



**TOWN OF BOURNE
BOARD OF HEALTH
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Cynthia A. Coffin,
Health Agent

**MINUTES
JUNE 22, 2011**

Members : Kathy Peterson, Chairman; Stanley Andrews, Vice-Chairman; Galon Barlow; Don Uitti; Carol Tinkham-

Meeting was called to order-7:00 pm

Ms. Peterson opened the meeting by stating that copies of the revised wind regulation draft were available at this meeting. There have been new additions to the regulation since the last meeting, particularly under Performance Standards. Per Attorney Wall, via Attorney Troy, New Generation Wind, from their attorney's perspective doesn't feel that they have had the proper time for public comment. Attorney Wall has given them 2 weeks to add comment. Performance standards weren't in last regulation, so they will be given more time to comment. There will be a meeting July 13th for a vote on Wind Turbine Regulations. Anything in writing will be accepted by the office but it must be received by July 7th. Ms. Coffin suggested putting the vote off until the July 27th meeting to give the Board more time too to address the comments. Ms. Peterson stated that the Board will not have the July 27th meeting or the August 10th meeting. The meeting on July 13th will be a regularly scheduled meeting. Next meeting after that will be August 24th. Attorney Troy stated that this extra time is needed. Ms. Peterson stated that there would be no public comment taken at tonight's meeting. Ms. Peterson reminded everyone that the comments had to be in to the office by July 7th to go out to Board in their packets. Brian Wall will make changes up to that time. Board has tried to be very articulate with Mr. Wall's help. No vote will be taken tonight. Mr. Barlow made a motion to continue the vote on the Wind Turbine Regulation to July 13th. Mr. Uitti seconded the motion. It was unanimous.

ISWM update: Ms. Peterson stated that following items would be discussed at tonight's meeting:

Update the Board on the progress toward issuing the RFP for the Land Lease on the southern 25 acre parcel

Update the Board on the progress toward issuing the RFP for Landfill Gas Utilization

Update the Board on the progress toward issuing the RFP for Leachate Evaporation Equipment

Progress report on Phase 2A/3A North Slope Cap Project

Mr. Goddard, ISWM Environmental Manager, was present for the updates. Mr. Goddard stated that he was filling in for Dan Barrett, the General Manager. He stated that ISWM is contemplating three requests for proposal (RFP's). ISWM has been working on these proposals in concert with ISWM's consultant George Aranson of Commonwealth Resource Management Corporation and the Landfill Business Model Working Group. This group consists of Chairman Pickard for the BOS, Stanley Andrews for the Board of Health, John Redmond from the Finance Committee, Bob Schofield from the Energy Advisory Committee, and Bill Ware, who is a member at large and is also on the Capital Outlay Committee. The Committee has been working for a year and has looked at a variety of ways to use the full 100 acre parcel. The facility is 75 acres for landfill, and 25 acres for the extra 2005 site-assigned land. The Committee has been focusing on that 25 acre parcel to look at sections that could be leased to address solid waste management challenges. There can be no items that would be contrary to the site assignment or the State's moratorium on combustion. There is a parcel of 6 acres within the 25 acres. It is at the southern end of parcel, abutting land not owned by the Town, conveniently located next to a water supply, fire suppression system, and has accessible power and will be accessible to the scales. As part of a diversification plan for the Town for that facility, ISWM wants something that makes money for the Town in perpetuity. Last summer, some technologies vendors came in and made presentation. Some were on digesting food waste and organic matter to make biogas to burn and make electricity from. Others were talking about using gasification which is high temp/ low oxygen to convert solids to a gas called syngas, which is carbon monoxide, hydrogen, and then make liquids or waxes out of it or use it to process biosolids. ISWM is in the final stages of the text on that RFP. Town Counsel is looking at it with Town Administrator. ISWM is close to issuing the RFP. There is a draft site lease in the RFP with terms that the vendor can propose and add. The main methods of compensation envisioned for the town would be through a site lease that would begin payments at certain milestones, i.e. signing the lease, construction, and then operation. There would be certain payments along the way. Then there would be the yearly lease payments or if tonnage is brought it then they would pay a host tax per ton to the Town. The RFP is not issued yet and ISWM will keep the Board informed.

