WWPTF Meeting Minutes 6/26/2012

Attendees:
Christopher Whelan, Town Manager
Richard K. Reine, PWLF, Public Works Director
Alan H. Cathcart, Water/Sewer Superintendent
Marcia Rasmussen, Director - Planning & Land Management
Susan Rask, Public Health Director
Hardik Raval, Public Works Engineer – Water Systems
Jeff Wieand, Chair - Board of Selectman
Toby Kramer, Citizen Representative

Absent:
Jeff Adams
Fred Watriss, Residence C Zoning District Task Force
Arthur Fulman, Chair - Public Works Commission

Consultant:
Kent Nichols, Weston and Sampson

Public in attendance:
Carmin Reiss, Board of Selectman
Allison Fields-Juma, Organization for the Assabet River (OAR),

Director Reine opened the meeting and presented the agenda. He mentioned that notice of the meeting was not posted 48 hours prior, so this does not qualify as an official meeting. No votes can be taken, however, this meeting will become official, once the minutes are confirmed and adopted at the next meeting.

Director Reine discussed the agenda and work done so far which included finalizing the alternatives analysis matrix and previous meeting at the Wastewater Treatment Plant to review the sand bed load testing for the groundwater discharge. Director Reine provided an update on the Town's NPDES permit. The regulators - EPA and DEP - were in the process of issuing a draft NPDES permit. Town staff met with the regulators at the EPA and DEP and requested deferring the issuance of the draft permit which would allow the Town to further develop it integrated water resources plan which would ultimately be incorporated within the NPDES discharge permit allowing an increase in flow. The Town is in the process of evaluating an approach to increase the surface water discharge permit from the Wastewater Treatment Plant by looking at water in a holistic manner including water, wastewater and stormwater management. This approach is consistent with what the EPA policy however the EPA is unclear on the permitting track.

Director Reine invited Kent Nichols to explain the load testing investigation, the results of the groundwater discharge model and to explain what the typical next steps in the Hydrogeological evaluation and groundwater discharge permit process are. Kent Nichols advised that a load test was carried out in the sand beds. During the load test about 50,000 gallons per day of water was pumped on top of the sand beds. Monitoring wells were installed at various locations in the sand beds to monitor the change in the groundwater elevation during the load testing. Based on this information a model was prepared and calibrated to predict changes in the groundwater elevation for different flows. The Modflow model is being used for this analysis; which is accepted by the DEP in the permitting process. The model predicts groundwater mounding and rise of the groundwater towards the surface, at various flows. It also looks at changes in perimeter conditions, e.g. breakouts at the wetlands, due to the loading in sandbeds. The DEP, in general, does not approve more than one foot of change in groundwater elevation in the wetlands.

The model predicted that with a breakout of one foot from the slopes, at the wetlands, a maximum of 155,000 gallons per day can be loaded in beds 1 & 5 as shown in figure 1. This loading raises the groundwater mounding to 18 feet in Bed 5 and 9 feet in bed 1. However, due to the well-draining nature of the soils this mound dissipates quickly and we are able to sustain the discharge flow. The model predicts that we are limited to loading only two beds due to the geophysical limitations of the surrounding soils which are not capable of dissipating higher flow.

Kent Nichols proceeded to explain that after the determination of flow the next step is to obtain a discharge permit from the DEP. A groundwater discharge permit issued by the DEP does not focus on phosphorus but on nitrogen. Presently the WWTP does not have a nitrogen limit and hence does not provide nitrogen treatment. Any effluent that will be discharged into the ground will likely need treatment for nitrogen first. The basic permit limit for Nitrogen is 10 mg/L. The process involves DEP's "buy-in" on the wetland impact, and control of the mound height with attention placed on the impact on the Peter Spring Road neighborhood. With this information a decision needs to be made whether to go forward with permitting the groundwater discharge by submitting the Hydro-Geological report to DEP, which is the first step; or focus on increasing the surface water discharge permit.

