

TOWN BOARD
FEBRUARY 27, 2002

A regular meeting of the Town Board of the Town of Bethlehem was held on the above date at the Town Hall, 445 Delaware Avenue, Delmar, NY. The Supervisor called the meeting to order at 7:30 p.m.

PRESENT: Sheila Fuller, Supervisor
George Lenhardt, Councilman
Doris M. Davis, Councilman
Daniel G. Plummer, Councilman
Thomas Marcelle, Councilman
Kathleen A. Newkirk, Town Clerk
Robert J. Alessi, Esq., Town Attorney

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Supervisor Fuller welcomed everyone to a regular meeting of the Bethlehem Town Board and invited them to join in the pledge of allegiance.

The first item on the agenda was a request from Commissioner of Public Works, Bruce Secor, for approval of award of bid for Radio Read Meters.

The motion was made by Mr. Lenhardt and seconded by Mrs. Davis to approve the award of bid for Radio Read Meters to E.J. Prescott, Inc., Montpelier, Vermont at the prices listed in the bid document, as recommended by Commissioner of Public Works, Bruce Secor. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The next item was a request from Bruce Secor, Commissioner of Public Works, for approval of award of bid for Chlorine.

The motion was made by Mrs. Davis and seconded by Mr. Lenhardt to approve the award of bid for Chlorine to the low bidder, JCI Jones Chemicals, Inc., Warwick, New York at the bid prices listed in the bid document, as recommended by Bruce Secor, Commissioner of Public Works. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The following item was a request from Commissioner of Public Works, Bruce Secor, for approval of award of bid for Materials.

The motion was made by Mr. Lenhardt and seconded by Mrs. Davis to approve the award of bid for Materials as requested by Commissioner of Public Works, Bruce Secor, to the companies listed in his Memorandum dated February 22, 2002 for the items and prices listed in the bid documents. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The next item was a request from Richard LaChappelle, Chief of Police, for approval of appointment of Telecommunicator effective March 9, 2002 at an annual salary of \$26,714.

The motion was made by Mr. Plummer and seconded by Mr. Lenhardt to approve the appointment of Kenneth G. Beck, Jr., Latham, NY to the position of Telecommunicator effective March 9, 2002 at an annual salary of \$26,714 as requested by Chief of Police, Richard LaChappelle. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The following item was a request from Nan Lanahan, Administrator, Parks and Recreation Department, for approval of award of bid for Sodium Hypochlorite Solution to the low bidder.

The motion was made by Mr. Plummer and seconded by Mrs. Davis to approve the award of bid for Sodium Hypochlorite Solution to the low bidder, Slack Chemical Company, Carthage, New York at the price listed in the bid document and as requested by Nan Lanahan, Administrator, Parks and Recreation Department. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The next item was a request from Building Inspector, Kevin Shea, for approval of dumping permit for Route 9W and Old Town Road, Selkirk.

Mr. Shea exhibited maps, one from the previous presentation and a new survey, indicating the location of a proposed building on the premises. Mr. Shea said the concerns were addressed.

The motion was made by Mr. Plummer and seconded by Mr. Lenhardt to approve the issuance of a renewal dumping permit for premises Route 9W and Old Town Road, Selkirk. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The following item was a request from Highway Superintendent, Gregg Sagendorph for approval of increase in Transfer Station, Construction and Demolition Landfill and Yard Waste Composting rates.

Supervisor Fuller noted the fees were last adjusted at the Rupert Road Transfer Station in February of 1991. She said additional costs have been incurred since that time in the disposal of certain items.

The motion was made by Mrs. Davis and seconded by Mr. Lenhardt to approve the increase in fees at the Rupert Road Transfer Station, Construction and Demolition Landfill and Yard Waste Composting facility. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

The following item was an update on the reservoir level and drought conditions; set water conservation measures for 2002; and consider resolution authorizing amending water supply application to extend period of pumping river water to Clapper Road water purification plant to supply Industrial areas.

SUPERVISOR FULLER: Mr. Secor.

MR. SECOR: In the package I sent out to the Board, the first piece of paper behind the cover letter was the reservoir report for February 15, 2002. That showed the current elevation at 376.3. We are now at 377.0 so we did pick up another 7/10s of a foot which is a help. That still only puts us at about 28 or 29 percent of capacity. We are still a far way from being up to where we normally would be. Our normal seasonal capacity at this time of year is 65 percent and we are sitting at about 28 percent. So... and unfortunately there's no snow pack up there that we can count on for melt so unless we get some significant rains over the next few months, we're going to have some additional things to worry about.

The other items that were enclosed with that Memo is that we did apply for the 30 day extension of the emergency pumping out of the river to supply the Clapper Road plant which supplies the industrial area. And, that was granted. I gave the Town Board... you have a copy of that letter back from DEC. DEC has started the State Environmental Quality Review of the proposed project so the engineering report and the cover letter and the application that we did back January 15th that was hand delivered to them and they originally gave us our approval on January 18th. They then wrote us a letter back, which again, I gave the Board a copy of, that asks for a number of specific items. Specifically they wanted a copy of the conservation form. That as submitted. A copy of a municipal resolution specific to this project that authorizes the withdrawal of 3 mgd from the Hudson River. A draft resolution was included with the Board package and an engineering report that contains the information... there are 14 points that they wanted there. So, we have prepared a revised engineering report which will be submitted tomorrow assuming the Board authorizes this resolution tonight.

In addition to that, they asked for some information on protection of fish and aquatic organisms. We've hired the firm of Lawlor, Tusky and Skelly to do the design for that. They have submitted a report. I gave the Board a copy of their draft report. That's enclosed with this. They are recommending that we put an item on which is wedge wire screen. Wedge wire screen is a very common thing to be used on intakes in the river and basically it's a special... it's a 2 millimeter screen that basically keeps out most egg larvae, all of the juvenile fish and the velocities on the screen are maintained at less than 1/2 foot per second so there won't be what they call impingement or entrapment of fish on the screen. So that the fish that are a little bit older, be like swimming in a current they can simply swim away from the screen. So, the consulting firm has done, I think, a very good job in preparing the report. They are extremely knowledgeable. They have done an awful lot of projects on the river and I think they'll be a great asset in helping us move forward with this.

All of this material we are planning to hand deliver tomorrow to DEC. As you can see from the DEC letter of February 7th, they've already started the lead agency coordination and are anticipating this application from the Town. They also included their letter... the DEC letter of February 15th where they said they had authorized the 30 day extension and said that and I will read this part "please be advised that by March 19th the project must be concluded or the department must have a complete application on file for the following permits". And, that is what we are submitting. Everything we're submitting is for all of the permits that they have listed there and basically between DEC and the Corps of Engineers they have simplified the process so there is a one page form and basically some check off boxes for which permits you need. But the information you need to submit, the application, all the back-up data is common to many of these.

So, we've also had the local consulting firm of Bob Ganley prepare the one report they wanted on sludge disposal. We're using CT Male to help us with some of the wetland issues and some of the other stuff that is going through. And, the joint effort... we've been able to turn around this application in a timely fashion so we'll get it into the DEC. It appears that the longest term thing will be getting to Corps of Engineers and to U.S. Fish and Wildlife for their response. So, we are going to

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hand deliver duplicate copies of originals to the Corps tomorrow so they can send that on down to New York City to the Fisheries people and then LMS will follow-up with them and make sure that they get any information they need immediately in response to that.

COUNCILMAN PLUMMER: Bruce, so, the 30 day extension, goes until... what is it March 17?

MR. SECOR: March 17 or 19, whatever this letter said.

COUNCILMAN PLUMMER: What's your sense then as to what the DEC turn around will be on what's going in tomorrow?

MR. SECOR: I think by the end of next week that they will be able to either tell us that we have a complete application or tell us what we don't have in order to get it to be complete. I really don't think we are going to have a problem getting to the point of having a complete application prior to that March date. The bigger issue is to follow-up very closely with the Corps of Engineers and get the Federal Fish and Wildlife back. We had a joint meeting with... Mike Cirillo and I went over to DEC along with the Chief Biologist from LMS Engineers and we had a very productive meeting with them and the Corps of Engineers participated by telephone in the conference... by conference call. It was very productive but it is a matter now of getting that stuff down to them, getting it into their hands for review.

