

FINAL

BOARD OF SELECTMEN'S MEETING

JANUARY 6, 2003

7:30 PM – MUNICIPAL OFFICE BUILDING – HANOVER, NH

The meeting of the Board of Selectmen was called to order at 7:32 pm by the Chairman, Brian Walsh. Present were: Brian Walsh, Chairman; Katherine Connolly, Vice-Chairman; William "Bill" Baschnagel; Peter Christie; Judson "Jay" Pierson; Julia Griffin, Town Manager; and members of the public.

1. PUBLIC COMMENT

Traffic Planning

Dick Lewin, of 3 Hovey Lane, read a letter he previously provided to the Selectmen on traffic issues. He believed that now was the time for Hanover to create a comprehensive traffic plan in association with future Dresden School District, Howe Library and Dartmouth College construction plans. These projects would provide the Town a unique opportunity to improve its traffic flow, intersections and pedestrian conditions. He asked that traffic-calming measures be given consideration now, rather than later.

Mr. Lewin submitted a petition, signed by 43 residents of the area that read,

"We the undersigned ask the Planning Board, Selectboard and the various planners and architects to produce a single, coordinated, and comprehensive traffic plan that includes protection of the residential area, adjacent to this redevelopment, from the adverse effects of cut-through traffic."

Mr. Lewin said he hoped the Selectboard would take the lead in producing this plan.

Selectman Walsh thanked Mr. Lewin for his comments. Selectman Connolly advised of her membership to a committee that was actively involved with the streetscape development of the Sargent Street and South Street areas. She said traffic calming and traffic control were paramount in the committee's considerations. Selectman Baschnagel felt that Mr. Lewin's timing was absolutely perfect, as these projects would all be coming before the Planning Board within the next six months.

Winter Road Maintenance

Selectman Baschnagel asked to give credit to the Town's road crews for their efforts maintaining the roads and removing the large amounts of snow that had fallen over the holidays.

2. DISCUSSION OF RECOMMENDED PROJECT DESCRIPTION PLAN FOR THE WASTEWATER TREATMENT FACILITY

Town Manager, Julia Griffin advised that consulting engineers, Ed Rushbrook and Dick Hertrich, would walk the Selectmen through their assessment of, and recommendations for, the Wastewater Treatment Plant. John Dumas, Assistant Water & Wastewater Treatment Superintendent at the plant, and Pete Kulbacki, Director of the Town's Public Works Department, were also available to answer questions. Ms. Griffin acknowledged people in the audience from the hospital, College, and the Town's Planning Board who had very specific interests with this issue. She encouraged them, and the Selectmen, to ask questions as the consultants' presentation is given. Selectman Walsh explained that the purpose of this discussion was to gain as much understanding on the issue as possible. The Selectmen would not make any decisions, at the current meeting, on wastewater issues. Ms. Griffin advised that informational packets that contained documents related to the engineers' reports and background information on the Wastewater Treatment Plant, were available.

Ed Rushbrook began by reviewing the Reserve Capacity Evaluation sheet from the informational packet. He said this was the single most descriptive piece of information, relative to why the plant was being looked at and why an upgrade was needed. The Reserve Capacity Evaluation sheet indicated that hydraulically the plant had additional capacity, but organically it was between 90% and 100% loaded. Hydraulics related to the flow capacity, organics related to the amount of solids within the flow.

Mr. Rushbrook explained the treatment process as illustrated on the Primary and Secondary Treatment sheet also provided in the informational packet. Pretreatment occurs as influent enters the plant and is screened. From there the wastewater passes into primary and secondary treatment where the biochemical oxygen demand and suspended solids are removed. After passing through primary and secondary treatment, the then relatively clarified effluent passes through the Ultraviolet Disinfection System where pathogenic bacteria are killed before the flow is released into the Connecticut River. Sludge is generated in the primary and secondary clarifiers. This needs to be monitored and disposed of. The sludge produced in the primary clarifiers is pumped to the anaerobic digesters where it is heated and mixed. This is an organic process that breaks down the organic material and tries to reduce the volume, odor potential and solids. Sludge produced in the secondary clarifiers is passed through a mechanical thickening process and then pumped to the anaerobic digesters. From the digesters, the sludge is de-watered and sent to a composting facility.

Mr. Rushbrook said the Town of Hanover Wastewater Treatment Facilities January 2003 report covered the areas within the plant that were evaluated. The evaluation was done from the standpoint of the plant's current design capacity, as it was originally designed roughly 15 years ago. The report answered questions related to what reserve capacity remained within the existing facility, what deficiencies existed and what improvements

were required to bring this facility, at its current capacity, up to a reasonable level of technology.

Mr. Rushbrook said the Ultraviolet Light Disinfection System was probably the most difficult system to assess, as it had not consistently met the effluent standards for coliform bacteria and because it was an issue with the State DES. In recognition of this, and some other problems the plant was experiencing roughly two years ago, the Town had this evaluation done.

Mr. Rushbrook explained the process of UV disinfection. He said as wastewater is passed through a channel lined with UV lamps or lights the UV rays kill the bacteria. A significant effort went into evaluating this UV System to try to identify the reason(s) why disinfection limits were not being met. Mr. Rushbrook had anticipated, prior to the evaluation, that the plant was either extremely overloaded or was poorly operated and was discharging excess amounts of suspended solids in the effluent. This could cause a shading effect as the solids would block the UV light from effectively inactivating the bacteria. However, it was found that the plant was operating quite well and the plant effluent being discharged was well within limit. Mr. Rushbrook said he was unable to find the cause of the breakdown in the UV System. The current disinfection process was meeting the permit limits, due to the recent work done by staff, to replace all of the key elements of the UV System. He believed that was as much that could be done to take Hanover's somewhat undersized system and bring it back to almost new conditions and make it functional.

