

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATERSHED MANAGEMENT

ADOPTED AMENDMENT TO THE TRI-COUNTY WATER QUALITY
MANAGEMENT PLAN

Public Notice

Take notice that on ~~DEC 10 2008~~, 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 was submitted on behalf of the Gloucester County Utilities Authority (GCUA). This amendment provides an initial Wastewater Management Plan (WMP) for all or part of sixteen municipalities in Gloucester County. The WMP identifies wastewater service designations, centralized sewer service area, septic areas and environmentally constrained undevelopable areas for an area known as the GCUA Consolidated District. The Consolidated District consists of Clayton Borough, Deptford Township, Glassboro Borough, Mantua Township, National Park Borough, Paulsboro Borough, Pitman Borough, Washington Township, Wenonah Borough, West Deptford Township, Westville Borough, Woodbury City, Woodbury Heights Borough, part of East Greenwich Township, part of Elk Township, and part of Monroe Township (the areas of Monroe, East Greenwich and Elk Townships that are in the Consolidated District are only those areas that are currently or proposed to be served by the GCUA wastewater treatment plant). This WMP and all wastewater service area designations identified therein shall supersede any previously adopted WMPs that cover the same geographic area. Significant areas of what was approved sewer service area that have never been connected to the GCUA system have been removed from the new GCUA sewer service area. These areas were deemed unsuitable for sewer service by the Department because they were deemed environmentally sensitive. All areas in the WMP planning areas that do not have another wastewater service designation are designated as "General service area for wastewater facilities with planning flows of 2,000 gallons per day or less which discharge to groundwater". In these areas, projects to be served by Individual Subsurface Sewage Disposal Systems that would generate greater than 2,000 gallons per day of wastewater (e.g. six or more houses) will be considered inconsistent with this wastewater management plan, until such time as the municipality within

which the proposed development is located has adopted a nitrate dilution ordinance or demonstrated that their existing zoning is consistent with the Department's Recharge Based Nitrate Dilution Model. The Department cannot issue any permit for an inconsistent project unless a modification to this WMP and the areawide Water Quality Management Plan is adopted making the project consistent. Modification applications for projects in these areas must demonstrate compliance with the groundwater quality standards applicable at the time of application.

The GCUA WMP includes provision for expansion of the GCUA wastewater treatment plant, NJPDES permit NJ0024686, in West Deptford Township from its currently permitted 24.1 MGD to 38 MGD, as necessary to meet the anticipated future wastewater management needs of the proposed sewer service area. The Department has determined, based on existing effluent quality, that this expansion is feasible without increasing existing permitted pollutant loading to the receiving waters for all parameters for which a water quality based effluent limit has been established. Although the WMP is adopted establishing the planning flow for the GCUA wastewater treatment plant, the GCUA will be required to apply for and receive a modification to its NJPDES permit before the GCUA wastewater treatment plant can be expanded beyond its current NJPDES permit limits. In accordance with N.J.A.C. 7:15-3.4(i), new effluent limits will be established through the required NJPDES permit modification, as necessary.

This amendment proposal was noticed in the New Jersey Register on January 7, 2008 at 40 N.J.R. 212(b). In response to the initial notice, several commenters requested an opportunity to meet with the Department and requested an extension of the public comment period. The Department met with these parties on March 12, 2008. On April 7, 2008, notice was provided of the extension of the comment period on this proposed amendment at 40 N.J.R. 1933(a).

The following people submitted written comments on this amendment:

Number – Commenter Name, Affiliation

1. Kenneth A. DiMuzio Esq., Solicitor for Elk Township Municipal Utilities Authority (ETMUA)
2. Mark Brunermer, Engineer for ETMUA
3. William F. Hyland Jr., Esq., for Silvergate Associates
4. Nicholas C. Casey, for Silvergate Associates
5. Michael J. Gross Esq., for Latham Park
6. Richard M. Hluchan Esq., for Silvergate Associates

Summary of Comments and Responses:

The comments submitted and the Department's responses are summarized below. The number(s) in parentheses after each comment identifies the respective commenter(s) listed above.

Comment 1:

The comment period should be extended because inadequate opportunity to review the proposed amendment and supporting materials was provided. A meeting including ETMUA, GCUA, the Delaware Valley Regional Planning Commission (DVRPC) and NJDEP should be held and/or a public hearing should be conducted to discuss differences of allocated flow in the proposed GCUA WMP and the future wastewater flow projections in the Elk Township WMP that were to be directed to, and treated by, the GCUA wastewater treatment facility. (1), (2), (3), (4), (5), (6)

Response:

The Department has determined that a public hearing on this amendment was not necessary. Only six sets of comments were received on this application. The Department accommodated this request by holding a meeting with all interested parties on March 12, 2008, including the commenters above and representatives of GCUA and the Delaware Valley Regional Planning Commission (DVRPC). Subsequently, the Department extended the close of the public comment period from February 6, 2008 until May 6, 2008 to ensure that all interested in the proposed amendment had ample time to review and comment on the GCUA WMP (see 40 N.J.R. 1933(a)). The Department does not believe that conducting a hearing on this amendment would likely result in the Department receiving comments relevant to the

amendment that raise issues or provide new information, data or findings that were not previously raised or provided during the comment period.