Close behind this there is another RFP for Landfill Gas generated at landfill. As waste decomposes in the absence of oxygen it creates biogas. There is methane along with other constituents. This gas is cleaned, removing H₂S with a wet scrubber, and then it is flared. This is essentially wasted energy. The landfill is now producing a good quality methane. ISWM is at the point where they feel they have a moderate project to take gas and put it into a building with converted diesel engines where the gas would be used as a fuel to drive a generator and produce electricity. Right now they are looking at two engines to produce 1.6 - 2 megawatts. ISWM is in the midst of air permitting for this. ISWM is throwing out to vendors to utilize our gas --- landfill gas to energy. The RFP is not limited to this though. There may be other ideas such as a fuel cell and make electricity that way. National Grid was interested

at one time. They have since withdrawn their interest. Some other vendors may put in a proposal. This summer ISWM hopes to issue the RFP and not limit it to one technology. Town has to be clear to the vendors what the future of waste stream will be and what gas will be generated. Mr. Goddard stated that one company might generate the biogas but not want to create a separate power plant but wants to sell the gas to a vendor that has a power plant for the landfill gas. Then they would pipe it from 25 acre parcel to the proposed location for the landfill gas to energy plant which is on the landfill parcel. There could be synergies between the two RFP's. The vendors could take landfill gas and use in their own process or could sell the gas to a company to use elsewhere. ISWM did not want to exclude anyone.

The third RFP is for Leachate Evaporation equipment that ISWM would lease to own. The landfill gas would be used as an energy source to evaporate the water in our own leachate. Mr. Goddard described leachate collection process. ISWM is hauling 15 million gallons of leachate out each year. As sections are closed there should be reduced to 6-8 million gallons. There is equipment that will take landfill gas and use heat from that to evaporate the water. Then it would be managed on site. One option is to look at a million BTU basis and consider what is the return on the investment to the town. Compare if the million BTU is given to a vendor to make electricity what is the payment back to the Town, or should the Town put it into an evaporator that we own and we avoid the cost of getting rid of the leachate. The two processes need to be compared. ISWM has thought about all the possibilities. ISWM felt that the three RFP's would give them more clarity. It is all speculative right now. Right now the Town needs vendors with firm numbers. This summer, Federal Gov. thru tax rebates has sections for renewable energy projects. There would be a 30% rebate in calendar FY12. This is an effort to stimulate the economy but this has to be done by the end of the calendar year. This is not the only reason but it is a positive. It makes the economics that much more viable to the vendor and the Town should benefit from that as well.

Mr. Barlow commented that Waste Management has large landfill in Rochester NH. Mr. Goddard stated that it is the biggest in New England. One company with the type of technologies discussed is Heartland. They take waste heat from a landfill gas to energy power plant. Waste Management takes up to 4000 tons per day. The company actually heats the UNH College. Heartland arranged to invite the working group and Dan Barrett to attend a meeting at the facility in NH. Mr. Andrews also went on that trip. The members looked at the dynamics of a real gas plant. The Town wants to understand how it all applies to the law of thermal dynamics. The group is trying to decide what the return investment for the Town would be. Ms. Peterson asked if the Board members would be interested in looking at something like this as well. Mr. Barlow stated that if ISWM is going for an RFP the Board should have knowledge right up front. There may be odor issues or other issues. Mr. Barlow continued to say that if all the leachate were removed it would be hurting the local economy. Ms. Peterson stated that nothing will be signed until the Board of Health has reviewed and ISWM will not commit to anything. Mr. Barlow stated that the Town doesn't need any odor issues. Mr. Goddard reiterated that any proposals that came in would be reviewed and brought before the Board of Health for consideration. Mr. Barlow stated that he is still concerned about heat inversions and odor issues and he really wants to look at it. Mr. Goddard stated that there are

other facilities in nation. Mr. Andrews stated that the unit at Turnkey was the first of its kind to use waste heat from a generator. There are other systems that are actually direct fired units. There is a lot to learn about the technology. In the RFP, the vendors are required to send in technical data and background information and it all has to come before BOH before any approval. Ms. Peterson stated that when the Board had originally voted to allow ISWM to go forward with the RFP's it was stated that Town Counsel did not believe that the RFP's fell under the current site assignment, therefore the site assignment will have to be reopened if something doesn't come under what's been approved under the site assignment. Mr. Barlow stated that he doesn't care if the RFP is issued but that the Board of Health has to know right up front what is associated with each type of equipment. Mr. Goddard stated that by putting out the RFP the Town and the Board will get that information to make a better decision. No steps will be taken to implement anything before the proposal comes back to the BOH. Mr. Barlow stated that the Town doesn't need another nuisance. Jim Mulvey asked about gas production and whether it was consistent. Ms. Peterson stated that she doesn't think that this question can be answered the way the agenda is written. Mr. Mulvey then asked about other dissolved gases that might be in the leachate once it's heated to steam. Mr. Goddard said they are looking into whether another flare would be required for additional gases. It's all part of the review. Landfill gas is being combusted and in that process all the gases have to be handled. Mr. Mulvey asked about using gas for 2 generators and would the use of the gas allow constant use of those generators. Mr. Goddard says modeling is done. You have to look at a gas curve. A gas curve is an engineering exercise that's done based on the volume of and composition of the waste that's in place. Then there is a standard calculation rate for the decay of typical trash, with an organic fraction, and then they can predict how much landfill gas will be created based on the type of waste over a period of time. The gas curve is typically over a 20 year period. The curve can change depending on the waste stream. If mostly ash is in the waste stream, then gas won't be produced and vice versa with trash. The two engine model should have enough gas of quality and quantity to justify investment. It should generate 1.6-2 megawatts. Mr. Mulvey asked if there would be an excess of gas that could be used for evaporation. Mr. Goddard stated that a smaller scale evaporation might be able to be done, or it would have to be flared.

