

Town of Goshen

Rural Fire Resource Plan

AN ACTION PLAN FOR
IMPROVED EMERGENCY RESPONSE
FOR FIREFIGHTING IN
GOSHEN, NH

January 21, 2010

Prepared by the:

**NH Rural Fire Protection Initiative, a project of
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I. OBJECTIVES

The objective of the following report is to complement and enhance Goshen's hazard mitigation plan by identifying, evaluating, and mapping water resource sites available to local and mutual aid fire personnel for fire fighting purposes. The plan will identify those areas of town currently lacking adequate water drafting facilities. In addition, planning assistance will include a review of a community's current mitigation strategies and activities and an assessment of their emergency response capability, fire fighting capacity, water supply resources, community development patterns, and identification of areas at risk and will result in recommendations that will improve the community's fire protection capability.

Communities benefit as up-to-date rural Water Resource Plans provide a useful tool for planning emergency responses to rural fire situations, and are a framework for community planners to identify priority areas for future installations of water drafting facilities such as dry hydrants and cisterns. Functioning dry hydrants or cisterns in rural areas reduce fire department response time to fires potentially saving lives, reduce risk of injury, and reduce residential, commercial, and wildland property losses.

II. COMMUNITY COLLABORATION

Initial outreach was made to the town of Goshen in February 2009 to develop a Rural Fire Water Resource Plan. Dan Peterson followed up with the outreach, and the community completed the Fire Protection Capability questionnaire in March. The first meeting with the town to discuss the process and begin work on the plan was held on May 6th. Dan Peterson was the only community official present, but Doug Miner, State Forest Ranger with DRED was also present.

Following is the schedule of meetings held to develop the plan.

May 6, 2009: Field work begun to map and evaluate water resource sites used by town for firefighting. Dan Peterson, Fire Dept. accompanied Karl Berardi, NC RC&D.

October 5, 2009: Field work continued with Dan Peterson and Karl Berardi.

November 16, 2009: Meeting with Selectmen, and community officials to review mitigation strategies developed for the water resource plan. Present at the meeting were: Ed Andersen, James Carrick, Clark Wamsley, Selectmen; Rick Shephard, Fire Chief; Daniel Peterson, Fire warden and Deputy Chief, Allen Howe, Planning Board, John Herr, Emergency Management Director, and Pat Tarpey, North Country RC&D.

December 2, 2009: Water resource plan drafted and sent to community officials with changes noted at Nov. 16th meeting. Community will review draft plan and provide changes or comments for final plan.

January 21, 2010: Final plan completed per receipt of comments and edits from Goshen Planning Board and Fire Department.

III. COMMUNITY BACKGROUND AND EXISTING SITUATION

Community Profile

County: Sullivan
 Website: www.goshennh.org

Regional Planning Commission: Upper Valley/Lake Sunapee
 Selectman Rep. to Planning Board: James Carrick
 Planning Board Rep. to Planning Comm. _____
 Emergency Management Director: John Herr

Community Size:

Total Area (sq. miles): 22.5 sq mi
 Land Area: 22.4 sq. mi.
 Inland Water Area: 0.1 sq. mi.
 Population Density: 36.5 persons per sq. mi. of land area

Resident Population Permanent: 825 (2007) Seasonal: _____

Seasonal Population Change: (circle one)
 Less than 10% **Less than 25%** Less than 50% Greater than 50%

Please specify season with greatest impact: Summer (one quarter of housing units are not occupied year round)

Community Development Patterns

Number of Lots: _____ Number of Structures: _____
 Estimated Acres undeveloped: _____

Areas of town being developed: _____
 # new building permits issued: _____
 Build out analysis done? No

Road System:

Miles of State & Local roads: 8.3 miles State, 17 miles Class V
 Class VI and Private 2.5 mi. Class VI, 1.3 mi. Private
 Logging ~ 10 to 20 miles

Forested Lands within or bordering community			
Name of Parcel and type (State, Federal, Local)	Location	# Acres Town/Total	Type of Vegetative Cover
<u>Mount Sunapee State Park</u>	<u>Northeast section of town</u>	<u>172/2893</u>	<u>Forest</u>
<u>Pillsbury State Park</u>	<u>Southern and eastern border</u>	<u>2119/8161</u>	<u>Forest</u>

Fire Protection Capability Assessment:

Emergency Response Capability

Type of Organization:

Paid/ full time _____ Paid/Part time _____
 Volunteer X
 Combination (please describe) _____

Number of Members: 15

Estimated number of fire responses per yr.: 120

Approximate number of training man-hours per year: 500
 Would you consider recruitment/ retention to be a problem? Yes

How many fire stations in your community?
 within a 5 mile radius of town? 1
 1 - Newport

Please list your Fire Apparatus.

