



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Land Use Regulation
Bureau of Watershed Regulation
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JUL 12 2009

Leonard Faiola
Remington & Vernick Engineers, Inc
232 Kings Highway East
Haddonfield, NJ 08033

Re: Proposed Mansfield Township Wastewater Management Plan (WMP)
Mansfield Township, Burlington County
Watershed Management Area 20
Tri-County Water Quality Management Plan (WQMP)
P.I. No.: 435433
Activity No.: WMP080001
Application dated April 2008 Revised October 2009

Dear Mr. Faiola:

The New Jersey Department of Environmental Protection (Department) has reviewed the proposed WMP that was submitted to the Department for review on October 5, 2009. This letter provides comments on the proposed document and changes that are necessary prior to proceeding with the amendment process.

Issues to be addressed

1. Northern Mansfield Service Area – The WMP text and tables indicate that this proposed project will be located on Block 3/Lots 5.01 and 10.01 and on Block 4/Lots 6.01 and 7. However, the maps for this proposal included in the WMP do not show what, if any, development is proposed on the Block 4 portion of the project site. Update the WMP text and mapping to account for and display any

proposed development that is planned to be located on Block 4. In addition, portions of the proposed service area include wetlands and stream buffers as identified on the Department's Landscape Project Mapping. The proposed service area must be revised to be removed from the wetlands area and all applicable stream buffers.

In Appendix D, correct the spelling of the word "Wastewater" in the Plant's facility table heading. Only the most recent proposal (in terms of square footage and flows) should be included in the draft WMP. Delete the duplicate facility table from the WMP.

The gpd/sq.ft. multiplier that should be used if wastewater is subject to treatment is 0.1 (0.125 is only used for a septic system with no additional treatment involved). The application of this multiplier would result in a projected wastewater flow of 70,000 gpd. Adjust Facility Table and Table 1 as necessary.

Delete the note following the asterisk at the bottom of Table 1 as it applies to a different facility.

2. Columbus Center Wastewater Treatment Plant – A WQMP amendment for this proposed treatment plant was adopted by the Department on March 14, 2008. In the draft WMP, Table 1 in Appendix F indicates that Lots 20, 21, 22 in Block 33.01 (located on the north side of Columbus Road) are included in the treatment plant's service area. However, these lots were not included in the parcels identified in the aforementioned amendment nor on page 5, item E of the draft WMP which lists the lots in the proposed service area. In addition, while the amendment specified that the maximum wastewater planning flow for the treatment plant would be 70,000 gallons per day (gpd), the Summary of Wastewater Flows table in Appendix F in the WMP, states that the Total Projected Flow is 74,450 gpd. Address the discrepancies regarding the aforementioned lots and the different flow amounts. The Department's Bureau of Nonpoint Pollution Control will need to re-evaluate this proposed project if there are additional proposed flows beyond which were previously reviewed and approved in the prior amendment. If additional flows are in fact proposed, please submit this information to the Bureau of Nonpoint Pollution Control to ensure that the subsurface disposal of the proposed increase in wastewater volume is feasible. The inclusion of additional lots and/or increased flow amounts from what had been previously approved in the above referenced WQMP amendment, must be identified in the WMP's Significant Actions section.

In addition, the service area proposed for this treatment plant includes the riparian corridors for Craft's Creek (FW2-NT). The WMP mapping shows a southern section of the service area (Lot 2.01). This lot includes the riparian corridor for the Assiscunk Creek (a Category 1 waterway) and Rank 5 Threatened and Endangered species habitat for Bog Turtle as identified by the Department's

Landscape Project mapping. If this lot is, in fact, a proposed service area, then revise WMP text and mapping to remove it from the applicable riparian zone buffer (50' for FW 2 waterways and 300' for the C1 waterways) and from the area identified as Bog Turtle habitat. If this is only the discharge location and not a sewer service area then identify as such.

