the LESSOR shall have the right to terminate this Lease Agreement for any reason upon giving at least three (3) months written notice to the other party.



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11. Indemnification.

LESSEE agrees to pay, and to protect, defend, indemnify and save harmless LESSOR from and against any and all liabilities, losses, damages, costs, expenses (including all reasonable attorney's fees and expenses), causes of action, allegations, suits, claims, demands or judgments of any nature whatsoever arising from:

- (i) any injury to, or the death of, any person(s);
- (ii) any damage to property or to the Space;
- (iii) any act or omission of LESSEE or its agents, officers or employees;
- (iv) violation by LESSEE of any agreement or condition of this Lease Agreement; or
- (v) violation by LESSEE of any law, ordinance or regulation affecting the Space or any part thereof or the ownership and occupancy thereof.

12. Insurance.

Casualty and property insurance shall continue to be maintained on the subject property by the LESSOR. LESSEE shall procure and maintain in force, at its expense, during the term of this Lease Agreement, and any extensions of such term, liability and property damage insurance for the LESSEE's leased Space to be considered primary coverage. Said insurance to be in limits of not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) in the aggregate. LESSOR has no obligation for any loss to LESSEE's personal property. Proof of LESSEE's insurance shall be supplied to the LESSOR at the time of occupancy. The City of Dover shall be listed as "Additional Insured" on the policy and proof of insurance certificate.

13. Liens and Encumbrances.

LESSEE will not create or allow any lien, encumbrance or charge on the LESSEE's Space or on the McConnell Center or on the rents or income therefrom which may be superior to the LESSOR's rights hereunder.

14. Parties Bound.

This Lease Agreement and its addendums is binding upon the heirs, executors, administrators and assigns of the parties hereto and constitutes the entire agreement between the parties.

15. Notice.

All notices by either party to be given with respect to this Lease Agreement shall be in writing and shall be given by first class mail to the addresses stated above.

16. Modification of Lease Agreement.

This Lease Agreement contains the entire agreement between the parties and shall not be modified in any manner except by an instrument in writing executed by the both parties.

17. Section Headings.

The section headings throughout this instrument are for convenience and reference only, and the words contained herein shall in no way be held to explain, modify or amplify, or aid in the interpretation, construction or meaning of the provisions of the Lease Agreement.

18. Severability.

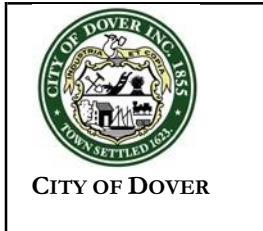
Any determination that any provision of this Lease Agreement or any application thereof is invalid, illegal or unenforceable in any respect in any instance shall not affect the validity, legality or enforceability of such provision in any other instance or the validity, legality or enforceability of any other provision of this Lease Agreement.

19. Laws Governing.

The parties agree that the laws of the State of New Hampshire will govern all disputes under this Lease Agreement and determine all rights hereunder.

20. Security Deposit.

Upon execution of this Lease Agreement, LESSEE deposits with LESSOR \$_____ as security for the performance by LESSEE of the terms of this Lease Agreement to be returned to LESSEE, with interest, following the full and faithful performance by LESSEE of this Lease Agreement. In the event of damage to the Space caused by LESSEE or LESSEE's agents or visitors, LESSOR may use funds from the deposit to repair, but is not limited to this fund and LESSEE remains liable.



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21. Merger.

This Lease Agreement contains all terms and conditions agreed upon by the parties hereto and no other agreements or representations, oral or otherwise, regarding the subject matter of this Lease Agreement shall be deemed to exist, provided, however, that any subsequent modifications or agreements affecting this Lease Agreement shall be in writing and signed by the parties hereto.

IN WITNESS WHEREOF, the parties have hereunto executed this Lease Agreement on the date set forth above.

REACH FOR THE TOP THERAPY SERVICES

Witness
Sign and Print

Patti Rawding Anderson
Duly Authorized
Sign and Print

CITY OF DOVER
By J. Michael Joyal, Jr., City Manager

Witness
Sign and Print

Duly Authorized



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.4.

Resolution Number: **R – 2018.02.28 – 018**

Resolution Re: **Approval of Zebra Crossings Second Amendment to July 15, 2015 Lease Agreement**

WHEREAS: Zebra Crossings is an existing tenant in Rooms 246 and 328 at the McConnell Center; and

WHEREAS: That Zebra Crossings and the City would like to amend the current lease dated July 15, 2015 between the City and Zebra Crossings so that Zebra Crossings can rent additional space at the McConnell Center, namely Room 321, and vacate Room 328.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND DOVER CITY COUNCIL:

The City Manager is authorized to sign a Second Amendment to the July 15, 2015 Lease Agreement with Zebra Crossings for rental of Rooms 246 and 321 at the McConnell Center.

AUTHORIZATION

Approved as to Funding:

Daniel R. Lynch
Finance Director

Sponsored by: Mayor Karen Weston
By request

Approved as to Legal
Form and Compliance:

Anthony Blenkinsop
General Legal Counsel

Recorded by:

Karen Lavertu
City Clerk



CITY OF DOVER

CITY OF DOVER - RESOLUTION

Agenda Item#: 13.B.4.

