



Randolph Fire District #1 **Randolph Center, VT 05061**

RFD#1 2016-2017 Events

1. In early July Carolyn, Dave and Mike interviewed 2 companies offering licensed water operator services. After careful comparison of what they had to offer and checking references we decided to go with a small firm in Tunbridge, called P2(square) Environmental Services. Patrica Beavers is the owner and she has a class 3 license and has a broad customer base. She offered comparable services to the other company and charges \$90 less a month. In Sept. we signed a contract with her and she started Oct. 1st
2. In mid July another leak developed on the 1 1/2" plastic line between Dowd's and Squires. Mike and Dave, along with Hiram Salls doing the digging, replaced the entire line with a new 1 1/2", 200 psi polyethylene pipe. This has long been a trouble spot and the new line will eliminate the repeated call backs.
3. In early Sept. Mike discovered water bubbling up around Barbara Meany's shutoff on her side of the road. We arranged to get George's excavator, and dug up the shutoff only to find it wasn't leaking. The water was coming from under the East Bethel Road. Repairing the line under the road would have been a very expensive job, as we would have had to hire a contractor. Fortunately there were 2 shutoff's on Barbra's old line so we were able to shut it off near the main and discontinue it. Also fortunate, was that we had the new 1 1/2" PE pipe that Mike and Dave installed in July close by and ran a new 3/4" service from that to Barbara's house. Until we got the service replaced Mike ran a hose from his house to Barbra's, giving her temporary water service.
4. In Feb or March Mike and I met with Ted from VTC and 2 women from VT Dept. of Environmental Conservation. They discussed various loan options available through the state as well as other services they can provide. One of the services they offered for a limited time was a free water leak survey. We decided to take advantage of that and signed up for it. They also discussed other programs and grant opportunities.
5. In November we asked Moe Clark to build a new ladder to access the lower level of the pump house after the old wood ladder broke when we were going over procedures with the new water operator. The new metal ladder is a big improvement over the old ladder in ease of access and safety.
6. In December we started researching water meters and obtained pricing for meters and meter setting equipment. We also purchased an electronic meter reading device so we are now able to read all the currently installed meters that the town installed, without having to go inside the premises. In Feb. when it was time to start preparing water bills we read all the existing meters. We also obtained meter readings on these meters from the Town for the past 2 years. This gives us adequate data to work with to establish fair and equitable rates if and when we decide to meter.
7. In April we took a complete inventory of the Fire District's assets. We cleaned out the storage shed and had Moe Clark build us a row of storage bins to help us organize all our water works supplies. He also made some steel brackets to store pipe and other items along the walls. I'm currently working on an inventory database which will include prices, ordering information and photos.
8. Additional work has been done on the website and we have added many new items. In addition to the ordinances and charter you'll find the Treasurer's Report, the Consumer Confidence Report and maps of our water system as well as some historic information and photos.

Things We're Working on for 2017-2018:

1. **Access Road:** We are looking into the possibility of putting in an access road to the spring and pump house. We really need to have access with a vehicle year round. We've been studying possible routes and have talked with the State of Vermont building's division about obtaining a right-of way across their land. They seem quite willing to work with us. We need to work out some other details and get estimates on design and construction costs to see if it's feasible.