Selectman Connolly noted that cost estimates for both Horizontal and Vertical Systems were provided in the evaluation report. She asked if Mr. Rushbrook was suggesting that a Vertical System, which was less expensive, was the better way to go. Mr. Rushbrook said the decision to pursue one system over the other had not yet been made. Both systems were considered and cost estimates were provided. He said there was a slight preference towards switching to a Vertical System due to the existing problems with the Horizontal System. Ms. Connolly asked if it might not be a good time to change disinfection methods as well. Mr. Rushbrook said that issue would be part of the next proposed phase of the evaluation.

Selectman Baschnagel asked if there was an explanation for the plant's trend to get progressively worse and worse. John Dumas advised of Bill Mathieu's, the Plant Superintendent and long time employee, statement that the plant has had problems with its UV System for years. Mr. Dumas said the Town invested nearly \$20,000 into the UV System within the last year to rebuild it. He said the plant began experiencing some real problems shortly after adding equipment to the secondary clarifier. This increased the total suspended solids going out of the facility. The plant remained within compliance limits of 30 milligrams per liter but was running closer to 20 and 25 milligrams per liter rather than the usual 10 to 12 milligrams per liter. Mr. Dumas said there were some additional maintenance issues that needed attention as well.

Mr. Rushbrook said the UV System equipment manufacturer visited the plant and conducted a very thorough inspection. Recommendations made from that inspection were implemented including the replacement of sleeves and bulbs. As a result, the coliform counts were back in line as of December 5, 2002. The question remained, how long the counts would stay in line. He said the existing system, constructed and designed 15 years ago, was not up to current standards. He recommended that additional pilot work was needed to more clearly define the nature of the problem that was interfering with or appeared to be interfering with the UV disinfection and what would be required to effectively serve Hanover and meet permit limits.

Selectman Walsh asked if UV disinfection would still be considered for a new plant built today. Mr. Rushbrook said UV disinfection was a current technology that was still used in quite a number of treatment plants. He felt that the previous approach to UV disinfection, used 5 or 10 years ago, was no longer applicable. A more site specific evaluation, of the characteristics of wastewater, needed to be performed in order to appropriately use the technology. That was part of what he was recommending for the additional pilot work; to determine under what conditions UV disinfection was feasible. He explained that as the nature of the wastewater changes it becomes more difficult to treat due to chemical constituent, tridity, or the change in natural material contained in the wastewater. The number of lamps to disinfect a given volume of flow increases almost geometrically and eventually UV disinfection becomes too expensive an alternative.

Selectman Christie asked if the UV system was working adequately would that increase the percentage capacity relative to solids and organics. Mr. Rushbrook said no, it was pretty much independent.

Mr. Rushbrook said the secondary treatment was also evaluated at the plant. This process involves biological and aerobic systems that break down the organics delivered to the treatment plant. Oxygen, provided by aeration blowers, is introduced to the bottom of a tank. Bubbles pass up through the wastewater transferring oxygen into the bacteria within the waste. The bacteria then performs the removal process and purifies and clarifies the waste.

Mr. Rushbrook said there were a number of operational limitations at Hanover's plant that made it difficult for staff to work effectively with the biological system. The oxygen level required for secondary treatment differed throughout the day. More oxygen was required when the system received heavy organic flow. Most treatment plants designed today would have the ability to provide that flexibility in oxygen levels. Hanover's plant does not. He recommended matching the oxygen supply rate to the biological requirements. This would optimize the biological system and would avoid over aerating during periods of low demand. He said dissolved oxygen probes could be placed into the aeration tanks to determine how much oxygen was in the system at any given time. Selectman Walsh asked of the consequences of over aeration. Mr. Rushbrook said

primarily, it was a waste of energy and an unnecessary expense. An over aerated system was also sometimes more difficult to settle.

Mr. Rushbrook said another limitation Hanover's plant experienced was relative to the pumps underneath the secondary clarifiers that re-circulated solids back into the secondary clarifiers. This was necessary to maintain an adequate population of bacteria in the activated sludge system. The rate at which material passes through the system, from the activated sludge tank to the secondary clarifier, varies over the course of the day. A treatment plant should be able to match the rate of return sludge against the amount of flow entering into the system. Hanover's plant cannot. This was another recommendation, to make this capability happen.

A third recommendation was related to the secondary clarifiers. Mr. Rushbrook said it was very important to have all of the materials settle out in the secondary clarifiers in order to have clarified flow going into disinfection process. If this was not accomplished, material will pass out of the secondary clarifier and either create a violation relative to total suspended solids, or interfere with the disinfection process by shading the bacteria from the UV rays.

