

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF ENVIRONMENTAL PLANNING

Medford COAH

AMENDMENT TO THE TRI-COUNTY WATER QUALITY MANAGEMENT PLAN

Public Notice

Take notice that on ~~OCT 26 1998~~ pursuant to the provisions of the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., and the Statewide Water Quality Management Planning rules (N.J.A.C. 7:15-3.4), an amendment to the Tri-County Water Quality Management Plan was adopted by the Department of Environmental Protection (Department).

This amendment proposal, submitted on behalf of Medford Township, modifies the Medford Township Wastewater Management Plan. The amendment identifies a proposed expansion to the Medford Township sewage treatment plant (STP) sewer service area to include approximately 64 acres of a development proposal known as Eayrestowne to be located within Block 808, Lots 1, P/O 2.01, and 6.03 in Medford Township, Burlington County. This service area addition will serve roughly seventy (70) single family detached homes and 40 one (1) bedroom unit or quadplex senior citizen apartments with projected wastewater planning flows respectively of 21,000 gallons per day (gpd) and 6,000 gpd. This amendment also adds about 25.6 acres within Block 4108, P/O Lot 1 of Medford Township to the sewer service area of the Medford STP and subtracts an equivalent tract in Block 4107, P/O Lot 1 and Lot 2 from the sewer service area for a portion of the development proposal known as Easttown. The Easttown site lies within the Pinelands area and the area to receive sewer service has been designated as Pinelands Regional Growth Area while the area being removed from sewer service is now designated as Pinelands Rural Development Area as identified in Medford Township Ordinances 1994-36 and 1995-18. This proposed service area modification would serve about an additional sixty-three (63) single family units with a projected wastewater planning flow of 18,900 gpd.

In addition, the Township will use two Cycle-Let wastewater flow-recycling systems for most commercial development on both sites. In Eayrestowne, the Cycle-Let system will be located on Block 808, P/O Lot 2.01 and 2.02 and in Easttown on Block 4107, Lot 1. The Eayrestowne Cycle-Let system will serve approximately 193,100 square feet of retail/commercial space. The total projected wastewater planning flow from these facilities should not exceed 19,310 gpd with a projected reduction to roughly 2,510 gpd for direct discharge into the Medford STP conveyance system. The overall wastewater flow projection from the Eayrestowne site including lands presently within the Medford STP sewer service area and those areas being added by this amendment will be approximately 47,160 gpd. The Easttown Cycle-Let system will serve approximately 335,162 square feet of retail/commercial space, a Pinelands Museum, a church or synagogue and a day care center. The total projected wastewater planning flow from these facilities should not exceed 37,566 gpd with a projected reduction to roughly 4,884 gpd for direct discharge into the Medford STP conveyance system. The overall wastewater flow projection from the Easttown site including lands presently within the Medford STP sewer service area and

those areas being added by this amendment will be approximately 99,959 gpd. The combined wastewater flow projection from these two projects as presently proposed will be 147,119 gpd.

All projected unit types, unit numbers, and proposed development and corresponding wastewater flow projections are approximate and may be modified slightly by the local ongoing negotiations with the Council on Affordable Housing, the developer, the Township, and/or the courts. Also, each sewer service area addition represents only a portion of the total proposed development on each site. The remainder of the Eayrestowne and Easttown sites are already in the Medford STP sewer service area. The Department will ensure that the Medford STP has adequate capacity to serve proposed development from these two projects prior to the issuance of Treatment Works Approvals for sewer connections.

The Medford STP discharges into the South Branch of Rancocas Creek which is classified in the Surface Water Quality Standards (N.J.A.C. 7:9B) as Fresh Water Two - Nontrout (FW2-NT) waters. No expansion or change to the existing permitted wastewater flow of 1.75 million gallons per day to this STP has been proposed as part of this amendment. In addition, no other reductions to the Medford STP sewer service area have been made as part of this amendment, therefore the remaining unsewered Medford STP sewer service area may only be served if a local sewer permit is presently owned or obtained from the Township. It is unlikely that the entire sewer service area of the Medford STP will ever be served by this STP.

