



**TOWN OF BOURNE  
BOARD OF HEALTH  
24 Perry Avenue  
Buzzards Bay, MA 02532  
Phone (508) 759-0615 x1  
Fax (508) 759-0679**



Cynthia A. Coffin,  
Health Agent

**MINUTES  
JANUARY 25, 2012**

**Members in attendance: Kathy Peterson, Chairman; Stanley Andrews, Vice-Chairman;  
Galon Barlow;  
Absent members: Carol Tinkham, Don Uitti**

**Support Staff in attendance: Cynthia Coffin, Health Agent; Carrie Furtek, Health  
Inspector; Melissa Chase, Secretary**

**Meeting was called to order at 7 PM by Chairman Kathy Peterson.**

**1) ISWM**

- a) Dan Barrett—update on Phase IV construction project and gas collection system expansion project**
- b) Covanta- presentation from Covanta about flyash and discussion regarding ISWM operations relative to the future possible acceptance of flyash**

Mr. Barrett began his presentation by with an update on the Phase IV liner project. He stated that favorable weather conditions so far this fall and early winter have allowed ET & L to continue to make progress. The most noticeable thing is the clearing at the front gate, which is pretty dramatic as it was expected to be. Mr. Barrett has met with the Gun Club to try to let them know that the work was going to be done. Certainly, the driveway is much more open. The lane to the right as you drive in has been dug back to allow for widening of the entrance. ET & L will finish that area and pave it in the spring. The scales will be moved back, and the entrance will then be a lot neater, a lot cleaner and traffic will flow better. There will be new scales and a new scale house; the scales will be pushed back to where the old guard shack used to be. There will be 2 lanes around it, and a lane on and a lane off; there will also be a new septic. ET & L is going to continue work this week screening sand; they are also working on the gas wall expansion. The intent is for them to stop working for a month as of Feb 3, with a return date of the week of March 5.

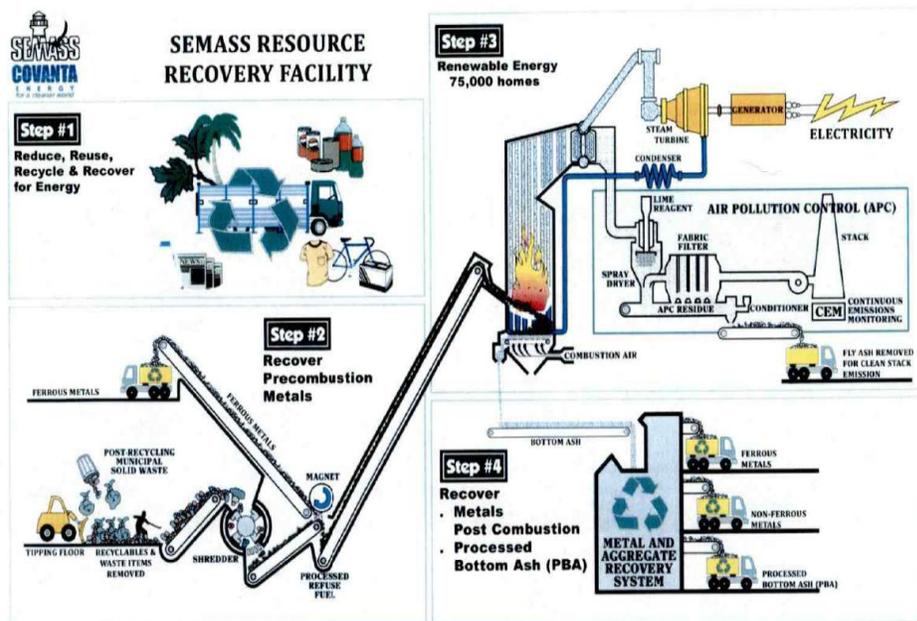
The Stage 2 well installation project was begun by ET & L on January 19, 2012. Recovery Drilling Inc. was on site and began drilling; they have drilled every well on site, and they really know what they are doing. They are very aware of what they need to do to keep the Town happy and look at the well report every morning and weather report to make sure everything is in order for drilling, along with the engineer, ET & L and the ISWM staff. Mr. Barrett said there were no odor complaints this time around, so he feels it worked out pretty well. They have completed the drilling of 6 wells, and ET & L has already started some of the pipe work so it is moving along very quickly. The biggest thing there is that they had proposed to drill eight wells, but were only able to get six. They have not gotten up to finished grade in two spots. The good news is that they