Mr. Rushbrook said because there were two clarifiers, a primary and a secondary, it was important that flow was split evenly between them for proper operation. This affected the amount of solids that settled to the bottom of the tanks but more importantly it affected the rate at which flow came up out of the clarifier and took suspended solids up with it. He explained that currently, flow came down into the aeration tanks, traveled across the outside of each tank and continued into the center. Essentially it was traveling across the shortest dimension of the aeration tank. This meant that there was a possibility that wastewater flow, just entering the tank, could short circuit (cut right across the tank and not be retained in the biological system long enough for the organic material to be properly taken up). Mr. Rushbrook recommended developing a "plug flow system" which would bring flow from one end of the tank, direct it up through the tank and exit at the far end. This would increase the overall effectiveness of the biological system. He also recommended modifying the existing secondary clarifiers and, in the future, adding a third secondary clarifier, if the Town continued to use the activated sludge process at this facility.

Mr. Rushbrook said to date there had been a very preliminary projection of possibly a 42% increase in loadings in the future. Depending on what happened with the solids handling in the future and with the future increase in loadings, it might be necessary to construct another digester.

Selectman Baschnagel asked if the Town followed the proposed recommendations would that buy back a significant amount of added capacity over the current capacity. Mr. Rushbrook said yes. Town Manager Griffin further explained the goal would be to get the solids capacity more in line with the hydraulic capacity. Mr. Rushbrook said a goal of the study was to look at the original plant, with the original process that is still

currently used and return as much of its capacity as possible. Long-term, one of the things that have changed in the environmental field, as it relates to wastewater treatment facilities, is the issuance of permits that are becoming more stringent as time progresses. Hanover's permit was renewed every 5 years. For a long time, secondary treatment, which would be defined as no greater than 30 milligrams per liter of BOD and TSS in the effluent or 85% or greater removal of BOD and TSS from the influent flow, was accepted as a standard. Now water quality standards were starting to be introduced at treatment plants across the country. What was once considered "advanced treatment" was now required in order to remove contaminants such as ammonia and phosphorous.

Mr. Rushbrook believed it made sense to consider what will happen 5, 10 or 15 years from now. A new permit would be issued at the end of 2003. Discussions with DES indicate that Hanover is not likely to have an ammonia limit in 2003 but there is a chance Hanover will have some limitation for phosphorous. In 5 more years it is very difficult to predict what will happen. In general, the State has recommended conducting a TMDL, Total Maximum Daily Load Study, on the receiving stream to determine how much discharge Hanover can put into the Connecticut River without impacting the water quality. Mr. Rushbrook said the goal in terms of the most obedient step after this is to say, if Hanover is considering putting a significant amount of money into the treatment plant it should not just investment to serve the plant's current capacity, but should explore what technologies might apply to expanding the planning.

Selectman Connolly said she saw 30% and 40% disparities between what was planned for this plant and what was actually occurring. She asked for some indication of where that disparity could be made up. Mr. Rushbrook said the plant had the potential to add quite a bit of capacity but improvements were necessary to gain that full capacity. Organics and solids was where Hanover had to make up the difference in the treatment plant. That was where the deficiency existed. To gain that back hydraulically Hanover must push the plant with additional larger blowers, add secondary clarifier capacity or add another technology to clarify the effluent and remove the solids from it. He said there was another technology that would greatly enhance the overall capacity of the plant, Membrane Filtration Technology. This was not looked at as it was not part of original scope of the evaluation. Mr. Rushbrook said the use of membrane filtration would allow for the expansion of the organic capacity within the existing footprint. This was important to Hanover because there was not a lot of room to add to the facility without causing a significant change in the topography. Hanover also had quite a bit of yard piping.

Selectman Walsh asked of the cost of membrane technology as compared to secondary clarification. Mr. Rushbrook said membrane technology was a more costly alternative but it did provide some advantages in the treatment system. The proposed pilot work would involve investigating the advantages, disadvantages, Capital and operating costs. Town Manager Griffin added that in the Town had advised DES of its desire to conduct a six month pilot of the UV alternative as well as the UV and membrane technology alternative. This would help in determining if membrane technology, although more

expensive, might be ultimately more effective given Hanover's quality of wastewater. Ms. Griffin said the pilot work would also involve an evaluation of chlorination and dechlorination as an alternative to UV. Those processes typically require a significantly larger footprint to install the systems. But since Hanover was having the research done and was preparing to spend up to millions of dollars in modifications it seemed reasonable that these alternatives should also be considered. Ms. Griffin said one of the issues brought up time and again in the UV world is that what used to work in UV disinfection based on wastewater quality was not as effective today. A typical recommendation is to oversize the UV system to deal with the effluent. It leaves one to question how much longer even an upgraded UV system would be effective for Hanover based on the changing nature of wastewater. Mr. Rushbrook said that leads back to the question of switching to an alternative disinfection method. A chlorination/dechlorination evaluation would show the relative advantages and disadvantages and Capital and operating costs to compare some numbers to.

Selectman Connolly asked how widespread membrane technology was used throughout the country. Mr. Rushbrook believed there were roughly three dozen plants in the country that used membrane technology including one in Epping, New Hampshire. It was a very new technology, as applied to wastewater treatment facilities, but it had been used in the water treatment industrial processes for a quite a long time. It was being introduced and used more frequently in wastewater treatment due to the increasingly stringent standards.

Mr. Rushbrook explained that during anaerobic digestion the solids, generated in the wastewater treatment process, enter into an enclosed heating tank. The biological system continues to operate and the organic material is broken down into carbon dioxide and methane. The methane typically is used in a treatment plant to heat the digesters as a partial source of heating. However, Hanover's gas and electric system, at the plant, has some severe deficiencies, so some of the building's heating system has to be used to heat the digesters to maintain an adequate temperature. The solids have to be in that heated mixed tank for at least 15 days. Depending on how much the plant expands and how efficient the thickening process is, it might be necessary to construct an additional digester in order to maintain that hydraulic detention time. That means that some decisions must be made with regard to the eventual use of that material. As the amount of solids grows, the amount of byproduct generated grows so these digesters might have to be increased in capacity. The basic system in Digester One also needs replacing.