Toby Kramer inquired about the 155,000 gallons per day available discharge capacity through the groundwater discharge, and asked about the amount that was intended to be discharged through this method. Director Reine advised that Town meeting had authorized additional wastewater flow of 320, 000 gallons per day for immediate needs and a total of 600, 000 gallons per day with antipcated zoning changes. One such change, the extended stay hotel at 300 Baker Ave., has already occurred. However, going forward it was understood that the groundwater discharge option would not satisfy all of the needs. It is one several options which needs to be explored and potentially implemented to satisfy the immediate Town's wastewater needs.

Director Reine commented that the 18 feet rise in the groundwater mound does not mean that the homes in the Peter Spring Road neighborhood will see a rise of 18 feet in their groundwater level. This 18 foot number is a theoretical number predicted by the Modflow model at the discharge location in beds 1 and 5 The model predicts a theoretical 1 or 2 foot rise extending to those areas. There are a lot of unknown parameters in this model which would affect this number. If we proceed with this option monitoring wells will be installed in the Peter Spring Road neighborhood to detect changes in the groundwater levels .

Director Reine further explained the cost estimate for this option is $2 to $3 million. Cost effectiveness in terms of dollars per gallon should also be reviewed. Kent Nichols added that another important part of site limitation is wetlands and mounding height which would affect maximum flow that can be discharged. The estimate of 155,000 gallons per day is theoretical and conservative. Following on field observations more flow may be able to be discharged with less impact to the groundwater. However, during the permitting process procedures should be followed and a more conservative number should be used.

Superintendent Alan Cathcart summarized the process that theoretically 155,000 gallons per day of treated effluent can be discharged into the sand beds. The flow is limited due to the impact on Great Meadows. The parties concerned with Great Meadows will have an opportunity to provide comments along with the residents of the Peter Spring Road neighborhood. The schedule for this option is 6 months to a year for permitting, with an additional 1 to 2 years for the design and construction. The total time frame would be about 3 years to realize this option. Selectman, Jeff Wieand asked about the time frame by which this option needs to be constructed following the issuance of the permit. Kent Nichols advised that the groundwater discharge permit runs along with the wetland permits. This means that there is a 3 year deadline by which this option needs to be implemented. However, should there be a delay in the implementation; an extension can be requested from DEP.

Jeff Wieand inquired about the permitting cost. Director Reine advised that it is in the order of a several hundred thousand dollars including design. Director Reine further explained that a viable solution for discharge should be reviewed which can be constructed at a reasonable cost. The groundwater discharge is one such viable option as it can satisfy the intermediate need with 155,000 gallons per day discharge capacity until a solution is found for larger needs. If this option were to yield a significantly lesser quantity of discharge gallons per day, it would likely not be considered viable. Director Reine advised that the next step is submittal of the Hydrogeological report to the DEP seeking their comments. Once the DEP accepts the report, if the task force desires, a full engineering design of the discharge fields and design of the wastewater treatment plant modification can begin which will be used for full permitting. The task force has identified this as a short to mid term solution should a need arise and one question now is when to implement this solution.

Director Reine then discussed an increase to the surface water discharge to NPDES. Director Reine explained that a wastewater treatment plant NPDES surface water discharge permit is valid for 5 years. Hardik Raval confirmed that the current permit expired on March 13, 2011, however, it continues to be effective until the EPA issues a new permit. Director Reine asked Supt. Cathcart to provide an update on the NPDES permit renewal.

Supt. Cathcart explained that when it comes to the NPDES surface water discharge permit, EPA has the primacy in Massachusetts and that the permit is coauthored and issued by both the DEP and EPA. The Town staffs have had informal discussions with both of these agencies regarding capacity constraints in anticipation of the upcoming draft permit. Prior to this meeting, the Town received a draft version of the permit. As is customary, the Town was given a week to check factual information but not provide comments on the permit conditions or the fact sheet. The Town determined that the capacity concerns were not addressed in this permit. The Town staff responded to the EPA in writing requesting a meeting to discuss increase in the surface water discharge. The purpose of the meeting was to be proactive and seek guidance from the regulators about the right time frame to introduce the concept of increasing the surface water discharge limit in the permit. EPA & DEP accepted this request.