Resolution Number: **R – 2018.02.28 – 018**
Resolution Re: **Approval of Zebra Crossings Second Amendment to
July 15, 2015 Lease Agreement**

DOCUMENT HISTORY:

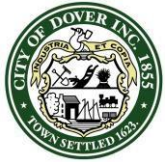
First Reading Date:	Public Hearing Date:
Approved Date:	Effective Date:

DOCUMENT ACTIONS:

VOTING RECORD		
Date of Vote:	YES	NO
Mayor Karen Weston		
Deputy Mayor Robert Carrier, At Large		
Councilor Michelle Muffett-Lipinski, Ward 1		
Councilor Dennis Ciotti, Ward 2		
Councilor Deborah Thibodeaux, Ward 3		
Councilor Marcia Gasses, Ward 4		
Councilor Dennis Shanahan, Ward 5		
Councilor Matthew Keane, Ward 6		
Councilor Lindsey Williams, At Large		
Total Votes:		
Resolution does does not pass.		

RESOLUTION BACKGROUND MATERIAL:

See attached proposed Zebra Crossings' Second Amendment to Lease Agreement Dated July 15, 2015.



CITY OF DOVER

288 CENTRAL AVENUE
DOVER, NH 03820
WWW.DOVER.NH.GOV
603.516.6000

SECOND AMENDMENT TO LEASE AGREEMENT DATED JULY 15, 2015

THIS SECOND AMENDMENT TO LEASE AGREEMENT made this ____ day of _____, 2018 amends the Lease Agreement entered into on the 15th day of July, 2015 and Amendment to Lease Agreement dated October 30, 2017 by and between **ZEBRA CROSSINGS**, a non-profit organization, of 61 Locust Street, Suite 328, Dover, New Hampshire 03820 (hereinafter referred as LESSEE) and the **CITY OF DOVER**, New Hampshire of 288 Central Avenue, Dover, New Hampshire 03820 (hereinafter referred to as LESSOR).

The parties hereby agree to amend Section 1 of the Lease Agreement entitled "Descriptions and Term" as follows:

The first paragraph of Section 1 is amended to read:

That the LESSOR does hereby demise and lease to the LESSEE the space within the City's McConnell Center located at 61 Locust Street, Dover, New Hampshire, which space is intended to contain 1,451 square feet and more particularly identified on the McConnell Center Plans dated February 6, 2006 as Rooms 246 and 321 (the "Space").

All other provisions of the Lease Agreement to remain unchanged.

IN WITNESS WHEREOF, the parties have hereunto executed this Second Amendment to Lease Agreement dated July 15, 2015 on the date set forth above.

ZEBRA CROSSINGS

By: _____

Duly Authorized

Print:

THE CITY OF DOVER, NEW HAMPSHIRE

By: _____

J. Michael Joyal, Jr., City Manager

RECEIVED
City Manager's Office

JAN 25 2018
Dover, New Hampshire



January 24, 2018

Dover City Council
City of Dover
288 Central Avenue
Dover, NH 03820

Re: Annual Customer Notice

Dear Members of the Council:

Each year Comcast provides its customers with annual notices, including such information as Comcast's customer privacy policy, payment procedures, equipment compatibility and billing dispute and complaint procedures.

In accordance with RSA 53-C:3-d, enclosed please find a copy of the inserts received by customers in their bills during **2017**. In addition, please find a copy of the Affidavit submitted to the Attorney General's Office certifying the inclusion of such documents into customer bills during the **2017** calendar year.

Should you have any questions, please do not hesitate to contact me at 603-224-1871, ext. 202.

Very truly yours,

Bryan Christiansen

Bryan Christiansen, Sr. Manager
Government & Regulatory Affairs



January 24, 2018

Dover City Council
City of Dover
288 Central Avenue
Dover, NH 03820

Re: Municipal Emergency Reporting Procedure Reminder

Dear Members of the Council:

In our effort to better assist our municipal customers, we are writing once again to provide you with the emergency reporting procedures for certain outside plant and service problems.

In the event that any municipal building experiences problems with downed cable drops, signal transport issues with I-NET or Video Return Lines, Public, Education and Government (PEG) Access channels or to have our technical or construction staff on-site during an emergency, please follow the steps detailed below:

MUNICIPAL - EMERGENCY/TROUBLE REPORTING PROCEDURES

(Please note the XOC telephone number listed below IS NOT for public dissemination)

- **STEP 1 Dial:** [REDACTED] *Dedicated - private information*
- **STEP 2 Select:** [REDACTED] Greater Boston or Western NE regions
- **STEP 3 Select:** [REDACTED] Commercial Accounts, Municipalities, Utilities, Police & Fire
- **STEP 4 Reason for call:**
 - [REDACTED] - Down Wires (will be prompted to enter zip code)
 - [REDACTED] - Pole or all other Municipal Issues
- **STEP 5 Speak with Rep. and obtain job reference #**

The above steps will put you in touch with our Excellence Operations Center (XOC), 24-hours a day, and seven days a week. ***Once again, please note this telephone # IS NOT for public dissemination.***

Please do not hesitate to contact me at 603-224-1871, ext. 202 should you have questions.

Very truly yours,

Bryan Christiansen

Bryan Christiansen, Sr. Manager
Government Affairs

AFFIDAVIT

Customer Annual Notice

I, Ronni Summerton, certify that Comcast of Connecticut/Georgia/Massachusetts/New Hampshire/New York/North Carolina/Virginia/Vermont, LLC, Comcast of Maine/New Hampshire, Inc., Comcast of Massachusetts/New Hampshire, LLC and Comcast of New Hampshire, Inc. complied with New Hampshire RSA 53-C:3-d (Notices to Subscribers Regarding Quality of Service) by providing each customer located in the communities attached hereto an insert regarding 1) **Customer Privacy Notice**, 2) **Notice to Customers Regarding Equipment Compatibility & Important Information**. Each notice was submitted with subscriber bills in February and September of 2017 respectively.


Signature

Ronni Summerton
Print Name

1/24/18
Date

Attachments





X65688

Comcast Customer Privacy Notice For Cable Video, High-Speed Internet, Phone, and Home Security Services

Why is Comcast providing this notice to me?