Comment 2:

Commenters state that they have invested a great deal of money on design of their projects and securing regulatory approvals in reliance on the Elk Township WMP that showed their project sites as being within an area to be served by GCUA. Commenters indicate that they did not have an opportunity to present evidence of the extensive design and implementation of three major subdivisions in Elk Township, and that significant expenditures have already been laid out by developers on these three major subdivisions. The commenters indicate that expenditures on three major developments were made in specific reliance on the delineation of sewer service area in Elk Township's WMP that was designated to be treated by the GCUA wastewater treatment facility and, therefore, their sites should be included as sewer service area in the GCUA WMP. (1), (2), (4), (5), (6)

Response:

The Department held a meeting with the commenters on March 12, 2008 and extended the comment period to provide commenters an opportunity to present information to the Department. Based on the information and comments submitted, the Department acknowledges that significant outlay for design and other infrastructure expenditures has been put forth by developers for the three major subdivisions referenced in the commenters' comment.

The Elk Township WMP was adopted in 1991 and established a sewer service area to be served by GCUA's wastewater treatment facility with a future wastewater generation potential of 5.2 MGD. However, only a small portion of Elk Township, known as The Lawns, was included in GCUA's Consolidated District. The Consolidated District represents those municipalities that entered into a contractual arrangement with GCUA to provide wastewater treatment services. GCUA has prepared its WMP in recognition of its obligation to provide service to the 13 municipalities that lie wholly within its Consolidated District and the portions of the three additional municipalities that GCUA has committed to serve. Based on the build-out analysis of its Consolidated District and the comparison of its existing New

Jersey Pollutant Discharge Elimination System (NJPDES) permitted load limits to its existing effluent quality, GCUA has determined that it has 458,350 GPD of treatment capacity that can be allocated to Elk Township. GCUA's WMP has allocated this capacity to Elk Township. Unfortunately, this capacity is insufficient to meet the entire projected future wastewater generation from the service area delineated by Elk Township in 1991. Therefore, the sewer service area in Elk Township reflected in the 1991 Elk Township WMP had to be reduced in the GCUA WMP to reflect only those portions of Elk which GCUA will have the capacity to serve.

The only part of Elk Township that lies within the GCUA Consolidated District is an area known as The Lawns. Therefore, The Lawns has been retained in the GCUA sewer service area. Much of The Lawns was built 40-50 years ago on septic systems. Existing construction in The Lawns area generates an estimated 115,000 GPD of wastewater. There are also a number of infill lots within The Lawns that at build-out would bring the total wastewater flow to 180,000 GPD. This 180,000 GPD of required capacity is subtracted from the 458,350 GPD allocated to Elk Township, leaving 278,350 GPD allocation in Elk Township. There are four developments that have received approvals from Elk Township with a total wastewater treatment demand of 653,470 GPD: The Grande at Elk (62,100 GPD), Latham Park (193,800 GPD), Silvergate (391,570 GPD) and the Aura School (6,000 GPD). The Grande at Elk has received all of its approvals including its approval from GCUA to connect to its wastewater treatment facility (62,100 GPD). The Aura School likewise has also received approval to connect to GCUA (6,000 GPD). Both the Latham Park and the Silvergate developments are phased developments and each possesses various local and State approvals essentially making them equal in terms of progress through the regulatory process. In addition, both have secured approval from GCUA to connect to its wastewater treatment facility for flows of 50,700 GPD and 77,700 GPD respectively. All of the areas that have been approved by GCUA to connect to its wastewater treatment facility have been identified as GCUA sewer service area in the GCUA WMP, leaving 81,850 GPD remaining capacity allocated to Elk Township. However, each of these developments requires additional flow from GCUA to reach completion (Latham Park 149,100 GPD and Silvergate 313,870 GPD), and, based on GCUA's analysis, there is insufficient capacity at GCUA's wastewater treatment facility to serve these developments in their entirety. Thus, only The Lawns (part of the Consolidated

District) and sites for which GCUA had issued approvals are identified in GCUA's WMP as sewer service area to be served by GCUA. The remaining 81,850 GPD of the Elk Township allocation shall be used within the limits of the sewer service area defined by the 1991 Elk Township WMP with the final sewer service area to be determined as approvals are issued to connect to the GCUA wastewater treatment facility. The Department cannot use the WMP process to supersede GCUA's contractual obligations within its Consolidated District.

Furthermore, if it is demonstrated that the GCUA sewer service area will not require the full wastewater treatment capacity estimated in this WMP, Elk Township could contract with GCUA for that excess capacity and GCUA could amend its WMP to include additional sewer service areas within Elk Township, subject to compliance with the requirements of the Water Quality Management Planning Rules (N.J.A.C. 7:15). Alternatively, Elk Township or the developers could identify another suitable wastewater treatment alternative for these developments as part of an updated WMP covering Elk Township.

Comment 3:

The proposed build-out analysis contained in this amendment is supported by inaccurate and out-of-date information. For example, the analysis did not use the current zoning designations for Monroe Township. Likewise, the build-out analysis estimated future wastewater generation by applying zoning densities to gross buildable land area without making allowances for non-sewage generating infrastructure such as roads. These assumptions result in an overestimate of future wastewater generation, thereby depriving Elk Township of available wastewater capacity needed to serve approved developments. (1), (2), (6)

Response:

The build-out analysis contained in this amendment is based on adequate information for planning purposes. The zoning for Monroe Township was current at the time of the analysis. When dealing with a large regional WMP that covers multiple municipalities, (16 in the case of GCUA), it would be extremely cost prohibitive to go through each and every zoning ordinance to determine the precise amount of development that could occur considering front, rear and side yard set backs, parking requirements, roadway widths and stormwater management requirements. However, it should be noted that all Category 1 stream corridor

buffers have been removed from any future sewer service areas. The approach used by GCUA is an acceptable method of preparing a build-out analysis. While this method may overestimate future wastewater generation, GCUA has demonstrated that, even given the conservative nature of their build-out analysis, it can reasonably create capacity at its wastewater treatment facility to meet these needs. To the extent that future wastewater generation is overestimated, that overestimation will be refined at the time of each six year update, required pursuant to N.J.A.C. 7:15-5.23(a). In each updated WMP, the existing wastewater generated will increase as development occurs and undeveloped land will decrease, thus reducing uncertainty in the future wastewater generation calculation. However, it should be noted that, even if future updates determine that anticipated wastewater generation was overestimated, additional available capacity in the future is not a foregone conclusion because other variables, such as excessive inflow and infiltration, could increase the volume of wastewater generated by existing sewer areas.

The Department would consider a more refined approach to the build-out analysis if one were supplied by GCUA. If the Department determines that the alternative approach is more accurate than the approach utilized in preparing the adopted WMP, then any wastewater treatment capacity that exceeded the build-out of the service area could be reallocated. This could be accomplished as an amendment to the existing plan if that information were to be made available during the six-year life of the adopted WMP.

GCUA refined its build-out analysis in October of 2007 to account for developed properties on septic systems within its proposed service area and to address zoning changes in Monroe Township and East Greenwich Township. This revised build-out analysis did not change the proposed sewer service area or GCUA Consolidated District. Taking these changes into account, the October 2007 revised build-out analysis increased the estimated future wastewater flow to the GCUA wastewater treatment plant from 38 MGD (which had initially been calculated as the flow necessary to meet the anticipated future wastewater management needs of the proposed sewer service area prior to the above adjustments), to 38.6 MGD. However, the Department's notices seeking public comment on the proposed initial GCUA WMP (40 N.J.R. 212(b) and 40 N.J.R. 1933(a)) inadvertently utilized the initially calculated build-out flow for the total GCUA service area of 38 MGD.

The Department has reassessed the water quality impacts of an expansion of the GCUA wastewater treatment facility to 38.6 MGD and concluded that this expansion is feasible without resulting in a water quality lowering in the receiving water. Accordingly, elsewhere in this issue of the New Jersey Register, the Department has proposed an amendment to the adopted GCUA WMP and the Tri-County WQMP to provide for expansion of the capacity of the GCUA wastewater treatment plant in West Deptford Township from 38 MGD to 38.6 MGD.

Comment 4:

The proposed amendment is based on an inadequate environmental build-out analysis. GCUA did not take into consideration land area requirements for storm water management, streets and open space. As a result GCUA has overestimated the future development potential and wastewater demand of its service area. (1), (2), (6)

Response:

The Department's guidance developed pursuant to Executive Order 109 (2000) requires that threatened and endangered species habitats and Category One water buffers generally be excluded from sewer service areas. Where regulated features such as wetlands and riparian zones remain in the sewer service area, these features are subtracted from the undeveloped buildable land before applying zoning because regulatory constraints in these areas will greatly diminish their development potential. GCUA, in performing this analysis, used the Department's most recent Geographic Information System (GIS) coverages of the Landscape project, which delineates threatened and endangered species habitats, streams and stream classifications, and wetlands. Remote sensing tools are the only practical approach to environmental sensitivity mapping and analysis at such a large geographic scale. The Department recognizes that there are inherent and unavoidable limitations in remote sensing data. Where site-specific evaluation demonstrates that a GIS layer is incorrect, the Department will entertain an application to amend the WMP to include that site in the sewer service area, provided the other requirements of N.J.A.C. 7:15 are met. The Department acknowledges that the build-out analysis includes certain conservative assumptions such as calculating future development based on gross available land. The analysis does not remove

land area that may be required to support infrastructure such as roads, open space and storm water management, outside of satisfaction of stormwater management requirements to protect Special Water Resource Protection Areas, because the land area required for these improvement cannot be predicted with certainty on a regional scale. The conservative assumptions used by GCUA are adequate for the purposes of predicting future development and wastewater management needs, and GCUA has successfully demonstrated the capacity to serve the needs of its service area, despite the conservative nature of these assumptions. GCUA may wish to refine these estimates in the future. To the extent that any reduction in development potential can be substantiated by GCUA, the Department will entertain an amendment to reflect those new estimates. However, the analysis provided in the GCUA WMP has satisfied the Department's requirements under Executive Order 109. The proposed amendment was developed using the best available information and in conformance with the Department's guidelines and regulations.

Comment 5:

The Elk Township WMP, which was adopted in 1991 as a 20-year planning document, has not expired. The Elk Township WMP estimated a wastewater flow of 1,307,438 gallons per day for Elk Township by the year 2010. Therefore, the Department should ensure that the GCUA WMP provides adequate wastewater treatment capacity to meet the needs of the sewer service area identified in the 1991 Elk Township WMP.