3. Mansfield Farms – As per the future service area map, the Mansfield Farms service area is proposed to be expanded. The additional flow and population to be served by this proposed expansion must be accounted for in all of the tables in Appendix E. For the present and future flow listed on item 13 in the Facility table, include a separate line for flows attributable to the Mansfield Elementary School and the Northern Burlington Junior/Senior High School. In the table in Appendix E entitled “Projected Ultimate Average Daily Sewered Flow M1-Mansfield Farms Study Area” flow amounts should not be calculated from the existing sewer service area. DMR data from actual flows should be used instead to arrive at the correct flow amounts. Recalculate existing flows from DMR data and adjust table as necessary. In addition, the expansion of the Mansfield Farms service area needs to be described in the WMP’s Summary Table of Significant Actions.
4. Margolis Warehouse Distribution Facility Service area – The applicant states that the proposed project is expected to generate a total of 35,075 gpd (this volume may need to be adjusted to address wastewater generated by truck traffic) of sanitary wastewater to be discharged to groundwater on site. The information submitted in the draft WMP does not indicate the location or type of on-site treatment systems proposed, but the warehouse’s site plans indicate 3 proposed septic disposal fields, one on Lot 9.01 and two on Lot 11. The site is split by Craft’s Creek effectively splitting it into two sites. On the east side of the Creek the applicant proposes one (1) 878,800 square foot (sq ft) warehouse proposed to be served by two (2) septic systems appearing to provide primary treatment prior to subsurface disposal. The submission is unclear and contradictory in sections so clarification of wastewater treatment level and calculation of design flow is needed. On the west side of Craft’s Creek the applicant proposed to construct three (3) smaller warehouse/office buildings served by one (1) septic disposal area. Portions of the proposed service area include wetlands and floodplains. The proposed service area must be revised to be removed from the wetlands and floodplain areas. The gpd/sq ft multiplier (for the proposed office) that should be used if wastewater is subject to advanced treatment is 0.1 (0.125 is only used for a septic system with no additional treatment involved). The application of this multiplier would result in a projected wastewater flow of 26,500 gpd. Adjust the facility table as necessary. Delete the note following the asterisk at the bottom of Table 1 as it applies to a different facility.

The information submitted indicates that the site is underlain by a confining clay layer which is causing a high perched water table over the confining clay layer especially on Lot 11. Subsurface investigations reveal a perched ground water condition at five (5) feet below grade in an area designated as a septic disposal area on Lot 11 where the 878,000 sq ft warehouse is proposed. This septic disposal area is also located between two (2) stormwater basins and may also be affected by the subsurface recharge of rooftop runoff directed to subsurface perforated pipes located around the perimeter of the proposed warehouse. It also appears that sanitary wastewater generated by the warehouse located on Lot 11 is proposed to receive only primary treatment raising further concern of the potential impact of primary treated wastewater entering the stormwater management basin and/or Crafts Creek and Liberty Lake which is used for recreational swimming. There are also plans for the widening of the New Jersey Turnpike, which includes the expansion of the Turnpike's right-of-way and placement of a detention basin, which appears to interfere with the proposed project as delineated on the submitted plans.

The Division of Land Use Regulation conferred with the Bureau of Nonpoint Pollution Control (BNPC) regarding the submitted soils information. BNPC reviewed the information and the submitted plans and concurred that in order to delineate an approvable sewer service area and associated wastewater capacity with a feasible wastewater alternative in accordance with N.J.A.C. 7:15-5.18 and 5.25 the hydraulic capacity of the subsurface conditions need to undergo further evaluation. Therefore the New Jersey Pollutant Discharge Elimination System – Discharge to Ground Water (NJPDES-DGW) permit application should be submitted to the BNPC so that a simultaneous review of both the NJPDES-DGW permit and the draft WMP may be conducted to ensure that subsurface disposal of the proposed volume of wastewater is feasible given the aforementioned concerns. The sewer service area (and associated wastewater volume) delineated in the WMP must have a feasible wastewater disposal option. Through the review of the NJPDES-DGW permit application the BNPC will review the applicant's design flow calculations for wastewater and stormwater recharge to determine the subsurface hydraulic capacity. The NJPDES-DGW permit review will also review any potential hydraulic interconnections between the proposed wastewater disposal areas and the stormwater system and/or surface water bodies. The Department will make every effort to work with the developer to simultaneously review the NJPDES-DGW permit application so that this project may be addressed in the Mansfield WMP.

5. Depletive/Consumptive Water Use Analysis – Provide a map showing the water purveyor service areas within the planning area, include name, well allocation or water diversion permit numbers and rates. This information may be added to Map 1, if it will not adversely affect its readability. If new or expanded water supplies are anticipated to be needed, it will be necessary to demonstrate that the proposed

increased use will not adversely impact the source water resource or existing uses. If a new or expanded water allocation permit is required for the water supply, this analysis will be conducted as part of the Water Allocation permitting process, to be conducted concurrently with the amendment process. The applicant must submit a separate application to the Bureau of Water Allocation. Otherwise, if the increased use remains less than 100,000 gpd an analysis is required as part of the amendment process.