COUNCILMAN PLUMMER: So, when you get the designation as a complete application though, does that... I mean does that then equate to they can make a decision as to whether or not we can continue to use the system the way we are?

MR. SECOR: The way their letter reads... let me go back to the January 15th letter... the project must be concluded or we must have a complete application on file. It's my understanding that if we have a complete application on file we can continue to pump while this is being reviewed.

COUNCILMAN PLUMMER: Okay and is that the same criteria that the Corps will use do you know?

MR. SECOR: I hope so.

COUNCILMAN PLUMMER: Yea, okay.

MR. SECOR: That's the best I can do. It is our... the Corps has been on board, the DEC has been extremely helpful, both the State Health Department and the County Health Department have gone out of their way to make phone calls and do follow-up for us. So, I mean, we couldn't ask for any better cooperation from the State level and working on with the Feds. At the Federal level, I mean, it's just a matter of getting the stuff down to them. I mean you can't review an application until you get it. So, we'll hustle this off tomorrow and make sure it gets Fed Exed down to them and then do the follow-up by phone calls with them.

So, having said that much, what I ask the Town Board to do tonight is that the resolution that was in the package which basically authorizes us to move forward with this application process, authorizes the Town Supervisor and I to sign the various documents that have to be done to push this through, I'd ask the Board to pass that.

COUNCILMAN MARCELLE: Bruce, a quick question, in the long run what does that... this permitting process do for us? How long can we get water out of the river?

MR. SECOR: Well, in the report, we've asked for up to 18 months but what we are really saying is, we need to continue to take water to supplement this flow to the Clapper Road plant until such time as the replacement wells have been installed. And, one of the appendices that goes with the engineer's report is a copy

of the letter report from Earth Tech which kind of... they had a joint meeting with DEC, DOH, the Department of State, the Department of General Services... they had a very well organized meeting on January 31st to try and get everybody together and make sure that they had all the permits covered and they're getting ready to move forward. We're hoping to see them at the next Town Board meeting with their engineer's report and to start the process that they need to move through for approval. So, that should come very shortly.

COUNCILMAN MARCELLE: So, we could have more than 18 months, theoretically, but we're asking for...

MR. SECOR: We're asking for 18 months and if we needed to go beyond that we would apply in advance of that for any extension.

COUNCILMAN MARCELLE: Okay.

COUNCILMAN PLUMMER: Just for the record on the resolution that we... it doesn't mention specifically that I saw the fact that we are using this for the industrial sector. I know that's the understanding and nothing has changed in that regard. It talks about the Town and the residents... or the Town and the citizens needs but this will continue the same way that the interim has... that it's specific for the industrial needs, correct?

MR. SECOR: Right, specific to the Clapper Road plant. That's correct and I thought we had that in here.

COUNCILMAN PLUMMER: You do have Clapper Road.

COUNCILMAN DAVIS: Item 5.

MR. SECOR: I thought it was up in the whereases and it may be.

COUNCILMAN DAVIS: It's in Item 5.

MR. SECOR: I'm getting a little blurred here.

COUNCILMAN DAVIS: Page 5, item 5. There are several families that are... this is available to.

MR. SECOR: Yes, it's to continue to supply the Clapper Road plant and the industrial area.

SUPERVISOR FULLER: This is for the industrial use only and for those residents that requested the use of the water.

MR. SECOR: That's correct.

SUPERVISOR FULLER: Only. Are there any other questions, comments from the Board?

COUNCILMAN LENHARDT: I don't have any regarding the resolution.

COUNCILMAN DAVIS: I have a question after the resolution.

COUNCILMAN LENHARDT: Yea, I do too.

MR. SECOR: Okay.

The following resolution was presented:

TOWN BOARD

TOWN OF BETHLEHEM

February 27, 2002

WHEREAS, in or around 1995 the Town of Bethlehem, New York (the "Town"), constructed a ground water infiltration well system (the "Existing System") in the Schermerhorn Island area of the Town (the "Site") for the purpose of meeting the short and long term water supply needs of the Town; and

WHEREAS, the ground water infiltration system was required and expected to produce ground water in the amount of at least 6 million gallons per day ("MGD"), and with further modifications would produce as much as 12 MGD; and

WHEREAS, soon after the Existing System began operating, the Town discovered that it was not producing the required 6 MGD, and the production of the Existing System has continued to decline to a point where it now produces less than 1 MGD; and

WHEREAS, the hydrogeological and engineering investigations relating to the infiltration gallery, the infiltration gallery's design, and the gallery's performance have been the subject of litigation between the Town and the consultants for the Existing System; and

WHEREAS, in or around May 2001, the parties to the litigation entered into a Settlement Agreement, whereby certain defendants, without admitting any liability in the litigation, agreed to, among other things, fund and/or construct a supplemental intake well system consisting of a series of diagonally-drilled wells at the site (the "Supplemental Well System") for the purpose of supplementing the yield of the Existing System; and

WHEREAS, in connection with the Supplemental Work System, one full-size test well has been installed and tested, and a complete design for the new well field is being prepared for regulatory review; and

WHEREAS, if the Supplemental Well system is approved, it will be several months before the Supplemental Well System will be installed and become operational and be available to provide supplemental ground water to the Clapper Road water purification plant; and

WHEREAS, due to the underproduction of Existing System, the Town has been forced to use water from other sources in order to attempt to meet the needs of the Town and its citizens; and

WHEREAS, the Town also has been relying on a water supply from the Vly Creek Reservoir, and purchases supplemental water supply from the City of Albany which in turn relies on the Alcove Reservoir as a water source; and

WHEREAS, a severe drought has caused the water level in the Vly Creek Reservoir to fall to record low levels, and forced the Town Board of the Town of Bethlehem to declare a water supply emergency at the Town Board meeting on January 9, 2002; and

WHEREAS, the City of Albany has stated that the drought has caused the level of the Alcove Reservoir to fall to low levels, which has been cited by the City of Albany as a reason to restrict sales of water to the Town; and

WHEREAS, the Town has notified its customers of the existence of a water supply emergency and requested that they reduce water consumption wherever possible, including by placing notices on water bills, sending letters directly to water customers, running advertisements with local media, posting notices in public places, and by providing relevant information on the Town's web site; and

WHEREAS, in addition to these public messages, the Town has implemented other water conservation measures, including requiring industrial water users to submit written plans for water conservation, initiating a program of reading the water meters for large water users twice each week to closely monitor compliance and eliminating non-essential water use including prohibiting washing of municipal vehicles; and

WHEREAS, despite all of these water conservation measures, the Town requires more water than can be produced from the combined water sources currently approved for continuous use and that are referred to above; and

WHEREAS, as an emergency measure, in order to make up for the underproduction of the existing ground water infiltration system and provide a sufficient quantity of water to meet the needs of the Town and its citizens, the

Town has received temporary emergency authorization to withdraw surface water from the Hudson River in an amount up to 3 MGD to be pumped to the Clapper Road water purification plant. ; and

WHEREAS, as a result, the Town has installed and is operating an emergency pumping system (the "Emergency Pumping System") in conjunction with the Existing System to pump river water from the Hudson River into the Existing System; and

WHEREAS, this water is being transmitted to the water purification plant on Clapper Road where it is being fully treated and purified in accordance with Health Department standards; and

WHEREAS, without this supply of surface water to the Clapper Road water purification plant the Town would be unable to supply a sufficient quantity a water to meet the needs of the Town and its citizens; and

WHEREAS, the existing emergency authorization will expire on March 17, 2002; and

WHEREAS, the New York State Department of Environmental Conservation (the "DEC") has requested that the Town file additional documentation and other information in support of additional approval and permits and to convert the Emergency Pumping System into an approved water supply; and

WHEREAS, the Town Board desires to convert the Emergency Pumping System into an interim water supply (the "Proposed Project") to be used until such time as the Supplemental Well System is approved, installed and producing the necessary quantity of water to supply the Clapper Road water purification plant; and

WHEREAS, the proposed conversion includes construction of an 8-inch diameter pipeline approximately one hundred (100) feet long from the river pump to pumping station No. 4 of the Existing System, and installation of a 6-inch submersible pump with three phase electrical service and control wiring; and

WHEREAS, the Proposed Project is subject to review under the State Environmental Quality Review Act ("SEQRA"), and the New York State Department of Environmental Conservation (the "DEC") has commenced coordinated review of the Proposed Project under SEQRA.