This amendment proposal was noticed in the New Jersey Register on August 4, 1997 and a public hearing was held on September 11, 1997. The Department received both oral and written testimony at the public hearing and during the public comment period from the following commenters:

<b><u>Commenter</u></b>	<b><u>Affiliation (if any provided)</u></b>
1. Marlene Lieber	Medford resident
2. Christine Balentine	Medford resident
3. Timothy M. Prime	Attorney, Medford
4. Donald Berliner	Citizen
5. Frederick W. Hardt, CTA	Attorney, Moorestown
6. Diane Rappisi	Medford resident
7. John Kubit and Nancy Scott	Medford residents
8. Robert J. Nixon	Medford resident
9. Martha Issod	Medford resident
10. Joan M. Fournier	Medford resident
11. William Mc Laughlin	Medford resident

Following is a summary of comments timely submitted on this Water Quality Management Plan (WQMP) amendment proposal and the Department's responses to those comments. The numbers in parentheses after each comment correspond to the commentors listed above.

COMMENT 1: The Township has classified lands encumbered with freshwater wetlands and/or 100 year flood hazard areas as "Critical Areas." Therefore, the commenters question how the

Eayrestowne site will be able to be developed at the requested density. It has been documented that in the area of Eayrestowne there were water problems due to the water table and wetlands. There is every reason to believe that the high-density development that this plan would enable could only serve to increase the severity of these problems. (1,2)

**RESPONSE:** There are wetlands within the property boundaries of the Eayrestowne site. However, a freshwater wetlands permit will have to be obtained to allow any disturbance of these wetlands. The landowner will have to meet the criteria contained within the Freshwater Wetlands Protection Act (N.J.A.C. 7:7a) to disturb any wetlands area. If the land is also contained within a flood plain area, the landowner will also need a stream encroachment permit and will have to comply with the Flood Hazard Area Control Act (N.J.A.C. 7:13) before a permit is issued.

**COMMENT 2:** All indicators, from traffic to water supply to density of houses to schools and libraries, indicate that this town is sadly overbuilt. We are being forced to pay over \$15,000 for Wisconsin above ground waste systems because the soil can't take anymore. Instead of putting sewage in for "new" seniors, the town has an obligation to extend it to "old" seniors. (10)

**RESPONSE:** Zoning is done on a local level and would be the responsibility of the Township to insure that over population does not become an issue. As for the soil, the water table must be more than 5 feet below the surface or a septic system cannot be placed in the ground. In cases where there is not enough footage, a mound is built to complete the amount necessary to reach the 5-foot buffer. The Wisconsin above ground waste system is not an indication that the soil cannot accommodate the wastewater, it's simply an indication that the water table is high in that land area.

**COMMENT 3:** I believe the 1993 application was for 60.1 acres, and now it is 64. Where did the extra 3 acres come from? (1)

**RESPONSE:** As stated at the public hearing, 60 acres was an approximate amount sent with the 1993 application to the Department. Subsequent clarifications requested by the Department led to the specific identification of the area on the map and an exact acreage of the property by using a planimeter. Therefore, the Eayrestowne site proved to be 64 acres rather than the 60.1 as previously stated.

**COMMENT 4:** In "A Re-Examination of the Master Plan of Medford Township", Ian McHarg states, "The new State Plan emphasizes agricultural preservation which, as has been seen, is in conflict with Medford's decision to relocate development north of Route 70." The Eayrestowne site is in Planning Area 4. If the DEP and Office of State Planning make this exception for this 64 acres, then what is going to stop all the other agricultural lands from being changed? (2)

**RESPONSE:** A petition to the Office of State Planning to amend the resource planning and management map was submitted in order to change Planning Area 4 to planning area 2. Any other agricultural lands not in Medford Township's STP's sewer service area or not designated as planning area 1 or 2 would have to undergo the same WQMP amendment and Office of State

Planning resource planning and management map amendment as this proposal. This may not stop other agricultural lands from being changed but it would be a deterrent.

