PUBLIC NOTICE

ENVIRONMENTAL PROTECTION

WATERSHED AND LAND MANAGEMENT

DIVISION OF WATERSHED PROTECTION AND RESTORATION

Adopted Amendment to the Monmouth County Water Quality Management Plan

Take notice that on March 6, 2024, pursuant to the provisions of the New Jersey Water Quality Planning Act, N.J.S.A. 58:11-1 et seq., and the Water Quality Management Planning rules, N.J.A.C. 7:15, the New Jersey Department of Environmental Protection (Department) adopted an amendment to the Monmouth County Water Quality Management (WQM) Plan. The amendment, identified as Colts Neck Manor (Program Interest No. 435462, Activity No. AMD230001) is located on Block 22, Lot 18 (portion) within Colts Neck Township, Monmouth County. This amendment allows for the construction of a proposed residential development consisting of 180 one-bedroom apartments, 165 two-bedroom apartments, 15 three-bedroom apartments, a clubhouse with a swimming pool, and a maintenance building that would generate a projected wastewater flow of 71,250 gallons per day (gpd) based on flow calculated in accordance with N.J.A.C. 7:14A-23.3, to be served by a new onsite discharge to ground water wastewater treatment and disposal system. The currently approved Colts Neck Manor DGW sewer service area was adopted by the Department in an August 7, 2006, WQM Plan amendment

that was published in the New Jersey Register on September 5, 2006, at 38 N.J.R. 3672(b). However, that amendment was for a DGW to serve a proposed development of 48 three-bedroom townhomes with a projected wastewater flow of 14,400 gpd. Although the proposed project site is located within a currently adopted DGW sewer service area, this WQM Plan amendment is required pursuant to N.J.A.C. 7:15-3.2(c) due to the increased present proposal which constitutes a "…change in the permitted flow to a DTW [designated treatment works], not already addressed in a WQM Plan [which] requires review of the WQM Plan." There is an existing New Jersey Pollutant Discharge Elimination System (NJPDES) permit for the site, NJPDES No. NJ0157058, which will need to be modified to reflect the increase in flow from 14,400 gpd for the former proposal to 71,250 gpd for the present proposal. This amendment also removes 11.01 acres of the previously adopted DGW sewer service area. The area proposed to be removed is not proposed to be developed and is in areas designated to be included within easements for a stream corridor and for open space conservation.

Preliminary notice was published in the New Jersey Register on June 5, 2023, at 55 N.J.R. 1234(a) and a public hearing was held by the Department and Monmouth County, as the Designated Planning Agency, on July 13, 2023. Comments were received during the public comment period. The comments and Department responses are provided at the end of this notice. This notice represents the Department's determination that the proposed amendment is compliant with the regulatory criteria at N.J.A.C. 7:15, as described below.

In accordance with N.J.A.C. 7:15-3.5(g)6, the Department instructed the applicant to request a written statement of consent from Colts Neck Township. Colts Neck Township adopted Resolution # 2023-108 on June 14, 2023, consenting to the proposed amendment. The Monmouth County Board of County Commissioners, as the Designated WQM Planning Agency, adopted Resolution 2023-0585 on July 27, 2023, approving of the proposed amendment. The County subsequently extended the public comment period and the Monmouth County Board of County Commissioners subsequently adopted Resolution 2024-0191 on February 22, 2024, approving of the proposed amendment.

In accordance with N.J.A.C. 7:15-3.3(b), site specific amendments are limited to proposed alterations to the eligible SSA needed to address a specific project or activity. N.J.A.C. 7:15-3.5(j)2 requires that site specific amendments proposing to add 100 or more acres or generating 20,000 gpd or more of wastewater flow must update the wastewater treatment capacity analysis prepared in accordance with N.J.A.C. 7:15-4.5(b) to include the proposed project or activity. However, since the wastewater is to be treated by a proposed new onsite wastewater treatment facility specifically for this project, an update of the wastewater treatment capacity analysis is not required.

Pursuant to N.J.A.C. 7:15-4.4(d), the following are not eligible for delineation as SSA, except as otherwise provided at N.J.A.C. 7:15-4.4(i), (j), (k), (l): environmentally sensitive areas (ESAs) identified pursuant to N.J.A.C. 7:15-4.4(e), as any contiguous area of 25 acres or larger consisting

of any of the following features, alone, or in combination: endangered or threatened wildlife species habitat, Natural Heritage Priority Sites, riparian zones of Category One (C1) waters and their tributaries, or wetlands; coastal planning areas identified at N.J.A.C. 7:15-4.4(f); and ESAs subject to 201 Facilities Plan grant conditions pursuant to N.J.A.C. 7:15-4.4(g). The Department conducted an evaluation of the project site using a GIS shapefile provided by the applicant compared to the Department's GIS data layers available at https://gisdata-njdep.opendata.arcgis.com and/or other information as noted below, to determine the presence of any such areas in accordance with N.J.A.C. 7:15-4.4(e), (f), and (g) and made the following findings:

- The Department determined that the SSA does not contain any areas mapped as endangered or threatened wildlife species habitat Rank 3, 4, or 5 on the Department's Landscape Maps of Habitat for Endangered, Threatened or Other Priority Wildlife based on the "Landscape Project Data" Version 3.3 GIS data layers, in accordance with N.J.A.C. 7:15-4.4(e)1.
- The Department determined that the SSA does not contain any areas mapped as Natural Heritage Priority Sites based on the "Natural Heritage Priority Sites" GIS data layer, in accordance with N.J.A.C. 7:15-4.4(e)2.
- The Department determined that there is a C1 water and/or 300-foot riparian zone along a C1 water or upstream tributary within the same HUC 14 watershed of a C1 water based on the "Surface Water Quality Standards" GIS data layer, in accordance with N.J.A.C. 7:13-4.1(c)1

and 7:15-4.4(e)3. The Yellow Brook (FW2-NTC1) and its corresponding riparian zone are located onsite. Portions of the riparian zone and associated wetlands are included within easements for a stream corridor and for open space conservation. The applicant has received a Flood Hazard Area Verification and Individual Permit (File No. 1309-02-0008.2 LUP210001, issued July 1, 2021) that includes a hardship exception for proposed construction activities within the 300-foot riparian zone. While the permit allows for 3.34 acres of riparian zone vegetation to be permanently disturbed, the applicant has placed a conservation easement on the portion of the riparian zone not being developed to preserve and allow re-vegetation of the riparian zone which had been cleared in the early 2000s. Areas within the 300-foot riparian zone proposed for development are already located within the approved sewer service area. No further expansion of the sewer service area into the 300-foot riparian zone is proposed.

- The Department determined that there are wetlands located on the proposed project site based on the "Wetlands 2012" GIS data layer, in accordance with N.J.A.C. 7:15-4.4(e)4; however, pursuant to N.J.A.C. 7:15-4.4(j)3, the applicant provided a Freshwater Wetlands Letter of Interpretation (LOI)/ Line Verification (File #1309-02-0008.1/FWW140001) confirming that there are no wetlands within the sewer service area.
- The Department determined that the SSA does not contain any areas mapped as Fringe Planning Areas, Rural Planning Areas, or Environmentally Sensitive Planning Areas within the

Coastal Area Facility Review Act (CAFRA) zone based on the "CAFRA (polygon)" GIS layer and the "State Plan Data" GIS layer, in accordance with N.J.A.C. 7:15-4.4(f).

- The Department determined that there are no 201 Facilities Plan grant conditions applicable to the project based on the U.S. Environmental Protection Agency (USEPA) list of New Jersey Grantees with ESA Grant Conditions at https://www.epa.gov/npdes-permits/environmentally-sensitive-area-esa-grant-condition-waiver-program-region-2, in accordance with N.J.A.C. 7:15-4.4(g).

Pursuant to N.J.A.C. 7:15-4.4(h)1 and 2, the Department considered the land uses allowed in adopted zoning ordinances, future land uses shown in adopted municipal or county master plans, and other local land use objectives. The Colts Neck Township Planning Board adopted a resolution for Application PB-743 on December 14, 2021, granting Preliminary and Final Site Plan approval. The proposed project is consistent with the Monmouth County Master Plan per a February 22, 2023, report prepared by the Monmouth County Planning Board.

The following individuals provided comments on this amendment during the comment period.

1. David Hauss, resident, in an emailed letter dated July 26, 2023, and at the public hearing
2. Dianne DeMatteis in emails dated July 7, 2023, and July 16, 2023
3. Doris Resh, resident, in an undated letter

4. Elaine and David Mann, residents, in an email dated July 7, 2023, and at the public hearing [Elaine only]
5. Evelyn Murphy at the public hearing
6. George Schildge, resident, at the public hearing
7. Julie Roth, President, Citizens for Informed Land Use in an emailed letter dated July 27, 2023
8. Kevin O'Brien, resident, in an emailed letter dated July 26, 2023
9. Kip Cherry, Conservation Chair, Central Sierra Club, in an email dated July 7, 2023, and at the public hearing
10. Lauren and Brian Sheehy, residents, in emails dated July 13, 2023, and July 17, 2023
11. Louise Usechak in an email dated July 12, 2023, and at the public hearing
12. Marianne Cucolo, Concerned Citizens Environmental Group and resident, in an emailed letter and report dated July 24, 2023, and at the public hearing
13. Maryrose Little in an email dated July 28, 2023
14. Richard Orriss, resident, in an emailed report on July 10, 2023, an emailed letter dated July 24, 2023, and at the public hearing
15. Roberta Kauffman, Citizens for Informed Land Use, in an emailed letter dated July 27, 2023, and at the public hearing
16. Robin Blair, Shrewsbury Environmental Commission, at the public hearing

17. Rose Ann Scotti, resident and former Mayor in an emailed letter and report dated July 24, 2023, and at the public hearing
18. Rose Cooley, resident, in an email dated August 25, 2023
19. Sandy Van Sant, in an emailed letter dated July 15, 2023, and at the public hearing
20. Sara Daino, resident, in an email dated July 11, 2023
21. Walter Lucchesi at the public hearing
22. An identical letter was submitted by 83 individuals. The Department has designated this standard letter as commenter 22. Where individuals added comments in addition to those appearing on the form letter, their name is listed separately in the commenter list.

