



FARMINGTON WATER DEPARTMENT

**EMERGENCY PLAN
MARCH 2009**

FARMINGTON EMERGENCY PLAN FOR THE WATER DEPARTMENT

System EPA Identification:	811010
System Name:	Farmington Water Department
Town:	Farmington
System Address:	356 Main St., Farmington NH 03835
Source ID/Type/Description/Well Yield from DES records:	004/GPW/450 feet Northeast of Pumphouse 230 gpm
Source ID/Type/Description/Well: Yield from DES records	005/GPW/340 feet Northeast of Pumphouse 180gpm
Source ID/Type/Description/Well Yield from DES records	006/GPW/1200 feet East of Route 11,500gpm
Population served and service: connections from DES records:	2600 people 1050 connections
Date of most recent emergency plan in DES record:	3/1/2009
Name, Title and Phone Number of person responsible for maintaining this emergency plan:	Dale Sprague, Superintendent Phone 755-4883 pubwks@metrocast.net



FLOW CHART CHAIN OF COMMAND FARMINGTON WATER DEPARTMENT

BOARD OF SELECTMEN

TONY MINCU, TA

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LABORER

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NOTIFICATION PROCEDURES

BOIL ORDER- Notification for microbiological pathogens

DO NOT DRINK - Notification for Chemicals

The Farmington Water Department will defer to the NHDES and the Farmington Health Officer to make decisions requiring or canceling a boil order or DO NOT DRINK notification. A template of a boil order notice and a DO NOT DRINK notice are attached and should be filled in as needed and used for notification. Farmington will use the water system user notification process described below to implement and rescind these notices. Priority notification will be given to the assisted living facilities served by our system.

Water System Users

The Farmington Water Department Superintendent is responsible for implementing notification to the water system users. Farmington has approximately 1050 service connections. Notification will be accomplished primarily through announcements placed in a local newspaper (Fosters Daily Democrat) and/or local radio stations (See List). Supplemental user notification procedures may also be used including: a telephone answering message at our system office building; by posting notices at the Town Hall, Post Office, Municipal Office Building, and other prominent buildings; by placing an announcement on the message boards in front of the Fire Department and at the Landfill. Notifications will be placed on the Farmington Web-site, www.farmington.nh.us, and local TV channel 26.

Unique Water System Customer

Farmington Water Department provides water service to three assisted living homes that may require potable water for medical reasons. During emergencies causing interruption of service, the Foreman is responsible for providing priority notification to these customers. Priority notification will also be given to these customers for boil orders and alternate water will be supplied on a priority basis. If the Foreman cannot reach the assisted living home by telephone, then a visit to the home will be made. The assisted living homes are included on our notification list.

Service Repair

The Farmington Water Department Foreman is responsible for implementing notification to service/repair contractors. A list of service/repair contractors and phone numbers is part of this emergency plan. The Foreman will use this list to telephone appropriate contractors. If necessary, the Lead Operator will assist. The Foreman is responsible for maintaining an up-to-date service/repair contractor list.

Nearby Public Water Systems

If necessary, the Water Superintendent will notify the Milton Water Department and Rochester Water Department by telephone. The telephone numbers are part of this emergency plan.

Local and State Agencies

The Superintendent is responsible for implementing notification to local and state agencies. A list of local and state agencies is part of this emergency plan. The Superintendent will use this list to notify appropriate authorities. If necessary, the Foreman will assist. The Superintendent is responsible for maintaining an up to date local and state notification list.

TOWN OFFICIALS

Contact	Day	Home	Cell
Anthony Mincu, Town Administrator	755-2208	539-1595	285-2802
Gerald McCarthy, Chairman BOS		755-2636	396-8624
Paula Proulx	755-9868	755-3437	
Joan Funk	755-4757	755-2052	
Gail Ellis	332-5440		781-5414
Charlie King		332-7101	

LOCAL NOTIFICATION LIST

<u>Department</u>	<u>Day Phone</u>	<u>Evening/Cell Phone</u>	
Fire Department	755-2131	Strafford Dispatch	742-4968
Police Department Day	755-2731	Strafford Dispatch	742-4968
Ambulance Service Day	755-2131	Strafford Dispatch	742-4968
Emergency Management	755-2131	Strafford Dispatch	742-4968
Health Officer	755-2774	817-9547	
<u>Local Newspaper</u>			
Fosters Daily Democrat	332-2200	740-3401	
<u>Local Radio Stations Day</u>			
	<u>Day Phone</u>	<u>Fax</u>	
WOKQ	749-9750	749-1459	
WTSN	742-1270	742-0448	
WHEB	436-7300	430-9415	
<u>Television Station</u>			
	<u>Day Phone</u>	<u>Evening/Cell Phone</u>	<u>Fax</u>
WMUR TV ABC 9	430-9687	641-9000	430-9284
Milton Water Dept. Day	652-0234	742-4968	
Rochester Water Dept.	332-4096	330-7127	
<u>Assisted Living</u>			
Garnet House	755-3115	755-3115	
Hattie's Place	755-3937	755-3937	
Our Place Inn Time	755-2354	755-2354	