are planning on capping that area. There has been a significant drop in hydrogen sulfide production in the area, but are peeling it back a little at a time to minimize the possibility of odor and covering it immediately. Hydrogen sulfide tends to degrade at 40% a year, so it has been good that they've waited about a year and a half to get back in there. The wells that are being talked about for drilling are going in the last area that they don't have vacuum on. By Friday (1/27) there will be vacuum on it. The plan is to cap Phase 2A/3A (pending Town Meeting approval) beginning late summer. This is the area that has historically caused the most odor issues. They are ahead of schedule at this point. Hopefully as soon as Town Meeting is over, the pit process will be done and they will be ready to start. Typically DEP doesn't like an area to be capped if it not able to be covered and get vegetation on. They have run it by DEP that they will cap it and get sand on it, so that they will have better gas containment and reduced leachate water infiltration. ISWM will come back before the Board to inform them if that is what they are going to do and if DEP will allow them to cover with plastic to cover it up for the winter and complete it in the spring/summer. Mr. Barlow asked if there was going to be another lift on section 1, since 2A/3A is higher. Mr. Barrett stated that there was not a plan to do so. They were talking about excavating a nearby section. DEP was happy with the way Phase 1D went, so they were encouraging them to do so. However, Mr. Barrett felt there was too much newer waste (more plastics and things that were not seen in 1D). There is potential to exhume that, but there is not a plan to do so at this time.

At this point, Mr. Barrett stated that he had asked the Board on November 9, 2011 to consider accepting Fly ash at the landfill. The Board said that they would like to have a presentation from Covanta similar to the one that was done when the Board considered accepting Bottom Ash. Covanta was contacted; Mr. Ken Ryan and Mr. Derek Grasso were in attendance to present the following presentation on Fly Ash (PowerPoint presentation inserted into Minutes):  
Before the presentation by Covanta, Mr. Barrett explained that the landfill currently accepts, with the Board's approval, processed bottom ash, and have been talking about expanding their relationship, for many different reasons, both operationally as well as environmentally, to include fly ash. Covanta produces enough processed bottom ash to allow us to fill up pretty close, but it could be topped of with fly ash.  
Mr. Ryan brought samples of processed bottom ash (PBA), fly ash, and a combination of the two for the Board to see/smell.



# SEMASS



The slide above shows the process that Semass goes through to produce the ash. The electricity produced in step 3 is sufficient to supply about 35,000 homes. The leftover from step 3 is where the ash products are from. The bottom ash that comes out the bottom grate is heavier, coarse granular material. This is taken and processed to remove metals (ferrous and non-ferrous) and the end product is processed bottom ash (PBA) which is currently accepted by the landfill. It is used for grading and shaping, and cover material. The fly ash is the residue that comes out of the air pollution control equipment. It is lighter material. It is conditioned, basically just adding moisture content to it. It is transported in a damp state. Currently, these go out in separate trucks because they are produced on separate areas of the plant.



## Types of Ash

- **Bottom Ash (BA)**
  - Non-combustible residue collected from boilers. Processed at facility to remove ferrous and non-ferrous, sized for beneficial use projects.
- **Fly Ash (FA)**
  - Residue from the air pollution control system. Conditioned with water before transport.
- Currently shipped separately at SEMASS. Most energy-from-waste facilities combine FA and BA and ship together. End disposal is the same – combined in a landfill.

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## Ash Testing

- Ash is a solid waste, and generators of solid waste must determine if it is hazardous or non-hazardous in accordance with USEPA and/or MassDEP regulations and guidance.
- This determination is made by specific sampling programs and laboratory analyses.
- Generator knowledge of process can be used once baseline analytical data is obtained, unless testing is otherwise required.

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Derek Grasso, regional environmental manager for Covanta, explained again that the fly ash and bottom ash from Semass is sent out separately, and therefore must be tested separately to be characterized as hazardous or non-hazardous in accordance with USEPA and/or Mass DEP regulations. This is the same testing that is used on any kind of waste. Once there is a good database for analytical data for any particular waste product, as long as the process remains the same, continued testing may no longer be required.



## Ash Characterization

- What is a hazardous waste under Federal and State regulations?
  - Specifically listed (**ash is not**)
  - Toxicity Characteristic:
    - “Leachability” of listed metals and organics. Determined with Toxicity Characteristic Leaching Procedure (TCLP) Analysis. TCLP developed by USEPA to simulate leaching in an MSW landfill.
- All sampling and testing is done in accordance with USEPA regulation and guidance, adopted by MassDEP.