Type	Age	Pumping Capacity (gpm)	Water on Board (g)	Hose Carried
2008 E-One Typhoon	1 year	1250	1000 gallons	1000' 3"
1977 Int Pump/Tanker	32 years	1000	1000 gallons	1000' 3"
1977 F750 Forestry	32 years	250	750 gallons	500'
1968 F250 Forestry	44 years	250	300 gallons	500'

Does your department have written Standard Operating Procedures?

Community Protection Class Rating: 9/10

Last time updated/reviewed? _____

Mutual Aid Response Towns: Newport, Sunapee, Newbury, Washington, SWNHFMA

Forest Fire Warden Daniel Peterson

Community Fire/Wildfire History: (include surrounding areas and historically significant fires)

Date	Location	#Acres involved/damage	Cause
various	various	Several small grass/brush type fires	Campfires, smoking, miscellaneous

Fire Fighting Capacity

What is the longest practical hose lay that can be achieved by your department?

1000'

Please note the most challenging area of town regarding fire protection:

All

Please give estimates for the above location in case of a fire:

- Time from alarm to establish a sustained fire flow of 250 gpm:
- Time from alarm to achieve a sustained fire flow of 500 gpm

10 min

15 min

Methods used to achieve fire flow in this instance.

Number of apparatus

8 - 10

Manpower

25- 40

Hose Laid

300'

Tanker Shuttle (miles)

5

For the above incident please list the limiting factor(s) ie: grade, road conditions, distance, seasonal access, proximity of water source.

Road grade, conditions, distance from fire station, seasonal access, proximity of water source

Water Supply Resources

Please state the number of:

Operating pressurized hydrants:

0

Non operational pressurized hydrants:

0

Operational dry hydrants:

3

Non-operational dry hydrants

2

Are water resource sites used by your community currently mapped?

No

Are Flow Test, Maintenance Records kept on each site? (if applicable)

No

Dry hydrant/cistern installation and/or maintenance program? (please provide copy)

No

Surface Water Availability (list significant waterbodies)

Location	Description /#acres
Gunnison Lake	95.3 acres
Rand Pond	48.2 acres

Hazard Profiling and Identification of Areas at Risk

Do you have more than one "Problem Area?" please list:

Area:	Reasons:
Rands Pond	Access
Brook Road	Access
Town Center	Access
Rt. 31 Washington Road	Access
Remote Logging Roads	Access
Center Road & Cross Road	Access

Please list any other special targets or hazards, and are they pre-planned?

New developments have zoning regulations

Please describe your mutual aid arrangement: (include a copy if available)

SWNHFMA (Keene, NH)

C.R.V.M.A. (CT River Valley)
Signed agreement for all abutting towns

In your opinion has the area of wildland/urban interface increased? Where?

Yes
Class 5&6 Roads

If so, has this increase materially affected the strategy or tactics of the fire department? How?