As a subscriber to cable service or other services provided by Comcast, you are entitled under Section 631 of the federal Cable Communications Policy Act of 1984, as amended, (the "Cable Act") to know the following:

- the limitations imposed by the Cable Act upon cable operators in the collection and disclosure of personally identifiable information about subscribers;
- the nature of personally identifiable information we collect;
- the nature of the use of personally identifiable information;
- under what conditions and circumstances we may disclose personally identifiable information and to whom;
- the period during which we maintain personally identifiable information;
- the times and places at which you may have access to your personally identifiable information; and
- your rights under the Cable Act concerning personally identifiable information and its collection and disclosure.

Personally identifiable information is information that identifies a particular person; it does not include de-identified, anonymous, or aggregate data that does not identify a particular person or persons. This notice is also provided to you in accordance with applicable California law, which only applies to our customers located in California who are served by a cable television corporation.

In addition, Section 222 of the Communications Act of 1934, as amended, (the "Communications Act") provides additional privacy protections for certain information related to our phone and Internet services:

- Information about the quantity, technical configuration, type, destination, location, and amount of your use of the phone and Internet services; and
- information contained on your bill concerning the type of phone and Internet services and features you receive.

That information is known as customer proprietary network information or CPNI for short. This notice, which includes our CPNI Policy, describes what CPNI information we obtain, how we protect it, and how it may be used. If you are a customer of our phone and Internet services, you have the right, and Comcast has a duty, under the Communications Act and applicable state law, to protect the confidentiality of CPNI. In addition, the FCC's rules provide additional privacy protections specific to our phone services that we describe in this notice.

We explain below under "**HOW DO I GIVE OR WITHHOLD MY APPROVAL FOR COMCAST TO USE CPNI TO MARKET ADDITIONAL PRODUCTS AND SERVICES TO ME?**" how you can approve our use of CPNI or withdraw your approval in the event Comcast decides to use CPNI for marketing purposes.

Special Note: Our CPNI Policy applies to the voice and Internet communications-related services provided by the applicable Comcast operating company that delivers those services to our customers.

In this notice, the terms "Comcast," "we," "us," or "our" refer to the operating company, subsidiaries or affiliates of Comcast Cable Communications, LLC that (i) owns and/or operates the cable television system in your area pursuant to a cable television franchise with the local franchising authority, or (ii) is the operating company that delivers voice services in your area. The term "you" refers to you as a subscriber to one or more of our cable service and other services.

I. Collection

What kind of information does this notice apply to?

The Cable Act applies to personally identifiable information that you have furnished to Comcast, or that Comcast has collected using the cable system, in connection with the provision of cable service or other services. The Communications Act applies to CPNI related to our regulated phone and Internet services, and certain orders of the Federal Communications Commission apply the CPNI rules to our interconnected voice over Internet protocol communications services.

Special Note: This notice only applies to our cable video service, our high-speed Internet service, our phone and communications services, and our home security service. It applies to you as a subscriber to one or more of these services as provided for by applicable law and except as otherwise noted. It does not cover information that may be collected through any other products, services, or websites, even if you access them through our cable services and even if they are co-branded with Comcast brands or the brands or logos of our affiliated companies. You should read the privacy policies for these other products, services, and



websites to learn how they handle your personal information. You can read the privacy policy for Comcast's web services at <http://xfinity.comcast.net/privacy/>.

For what purposes may Comcast collect personally identifiable information and CPNI?

The Cable Act authorizes Comcast as a cable operator to use the cable system to collect personally identifiable information concerning any subscriber for the following purposes:

- to obtain information necessary to render our cable service or other services to our subscribers; and
- to detect unauthorized reception of cable communications.

The Cable Act prohibits us from using the cable system to collect personally identifiable information concerning any subscriber for any purposes other than those listed above without the subscriber's prior written or electronic consent.

The Communications Act authorizes us to use, disclose, or permit access to individually identifiable CPNI in our provision of:

- the telecommunications services from which this information is derived; or
- services necessary to, or used in, the provision of these services, including the publishing of directories.

The Communications Act prohibits us from using CPNI for any purposes other than those listed above except as permitted or required by law or with your approval.

What kind of personally identifiable information and CPNI does Comcast collect?

Comcast collects information from you at several different points when you request, turn on, and use our services under an account we create for you. Some of this information is personally identifiable information, but much of it is not. We collect certain personally identifiable information that our subscribers furnish to us in connection with the provision of cable service or other services. In order to provide reliable, high quality service to you, we keep regular business records containing information about you that may constitute personally identifiable information. These account records include some, but typically not all, of the following information:

- your name;
- service address;
- billing address;
- e-mail address;
- telephone number;
- driver's license number;
- social security number;
- bank account number; and
- credit card number.

With respect to phone services, examples of CPNI include information typically available from telephone-related details on your monthly bill:

- location of service;
- technical configuration of service;
- type of service;
- quantity of service;
- amount of use of service; and
- calling patterns

CPNI does not include your name, address, and telephone number because the Communications Act classifies that information as "subscriber list information" which is not subject to the CPNI protections. However, that information is also subject to certain protections as described below under "To whom may Comcast disclose personally identifiable information?" The FCC has not yet adopted specific rules or definitions regarding CPNI as it relates to Internet access.

We also collect and maintain certain other information about your account. For example, this information may include:

- your account number;
- billing, payment, and deposit history;
- additional service information;
- customer correspondence and communications records;
- maintenance and complaint information;
- the device identifiers and network addresses of equipment used with your account;
- records indicating the number of television sets, set-top boxes, modems, telephones, home security and automation devices, or other devices connected to our cable system; and
- additional information about the service options you have chosen.