Selectman Walsh asked of the effects of building the composting facility into the system. Mr. Rushbrook said that would reduce the requirement for digester capacity because the solids would longer be required to sit in the digester for 15 days. Proper digestion would result in reduced amounts of material that would then need to be disposed of.

Mr. Rushbrook advised that it is difficult to drain the tanks. This is sometimes necessary if work is required in the secondary clarifiers. He suggested constructing drain pump stations to make the draining easier.

A power system upgrade was also looked at. The plant staff took it upon themselves to replace the existing dry power system with a liquid power system. This is working much more effectively but to be a fully standard and acceptable system it could use some additional upgrading. Also some pump station improvement allowances were done to bring the pumps up to Code, electrically.

Selectman Pierson asked if the Town would be able to do all of the options recommended without acquiring more land. Mr. Rushbrook said without composting it could be done but it would be tight. John Dumas said that was one of the reasons why membrane technology was going to be evaluated. It might make it possible for the plant to significantly increase its capacity without having to increase its footprint. Selectman Baschnagel asked if membrane technology would replace the existing secondary clarifiers as well as the recommended additional secondary clarifier. Mr. Rushbrook affirmed.

Referring to a sheet titled, Hanover, NH WWTF Preliminary Capital Improvements Plan, Town Manager Griffin said the higher priority, or near-term improvements, recommended totaled roughly \$3.5 million. A series of additional improvements, totaling roughly \$4.7 million, were dependent upon whether or not the Town retained its current technology or added an alternative technology. She said the downside of membrane technology was that it would be significantly more expensive up front but in the long run might save the Town money.

Selectman Connolly asked of the cost of sustaining a membrane system. Mr. Rushbrook said those costs would be determined in the next phase of the work. John Dumas advised of the plant staff's opportunity to visit the new facility in Epping that utilized the membrane technology. He said that was what really peaked their interest as it looked like something that could really work in the Town of Hanover. Mr. Rushbrook said a key piece in trying to understand why we would be looking at different technologies goes back to the UV System. What is starting to appear is that an additional level of treatment, beyond what exists at the plant today, may be necessary in order to make UV effective. If that is the case then it makes sense to look at other technologies that would fulfill that need of additional treatment.

Selectman Walsh asked if Hanover's wastewater was significantly different from that of other towns. Mr. Rushbrook did not think the composition was too different. He said the difference was that the plant was designed to do one thing and it was being asked to do something else. Water conservation measures were one reason why the strength would be greater relative to the hydraulic capacity. Conditions today were different in terms of the balance between organics and hydraulics than when the plant was originally envisioned and designed.

Selectman Christie said it appeared as though recommended improvements were made for every system. Mr. Rushbrook said changes were not proposed for the primary

clarifiers, screening or grit facilities, though the grit facility was not part of the evaluation.

Selectman Baschnagel asked if the input had changed such that it had now moved away from the design point, or had the characteristics of the operation, relative to solids and organics, in some manner evolved over time differently from what it was planned to be. Mr. Rushbrook guessed it would be the former. He suggested reviewing previous years' data would provide a better assessment. He said several things could take place in the up stream activities, that deliver material to the plant, that could impact the balance between hydraulics and organics and solids. His feeling was that there was a significant amount of capacity in the aeration basins relative to the tankage. This means that they are adequately sized but their air supply that feeds the bacteria that operates within the tankage needs to be greatly increased to allow that organic capacity to be met. Increasing the digesters' size would be a direct relationship to the amount of organics and solids capacity.

Selectman Walsh asked when the plant was built. Mr. Dumas believed the primary facility was constructed in 1969 and the secondary facility was added in 1988. He said looking at the design criteria, from the 1988 upgrade, it was predicted that hydraulic capacity would be reached in 2000. Mr. Dumas said what made the issue so complicated was that there were a lot of factors that played into it. It was not only the constituents of the influent that had changed but the original plant design had now led to limitations that were out of the staff's hands. These included the configuration of the aeration basin, which was associated with the short-circuiting situation, and the fact that the blowers for the RAS and WAS bumps ran on basically a single speed.

Selectman Pierson asked if the improvements were done, would that increase capacity enough to buy more time and include the hospital construction, College construction and more houses in the Hanover community. Mr. Rushbrook said yes, it would buy time. The compounding factor was trying to understand what might be needed in the future. The goal was to make improvements that would allow the Town to meet future permit requirements. The State was very reluctant to make any predictions on what those might be especially without the Total Maximum Daily Load Study. Without seeing an increase in the stringency of the permit limits this might buy 10 or 15 years based on staff's predicted growth rate, in terms of wastewater generation which would amount to roughly a 35% increase. Mr. Christie asked if that rate of growth was consistent with what the hospital was planning. Ms. Griffin affirmed.