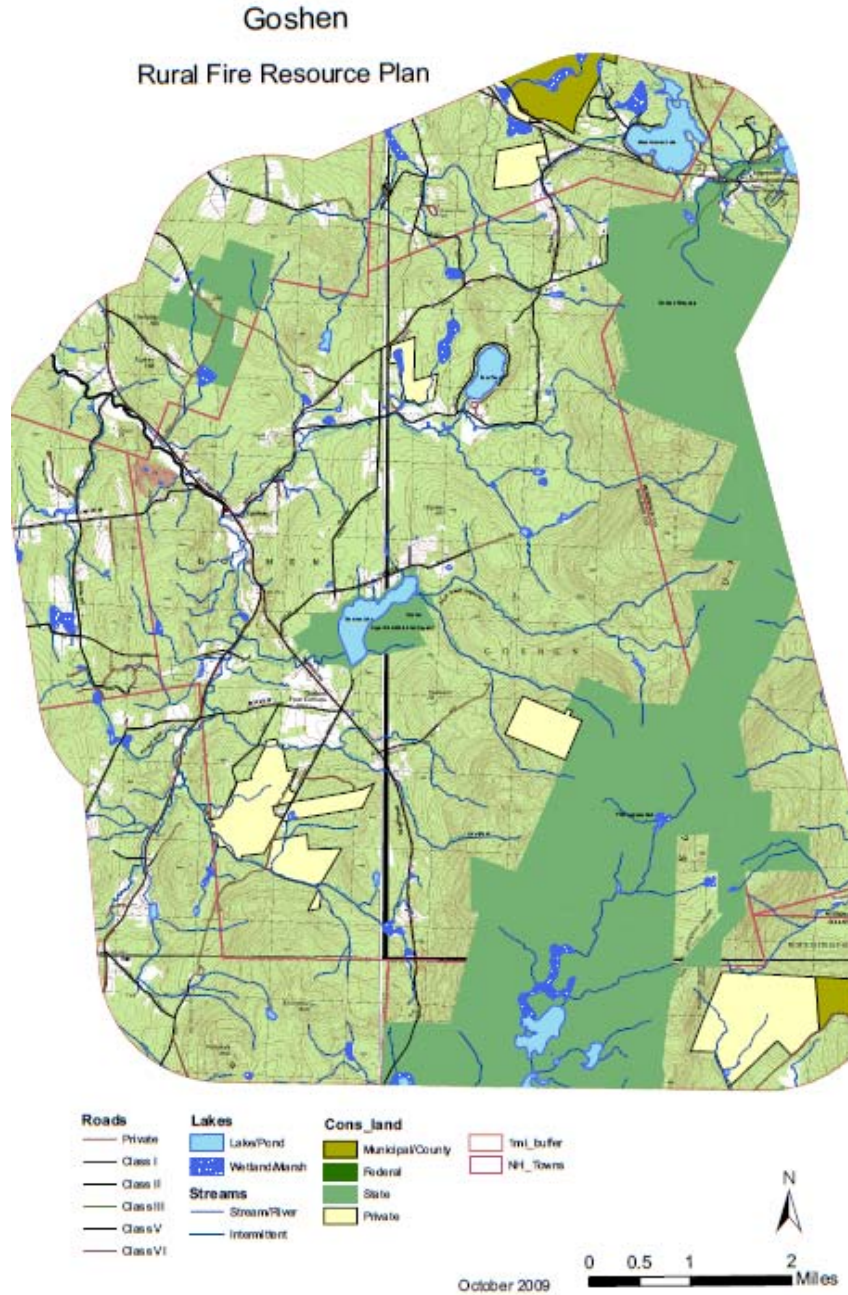
Increased chance of negligent fires

Regarding the Wildland/Urban Interface, please list the organizations with which your department collaborates or shares responsibilities:

Mutual Aid Towns
NH DRED

IV. COMMUNITY BASE MAP

Base map identifying critical facilities and infrastructure (if available), conservation lands, roads, surface waters, and town boundaries overlaid on USGS Topographic 7.5' series. (Larger map, 11x17, can be found in the appendix)



V. COMMUNITY FIRE PROTECTION CAPABILITY ASSESSMENT

Executive Summary

The town of Goshen, NH is located in Sullivan County in the central western part of the state. Goshen is bordered by Newport and Sunapee to the north, Newbury to the east, Washington to the south, and Lempster and Unity to the west. It is a rural community with a 2007 population of 825 or 36.5 persons per square mile of land area.

Total land area is approximately 14,336 acres which is characterized by the physiographic land features mentioned below in the Goshen hazard mitigation plan. Pillsbury State Park occupies over 2000 acres in the southeast part of town.

excerpted from the Goshen Hazard Mitigation Plan, 2007

Four major physiographic land features characterize the Town of Goshen. These are flood plains, terraces, mountains and upland hills.

Flood Plains

The nearly level flood plains are those areas subject to flooding from adjacent streams. They are located adjacent to the South Branch of the Sugar River, Blood Brook, Gunnison Brook and Babb Brook

Terraces

Short, steep slopes in some areas, and slightly sloping topography in others characterize the terraces in Goshen. Terraces consist of deep sand or gravel. Large areas of terrace-type land features occur west of Route 10 and Route 31. Numerous small areas are just outside the flood plains of Gunnison, Blood, and Babb Brooks. A few additional, very small, isolated acreages are scattered throughout parts of the Town.

Mountains

Mountains in Goshen are mainly in the Mount Sunapee and Gove Mountain areas. They are typically steep and stony, with many areas of rock outcrop. Mountains occupy nearly one quarter of the Town of Goshen.

Upland Hills

The remainder of Goshen consists of upland hills, ranging from about 1,300 to 1,600 feet in elevation.”

Due to the large forested tracts of land and high mountainous areas, wildfire was categorized as a medium risk by the Hazard Mitigation committee. The entire town was ascertained to be vulnerable to wildfire.

excerpted from the Goshen Hazard Mitigation Plan, 2007

“Probability of Future Events

Historically, large New Hampshire wildland fires have run in roughly 50 year cycles. Prolonged drought increases the likelihood of such events; severe droughts in New Hampshire appear to follow a 10 to 25 year interval. Changing patterns of settlement and land use affect fire regimes and vulnerability of structures and forests to fire. The map of the wildland-urban interface (Appendix H) provides an overview of the large amount of wildland-urban intermix and interface area in the western and northern section of Goshen that is vulnerable to wildfire.

The Goshen Hazard Mitigation Committee identified the following:

- There is the potential for wildfire in Blood Valley along some of the Class VI logging roads.
- There is the potential for wildfire along Mountain Road, Washington Road, Brook Road and Route 10.

Sullivan County has a high risk of wildfire, as identified in the State Hazard Plan. The Goshen Hazard Mitigation Committee determined that the probability of future wildfire events in the Town is possible, or probable to occur within the next ten to 25 years.”