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## SEMASH - Bottom Ash TCLP

Sample	Concentration Levels (mg/l)							
	Arsenic (As)	Barium (Ba)	Cadmium (Cd)	Chromium (Cr)	Lead (Pb)	Mercury (Hg)	Selenium (Se)	Silver (Ag)
1	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
2	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
3	1.00	0.69	0.10	0.20	0.50	0.001	0.50	0.10
4	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
5	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
6	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
7	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
8	1.00	0.50	0.10	0.20	0.50	0.001	0.50	0.10
9	1.00	0.57	0.10	0.20	0.50	0.001	0.50	0.10
10	1.00	0.58	0.10	0.20	0.50	0.001	0.50	0.10
<b>Average:</b>	<b>1.00</b>	<b>0.53</b>	<b>0.10</b>	<b>0.20</b>	<b>0.50</b>	<b>0.001</b>	<b>0.50</b>	<b>0.10</b>
<b>TCLP Threshold</b>	<b>5.00</b>	<b>100.00</b>	<b>1.00</b>	<b>5.00</b>	<b>5.00</b>	<b>0.20</b>	<b>1.00</b>	<b>5.00</b>

Notes: Results below laboratory detection limits are presented as equal to the detection limit

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## SEMMASS - Fly Ash TCLP

Sample	Concentration Levels (mg/l)							
	Arsenic (As)	Barium (Ba)	Cadmium (Cd)	Chromium (Cr)	Lead (Pb)	Mercury (Hg)	Selenium (Se)	Silver (Ag)
1	0.05	1.41	0.95	0.05	0.11	0.0023	0.20	0.05
2	0.07	1.42	0.27	0.05	0.05	0.0023	0.26	0.05
3	0.05	1.22	0.23	0.05	0.05	0.0006	0.20	0.05
4	0.06	1.26	0.11	0.05	0.05	0.0006	0.24	0.05
5	0.05	1.20	0.07	0.05	0.05	0.0005	0.19	0.05
6	0.06	1.17	0.06	0.05	0.05	0.0004	0.24	0.05
7	0.05	1.25	0.06	0.05	0.05	0.0005	0.20	0.05
8	0.05	1.25	0.45	0.05	0.07	0.0014	0.21	0.05
9	0.05	1.41	0.05	0.05	0.05	0.0004	0.18	0.05
10	0.06	1.73	0.05	0.05	0.05	0.0004	0.26	0.05
11	0.05	1.29	0.29	0.05	0.05	0.0004	0.18	0.05
12	0.05	1.28	0.13	0.05	0.05	0.0004	0.20	0.05
13	0.05	1.20	0.05	0.05	0.05	0.0004	0.20	0.05
14	0.05	1.32	0.05	0.05	0.05	0.0004	0.19	0.05
<b>Average:</b>	<b>0.05</b>	<b>1.32</b>	<b>0.20</b>	<b>0.05</b>	<b>0.06</b>	<b>0.00</b>	<b>0.21</b>	<b>0.05</b>
<b>TCLP Threshold</b>	<b>5.00</b>	<b>100.00</b>	<b>1.00</b>	<b>5.00</b>	<b>5.00</b>	<b>0.20</b>	<b>1.00</b>	<b>5.00</b>

Notes: Results below laboratory detection limits are presented as equal to the detection limit

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The above charts are the 2011 TCLP testing results for the ash at Semass. Where the numbers are the same, that means that the actual result was below the detection limit, and that number is the detection limit.



## Fly Ash Disposal Experience: CMW Landfill

- All SEMASS fly ash has been disposed of at CMW landfill since the facility's construction in 1989.
- Original cells were ash-only (bottom ash and fly ash). Then, "ash over trash".
  - Since 2002 ash and MSW have been co-mingled in cells.
- **CMW leachate testing shows TCLP metals far below TCLP thresholds. Consistent with TCLP characterization.**

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There is 22 years of data from the CMW landfill where Semass ash has been trucked since 1989. There were segregated cells of just ash, and then "ash over trash." Throughout the quarterly testing since 1989, the CMW landfill, in "real world testing", has shown leachate far below the detection thresholds.