Some of our services permit you to establish secondary accounts, and if you do so we collect similar information in order to establish and service the secondary accounts. During the initial provisioning of our services, and during any subsequent changes or updates to our services, Comcast may collect technical information about your televisions, any set-top boxes, computer hardware and software, cable modems, telephones, other cable or other service-related devices, home security and automation devices, and customization settings and preferences. Additionally, if you rent your residence, we may have a record of whether landlord permission was required prior to installing our cable services as well as your landlord's name and address.

What kind of information does Comcast collect if I use cable video services?

When you use cable video services, our cable system automatically



generates information about your use of the services and their features, and we collect much of this information as part of providing services to you. For example, we receive information about the use of set-top boxes, remote controls, electronic program guides, video players, applications, and other devices and software connected to our cable system. This information includes which channels, programs, and advertisements are viewed and for how long, for example. It may also include information about navigation through program guides and applications, and use of devices like remote controls and tablets. Except as described below, we collect this *activity data* without names and addresses or other personally identifiable information and we consider it *de-identified data*.

Our system may collect activity data with personally identifiable information for particular requests or transactions like when you order a pay-per-view program or purchase a product. This information typically consists of account and billing-related information such as the programs or other products, services, or features ordered so that you may be properly billed for them. Follow your program guide commands or any special instructions on your screen when you make these transactional requests. These commands and instructions will explain your choices so that you can complete or cancel your requests as you wish.

What kind of information do you collect and use to improve your cable services and deliver relevant advertising?

Comcast's cable system, set-top boxes, and other equipment generate activity data that we collect and store. We use this information for a number of purposes including to determine which programs are most popular, how many people watch a program to its conclusion, and whether people are watching commercials. As described below under "How does Comcast use personally identifiable information and CPNI?", we may also provide information like subscriber lists or certain de-identified, anonymous, and/or aggregate information (such as activity data) to third parties working on our behalf -- such as audience measurement or market research firms. We, or these firms, working as our service providers, may combine this information with aggregated or non-aggregated demographic information (such as census records) and other audience attributes, such as purchasing data, demonstrated interests (for example, in sports programs or movies), loyalty programs, organizational affiliations, advertiser customer lists, and the like to provide us with audience analysis data. We require third parties working on our behalf to treat all information we provide as confidential and to use it only for Comcast's business purposes. We may also work with academic or research interest groups to analyze de-identified, anonymous, and/or aggregate information we provide to them for specific purposes or projects.

We use this information and analysis to improve our cable video service and other services and make programming and advertising more relevant to our subscribers. We may also use this information to distribute and deliver relevant programming and advertising to you without disclosing personally identifiable information about you to programmers or advertisers. In addition to this privacy notice, we may provide additional notices to you regarding specific advertising or other initiatives. These notices will describe the initiatives in greater detail and may, as appropriate, contain information you can use to choose to participate, or not participate, in these initiatives.

II. Use

How does Comcast use personally identifiable information and CPNI?

We collect, maintain, and use personally identifiable information and CPNI as permitted by the Cable Act and the Communications Act and other applicable laws. We use this information primarily to conduct business activities related to providing you with our cable service and other services, and to help us detect theft of service. Generally speaking, we use personally identifiable information in connection with:

- billing and invoicing;
- administration;
- surveys;
- collection of fees and charges;
- marketing;
- service delivery and customization;
- maintenance and operations;
- technical support;
- hardware and software upgrades; and
- fraud prevention.

More specifically, we also use personally identifiable information to:

- install, configure, operate, provide, support, and maintain our cable service and other services;
- confirm you are receiving the level(s) of service requested and are properly billed;
- identify you when changes are made to your account or services;
- make you aware of new products or services that may be of interest to you;
- understand the use of, and identify improvements to, our services;
- detect unauthorized reception, use, or abuse of our services;
- determine whether there are violations of any applicable policies and terms of service;
- manage the network supporting our services;



- configure cable service and other service-related devices; and
- comply with law.

The Communications Act further permits Comcast to use, disclose, and permit access to CPNI obtained from our customers, either directly or indirectly, to:

- initiate, render, bill, and collect for telecommunications services;
- protect our rights and property, and protect our users of these services and other carriers from fraudulent, abusive, or unlawful use of, or subscription to, these services;
- provide any inbound telemarketing, referral, or administrative services to you for the duration of the call, if you initiated the call and you approve of the use of this information to provide these services; and
- to provide call location information concerning the user of a commercial mobile phone service.

Comcast may not use CPNI to market products and services to you other than enhancements to services you already have without your approval in accordance with our policies described below.

Comcast transmits, and may collect and store for a period of time, personally identifiable and non-personally identifiable information about you when you use our high-speed Internet and phone services to:

- send and receive e-mail, video mail, and instant messages;
- transfer and share files;
- make files accessible;
- visit websites;
- place or receive calls;
- leave and receive voice mail messages;
- use the applicable communications center or voice center;
- establish custom settings or preferences;
- communicate with us for support; or
- otherwise use the services and their features.

Comcast transmits, collects, and stores comparable information when you use our home security service. Our transmission, collection, and storage of this information is necessary to render the services. In certain situations, third-party service providers may transmit, collect, and store this information on our behalf to provide features of our services. These third parties are not permitted to use your personally identifiable information except for the purpose of providing these features.

How does Comcast use activity data and other data in connection with cable video service?