NOW, THEREFORE, BE IT RESOLVED,

1. An adequate water supply for the Town is essential for both sanitary purposes and to provide fire protection to protect the life, health, safety, and welfare of the community.
2. Severe drought conditions have reduced the quantity of water available from both the Vly Creek Reservoir, and have purportedly caused the City of Albany to restrict sales of supplemental water.
3. The yield of the Existing System continues to decline, and the Town has been advised that no procedures exist that can effectively improve the yield of the Existing System.
4. The only option presently available to the Town to meet the water supply needs of the Town and its citizens is to withdraw surface water from the Hudson River and transmit it into one of the existing pump stations of the Existing System so that an adequate volume of water can be supplied to the Clapper Road water purification plant.
5. Since pumping from the Hudson River to supply the Clapper Road water purification plant is the only option available to the Town to meet water supply needs, the Town must pursue this application in order to avoid the loss of water supply and fire protection for major industrial operations including a co-generation facility that could result in negative impacts to the State's electrical power supply.
6. Based upon its review of the Proposed Project, public comment to date, the completed Environmental Assessment Form, the information from the Town Engineer and the Consulting Engineering firms involved in this project, and the completed water supply application, the Town Board finds, among others, the following facts and conclusions:
 - a. The Proposed Project involves relatively minor modifications to the Existing System.
 - b. The submersible pump, associated piping and equipment will be are designed and constructed to have minimal impacts to the existing site and to be protected from flood conditions.

c. The Proposed Project is designed to produce a supplemental water supply for the Town with a flow of approximately 3 MGD to be treated by the existing Clapper Road water purification plan, which was designed to treat surface waters from the Hudson River.

d. In connection with approvals for the construction and operation of the Existing System, the Town has approval to withdraw at least 6 MGD. Since the ground water infiltration system is currently producing less than 1 MGD, the water to be withdrawn by the Proposed Project represents only a portion of the ground water withdrawal previously approved for the Existing System.

e. Repeated testing by independent laboratories of water samples from both the Existing System and the Hudson River have demonstrated that the water obtained from the Hudson River is acceptable as a supply of raw water to the new water purification plant on Clapper Road and that the plant can properly and effectively filter and purify the water to meet all drinking water standards.

f. At present, the Proposed Project is the only available option for securing a supplemental water supply to meet the water supply needs of the Town and its citizens.

BE IT FURTHER RESOLVED, that the Town Board hereby authorizes the Town Supervisor and/or the Commissioner of Public Works to execute on the Town's behalf any and all applications and documents (the "Applications") that are required to obtain all necessary permits for the Project, and take whatever other actions are necessary to complete, support and process the Town's Applications.

BE IT FURTHER RESOLVED, that a copy of this determination shall be noticed and filed as required by law and any applications for permits for the Proposed Project application

On a motion by Councilman Marcelle, seconded by Councilman Lenhardt, and by a vote of 5 for, no one against, and no one absent, this RESOLUTION was adopted on February 27, 2002.

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MR. SECOR: I hand delivered to the Board a copy of the draft engineer's report and I'm not going to try to read the whole thing but I did want to go over the recommendations on the last page of the report which is either page 14 or 15 depending upon which draft you have.

COUNCILMAN DAVIS: Page 15.

MR. SECOR: Okay.

COUNCILMAN DAVIS: And, I have a question on that.

MR. SECOR: Okay. I'm just going to very quickly go over those. Following recommendations: the Town Board should apply for the necessary permits to authorize taking of up to 3 million gallons of water a day from the river to supplement the reduced yield from the ground water infiltration system to supply the Clapper Road water purification plant as discussed herein, the project. Now, the second one, the Town Board should authorize the Supervisor and/or the Commissioner of Public Works to execute on behalf of the Town any and all applications that are required to obtain the necessary permits. C. The Water District budgets for 2001 and 2002 included funds to start the process of updating long term plans for the New Salem Water Purification Plant and primary transmission lines along New Scotland Road to serve the residential areas. This is being undertaken to provide modifications required by new Federal and State mandates, modernization of these facilities and improve their capacity to meet peak flows for the water system. These efforts should continue and move forward as soon as possible. The next one, the severe drought which began in 2001 and continues in 2002 has produced dramatic reduction in runoff from water sheds that supply both the Vly Creek reservoir and the Alcove reservoir. This reduced runoff

may affect the computed safe yield of these reservoirs. The Town should retain the services of a qualified engineering firm to review the reported safe yield of each reservoir to determine if they would advise that the safe yield be recomputed and that wording is a little different I think than what you have but it's... kind of redone that.

In November 1991 the Town received a report, Summary Report of Long Range Water Supply options due to the abnormal conditions brought on by the severe drought, the Town should retain the services of a qualified engineering firm to update and reevaluate it's long term water supply alternatives. And... go ahead, I'm sorry...

COUNCILMAN DAVIS: I had a question about D.

MR. SECOR: Okay, on the safe yields.

COUNCILMAN DAVIS: Yea, I mean... I don't quite understand why the Town should or would retain services to determine the safe yield of the Alcove Reservoir when we have no authority on that reservoir. That is the City of Albany's reservoir.

MR. SECOR: No. I understand that. In 1968, Malcolm Pearney did a county-wide study for water resources and in that book, they looked at the safe yield. The safe yield is a theoretical computation that says if you have a certain amount of runoff from a watershed and you have a certain volume of storage, then you go through a mass curve diagram and a bunch of calculations. They say, okay, this is your computed safe yield and it says in the worst drought of record, you should be able to withdraw the following amount of water on a daily basis... on an average daily basis for the entire year. So, the reported safe yield of the Vly Creek reservoir was originally 4 point some million gallons. It was built in the 50s. In 1964-65, there was a severe drought and the engineering firm that did our design came back to the Town and said look I've got some bad news. The drought that occurred in 1964-65 was worse than the drought of record that I used for the computation of the reservoir so I have to recompute your safe yield, which they did and said to the Town, your safe yield is not 3.6 million gallons a day. At the same time and in the Malcolm Pearney report of 1968, they recomputed the safe yield of the Alcove reservoir which had been 30 some million and was brought down to 28. something whatever the number is now.

I'm not recommending here that we recomputed it. What I'm really trying to say here is that we should hire somebody to look at this and see if we should question that or ask for it to be recomputed. I would equate this to if you were going to buy a piece of property that you would normally ask for a title search and a survey. And, if you are going to buy into something, to know what you are buying.

COUNCILMAN DAVIS: But, Bruce, I don't have a problem with the Vly Creek reservoir, I have a question about the Alcove.

MR. SECOR: Well, and again, and I'm not saying we should do that. We have a report...

COUNCILMAN DAVIS: How can we? I don't even know how... why we... how we could.

MR. SECOR: All we are looking for is a recommendation from a qualified firm whether or not that is an issue we should be worried about. That's what this is all asking for. Not asking to actually do the study. We are asking for somebody to look at it and say whether or not there is sufficient evidence on the surface that there is a reason to think about it. And again, I would say that just for a survey of a property. If you had a fence line and there was a building hanging over the fence line, you might see some evidence that you really ought to do a survey before you buy the piece of land. This is not... the intention here is not to spend tens of thousands of dollars, it's simply to get an opinion.

SUPERVISOR FULLER: My understanding is to determine the long term plan for the Town of Bethlehem -- is the water available for the Town, the Alcove Reservoir.