Selectman Baschnagel said the question of timing was also relative to the hospital's actions. The Town had some very specific questions to answer in next few months relative to Hanover's ability to accommodate loads that will have some significant impacts on the current customer base. Mr. Rushbrook said one of the complexities was that the State was looking at the UV Disinfection System with such closeness that they were, in a sense, tying it into the plants' overall performance. Town Manager Griffin believed the short term issues have to be dealt. This includes Capital Improvements that

would be undertaken at Town Meeting in order to satisfy DES' and the Town's own expectations of the plant. The significant long-range planning issues, including whether to continue to treat waste generated in Lebanon at the Hanover Wastewater Facility, were secondary.

Ms. Griffin said financially consideration must also be given with respect to reserving money now for future upgrades that will be necessary. Mr. Rushbrook believed the proposed pilot project would work out the details of these issues. Selectman Baschnagel suggested adding a time dimension to the bar chart displayed on the Reserve Capacity Evaluation sheet.

Selectman Walsh asked of the Federal and State participation in the financing of the 1969 and 1988 expansion. Selectman Connolly said Federal funding financed 95% of the 1989 expansion. Town Manager Griffin advised that the Town was still receiving annual payments from the State toward the Town's repayment of the principle and interest of the outstanding debt. The last payment would be received in 2008. Selectman Walsh spoke of the State and Federal governments' actions to shoulder their responsibility, change regulations, and expect the local communities to pay the difference. Mr. Walsh said he was glad the river was clean. He could recall a time when it was detrimental to one's health to enter the water. Ms. Griffin agreed that State and Federal regulations played a very large part in the increasing cost the Town paid in providing water and wastewater services. The good news was that there were some low interest revolving loans available from the State for wastewater upgrades and additional grant moneys available to help offset the full cost of this upgrade project. The Town would certainly utilize its consultants to take full advantage of those financial opportunities.

Ms. Griffin advised of some preliminary figures Betsy McClain, the Director of Administrative Services, calculated that provided a quick sense of where the Town might access funding to implement the facility upgrade. It was as follows:

	\$3,354,000	estimated cost of upgrade
-	\$ 360,000	funds from DHMC
	<u>\$2,994,000</u>	
-	\$ 362,623	Undesignated Fund Balance
	<u>\$2,544,000</u>	
-	\$ 886,392	Capital Reserve Plant Upgrade
	<u>\$1,694,000</u>	*SFR 3.704% or Bond 3.9%
-	\$ 670,800	State 20% Grant Program
	<u>\$1,023,200</u>	Net cost to WWTP customers

Selectman Connolly asked if the State grant was actually Federal money passed to the State. Pete Kulbacki believed it used to be 75% Federal and 20% State, but that the Federal money was gone. Ms. Griffin said typically SRF funds were initiated with an injection of Federal capital. This was then loaned out to communities. As they repay their loans, the loan fund is repopulated. Ms. Griffin said there were other opportunities

for the Town to look at with respect to SRS money. This would be discussed further in early March as the Selectmen review the Wastewater budget.

Selectman Walsh asked of the plant's current operating budget. Mr. Kulbacki believed it was roughly \$1.2 million. Ms. Griffin said Mr. Kulbacki had figured the wastewater rates increase, for minimum improvements, to be roughly \$23 per year per equivalent user, which was basically the average household. Mr. Kulbacki added that the State average for wastewater rates was \$361 per year; Hanover averaged \$213 per year. Mr. Kulbacki advised that operational costs for the membrane technology were not included in these figures. Manpower, electrical, and chemical costs were unknown at this point. Selectman Walsh thought that everything suggested was intended to take down the ongoing operational costs or at least stabilize them.

Ms. Griffin walked the Selectmen through the two funding scenarios the Town might face as outlined on a sheet titled, Town of Hanover Waste Water Treatment Facility – Funding of Anticipated Capital Improvements. The first involved about a \$3.5 million expenditure that assumed no membrane technology improvement. This resulted in an average rate increase, per equivalent user per year, from roughly \$213.11 to \$236.26 based on some assumptions about SRF loan rates and community bond rates. The second scenario included a worst case scenario, in terms of cost, for adding the membrane technology system. This resulted in an average rate increase, per equivalent user per year, from roughly \$213.11 to \$310.94. Selectman Christie asked if the entire Capital Reserve would be spent down in the scenarios provided. Mr. Kulbacki affirmed. He anticipated that in 2008 the money currently being paid toward the Bond could be contributed entirely to the Capital Reserve. That would put this fund back into good standings. Mr. Kulbacki said it would take some time to implement all of the improvements suggested in the evaluation. Staff would not have a lot of spare time to work on other Capital Improvements.

Selectman Connolly asked if the proposed aeration improvement that totaled roughly a half million dollars would still be required if membrane technology was used. Mr. Rushbrook said more aeration would be required but the added cost for aeration was included in the worst case scenario figures provided.

Jonathan Edwards suggested that over the period of time being discussed, the Town might wind up having more customers amongst whom to spread these extra costs. He also wondered if it would be worthwhile to investigate whether impact fees could help out with some of this funding.

Selectman Baschnagel asked of the life expectancy of both the existing equipment and the proposed enhanced equipment. Mr. Kulbacki said plant equipment was replaced as it aged using Capital Reserve funds. Ideally operational changes were made in 30 year increments. Ms. Griffin said the Town would continue to contribute to the Capital Reserve annually; the proposed improvements would not be the only changes or improvements made to the plant in the years to come.