    1. Alexandra Augustine
    2. Andrew Lenza
    3. Andrew Rytter
    4. Ann Sherwood
    5. Antonia Rondinella
    6. Audrey Spader
    7. Barbara Tilker
    8. Bonnie and Beverly Papernick
    9. Carol Ann Donahue
    10. Carol Jolly
    11. Charles and Joyce Allison
    12. Charles Taber

13. Christine Flemmich
14. Christine Traks
15. Christopher Augustine
16. Chuck Ferraiola
17. Cindy McVey
18. Clark Petrie
19. Danielle and Eric Stropoli
20. David and Catherine Pires
21. David DeMatteis
22. David Hauss
23. David J Spader
24. David J Spader
25. David Shakespeare
26. Denise Horneck
27. Diane DeMatteis
28. Dominick Tonacchio
29. Dominique Tonacchio
30. Donna Galinski
31. Donna Sikorskas
32. Doug and Felicia Latrenta
33. Edmund Agresta
34. Elaine Mann
35. Elizabeth & Donna Baumgaertner
36. Eric Kates
37. Evemarie Augustine
38. Frank Sikorskas
39. Geraldine Romano

40. Gianna Augustine
41. Henri C.
42. Irma Felcetto
43. Jane and Sam Penza
44. Janet Nici
45. John F. Gilmartin
46. John K. Gilmartin
47. John Vena
48. John Wade
49. Jonathan Vena
50. Joseph and Antoinette DePierro
51. Joyce and Anthony Costa
52. Joyce Costa
53. Joyce Costa
54. Laura Montalbano
55. Lauren & Brian Sheehy
56. Lauri Vena
57. Leanne Lucarelli
58. Leslie Gilmartin
59. LuAnne Petrie
60. Maria Micale
61. Maria Pecoraro
62. Matthew Pecoraro
63. Merrill Tilker
64. Michael Blaskovich
65. Michelle Caputi
66. Morgan Tilker

67. Myra Doughty
68. Nick Montalbano
69. p1doodles
70. Pat Caputi
71. Patrick Kozicz
72. Paul DeMatteis
73. Rebecca Lupo
74. Richard Galinski
75. Rita Katsotis
76. Ronald Hiller
77. Sarah Towers
78. Sherri Hiller
79. Steven Powell
80. Susan Wade
81. Svetlana Blaskovich
82. Todd Shackelton
83. Vincent Hager

A summary of the comments received and the Department responses follows. The number(s) in parenthesis after each comment identifies the respective commenter listed above.

Category One Waterway

1. COMMENT: How do the County, the NJDEP and Colts Neck Manor developers plan to ensure that affected waters will continue to meet Colts Neck watershed quality standards

(N.J.A.C. 7:14A-12.4) and the NJDEP's anti-degradation regulations (which protect the onsite C1 stream) considering: the extraordinary amount of effluent to be dispersed daily the fact that the PFAS and other harmful substances in Colts Neck Manor's wastewater effluent cannot be removed by its wastewater system, and the 300 foot riparian zone or percolation through the ground. (22)

2. COMMENT: The Rutgers Water Resources Program has a "Keep the Rain from the Drain" project which produces Impervious Cover Assessments and Impervious Cover Reduction Action Plans for Coastal Communities. Colts Neck has had such plans developed, and within the Yellow Brook area, there are 6 suggested locations for impervious cover reduction: http://www.water.rutgers.edu/Projects/NJ_Sea_Grant/ColtsNeck/index.html. The proposed locations in the above referenced action plan should be evaluated as part of this amendment. (13)

3. COMMENT: NJDEP has listed the entire Yellow Brook watershed, including the HUC 14 area in which this project is located as Category One (C1) because of its drinking water resource value, providing drinking water to over 300,000 Monmouth County residents. There are rigorous anti-degradation standards associated with the C1 designation, thus

the vigorous county-wide opposition to this project. While other uses will compromise this C1 area, none will be on the scale that will affect the area to the degree of this proposed project. Because this project is located in a C1 area, it should be rejected. (3)

4. COMMENT: The WQMP Amendment, and with it the proposed NPDES-DGW Permit, should not be granted - on the basis alone that the Yellow Brook will not be able to meet water quality requirements with the construction of Colts Neck Manor and the various sources of contamination that will come from this development. NJ Administrative Code Regulations for C1 Streams require that the existing water quality in Yellow Brook be maintained (N.J.A.C. 7:9B-1.5 (d)2ii). It is clear that the C1 requirements of the Yellow Brook and its tributaries, which is the key source of the drinking water of the Swimming River Reservoir cannot be maintained with the proposed development. (9, 11, 12, 14, 17)

5. COMMENT: For Monmouth County, the C1 Yellow Brook and its tributary are critically important to retaining the quality of Monmouth County's drinking water and the WQMP correspondingly mandates that the waters of the Yellow Brook NOT be degraded. The commenters' concerns focus on the water quality of the Yellow Brook and the Swimming River Reservoir. (9, 12, 14, 17)

RESPONSE TO COMMENTS 1 THROUGH 5: . The commenters are correct that Yellow Brook is classified as a C1 waterway, pursuant to the New Jersey Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B, and is in the vicinity of the site location.

The technical report submitted with the subject modification for the NJPDES permit application included a hydrogeological investigation. The hydrogeological investigation included a mounding analysis which used transmissivity and the most restrictive soil horizon within the disposal area to demonstrate the lateral extend of the mound and the impacts to nearby surface water bodies, specifically the Yellow Brook waterway. The mounding analysis was accompanied by a map depicting the lateral extent of the elevation of the mound and the ground water displacement during a simulation of the mounding. These calculations concluded that the mound reached 0 feet by the time the lateral movement of ground water reached the Yellow Brook waterway. These reports were signed and sealed by Christian Roche, P.E. and Gerard Fitamant, P.E. of Langan, dated August 31, 2021, and last revised November 22, 2021. Based on this assessment, it was determined that the property was capable of infiltrating the expected daily volume of sanitary effluent and the ground water elevation returned to its pre-construction level prior to reaching the property line.