COUNCILMAN DAVIS: Well, that's pretty hypothetical because we don't know if anyone's even going to be willing to give it to us or sell it to us. So, you know, what's the difference? I mean that's the basic... I mean and again, I think it will just maybe fuel a fire that I don't think we want to fuel any further.

MR. SECOR: The timing is awkward but...

COUNCILMAN DAVIS: It certainly is and I don't feel that we should... I'm concerned about that. I don't want to fuel fires that shouldn't be fueled. It's not our water supply and...

MR. SECOR: It is our water supply. It is part of our water supply and that is the concern.

COUNCILMAN MARCELLE: I guess that's my question, in fact, what percentage of our residential drinking water right now, today, do we get from the City of Albany which is supplied by the Alcove reservoir?

MR. SECOR: The total residential use is about 3.5 million gallons a day and we have a contract for about 600,000 gallons. So, what is that... 20 percent. Something on the order of 20 percent.

COUNCILMAN MARCELLE: Something on the order of 20 percent we get from the Alcove reservoir through the City of Albany and what the City of Albany is able to give us depends upon their safe yields as well, is that right?

MR. SECOR: That's what it goes back to. But, we have a water supply permit to allow us to take up to 2 million gallons a day but we only have a contract for 600,000. The offer we made to the City was to try to purchase the full 2 million gallons a day and that's what is still yet to be decided. Now, whether that moves forward or not is something to be seen but with this drought coming along, as the Town Engineer I have to say to the Town, you know, this is something that we should not only look at our reservoir for but other reservoirs and for what Supervisor Fuller said, when you start looking at long term planning, this was done in 1990, there was a long term plan in 1980. We've done long term planning about every 10 years and the last time, didn't turn out the way exactly the way we thought it would but, you know, we had a plan and we were moving forward on that. So...

COUNCILMAN DAVIS: I guess my question is, Bruce, are we able to do this on our own without the City of Albany...

MR. SECOR: And, again...

COUNCILMAN DAVIS: ...being involved and whether someone actually can do this kind of an analysis on their reservoir.

MR. SECOR: Again, if we...

COUNCILMAN DAVIS: Is that something that would have to be agreed to?

MR. SECOR: Speaking to qualified engineering firms who can do this type of work, it can be done by simply looking at production levels, run off data and whatever. And, again, we're not asking for the actual recalculation, we're asking for an opinion.

COUNCILMAN DAVIS: Okay.

MR. SECOR: Of whether or not it really needs to be considered.

COUNCILMAN DAVIS: Okay.

COUNCILMAN LENHARDT: Bruce, Doris raised the same question I had but your answer begs another question for me... if we're going to do this to the Alcove reservoir, wouldn't it be wise to also do it to the Watervliet reservoir since we are contemplating future purchasing water from them?

MR. SECOR: Again, and I don't know where this would fall in the buyer/seller relationship. We don't have a relationship with Watervliet yet. Before we would enter into one, the process you go through is the engineering study and then an application for a water supply permit. During that application for a water supply permit, it is the DEC... one of their regulatory functions is to step in and make sure that this community has sufficient water to sell or enter into a contract with another community. And, so that would become part and part of that deal. Again, going back to the 1968 Malcolm Pearney study, the reported safe yield of the Watervliet reservoir was in the 9 to 11 million gallon range depending on whose calculations you used. That would be an issue that would be raised again in that. Watervliet is in the process of looking at... they have the ability to raise their dam about 8 feet and it should increase the safe yield because safe yield is depended upon not only watershed size but storage capacity. They're projecting that the safe yield could be increased from... say it's 9 or 10... 9 to 11 million now to 19 to 21 million gallons. Again, they would have to submit that to DEC whose job it is really to review that and say okay we agree with this in that process. We would be in a little bit different condition there than we are with this one.

COUNCILMAN LENHARDT: But, it still would be factored in our planning.

MR. SECOR: Absolutely. Every time you do that, that's part of the process is to say -- is the water really there?

COUNCILMAN PLUMMER: Well, does it follow then that the Alcove and the City of Albany would have submitted to DEC what the safe yield is?

MR. SECOR: Again, the only information I have is from the Malcolm Pearney report. There may be a more recent report. What I am saying is because of the current drought we're in... which may not yet be over... is there reason to say, can somebody just look at this and say, this drought is worse than the '64-65 drought or it's not as bad, don't worry about it. I'm just looking for counsel, outside counsel, really on this to get us an opinion and it's really... that's all we're looking for is an educated opinion to say whether it is advisable to do this or not advisable.

COUNCILMAN DAVIS: I guess I assumed following up on George's question, that Watervliet, Guilderland, Albany... all of those would be part of your... the summary report of the long range water supply options. I thought all of those would be incorporated.

MR. SECOR: They were last time and they would be updated in that.

SUPERVISOR FULLER: You are right.

COUNCILMAN DAVIS: And, then any others that might now be available. Okay.

MR. SECOR: That's correct.

SUPERVISOR FULLER: And, first and foremost, the conservation measures.

MR. SECOR: Yes, the water conservation issues. The third item that I wanted to address the Board on tonight.

In a previous Memo and I doubt everybody carries around all the paperwork I load on you but...

SUPERVISOR FULLER: We're not strong enough.

MR. SECOR: Back in 1978, the Town of Bethlehem passed a water use ordinance and, really this is like enabling legislation... is the way I understand it anyway, and it basically says that from time to time as the Town Board needs to, it could establish watering restrictions or use restrictions. Last year I circulated a Memo to the Board to standardize the type of restrictions we would go through and the very last paragraph... if I can find the silly thing...

SUPERVISOR FULLER: Is banning the sprinkling for all flowers.

MR. SECOR: The third level of water restrictions said water would be allowed between certain hours and then the sentence after that says, finally if the reservoir became very low, we would recommend a complete ban on all non-essential water use. We're there folks. I would ask the Town Board tonight to go this level. We can always back off in June or July if we get the... Monsoons come and everything fills up here over April, May and June. But, the reason I am asking to do this tonight is we need time to get these into publications and get the notices out to the public. We have... we have... when does your publication go out for spring?

SUPERVISOR FULLER: April.

MR. SAGENDORPH: The end of March.

MR. SECOR: The end of March we have a town-wide mailing in March which we can put a notice in. The Bethlehem Report goes out, I think, in April... we can put another notice in there. We can put notices in the water bills. I would ask the Town Board to adopt this tonight and then see where we are in June. We can always back off from this if we have to or if we can actually.

COUNCILMAN PLUMMER: I'm sorry, I don't have that in front of me, can you read that again?

MR. SECOR: If the reservoir level became very low, we would recommend a complete ban on all non-essential water use. Basically, outside water, you know not washing down driveways, not washing down steps, not washing down the outside of the house. You know, those type of uses.

SUPERVISOR FULLER: But, it is the automatic sprinkler systems that we have to get a handle on because they'll be coming in for their building permits and they need to have plenty of notice now that that will no be allowed.

MR. SECOR: And, the other section of that in one of the letters to DEC on the moratorium during this emergency, they ask for some additional information which we will be submitting tomorrow. It is my understanding that DEC is going to stay with the wording they had as far as allowing houses for where the taps were already approved but... and again, Kevin is here tonight... we've talked to the Building Inspector that we're going to condition the building permits to say that hydro-seeding will not be allowed, new lawns will not be put in, shrubs... you shouldn't do that because you are not going to be able to water them. And, that this fall, assuming things come around and we're back in a more reasonable... it's better to plan along the fall anyway but we're going to have some new houses that are not going to have lawns put in right away because that is just part of the trade-off. If we do not get out of the emergency level by the time we get to June 1st or June 15th, we're going to have to look at further restrictions or prohibitions on building.

COUNCILMAN PLUMMER: Does that apply specifically to residential or does it apply to businesses as well?