The staff attended the meeting which included the head of the permit division, the chief writer and others from the EPA and DEP with the understanding that requesting an increase in surface water discharge is a sensitive issue and the process may be unconventional. The staff apprised the EPA & DEP of the efforts of past 10 years, such as alternatives analysis, to address the wastewater capacity issues. The Town's short term wastewater need of 320, 000 gallons per day and the long term need of 598, 000 gallons per day was discussed along with the groundwater discharge option which would provide 155, 000 gallons per day for the above need. The idea of integrated planning which includes not only water and wastewater but also stormwater was introduced. The staff communicated that the Town is anticipating spending up to $3 million for the groundwater discharge option and would rather spend this money on holistic water management which would realize greater benefit for the community. Some resistance to this concept was observed from permit writers but the rest of the attendees understood the proposed concept.

The meeting concluded with the agreement that the integrated planning approach proposed by the Town is not conventional and there is no mechanism presently to execute. However, regulators agreed to discuss this proposal to be provided by the Town up their hierarchy. The Town wanted to make the EPA and DEP aware of various initiatives the Town has undertaken such as alternatives analysis, water conservation, inflow & infiltration reduction and stormwater management. The staff had a sense that the regulators might hold off issuing the draft permit for public comment until this approach is looked at.

Staff were encouraged when within a week of this meeting EPA headquarters in Washington DC sent a memo to the regional offices advocating an integrated planning approach. The memo encouraged the regional offices to work towards finding a model for such an approach.

The Town had filed a Certificate for Comprehensive Wastewater Management Plan (CWMP) about 10 years ago with the DEP. The regulators suggested the Town file a Notice of Project Change which brings the Executive Office of Energy and Environmental Affairs (EEA) into the process. This will be the first step in requesting additional capacity and takes the CWMP towards Integrated Water Resources Plan. Taking this step will involve additional stakeholders such as the environmental interest groups.

Jeff Wieand asked whether one has to wait to implement the integrated planning initiative if the NPDES permit is issued before the planning is completed. Director Reine advised that the permit can be modified after the planning is completed to incorporate the planning outcomes.

Director Reine commented that upon presenting the concept of Integrated Planning to the EPA and DEP staff, Dave Pincumbe (Chief Permit Writer) showed resistance to the concept, while Robin Johnson (Permit Writer) said that the Town first has to construct a Groundwater Discharge system and any additional capacity can then be reviewed for surface water discharge, while Brian Pitt (NPDES program supervisor) showed interest in further discussing this concept. This suggested that the staff received different feedback from different regulator groups.

Director Reine further advised that the EPA has included aluminum as a new parameter in the NPDES permit requiring additional treatment. Aluminum is now being included in many NPDES permits being issued to other towns and is a point of great contention. Several communities have gone the path of litigation to appeal inclusion of aluminum in the permit. This additional treatment would cost approximately $250, 000 for the life time of the permit (5 years). Town staff feels that no benefit is received by treating aluminum to the level included in the permit. There is no scientific basis for it given the background level in the river; and the DEP is of the same opinion. The staff has communicated this to the EPA and DEP during their meeting and has indicated that if the permit is issued as is, with the inclusion of aluminum, the Town may consider appealing the permit. This would take significant time and energy and would divert resources from a very beneficial integrated planning initiative. This was another driver in requesting the deferral of issuing the permit which would allow the town to focus on the development of the integrated water resources plan and CWMP Notice of Project Change.

Jeff Wieand asked about the perception of the regulators on the 155, 000 gallons per day capacity potentially available through the groundwater discharge site. Jeff asked whether the regulators see this as a preferred option in lieu of the surface

water discharge. Director Reine advised that the Town staff observed mixed response on this matter. For example the permit writer for Concord (Robin Johnson) indicated that she prefers that the Town permit the groundwater discharge to the full extent and then any additional wastewater needs should be looked at through the integrated water resources. However, the Town staff would prefer to target funding which would otherwise go toward groundwater discharge design, permitting and construction to integrated water resources plan and implementation. The environmental and community interests are best served by increasing the surface water discharge through the treatment which requires relatively smaller capital investment at the wastewater treatment plant. The EPA/DEP currently does not have a road map for such a plan but the Town has offered to assist in creating such a road map. The DEP has also offered that the Town may apply for a waiver for denitrification of the effluent for groundwater discharge. The denitrification process carries significant cost, up to $1.5 million. Should the waiver be considered and approved by DEP this will result in significant savings. DEP can also consider applying seasonal limits which saves a full year's treatment.