Response:

N.J.A.C. 7:15-5.23(a) requires WMPs to be updated every six years. Elk Township's most recent WMP was adopted in 1991 and has not been updated since that time. The commenter is correct that the Elk Township WMP has not expired, and nothing in the GCUA WMP or this adoption eliminates the sewer service area identified in the Elk Township WMP, with the exception of those areas that are now identified in the GCUA WMP as is explained in more detail below. However, the Department has very limited confidence in the wastewater flow projections that are included in the 17 year old WMP. Moreover, even though the Elk Township WMP remains in place, that WMP is seriously flawed in that it defines an area of Elk Township to be served by GCUA, despite the fact that Elk Township has taken no action to secure a service agreement from GCUA to accept the full volume of wastewater that will

be generated in that area. Furthermore, when the Elk Township WMP was endorsed by GCUA, (Resolution # 1991-99, adopted September 11, 1991), it was clearly stated that "The endorsement of the Plan, as provided for by this Resolution, is not a commitment to allocate capacity to Elk Township or a commitment to enter into a service agreement, but is made solely for the purpose of providing for the orderly development of wastewater facilities. The issue of a service agreement between the Authority and Elk Township shall be dealt with at a future date, depending on the availability of capacity, taking into consideration the needs of municipalities who presently are part of the consolidated region and have heretofore entered into service agreements with the Authority." Thus, even though a sewer service area was delineated in Elk Township, development within that sewer service area could not be connected to the GCUA wastewater treatment facility in excess of the 250,000 GPD of capacity that GCUA agreed to accept from Elk Township. Finally, on July 7, 2008 the Water Quality Management Planning rules were readopted with amendments. Among those amendments is the withdrawal of wastewater service area designations in outdated WMPs. That withdrawal will take place on April 7, 2009 unless an updated WMP is submitted to the Department.

As part of the GCUA WMP, GCUA has performed a build-out analysis of its Consolidated District and assessed water quality implications of expanding its wastewater treatment facility. The results of those analyses indicated that GCUA can reasonably develop capacity to treat a total of 458,350 GPD of wastewater from Elk Township. This capacity is insufficient to treat all of the future wastewater that is projected to emanate from the sewer service area identified in the 1991 Elk Township WMP. Therefore an adjustment of the Elk Township WMP is required.

The Water Quality Management Planning rules at N.J.A.C. 7:15-5.21 prohibit geographic overlap among wastewater management plans. The adoption of the GCUA WMP does not eliminate the sewer service area identified in the Elk Township WMP. However, in order to comply with the WQMP rule, The Lawns area of Elk Township, which is part of the Consolidated District, and those properties that GCUA has already approved to connect to its wastewater treatment facility have been identified in the GCUA WMP, and are no longer part of the Elk Township WMP. The remaining flow (see response to comment 2 above) is simply

identified in the GCUA WMP as to serve future development in the sewer service area identified in the Elk Township WMP. A revision or amendment to the Elk Township and GCUA WMPs will be required to transfer new projects within that service area into the GCUA WMP before they can connect to the GCUA system. Ultimately, the Elk Township WMP will be either replaced by a county-wide WMP or an updated municipal WMP under the July 7, 2008 WQMP rules or the service area will be withdrawn. The WMP that replaces the 1991 Elk Township WMP will have to demonstrate wastewater treatment capacity for the full future wastewater generation of all wastewater service areas.

Comment 6:

ETMUA and GCUA both recognized in a "Future Facilities Needs Study" that GCUA's West Deptford treatment facility should be improved and re-rated for 27 MGD. (1), (2), (3), (4)

Response:

The adoption of this amendment is one step in the process to re-rate the treatment facility. The build-out analysis in the GCUA WMP demonstrates a future wastewater need of 38.6 MGD to fully serve the GCUA Consolidated District and the water quality analysis indicates that GCUA's wastewater treatment facility can reasonably be expected to meet the effluent quality requirements for that expansion without increasing the pollutant loads included in its existing NJPDES permit. GCUA may now pursue modification of the NJPDES permit for that facility as either a rerating, upgrade or expansion of their wastewater treatment facility.

Comment 7:

The Elk Township WMP was supplemented by a 1999 "Silvergate Engineering Report" that specifically identified a build-out flow projection for one of the planned developments in Elk Township at 750,000 gallons per day (GPD). GCUA was aware of this report and failed to include this projection in its 2007 WMP application to the Department. (1), (2)

Response:

The "Silvergate Engineering Report" submitted in 1999 does not qualify as a comprehensive six-year update as was required in 1997 by N.J.A.C. 7:15-5.23(a). Although GCUA may have been aware of this projected wastewater need, it was under no obligation, by contract or

otherwise, to include this projected flow in its build-out projections. In fact, based on the analysis provided, had GCUA agreed to accept this volume of wastewater from Silvergate, it may have done so to the detriment of municipalities that are included within its Consolidated District whose wastewater GCUA is obligated to accept and treat.

Pursuant to N.J.A.C. 7:15-5.6, GCUA is acting as the wastewater management planning agency for its Consolidated District, identified in the introduction to this notice. In this capacity, GCUA is charged with the responsibility to formulate a WMP that complies with the WQMP rules. In establishing the WMP, the wastewater management planning agency may take into account existing valid WMPs for the area and its contracts to provide service to future development. The Elk Township WMP has not been updated in 17 years. Additionally, no contract exists committing GCUA to provide service to the three developments beyond the properties identified in the GCUA WMP. GCUA has fulfilled its responsibilities under the rules as the WMP agency and presented a proposed WMP that contains all of the required analyses. Based upon these analyses and the exercise of GCUA's judgment in consideration of its obligations to provide service to its Consolidated District, it has proposed a WMP that projects future growth and wastewater demand, delineates a sewer service area to serve that growth, designates treatment facilities adequate to treat the future wastewater demand and proves that those facilities can reasonably be expanded without adversely impacting water quality. However, while the developments identified by the commenters are not included in the GCUA WMP area in their entirety, the developers, ETMUA and GCUA as the WMP agency are not precluded from revisiting the WMP to determine if some adjustment is appropriate to provide service for these developments. If it is determined that such an adjustment is appropriate, the adjustment would be proposed as an amendment to the adopted GCUA WMP in accordance with N.J.A.C. 7:15-3.4.