MR. SECOR: Everybody, it's town-wide. So, and again, the industry has already come back in our first request, they have eliminated truck washing. The one or two outfits that still do some truck washing actually have sub-contractors that come in with a load of water that they got from some place else, wash the vehicles with like the high pressure spray rack and then go on about their business. But, they are not using the Town water to do that. Our own Highway Department has been sending a truck down to the Clapper Road plant, loading up with water and bringing it back to the Highway garage to wash out salt hoppers and do whatever pressure washing is necessary before a piece of equipment can be maintained.

So, I think we've got a pretty good handle on that. But, we need... and I'll work up a more specific list. I realize this is one sentence and we need to come up with a more specific list and I'll work on that.

SUPERVISOR FULLER: Bruce, what about the area, such as the nurseries that are in Town?

MR. SECOR: Couple of the nurseries... well, the ones in Town don't and that's... again, something we have to... is that non-essential use? I don't think so. I mean that's their livelihood.

SUPERVISOR FULLER: No, that's their livelihood.

COUNCILMAN PLUMMER: That's correct.

MR. SECOR: So... But there are... example, the one out on New Scotland Road has a pond and we would ask them if it's possible to water out of his pond... pump out of the pond rather than using the Town water to keep his plants alive and we've talked to him before on those types of terms. And, our response from industry and businesses has been very positive. You know, very willing to work with us and we're just going to have to work on that.

COUNCILMAN DAVIS: What about people filling their pools?

MR. SECOR: Swimming pools, again... where did Kevin go?

Kevin came and asked me about that, if someone has signed a contract for a swimming pool and they are going to have it installed, if Kevin issues the permit, it's going to be with the condition that the pool must be filled by an outside truck coming in with the water and that they must inform the Building Inspector when they are going to do it so we can witness the fact it's actually being filled. Someone asked us about pools that are lowered for the winter and got to be topped off, I don't know how we are going to control that. We've got to ask people to do that and not get into it and conserve the water. I know we talked to somebody the other day who was pumping the water off their pool cover and watered some shrubs or put the water in barrels to save it for later. I mean, the response from the community has been very good but we need to continue to get information out there so they can use their imagination to help us out.

COUNCILMAN MARCELLE: Do we have a... I take it we don't have a definition for essential use?

MR. SECOR: I don't know, let me look, we got papers for everything. I don't think it's in this ordinance. But, if we have to do that... that was distributed with that earlier Memo. And, I don't know that there's definitions in there. That was kind of enabling legislation and in the past we have put out notices based on that and I'll draft up something to that effect and have it for the next Board.

COUNCILMAN PLUMMER: So, you're looking for a vote the next Board or tonight?

MR. SECOR: I guess... I was trying to do something tonight and I'll...

SUPERVISOR FULLER: I think for the residential area, it would be good if we could do that tonight only because of people coming in looking to put in their irrigation systems or their automatic sprinklers.

MR. SECOR: And, then you know, the better... the more specific language let me work on that and I'll get a draft out to everybody.

COUNCILMAN PLUMMER: All right.

COUNCILMAN LENHARDT: Bruce, along the same line as this ordinance, I'd like to go on record and hopefully we don't get to that point you are referring to but if we do, the enforcement of this has to be stricter than it has been in the past. In other words, it's the parties that are responsible for issuing tickets to people that are violating this have to have the authority to issue those tickets and know that they are going to be carried out when they reach the court room and not have the people just let go. And, I'm much in favor of stricter enforcement if we get to that point.

MR. SECOR: Our procedure has been in the past, is that we have door hangers or tags...

COUNCILMAN LENHARDT: That's the notification.

MR. SECOR: Notification but it was also our record of notification because on the bottom we had filled in the name, address, date, who we spoke to and those stubs would be torn off and brought in to my office. The Building Inspector, the DPW people, we've had a lot of people out doing different things and usually once we notify somebody, it wasn't that common to go back a second time but we figure that would be the evidence that we would take if we had to bring somebody in before the Town judge and say... look on such and such a date, we were here, we gave them the notice and then we went back and some follow-up.

TOWN ATTORNEY ALESSI: Actually you'll need a different type of process. I'd recommend that you work with the Assistant Town Attorneys assigned to the Town Court because an information ticket under the CPL has to be very specific. It has to contain certain information, a certain form has to give notice of the violation, notice of the facts that underlie it. So, if you truly want to get to the end of the process if you need to, I mean, our Town usually pretty good, those warnings, as I understand it historically, have been very good and that's it. But, perhaps, for the small amount of cases you have some recidivists, we ought to make sure that the information that's given that would cause them to appear is a legally sufficient document such they go in court, some skilled attorney isn't going to have it thrown out on a procedural defect. So, I would work with those Assistant Town Attorneys just to make sure that whomever is issuing that information ticket if we ever have to get there, that it is legally sufficient.

SUPERVISOR FULLER: We also have individuals calling in reporting if someone is violating the... we have a lot of informants out there. They don't hesitate to call if people are using the water when they shouldn't be.

MR. SECOR: One other quick thing on the hints and I've asked Sharon to work on this and I don't think I've spoken to Gregg yet but one of the issues that came up is that we have a lot of people who are taking their recyclables and it says you are supposed to have clean recyclables and they are actually running them through the dish washer before they put them out in the bins and it really is a waste of water. If you get a good scraper or spatula and clean them out, you know, you don't really have to sterilize them before they go off to the recycling center. So, that's something we're going to try to put in... we don't want to discourage anybody from cooperating with the recycling program but at the same time, it has to be done with some sense.

COUNCILMAN DAVIS: Does Sharon agree with you?

MR. SECOR: Well, she is working on the wording. She said she would work on the wording.

COUNCILMAN MARCELLE: Bruce, can I just... can you give me a laundry list of what we're going to be banning? I mean, we are talking about no one can sprinkle their lawns in Town.

MR. SECOR: No outside lawn watering.

COUNCILMAN MARCELLE: No washing their cars?

MR. SECOR: That will have to be coming and the only irritation there is then we got to deal with possibly the professional car wash deals.

COUNCILMAN MARCELLE: So, private washing cars will not be allowed but you can go...

SUPERVISOR FULLER: We haven't dealt with the business end of this.

COUNCILMAN MARCELLE: Okay. Let me just understand this residential. So, okay, no pools.

MR. SECOR: Again, I'll come up with the list and I'll give it to you and we can work on it from there. I don't want to try to do it off the top of my head.

COUNCILMAN MARCELLE: Well, I'm just a little hesitant voting on something, I'm not sure what we are voting on.

MR. SECOR: Yes and maybe the best thing is to not to vote on it tonight. Let me get something in front of you and then we'll go from there. I guess it is just... let me get the sense of the Board that we should move forward with this at this time and then we will develop the wording.

COUNCILMAN MARCELLE: Oh yea, I'm in... for it.

COUNCILMAN DAVIS: Definitely.

MR. SECOR: Okay. All right. Let's... that would be better.

SUPERVISOR FULLER: I think the lawn sprinkling is the biggy and I think people are coming in now looking to have these sprinklers in these lawns. Do you have them now, Kevin? And, that is my concern, spring is approaching.

MR. SHEA: Even the installers are asking what the situation is, you know, for the upcoming summer.

SUPERVISOR FULLER: And, you want them to know before they go out and have a contract to purchase this.

MR. SECOR: Right.

SUPERVISOR FULLER: That was my only concern with banning the lawn sprinkling tonight. The other issues we have time for.

MR. SECOR: Just to get them on notice early enough. I mean normally, the ground would be frozen, these people wouldn't be coming in but since there really was no winter this year, you know there is no frost.

MR. SHEA: Some people actually sell maintenance for lawn sprinklers. They are calling asking if they can go the maintenance which actually is charging the system, again, water. Obviously, we don't want them to do that. Preventative

maintenance programs they have.... We can't... you know, at this point during this emergency, I don't know if we want to allow them to sprinkler 15 or 20 minutes at a time. They're all... a lot of our sprinkler systems for residential homes are on timers.

COUNCILMAN MARCELLE: Madam Supervisor, we're not just talking about new sprinkler systems, we're talking about... even if you have one installed.

SUPERVISOR FULLER: Right, new, as well as, those that are in because the people have already started calling saying, you know, are we going to be able to use our sprinkling system this year?