Selectman Walsh asked of the Town's next steps. Ms. Griffin said the Town would make a final set of recommendations to DES for anticipated modifications to the wastewater plant very shortly. She was hoping DES would allow the Town a six month extension for pilot work on UV, UV with membrane technology, and chlorine and de-chlorine. A series of Capital Improvements would be recommended for Town Meeting that would involve the following funding issues:

- Appropriating roughly \$352,000 from the Undesignated Fund Balance
- Appropriating some funds from the Capital Reserves in upwards of \$886,000
- Requesting authorization to apply for SRF money and potentially to issue a bond for the difference

Selectman Walsh believed the first step should be to determine what should be achieved. Is it short-term meeting the E-coli counts? Is it capacity with today's regulations to meet the next 10 years? Is it a set of investments today which can be used another 10 years from now to provide a 20 year view? This will help when considering some of the options that have been put forward and will also provide a reasonably intelligent statement for Town Meeting as opposed to presenting options to pick from. He asked of the short-term goals the Town would be trying to achieve by April. Ms. Griffin said that would be dependent on whether or not the Selectmen agreed with the basics of the consultants' recommendations. Those recommendations would buy the plant additional capacity to bring its biological capacity more in line with its hydraulic capacity. It would also free up enough treatment capacity to reasonably accommodate the growth anticipated for the next 10 to 15 years. Ms. Griffin said from DES' perspective the Town has an immediate need to address the near-term issues at the plant associated with the biological loadings that were near capacity and the more regular problems with E-coli violations. This would involve spending close to the \$3.5 million for improvements. Selectman Walsh asked if that was the minimum cost to meet the E-coli issues. Mr. Rushbrook said that would buy Hanover 10 to 15 years of capacity assuming that the pilot developed a reasonable expectation of performance for UV improvements. Mr. Rushbrook said it was critical that the Town convince DES that the E-coli violations were not related to the capacity problems.

Selectman Christie asked of the amount currently invested in plant equipment. Mr. Dumas said the 1988 facility was \$7.5 million. It was estimated that the original plant might have been almost equal to that cost. Mr. Christie asked of the cost of building a new facility. Rich Hertrich believed the new Epping facility cost \$12 million. Mr. Christie thought it was reasonable for the Town to invest another \$3 million to get an additional 15 or more years out of an existing \$12 million investment. Mr. Rushbrook cautioned the Selectmen that the State or EPA could, in five-year increments, change that significantly by raising permit limits. Selectman Connolly believed \$3 million was the most the Town had ever spent on this plant. She suggested that of the \$12 or \$13 million spent on the existing facility, the Town of Hanover probably contributed no more than \$1 million; the rest was paid by the Federal government.

Selectman Pierson asked of a scheduled mentioned in a DES letter to the Town dated December 26, 2002. Ms. Griffin said it was apparent in the letter that DES thinks the Town can develop a more expedited implementation schedule for improvements than the one proposed. Town staff was talking internally about where the timeline could be tightened up. One area that could be shortened is the SRS loan process which takes 6 months to process through DES. She explained that there were two sides to DES: an enforcement side and an operations side. The enforcement side was of the mind that if Hanover doubled the size of its UV System immediately that would meet all their requirements. Ms. Griffin was not sure if that was really the case or not. She would prefer to be absolutely certain that the technology upsize or improvements made would be effective in Hanover's system prior to asking the rate payers to incur over a \$1 million of additional expense. Ms. Griffin hoped that within the next 60 days a reasonable timeline would be agreed upon between the Town and DES. She said it was important that DES agree to a timeline, the proposed improvements and understand that between now and implementation of final construction the Town could continue to have E-coli violations.

Ms. Griffin advised that a new inter-municipal agreement with the City of Lebanon was needed. The current agreement was signed in 1969, it had not ever been reviewed by the Attorney General's Office, it was hopelessly short by today's bureaucratic standards and it was anything but a model agreement. Ms. Griffin said she was not sure it afforded the Town of Hanover the kind of protections it should have in treating Lebanon's wastewater. She was unaware of what the City of Lebanon would like to see coming out of a new agreement. She would anticipate the renegotiation would take several months and would raise all sorts of issues for the Board of Selectmen and both Planning Boards. She suggested in the future dealing with the City of Lebanon directly on wastewater issues as opposed to dealing with all the individual users from Lebanon who have their wastewater processed in Hanover. Mr. Kulbacki agreed, the ideal solution would be to have a revised inter-municipal agreement that indicated a certain amount of BOD that Lebanon could discharge to Hanover period. How the City of Lebanon allocated that would be up to their City officials.

Selectman Baschnagel asked the hospital representatives present for input on the issue of their discharging wastewater to Hanover. Rick Nothnagel, Vice President of Facilities Management at Dartmouth-Hitchcock Medical Center, believed that was addressed fairly well in a letter included in the informational packet. He said having a termination option was a problem because it meant that the hospital would have to continually purchase capacity from the Lebanon plant while at the same time pay Hanover for actually processing the wastewater. Mr. Nothnagel said the hospital would prefer to have a permanent arrangement which would allow them to pay only one of the municipalities.

Selectman Walsh asked of the excess capacity the City of Lebanon had at its wastewater plant. Town Manager Griffin affirmed that the City of Lebanon did have excess capacity and was looking at a major upgrade to their facility. Lebanon officials needed to know whether they will have to take on the wastewater from the hospital and Centerra that is

currently processed in Hanover. For Hanover, in deciding whether or not to continue to take waste generated in Lebanon, a true cost benefit analysis must be considered. Hanover receives revenue from the hospital and Centerra for the wastewater Hanover treats. But one could argue that Hanover would incur additional costs by having to potentially invest more in its plant to free up capacity than it would have to if it were not treating that wastewater. Ms. Griffin said there were also some development issues that needed to be considered in the context of Hanover's own community. Selectman Walsh believed this issue should be based on topography. He said in many parts of the country there were sewage treatment districts or wastewater treatment district that were defined by geography and were State or County Chartered as opposed to the situation that existed here.