6. Nitrate Dilution Model Analysis -The Septic Development Exercise and Nitrate Carrying Capacity Planning Calculations table that was included in Appendix B in binder 2 needs to be modified to include the total number of dwelling units that can be built, based on current zoning, in each of the HUC's septic areas. Provide the definitions for each of the applicable zoning categories so that the total number of units that each zone would permit can be determined. The resulting number of potential units that can be accommodated according to the model's results will then need to be compared with the amount permitted under current zoning regulations. Rezoning may need to occur if current zoning would allow for more units than the amount specified by the model's results on a HUC 11 basis.

Minor text deficiencies

1. The only date that should appear on the draft WMP's cover should be the date of the most recent submittal as stated in the Instructions and Guide to Wastewater Management Plan Format and Content (Instructions). The use of the word "Revised" can cause confusion with the formal WQMP revision process. The Instructions are available on the Department's web site at <http://www.nj.gov/dep/watershedmgt/DOCS/WMP%20Instructions%203-14-06.pdf>
2. Table of Contents – Delete the word "Update" from the page's title.
3. Page 1 – The information in the Upon WMP Adoption section on the second half of this page should be included in the Summary of Significant Actions section on page 2, as much of this information is duplicated. Clarify if the word "Cyntex" on the second line of the first bullet point describing the Homestead at Mansfield, was intended to be "Centex" instead, and correct if necessary throughout the WMP (i.e. page 4, section a).
4. Page 2 – In item 1, list only those projects that are currently proposed. If prior amendment action for a project has taken place, then that project is now accounted for as part of the Existing service area and DMR flows. If the Township wishes to include a list of all prior approved amendments and revisions,

it can be added to the WMP as an appendix as a list of past amendment actions with dates.

The expansion of the Mansfield Farms service area needs to be described in the WMP's Summary Table of Significant Actions.

Change the sentence next to item 2 to "Provide wastewater treatment to *the following:*"

5. Page 3 – Change item 3 to "All areas outside of a wastewater treatment plant service area will be designated as "Septic Area (ISSDS 2,000 gpd or Less)". If application of the nitrate dilution model determines that the number of potential units that can be built and still achieve the nitrate planning standard of 2 mg/l on a HUC 11 basis is less than that allowed under existing zoning, then a designation of "Restricted Septic Area (Planning Flows of 2,000 gpd or Less AND Less Than 6 Residential Units)" may need to be implemented.

Please be aware that the ordinance referred to in section b must be adopted before the Department can adopt the draft WMP. Therefore the last sentence in this section which states that Mansfield will implement the ordinance upon WMP approval is incorrect and should be deleted and replaced with the following sentence "*The Mansfield Township ordinance (insert ordinance number) mandates the discontinuation of Individual Subsurface Sewage Disposal Systems and connection to the sewer once the sewer service has become available.*"

The following note must be added to this page's list of notes under the General setting:

"Pursuant to N.J.A.C. 7:15, Riparian Zones are: 300 feet from top of bank (or centerline of a first order stream where no bank is apparent) for waters designated as Category One and all upstream tributaries within the same HUC 14; 150 feet for waters designated Trout Production and all upstream waters within one linear mile as measured along the length of the regulated water; 150 feet for waters designated Trout Maintenance and all upstream waters within one linear mile as measured along the length of the regulated water; 150 feet for any segments of water flowing through an area that contains documented habitat for a threatened and endangered species plant or animal, which is critically dependent on the surface water body for survival, and all upstream waters (including tributaries) within one linear mile as measured along the length of the surface water body; 150 feet for waters that run through acid-producing soils, and; 50 feet for all other waters.

Surface water designations are listed in the Surface Water Quality Standards at N.J.A.C. 7:9B. The Department's "Surface Water Quality Standards" GIS data layer was utilized to determine these waters. The applicable 300 foot buffer has been applied to these waterways and removed from the proposed sewer service areas on the mapping. Lesser width buffers have not been graphically removed from the sewer service area but are not proposed for sewer service. Jurisdictional

determinations by the Department will be utilized to determine the extent of the sewer service area on individual lots.