Four categories were assessed for fire protection capability: road system, fire fighting capacity, emergency response capability, and evacuation measures.

Road System – Goshen has approximately 8.3 miles State road, 17 miles of Local Class V road, 2.5 miles Class VI, and 1.3 miles Private road. This information has been taken from the 2008 NH DOT road inventory and may not correctly reflect the total mileage for each class of road, especially Private and Class VI roads. Goshen’s zoning ordinances place some restrictions on development on steep slopes; however they do not necessarily address the access way or roadway to the building development. Goshen should consider adopting a Steep Slopes Ordinance and Driveway Regulations to address access and development in difficult to reach areas.

Fire Fighting Capacity –. Goshen does not have any pressurized hydrants within the community. A total of 37 sites were mapped and evaluated as existing or potential rural fire water resource sites. The sites evaluated included the fire station, 29 draft sites, (3) operational dry hydrants, (3) non operational dry hydrants, one of which is located in Sunapee, and (1) site of a proposed cistern at a condominium development. Overall Goshen relies heavily on tanker shuttle and drafting sites for fire protection.

Emergency Response Capability – The town of Goshen relies on a volunteer fire department made up of 15 members. The fire department has two tanker trucks which carry 1000 gallons on board, and 1000 ft of 3” hose. In addition the department has two forestry trucks with limited pumping and water on board capacities. The department has indicated that recruitment and retention of members is an issue. There is only one fire station in town, and one within a 5 mile radius in neighboring Newport. Goshen belongs to the Southwest NH Fire Mutual Aid compact, which includes neighboring communities of Newport, Sunapee, Newbury, and Washington. The protection class rating for the town is a 9/10.

Evacuation Measures – Routes 10 and 31 are the major evacuation routes, running north/south through the western side of town. Goshen does not have a major evacuation route running in an east/west direction. Goshen formed an Emergency Operations Planning committee in 2007 to begin the development of an Emergency Operations Plan, which was completed in 2008.

Existing Mitigation Strategies and Proposed Improvements

Existing Program or Activity	Area of Town Covered	Enforcement Department	Effectiveness	Improvements or Changes Needed
Master Plan, completed 2002	Town wide	Planning Board	Good	Master Plan is currently being updated (2009) See recommendations
Hazard Mitigation Plan	Town wide	EMD	Unknown – too new	Approved by FEMA in 2008. Water Resource Plan should be added to the HMP at next update
Subdivision Regulations – applies to developments of 4 or more dwellings <ul style="list-style-type: none"> - 2000 gallons water per dwelling, min. 10,000 gallons - Year round access - No more than 1000 ft hose laid 	Town wide	Planning Board	Good	Amended 2006 – see recommendations
Mutual Aid	Town wide	Fire Dept.	Good	
Emergency Operations Plan	Town wide	Various Depts	Unknown – too new	Completed in 2008
Zoning Ordinance – regulation of development on steep slopes <ul style="list-style-type: none"> ▪ No Building permits on slopes >25% ▪ No building permits on slopes between 15-25% except by special exception 	Town wide	Planning Board Zoning Board of Adjustment	Good	See recommendations
Capital Reserve Account	Town wide	Selectmen	Unknown – too new	Established in 2009
Mapping of wood roads	wood roads, trails	Snowmobile club	Good	See recommendations

Summary of Fire History of Community and/or Adjacent Lands**	
Relative Frequency and Location	infrequent
Common Causes	Human related
Values Lost	unknown
Availability of Resources	NH DRED, Mutual Aid
Factors Influencing Fire Probability	Drought, severe winter weather, human intervention
Areas of Future Concern	Mountain Rd., Brook Rd., Washington Rd., Cross and Center Rd