COMMENT 5: In an Environmental Resolution's report of August 23, 1996, Mr. Noll references concerns: "it appears that a Stream Encroachment Permit will be required for the site. If this is the case, the detention basins must be designed to comply with the new Flood Hazard Area Control Rules design criteria... The current design does not meet the criteria for the 2-year storm event. This design will not be approved by NJDEP." If stream encroachment causes the permit to be declined, that density would not be allowed and there would be no need for expansion of the sewer service area. (2)

RESPONSE: Although the density proposed may or may not be allowed, it is likely that whatever the approved density is, some sort of sewage treatment will be required and an expansion to the sewer service area would still need to be accomplished.

COMMENT 6: According to the Environmental Impact Report for the Eayrestowne site, dated March 1989, when the project was for only 24 homes, "A significant portion of the site falls into the Hazardous Factor II category with regard to soil nutrient retention." "The hazard referred to in the McHarg report is ground water contamination. Little Creek, a tributary of Rancocas Creek, must be protected from residential pollution," said the Environmental and Open Space Commission. Sewers would permit 70 homes to be built on this same area. What will the impact of 70 homes be in a 12-acre lake? (1,2)

RESPONSE: The Department can only assume that the report referenced for 24 homes was for septic systems. Although there will be effects of non-point source pollution from 70 homes on the lake, it should not be as significant an effect with these homes discharging wastewater to a regional system rather than individual sub-surface sewage disposal systems.

COMMENT 7: We need to stop looking at water management strategies in short-term piecemeal fashion, especially in this region where the highly permeable soils are not conducive to a separated management of wastewater and potable flows in the hydrologic regime of the Pinelands. (11)

COMMENT 8: I know stormwater management isn't part of this application, however, I would question the water problems Medford Chase has had and continues to have, where's all this water going to go when the Eayrestowne sites are established? The proposed development will impact an on-site stream, pollute the aquifers, and lead to improper management of stormwater and greater water problems in the area. (2)

RESPONSE to Comments 7-8: As with any development, the developer needs to get several permits before construction of any kind is started. A stream encroachment permit will have to be pursued in order to ensure the best possible design, including stormwater assessment, with the least amount of impact on the stream. Application for a freshwater wetlands permit will also be checked to make sure any stormwater regulations are adhered to. Other permits will be sought depending on the site and conditions of the land. Stormwater runoff is a problem in all areas of

development. The Department is in the process of developing a Watershed Management Plan to combat this major pollution source, as well as other sources, in certain areas of the State. Rancocas Creek, as part of Area 19, had a kick-off meeting in early 1998 to begin the planning phase for this process. The Department welcomes all concerned about these issues to become active in these ongoing discussions.

COMMENT 9: Before approvals are made the number of recent well failures (due to shallow wells drying up), the recent track record of Medford STP compliance with discharge regulations, and recent changes in the quality of water in local wells should be taken into account. (11)

RESPONSE: These issues have been reviewed as part of this approval process. A plan was submitted to the State early this year by Medford Township to request approval for an alternative water supply. There is a proposed permit to transfer 65,000,000 million gallons per year of potable water from the PRM aquifer in Clayton Borough to make up for the wells that are drying up in Medford Township. If it is believed that there are problems with the well water then comments to the local board of health and the Township may be all that is required to address the problem. Recent construction on the Medford STP to decrease the amount of inflow and infiltration should alleviate the problem and stay within compliance with discharge regulations. There are certain standards water quality has to maintain throughout the State.

COMMENT 10: A study was done by Ian McHarg that states this kind of large scale project is detrimental to air quality. He states that "5 tons of volatile organic substances is introduced into the atmosphere for each 50 new residential dwelling unit." I feel this air quality alone should stop the plan as it exists today. (9)

RESPONSE: Although air quality is a valid issue regarding the impacts of old and new developments, there are other laws and rules that govern this area. The Water Quality Management Planning rules do not address site-specific issues of air quality.