Further, compliance with the riparian zone standard has been demonstrated by the adoption of [name of muni]'s Riparian Corridor Ordinance [insert ord #], which has been updated to be in compliance with the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and the Water Quality Management Planning Rules (N.J.A.C. 7:15) which was adopted on [insert date].”

6. Page 4- In items a through h (which are located on pages 4 to 6) change the phrase “Facilities Summary Table” to “*Facility* Summary Table”. In item c, Attachments A and B, the NJDEP WQMP Amendment or Revision Application Form, can be omitted from the next WMP submission as they are not independent applications but being addressed by Mansfield’s application. All relevant information should be addressed in the WMP itself as part of Mansfield’s proposal. Delete references to these attachments in Appendix D and re-letter the list of Attachments to reflect the omission of them.

Page 6 – Attachment 2 in item h, the NJDEP WQMP Amendment or Revision Application Form can be omitted from the next WMP submission. Revise the list of Attachments to reflect its omission.

7. Page 7 – Summary of Environmental Assessments and Analysis – this section must address the results of all of the applicable environmental analyses that apply including the Environmental Constraints/Buildout Analysis, Nonpoint Pollutant Loading/Hydromodification Analysis through adoption of a stormwater management plan and ordinance in accordance with N.J.A.C. 7:8, Point Source Pollutant Loading Analysis (which includes the nitrate dilution analysis), Depletive/Consumptive Water Use Analysis, Riparian Corridor Analysis and adoption of a stream corridor protection ordinance, and a Threatened and Endangered Species Analysis. A description of these analyses can be found on the Instructions document described above.

In section V, for items d and e change the word “facilities” to “facility”

8. Page 8 - (a) There is a Clarification in section VI Mapping Requirements that states that Maps 3 and 4 which display the future wastewater facilities and service areas differ in that Map 3 has contours but no lot lines while Map 4 has lot lines but no contours. However, both maps have lot lines delineated. Delete Map 3 and all references to it from the WMP. Renumber the WMP’s maps to reflect its omission and delete the Clarification section from section VI. (b) Correct the statement at the bottom of the page which currently reads: “The drawings are revision dated September 2009”. The submitted maps are dated April 2008. (c) Delete the “END OF WMP” line at the bottom of the page.

9. All Facility Tables – The Summary of Wastewater Flow received/to be received should be expressed as a 30-Day Average Flow for all DSW facilities as per the Instructions. Correct table labels.
10. National Automobile Dealers Exchange – Clarify if the Ultimate Build-Out flow of 0.014 MGD listed in the Facility table in Appendix H, is based on buildout or Department and/or local approvals.

Delete the note following the asterisk at the bottom of Table 1 as it applies to a different facility.

Mapping deficiencies

1. Planning Area map – Clarify if the franchise area delineations depicted on this map are, in fact, the Board of Public Utilities granted franchise boundaries. Sewer service area and franchise area are not necessarily the same. The Homestead at Mansfield Franchise Service Area is missing a graphic on both the Planning Area and Existing Wastewater Facilities Maps. Correct maps to add a graphic that delineates this service area.
2. Existing Wastewater Facilities and Service Areas map:
 - (a) Delete all references to Franchise areas in the map's notes and legends as this map should only include existing wastewater service areas. Replace the word "franchise" with "sewer". These service areas should only include the extent of areas currently served by the sewer infrastructure which is currently in the ground.
 - (b) For the Mount Holly Water Company treatment plant and service area, add the facility's NJPDES numbers, NJ0109291 and NJ0109266 to the map's label for this area.
 - (c) In the legend the label for septic areas should be changed to "Septic Area (ISSDS 2,000 gpd or Less)". If application of the nitrate dilution model determines that the number of potential units that can be built and still achieve the nitrate planning standard of 2 mg/l on a HUC 11 basis is less than that allowed under existing zoning, then a designation of "Restricted Septic Area (Planning Flows of 2,000 gpd or Less AND Less Than 6 Residential Units)" may need to be implemented and depicted on this map.
3. Future Wastewater Facilities and Service Areas map:
 - (a) Delete map 3 from the map set and renumber maps (i.e. Map 4 will now become Map 3, etc.)