VI. COMMUNITY WATER RESOURCE MAP

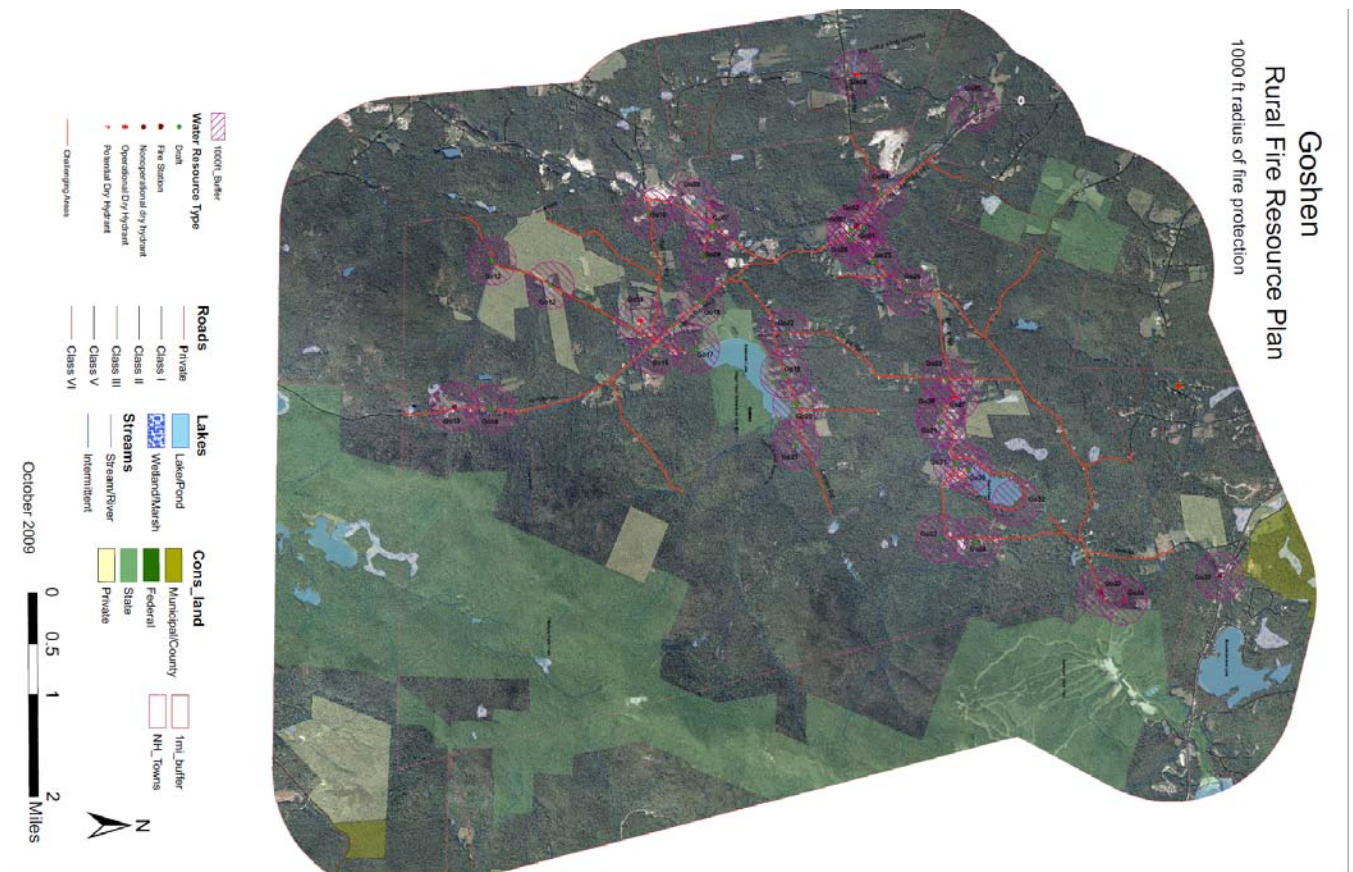
The Community Water Resource Map is the same as the Community Base Map but with existing and potential water drafting supply sites marked to identify current resources available to local and mutual aid fire personnel for fire fighting purposes.