Jeff Wieand inquired about the next steps about the groundwater discharge permit. Director Reine advised that the Town has sent a letter to the EPA requesting a delay in issuance of the (draft) permit (for public comment) to allow the Town time to review the next steps. One of the steps is issuance of Notice of Project change to revise the CWMP to request increase in surface water discharge capacity.

The Town is waiting for a response/reaction from the EPA regarding the letter requesting delay in issuance of the permit. Jeff Wieand asked about an anticipated response time for this letter. Director Reine advised that a response is expected in a few weeks. Supt. Cathcart advised that the EPA has indicated to the Town their goal to issue the permit by September. However, the Town has requested that the alternative integrated water resources approach be considered prior to the issuance of permit and Concord is receptive to working with the EPA in such an approach which is also being advocated by EPA Headquarters. However, having said that, the EPA may issue the permit and then review the integrated plan.

The Town has communicated that the value of 155, 000 gallons per day of groundwater discharge is derived from a hydrogeological study. The presence of the Great Meadows Wildlife refuge presents an additional level of complexity to the process as this will involve the other federal agencies such as potentially the Department of Interior. Historically, the EPA had challenges with the Department of Interior while working with them in Wayland, MA. Supt. Cathcart noted that he does not feel that spending $3 million for groundwater discharge is a suitable option. It only serves part of the community's wastewater needs. Investing the same money in the creation and implementation of the integrated water resources plan would produce greater benefits.

Director Reine agreed with Supt. Cathcart's comments but noted that the EPA has been advised that the Town does not have years to debate integrated planning with the regulators. The Town has an immediate need for wastewater capacity and certain economic growth is currently on hold due to the capacity constraints.. Director Reine advised that even if the integrated water resources plan is a much more economical and environmentally beneficial approach; should there be no mechanism to permit an increase of surface water discharge then the option of groundwater discharge should be considered as it has high likelihood of being permitted. Director Reine suggested that the Wastewater Task Force, which has been tasked to find additional wastewater capacity for up to 320, 000 gallons per day for the immediate need, must consider how and when to proceed with this option.

Jeff Wieand asked whether the Town will have more information after a response is received from the EPA. Supt. Cathcart advised that there will be a greater understanding only after the response. Supt. Cathcart advised that the EPA may issue the permit and then review the integrated planning with the provision that the permit can be modified following the completion of the planning. This approach is also acceptable. The Town can also appeal the permit, should it be issued with the aluminum condition. In which case the WWTP will continue to operate under the old permit until an appeal on the new permit is resolved. This could take up to 2 years. Kent Nichols explained that an extended compliance schedule can be requested which gives the Town more time to treat effluent with the new aluminum condition. However, for a plant such as Concord's with a high capability of treatment, such a request is challenging.

Jeff Wieand asked that politically how does the aluminum debate play out. Supt. Cathcart advised that the issue with the aluminum limit is based on the Federal Water Quality Criteria. The State has yet to development site specific Water Quality criteria but are going to in the near future. This process would likely cost around $50, 000 to $100, 000 and take about a year to develop. Following this exercise the Town may be given a new aluminum permit which will be higher than the limit specified in the (NPDES) fact sheet issued to the Town. The EPA appears to understand the argument about the generic water quality criteria but they rely on available information and issue the permits based on that .

Jeff Wieand inquired about the timeline. Supt. Cathcart explained that the next steps would involve submission of the hydrogeological report to the DEP. Kent Nichols advised that once comments are received from staff the hydrogeological report can be submitted to the DEP and depending on DEP's work load their comments typically would be received in two months.Supt. Cathcart advised that the response on the Town's proposal for the integrated planning approach is anticipated in about one month.

Toby Kramer asked if there will be any cost incurred by the Town in complying with the new NPDES permit if it is issued without considering the Town's interest on the

integrated water resources plan. Supt. Cathcart advised that the cost would be additional treatment for aluminum as previous discussed. Also, in this permit there is no consideration for increase in wastewater discharge.