We associate activity data with particular devices such as set-

top boxes, portable devices, and other supported devices so that we know where to deliver the services and how to troubleshoot them. In general, Comcast uses de-identified and aggregate activity information to understand better how our customers use our products and services so that we can improve them, including by delivering more relevant content and advertising. We may try to determine how well our products and services deliver value to our customers, for example, by determining which programs are most popular, how many people watch a program to its conclusion, and whether and how often people are watching commercials. As discussed below, we may also combine activity data with other non-personally identifying demographic and similar information from our business records.

When we collect activity data, we may also use it to determine how many people view commercials (impressions) and to provide de-identified or aggregate reports to third-party advertisers. When we do this reporting on advertising impressions we do not provide any personally identifiable information about our subscribers to third-party advertisers. We, or our service providers, may combine de-identified activity data with other data to determine and report how an advertiser's messages are viewed, including on other platforms and services.

We may also use activity data to help us learn how popular certain programs are and how our customers as a whole generally prefer to view certain kinds of programming using cable video service (such as whether they like to watch certain programs live, or they prefer to view them when we offer them on demand, on mobile devices, or online). As described below, this may require us to compare or combine activity data on our cable system with online activity data. We may also use activity data to determine whether promoting content and services in certain ways helps attract a larger audience and more customers. While we may provide aggregate reports on these observations to programmers or others, we do not provide any personally identifiable information about our subscribers, or the activities of individual subscribers, to those programmers and others.

We may also use, or combine information about, your use of our cable services with other information we obtain from our business records (such as your Comcast account number or device identifiers), or from third parties, to deliver better and more relevant products, services and advertising. However, we do not store or share your activity data in association with your name or address, except as necessary to render or bill for our services. We may try to determine, using aggregated data, which groups of our customers use which of our products and services and how they use them. To do this we, or third parties working on our behalf, may combine demographic and other generally available information, or advertiser information, including purchasing data and membership in loyalty programs, with our subscriber lists.



From this information, we or our third party providers prepare de-identified and aggregated reports about how groups of customers with common characteristics – such as age and gender, or a demonstrated interest in a particular third party product – use our services and respond to the programming and advertising that we distribute. We may use this information to improve and communicate with you about our own products and services, and also to help us deliver relevant information and advertising on behalf of other companies and advertisers to certain subscriber groups – known as *ad groups* – who may be most interested in this information and advertising. When we do this, we do not share your personally identifiable information with these advertisers, unless you provide your express consent.

We may also combine personally identifiable information, which we collect as described in this notice as part of our regular business records, with personally identifiable information obtained from third parties for the purpose of creating an enhanced database or business records. We may use this database and these business records for marketing, advertising, and other activities related to our cable service and other services. We also maintain records of research concerning subscriber satisfaction and viewing habits, which are obtained from subscriber interviews, questionnaires, and surveys or panels.

How does Comcast use information about use of cable video services on other platforms like websites or mobile applications?

We may compare or combine information such as *activity data* we receive when you use cable video services to view content or advertising with information about your use of content and advertising that we deliver on other platforms, such as on our Xfinity websites and mobile applications. We may also compare or combine this information or data with that generated by your viewing of advertising placed or sold by Comcast on other websites and mobile applications. We do this to better understand, among other things, how our customers access and use our products and services in all of the places that we offer them.

III. Disclosure

Under what circumstances may Comcast disclose personally identifiable information to others?

Comcast considers the personally identifiable information contained in our business records to be confidential. The Cable Act authorizes Comcast as a cable operator to disclose personally identifiable information concerning any subscriber if the disclosure is:

- necessary to render, or conduct a legitimate business activity related to, the cable service or other services provided to the subscriber;

- required by law or legal process (described below under “When is Comcast required by law to disclose personally identifiable information and CPNI by law?”); or
- of the names and addresses of subscribers for “mailing list” or other purposes (subject to each subscriber’s right to prohibit or limit this disclosure and the CPNI Policy described below under “How do I place myself on Comcast’s ‘do not call’ and ‘do not mail’ lists?”).

The Cable Act prohibits us as a cable operator from disclosing personally identifiable information concerning any subscriber for any purposes other than those listed above without the subscriber’s prior written or electronic consent.

To whom may Comcast disclose personally identifiable information?

We may disclose personally identifiable information as provided for in the Cable Act when it is necessary to render, or conduct a legitimate business activity related to, the cable service or other services we provide to you. These kinds of disclosures typically involve billing and collections, administration, surveys, marketing, service delivery and customization, maintenance and operations, incident verification and response, service notifications, fraud prevention, and services to improve our programming and advertising offerings, for example. We may also collect, use, and disclose information about you in de-identified, anonymous, or aggregate formats, such as ratings surveys and service usage and other statistical reports, which do not personally identify you, your particular viewing habits, or the nature of any transaction you have made over the cable system. The frequency of any disclosure of personally identifiable information varies in accordance with our business needs and activities.

The Cable Act authorizes Comcast as a cable operator to disclose limited personally identifiable information to others, such as charities, marketing organizations, or other businesses, for cable or non-cable “mailing list” or other purposes. From time to time we may disclose your name and address for these purposes. However, you have the right to prohibit or limit this kind of disclosure by contacting us by telephone at 1-800-XFINITY or by sending us a written request as described below under “How do I contact Comcast?” Any “mailing list” and related disclosures that we may make are limited by the Cable Act to disclosures of subscriber names and addresses where the disclosures do not reveal, directly or indirectly, (i) the extent of any viewing or other use by the subscriber of a cable service or other service provided by us; or (ii) the nature of any transaction made by the subscriber over our cable system.