Ident	Town	Site	Location	Name of Waterbody	Property Owner
Go01	Goshen	Fire Station Draft Site	37 Mill Village Rd. North	South Branch, Sugar River	Public ROW
Go02	Goshen	Village Fire Station	37 Mill Village Rd. North	Fire Apparatus	Town
Go03	Goshen	Brook Rd. Draft Site	7 Brook Rd. At Mill Village Rd.	Gunnison Brook	Public ROW
Go04	Goshen	Lear Hill Rd. Draft Site	4 Lear Hill Rd.	South Branch, Sugar River	N/F Jennings
Go05	Newport	Coon Brook Draft Site	Coon Brook Rd, Newport	Coon Brook	Public ROW
Go06	Unity	Coon Brook Pond DH	Coon Brook Pond, Unity	Coon Brook Pond	N/F Bragdon
Go07	Goshen	Mummery Rd. Draft Site	Mummery Rd at Mill Village Rd	South Branch, Sugar River	Public ROW
Go08	Goshen	Mummery Rd. East Fire Pond	83 Mummery Rd East	Fire Pond	N/F Boone
Go09	Goshen	Flanders Pond Draft Site	Mill Village Rd South	Flanders Pond	N/F Flanders
Go10	Goshen	Ball Park Rd Draft Site	526 Ball Park Rd	Blood River	Public ROW
Go11	Goshen	Meadow Rd Cistern	47 Meadow Rd	Cistern	Public ROW
Go12	Goshen	Schendler Pond Draft Site	510 Lempster Coach Rd	Fire Pond	N/F Schendler
Go13	Goshen	Babb Brook Draft Site	852 Lempster Coach Rd	Babb Brook	Unknown
Go14	Goshen	Powers Fire Pond	1375 Washington Rd.	Powers Fire Pond	N/F Powers
Go15	Goshen	Carrick DH	1556 Washington Rd	Carrick Fire Pond	N/F Carrick
Go16	Goshen	Mc Gintys Draft Site	685 Washington Rd	Unnamed Stream	N/F McGinty
Go17	Goshen	Gunnison Lake Draft Site	Four Corners Rd at Cemetery	Gunnison Lake	Public ROW
Go18	Goshen	Washington Rd. Draft Site	395 Washington Rd	Gunnison Lake Outflow	Public ROW
Go19	Goshen	Bailey Fire Pond	519 Center Rd	Bailey Fire Pond	N/F Bailey
Go20	Goshen	Stevens Draft Site	645 Center Rd	Gunnison Lake	N/F Stevens
Go21	Goshen	Wirkala Fire Pond	806 Center Rd	Fire Pond	N/F Wirkala
Go22	Goshen	Nelson fire pond	31 Cross Rd	Fire Pond	N/F Nelson
Go23	Goshen	Cross Rd Bridge Draft Site	Cross Rd at Brook Rd	Gunnison Brook	Public ROW
Go24	Goshen	34 Brook Rd Draft Site	34 Brook Rd. at Bridge	Gunnison Brook	Public ROW
Go25	Goshen	Brook Rd. Draft Site	176 Brook Rd	Gunnison Brook	Public ROW
Go26	Goshen	Brook Rd Draft Site #3	326 Brook Rd	Gunnison Brook	Public ROW
Go27	Goshen	Mini Goshen Ocean DH	915 Brook Rd	Mini Goshen Ocean	N/F Avery
Go28	Goshen	Brickyard Rd Draft Site	Brickyard Rd Crossing	Gunnison Brook	Public ROW
Go29	Goshen	Dennis Fire Pond	1040 Brook Rd.	Dennis Fire Pond	N/F Dennis
Go30	Goshen	Rand Pond Boat Landing draft site	Rand Pond Boat Landing Rd @ Brook Rd.	Rand Pond	Public ROW
Go31	Goshen	Rand Pond Outflow Draft Site	1221 Brook Rd	Rand Pond Outflow	Public ROW
Go32	Goshen	Straw draft site	394 Rand Pond Rd	Rand Pond	N/F Straw
Go33	Goshen	Merigans Draft Site	1550 Brook Rd	Gunnison Brook	Public ROW
Go34	Goshen	Anderson Fire Pond	Brook Rd	Fire Pond	N/F Anderson
Go35	Goshen	Perrino's Pond DH	195 Old Province Rd	Fire Pond	N/F Perrino
Go36	Goshen	Mountain Reach Development	231 Old Province Rd	None	Unknown
Go37	Sunapee	One Mile West Draft Site	Brook Rd. at Rt 103, Sunapee	Fire Pond	Public ROW