The proposed system will include treatment to meet Ground Water Quality Standards (GWQS) at the point of discharge. Therefore, there are no anticipated water quality impacts based on the projected volume of discharge from the proposed development.

The subject NJPDES DGW permit is for sanitary wastewater discharges from a residential development to ground water via subsurface sewage disposal systems. The nature of the discharge authorized under the NJPDES permit is the same as the discharge from other residential dwelling units. The discharge of non-sanitary wastewater is not authorized by the NJPDES permit. All sanitary wastewater from the property is conveyed to an onsite wastewater treatment plant and treated for typical sanitary parameters prior to being discharged to multiple disposal fields for infiltration. As is required in other sanitary discharge permits, the proposed permit includes a requirement for an annual volatile organic scan to ensure that non-sanitary discharges are not occurring. The discharge of non-sanitary wastewater is a violation of the NJPDES permit. See Response to Comments 15 through 28 for further information.

The Bureau of Freshwater and Biological Monitoring within the Division of Water Monitoring and Standards and Pesticides Control conducts ambient monitoring of waterways throughout the state. Information regarding this monitoring can be accessed through the following webpage:

https://njdep.maps.arcgis.com/apps/MapSeries/index.html?appid=198fca0cf1114eb785f2b9b2a8e10523. Questions regarding the Bureau of Freshwater and Biological Data Inventory can be directed to (609) 292-0427.

Disposal Beds

6. COMMENT: The proposed septic field beds will be covered by asphalt to accommodate parking lots. There is concern should heavy emergency vehicles be parked on top of them and crush them. Will all the fragile and buried acres of Storm Water Vaults and Treated Effluent Disposal Field Structures**,** installed under the asphalt, fail over time. sending massive amounts of unrestrained contaminated water to dump into and gouge the stream? (7, 9, 12, 14, 15, 17)

RESPONSE: The subject NJPDES DGW permit identifies the minimum disposal field area that must be provided for the estimated maximum daily volume of sanitary wastewater that will be generated on the property based on the anticipated use. The location of the disposal fields is proposed by the applicant and reviewed by The Bureau of Environmental, Engineering and Permitting (BEEP) during the TWA application process as described previously. BEEP will be reviewing the size and location of disposal fields through the TWA process. All approvals must be in conformance with the requirements set forth in the NJPDES regulations, N.J.A.C. 7:14A. Disposal fields that are located under pavement must have a rated capacity that can handle the weighted load. A TWA will only be issued if BEEP determines that the disposal field will be adequate to dispose of the estimated volume of sanitary sewage generated as approved under this NJDPES DGW permit.

The system design is required to be signed and sealed by a licensed Professional Engineer. The design shall incorporate considerations for the load rating for the portions of the system located under pavement. This includes the daily usage as a paved area for parking and driving. Once approved for construction through issuance of a TWA the installation of the disposal fields shall be conducted under the direct supervision of a licensed Professional Engineer. Upon completion of construction, a licensed Professional Engineer shall certify that the system was installed in accordance with the approved plans identified in the TWA.

Additionally, there are requirements for post-construction inspections and monitoring of the system to detect any evidence of malfunctioning. Please see the Response to Comments 7 and 8 below for detailed information regarding these post-construction inspection and monitoring requirements.

7. COMMENT: This plant's disposal beds will be placed underground. This has not been done in New Jersey with such large quantities of effluent distributed to varying sized disposal fields under large areas of pavement. This is a system in which the design inadequacies could result in the failure of the project. Inadequate parking leads to parking over discharge beds. There are no real backup alternatives if the sewage treatment plant fails that would prevent overflow of sewage on the property and down the slopes. (15)

8. COMMENT: Putting a waste management system under blacktop is insane, especially since I'm not sure if it has ever been done before or on such a large scale. The site also contains clay soil which doesn't percolate well. (20)

RESPONSE TO COMMENTS 7 AND 8: The Bureau of Environmental, Engineering and Permitting (BEEP) reviews all treatment system design proposals. Any Treatment Works Approval issued by BEEP for the location, design, installation and construction of the

treatment system will account for onsite conditions. The proposed system will only be approved if it has been deemed capable of treating and disposing of the estimated volume of sanitary sewage in a manner that is protective of human health and the environment.

The immediate and surrounding area of the disposal systems shall be inspected on, at least, a weekly basis for evidence of malfunctioning. Such evidence includes, but not be limited to, breakout, ponding, wet areas, odors and an overabundance or loss of vegetative cover. If there is damage to any component of the system, it will likely be revealed during required inspections. The permittee shall keep detailed records of these inspections which shall be made available to the Department upon request. See Response to Comments 6, 7, and 13 for further information regarding maintenance requirements.

In order to enhance the identification of malfunction, the NJPDES permit has been modified between draft and final permit issuance to require a minimum of three (3) piezometer wells representative of 3 separate disposal areas onsite to ensure a minimum of two (2) feet of unsaturated soil is maintained during all periods of discharge between the highest elevation of the mounded ground water table and the infiltrative surface. The piezometer wells shall be installed as close to the downgradient edge of each disposal area as is possible and be inspected on a monthly basis to determine the maximum ground water elevations encountered by the mounded ground water table underneath the recharge area. In the event that the mounded water table is within two (2) feet of the infiltrative surface,

which may be indicative of disposal field malfunction, the permittee shall immediately implement corrective measures that shall be outlined in the O&M Manual to re-establish the required unsaturated zone.