Comment 8:

In reliance on the Elk Township 1991 WMP and the "Silvergate Engineering Report", the three developers in Elk Township have implemented their respective projects by obtaining local and county planning board approvals, GCUA approvals and numerous NJDEP approvals and permits. (1), (2)

Response:

The Elk Township WMP (1991) identified a sewer service area that it anticipated would be served by GCUA. However, with the exception of The Lawns Area, Elk Township elected not to become part of GCUA's Consolidated District and has taken no other action to secure any commitment or allocation of capacity at the GCUA wastewater treatment facility beyond the 250,000 GPD contract that it has with GCUA. Therefore, the sewer service area in Elk Township's WMP, which would generate in excess of 1,300,000 GPD, could not be guaranteed service at the GCUA wastewater treatment facility. Now that GCUA has prepared a build-out analysis of the areas it is obligated to serve and compared that wastewater treatment demand to water quality based effluent limits in its permit, GCUA has concluded that it can only assure an expansion of the plant to 38 MGD (see proposed increase to 38.6 MGD elsewhere in this issue of the New Jersey Register) and, considering its obligations to serve the Consolidated District, could only provide 458,350 GPD of service to Elk Township. Approvals issued by the Department and local government units do not change these limitations, nor can they replace the need for obtaining wastewater service by contract from GCUA and updating the applicable WMP.

Comment 9:

Because of ETMUA's interaction with the GCUA, funding of its mandated studies, revision of the Silvergate PUD's infrastructure in accordance with GCUA's dictates, and the expenditure of millions of dollars by Elk Township developers to implement the infrastructure, it is not only unconscionable but illegal for GCUA to attempt to jettison Elk Township's 1,307,438 GPD from its proposed WMP. (1), (2)

Response:

Prior to this adoption, GCUA had never submitted a WMP to the Department that could be adopted under N.J.A.C. 7:15. Consequently, the Department was unable to predict the future wastewater demands of the GCUA sewer service area. Elk Township's WMP was adopted in 1991 and identified a sewer service area to be served by GCUA that, based on those 1991 projections, would have generated 1,307,438 GPD in wastewater by the year 2010. However, Elk Township elected not to be included in the Consolidated District and only contracted with GCUA for 250,000 GPD. GCUA has allocated to Elk all of the excess flow it has available

after accounting for the build-out within the Consolidated District. Elk Township has not secured from GCUA a commitment to provide wastewater service sufficient to meet the demands of the service area it identified in 1991. Elk Township has not updated its WMP since 1991 despite a requirement that the WMP be updated every 6 years (see N.J.A.C. 7:15-5.23). On January 11, 2000, then Governor Christine Todd Whitman signed Executive Order 109 which directed the Department to require certain analyses, including detailed land use, environmental build-out and pollutant loading. Had the Elk Township WMP been updated in accordance with N.J.A.C. 7:15-5.23, it is doubtful that the 1991 sewer service area would have been readopted without a commitment from GCUA to serve it. GCUA has now submitted a WMP with an adequate projection of the future wastewater treatment needs of the sewer service area it is contractually obligated to serve (Consolidated District). The results of that analysis, together with the water quality analysis submitted as part of the GCUA WMP, give a reasonable assurance that the GCUA wastewater treatment facility can treat up to 38.6 MGD (see response to comment 3) of wastewater. The build-out of the Consolidated District, including that portion in Elk Township, The Lawns, will require all but 458,350 GPD of that capacity. This remaining capacity has been made available to Elk Township in the GCUA WMP. The Department will not require GCUA to assign additional flow to serve Elk Township's 1991 sewer service area.

GCUA has not jettisoned its commitment to serve Elk Township's contracted flow, in fact it has increased the amount of flow set aside for Elk Township in its WMP to 458,350 GPD. The ability of the GCUA wastewater treatment plant to expand is constrained by the Surface Water Quality Standards (N.J.A.C. 7:9B). Should future analysis confirm an ability to further expand the GCUA wastewater treatment plant or that flow projections overestimated the wastewater demand of the Consolidated District, an amendment could be proposed that would increase the flow allocated to the Elk Township consistent with the available capacity.

Comment 10:

GCUA has not been actively engaged with Elk Township and ETMUA as they prepared this WMP as required by N.J.A.C. 7:15-5.22. (1), (2), (3), (4)

Response:

GCUA has been actively engaged with all local authorities in preparation of their WMP in accordance with N.J.A.C.7:15-5.22. Two letters were sent to ETMUA , one dated January 10, 2006; the other dated March 8, 2007. Both of these letters informed ETMUA that GCUA was working on a WMP and requested their input. They further went on to detail what sewer service areas within Elk Township were proposed to be included in GCUA's sewer service area. Subsequently, a meeting was held on March 12, 2008 with NJDEP, ETMUA, DVRPC and GCUA to specifically discuss wastewater matters pertaining to Elk Township.