Ident	Fire_Load	Site Access	Hydrant_type	Site_situation	H2o_source	Est_volume	Comments
Go01	Village/WUI	Gravel	Draft	Current Draft Site	River	May be Seasonal	Seasonal Draft Site
Go02	Village/WUI	Paved	Fire Station	Village Fire Station	Apparatus		Community Fire Station
Go03	Village/WUI	Paved	Draft	Current Draft Site	Stream	May be Seasonal	Possible DH Site
Go04	Village/WUI	Gravel	Draft	Current Draft Site	River		
Go05	Residences/WUI	Gravel	Draft	Current Draft Site	Stream		
Go06	Residences/WUI	Gravel	Operational Dry Hydrant	6" PVC	Pond	>30,000 gallons	Recent Construction
Go07	Residences/WUI	Gravel	Draft	Current Draft Site	River		
Go08	Residences/WUI	Gravel	Draft	Current Draft Site	Pond	Limited	
Go09	Residences/WUI	Gravel	Draft	Current Draft Site	Pond	>30,000 gallons	Remote Draft Site
Go10	Residences/WUI	Gravel	Draft	Current Draft Site	River	May be Seasonal	
Go11	Residences/WUI	Gravel	Operational Dry Hydrant	6" PVC	Cistern	12,000g.	
Go12	Residences/WUI	Gravel	Draft	Current Draft Site	Fire Pond	>30,000 gallons	
Go13	Residences/WUI	Gravel	Draft	Current Draft Site	Stream	May be Seasonal	Current Draft Site
Go14	Residences/WUI	Gravel	Draft	Seasonal Draft Site	Fire Pond	>30,000 gallons	Seasonal Draft Site
Go15	Residences/WUI	Gravel	Nonoperational dry hydrant	4" Steel	Fire Pond	>30,000 gallons	Repair DH
Go16	Residences/WUI	Gravel	Draft	Current Draft Site	Stream	May be Seasonal	Portable Pump Draft Site
Go17	Residences/WUI	Gravel	Draft	Current Draft Site	Lake	>30,000 gallons	
Go18	Residences/WUI	Paved	Draft	Current Draft Site	Stream	May be Seasonal	Current Draft Site
Go19	Residences/WUI	Gravel	Draft	Seasonal Draft Site	Fire Pond	May be Seasonal	Portable Pump Draft Site
Go20	Residences/WUI	Gravel	Draft	Seasonal Draft Site	Lake	>30,000 gallons	Portable Pump Draft Site
Go21	Residences/WUI	Gravel	Draft	Current Draft Site	Fire Pond	May be Seasonal	Portable Pump Draft Site
Go22	Residences/WUI	Gravel	Draft	Current Draft Site	Fire Pond	>30,000 gallons	Portable Pump Draft Site
Go23	Residences/WUI	Gravel	Draft	Current Draft Site	Stream	May be Seasonal	
Go24	Residences/WUI	Paved	Draft	Current Draft Site	Stream	May be Seasonal	Current Draft Site
Go25	Residences/WUI	Paved	Draft	Current Draft Site	Stream	May be Seasonal	Current Draft Site
Go26	Residences/WUI	Paved	Draft	Current Draft Site	Stream	May be Seasonal	
Go27	Residences/WUI	Gravel	Operational Dry Hydrant	6" PVC	Pond	>30,000 gallons	Operational Dry Hydrant
Go28	Residences/WUI	Gravel	Draft	Current Draft Site	Stream	May be Seasonal	Potential Development Area
Go29	Residences/WUI	Gravel	Draft	Remote Draft Site	Pond	>30,000 gallons	Remote Draft Site
Go30	Residences/WUI	Gravel	Draft	Current Draft Site	Pond	>30,000 gallons	Seasonal Draft Site
Go31	Residences/WUI	Paved	Draft	Current Draft Site	Stream	>30,000 gallons	Requires Maintenance Dredge
Go32	Residences/WUI	Gravel	Draft	Current Draft Site	Pond	>30,000 gallons	Seasonal Draft Site
Go33	Residences/WUI	Gravel	Draft	Current Draft Site	Stream	May be Seasonal	All Season Access
Go34	Residences/WUI	Gravel	Draft	Portable Pump Site	Fire Pond	>30,000 gallons	Seasonal Draft Site
Go35	Residences/WUI	Gravel	Nonoperational dry hydrant	4" Steel	Fire Pond	>30,000 gallons	
Go36	Residences/WUI	Gravel	Proposed Cistern	Subdivision	None	Unknown	Proposed Cistern for Subdivision
Go37	Residences/WUI	Paved	Non-operational dry hydrant	6" Steel	Fire Pond	>30,000 gallons	Sunapee Draft Site

Water Resource Map (2) Depicting 1000 ft. radius around each water resource site (area of coverage fire hose can reach).



Selected Sites Identified for Hydrant Projects

The sites identified for development of dry hydrant installations listed in the following table do not encompass all of the potential projects or sites which the town of Goshen should consider for improvement of water drafting facilities. The sites identified on the map below and in the following table represent those sites considered most important for immediate consideration due to either high population density, community development patterns, only a seasonal supply of water, or field site evaluations determined they would make good dry hydrant sites.



VII. MITIGATION RECOMMENDATIONS

Executive Summary

The following recommendations were developed by the Rural Fire Protection Planning Team as a result of the Community Fire Protection Capability Assessment and field work site evaluations. The recommendations have been provided to the community to be incorporated into the Hazard Mitigation Plan, where they will be prioritized and an implementation strategy developed. The foundational information was gathered from the community's Master Plan, hazard mitigation information, assessment of fire issues/needs survey, zoning regulations, fire dept. incident list and input from community officials and stakeholders.

Proposed Community Mitigation Actions

Actions identified in the 2007 Goshen Hazard Mitigation Plan:

- Provide more training for the Fire Department in mitigating wildfire and in emergency response.
- Develop a standard policy and procedure manual for each Town Department. The manual could include standard practice for the mitigation of potential hazards, information on day to day operations and information on what to do in the event of a hazard. This plan should enhance communication between departments.
- Distribute educational literature at Town Meeting addressing mitigation efforts that citizens can undertake to protect property and life, for all hazards identified in this plan