COUNCILMAN MARCELLE: Kevin, can I ask you... bother you for one question on that with respect with charging these, testing them and their maintenance? If for example, someone in May doesn't have their sprinkler tested and come June we find out we have enough water to sprinkle lawns, is the sprinkler company going to have to come back in June to prepare the sprinkler systems if we people have them built in?

MR. SHEA: They may have to. In fact, this week, I just heard about the maintenance programs. I never realized there was a maintenance program for that type of lawn sprinkler but it is more of a get ready, you know, timing. I thought we would have to more information because the actual installers have called me and asked me and, I said I'm not really sure what you do on your maintenance.

TOWN ATTORNEY ALESSI: I know the answer to that. I don't have one, of course, but a friend of mine does.

SUPERVISOR FULLER: I was referring to your friend I believe.

TOWN ATTORNEY ALESSI: You can actually turn them on yourselves, you know it's like a valving thing to get them and just close switch and program them. But, the benefits to the maintenance program as Kevin is alluding to is, after they've been shut off all winter, and you do turn them on, there can be air traps and it's sometimes a good thing to have some professional come out because you can find problems. For example, leaks are a big thing that I think is good for this because many sprinkler systems you turn them on, you don't see the sort of pernicious leaks in the system and you are losing a whole bunch of water and the homeowner is never going to know it until 2 months later they get the bill. So, you know, I think the idea and we're fortunate we have some reporting here tonight that will occur in the next issues of these papers so people will get some heads up even before the formal notice but people may want to consider not even having that occur... that process occur because it is a further deterrent to using it. But the answer is that you can turn them on yourself and have them work.

MR. SHEA: A lot of them do.

COUNCILMAN DAVIS: Well, then maybe we should vote on that particular issue and then have Bruce draft the additional list of items that he was discussing... that we discussed this evening if it's going to make it easier.

SUPERVISOR FULLER: I think if... my preference would be to vote on this tonight but I can understand if people are not comfortable with voting on the lawn issue tonight we can wait. But, you know... Joe and Mike please get it in your papers as Bob said, this was discussed so at least there is some notice out there.

COUNCILMAN PLUMMER: And, that it will be brought up at the next meeting as part of the other proposals.

MRS. CAPONE: I live in the old part of Delmar, what happens if there is a water break?

COUNCILMAN LENHARDT: You repair it.

SUPERVISOR FULLER: Mr. Secor gets his men out to repair it.

MRS. CAPONE: How do we know there's a water break? It could be there for 3 days and we wouldn't know it.

MR. SECOR: I hope not.

SUPERVISOR FULLER: Can you answer the question on how they would know other than seeing the visible water?

MR. SECOR: Most of the water mains are along roadways and in most instances the water will come to the surface and we will see it. But, the whole water system is monitored through our computers and if there's... they can see from night to night what the low nightly trends are supposed to be. And, if you go night after night and you see the flows come down to a certain level and all of a sudden one night it doesn't come down, it stays up at a wrong level, they will notify us and then we'll go out and start searching. And, if we can't find it ourselves visually, we have subcontractors come out with specialized hearing equipment. They go out 2, 3, 4 o'clock in the morning when there's no traffic and they can actually listen to the ground and hear the water running.

MRS. CAPONE: Okay, I see it another way, for instance the cops are always in the street, the cops would see it but at the same time, between my house and the street who is going to know there is a pipe there.

MR. SECOR: Again, the homeowner services are a little more difficult to spot and then we would rely on the homeowners to say, you know, I've got this geyser in my yard I didn't normally have. I mean, you know, most people will call us.

MRS. CAPONE: Okay.

COUNCILMAN PLUMMER: Can I just, Bruce, before you sit down. This is just for the bigger picture here over the next few months. Let's assume that we're able to get the extension on the 3 million gallons from the river. The contract with the City of Albany is for 600,000 gallons a day. We have been getting more than that. We have to figure out how... that's an unknown as to how that proceeds. I understand that with Guilderland the 500,000 gallons plus that we are getting now will likely end at some time in April...

MR. SECOR: April or May depending again on weather. Guilderland will continue to supply us as long as they can. They have wells they are not even using yet and they're within their treatment capacity so it will... by the time we get through March and into April, we'll start watching it on a day-to-day basis. When we get into May, I would suspect that we'll start getting to the point that they may not be able to provide as much.

COUNCILMAN PLUMMER: Okay. And, then we're not using Vly now because of...

MR. SECOR: Well, no, Vly we're using about 1 million gallons a day out of it to keep the plant up and running.

COUNCILMAN PLUMMER: We are.

MR. SECOR: Because half the plant is shut down and we're doing about a million which is kind of the minimum idling speed. It's like your car, it will only idle down to a certain point.

COUNCILMAN PLUMMER: So, the plan is that you will continue to do at a minimum a million gallons a day from Vly?

MR. SECOR: For as long as we can. Then we will have to start increasing that once either the flows go up or we lose other sources.

COUNCILMAN PLUMMER: So, assuming we got the 3 million from the Hudson, a million from Vly and the 600,000 from the City of Albany... then we're at 4.6.

MR. SECOR: Well, there's also the other 2 deep wells are good for about another... right now I think we're getting about 500,000 or 600,000 gallons a day out of the other 2 deep wells out in New Salem.

COUNCILMAN PLUMMER: So, we're getting up to about 5 million gallons a day.

MR. SECOR: Right, which is about what we're using.

COUNCILMAN PLUMMER: Under the worst conditions, what we have right now... what kind of demand would you expect that we will... what kind of demands do we normally have in May and June and July?

MR. SECOR: The flows will start getting back up to 6 and 7 million gallons a day so we'll have to increase production from Vly plant to meet those flows.

COUNCILMAN PLUMMER: So... but I'm just thinking worse case scenario so we can plan here, that way we're... if everything is equal and things did not get better weather wise, we're short about a million gallons a day, under that scenario.

MR. SECOR: No, and again, I outlined that in the engineer's report. I gave you a scenario in the engineer's report under projected water use and you know, I showed... assuming we got about 8 to 10 feet of refill in the reservoir which is kind of a normal spring, that we could produce the 3.5 million gallons a day out of Vly Creek reservoir for the summer and then by October/November go back to the 1 million we are now. That scenario is on page...

COUNCILMAN PLUMMER: Yea, I understand that but you're making assumptions that are normal. I'm beyond that.

MR. SECOR: Oh, yea, well then you have to start cutting back on demand.

COUNCILMAN PLUMMER: Or try to get more water.

MR. SECOR: Or, that too.

COUNCILMAN PLUMMER: which leads us back to the City of Albany. There is no other alternative out there that I can see over the short term.

MR. SECOR: Not a short term. We looked at Helderberg Lake and Warner's Lake and that really don't seem to be feasible. You know and again, we've sent the letter to Albany for next month and we've asked for 2 million gallons a day for next month which is the same as what they had offered this month and you know the letter just went out the other day so we're waiting to see what we get for a response.

COUNCILMAN MARCELLE: The Mayor is busy so we may not hear right away.

TOWN ATTORNEY ALESSI: Bruce, I have a question with regard to Clapper Road. What is the maximum amount of water we could get from both the infiltration gallery and from pumping from the surface water source?

MR. SECOR: 3 million from the river. In the summer time when the water is warmer and it moves better through the ground, the production at the Clapper Road infiltration system has gone up to about 1.2, 1.25. So, we've got about 4.2.

TOWN ATTORNEY ALESSI: So, we could get... best case scenario, perhaps 4.2 out of Clapper Road. Is there any way we can increase the 3 million gallon from the surface water and even if we could, is there any way that that could go to industrial or are we maxing out... What I'm trying to do is to look at whether or not we could increase, if needed, the surface water intake. For example, is Selkirk Cogen or another industrial user has a peak period which they typically do because they're peaking units and run during the summer quite a bit and we could then maybe have a mechanism by which if Selkirk Cogen needs to peak, that we could shoot more of the surface water over to them.

MR. SECOR: Well, we're doing that now and...