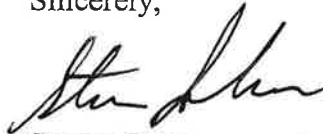
- (b) For the N.A.D.E. service area, add the facility's NJPDES number NJ0105031 to the map's label for this area.
- (c) In the map's legend change the title of the label for septic areas to "Septic Area (ISSDS 2,000 gpd or Less)". Areas now designated "Septic Area (ISSDS 2,000 gpd or Less)" have demonstrated that the zoning meets the nitrate planning standard standard of 2 ppm on a HUC 11 basis. If application of the nitrate dilution model determines that this is not the case, then a designation of "Restricted Septic Area (Planning Flows of 2,000 gpd or Less AND Less Than 6 Residential Units)" may need to be implemented.
- (d) In the map's Service Area Legend correct the spelling of "Distribution" in the label for Margolis Warehouse Distribution Facility".
- (e) Clarify if the service area in Lot 2.01 for the Future Columbus Center WWTP is actually a service area or the discharge location. If it is solely the spray irrigation discharge site, it should be labeled as such and not be included in the graphic for the Columbus Center WWTP.
- (f) For the graphic depicting the service area for Mansfield Farms, delete the additional diagonal lines graphic for improved readability. They are not identified in the legend and appear to be accidentally carried over from Map 2 graphics.
- (g) In the map's Service Area Legend, use one graphic for all of Mansfield Farms or label the Northern Burlington Jr/Sr High School portion of the Mansfield Farms service area as being part of Mansfield Farms sewage treatment plant's service area.
- (h) The Mount Holly Water Company graphic and label should be included with the rest of the facilities listed on the map's Service Area Legend.
- (i) Delete the "Adjacent Cross Acceptance Plan Center Designation Division Line and Township Planning Area Designation" from the map and the legend as they are not needed.
- (j) In the map's notes section modify note 2 as per item 5 in the Minor Text Deficiencies section of this letter.
- (k) Some of the service areas on the map have their wastewater treatment plant's location identified on the map with a black dot, while others do not. All service areas on the map should be labeled consistently.
- (l) The Riparian Ordinance note, which is in item 5 in the Minor Text Deficiencies section of this letter, must be placed on this map along with the other required map notes.
4. Zoning map – include lot lines for all parcels in each zoning designation.
 5. Environmental Features map – Include watershed (HUC11) and subwatershed (HUC14) boundaries. All streams must be identified and labeled. Category One (C1) streams buffers (including the C1 tributaries to the Assiscunk Creek) must be identified and labeled. The identification and labeling of the buffers in other waterways is encouraged.
 6. NJDEP Level 3, 4, 5 maps – Change the titles of these maps to "NJDEP Landscape Project Rank 3, 4, and 5 to reflect the correct terminology. As the

Department's Landscape Project data has been updated, the boundaries of these features depicted on these maps is no longer accurate and therefore they must be revised by using the current Department Landscape data. GIS Shapefiles containing the most recent publicly available Landscape data are available for download from the Department's web site at www.nj.gov/dep/gis/downloadintra.html

Please be aware that the Department is currently working with Burlington County on the development of the County WMP in accordance with NJAC 7:15 adopted July 8, 2008. In order for the Department to continue to process the Mansfield Township WMP independently from the Burlington County WMP, the Mansfield WMP must stay ahead of the adoption of the County WMP. Mansfield Township may wish to continue with the processing of the Township WMP or coordinate with Burlington County to incorporate the work done thus far into the Mansfield Chapter of the Burlington County WMP. The Mansfield Chapter of the County WMP would have to address the comments outlined in this letter as well as comply with NJAC 7:15. Should Mansfield Township wish to instead incorporate into the Burlington County WMP please submit a letter requesting the current WMP submission be withdrawn.

Please address the issues identified in this letter and resubmit within 90 days in order to continue to process the Mansfield WMP independently of the Burlington County WMP. Failure to resubmit may result in the WMP being disapproved. The Department will work with you closely to assist you in addressing these concerns. Please place the program interest number and the activity number found above at the top of all written correspondence submitted to the Department. Should you have any questions or concerns, or would like to set up a meeting to discuss these deficiencies, please contact Avi Argaman of my staff at (609) 984-6888.

Sincerely,



Steven Jacobus, Section Chief
Bureau of Watershed Regulation

- c: Gina Berg, Burlington County Department of Resource Conservation
Suzanne McCarthy, Delaware Valley Regional Planning Commission
Linda Semus, Mansfield Township Clerk
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Ron Bannister, Nonpoint Pollution Control
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