Comment 11:

The GCUA advised that NJDEP directed GCUA not to discuss Elk Township's WMP needs or sewer service area requirements beyond the contacted capacity of 250,000GPD. (1), (2)

Response:

The Department encourages and in fact requires consultation with all governmental agencies and public utilities under N.J.A.C. 7:15-5.22. The Department did not vary from that requirement on this WMP and did not in any way discourage contact between GCUA and ETMUA or any other interested agency. In fact, on March 12, 2008 the Department brought these agencies together along with the DVRPC and the interested developers in an effort to address consistency between the GCUA and Elk Township WMPs. As a result of that consultation, it became apparent that GCUA could not demonstrate capacity at its wastewater treatment facility to meet its obligation to the Consolidated District and the full wastewater management needs of the 1991 Elk Township sewer service area (see response to comment 2 above). It also became apparent that Elk Township had issued approvals to developments that exceeded its contracted wastewater treatment capacity at GCUA. At that point, the Department consulted with GCUA and decided that only those sites that GCUA had already committed to serve should be included in the GCUA WMP, and any additional capacity available to Elk Township should be allocated by ETMUA.

Comment 12:

The GCUA build-out analysis, after adjustment for environmentally sensitive areas (ESA), erroneously assumes that GCUA has insufficient capacity for Elk Township's 1991 Sewer service area. (1), (2)

Response:

The GCUA build-out analysis was done in conformance with Department guidance and it accounted for environmentally sensitive areas. It was found to be satisfactory. GCUA is under no obligation to serve more than the contracted 250,000 GPD in Elk Township. However, as discussed in more detail in response to Comment 3 above, Elk Township may seek to contract for greater flow from any service provider, including GCUA if a more detailed build-out analysis indicates that capacity is available. Any agreement that may be reached would be subject to approval as an amendment to the applicable WMP.

Comment 13:

The development projects by Silvergate, Orleans and Canuso do not involve significant conflicts with environmentally sensitive areas (ESA). (1), (2), (4)

Response:

The Department has reviewed the project sites of all three developments and concluded that the identified sites do contain ESA. The Department agrees that many of these conflicts have been eliminated through plan design and the regulatory processes. However, the primary reason that GCUA did not include portions of these projects in their proposed sewer service area is due to the issue of limited capacity and the future wastewater demand projected in areas that it is already obligated to serve.

Comment 14:

The Delaware Valley Regional Planning Commission (DVRPC) and its Tri-County Water Quality Management Board have not had an active role in the preparation of the proposed amendment prior to its public notice. (1), (2), (3), (4)

Response:

The DVRPC Tri-County Water Quality Management Board approved this amendment on April 24, 2008.

Comment 15:

GCUA and NJDEP have grossly misstated the effect that the GCUA WMP will have on the Elk Township WMP and the sewer service area in Elk Township. (3)

Response:

The Department cannot predict with certainty the full wastewater treatment needs of the sewer service area assigned to GCUA in the Elk Township WMP because that WMP has not been updated since 1991. However, through the preparation of the GCUA WMP, it is clear that the wastewater treatment demands of the Consolidated District will leave insufficient capacity to serve the sewer service area delineated in the Elk Township WMP. In fact, Elk Township has already issued approvals for development in the 1991 sewer service area that exceed the wastewater treatment capacity GCUA has made available to Elk Township. Consequently, GCUA will not be able to meet the needs of the entire 1991 Elk Township sewer service area and a modification of that sewer service area may be required. The Department, through the adoption of the GCUA WMP, has not altered the 1991 sewer service area identified in the Elk Township WMP, other than to remove areas that are now a part of the GCUA WMP. The rest of that sewer service area continues to be part of Elk Township's service area until an updated WMP is submitted that redelineates or redesignates the service area or until the sewer service area is withdrawn due to non-compliance with the amended and readopted Water Quality Management Planning rules (July 7, 2008). The updated WMP covering Elk Township will be required to demonstrate an adequate wastewater management alternative for the identified sewer service area(s) it proposes. Potential options could include refining the GCUA build-out projections and contracting for any additional capacity at the GCUA wastewater treatment facility that may result, purchasing wastewater treatment capacity from another wastewater service provider or development of a new wastewater treatment facility to serve these areas.

Comment 16:

The GCUA WMP erroneously states that Elk Township's build-out flow of 458,350 GPD is based on available development plans. However, the combined build-out flow from the Grande at Elk, Latham Park and Silvergate in fact totals 750,000 GPD. (3)

Response:

GCUA has demonstrated through a comparison of its existing NJPDES water quality based pollutant loads and its existing effluent quality that an expansion of their wastewater treatment facility to 38 MGD is possible (see proposed amendment to correct this potential expansion to 38.6 MGD elsewhere in this issue of the New Jersey Register). The 458,350 GPD of wastewater capacity assigned in the GCUA WMP to Elk Township represents the amount of flow that has been contractually committed to Elk as well as remaining excess capacity of the 38.6 MGD of total projected treatment capacity after GCUA meets all of its wastewater treatment obligations in the Consolidated District. Based on the information shared at the March 12, 2008 meeting, the combined flow for the three projects identified by the commenter is 665,670 GPD. This calculation does not include The Lawns area (180,000 GPD) which is part of the Consolidated District, nor the Aura School, which GCUA has already approved for service (6,000 GPD). This combined build-out flow from the Grande at Elk, Latham Park and Silvergate, projected to be 665,670 GPD, is more than double what GCUA is contracted to serve in Elk Township. Based on the analyses provided in the GCUA WMP, GCUA cannot demonstrate the capacity to serve the entirety of the three developments listed by the commenter. However, if a more refined build-out analysis demonstrates that additional capacity is available, then the GCUA WMP could be amended to include some portion or potentially the entire balance of flow that would be created by these developments.