Toby Kramer inquired about the $3 million allocated for capacity. Director Reine explained that this amount will be required to increase the capacity by constructing a groundwater discharge site. Director Reine also advised that the Town can apply for a waiver from Nitorgen treatment to the DEP, the permitting agency for groundwater discharge. If granted this waiver can offer seasonally higher limits on nitrogen in the effluent. This might help reduce the cost of the treatment. Supt. Cathcart described the case for communities in Cape Cod where the Conservation Law Foundation (CLF) was requiring them to treat the effluent to a nitrogen limit of 2 mg/L, which was very stringent considering that the State standard is 10 mg/L. The communities were able to negotiate the permit limit back to 10 mg/L. Supt. Cathcart advised that such cases illustrate that there are many stakeholders involved when requesting a waiver from the permit conditions.

Kent Nichols explained that the Concord River, which accepts effluent from the Concord wastewater treatment plant, discharges to the Merrimack River which in turn discharges to the ocean. This scenario is different from that of Cape Cod. That is the reason why communities in the Merrimack River basin are not considered for a Total Nitrogen limit by the DEP. Hence, if effluent from a treatment plant is discharged into the river it only gets monitored for ammonia since the nitrogen does not result in toxicity in the river. However, when this effluent is discharged into the ground, a nitrogen limit is introduced to protect the public water supply. In the case of Concord an argument can be made when asking for a waiver that the effluent, when discharged to the ground has a relatively short travel time to a surface water body. Also there is no drinking water supply in the vicinity of the discharge site.

Jeff Wieand asked that if the $3 million is the construction cost for a groundwater discharge site then would there be additional costs as well. Director Reine advised that these are planning level estimates and will be refined as the process moves forward.

Toby Kramer asked that if the Town's proposal to carry out an integrated plan is accepted then would the Town proceed with the implementation of the groundwater discharge as well. Supt. explained that the communities will be moving towards an integrated plan in the next 10 years. The plan gives a road map of how to allocate cost towards improvement, for example in stormwater. Public Health Director, Susan Rask explained that removing untreated stormwater from the river results in significant reduction in pollution. Toby Kramer explained that the Town is already reducing pollution from the river by treating the effluent. Supt. Cathcart explained that this is being done with a focus on wastewater. With the integrated plan stormwater will also be considered along with wastewater.

Director Reine advised that many communities are treating point source pollution (e.g. wastewater discharge), however, non-point source discharge such as stormwater are neglected. The Town, in contrast, is doing a lot of work on stormwater and maintaining their MS4 (stormwater permit) systems. In discussions and correspondence with the regulators the Town is proposing to integrate stormwater and provide a plan on stormwater management along with wastewater. The Town is requesting additional capacity in lieu of this plan so funds, such as the $3 million which are set aside for groundwater discharge can be invested in the preparation and implementation of the integrated plan.

Susan Rask inquired about the amount of surface water discharge capacity that will be requested in the new NPDES permit. Supt. Cathcart advised that the Town has a short term need of 320, 000 and long term need of up to 600, 000 gallons per day. The 320, 000 gallons per day should satisfy the Town's wastewater capacity for 10 to 20 years. While the 600, 000 gallons per day is the long term need which will only be required after zoning changes.

Toby Kramer asked that should the EPA accept the Town's request for an integrated plan then will they grant additional capacity while the plan is being developed or after the plan is complete. Supt. Cathcart advised that the capacity will be granted after the plan is completed. Toby Kramer asked about the time frame to complete such a plan. Supt. Cathcart advised that the plan should take approximately one year to complete. Supt. Cathcart proceeded to explain that with the directive form the EPA headquarters instructing the regional EPA offices to work with interested communities towards an integrated plan, the EPA regional offices should be looking for a case study.