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2. **Pump House:** Work needs to be done on the pump house and spring buildings. When we replaced the ladder we discovered a lot of the floor joists have wet rot. There is also some wood rot around the doorway. The spring building could use some work as well and probably should be painted. Also the steel I-beam that supports the concrete slab the pumps sit on is very corroded so it needs to be either replaced or an additional beam added to insure the floor doesn't collapse under the pumps. We are researching fiberglass I-Beams that won't corrode.
3. **Pump House Meter:** The 2" meter in the pump house needs replacing as the old one no longer works. We've ordered the new meter but it will require some re-plumbing as the new meter is longer than the old. This will probably be done soon.
4. **Spring:** Down the road we may need to have some work done on the reservoir. With increasing demand for water, we need to reduce the amount of water we are losing from the reservoir due to leaks in the concrete walls. The last time any work was done on it was in the early 70's.
5. **Leak Survey:** We will be having a leak survey done sometime this month. It's a free service offered by the Vermont Dept. of Environmental Conservation. Based on this we may find some problems that will need to be addressed. As part of the survey I will be going around marking some of the shutoffs and valves with grade stakes. We will remove them after the survey is done.
6. **O&M Manual:** The O&M manual needs updating. This is a service our water operator provides under her contract.
7. **Utility Contractor:** We are hoping we can line up a contractor that we can call on when we need repairs done to the water system. We are getting too old to be jumping in the ditches anymore. We probably can handle small repairs.
8. **Water Meters:** If it's decided that water meters are the way to go I will be conducting an inspection and taking photos of the plumbing on all those homes where a new meter will be installed. We can then obtain estimates for installation costs. We may want to put this out to bid. My rough guesstimate at this time is \$200 per installation. That would make the total cost per installation at approximately \$550 assuming there is no significant cost increase in materials.
9. **Website:** With Dan's help we will continue to improve the website and add additional information that we feel will be useful or interesting. We are open to suggestions on what content would be appropriate.
10. **Asset Management:** The State provides grants up to \$20,000 for doing an asset management study. The grant requires a 20% in-kind match of the total project cost. It would be a complete inventory of all of the Fire District's assets (such as buildings, pumps, underground pipe, valves, hydrants and other equipment). It will help us to determine their age, condition and life expectancy and when they may need upgrading or replacement. It will also deal with a lot of other areas that will help us manage the system better.

Respectfully submitted
Bill DeFlorio, Engineer



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Engineer's Report June - July 2017

1. I started doing plumbing inspections in preparation for meter installations. As of July 13th I'm down to? to be done.
2. On June 14th Mike and I installed a new 1-1/2" meter in the pump house, replacing the meter there that was not working. Our water operator can now start reporting actual pumping records instead of estimating.
3. On the 14th and 15th Mike and I repaired 8 service boxes that were either bent, filled with dirt, missing covers or buried too deep.
4. On June 15th Mike stopped to tell me that Charlie Squire's service was leaking enough so water was running down the street. I made arrangements with Bart Parmalee and he in turn with Dean Salls to fix the leak the next day. The leak was on the house side of the shutoff about 8' away. Bart fixed it and we backfilled. I had to run for some drainage pipe to replace their's that got damaged while digging. They really should replace their service and we considered doing it except the ditch was much too wet. This was one of the leaks detected when we had the survey.
5. On June 17th I spent an hour with Jason Williams looking at what needs to be done at the pump house. He suggested that it would be just as easy to tear up the floor and put a new floor down with new pressure treated floor joists. He also suggested replacing the metal door that's rusting and the casing rotting with an insulated fiberglass door. His estimate for doing the work is?
6. On June 23rd John and I met with Patricia and Scott Beavers discussing our water system and what pipes go where. They wanted to become more familiar with the entire system and gain a better understanding of how it works.
7. Near the end of June I met Ron Schoolcraft at the church to check into running a new service to replace the line that is leaking and runs under the school parking lot and S. Randolph Road. After close inspection I've opted to run a new service off the 6" main that crosses the parade grounds and runs about 40' off the northeast corner. It's a long run but it will be easy digging. I will have Bart Parmalee and Dean Salls helping me with it. They will do most of the work but I will supervise and make the connection to the 6" main.
8. At the end of June a letter was written to go to all customers explaining our transition from flat rate billing to metered billing. I emailed as many as I could and mailed the others. As of today we only got 6 responses. I've tried getting contact information for others and have made calls to schedule a time to inspect plumbing. No one had any comments regarding the use of meters. I'm down to 4 houses.
9. I've continued making minor changes to the website to make it easier to navigate.
10. On July 12th I finally received an estimate from Jason Williams. His estimate is \$2500. His estimate does not mention anything about the rusted beam we talked about.
11. Only July 13th I met with James and Josh Mather of J Mather Construction for an inspection of the pump house. They had some additional suggestions for improving the pump house such as sand blasting and painting the beam and putting 2 concrete filled lolly columns under it. Make the opening to the ladder a little larger and put in on hinges. Adding a built in step when installing a new door.
12. Today, July 20th I sent an email to Doug Phoul regarding use of hydrants for dust control. Told him that a meter had to be on the hydrant before any water was taken. Trudy saw someone spraying water way up in the air. For what purpose we don't know. When I got home I took a walk over and saw that a hydrant wrench was on a hydrant but no meter. I sent Doug a stern message that no more water was to be taken from the hydrants unless a meter was installed. I asked him for his cooperation.