STATE NOTIFICATION LIST

Contact	Day	Night	Web
State Police	1-800-852-3411		
Drinking Water and Ground Water Bureau	271-2513	1-800-852-3411	www.des.nh.gov
Bureau of Emergency Management	271-2231	1-800-852-3792	
Health & Human Services	271-4496		
Laboratory	271-3445	1-800-852-3411	

SERVICE REPAIR/NOTIFICATION LIST

Contact	Day	Night	Cell	FAX
Electrician				
Tom Dejulio	755-3787	755-3787		
Electric Utility				
PSNH	1-800-662-7764	1-800-662-7764		
Plumber				
Mark Sassi	755-3985			
Scott Thurston	569-1569			
Pump Specialist				
Stevens	1-207-933-9638			207-933-9639
Contractor #1				
Barron Brothers	755-9071	859-6600		
Contractor #2				
Arthur Cardinal	755-3623	859-2308	608-8114	
Contractor #3				
Hydrogeologic Consultant- Layne	978-937-2242		978-815-1747	978-937-2252
Consultants				
Wright Pierce Engineers	207-761-2991 or 430-6071			1-207-761-2978
Equipment Rental Day				
See Contractors Above				
Emergency Response Consultant				
Wright Pierce Engineers	207-761-2991 or 430-6071			1-207-761-2978

CRITICAL USERS

The Farmington Water Department has three (3) water system users who may require potable water for medical reasons. During emergencies causing interruption of service, the Water Department Foreman is responsible for providing priority notification to these users. These three (3) users are assisted living homes and the phone numbers are listed in the emergency phone list. Priority notification will also be given to these users for boil orders and alternate water will be supplied on a priority basis. If the Foreman cannot reach these users by phone, then a visit to each home will be made.

MUTUAL AID

The Farmington Water Department currently has no mutual aid agreement with any other water systems. We do plan to join the NH Public Works Mutual Aid Program in 2009. We have a good working relationship with Milton and Rochester Water Departments.

RESPONSIBILITIES DURING EMERGENCY

FARMINGTON BOARD OF SELECTMEN

1. Authorize acquisition of materials/equipment either by borrowing or purchase as needed.
2. Liaison between Superintendent and public and media when appropriate.

FARMINGTON WATER SUPERINTENDENT

1. Overall responsibility for managing a water emergency at Farmington Water Department.
2. Immediately notify all personnel on the chain of command of the existence of a water emergency.
3. If necessary, immediately notify local and state emergency agencies, such as police, fire, ambulance, health and NHDES.
4. Be available as contact person for local and state agencies.
5. If necessary, represent the system as spokesperson to all outside parties including the media and private citizens.
6. If necessary, instruct the Water Department Foreman to implement the system user and unique system user notification procedures.
7. If necessary, instruct the Water Department Foreman to implement the service/repair notification procedure.

8. If necessary, instruct the Water Department Foreman to implement the boil order procedure and alternate water procedures.
9. If necessary, implement overall water conservation measures.
10. Update and maintain the GWD Emergency Plan.
11. Be responsible for maintaining a written log of communications, costs of supplies and equipment, track labor performed and volunteers during an emergency.

FARMINGTON WATER FOREMAN

1. Be available as necessary to provide hands on knowledge of system components.
2. Implement and oversee the system user and unique system user notification procedures when directed to.
3. Implement and oversee the boil order procedure and alternate water procedures when directed to.
4. Oversee and coordinate the return to normal operation.
5. Be available as necessary to provide specialized repair of system components such as pumps, water mains and valves.
6. Be responsible for and maintain up to date notification lists.
7. Assist Superintendent as necessary with emergency management issues.
8. Implement and oversee service/repair notification procedures.
9. Oversee service/repair efforts by system personnel and outside contractors

FARMINGTON WATER LEAD OPERATOR

1. Provide specialized repair of treatment/distribution components.
2. Assist Foreman as necessary with service/repair notification and efforts.
3. Assist Foreman as necessary with return to normal operation.
4. Make available and coordinate use of system equipment such as keys, tools, parts and vehicles.
5. Be available as necessary to take water samples and to transport them to a certified laboratory for analysis.
6. Be available as necessary to provide hands on knowledge of system components.

SYSTEM PLAN AND COMPONENTS

The Water Department maintains a large scale map on the wall at our office that shows all lines, gates, hydrants, tanks etc. We have individual main gate cards, curb gate cards and detailed maps of waterlines in 2 portable books. The Water Department will be working towards a GIS database starting in 2009.