COMMENT 11: According to the public notice the stream reach is classified as "FW2-NT waters." If the STP is in the Pinelands, then the water classification for the South Branch of Rancocas Creek should be Pinelands? Also, the Rancocas Creek southwest branch is NJDEP trout stocked water in Medford Twp, is it not? (11)

RESPONSE: The Surface Water Quality Standards indicates that the South Branch Rancocas Creek is classified as FW2-NT waters except where it flows within a Pinelands protection or preservation area. Medford STP and its outfall location are located north of Route 70 and therefore would not be located in the Pinelands.

COMMENT 12: Mr. McHarg's report states that the "historic areas policies mandates the evaluation, preservation, and restoration of historical landscapes." Other than the Village, Medford has no designations. The Rancocas River, the Pine Barrens, and the agricultural north are the current manifestations of over 300 years of Euro-American use. We recommend a landscape analysis that leads to planning strategies, and performance requirements based on the characteristics of these historical landscapes. (2)

RESPONSE: The WQMP rules do not require historical use data be collected or analyzed as part of the amendment process. Historic preservation or analysis is a local issue and should be brought up to the Medford Township Council.

COMMENT 13: How many of the Cycle-Let systems (similar to those) proposed by the Samost project has been approved in the State of NJ by DEP? How many approved Cycle-Let systems would serve a project of the same size and scope? Where is the information on any of these? (3, 6)

COMMENT 14: Developers wish to strain the (Medford Township Sewerage) System beyond its limits. The sewer needs are more then the environment can handle, thus a Cycle-Let system is proposed. Why can't the waste be treated in the normal fashion? Does/would the Cycle-Let system overuse the land and environment? This wastewater treatment application must be denied. It cannot be permitted to exceed the capacity of the land just to allow the project. (7,8)

COMMENT 15: The Cycle-Let systems are completely improper and inappropriate for this site. Instead public sewer can handle it in one of three ways, either by way of a private sewage treatment plant, expansion of the Medford Plant, or utilization of the excess from the Mount Holly Sewage Authority. (3)

RESPONSE to Comments 13-15: The developer must apply for permits for each Cycle-Let system, which is a separate process from this amendment. A Cycle-Let system discharges to a sewage treatment plant rather than to ground water and therefore, should not be a strain to the land or soil. A Cycle-Let system collects gray water from sinks and showers to be treated and then reused in toilets. The black water, from the toilets, is then collected and conveyed to a municipal collection system, which is then sent to the STP for treatment. If the developments were treated in the normal fashion, there would not be enough flow available at the Medford STP. A Cycle-Let is a system that recycles water, thereby, decreasing the amount of wastewater flow to the STP. Rather than overuse the environment, it is used as a recycling tool for areas that don't have adequate capacity for all desired uses. Cycle-Let systems are considered to be a private sewage treatment facility. Cycle-Let systems have been operating for about 10 years. There are approximately 12 in NJ. The Department is not aware of any failures in those that have been permitted. If Cycle-Lets were not technically feasible, then they would not be issued Treatment Works Approval permits.

COMMENT 16: I was told that DEP's policy was that sufficient capacity for the entire amount of proposed flow for the development must be available at the STP. On what information was this determination based? Then Paul Bauldauf wrote a letter to Samost and said, "it is acceptable for those areas in which flows are recycled, to base the design flow on the expected amount to be discharged from the recycling system." This sounds like a policy change, what is the DEP's policy? What has it been in the past? Is this a contradiction or a change, and if so, why? Without an overview of other systems in the State, or verification of reductions, or analysis of the Cycle-let's impact on other municipal systems, how can Mr. Baldauf make this determination? (6)

RESPONSE: The Department's policy that sufficient capacity for the entire amount of flow from a Cycle-Let system for any development be available is only in those cases where there is an on-site treatment system that discharges to ground water. In these cases there must be sufficient disposal area in reserve to adequately treat the entire design flow. With the Cycle-Let systems identified in this amendment, there will be no discharge to ground water, all flows will be conveyed to a municipal collection system with eventual treatment at Medford STP.