Ms. Griffin said the Town would have to give the hospital notice 5 years before they stopped accepting the hospital's wastewater. The Town could not wait 5 years to make these improvements. Ms. Griffin said Rick Nothnagel and the hospital had a May deadline to tell the City of Lebanon whether or not Hanover would continue to process the hospital's wastewater. She said Hanover's concern was that DES might link capacity issues to the E-coli violations if the plant took on a significant amount of wastewater and had additional E-coli violations before the plant improvements were fully implemented. Ms. Griffin said staff would try to figure out a way to reasonably approve taking on more customers at the wastewater plant, knowing that the improvements pending would open up capacity. She said the State had signed a permit for the hospital but had also advised the Town that if the E-coli violations continued the Town would be fined.

Mr. Nothnagel clarified that in May the hospital needed to either show evidence to the Lebanon Planning Board that Hanover would continue to accept the hospital's sewage on a long-term basis or present a revised site plan indicating that hospital's waste would be treated in Lebanon. He said the hospital did have a Discharge Permit and had paid the Town of Hanover \$360,000 in exchange for approving that permit and agreeing to taken on the hospital's additional sewage. Mr. Nothnagel contended that this permit was issued by the State and signed by Hanover. Pete Kulbacki argued the permit was qualified by Hanover if was found that the Hanover plant could handle the biological capacity. Ms. Griffin reiterated, if Hanover took on the additional discharge and the E-coli violation rate increased, the Town would be fined by the State.

Selectman Walsh asked to have this issue added to the Selectmen's January 27, 2003 meeting agenda for additional discussion. He advised that his wife's office was likely to be located in the hospital's new building being discussed but that he felt that he did not need to recuse himself from the making judgments on this issue.

Selectman Connolly asked for financial figures on the revenue the Town gains from the hospital and Lebanon per year for treating their wastewater and of the sewage amounts. Ms. Griffin said those would be provided on the 27th. Mr. Kulbacki said at some point the rate structure would have to be addressed.

Selectman Walsh thanked the audience for attending the discussion.

3. RECOMMENDATION TO SET A PUBLIC HEARING ON MONDAY, JANUARY 27, 2003 TO CONSIDER AMENDMENTS TO THE PARKING DISTRICT ORDINANCE

Selectman Connolly MOVED to set a public hearing on Monday, January 27, 2003 to consider amendments to the Parking District Ordinance. Selectman Baschnagel SECONDED.

Selectman Baschnagel believed the Parking Committee was planning to bring a series of proposals to the Selectman for discussion on January 27th. These would include amendments to the Charter, Zoning Ordinance and Parking District Ordinance. He did not envision the actual modifications would be made until after Town Meeting. Selectman Walsh asked that the discussion remain advertised as a public hearing.

THE SELECTMEN VOTED UNANIMOUSLY TO HOLD A PUBLIC HEARING ON MONDAY, JANUARY 27, 2003 TO DISCUSS AMENDMENTS TO THE PARKING DISTRICT ORDINANCE.

4. RECOMMENDATION TO ESTABLISH TOWN CLERK/TAX COLLECTOR POSITION AT LABOR GRADE 19

Town Manager Griffin advised that the labor grade should read, "20". She reminded the Selectmen that this change was brought about during discussions at their last non-public session. The recommendation was to move the Town Clerk/Tax Collector position from its current labor grade 16 to a labor grade of 20.

Selectman Pierson MOVED to establish the Town Clerk/Tax Collector position at labor grade 20. Selectman Connolly SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO ESTABLISH THE TOWN CLERK/TAX COLLECTOR POSITION AT LABOR GRADE 20.

5. REQUEST TO INSTALL POND PARTY BANNER

Selectman Connolly MOVED to approve the banner request. Selectman Pierson SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO APPROVE THE BANNER REQUEST.

6. APPOINTMENTS: CONSERVATION COMMISSION

Selectman Baschnagel MOVED to appoint new members Nancy Menton and Mike Tsapakos to the Conservation Commission. Selectman Walsh SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO APPOINT NEW MEMBERS

NANCY MENTON AND MIKE TSAPAKOS TO THE CONSERVATION COMMISSION.

7. APPROVAL OF MINUTES: DECEMBER 16, 2002

Selectman Connolly MOVED to approve the minutes of December 16, 2002 as submitted. Selectman Pierson SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO APPROVE THE MINUTES OF DECEMBER 16, 2002 AS SUBMITTED.

8. ADMINISTRATIVE REPORTS

Budget

Town Manager Griffin reported of staff's progress to complete the budget review. She said other than the retirement contributions and the health insurance premium increases the Town was not looking at any challenging expenditures. She was hoping to cover most, if not all, of the health insurance premium increases by encumbering money budgeted in the current year's budget that was not expended because the rate increase was not as significant as was budgeted for. Ms. Griffin said staff was focusing most of their efforts on the Wastewater Fund and the Community/Senior Center.