Supt. Cathcart advised that in his opinion the Town is best suited for such a case study. Kent Nichols agreed that the Town is uniquely positioned to perform the integrated planning, especially from the stormwater perspective. The nutrient criteria applicable to the (watershed of the) Town are different from that of the waters of Cape Cod making the Town a suitable candidate for such a planning effort. Kent Nichols also commented that about 10 years ago the Town worked on the Comprehensive Wastewater Management Plan, which took into account local water balance issues. Such a water balance was discussed by other communities at that time but was never implemented. As far as planning is concerned Concord has always been on the cutting edge. Kent also commented that it was evident from the meeting between the Town staff and the EPA that at times the EPA regional office are not aware of many initiatives floated by EPA headquarters. It appeared that the Town was more aware of some initiatives. The reason could be that since the EPA is such a large agency, their internal communications are not perfect. For example, the Town discussed an EPA initiative which gives funding to communities to leverage stormwater treatment and obtain credits. The EPA regional office was unaware of such a program.

Supt. Cathcart elaborated that the commissioner of DEP is very much vested in an integrated planning effort. However, the challenge for the communities is they deal with permit writers who follow a conventional path and may not be willing to implement an unconventional approach such as an integrated plan. However, many stakeholders such as the watershed groups acknowledge the fact that there are issues pertaining to flows and water quality and see a holistic planning effort as a balanced approach. Supt. Cathcart advised that the Town has the right information and resources at their disposal to perform such a plan. The Town is willing to be open and inclusive with this process.

Toby Kramer asked that if the regulators approve the Town's proposal to produce an integrated plan would the Town also proceed with permitting of the groundwater discharge. Director Reine advised that the Town would wait for EPA's response to the integrated planning proposal which was recently sent and copied to the WWPTF. The Town would seek a firm commitment from the EPA that producing the integrated plan would result in additional surface water discharge capacity. Since the Town would not invest resources in the plan if it were not to yield the desired results. The EPA may instruct the Town that the groundwater discharge be permitted and any additional capacity that is required above what is provided by groundwater discharge may be allocated through the means of integrated planning. Director Reine indicated that should this be the approach then it would be difficult to carry out the integrated planning effort since all the resources would be used by the groundwater discharge option.

Toby Kramer asked who would fund the integrated planning initiative. Supt. Cathcart advised that the Town is positioned to be a case study provided that seed money is available to start the planning effort. Supt. Cathcart noted he is aware of such an effort from the EPA's drinking water group that there will be some funding available this fiscal year to review the water management act issues. There is a possibility that some of this funding may be available for the integrated planning, now that an interest is shown from EPA headquarters for such a planning effort. Director Reine pointed out that in the meeting EPA volunteered that they currently have no funding available for such a planning effort.

Jeff Wieand mentioned a hypothetical scenario in which the EPA would allow the Town extra capacity, through surface water discharge, so that the Town can sewer all the parcels in the Town. Supt. Cathcart advised that such an allowance would be a great surprise and would be highly welcomed. Supt. Cathcart suggested that the Town would trust EPA's judgment while allocating such capacity; however, the Town would not act on any proposal that would jeopardize the environment. Also, sewering the entire Town would be cost prohibitive. Kent Nichols advised that the EPA would have to consider anti river degradation standards prior to awarding such capacity. Jeff Wieand inquired about the effect of groundwater specifically, with this proposal. Kent Nichols advised that it has been the Town's position that if a parcel's wastewater needs can be met onsite then it is a preferred option.

Director Reine advised that the Task Force will be informed of possible meeting times in the Fall and invited further questions from the task force. Town Manager Chris Whelan asked if the EPA allows the Town to perform integrated planning then how would the Town carry out stormwater management. Director Reine advised that the stormwater management would entail significant focus on low impact development, revision of regulations to encourage stormwater management, advancement of Town's stormwater system to provide better treatment. Director Reine advised that the Town is currently carrying out a majority of such efforts but would capture this under the integrated plan. Town Manager Whelan expressed that the Town may have addressed a majority of stormwater improvements and further enhancements may be difficult. Supt. Cathcart advised that the existing stormwater system will be reviewed to find opportunities for groundwater recharge. The existing Roads Program can be revised to include an even greater focus on stormwater management and subsequent groundwater discharge. All such efforts require more funding than currently available. The funds available through the Sewer Improvement Fee (SIF), which are allocated for capacity, can be made available for stormwater improvement, once the integrated plan is approved. Director Reine advised that water conservation can also be addressed along with stormwater and wastewater as an integrated plan.