## CMW Landfill: Annual Average Tons of Ash, MSW and C&D, 2002-2010

### Disposal:

Fly Ash / Bottom Ash liner	160,897	45.6% of total
Nonprocessable MSW and Bulkies	84,314	23.9% of total
<b>Total</b>		<b>69.5% of total</b>

### Cover:

SEMASS Bottom Ash	82,171	23.3% of total
C&D Fines and Other:	25,555	7.2% of total
<b>Total</b>		<b>30.5% of total</b>

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## CMW Landfill: Combined Leachate

All concentrations in mg/L					TCLP				
	1/19/2011	4/26/2011	7/20/2011	10/20/2011	Threshold	GW-1	GW-3	UCL	MMCL
Arsenic	0.056	0.083	0.117	0.054	5	0.01	0.9	9	0.01
Barium	7.17	8.22	10.7	9.94	100	2	50	100	2
Cadmium	<0.04	<0.04	<0.004	<0.04	1	0.005	0.004	0.05	0.005
Chromium	<0.1	<0.1	0.03	<0.1	5	0.1	0.3	3	0.1
Copper	0.378	<0.1	<0.01	<0.1	N/A	N/A	N/A	N/A	1.3
Cyanide (Total)	<0.01	0.006	<0.025	<0.05	N/A	0.2	0.03	2	0.2
Lead	0.241	<0.1	<0.01	<0.1	5	0.015	0.01	0.15	0.015
Mercury	<0.001	0.0002	<0.0002	<0.0002	0.2	0.002	0.02	0.2	0.002
Selenium	<0.1	<0.1	<0.1	<0.1	1	0.05	0.1	1	0.05
Silver	<0.07	<0.07	<0.007	<0.07	5	0.1	0.007	1	N/A
Zinc	1.1	0.54	0.066	<0.5	N/A	5	0.9	50	N/A

GW-1 and GW-3: MCP Method 1 Groundwater Standards

UCL: MCP Method 3 Upper Concentration Limits (UCLs) in groundwater

MMC: Massachusetts Maximum Contaminant Levels - Drinking Water

Leachate is from all cells: Open and Closed, Ash-Only and Ash-MSW.

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## Summary

- SEMASS transports Bottom Ash and Fly Ash separately. Most Energy-From-Waste (EfW) Facilities combine them. All EfW Facilities generate Fly Ash.
- Bottom Ash and Fly Ash have been deposited at CMW Landfill for 21 years with no adverse affect.
- Bottom Ash and Fly Ash are non-hazardous.

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Mr. Barlow asked since they basically recycle the leachate, if it shows any evidence of increased or built-up toxicity. Mr. Grasso reiterated that the leachate is not toxic. Mr. Barrett said that if it is re-circulated in a bioreactor it can become problematic. But under these conditions it is not an issue. Mr. Andrews commented that the fly ash was much finer than the bottom ash (which appears rather gravel-like). He asked if the ash was wet down with the leachate as processing before shipment. He asked what other handling methods were used when it is brought into the landfill to minimize backtracking off the landfill. Mr. Ryan said that it is really based a lot on the management of the landfill. It is best not to cover every road with it so that every truck drives through it, and use it in a controlled manner. It is a waste product, and you'd want to treat it like any other waste. He says that it is not anything extraordinary; it comes in moist so it isn't dusty and blowing all over, and just needs to be managed like other landfill materials. Mr. Andrews asked if when the two types of ash are mixed they remain moist. Mr. Ryan said yes. Ms. Peterson commented that one of the ash samples (PBA) had more of an odor than the fly ash. Mr. Ryan and Mr. Grasso agreed, saying that the PBA has a burnt ash smell. Ms. Peterson asked what the worst potential in terms of odor could be. Mr. Grasso said that he has never smelled it any more pungent than what was in the sample containers. Because of the type of the plant that Semass is, they shred the trash ahead of time, so there generally is no unburned garbage in the ash. Ms. Peterson commented on the ash in Nantucket smelling terrible. It was pointed out that they were composting, so there was organic microorganisms in the ash. Mr. Barlow asked if, in the twenty years that Carver has been accepting ash, there has been odor problems associated with it. Mr. Ryan said no. Mr. Andrews asked if there was any product in the ash that could break down and cause odor. Mr. Grasso pointed out that Fly Ash is produced at 2000 degrees Fahrenheit; there are no organics that would be left in it. Audience member Mr. Mulvey expressed concern with the solubility of both the fly and bottom ash, and the leachate as it goes down through the biomass, would interfere with the gas generation, which would be an economic factor. Mr. Grasso stated that the ash will not generate gas, but the MSW that is in the cell with it will continue to degrade and generate methane. Mr. Grasso did agree that a cell that has more ash than MSW in it will produce less gas because ash does not produce methane. Mr. Ryan stated that the Ph value of the leachate is in the 6-7 range. Mr. Barlow asked the percentages of fly to bottom ash. Mr. Grasso stated that, by weight, it is about 55% PBA and 45% Fly Ash. Ms. Peterson asked if, in a worst case scenario, a truck full of fly ash tips over, what problems will that cause. Mr. Ryan said that it would be a messy spill, but the ash is wet so it would not be blowing all over. Unless it falls into a river, it's not going to go anywhere before a clean-up crew arrives. Ms. Coffin asked if drivers were trained in what to do if there was a spill. Mr. Grasso stated that he is not involved in the transport, so he doesn't know what procedure and training are. He did state that right now, the Fly Ash takes a five mile trip from the plant to CMW. Mr. Ryan stated that they do not own the transport trucks, so the contractor would be responsible for that. Certainly they do take a contractor's safety and environmental record into consideration when hiring. Mr. Barrett stated that, as a truck driver, they are all trained in emergency procedure. Ms. Peterson asked for small containers of the ash samples could be forwarded to the Health Office to keep on record with the Covanta file so that the public would have easy access to view them. Ms. Peterson said that the Board would vote at the next meeting (Feb 8, 2012) and asked for Mr. Barrett to drop something to the office asking for a vote on the acceptance of Fly Ash to be taken by the Board. Mr. Andrews also asked if he could include with that an operational plan be included with that request, stating how they would operate with the fly ash.