Name of Potential Action	Description of Potential Action	Affected Location	Rationale
Repair or revision of Dry Hydrants	Evaluate and repair/replace existing dry hydrant system(s): Go15: Carrick dry hydrant, 1556 Washington Rd. Go35: Perrinos Pond dry hydrant Old Province Rd.	Washington Rd. Old Province Rd.	Top priority should be given to repairing existing hydrants as the least cost/most benefit to address and to meet public expectation
Investigate possibility of constructing Dry Hydrant systems	Gather information relevant for hydrant construction; i.e. seasonal water level, area available for apparatus, static lift etc. at: Go3: 7 Brook Rd. Go4: Lear Rd. Go7: Mummery Rd. @ Mill Village Rd. Go12: 510 Lempster Coach Rd. Schendler Pond Go22: Nelson fire pond, Cross Rd. Go23: Cross Rd. Bridge Go26: Brook Rd. Draft Site #3 Go31: Rand Pond Outlet, 1221 Brook Rd.	Town-wide	These sites are considered "Possible Dry Hydrant Sites" and represent a challenge, for a variety of reasons. Difficulty of construction and expense will determine site selection. Dry hydrant installation at any of these sites would enhance fire protection strategy by reducing response time at an established fire department draft site.
Investigate constructing pressurized system	Go17: Gunnison Lake draft site	Center of Goshen	A hydrant system supplied by the lake would provide pressurized force to the center of town and neighboring towns

Installation of cisterns	Identify areas that can best be served by cisterns		Due to road grade, distance, and lack of available water, cisterns may be necessary in certain areas.
Dry Hydrant and Fire Pond Maintenance Program	Establish a dry hydrant/fire pond maintenance program that will include records kept of semi-annual or annual flow tests on each hydrant and cleaning or maintenance dredging of fire ponds	Town wide	Reference NFPA 1142: Standard on Water Supplies for Suburban and Rural Fire Fighting; 2007 edition
Capital Reserve Account	Amend or include money for water drafting site development, fire equipment, and training	Town wide	
Steep Slopes Ordinance	Consider establishment of a Steep Slopes Ordinance to restrict and/or prohibit development in difficult to reach areas.	Steep Slopes District	Limit the increase of the Wildland/Urban Interface area
Subdivision Regulations for Fire Protection	Amendment of subdivision regulations to require onsite water storage, minimum fire flow, fire breaks in wildland/urban interface areas.	Town wide	International Wildland/Urban Interface Code 2006. (i.e. Ch. 4 Wildland/Urban Interface Area Requirements), NFPA 1144; 2008 ed.
Incorporate the Water Resource Plan into the Master Plan	Encourage referral to Water Resource Plan and maps by Planning Board when reviewing subdivision proposals	Town wide	The Master Plan is a guide and public record of the development principles for the town. The Water Resource Plan addresses strategies to be implemented that reflect changes in population or land use, which may affect fire department strategy, particularly in regards to the wildland/urban interface (WUI)
Class VI roads	Assess and maintain condition of Class VI roads – access, turnarounds, seasonal issues	Class VI roads	Improve and maintain ability to access as fire lanes (RSA 231:59, a)
Mapping of wood roads	Map and assess water sites and other resources along woods roads and trails for wildland firefighting.	Remote forested areas	Mapping of access points and roads would be helpful in improving emergency response to these remote areas
Fire Department Training	Implement program to provide training to fire personnel on wildland fire suppression, dry hydrant design, site evaluations of water resources, etc.	Town wide	Improved Emergency Response
Driveway Standards	Consider establishing driveway standards that address access by emergency vehicles. Driveway width, slope and overhead clearance are examples of concern which can impede emergency response to residential homes in remote and difficult access areas.	Town wide	Reference NFPA 1: Uniform Fire Code and NFPA 1144: Standard for Protection of Life and Property from Wildfire; 2002 edition
Homeowner Education	Educate homeowners on “Firewise Communities” program, promote installation of fire ponds in remote areas and use of easements to Fire Dept. for access	Town wide	

VIII. EVALUATION AND SUSTAINABILITY

Evaluation Strategy

In order to track progress on the recommended mitigation actions and the implementation strategy developed, it is recommended that the Town of Goshen review the water resource plan on an annual basis. This should be initiated by the Emergency Management Director seeking input and updates from the Fire Department, Planning Dept. and Board of Selectmen, as well as inviting public comment. As priorities or funding resources may change, the plan should be amended to reflect those changes.

Sustainability Plan

This plan will be adopted by the Board of Selectmen and become an addendum to the Hazard Mitigation Plan. Therefore procedures and mechanisms in place for updating, monitoring, and sustaining the Hazard Mitigation Plan will also apply to the Water Resource Plan.

It is also recommended that the Water Resource Plan be incorporated into the town's Master Plan, as the mitigation strategies listed serve as recommendations to better enable the town to plan for future growth.

IX. APPENDICES

- A. OVERVIEW OF PROCESS AND COMMITTEE MEETINGS
- B. WATER RESOURCE MAPS
- C. WATER RESOURCE SITE EVALUATION SHEETS
- D. DRY HYDRANT DESIGNS
- E. DRY HYDRANT INFORMATION
- F. EASEMENT INFORMATION
- G. NH D.E.S. WETLANDS INFORMATION
- H. I.S.O. INFORMATION
- I. WILDLAND/URBAN INTERFACE MITIGATION INFORMATION
- J. REFERENCES