Comment 17:

GCUA is the regional provider of wastewater treatment facilities for Gloucester County and has yet failed to include the entire 20 year projected wastewater flow of 1,310,000 GPD for Elk Township. As the regional provider, if GCUA will not accept wastewater flow from Elk Township in excess of the current contract limit of 250,000 GPD, it must include in its alternatives analysis a reasonable substitute plan to meet the wastewater needs of Elk Township. (3)

Response:

GCUA is not under any obligation to serve or find any alternatives for any area outside of its Consolidated District. Elk Township opted not to include most of the Township in the Consolidated District and did not contract with GCUA to meet the wastewater management

needs of the sewer service area it identified in 1991 and therefore must find its own solution to its wastewater management needs outside of the GCUA Consolidated District. This solution may include contracting for additional capacity from GCUA upon a demonstration that excess capacity exists, contracting for wastewater treatment service from another treatment facility or development of its own wastewater treatment facility.

Comment 18:

The environmental constraints for Elk Township do not reflect site-specific data and the environmental constraints for the municipalities in the Consolidated Area are not accurately reflected on the sewer service area mapping. (3), (5)

Response:

In a planning exercise for a large region such as this, site-specific data will often be more definitive than the mapping reflects. While it is the Department's goal to be as specific as possible and adopt plans with as much detail as possible, it would be cost prohibitive to try and review a plan of this magnitude on a lot-by-lot basis. Therefore, some small amount of imprecision in the mapping must be expected and tolerated.

Comment 19:

The sewer service area mapping reflected in the GCUA WMP is inconsistent with the sewer service area mapping reflected in the Elk Township WMP. Even if GCUA is ultimately permitted to limit the amount of wastewater flow that it will accept from Elk Township, the conflict in the sewer service area mapping creates an unnecessary restriction and biased discretion on the properties that can be served, completely ignoring the status of current development approvals in Elk Township. (3)

Response:

Historically there has been no mechanism in N.J.A.C. 7:15 to retire previously designated sewer service areas, even where an identified wastewater management alternative is no longer viable, except through the adoption of a WMP update that would supersede an outdated WMP. On July 7, 2008 the Department readopted the Water Quality Management Planning Rules with amendments to address this issue. Under the new rules, the failure to submit

required WMP updates will result in the withdrawal of all wastewater service area designations. With the adoption of the GCUA WMP, GCUA takes over wastewater management planning responsibility for those portions of Elk Township that it has agreed to serve (see N.J.A.C. 7:15-5.21). Wastewater management planning responsibility and designations for the remainder of Elk Township remains unaffected, until an updated WMP is adopted or there is a failure to submit a WMP within the time frame established under the new rule (see N.J.A.C. 7:15-5.2 (a)). The sewer service area mapping in the GCUA WMP as it pertains to Elk Township reflects those areas that have already received Treatment Works Approvals from the Department as well as areas in the current Consolidated District. For all other areas in the Elk Township WMP sewer service area, service may still be contracted with a suitable wastewater service provider. GCUA determined that it should not usurp Elk Township's 1991 WMP, and furthermore it should not determine which properties should be served with the remaining limited capacity assigned to Elk Township since it could not accommodate the entire needs of the 1991 sewer service area.

Comment 20:

The build-out flow from Elk Township exceeds the current contract limits. However, there are no provisions in the GCUA WMP which indicate if and when GCUA would consider increasing the contract limits with Elk Township. (3), (5)

Response:

GCUA demonstrated its ability to expand its wastewater treatment facility to 38 MGD based on existing permitted pollutant loads and its existing effluent quality (see proposed amendment to correct this potential expansion to 38.6 MGD elsewhere in this issue of the New Jersey Register). GCUA then conducted a build-out analysis of its Consolidated District, which it is obligated to serve, and determined the future wastewater treatment needs of that area. To the extent that future analysis demonstrates that the build-out and future wastewater projections in the Consolidated District are over-stated, GCUA may propose an amendment to this WMP at any time to reassign any additional available flow to Elk Township.

Comment 21:

The build-out flow from Monroe Township exceeds the current contract limits in Monroe Township. (3)

Response:

The Water Quality Management Planning Rules (N.J.A.C. 7:15) do not require that any area be served by centralized wastewater treatment systems. The Department's role in wastewater management planning is that of a regulatory review agency, and is most often limited to a review of a proposal put forth by a wastewater management planning agency.

In this application, the GCUA has proposed to serve a defined geographic area of Monroe Township, that is consistent with its consolidated District and that has been endorsed by the Pinelands Commission. Further, GCUA has demonstrated that this service will not result in unacceptable impacts on water quality or environmentally sensitive resources. The Department acknowledges that the build out of the area in Monroe Township that is within the GCUA Consolidated district and that GCUA proposes to serve exceeds its currently contracted wastewater treatment volume. However, the Department does not interfere with local contractual agreements. Such agreements are appropriately left to negotiation among the directly affected parties.

Comment 22:

A substantial amount of the Monroe wastewater flow is actually generated from a different drainage basin area, which violates the NJDEP inter-basin transfer policy. (3)

Response:

The Department does not have an "inter-basin transfer policy." The 1996 New Jersey Statewide Water Supply Plan does recognize the need to assess the impact of inter-basin transfers, also known as depletive water uses, on the safe yield of reservoir systems, other downstream users and the preservation of ecological flows within surface water systems, but does not express any policy prohibiting such transfers. Executive Order 109, (January 2001) also requires that the Department assess the impact of depletive and consumptive water uses prior to making a final decision on any wastewater management plan or amendment thereto.