We may sometimes disclose personally identifiable information about you to our affiliates or to others who work for us. We



may also disclose personally identifiable information about you to outside auditors, professional advisors, service providers and vendors, potential business merger, acquisition, or sale partners, and regulators. We make these disclosures as provided for in the Cable Act. Typically, we make these disclosures when the disclosure is necessary to render, or conduct a legitimate business activity related to, the cable service or other services we provide to you. We may be required by law or legal process to disclose certain personally identifiable information about you to lawyers and parties in connection with litigation and to law enforcement personnel.

If we (or our parent company) enter into a merger, acquisition, or sale of all or a portion of our assets, subscribers' personally identifiable information will, in most instances, be one of the items transferred as part of the transaction. If this notice will be changed as a result of a transaction like that, you should refer below under "Will Comcast notify me if it changes this notice?"

We may also use or disclose personally identifiable information about you without your consent to protect our customers, employees, or property, in emergency situations, to enforce our rights under our terms of service and policies, in court or elsewhere, and as otherwise permitted by law.

When may Comcast disclose personal information to others in connection with phone service?

Comcast may disclose to others personally identifiable information in connection with features and services such as Caller ID, 911/E911, and directory services as follows:

- We may transmit your name and/or telephone number to be displayed on a Caller ID device unless you have elected to block such information. Please note that Caller ID blocking may not prevent the display of your name and/or telephone number when you dial certain business or emergency numbers, 911, 900 numbers, or toll-free 800, 888, 877, 866 or 855 numbers.
- We may provide your name, address, and telephone number to public safety authorities and their vendors for inclusion in E911 databases and records, inclusion in "reverse 911" systems, or to troubleshoot 911/E911 record errors.
- We may publish and distribute, or cause to be published and distributed, telephone directories in print, on the Internet, and on disks. Those telephone directories may include subscriber names, addresses, and telephone numbers, without restriction to their use.
- We may also make subscriber names, addresses, and telephone numbers available, or cause such subscriber information to be made available, through directory assistance operators.

- We may provide subscribers' names, addresses, and telephone numbers to unaffiliated directory publishers and directory assistance providers for their use in creating directories and offering directory assistance services.
- Once our subscribers' names, addresses, and telephone numbers appear in telephone directories or directory assistance, they may be sorted, packaged, repackaged and made available again in different formats by anyone.

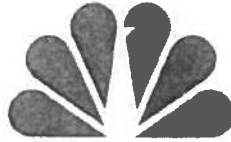
We take reasonable precautions to ensure that non-published and unlisted numbers are not included in our telephone directories or directory assistance services, but we cannot guarantee that errors will never occur.

When is Comcast required to disclose personally identifiable information and CPNI by law?

We make every reasonable effort to protect subscriber privacy as described in this notice. Nevertheless, we may be required by law to disclose personally identifiable information or individually identifiable CPNI about a subscriber. These disclosures may be made with or without the subscriber's consent, and with or without notice, in compliance with the terms of valid legal process such as a subpoena, court order, or search warrant.

For subscribers to our cable video service, Comcast may be required as a cable operator to disclose personally identifiable information to a third-party or governmental entity in response to a court order. If the court order is sought by a non-governmental entity, we are required under the Cable Act to notify the subscriber of the court order. If the court order is sought by a governmental entity, the Cable Act requires that the cable subscriber be afforded the opportunity to appear and contest in a court proceeding relevant to the court order any claims made in support of the court order. At the proceeding, the Cable Act requires the governmental entity to offer clear and convincing evidence that the subject of the information is reasonably suspected of engaging in criminal activity and that the information sought would be material evidence in the case.

For subscribers to our high-speed Internet, phone, and home security services, Comcast may be required to disclose personally identifiable information and individually identifiable CPNI to a private third party in response to a court order, and, if so, we are required to notify the subscriber of the court order. Comcast may also be required to disclose personally identifiable information and individually identifiable CPNI about subscribers to high-speed Internet, phone, and home security services to a government entity in response to a subpoena, court order, or search warrant, for example. We are usually prohibited from notifying the subscriber of any disclosure of personally identifiable information to a government entity by the terms of the subpoena, court order, or search warrant.



How does Comcast protect personally identifiable information?

We follow industry-standard practices to take such actions as are necessary to prevent unauthorized access to personally identifiable information by a person other than the subscriber or us. However, we cannot guarantee that these practices will prevent every unauthorized attempt to access, use, or disclose personally identifiable information.

How long does Comcast maintain personally identifiable information?

Comcast maintains personally identifiable information about you in our regular business records while you are a subscriber to our cable service or other services. We also maintain this information for a period of time after you are no longer a subscriber if the information is necessary for the purposes for which it was collected or to satisfy legal requirements. These purposes typically include business, legal, or tax purposes. If these purposes no longer apply, we will destroy, de-identify, or anonymize the information according to our internal policies and procedures.

IV. Customer Access and Choice

How can I see my personally identifiable information or CPNI and correct it, if necessary?

You may examine and correct, if necessary, the personally identifiable information regarding you that is collected and maintained by Comcast in our regular business records. In most cases, the personally identifiable information contained in these records consists solely of billing and account information. We will correct our records if you make a reasonable showing that any of the personally identifiable information we have collected about you is inaccurate.

If you have Internet access, you can view and change certain information yourself by going to www.comcast.com/myaccount and signing in with your Comcast username and password to access the My Account feature. If you are a home security customer, you can go to the subscriber portal at www.xfinity.com/xhportal.

You may also examine the records containing your personally identifiable information at your local Comcast office upon reasonable prior notice to us and during our regular business hours. If you wish to examine these records, please contact us by mail or telephone at 1-800-XFINITY, giving us a reasonable period of time to locate and, if necessary, prepare the information for review, and to arrange an appointment. You will only be permitted to examine records that contain personally identifiable information about your account and no other account.