Respectfully submitted
Bill DeFlorio, Engineer



Randolph Fire District #1

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Engineer's Report August 10, 2017

1. Expenses: Mike reports that the only expenditure since the last meeting was a check for \$365 which included her monthly fee of \$290 and \$75 for maintenance of pump station grounds.
2. Received delivery of water meters and hardware on Friday the 4th. I've already installed my own meter as I wanted to get a feel for how long it might take for an average installation. I had to relocate the drain valve so it was after the meter. It took me about 2 1/2 hours. Not being a plumber and not organized to do multiple installations I expect a plumber could have done it quicker.
3. Talked with Matt Gadbois of Gillespie (485-3766) regarding installing meters. Their rate for 2 men is \$127.50 (Parmalee was \$105). In talking with him we guesstimated an average of \$300 per installation which would include labor and some materials. For 32 meters that would be \$9,600 or say \$10,000. He thought they could have them installed within 2 weeks if we were able to set up approx. 4 installations per day. He suggested sending out a letter stating we would be installing meters the week of ? and the recipients should call and schedule a time. I'm not sure how well that would work. Getting them all installed within 2 weeks might be optimistic.
4. I've talked with Bart Parmalee about replacing the church service soon. He was going to try and coordinate with Dean Salls to see when they could do it. It would be nice to have it done before VTC students are back as we need to dig in the school parking lot to shut off the old service at the main.
5. I gave the job of doing repairs at the pump house to Williams Builders. I sent him the contract but they haven't sent it back yet despite numerous requests. I will try to get in touch with him this weekend.
6. Mailing address: We need to decide whether we want to have a PO box. Mike is planning to have all the bills and payments go to his new address in E. Brookfield. I think it's important that we have a Randolph Center address for general information. A post office box seems like the only logical solution.
7. John and I went to the bank on Tuesday and got most of the paper work done for changing over the names. All that's left is to complete the forms I have with me and return them to the bank.
8. Employee Identification number: In the spring Mike requested an EIN as he had to send a 1099 form to Patricia Beavers which is required for independent contractors paid \$600 or more. I found out that after our visit to the bank we already had an EIN. I talked to IRS and Mike and he needs to send in a form and let them know which number he wants to keep. He said he'll keep the newer number.
9. I've been trying to get a tax exempt certificate from the State as we some times we have requests for it from suppliers. Before they will issue a certificate we need to create an account but before they can do that I had to request a letter from the IRS which is on it's way.
10. Discussion on meter rates: I talked with Patrica and she says it's not uncommon to have different rate for commercial, multi-unit apartments and residential. I think we should stick with the \$6.50/100cf for commercial as that's what Gifford is currently paying. The multi-unit and residential need further study.

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Engineer's Report Sept. 14, 2017