**2) Pocasset Mobile Home Park : Attorney Chuck Sabatt—Discuss and vote regarding issuance if 2012 license for the PMHP**

Present for this item were Attorney Chuck Sabatt and many residents of the PMHP.

Attorney Sabatt requested that the Board extend the license to the Park with the same terms and conditions that were previously/currently in place. He stated that by next week (week of Jan 27-Feb 3, 2012) he would be submitting his report to the Suffolk Superior Court on the feasibility of constructing an onsite septic treatment plant. He anticipates that feasibility of the project will be dependent upon other things falling into place, particularly in terms of the authority the Court will give the receiver in respects to the property. Regardless of the conclusion, and regardless of the authority given, the worst case scenario of the Park being closed will be a minimum of 2 years to completion because they would be legally required to give people time to relocate. There will most certainly be a process to that closure, and the residents would continue to receive services until completion. No matter what the outcome of the next few months will be, there will need to be time allowed. There is a permit in place for the construction of the plant, with the 26 acre back parcel included, which calls for the construction of additional facilities (retirement community, and some other ancillary operations) all of which would be way beyond what Attorney Sabatt could do within his receivership, and are speculative ventures. The permit they are looking at would be confined to the 149 sites currently existing at the Park. Ms. Coffin stated that the septic, at this point, has been holding its own, and is inspected every week; she witnesses that inspection every three weeks. There are still 8 leach pits that are functioning well. Attorney Sabatt stated that he has committed to replacing some of the conduits; plans have been approved by DEP. There is 1 bid in on that project, with 2 more bids on the way. This should help those leach pits to remain functioning. It is known that those pits are a temporary fix, and fingers are crossed that they will continue to hold; he felt the mild weather thus far this winter has helped. Ms. Peterson asked when he felt he would be informing the Board as to his plans. He said he would forward a copy of his report to Cindy Tuesday the 28<sup>th</sup> or Wednesday the 29<sup>th</sup>. Mr. Barlow pointed out that his report would be nice to have, but it ultimately is the judge's ruling that the Board is looking for, because the judge will be the one that decides what is to be done, regardless of what Attorney Sabatt feels should be done. Attorney Sabatt requested for a 60 day license, and he would appear before the Board before that time to review and extend. Mr. Andrews felt that this was a new application for 2012, not an extension of the 2011. He asked if Attorney Sabatt was fine with the August 2011 stipulations to be in place on the 2012 license. He said yes. Mr. Andrews felt comfortable with that. Mr. Barlow stated that he agreed with Ms. Peterson that Sabatt needed to come before the Board again within 60 days for review, but that he felt comfortable issuing the license for the year with that requirement. Ms. Peterson asked for Attorney Sabatt to come before the Board at the very next meeting after the judge's decision comes in. Attorney Sabatt stated that he would not ask the Board to make a decision "blindfolded"; he forwards his monthly reports to the Health Agent and he will provide any information that they require, as well as report to the Board as frequently as asked. Mr. Andrews pointed out that the Board can always review and revise the stipulations as needed, as they have done in the past. Mr. Barlow felt that, in his opinion, it wasn't about Attorney Sabatt, but rather for the residents that the license be renewed, to help them feel more comfortable.