Part IV, Discharge to Ground Water, Section A.2 of the final NJPDES permit has been modified to include the requirement for the installation of a minimum of three (3) piezometer wells.

9. COMMENT: The segmented layout of the massive system's disposal field is of concern. Because of site conservation easements, the disposal field is not proposed to be contiguous; instead, it is proposed as 12 segments of unequal size, with some portions buried under parking lots of the Colts Neck Manor complex. Monitoring and maintenance of this complex arrangement are a concern. Overloaded segment remediation may be difficult without severe dislocation to residents, and replacement may not be feasible because of site environmental constraints. (9, 12, 14, 17)

10. COMMENT: Does the developer's engineering team have a system to monitor each segment because each of those segments operate independently of one another and you can have part of the field working properly, and another part not working properly. How

do you repair it? If a segment is damaged, particularly those that are under paved areas, what are you going to do to replace it? It was segmented because the site is constrained, so the implication is that you do not have a lot of different options for putting in another segment or two. The developer should be forced to address these issues because this may operate very well for a couple of years but down the road this could become a maintenance nightmare. (9, 14)

RESPONSE TO COMMENTS 9 AND 10: In accordance with the requirements of the subject NJPDES DGW permit, an Operation and Maintenance (O&M) Manual is required to be prepared within 60 days prior to commencement of discharge. The O&M Manual shall include a schedule of maintenance and inspections for the treatment and disposal system. This shall include a listing of pollutants generated and a program for maintenance of all components of the system. The manual must also include an assessment of emergency situations which affect the discharge activities and provide detailed procedures for addressing and correcting these emergency situations. Hydraulic failure resulting from damaged components, including those under paved areas, are emergency situations that must be addressed in the O&M Manual.

The Bureau of Environmental, Engineering and Permitting (BEEP) will be reviewing the size and location of disposal fields through the Treatment Works Approval process. All

approvals must be in conformance with the requirements set forth in the NJPDES regulations. Components of a disposal field that are placed under parking lots must have a rated capacity that can handle the weighted load. In addition, it will need to be established to the satisfaction of BEEP that the system, as designed, can be adequately operated and maintained. This would include ensuring continued infiltration of the bed and access to all components of the system that need maintenance. The TWA application must sufficiently address these concerns.

11. COMMENT: The test borings done for the original contiguous field are not aligned with the final segmented layout being proposed. Each segment would have to be analyzed for suitable soil percolation and monitored. Test soil borings are not aligned with segment locations. Can the results from the old test locations be extrapolated to the new locations for the segmented disposal field beds? (9, 12, 14, 17)

12. COMMENT: Because design of the disposal field evolved between March 28, 2021, and December 27, 2021 from contiguous to distributed, soil borings for each segment could not have been done by the “legacy” deadline (March 2, 2021). The application should not have been considered “technically complete” without these borings. Therefore, this application did not meet the March 2, 2021, deadline to be exempted from provisions of the N.J.A.C. 7:8 Stormwater Regulations. (9, 12, 14, 17)

RESPONSE TO COMMENTS 11 AND 12: A subsurface investigation was conducted in April and May of 2021 under the full-time supervision of a Langan field engineer for the proposed modification. The subsurface investigation consisted of eight (8) borings, twelve (12) test pits, one (1) test well, and two (2) monitoring wells. In addition, field percolation testing was performed as part of the geotechnical investigation, as well as an assessment of shallow groundwater conditions within the planned disposal field areas. This assessment was conducted in connection with the proposed design of the facility and the construction of a disposal system at the site. This assessment focused on characterization of the overburden aquifer in terms of soil composition, depth, and on estimation of the transmissivity/hydraulic conductivity underlying the disposal fields. The results of the subsurface investigation along with the soil investigation report submitted for the original approval provided the information necessary to determine adequate locations for the proposed disposal fields. The original approval located the disposal field adjacent to Route 537, while the proposed modification distributes the disposal fields in several onsite locations. The current geotechnical investigation focused on obtaining additional soil information on the remainder of the proposed project area. Therefore, the geotechnical information submitted to the Department during the original approval and additionally as part of this modification provides a representative overview of the soil profile of the property. Based on these Technical Design

Reports, the Department determined that the disposal fields are proposed in acceptable locations.

Any evolution of the design of the disposal fields is not related to compliance with the Stormwater Management rules. Please see Response to Comment 53 for an explanation of the applicability of the green infrastructure amendments to the Stormwater Management rules.