TOWN ATTORNEY ALESSI: I understand...

MR. SECOR: And, that's what that 20 million raw water reservoir is. If we had to produce 5 million gallons in one day to meet Selkirk Cogen, we would do that. And, then... you know, as they go through their cycles we would expect to do that. If we needed more, 2 answers. If we need more water from the river, we would have to apply for additional.

TOWN ATTORNEY ALESSI: Understood, right. Well, that's what I am trying to do is to see if we have to account for that in what we are doing with the DEC now... in other words, to say if this scenario, you know, flexibility... I know we're trying to keep within what we had before but to build on what Dan was saying, to say okay let's look at a more worse case scenario.

MR. SECOR: If you look at Table no. 6 in the draft report that I gave you, upper right hand side, it has actually, the lower part of that page shows the actual consumption by month by Selkirk Cogen, GE and the Conrail yards and totals that up to the area served by the Clapper plant.

TOWN ATTORNEY ALESSI: I'm sorry I'm not there yet, which page?

MR. SECOR: Table no. 6 of the revised engineer's report.

TOWN ATTORNEY ALESSI: Yes.

MR. SECOR: Okay, the lower left hand corner says industrial area supplied by Clapper Road and then there is Selkirk Cogen, GE, and it shows the total of actual average consumption for each month. And, if you go to the subtotal industrial area Clapper plant which is column G, down at the bottom it shows 2.474 MGD is there average annual use and if you would run your eyes up there, you would see the peak month is about 2.9... I'm sorry about 3.4, so if we have 4.2 available from existing sources between 3 million from the river and 1.2 from the ground water, we should be able to meet that and then meet peaks.

The second part of the question is who else can we serve, what other industry. Obviously, Owens Corning is right up the road a little bit, M.G. Industries which is another air products type industry is right in front of them. Owens Corning uses about 100,000 gallons a day. Messer Industries uses about 80,000 gallons a day, let's see, they are over on the other side of the page. Those numbers... this table has been updated since the draft you got but they're about 100,000. BOC Industrial Gases which is over on West Yard Road is about 100,000. So there is about 300,000 gallons in additional daily uses to industry that could be served. The complication there is the Feura Bush Water District and what we would have to do is if we were to move the one way valve that's now on Creble Road over to Route 32 before the Feura Bush Owens Corning plant, we would then have to look at running a separate pipeline over to Feura Bush to serve that residential area. Now,

in the summer time you could do that on the surface, you know, and you would have to put it over the railroad bridge because, you know, you can't go under the railroad tracks. But, you could possibly do something there temporarily and that's a scenario we have been working through and trying to work the numbers up on it – who else could we pick up and stay within the industry only determination for that plant. So, we're working on those plants.

TOWN ATTORNEY ALESSI: I'm just trying to keep at the goal, I think, the Board had paramount which is to try where reasonable to reduce the withdrawals from Vly Creek and maximize the surface water source particularly when it is going to industry. So, you've certainly answered the question.

COUNCILMAN DAVIS: Is there a max that DEC will allow us to actually draw from the river?

MR. SECOR: I don't know the answer to that but my... in our discussions with them, one of the consoling features they felt in our application is that our original water supply permit was for 6 million gallons a day. We're only getting 1 from the ground, we're asking for 3. So, we're still asking for less than what's already been approved. So, from a regulatory standpoint, that seemed to be an easier issue or easier question to answer than... especially since the original ground water infiltration system relied 90 percent on river for recharge anyway. It's the same basic source just taken a little different way. So, if we were to go back and ask for another million, there would be process to go through but we would still be underneath the cap. We're not asking for any additional water, we're just asking for a different way to get it.

COUNCILMAN DAVIS: So, theoretically, 6 might be a max for us or could be?

MR. SECOR: Again, we haven't asked the question beyond that so I don't know.

COUNCILMAN DAVIS: Okay.

COUNCILMAN PLUMMER: Assuming everything goes with the extension on the Hudson. If we... in your judgment, if we were able to renegotiate a contract with the City of Albany for 2 million gallons a day, would we need to implement any of these other measures you are talking about?

MR. SECOR: For this summer, yes.

COUNCILMAN PLUMMER: Why?

MR. SECOR: Because we still have peaking problems. We've always had water conservation measures in the Town and the primary cause of that, even if the reservoir is full, the water system was not designed as an irrigation system. And, it's... I tell the story – and you're probably bored to death about the car – if a family wanted to go out and buy a car, you would go out and shop around. If you bought a reasonable sized family car with a 6 cylinder motor and got good gas mileage, everything was fine. And, as long as you use that car properly that's fine, but if you decide to put an addition on your house and you take that car to the lumber yard and you try to get 2,000 pounds of lumber and stick it in the car, you'll break the car. There is nothing wrong with the car, you just haven't used it properly. And, that's what our water system is. The water system as originally designed was a good family automobile. It provides water to the community and it provides fire protection. But, it's not a town-wide irrigation system. So, we have to control these peak uses and control the uses of the system so that the system is used correctly so we don't break it. It's that simple.

COUNCILMAN MARCELLE: Bruce, just to follow-up on Councilman Plummer's question, are you saying that you need an absolute ban of all these things like pools or just the normal...

MR. SECOR: No, I'm sorry, and if I... maybe I answered your question wrong. We could back off on some of this from the absolute ban. I'm sorry, Dan, if I answered that wrong. But, I'm just saying, we will always have to have some conservation measures forever.

COUNCILMAN MARCELLE: Like watering only in the morning or something.

MR. SECOR: Again, if you go back to that earlier Memo, there were 3 phases. The first phase was no water from 10 until 2, just don't water in the middle of the day because it evaporates – it's stupid.

The second phase was watering early in the morning or late at night, a little more restrictive.

The third phase was odd and even watering and... you know, there's a lot of other things you can do beyond that. We tried to pick out the 3 that were most common. Similar to what Ravena was doing, similar to what Guilderland was doing so that somebody who lived in the Town wouldn't see 3 different ads from 3 different municipalities with 3 different types of regulations. And, so, we tried to make them uniform with our neighbors... so... because a lot of the papers cross boundaries. So...

COUNCILMAN PLUMMER: But, going back to your analogy, is it the infrastructure then that can't deliver?

MR. SECOR: That's correct because the infrastructure, the car wasn't purchased as a truck.

COUNCILMAN PLUMMER: Okay, so then, regardless of how much water we would be able to get from the City of Albany or elsewhere, we still can't deliver it with our infrastructure.

MR. SECOR: The way it exists now but, again, if you read the engineer's report we have in process, we have to upgrade transmission mains and we have to upgrade some looping measures and we need more system storage so we can move to that and we can relax those. There... and I don't know if I gave a copy of the water conservation form... I don't remember what paper I gave to you... DEC will not allow you to simply spray as much water all over the place as you want.

COUNCILMAN PLUMMER: That's not what I'm suggesting.

MR. SECOR: Even... no, but I am just saying, even with that... even if the system were as strong as a rock, you would still be required to have some conservation measures in place and that's covered in that water conservation program form that the DEC wants to enforce. Because, again, the DEC is looking at the bigger pictures. The water in the Vly Creek reservoir, the water in the Alcove, the water in the Hudson River are all waters of the State of New York. The Hudson River may be waters of the United States, I don't know but in order to do this you have to get a permit. And, every time you get a permit, there are conditions attached to it. But, we are basically... we have a good water system but it is not a town-wide irrigation system. We have a good water system which is in some growing pains and every 10 years, we make a major effort to do things. Ten years ago we built some storage tanks. We built some pump stations. We built 2 pumped interconnections with the City of Albany to reinforce that so we could handle peak flows. And, you know, we've moved in that direction. But, it's an ongoing process. It's a maturity.

SUPERVISOR FULLER: I think most important is Bethlehem is not unique and I'm sure the State of New York is going to be coming out with drought restrictions for the entire State and we don't need to be, you know, reinventing the wheel here. I think it's common sense and we'll wait and Bruce, you can come in with your list

for our next Board meeting. Then we will vote on a resolution but this is state-wide. This isn't just for Bethlehem.