**Mr. Andrews made a motion to issue the license for PMHP for January 1, 2012 ending December 31, 2012, with the 8 conditions voted and amended by the Board on August 10, 2011 and that the receiver of the Park report to the Board of Health at intervals of no more than 60 days. Mr. Barlow seconded the motion. The motion to issue the 2012 license for PMHP passed unanimously.**

*Mr. Joe Pachico of 6 5<sup>th</sup> Ave* asked for a copy of the 8 stipulations that were approved in August. Ms. Peterson provided him with a copy of the approved August minutes, rather than having them read into record again.

*Diana Barth of the Bourne Enterprise* asked for clarification on how often the Board wanted Attorney Sabatt to appear. Mr. Andrews stated that it was not to exceed 60 days, unless new/different information was available earlier than that.

*Rosalie Cole* asked how the residents of the Park would know when he is due to report. Ms. Peterson stated that the Agendas are posted, and they can call the office if to find out. She stated that the residents can rest assured knowing that he will appear at minimum every 60 days. Ms. Coffin said that she assumes that Attorney Sabatt will be continuing to schedule regular meetings with the residents. He stated that he would indeed be doing that, and that he was just sending notices for a meeting on Feb 4, 2012 at 10 am.

Ms. Furtek asked how long it may take for the judge to deliberate. Attorney Sabatt said that was unknowable. But he felt the judge is “pretty efficient”, and that he expected her decision to come through within a month.

### **3) Pocasset Mobile Home Park—Rosalie Cole—Discuss and possible vote regarding complaint about water pressure issues**

*Rosalie Cole, resident PMHP*, expressed concern about the water pressure at her trailer. To fill the sink, it takes forever. It takes a long time to rinse her hair. She has heard that there is a water regulator that was replaced fairly recently, but when it was put in it was turned down. She wanted to know if there was any way that the water regulator could be checked. Attorney Sabatt stated that he didn't even know what a water regulator is, but that he would have someone look into it. Ms. Coffin stated that it was installed when the main water line was redone a few years ago; it should be located where the water district line ends. She does remember there were complaints about low pressure, but recalled it being taken care of. She said that the water district should be able to assist him with that. Attorney Sabatt stated that he has not instructed anyone to turn it down, and he acknowledges that the water system is in great need of being repaired/replaced, and that is accounted for in his report to the Court. He stated that Linda Fobert, the property manager of the Park, to his understanding, had visited Ms. Cole's trailer and had not found any remarkable drop in pressure. He has not had any other complaints, but he is aware that it is an issue because of the condition of the water system. He is pretty confident that it is leaking in places, and if the Park is to remain open, it will be replaced. Ms. Cole stated that she realizes that it is expensive to check each trailer, but wondered if in the future that would happen. Attorney Sabatt explained that (for privately owned trailers) his responsibility for the water ends at the connection to the trailer. Some of the trailers have their own internal water issues that are the homeowner's responsibility. If there are leaks, he repairs it up to the connection to the trailer. *Gail Daniels, 17 1<sup>st</sup> Ave* stated that she had complained about water pressure as well. She said that every time they add a new trailer/ set one up, the water pressure gets turned down and they don't turn it back up. She said that this happened a year ago when a new trailer was added, and the manager then (Scott) informed her that the pressure would be down while they set up the trailer. She stated also that a trailer on 5<sup>th</sup> street had water running out of it for quite some time and didn't know if that had been taken care of. Attorney Sabatt stated that there was an unoccupied trailer on 5<sup>th</sup> Street that has been addressed. Ms. Peterson questioned why pressure would be turned down for a trailer installation. Ms. Daniels said she was told that it was turned down so that the pressure would be lower going into the newly connected lines. Attorney Sabatt reiterated that he would get the regulator checked. *Maggie Berg* asked about the emergency numbers that were supposed to be posted at the mailboxes. Ms. Furtek confirmed that the numbers were no longer posted and that it appeared that someone had torn them down. Attorney Sabatt said he would correct that immediately. No further action was required by the Board at this time.

**Mr. Andrews moved to adjourn the meeting. Mr. Barlow seconded the motion. Motion to adjourn was unanimously passed.**

**The meeting was adjourned at 8:05 pm.**

Respectfully submitted,

Melissa A. Chase  
Secretary

Kathleen Peterson \_\_\_\_\_

Stanley Andrews \_\_\_\_\_

Galon Barlow \_\_\_\_\_

Don Uitti \_\_\_\_\_

Carol Tinkham \_\_\_\_\_

cc Board of Selectmen/Town Clerk