13. COMMENT: Given the physical features of Colts Neck Manor's site (shale shelves underground, dispersal field segments within a short distance of C1 Yellow Brook), it is reasonable to believe that lateral movement of wastewater effluent as it percolates into the ground will provide a steady path for wastewater to enter C1 Yellow Brook. (22)

14. COMMENT: The developer's engineers found a slanted, semi-pervious layer about 15 feet underground. Interestingly, that layer is very difficult to penetrate. So, the discharge to groundwater would not be able to permeate down to the aquifer level. That semi-impervious layer is tilted toward the brook. So, you could imagine effluent that's not been properly filtered actually collecting on that kind of hard pan that's underground and streaming toward the brook, probably coming out on the hill side above the brook and

going down into the brook. It wouldn't be easy to discover that unless you have very detailed monitoring for each of those segment sites. (14)

RESPONSE TO COMMENT 13 AND 14: A subsurface geotechnical investigation was performed on the property. The investigation observed ground water between 14.25 feet (ft) and 15.33 ft below surface. During the subsurface investigation, a layer containing cemented sand or cemented sand with silt and clay pods was observed at an elevation below the observed ground water levels. In addition, transmissivity for the proposed disposal field area soils was estimated to be 224 to 431 ft^2/day and averaged about 288 ft^2/day. Therefore, the aquifer testing confirmed that the transmissivity for the proposed disposal field area soils is adequate to further treat and dispose of the estimated volume of sanitary sewage for the project.

Drinking Water

15. COMMENT: Drinking water is a vital resource which we can no longer afford to take for granted. The dispersal to ground of more than 70,000 gpd of wastewater effluent, particularly at a site that provides a path for it to enter C1 Yellow Brook, a tributary of the Swimming River Reservoir, is unconscionable. Approximately 300,000 residents of Monmouth County receive their drinking water from the Swimming River Reservoir. (22)

16. COMMENT: The commenter expresses concerns about the Swimming River Reservoir's water quality and water quantity. (11)

17. COMMENT: The commenter states there is already terrible water in Colts Neck. The commenter requires expensive water systems for their whole house and septic tanks that cost $40,000 and up. (10)

18. COMMENT: Substances will find their way into the Swimming River Reservoir because of Colts Neck Manor. (2)

19. COMMENT: There is no justifiable reason to harm the drinking water of 350,000 residents. (2, 4, 5)

20. COMMENT: More impervious surface results in both more pollutants in the water and less water going into our reservoir. The proposed Colts Neck Manor will have 14 acres of impervious surface, according to the testimony given at the July 13th public hearing. The Colts Neck Manor development, with 14 acres of impervious coverage, will move us in

the wrong direction, and threatens the drinking water of Monmouth County residents who rely on the Swimming River Reservoir. (6, 7, 12, 13, 15, 19)

21. COMMENT: There is no recognition of the added pollution arising from the increased number of vehicles at the site and the increased traffic on Route 537. (3)

22. COMMENT: The commenter expresses concern about her family regarding the tainted water from Earle [Naval Weapons Station]. The commenter adds that there is a significant financial burden in installing a full house water filter as well as an additional filter for the kitchen. The sheer magnitude of Colts Neck Manor will have a larger impact on the water supply than any other undertaking within the state to date. (18)

23. COMMENT: The commenter expresses concern that Holmdel's water supply will be affected by the proposed Colts Neck Manor project abutting the Yellow Brook, the major tributary to the Swimming River Reservoir. Colts Neck drains "in-line" almost entirely to the Swimming River Reservoir for which it provides two thirds of the stream flow. It is the NJDEP's responsibility not to foist this poor decision on the 300,000 Monmouth County residents who are dependent on the Swimming River Reservoir. (15)

24. COMMENT: How do we protect our critical water supply -- especially in the face of more hot weather, erratic weather patterns with storms of increasing intensity where precipitation runs off instead of infiltrating into the soil and recharging both groundwater levels and aquifers we depend upon for base flow? This is what keeps streams running during dry spells and transports water down to charge aquifers so residents on individual wells can provide for their water needs. We also must keep recharging the deep aquifers that were subject to saltwater intrusion and led to being acknowledged as Critical Water Supply Area # 1 in NJ. These are the aquifers our water purveyors rely on also to provide residents' water needs**.** (11, 15)

25. COMMENT: Colts Neck constitutes two-thirds of the watershed and also provides two-thirds of the water that fills the Swimming River reservoir. Decisions were made at all levels of government that residents should continue on private wells and septic systems in this formerly rural and agriculturally significant area. This includes farms in Farmland Preservation and there are easements to protect prime agricultural soils on other properties in town. (15)

26. COMMENT: The commenters' objections to the proposed amendment center on the development of an environmentally sensitive site bounded by Yellow Brook, a C1 Tributary of the Swimming River Reservoir complex that serves more than 300,000 residents of eastern Monmouth County with their drinking water. Yellow Brook is one of nine tributaries of the Swimming River Reservoir and important part of the Colts Neck watershed that provides 2/3 of the reservoir's water supply. The reservoir is part of a major and sustained effort by the NJDEP to offload the aquifer system of central Jersey designated "Water Supply Critical Area 1" from chronic overuse by the growing populations of Middlesex, Monmouth, and Ocean counties. Importantly, water supplied to Swimming River Reservoir is surface water and Yellow Brook's contribution to this supply is vitally important to continued success in mitigating drawdown of aquifers comprising Critical Area 1. (9, 11, 12, 14, 17)
27. COMMENT: The watershed is a vital resource of drinking water to more than a dozen towns that are all east of Colts Neck and that depend on the Swimming River Reservoir. (5, 14, 16, 19)

28. COMMENT: New information included in the proposed NJPDES-DGW permit reveals that the "clear" effluent from the Amphidrome Treatment Plant proposed for the Colts Neck Manor site WILL contain Fecal Coliform Bacteria above the DEP compliance threshold. The effluent could additionally contain a variety of toxic and carcinogenic

chemicals to be released into disposal fields on-site and allowed to enter the groundwater and the aquifer below. When this material, including Fecal Coliform Bacteria, is intercepted by groundwater layers, which flow toward Yellow Brook, then these toxins will migrate into Yellow Brook and flow directly to the Swimming River Reservoir, along with other stormwater contaminants entering Yellow Brook and the Reservoir. (9, 10, 14, 17)