SYSTEM EQUIPMENT & CHEMICALS

1. Gravel packed Well #4 – 450 ft N. East of pump-house – 288,000 gallons per day maximum 24-hour production with propane generator.
2. Gravel packed Well #5 – 340 ft. N. East of pump-house – 259,000 gallons per day maximum 24-hour production with propane generator.
3. Gravel packed Well # 6 – 1200 ft. off of Route 11 – 720,000 gallons per day maximum 24-hour production.
4. Pump-house #4&5 located at end of dirt access rd. off Route 11 behind Rite Aid/Liquor Store building.
5. Pump-house #6 located at end of dirt access rd. of Route 11 ¼ mile North of Commerce Park
6. 1.0 million gallon atmospheric storage tank located at top of North Main St.
7. 0.25 million gallon atmospheric storage tank located on hill behind Collins and Aikman (formerly Davidson Rubber/Textron)
8. Corrosion control and disinfection systems located inside each pump-house.
9. (1) Case 580 backhoe
10. (1) utility 4x4 truck with boxes and (1) 1 ton 4x4 w/dump body and plow
11. One portable air compressor w/jackhammer
12. Welding equipment (portable and fixed)
13. Two-way radio communications with Public Works Department and communications with police/fire/rescue through Strafford Dispatch Center
14. (1) 6 wheel dump-truck
15. Portable pumps, small generator, cut off saw, portable air compressor.
16. Various lengths of pipe, spare valves, various repair couplings, various repair clamps.
17. 1000-5000 gallons of NaOH typically on hand, 100-350 gallons of sodium hypochlorite typically on hand.

Does this system have an atmospheric storage tank? If yes, how many?

YES 2 tanks

Are your atmospheric storage tank(s) equipped with a fill pipe for supplied water

NO

Our 1.0 million gallon storage tank is not equipped with a fill pipe.

Our 250,000 gallon storage tank is a buried tank with an access cover on top which can be used to refill. Total system demand of 300,000 gals/day does not make tank truck delivery viable.

SYSTEM DEMAND

The Farmington Water Dept. has two (2) independent telemetering systems, which operate our pumps based on storage tank levels. Each pump-house also has manual controls for pumps and treatment systems. There are many gate valves through out the distribution system that can be used to isolate sections of our system. We have a couple of spare valves (typically 6” and 8”) that could be used to dead-end broken water mains in an emergency. In an emergency, we could activate Wells 2 and 3 to pump to the distribution system if needed.

What is the total production capacity of this system?

1,267,000 gallons per day
2,000,000 (including well 2 & 3) gallons per day

What is the maximum daily demand of this system?

557,000 gallons per day

What is the total storage capacity of this system? 1,250,000 gallons

What is the average daily demand of this system? 300,000 gallons per day

Divide total storage capacity by average daily demand. 4 days

ALTERNATE WATER SOURCES

BOTTLED AND BULK WATER

Bottled and bulk water are limited sources for Farmington because of the system size (300,000 gallons/day). We will provide bottled water to our critical customers on a priority basis. We would utilize the Public Works tank truck after careful flushing and disinfecting and fill with water from our system or an adjacent system. This would be parked at the Fire Station and rationed to fill individual containers on a limited basis for NON POTABLE use only. The Superintendent will call the bulk water delivery companies listed on the NHDES Fact Sheet WD-DWGB-18-2 (attached) for “Bulk Water Haulers Serving NH” and make arrangements for them to assist in this restricted use of the water. The Superintendent will notify NHDES prior to water delivery that we are going to provide bulk water for our customers.

WATER SUPPLY TREATMENT

We do not have the ability to treat surface water, therefore that is not a viable emergency potable water source option for our system.

TIE-IN TO ADJACENT WATER SUPPLY SYSTEM

Currently, inter-connection to Milton or Rochester water systems is not a viable alternative due to distance separating the systems. This may change in the future as Rochester may extend their water main up to the Farmington line at which time our line would only be ¼ mile away. With a design, appropriation, and contract agreement with Rochester, this may be a viable option with five (5) years.

NEW SOURCE/REACTIVATION

The Farmington Water Dept. has plans in 2009 to evaluate additional sources even though we have more than adequate water to meet our supply needs. Currently, we think the best option will be to expand the yield from the area around Well #6, but other alternative sites may be evaluated for potential yield and our ability to protect that area from contamination.

The Water Department has 2 inactive wells in separate well fields. Please refer to NHDES Environmental Fact Sheet WD-DWGB-18-4 (attached) for guidance on reactivating wells. In a long term emergency, Well #2 could be brought into service. This well is still connected to the distribution system. It has low level VOC contamination but below drinking water standards. With approvals from the Board of Selectmen and NHDES, this well could be reactivated. There is no emergency power source at this pump house so if power was out, as part of the emergency, this option would not be viable without a portable generator.