Report on Progress on Phase 2A/3A – Mr. Goddard stated that 'corrective action design' is the term for the work done this spring on the closure to 2A/3A north. The first area seen is a giant berm with new grass. The section then wraps around on the north boundary, parallel to Mo Beach Sportsmen Club, about half way up the road to where it meets Phase 2 and then up on top of the slope is an area where final grade has been hit. The outside slopes are at the final 3 : 1 slope. No more waste is planned for that area so it is capped. The capping consists of final grading, sand, 60 mil plastic high density polyethylene cap that is welded, a foot more of sand, and then 9 inches of material for supporting vegetation. ISWM screens its own sand for the proper porosity for drainage, and all the compost is screened for the vendor to use. Project came in ahead of schedule and on budget. The vendor put down hydroseed and grass is growing. Next season they will patch bare spots. ISWM also had installed a network of new gas wells to pull vacuum off the north slope. There

are now 61 wells for gas collection. This will go even further to control odors. Also when you seal the landfill it reduces leachate volume and keeps down odors as well. The company, ET and L, has demobilized. DEP was happy with the work done. They were on site in May. There were no significant odor or operational issues. A third party engineer oversaw all their work.

3. 105 Bellavista Dr. - Ms. Coffin stated that Ms. McCarty did not feel that the Board would grant her reduction in inspections, so she decided to go forward with obtaining the O & M for her alternative system, therefore this item will not be discussed. Mr. Andrews made a motion to deny the request as originally submitted. Mr. Uitti seconded the motion. It was a unanimous vote to deny.

4. 35 Ward Swift Road – Eric Healy & John Noyes - Request waiver for proposed renovation. Ms. Healy stated that she lives on cranberry bog in Cataumet. She has about a 500 square foot house. They have plans to change the crawl space to a full basement with future plans for renovations to add space to the bedroom. There is presently no closet space. The plan is to move the house over and also do three additions. The result is that there will be two existing bedrooms larger. Ms. Healy stated that the current septic system is a three bedroom system. The proposed addition will crowd the septic tank and therefore the tank will need to be moved. Ms. Peterson asked the applicant for the green cards and they were submitted. The relocation of the house is shown on the plan. The system has not been inspected since 1999. Ms. Coffin asked about the septic plans and said that she only saw one bedroom in the new architectural. It appears that the dining room is open to kitchen and office is also open. Ms. Healy stated that one of the bedrooms is now being called an office. Ms. Coffin stated that if the office is open it is not considered a bedroom and therefore the renovations would only be a 10% increase in bedroom space, not the 120% increase as is on plan. With the office being open, the work will actually reduce the 2 bedrooms to one bedroom. There will, however, be an increase in non-bedroom space of 72 % but there is a reduction of bedrooms. Mr. Andrews sees the reduction of one bedroom as a benefit. There was some discussion as to how the dressing room would be considered, but it was decided that this would be non-bedroom space. The applicants amended the calculations regarding the bedroom space percentages. Mr. Barlow motion to approve the request for 35 Ward Swift for proposed renovations as amended. Mr. Uitti seconded the motion. The motion was amended to add a 1 bedroom deed restriction recorded at the Registry and to require the Health Agent to conduct an inspection of the existing septic system. Mr. Uitti seconded the motion. It was unanimous to approve the request for the waiver. Ms. Coffin will write the letter to be recorded at the Registry.

5. Pocasset Mobile Home Park – Update and comment on Board of Health permit conditions by Attorney Sabatt. Ms. Peterson stated that Mr. Sabatt had a family medical emergency and would not be able to attend tonight's meeting. This item will be scheduled for a future meeting.

6. Approval of minutes dated May 25, 2011, June 1, 2011 and June 8, 2011. Mr. Barlow made a motion to approve the minutes of May 25th. Mr. Andrews seconded the motion. It was a unanimous vote to approve with an abstention from Ms. Peterson as she was not present at the May 25th meeting. Mr. Barlow made a motion to approve the minutes of June 1st. Ms. Tinkham seconded the motion. It was a

unanimous vote to approve. Mr. Barlow made a motion to approve the minutes of June 8th. Mr. Andrews seconded the motion. It was a unanimous vote to approve the minutes.

Mr. Andrews made a motion to adjourn. Mr. Uitti seconded the motion. It was a unanimous vote to adjourn. Meeting adjourned at 7:55 PM.

Taped and typed by

**Cynthia A. Coffin
Health Agent**

Kathleen Peterson_____

Stanley Andrews_____

Galon Barlow_____

Don Uitti_____

Carol Tinkham_____

cc Board of Selectmen/Town Clerk