RESPONSE TO COMMENTS 15 THROUGH 28: The NJPDES regulations, N.J.A.C. 7:14A, establish the regulatory framework upon which the Department regulates the discharge of pollutants to the surface and ground waters of the State. In accordance with these regulations, sanitary wastewater discharges to ground water greater than 2,000 gallons per day require authorization under a NJPDES discharge to ground water permit. The purpose of the NJPDES discharge to ground water permit is to restore, enhance, and maintain the ground water quality of the State.

The NJPDES permit establishes a system of controls designed to protect underground sources of drinking water. The goal of the permit is preventative and includes requirements to ensure compliance with the Ground Water Quality Standards (GWQS) at N.J.A.C. 7:9C. Specifically, the Department's standard sanitary wastewater parameters have been included in the NJPDES permit in the form of monitoring requirements and limits in Part III of the

NJPDES DGW permit. The permittee is required to monitor for flow rate, total nitrogen (as NO3 + NH3), pH, Fecal Coliform, and twenty-four (24) individual volatile organic compounds. Additionally, the permit contains discharge limits for flow and total nitrogen. Further, bacterial indicators such as fecal coliform should be addressed via the proposed advanced wastewater treatment system.

The permit further requires that if any volatile organic compound (VOC) is detected above the Reporting Limit but below the Compliance Quantity Limit (that is the GWQS), the permittee is required to investigate and eliminate the source of the VOC. Similarly, if any VOC is detected above the Compliance Quantity Limit, the permittee must notify the Department and the Department will take further action as determined necessary, which may include increased monitoring, location and removal of the source, or implementation of measure to ensure contamination of the system will not occur.

The Permittee is also required to install three (3) piezometer wells for the purpose of monitoring the depth of ground water from the infiltrative surface of the disposal field. This is to ensure there is adequate unsaturated soil between the disposal system and the water table in order to provide additional treatment via the ground.

Lastly, as to flow, the NJPDES permit imposes a maximum discharge limit of 71,250 gallons per day (GPD) and requires the use of a “continuously recording flow measuring device” to monitor the NJPDES permit condition. In accordance with Part IV of the NJPDES

DGW permit, Discharge to Ground Water, A.1.k., the discharge of non-sanitary waste is not authorized and is a violation of the NJPDES permit.

FHA Permit Issues

29. COMMENT: The Flood Hazard Area (FHA) permit was issued in 2006 for a much smaller development, yet the Monmouth County ARC and the Planning Board passed the resolution recommending the amendment apparently without addressing the fact that the three shallow detention basins reflect the 48 unit townhome development and not the 360 unit apartment complex. (15, 17)

RESPONSE: The 2006 FHA permit has expired. A new Flood Hazard Area permit (file number 1309-02-0008.2 LUP210001) was issued for the construction of a residential development, along Yellow Brook, tributary to Yellow Brook, and an unnamed tributary to Yellow Brook, within lot 18 of Block 22, in the Township of Colts Neck, Monmouth County on July 1, 2021. The Program reviewed the plan prepared by Langan Services, Inc., entitled SITE PLAN OVERALL, dated February 24, 2021, last revised May 16, 2022, and it appears that the project design is the same as the one approved under the current valid FHA permit, issued July 1, 2022.

30. COMMENT: The September 9, 2021, Project Amendment (to the 2020 Settlement Agreement with Colts Neck) proposed by the developer changed water source input from well to municipally supplied, and wastewater treatment from municipal to on-site package plant, a *complete reversal* of the July 1, 2021 NJDEP FHA Permit extension assumptions of on-site well-water supply and municipal sewer for wastewater treatment. This substantially changed the flood risk profile of the site. The applicant should either be required to adhere to the original project guidelines, which included connecting to a public wastewater system, or the permit should be voided and applicant required to re-apply under guidelines of its September 9, 2021, Project Amendment. (9, 12, 14, 17)

RESPONSE: First, to clarify, the FHA permit issued July 1, 2021 (file number 1309-02-0008.2 LUP210001) was a new permit, rather than an extension of any previous approval. Second, the NJDEP Watershed & Land Management Program reviewed the project for compliance with the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and the Stormwater Management Rules (N.J.A.C. 7:8.) These rules do not specify whether the permittee has to provide wastewater treatment onsite or require any particular source of drinking water for a project. However, the plans reviewed by the Department for the Flood Hazard Area Permit approved on July 1, 2021 show the project obtaining drinking water from onsite wells with a treatment system and utilizing the Amphidrome onsite wastewater disposal system. It is

unclear to the Department how changing from the use of well water to municipally supplied drinking water would change the flood risk profile for the site. However, if the change results in any additional regulated activities within the flood hazard area or riparian zone, a modification to the FHA permit or a new permit would be needed.