COMMENT 17: With the prospect of future failure of septic systems, will the Township have adequate capacity to help those homeowners? Will there be any hardship permits available if this is approved? What if there is a failure in the Cycle-Let systems? Mr. Paul Bauldauf said it would automatically be shut down. How can you just shut it down when there is a daycare facility using it? There should be a reserve allocation at the STP in case the Cycle-Let system ceases for any reason. Without reserve allocation the service could be interrupted and the result would be sewage backups and possible overflow of effluent into sensitive wetland areas. How will the environment and taxpayers have to handle this if a failure occurs? Will the taxpayers have to bare the brunt of either expanding our current sewer system or repairing the unproven Cycle-Let system? (1,2,6,7,8,9)

COMMENT 18: If any homeowner with a failing septic system needs to tap into the plant and it was at capacity what would happen? (8)

RESPONSE to Comments 17-18: Any single family house with flows less than 8,000 gpd and within the sewer service area of the STP, does not need a Department permit and is a local issue. Medford Township has declared that they do have hardship permits available for emergency cases. If the flow requirements are more than 8,000 gpd, within the sewer service area, and any kind of construction needs to be done to connect to the STP, than these decisions are made on a site by site basis. A Department Treatment Works Approval would be needed for these types of activities. The decision would be based on what other recourse there is, how much flow was involved, how many houses need to connect at the time, and any other hardships introduced. If a failure occurs in the Cycle-Let systems, they will have to be shut down. The effluent will be collected into in a holding tank or trucked to another STP that can receive the flow.

COMMENT 19: Projected flow needs to be checked for this project. The Developer has permits with a reserve allocation of 138,250 GPD. According to the Projected Flow Criteria it would be 213,526 GPD. (6)

RESPONSE: Mr. Samost property holds 553 permits for a flow of 138,250 gpd. He also holds another 11 permits from the Glen of Medford development. These 11 permits are going to be reallocated to the Easttown and Eayrestowne properties bringing the total number to 564. The Township has some permits in hand and will also repurchase whatever is needed to complete the flow for these lands. The total needed is 25 more permits to make the total 589 permits for a flow of 147,250 gpd. The amount of flow needed for this amendment is 147,119 gpd.

COMMENT 20: Four years ago our plant was fined for exceeding capacity and it was alleged that there was an excess of infiltration. For the sake of argument lets say the plant is at capacity

and Mr. Prime states he could bring in sewer from Lumberton. Would the grant for this amendment be dependent strictly on Medford Township's sewer plant? Or does it also take into consideration other treatment plants? (4)

RESPONSE: The Department responded at the hearing stating that the plan amendment not only specifies a sewer service area, but also a facility that will treat the sewage from that area. That's true of all Wastewater Management Plans. We never have a situation where sewer service area is approved and there is no certainty as to which facility will in fact sewer that area. So this amendment is very specifically tied to the Medford Township facility.

COMMENT 21: Say there's a mistake somewhere in the calculations, will your department go back over in detail the current outfall from the plant and check all the calculations from the developer? Will this amendment be approved if you had full knowledge that our sewer service area is larger than the plant can handle? (4)

RESPONSE: As stated at the hearing by the Department, once the plan amendment is approved, the permitting process comes into play in two different ways. First, the Department would have an actual permit involved in each Cycle-Let system which will cause engineering reviews, design reviews, and design flow reviews to double check and assure ourselves that in fact the numbers do work out. Second, there are Treatment Works Approvals for the connection of the properties to the Township treatment plant, and that involves a new review of the numbers to make sure that they meet our regulations, and that they meet our expectations. As part of that process, the Department looks at the capacity of the facilities to accept flow without violating permit limits. The calculations therefore, are redone at several different steps of the process. One of the things noted in the public notice was that the total sewer service area for this facility is larger than the actual facility size, in terms of flow calculations. Thus, the plan could still go through even though the sewer service area is larger than the plant can handle.