If you make an affirmative, written request for a copy of your CPNI, we will disclose the relevant information we have to you at your

account address of record, or to any person authorized by you, if we reasonably believe the request is valid. However, subscribers to our phone services should be aware that we generally do not provide them with records of any inbound or outbound calls or other records that we don't furnish in the ordinary course of business (for example, as part of a bill) or which are available only from our archives, without valid legal process such as a court order. In addition, we cannot correct any errors in customer names, addresses, or telephone numbers appearing in, or omitted from, our or our vendors' directory lists until the next available publication of those directory lists. Further, we may have no control over information appearing in the directory lists or directory assistance services of directory publishers or directory assistance providers that are not owned by our subsidiaries or us.

Comcast reserves the right to charge you for the reasonable cost of retrieving and photocopying any documents that you request.

How do I manage or opt out of uses of information about my Comcast account?

You may opt out of receiving more relevant advanced advertising delivered with programs made available through our cable video service by going to <http://www.comcast.com/adservices>. Even if you opt out, you will still receive advertising and we will continue to send you Comcast marketing messages based on the way you use our products and services and the information we have collected about you.

How do I give or withhold my approval for Comcast to use CPNI to market additional products and services to me?

Various direct and indirect subsidiaries and affiliates of Comcast Cable Communications, LLC offer many communications-related and non-communications related services, such as high-speed Internet and home security services. From time to time we may like to use the CPNI information we have on file to provide you with information about our communications-related products and services or special promotions. Our use of CPNI may also enhance our ability to offer products and services tailored to your specific needs. In addition, Comcast also offers various other services that are not related to the services to which you subscribe. Under the CPNI rules, some of those services, such as Comcast cable video services, are considered to be non-communications related products and services. Therefore, you may be asked during a telephone call with one of our representatives for your oral consent to Comcast's use of your CPNI for the purpose of providing you with an offer for communications related or non-communications related products and services. If you provide your oral consent for Comcast to do so, Comcast may use your CPNI only for the duration of that telephone call in order to offer you additional services.



If you deny or restrict your approval for us to use your CPNI, you will suffer no effect, now or in the future, on how we provide any services to which you subscribe.

How do I place myself on Comcast's "do not call" and "do not mail" lists?

You may contact Comcast at 1-800-XFINITY to ask us to put your name on our internal company "do not call" and "do not mail" lists so that you do not receive marketing or promotional telephone calls or postal mail from us or made at our request. You also have the right to prohibit or limit disclosure of your personally identifiable information for "mailing list" or other purposes as described above in this notice by contacting us at 1-800-XFINITY.

If you prefer to contact Comcast in writing instead of by telephone, you may send a written request to the address listed below under "How do I contact Comcast?" Be sure to include your name and address, your Comcast account number, and a daytime telephone number where you can be reached in the event we have any questions about your request. The person who is identified in our billing records as the subscriber should sign the written request. If you have a joint account, a request by one party will apply to the entire account. If you have multiple accounts, your notice must separately identify each account covered by the request.

What email communications will Comcast send to me and how do I manage them?

We may send a welcome email and sometimes other information to new subscribers to our cable service and other services (including each new secondary account holder, where applicable). We may also send service-related announcements to our subscribers from time to time. For example, we may send you an email announcement about a pricing change, a change in operating policies, a service appointment, or new features of one or more of the cable service or other services you receive from us. You may not opt-out of these service-related communications. If you fail to check your primary email address for service-related announcements, you may miss important information about our services, including legal notices, for example.

We reserve the right to send you promotional or commercial email as permitted by applicable law. You can manage the promotional or commercial emails Comcast may send to you by following the instructions contained in the emails or by going to the Web page located at www.comcast.com/preferences and following the directions there. We may ask for additional information on this preferences page such as your zip code, for example. By providing this additional information to us we will be able to better inform you of the availability of special offers and promotions in your area. If you no longer wish to receive these emails you may opt-out of receiving them by going to the same page and changing your contact preferences.

What can I do if I think my privacy rights have been violated?

If you believe that you have been aggrieved by any act of ours in violation of the Cable Act or other applicable laws, we encourage you to contact us directly as described below in "How do I contact Comcast?" in order to resolve your question or concern. You may also enforce the limitations imposed on us by the Cable Act as applicable with respect to your personally identifiable information through a civil lawsuit seeking damages, attorneys' fees, and litigation costs. Other rights and remedies may be available to you under federal or other applicable laws as well. This customer privacy notice neither supersedes nor modifies any arbitration agreement to which you may be bound relating to the provision of our cable video service, our high-speed Internet service, our phone and communications services, or our home security service to you as a subscriber to one or more of these services.

Will Comcast notify me if it changes this notice?

As required by the Cable Act, we will provide you with a copy of this customer privacy notice at the time we enter into an agreement to provide any cable service or other service to you, and annually afterwards, or as otherwise permitted by law. You can view the most current version of this notice by going to www.comcast.com/Corporate/Customers/Policies/CustomerPrivacy.html

We may modify this notice at any time. We will notify you of any material changes through written, electronic, or other means and as otherwise permitted by law. If you find the changes to this notice unacceptable, you have the right to cancel your service. If you continue to use the service following notice of the changes, we will deem that to be your acceptance of and consent to the changes in the revised privacy notice. This includes your consent for any personally identifiable information that we may collect and use starting on the effective date of the revised notice, as well as for any personally identifiable information that we have collected prior to the effective date of the revised notice. However, we will only deem your continued use of the service to be your acceptance of and consent to changes in the revised privacy notice for changes made after December 31, 2006.

How do I contact Comcast?