1. On Aug. 14th I met with Matt Gadboise of Gillespie Fuels and we signed the contract. The first meters were installed on Aug. 15th. As I expected, getting all the meters installed within 2 weeks was a bit optimistic. As of this date there are still about 5 left to be put in. The latest update from him is that they should be done by the end of next week. I expressed my displeasure with how long this is taking.
2. On Aug. 24th I met the propane delivery driver at the pump house to fill the tanks (which Mike thought were empty). He checked the tanks and said the large tank was nearly full. It only took 21 gallons of propane. He then looked at the propane heater to see if he could get it going but had no luck. I scheduled an appointment with their technician for Sept. 18th.
3. On Aug. 28th I changed the outside reader at the dentist. They had an old style and it wasn't working.
4. On Aug. 29th I worked with Aaron Emmons to change his service piping. It involved shutting the service off and disconnecting the old pipe and reconnect new polyethylene pipe and fittings. The job went smoothly with no leaks.
5. Read all the water meters that are installed. Trudy helped me and it only took a little over 2 hours. When I got home I entered all the reading in a spreadsheet and calculated the bills for Gifford and Lu and sent Mike the results.
6. On Sept. 5th we got a desperate call from Jackie Dowd that water was running in her basement. I quickly went down to shut off her service. The basement was flooded with several inches of water. Unfortunately it's a finished basement. The water was leaking from the newly installed meter. Gillespie's men showed up and we started cleaning up best we could. One of the men fixed the meter installation. First Choice Restoration was called in and the estimated damage was \$4,000. I talked with Jackie a couple days later and she was satisfied with the work being done.
7. On Sept. 6th Matt Gadboise of Gillespie called me to discuss the problem at Dowd's. The want to blame it on one of the fittings. He wanted to have it tested by the manufacturer. I arranged it with Prescott's and he took the fitting there the next day. I suspect that there was nothing wrong with the fitting and that it was human error.
8. On Sept. 7th John and I worked on drafting a letter to send out with the water bills explaining when the transition from flat rate billing to metered billing will take place. I also put together a sheet with tips on how to conserve water. I printed out about 45 copies and took them to Mike.
9. I sent Valentia Lackard a letter regarding getting access to her basement to have the water meter installed. I basically threatened her with a fine if she didn't contact me or Gillespie's by Sept. 11th. She emailed me on the 11th with her excuses but she agreed to work out a time to have the meter installed.
10. On Sept 9th John and I walked most of the system so that he would be more familiar with the location of the critical gate valves that may have to be closed in the event of an emergency.
11. On Sept. 13th Williams Builders started the work on the pump house. They finished today. We have new keys.
12. Trying to schedule replacing the church service for the week of Oct. 9th because VTC kids will be off. Bart says he wants to do it but he's very slow in responding.

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Engineer's Report Oct. 12, 2017

1. Sept 15th - repaired a leak on the pressure gauge line at the pump house and fixed Charlie Squire's service box that was sticking up to high.
2. Sept 18th - I met with a propane technician from Dead River to repair the propane heater at the pump house. The heater was in bad need of cleaning and some parts replaced. He spent about 1 1/2 hours on it and it's now running well.
3. Oct. 5th - Attended the workshop "Rates and Finances for Small Water Systems" in Rutland from 8:30 to 4:30. It was presented by the UNC Environmental Finance Center They discussed ways to determine what your rates should be so that your water system remains financially sound sustainable and resilient. Asset management a Capital Improvement Plan play important roles in determining future needs. Their website contains a lot of information regarding finances for small water utilities. (www.efc.sog.unc.edu). I have not had a time lately to check out their site except to browse through it.
4. Jason Williams dropped off a support post to go under the beam at the pump house. I told him I would install it instead of trying to schedule a time for him to come back to do it. I installed it on Oct 10th.
5. Oct 11th - Worked with Bart Parmalee and Dean Salls to install a new service to the church and disconnect the old service that ran under the parking lot here at the school. Everything was going smoothly until we hit the 6" main put a 2" hole in the side of it. It quickly filled up the trench before we could get it shut down. We lost about 2 hours in getting the job complete but finished up around 5:30.
6. Oct 12th - I spent time at the church installing an extension on the service box and did some work in the basement of the church to make the new valve that was buried accessible. The faucet strainer's had to be removed and cleaned and I swept and vacuumed the dirt that we had tracked in. Bart may need to go back and check the furnace before too long as water got into the basement after the waterline break.

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Engineer's Report Nov. 9, 2017 Meeting