Director Reine then invited comments from the public. Allison Fields-Juma referred to the Wayland case involving the Department of Interior, the Wild & Scenic River Stewardship Council and EPA. She expressed that the case would have likely involved surface water discharge along with groundwater discharge and that in the case of Concord, water quality is of interest but water balance is of utmost concern. She commented that the additional wastewater generated that is proposed to be discharged into the river is pumped from the ground as drinking water. She inquired about the portion of the water, withdrawn from the ground, in the additional wastewater which would be generated due to increased capacity. Supt. Cathcart advised that such questions would be addressed in the integrated plan.

Susan Rask asked if the Town would be straining its water withdrawal permit with the additional water demand. Supt. Cathcart advised that, as part of the integrated plan, the Town will be reviewing opportunities to reduce inflow & infiltration in the sewer system and water conservation. Supt. Cathcart advised that input from various stake holders, such as the one presently provided by Allison Fields-Juma, would be sought as the plan is being developed. Susan Rask advised that the Town will also be abiding by its groundwater withdrawal permit.

Allison Fields-Juma indicated that the integrated plan should not only consider wastewater but also drinking water and withdrawal permits. The plan should consider water balance for the watershed applicable to Concord. She noted that many streams are currently severely impacted. For example, Nashoba Brook is rated as highly stressed. therefore the integrated plan should address such constraints by finding ways to remove less water and provide more recharge through stormwater and/or wastewater.

Allison Fields-Juma inquired about availability of any potential sites upstream of the Assabet River for groundwater discharge. Director Reine explained that this process was part of the alternatives analysis in which various options, such as partnering with developers, were reviewed. Such that for a new development with onsite wastewater discharge a larger system can be designed in order to take additional load from the Town's sewer system. Director Reine advised that there has not been much success with this approach. However, this option has not been eliminated from consideration and if such an opportunity arises in the future it will be pursued. Supt. Cathcart suggested that the alternatives matrix has been developed to compliment the integrated plan and will continue to be used as a decision making tool. Allison Fields-Juma concurred that using such an approach, an option which may not be viable, may become attractive in the future should the conditions change. Director Reine explained that that is why the matrix evaluates various criteria such as Environmental Benefits and Public Acceptance.

Allison Fields-Juma suggested that as part of the integrated plan the Town should be carrying out improvements to the stormwater system, above and beyond what is required by the MS4 permit. For example, a recharge of stormwater should mitigate increased discharge of wastewater in both quality and quantity. Director Reine advised that is the intent of the integrated plan. Allison Fields-Juma cited a study which mapped potential groundwater recharge sites to alleviate stress on the Nashoba Brook.

Director Reine asked her opinion about the Town's proposal of integrated planning, from the perspective of OAR. She advised that OAR would support a plan which recharges the water shed and that OAR believes all the streams in the watershed are being dewatered due to factors such as weather patterns, development and groundwater pumping and that this is a major concern for OAR. She also noted that the Town's wastewater treatment plant provides excellent treatment; however, water quality is a major concern for OAR. There are emerging contaminants which are still not well understood. Supt. Cathcart asked Allison Fields-Juma if it would be difficult to manage wastewater should it be decentralized. She replied that various studies recommend that a well-functioning septic system is the best treatment. Susan Rask advised that a septic system is not able to treat (break down) emerging contaminants. Director Reine advised that the integrated planning can also include such concerns as it pertains to not only the quantity but also the quality of water being recharged.

Selectman, Carmin Reiss noted that the integrated planning makes great sense and should be pursued. She asked if the elected representatives should be involved in the discussion to facilitate coordination between EPA's regional office and headquarters. Director Reine advised that this option has been considered, however up to this point it has only been the regional offices discussing the Town's proposal of integrated planning with headquarters independently. Should this not materialize then other options such as including legislators should be explored.

Director Reine noted the next steps as submission of the hydrogeological report to the DEP and continued negotiations with the EPA over the integrated planning initiative. The Task Force will convene in the fall to review the next steps including moving forward with groundwater discharge plan if efforts to get agreement with EPA around Concord's proposed integrated water resources plan are met with resistance.