If you have any questions or suggestions regarding this privacy notice, or wish to contact us about your personal information, please reach us as follows:

Phone: 1-800-XFINITY
Website: <http://customer.comcast.com/contact-us>
Mail: Comcast Cable Communications, LLC
Attn: Law Department - Customer Privacy Notice
One Comcast Center
Philadelphia, PA 19103-2838

Revised and effective: November 8, 2016

IMPORTANT INFORMATION FOR XFINITY TV CUSTOMERS



SERVICE PROBLEMS

You will find helpful information for troubleshooting TV picture or signal quality issues at www.xfinity.com/support. If the problem does not clear up, please feel free to chat with us at www.xfinity.com/support/contact-us or call us at 1-800-XFINITY, and a customer service representative will attempt to address that issue. We will try to resolve any complaints you have concerning the quality of our signals promptly and efficiently. We will respond to your report of a service interruption no later than 24 hours after you notify us, except in extraordinary circumstances or where conditions are beyond our control. We will respond to your report of other service problems no later than the next business day after you notify us. We may need access to your home in order to correct a service related issue. If a service call is required it will be scheduled at a time convenient to you. If you are dissatisfied with our resolution of your service problem, you may contact your local franchising authority to discuss the problem with your service. If your local franchise authority information is not listed on your bill, please call us at 1-800-XFINITY for the name and address of your local franchising authority.

SERVICE OR BILLING COMPLAINTS

Information regarding your XFINITY services and billing is available through My Account at www.xfinity.com. You also may download the XFINITY My Account app to your smartphone or other device for quick access to up to date information on your account. If you have a complaint regarding your XFINITY TV service or your bill, you will find information on contacting us through chat or by phone at <https://www.xfinity.com/support/contact-us>. Also, you can visit us at one of our XFINITY store locations. Visit <https://www.xfinity.com/support/service-center-locations/> to find the XFINITY store closest to you. If you wish to put your comments in writing, your letter should be addressed to us at the local address listed on the How To Reach Us insert.

We will try to resolve your complaint promptly. If you are dissatisfied with our resolution of your complaint, or we are unable to resolve your complaint, you may contact your local franchising authority to discuss your complaint. If your local franchise authority information is not listed on your bill, please call us at 1-800-XFINITY for the name and address of your local franchising authority.

If you have a complaint regarding closed captioning please email us at accessibility@comcast.com or call us at 1-855-270-0379.

MOVING

Before you move, please call us at 1-800-XFINITY. This is the best way for us to arrange for your service to be disconnected and to schedule an installation at your new home, if your new home is in our service area.

EQUIPMENT COMPATIBILITY

XFINITY TV service is encrypted and requires a TV Box, TV Adapter, CableCARD or other navigation device that is compatible with our system for each television you wish to use with our service. You may not be able to use special features or functions of your television, VCR or DVD player/recorder with XFINITY TV service. Some of these problems may be resolved

by the use of signal splitters, and/or other supplemental equipment that can be purchased from us or at electronic stores. Please call us if you would like to discuss the type of special equipment needed to resolve individual compatibility problems or if you have any questions regarding other equipment compatibility issues.

If you have a TiVo digital cable-ready DVR, you can access switched digital video services by obtaining a "tuning adapter" device. If you have a TiVo DVR or other digital cable-ready devices, you will need a TV Box, TV Adapter, or CableCARD from us to access switched digital video and other two-way cable services. Upon your request, we will provide you with the technical parameters necessary for a navigation device rented or acquired from retail outlets to operate with our system. Because of the need to protect our XFINITY TV service, we will not authorize the use of a navigation device that does not conform to all required signal security specifications. For information regarding other navigation devices, please go to <https://www.xfinity.com/support>.

REMOTE CONTROL UNITS

If you rent a TV Box or TV Adapter from us we will provide a compatible remote control. Also, you may purchase compatible remotes at local electronic stores or other retail outlets. A representative list of compatible remote control models currently available from local retailers includes: Philips PHL PMDVR8, RCA RCR612, and Sony RM-V202. A list of additional compatible remotes may be obtained from your local XFINITY store. Although these remote control units are compatible with the TV Box or TV Adapter that we currently offer, these remotes may not be functional if we change the type of TV Box or TV Adapter we rent. If you have any questions regarding whether a particular remote control unit would be compatible with our equipment, please contact us.

SERVICE CHANGES AND INSTALLATION

Standard installations are generally completed within 7 business days. If you change the services you receive, you may be subject to an installation or change of service charge. You may obtain additional information about our current services, fees and prices online at www.xfinity.com or by calling us at 1-800-XFINITY.

OTHER INFORMATION

Information on upcoming programmer contract expirations can be found at www.xfinitytv.com/contractrenewals or by calling 866-216-8634.

For those of our customers receiving service through commercial accounts, bulk rate arrangements or similar arrangements, some of the policies, procedures and services herein may not apply. Please call us at 1-800-XFINITY to talk to one of our customer service representatives for further information.

SERVICE AREA

MA, NH & ME

PHONE NUMBERS

Billing/Repair

1-800-COMCAST (266-2278)

New Services/Sales

1-800-COMCAST (266-2278)

After-Hours Repair

1-800-COMCAST (266-2278)

MAILING/OFFICE ADDRESS

Comcast

1 Comcast Center

Philadelphia, PA 19102

PUBLIC INFORMATION OFFICES

FRANCHISE AUTHORITIES

Consumer Division of
the Department of

Telecommunications and Cable

1-800-392-6066

1000 Washington Street, Suite 820

Boston, MA 02118

Office of the Attorney General

Consumer Protection and

Antitrust Bureau

33 Capital Street

Concord, NH 03301

Office of the Attorney General

Consumer Information and

Mediation Service

6 State House Station

August, ME 04333