Well #3 may be able to be brought on line. It would need to be reconnected to the distribution system. It also has more water quality problems than #2 and requires more careful consideration before implementing. There is a power source for that pump which may be useful in a prolonged emergency.

ALTERNATE POWER SUPPLY

Farmington has one fixed Generac generator, propane powered with manual transfer located at the Well 4+5 pump house. That generator can run the pumps and treatment system for the (2) Wells. The generator is maintained and tested quarterly with the last test on Dec. 12, 2008. There is a 1000 gallon propane tank which is filled/checked every two weeks on a routine basis. Eastern Oil and Propane Co. is the supplier of propane. Well #6 does not have a fixed generator. It is set up with a transfer switch for a portable

generator. The Town has a portable generator with a dedicated cable to connect the generator to the transfer switch. This was last tested **in June 2008. This generator is a 150KW Caterpillar 3 Phase 480 volt with diesel fuel.** If the outage is prolonged, then Cardinal & Glidden Oil Co. will refuel with their tank truck.

The unit can run 18 hours on one tank of fuel. If this generator is being used, then Wells 4+5 can supply water to the portion of the distribution system typically supplied by Well #6 with no problem.

WATER USE RESTRICTIONS

The Farmington Water Dept. will implement water conservation measures as required. The degree will be determined by the severity of the situation.

The following measures would be taken in the following order:

1. All outside water usage for such activities as watering gardens, lawns, washing vehicles, boats etc; using water to rinse driveways/sidewalks, etc.; filling swimming pools etc. will be restricted at a minimum or banned entirely. Please refer to NHDES Environmental Fact Sheet WD-DWGB-26-3 (attached)
2. Residents will be required to follow indoor water use restriction adopted from NHDES fact sheet #WD – DWGB – 26-2 (attached) that lists water efficiency practices for indoor domestic water.
3. In a prolonged or dire emergency, rationing may be implemented.

If an emergency necessitates shutting down one of our gravel packed wells, the excess capacity in the remaining two wells will be used to supply our system. At current demands, we could even sustain a loss of two wells and still meet the average daily demand. Despite our excess capacity, Farmington Water Dept. will implement at its discretion, water conservation measures during an emergency. For most emergencies, because of our excess capacity it will be adequate to implement conservation measure #1 as described above. The Board of Selectmen will decide whether measure #1 will be a restriction or ban. System demand is greatest in the summer months with an average daily summer demand of 300,000 gallons. Consequently, we estimate that if an emergency occurs in the summer, by implementing measure #1 as a ban, average daily summer demand would immediately be reduced by approximately 25%. This would reduce our average daily summer demand to approximately 225,000 gallons. Additional demand reductions would be achieved by implementing measure #2 if required. Water conservation options are more limited during a winter emergency although this is balanced by the lower overall daily demand. Farmington Water Dept. checks for distribution system leaks periodically with a leak detection program.

In the event of a prolonged or severe emergency, measure #1 will be instituted as a ban and measure #3 will be put into affect. If that happens, measure #3 will supercede measure #2. Rationing per system user will be computed to reduce our daily demand to

match the available safe supply. For instance, if it appears our water supply has been reduced to 100,000 gallons per day we will base our per capita portion on that number.

The Superintendent under instruction of the Board of Selectmen will implement water conservation notification procedures. The water foreman will assist the Superintendent. Farmington will use the same notification procedures described earlier to implement and to cancel water conservation measures. In addition we will notify the Police Dept. to check for improper usage and the Water Dept. will supply a vehicle to drive around and check for improper usage activities.

RETURN TO NORMAL OPERATION

The decision when to return to normal system operations will be made by the Superintendent. The Superintendent will make this decision with input from NHDES if contamination is the cause of the emergency event. The Water Dept. Foreman will have the responsibility of overseeing the return to normal operation of the system components. The Lead Operator and Laborers will assist the Foreman. The Foreman will do any additional water sampling that may be necessary to assess system conditions before returning to normal operation. All water system users will be notified using the same notice posting system described earlier when the system has been returned to normal operations.

PLAN READINESS

The Farmington Water Dept. has taken the following steps to ensure plan readiness.

1. Each person listed on our chain of command will keep a copy of this and each annually updated plan in their office.
2. A copy of our most recent plan will be kept at our office in the file drawer labeled "Water" and be kept in a folder labeled "Emergency Plan".
3. A copy of our most recent plan will be kept at each of our pump-houses.
4. The cover of our plan is brightly colored to make it easy to find and properly titled.
5. In all cases, earlier plans will be discarded after receipt of a newer plan.
6. A copy of our most recent plan will be kept at the Farmington Fire Dept. office to be available for the Emergency Preparedness Team.