A depletive water use analysis was conducted as part of an amendment adopted on December 20, 2001 for Monroe Township. The 2001 Monroe Township amendment limits the interbasin transfer from the Atlantic Basin to the Delaware Basin in Monroe Township to 3 MGD.

Monroe Township lies partly in the Atlantic Basin and partly in the Delaware Basin. Wastewater flow from Monroe Township is not metered independently for each basin. Presently wastewater flow from Monroe Township to the GCUA wastewater treatment plant is approximately 2.08 MGD. Approximately half of the development in Monroe Township lies within the Atlantic Basin and half lies within the Delaware Basin, and there is no significant difference in land use types between the two basins. Therefore, approximately half of the current wastewater flow from Monroe Township, or 1.04 MGD, originates in the Atlantic Basin, and is transferred to the Delaware Basin. The build-out analysis prepared by GCUA for Monroe Township estimates that an additional 672,722 GPD of wastewater will originate in the Atlantic Basin. Adding this volume to the existing Atlantic Basin flow in Monroe Township yields a total future depletive water use of approximately 1.7 MGD, which is well below the 3 MGD depletive loss determined to be acceptable in 2001.

If future analysis of water supply availability in the Atlantic Basin (Great Egg Harbor River watershed) results in a reduction in the volume of inter-basin transfer that can be sustained from that basin, then the Department would require alternative sources of water, such as water from the Delaware Basin or a confined aquifer, be used through the water allocation permitting process. Therefore, the Department has concluded that the GCUA WMP is in compliance with Executive Order 109, is consistent with the 1996 New Jersey Statewide Water Supply Plan, and can be adopted in accordance with N.J.A.C. 7:15.

Comment 23:

The GCUA WMP fails to address inflow/infiltration (I/I) problems. In the "Future Facilities Needs Study" prepared by Weston on behalf of GCUA in June 1991, the 1995 I/I projection was 68,000 GPD with a forecasted I/I increase of 241,000 GPD by 2010. The proposed GCUA WMP indicates that the current I/I level is 353,000 GPD and the current WMP

proposes absolutely no reduction or mitigating measures to reduce I/I through the planning period. (3), (6)

Response:

GCUA does not have the ability to address I/I in collection and conveyance systems which it does not own or maintain. While the Department supports the idea that GCUA should encourage municipalities to maintain their collection systems, the Department finds that 2% of average daily flow is an acceptable level of I/I. Should any reduction in I/I be realized, it could possibly free up wastewater capacity which could be reallocated in the future. However, any potential additional capacity gained through a reduction in I/I can not be reallocated until such a time as the I/I loss is eliminated.

Comment 24:

The GCUA WMP projects a build-out flow of 38.6 MGD. The future wastewater flows are anticipated to be accommodated in two phases; the first being a re-rating of the existing wastewater treatment plant from 24.1 MGD to 27 MGD; and the second being upgrades and expansion of the existing wastewater treatment plant on the existing site or the adjacent property, both of which are owned by GCUA. The full build-out period, however is based upon projected flows to 2050, which is more than double the build-out period required for a WMP. Therefore, GCUA is unreasonably limiting potential wastewater treatment to Elk Township by extending the build-out period beyond reasonable limits. (3)

Response:

GCUA provided a build-out in compliance with Department guidance. Historically the Department used a 20-year build-out projection for WMP preparation. However, these 20-year build-out projections have proven to be extremely inaccurate. For example, the 2010 population projection used in the 1996 New Jersey Water Supply Plan was exceeded by the 2000 census. In response to this and other concerns, Governor Whitman signed Executive Order 109 (EO 109) in 2000 which directed the Department to use an environmental build-out analysis in making decisions on Water Quality Management Plan amendments. The Department's EO 109 guidance establishes that an environmental build-out analysis shall be based on full build-out by applying current zoning to available land. The build-out analysis

prepared and submitted by GCUA satisfies this requirement. This is consistent with EO109 analyses which are now codified in the newly adopted N.J.A.C.7:15-5.24.

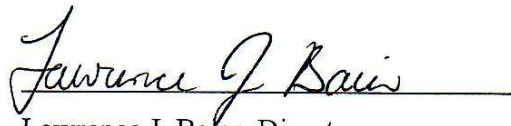
Comment 25:

There were several meetings and informal agreements over several years between ETMUA and GCUA to discuss the need for GCUA to provide wastewater flow allocation greater than the contracted amount, for Elk Township. Therefore, GCUA should be required to meet the needs of ETMUA's sewer service area. (4)

Response:

No formal written agreement beyond the contracted 250,000 GPD was ever executed. Flow values between 750,000 and 1.3 million GPD were discussed, but ETMUA failed to secure any flow greater than 250,000 GPD by contract. In the absence of any contract, GCUA is at liberty to allocate what future flow capacity it has to municipalities with which it has service contracts. Those contracts may be reexamined and allocation made available to ETMUA in the future.

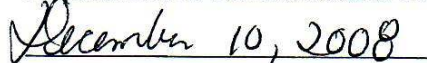
This amendment represents only one part of the permit process and other issues may need to be addressed prior to final permit issuance. Additional issues which may need to be addressed may include, but are not limited to, the following: compliance with stormwater regulations; antidegradation; effluent 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.



Lawrence J. Bafer, Director

Division of Watershed Management

Department of Environmental Protection



Date