Okay, anything else on water?

For those that have read the Times Union this morning and the Spotlight today, I have attempted to reach Mayor Jennings this morning. I have to say I was a little taken back and surprised and I think if I can speak with him I'll have a better understanding of what prompted this but I'm sure as he was agreeable to provide additional water for this Town, a few weeks ago he also was... I had discussed with him renegotiating our contract and he assured me that he would get back to me within a couple weeks. So, I'm not overly concerned about these... the article appeared today or the letter to the editor, I have great faith in Mayor Jennings and I'm sure he and I can get this little problem today out of the way. I would hope so anyway.

The next item was to approve the Town Board minutes of January 23 and January 29, 2002.

The motion was made by Mr. Plummer and seconded by Mrs. Davis to approve the Town Board minutes of January 23 and January 29, 2002 as submitted. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.
Noes: None.

Supervisor Fuller asked if anyone wished to address the Board. There were none. She said a statement from Mr. William Kelleher was handed out to the Board and will be included with the minutes of the meeting. Letter follows.

William J. Kelleher
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**Why The Town of Bethlehem Will Abandon Schermerhorn Island
As A Source of Drinking Water**

The Hudson River infiltration gallery has failed. The use of directional wells underneath the river as proposed by the defendants in the lawsuit will also fail. The town will eventually abandon Schermerhorn Island as a source of drinking water.

A Brief History of Schermerhorn Island

When Henry Hudson sailed up the river in 1609 Schermerhorn Island was a sand shoal that appeared out of the water at low-low tide. Human activities caused Schermerhorn Island to be formed and eliminated. It was only an island for 110 years. 40,000 to 10,000 year ago – During the last ice age the sea level dropped and the river carved a 120-foot deep channel out of bedrock, which became the west branch of the river. When the glaciers receded a much larger river carved the east branch of the river out of bedrock. The river meandered between the east and west branches carving what latter became islands and shoals known to skippers of ships as the middle grounds. Soil filled the valleys in the rock. Sand and silt covered the higher elevation rock to form shoals and islands.

1807 – Fulton demonstrated the viability of the steamboat by traveling from NY City to Albany in the Clermont. The State authorized the Fulton-Livingston Steamboat Company to collect a fee from every steamboat plying the river.

1814 – The State built a 1600-foot long wing dam to block the flow of water and navigation in the west branch and to deepen the channel in the east branch by

increasing the velocity of the water. The dam formed the south bank of the present Vloman Kill.

1820 – The State Canal Commission authorized Randall to map the river from Albany to New Baltimore for the purpose of creating a canal to eliminate the treacherous middle grounds.

1825 – The State Canal was opened. The shallow depth of water, ice jams, shoals and the constant need to dredge the river to remove sand bars required that the Hudson River channel be stabilized and deepened if the Erie Canal were to reach its full potential.

1831 – Chief Justice John Marshall ruled that the US controlled commerce on all tidal waters and that state fees were illegal. The US Army Corps of Engineers (CE) was given the responsibility to create a channel through the middle grounds. The State continued to help maintain the channel until 1898 when the State dropped out of navigational function on the river.

1837 – The CE built dikes in the middle of the river following the shallow bedrock that separated the east and west branches of the river. The dredgings from the east branch of the river were placed behind the dikes and Schermerhorn Island was formed. A large opening was made in the 1600-foot wing dam to allow the Vloman Kill to flow into the west branch of the river. By 1898 over 22 miles of wood sheet piled dikes were built between the cities of Albany and Hudson, 2/3 by the CE and 1/3 by the State.

1840 – The centrifugal pump was developed for hydraulic dredging and the cutting wheel to remove gravel was developed by 190-0. This allowed the removal of large amounts of soil and sludge from the river bottom.

1840-1915 – The Hudson River was mined for sand and gravel by hydraulic dredging. The gravel that may have existed in the east branch of the river was removed. The west branch was mined 40 feet deep; the natural gravel below 40 feet still exists today. Channels carved out of bedrock between the east and west branches were also mined. Coarse sand was placed on the riverside of the dike to stabilize the river bottom. Gravel was placed between the double wood sheet piled dikes. Other examples of the hydraulic mining of the Hudson are: the Watervliet Arsenal built on 8 to 10 feet of fill and 6 miles of 787 from Albany to Cohoes, including elevated highway fills, were constructed by the hydraulic dredging of the nearby Hudson.

1880 – The discharge of raw sewage from sanitary sewers started. Soil dredged from the river before 1880 had a brown coloration but after sewage discharges started the color turned to gray. Sewage solids were sucked up from the river bottom along with the soil by the hydraulic dredging.

1840-1910 – The 40 foot deep lake formed by mining the west branch of the river was ideal for making ice. Two large icehouses were built on Schermerhorn Island and two on the west shore of the river.

1915 – The east branch of the river had to be deepened further, all of the gravel was mined and refrigeration machines were replacing the making of natural ice. The large volume of excavated river bottom in the west branch could now be filled in. New, crib type dikes were built. The opening in the 1600-foot wing dam was closed and the Vloman Kill temporarily diverted north where it discharged directly into the east branch of the river.

1915 to 1985 – The west branch of the river was completely filled in to its present elevations with dredgings from the east branch. All of the cornfields one see today were at one time under water. It is also the largest burial of sewage solids in the State and possibly the country. The Vloman Kill was returned to follow the 1814 dam. **Albany became an international seaport.**

1985 – The CE abandoned the dikes completely. The wood dikes are decaying and falling into the river. There are approximately 15 miles of unsafe shoreline on the river that cannot be used for recreational purposes.

Conclusions

1-The so-called large sand and gravel aquifer extending underneath the river does not exist. If it did exist it was removed by the hydraulic mining that occurred from 1840 to 1915.

2-The shallow depth to bedrock and the wood sheet piles driven into the river bottom obstruct the flow of ground water.

3-Iron leaching from the anoxic fill will cause any type of well to eventually

clog with iron hydrate.

4-All of the above caused failure of the infiltration gallery and will cause failure of directional wells.

5-The organic nitrogen in the ground water caused by the sewage solids makes it a poor quality water.

6-The wood dikes are rotting and falling into the river. Eventually the 1000-foot horizontal well will fall into the river.

7-The only way to fully use the water treatment plant and pipelines that cost the town \$10 million will be to take water directly from the Hudson River.

This will require public hearings to reclassify the river from C to A.

Fishermen, upstream communities and many town resident will oppose the reclassification.

8-It may be possible to obtain two million gallons per day of good quality ground water from wells located in and directly north of the Henry Hudson Park. Gravel may not have been mined from the old west branch of the river in the Park, 400 to 800 feet west of the present river. A series of borings should be made to determine if gravel had been mined. Two million gallons of water per day would meet the present industrial demand and help retire the bonds used to finance the failed water system.

9-The town still needs a reliable source of drinking water that will not be cut off by droughts.

The Supervisor asked for a motion to meet in Executive Session to discuss a personnel matter.

The motion was made by Mr. Marcelle and seconded by Mr. Lenhardt to approve adjourning to Executive Session to discuss a personnel matter. The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.

Noes: None.

Absent: None.

Supervisor Fuller reconvened the regular Town Board meeting following the Executive Session. She noted action was to be taken. Peter Bishko, who has been Counsel to the Board of Appeals is anxious to be reappointed.

The motion was made by Mrs. Davis and seconded by Mr. Lenhardt to approve the appointment of Peter Bishko, Delmar, New York as Counsel to serve at pleasure of the Board as Counsel to the Board of Appeals and subject to the direction of the Town Attorney to be assigned as and where needed: The motion was passed by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.

Noes: None.

The motion was made by Mr. Lenhardt and seconded by Mr. Marcelle to adjourn the regular Town Board meeting at 9:25 p.m. The motion was carried by the following vote:

Ayes: Mrs. Fuller, Mr. Lenhardt, Mrs. Davis, Mr. Plummer, Mr. Marcelle.

Noes: None.

Absent: None.

Town Clerk