1. Oct. 19th - Met with Justin Ford (40 acre Tree Service) about removing the brush over the waterline in front of the red school house. He will get to it sometime this fall when he has time.
2. Oct. 20th - I went to the church to finish up the job there. Put plastic up over the wooden doors we had to remove to keep cold air out. Shoveled out the the muck that was on the floor near the furnace after the ditch flooded. Took ties to the new shutoff.
3. Oct. 24th - John and I participated in a conference call with the Environmental Finance Center (same company that put on the workshop in Rutland, I attended. We discussed the need for a budget, asset management plan and capitol improvements. We talked about the transition from flat rate billing to metered billing. They suggested we may want to consider quarterly billing to reduce the chances of customers getting huge bills because of a leak or some other factor. They sent us some information and gave us a contact that could help us with developing budgets and asset management plan.
4. Oct. 25th - Went to shutoff the service to the Campground per Clark Campbell's request as he had a leak. I ran into a problem right away in that I couldn't get a wrench down the box. I got Moe Clark to help me dig up part of the box to see if we could access the rod. The box was full of dirt and was bent. We worked on it a couple of hours before we could get the wrench on. I tried shutting off the line but something wasn't working properly to allow me to do that. I worked with Clark a little on how to get a valve on a live pipe. He was successful after a while so it relieved us of having to try and repair the shutoff starting at 3 in the afternoon. We scheduled the repair for Oct. 31st.
5. Oct. 31st - Repair of Campground service. I got Dean Salls to do the digging. Mike Regan and Moe Clark also pitched in. It took about 6 hours to get it fixed. We found the old shutoff has no rod connected to it. May have rusted off. We decided to cut out all the old piping and install new valve and pipe. We also found an old abandoned service near it that was leaking, so we fixed that also.
6. Nov. 6 - Went to pump house to check on things and install an ultrasonic rodent device but when I plugged it into one of the outlets and turned on the power I got a large spark and it tripped the breaker. It also fried the device. I'm going to get Moe down to look at it. It may be corroded wires due to the chlorine.
7. Nov. 8th - Outlets at pump house shorted out when I plugged in something. Got Moe Clark to replace what turned out to be outlets that weren't the correct amperage (15A instead of 20A). Went to Randolph to get new outlets.
8. Nov. 8th - Talked with John Hammer, the State Plumbing & Heating Inspector regarding the plumbing code for when thermal expansion tanks should be installed. The code requires them whenever a check valve, pressure reducing valve or a backflow preventer is installed. He wanted to know who the plumber was and whether they filed a work permit. I told him it was Gillespie but didn't know anything about a permit. He said he'd check on it and call Matt Gadbois at Gillespie regarding the matter. Waiting to hear back from him.

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Randolph Fire District #1

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Engineer's Report Dec. 14, 2017 Meeting

1. Nov. 21st - Spent some time at the pump house replacing a hose that Scott Beavers thought should be. I checked the propane level and it was at 55 which seemed lower than it should. I shut off the exhaust fan and covered it for the winter. I also turned the electric heat up a little above the lowest setting on the propane heater with hopes the propane won't run out before spring.
2. Nov. 29th - Matt from Gillespie dropped off the meter tags I'd been asking for. I wasn't home at the time. I reviewed all the tags and couldn't find one for Lackards. That meter was supposed to be installed on Oct. 5th. I went to Valentia's house to see if there was an outside reader and I did not see one. She wasn't home. I sent her an email asking about why the meter didn't get installed. She has not responded.
3. Nov. 29th - Called Gillespie's Northfield office and spoke with Sherry about the invoice they sent for the meter installations that was billed to the Fire District but care of the Town of Randolph. I explained that we are not associated with the town and gave her the correct information. I also spoke to her about being charged labor for 32 meters when only 31 were installed. I asked her to back that off and send us an updated invoice with correct information.
4. Nov. 30th - Read all the water meters and entered the amounts in to a spreadsheet. I was surprised as how much water some residents used in 3 months. I will review those figures later.
5. Dec. 2nd - I worked on the spreadsheet for meter readings and projected usage for 6 month period. It appears for the amount of water that was used that we may not be pumping enough each day. I estimated that we will need to pump and extra 45 minutes per day to meet demand. I haven't made any changes to the pumping time as of today.
6. Dec. 4th - Reviewed new statements from Gillespie. There were 3 additional charges on the statement that we have no invoices for so don't know what the charges are for. I again called Gillespie and told Sherry that the last statement didn't reflect the credit for 1 meter not installed of \$255. I also explained to her that we can't pay the other charges until we receive invoices for the actual work so we know what we're paying for. As of this writing I still have not received the invoices.
7. Dec. 8th - Mike stopped by with his computer so that I could get printouts for the Treasurer's Report. At 11 I met Carolyn at Peter Paul's and we shut his water service off and removed the water meter for the winter. He is taking responsibility for draining all his pipes so he didn't have any freeze ups.
8. Dec. 20th - Coming up next week is the Sanitary Survey of our system which is done every 3 years. A sanitary survey as defined by the State is: "an onsite review of the water source, facilities, equipment, operation, and maintenance of a Public Water System for the purpose of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water." Patricia will have more on this later.

Respectfully submitted
Bill DeFlorio, Engineer