COMMENT 22: Will you check the sewer allocations? Will you be looking at the permits outstanding? Have you seen our permit list? Or, do you not get involved with that because it's a local issue? (4)

RESPONSE: We do look at issues of capacity for the facility. We review other types of issues but do not go into that much detail. As part of the Treatment Works Approval process, the Department does look at all these issues. Sewer allocations and outstanding permits are a local issue although we do look at them on a broader range, as stated above, when it comes to amendments.

COMMENT 23: The Medford plant is currently 100 % committed and the reserved permits have not yet been connected. I may be forced to pay for improvements once these are connected, but I am adamantly opposed to the prospect of paying for an extension of the plant capacity as a result of the actions of a developer who wants to overbuild his property. (6)



COMMENT 24: If there had been a slight mistake in the calculations and we went over capacity, would you force us to upgrade our plant to handle the extra capacity? You wouldn't force us to add another 1000 permits, would you? (4)

RESPONSE to Comments 23-24: As stated at the hearing, the Department has caused municipalities to upgrade the capacity of facilities when the efficiency of the treatment plant has resulted in them not being able to treat the flows properly. Generally what happens is the Department requires upgrades to facilities to better treat flows. It is rare that we actually require an expansion. But it's generally in a situation where, over time decisions have been made and an excess routing of flow to a facility was not caught in time. The Department does not expect that here but has in scores of situations forced the upgrade of facilities, if they're not meeting permit limits. To the recollection of the Department there has not been any instances where the Department has forced an increase in design capacity beyond the actual needs of the community.

COMMENT 25: The Medford Affordable Housing (MAH) lands are located next to the Easttown and Eayrestowne. If the Township is going to approve this amendment to the sewer service area, then the amendment should be expanded to include the MAH lands as well. (3)

COMMENT 26: Hartford Square is a 90,000 square foot proposed shopping center. Block 401, Lots 13 and 14 received preliminary approval from Medford Township in June of 1977. Since we are proposing an on-site ground water disposal system for 12,000 GPD, we request an immediate amendment to this plan to include this parcel. The commenter is concerned about the affect the amendment will have on this site, as well as other commercial sites in the district, given the lack of additional capacity in the sewer service area. It seems to be impossible to obtain a consistency finding with the Tri-County WQM Plan for any New Jersey Pollutant Discharge Elimination System permit that would be necessary for a wastewater treatment permit, to operate the on-site system. This would necessitate another amendment to the Tri-County plan each time someone wished to use an on-site system beyond the 2,000-gallon per day limit. There have been a variety of approvals given on on-site septic, and as I understand the regulations as they now exist, none of those may move forward, absent another Tri-County amendment process. And that seems to me to be tremendously arduous for those individuals involved. (5)

RESPONSE to Comments 25-26: The proposed expansion to include the MAH lands and Hartford Square are not minor changes and cannot be made without destroying the value of the public notice that has been published. So inevitably, any properties beyond the ones that are subject to this amendment would have to go through another process. The Department strongly encourages Medford Township to revise their Wastewater Management Plan so as to allow a comprehensive plan that addresses the whole planning area. The Department will not entertain any more individual amendments without a written agreement from Medford Township to revise their WMP.

COMMENT 27: The preliminary notice suggest that all commercial square footage will be tied to the Cycle-Let system, this is not true. The third paragraph should read " ongoing negotiations with the Council on Affordable Housing, the developer, the Township, and/or the Courts." (12)

RESPONSE: The Department made these changes on the final adoption notice.

This amendment represents only one part of the permit process and other issues will be addressed prior to final permit issuance. Additional issues which were not reviewed in conjunction with this amendment but which may need to be addressed may include, but are not limited to, the following: antidegradation; effluent limitations; water quality analysis; exact locations and designs of future treatment works (pump stations, interceptors, sewers, outfalls, wastewater treatment plants); and development in wetlands, flood prone areas, designated Wild and Scenic River areas, or other environmentally sensitive areas which are subject to regulation under Federal or State statutes or rules.



Daniel J. Van Abs  
Acting Administrator  
Office of Environmental Planning  
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10-26-98  
Date