Community/Senior Center

Ms. Griffin advised that she had retained the services of an interior designer firm that specialized in municipal buildings to assist in the process of choosing color schemes for carpet, paint, tiling, etc. for the Center. She said the construction work and budget was going as planned.

WWTP

Ms. Griffin reiterated the effort staff would be putting into wastewater issues over the next several months. First they would work with DES to satisfy their concerns about an implementation schedule. Following that they would work on the larger policy issues including future treating of wastewater generated outside of the community. Selectman Christie asked how that would all be accomplished by May 2003. Ms. Griffin explained that the May deadline was set by the Lebanon Planning Board based on their sense of Hanover's improvement timeline. She believed it was possible that the deadline could be elongated once Hanover and the City of Lebanon begin discussions on this issue. Ms. Griffin said clearly, Hanover needed to decide, at least from a cost benefit analysis standpoint, whether or not it made sense to continue to treat waste generated from the hospital. She was unaware of a deadline date to which the Town needed to respond to the hospital. Selectman Walsh asked if Ms. Griffin had met with Lebanon's City Manager to discuss these timelines. Ms. Griffin said she was scheduled to meet with Lebanon staff within the next few weeks. She added that Pete Kulbacki and his counterpart in Lebanon

had been in close communication on this issue. Selectman Walsh said it sounded as though a tremendous amount of things had to happen very quickly that would have very long-term consequences. He was more worried about the long-term consequences than the \$23/per household increase.

Selectman Baschnagel asked if DES had come to the same conclusions presented in the consultant's plant evaluation. Ms. Griffin said copies of the evaluation were provided to DES in mid-December. They had not yet finished reviewing it but would send a detailed written response to the recommendations outlined in the study upon completion of their review. Ms. Griffin said one of the issues discussed with DES previously was of the need for the Town and DES, to develop some sort of a protocol that would allow the Hanover Planning Board to approve additional projects, between now and the time the improvements are implemented.

9. SELECTMEN'S REPORTS

Peter Christie

Mr. Christie reported on the Senior Citizens Steering Committee's appreciation for Ms. Griffin's efforts to coordinate the furniture selection for the new facility.

Mr. Christie said the Chamber of Commerce's work was continuing. Tom Byrne was named President and Jay Pierson was named Treasurer.

Katherine Connolly

Ms. Connolly advised of a well deserved break the Planning Board enjoyed. Prior to it they approved a few site plan waivers and continued Master Plan chapter revision work. The Planning Board's next meeting, scheduled for the following evening, would include an informal discussion with the Dresden School Board on traffic elements of future proposals. The meeting would also include a site plan review of a proposed second story to the Verizon building on School Street and review of a proposed in-town subdivision on Ledyard Lane and Currier Place.

Ms. Connolly thanked the Fire Department for the delightful Christmas party they hosted for Town employees. She extended holiday and New Year's greeting to all.

Bill Baschnagel

Mr. Baschnagel reported on the Affordable Housing Commission's activities relative to their study of the Gile Tract. Results of that study would be presented to the Selectboard in the near future. He said the Commission was also working to find a new home for the existing Senior Center with a view towards adapting that towards affordable housing.

Jay Pierson

Mr. Pierson advised that the Parks and Recreation Board would meet the following week to discuss the skateboard park.

Brian Walsh

Mr. Walsh advised of 2 or 3 people who thanked him and the Selectmen for the letters they sent to the players of the State championship teams. Ms. Griffin said the letters were very well received. Many people had commented to her on how nice it was of the Selectmen to take the time to do that.

10. OLD BUSINESS

There was no old business discussed.

11. ADJOURNMENT

Selectman Christie MOVED to adjourn the meeting. Selectman Baschnagel SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO ADJOURN THE MEETING AT 9:55 PM.

SUMMARY

- 1. Selectman Connolly MOVED to set a public hearing on Monday, January 27, 2003 to consider amendments to the Parking District Ordinance. Selectman Baschnagel SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO HOLD A PUBLIC HEARING ON MONDAY, JANUARY 27, 2003 TO DISCUSS AMENDMENTS TO THE PARKING DISTRICT ORDINANCE.**
- 2. Selectman Pierson MOVED to establish the Town Clerk/Tax Collector position at labor grade 20. Selectman Connolly SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO ESTABLISH THE TOWN CLERK/TAX COLLECTOR POSITION AT LABOR GRADE 20.**
- 3. Selectman Connolly MOVED to approve the banner request. Selectman Pierson SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO APPROVE THE BANNER REQUEST.**
- 4. Selectman Baschnagel MOVED to appoint new members Nancy Menton and Mike Tsapakos to the Conservation Commission. Selectman Walsh SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO APPOINT NEW MEMBERS NANCY MENTON AND MIKE TSAPAKOS TO THE CONSERVATION COMMISSION.**
- 5. Selectman Connolly MOVED to approve the minutes of December 16, 2002 as submitted. Selectman Pierson SECONDED. THE SELECTMEN VOTED**

UNANIMOUSLY TO APPROVE THE MINUTES OF DECEMBER 16, 2002 AS SUBMITTED.

- 6. Selectman Christie MOVED to adjourn the meeting. Selectman Baschnagel SECONDED. THE SELECTMEN VOTED UNANIMOUSLY TO ADJOURN THE MEETING AT 9:55 PM.**

Respectfully submitted,

A handwritten signature in black ink, appearing to read "P. Christie". The signature is written in a cursive, flowing style.

Peter Christie, Secretary

These minutes were transcribed by Beth Rivard.