31. COMMENT: The commenters have great concerns about the Flood Hazard Area permit renewal granted July 1, 2021. The permit states "the permittee shall immediately inform the Department of any unanticipated adverse impacts effects on the environment not described in the application... The Department may, upon discovery of such unanticipated adverse effects...notify the permittee of its intent to suspend the permit." On September 9, 2021, the Applicant requested that Colts Neck grant a major amendment to its 2020 Settlement Agreement with Colts Neck Township, in which the Applicant substituted a package wastewater plant on-site for public sewer service. This substitution exposes the site to major environmental impacts and risks, to which the DEP was not informed. The commenters believe this exposure to adverse effects should trigger a suspension and new review of the Flood Hazard Area permit. (9, 12, 14, 17)

RESPONSE: A suspension and the new review of a Flood Hazard Area Permit would be required if the Department determines that the applicant has modified the project such that

it meets one of the scenarios outlined under N.J.A.C. 7:13-22.7(a) for the suspension of a verification, an authorization under a general permit, an individual permit, or an emergency authorization. However, as noted in the Response to Comment 30, the FHA approval granted July 1, 2021 already included the use of the Amphidrome onsite wastewater disposal system. Since it was approved by the Department, its use does not warrant the suspension of the FHA permit.

PFAS

32. COMMENT: Approval of the requested Amendment would represent a complete disregard for resident wellbeing. PFAS prevalence in our environment is not an excuse to overlook the fact that the more PFAS we add to our drinking water, the worse the impact to public health (by way of developmental and endocrine afflictions and cancers of the thyroid, liver, and kidney.) Tax dollars are allocated for massive cleanup of admittedly dangerous substances while permits which will necessitate repeated future cleanup continue to be issued. (22)

33. COMMENT: PFAS are coming to the forefront and many of us have never heard of it. Are PFAS being considered as part of this application? (20)

34. COMMENT: New EPA studies make it clear – immeasurable amounts of PFAS in drinking water will afflict our children over time; it is associated with serious conditions and terminal diseases, including cancers, too numerous to set out here. (2)

35. COMMENT: Many people are concerned about the issue of PFAS because they are dangerous chemicals, and we face PFAS contamination because of the density of this project and the PFAS being released into the wastewater from the proposed project. (12)

RESPONSE TO COMMENTS 32 THROUGH 35: Per-and polyfluoroalkyl substances, or PFAS, are a large family of manmade chemicals that have been used in industrial and commercial applications for over 70 years. In 2020, following the adoption of GWQS for Perfluorononanoic acid (PFNA), Perfluorooctanoic acid (PFOA), and Perfluorooctanesulfonic acid (PFOS), the Department began requiring a pollutant characterization for these three Per-and polyfluoroalkyl substances (PFAS) in new NJPDES DGW permit applications for individual subsurface disposal systems such as this system. The proposed facility has not yet been built and thus has yet to commence discharge under the existing NJPDES DGW permit. As such, and in accordance with the foregoing, the Department determined it appropriate to require a full technical report, which included pollutant characterization of the ground water for PFNA, PFOA and PFOS as well as other parameters. The request for additional analytical data

is to ensure conformance with the GWQS as part of the application process and is allowable under N.J.A.C. 7:14A-6.2(a)14 and N.J.A.C. 7:14A-16.4(b) as the request for modification constituted new information. As a result, the application submitted to the Department for modification included analytical monitoring results for PFNA, PFOA and PFOS for consideration as part of the application review. These results were below their respective GWQS. This project is for a residential development on a previously undeveloped plot that is proposed to discharge typical sanitary wastewater and is thus not anticipated to be a major source of PFAS. PFAS typically originates from manufacturing processes related to industries such as petroleum stations and terminals, chemical manufacturers, commercial printers, plastics and resin manufacturing sites, paint and coating manufacturers, semiconductor manufacturers, makers of metal products and electrical components, and electroplating and polishing.

State Planning Areas/NJ State Development and Redevelopment Plan

36. COMMENT: This site is designated as in Planning Areas 4B and 5 in the State Development and Redevelopment Plan (SDRP). These designations reflect the presence of agricultural soils meeting the delineation criteria for PA 4B and their location in a potable water supply watershed which is a criteria for PA5. (3)

37. COMMENT: Mount Laurel NJ Supreme Court decision states that all of the low and moderate income housing be built in "Growth" areas designated by the SDRP. The only areas of the SDRP that can be considered "Growth" areas are located in PA1, PA2, or designated State Plan Centers. This site is in PA4B and PA5. Because this project will not be located in one of these Growth areas, it should be rejected. (3, 11)

38. COMMENT: The Fair Housing Act and the State Development and Redevelopment Plan (State Plan) together sought to protect this watershed by directing housing densities to other areas not mapped as environmentally sensitive through a complicated Cross Acceptance process and agreed to by the public, municipalities, county governments and the NJDEP at the time. (15)

39. COMMENT: All of Colts Neck is correctly designated PA 5 Environmentally sensitive or 4-B Prime agricultural lands where high density development should not be permitted in order to protect both surface water and ground water sources. The location of affordable housing should not be in competition with the need to protect essential resources. Page 279. State Development and Redevelopment Plan (SDRP.) (7, 11, 15)

40. COMMENT: The DEP has also invested in protecting this reservoir and its watershed. Through the Cross Acceptance Process of the State Plan, Colts Neck was mostly mapped with State Plan Mapping designations of Planning Area 4-B (prime agricultural soils & sensitivity) and PA 5 (environmentally sensitive). This was all part of an effort to protect the water quality and quantity of the water that flows to our reservoir by limiting both the density of housing and the increase of impervious surfaces. (15)

RESPONSE TO COMMENTS 36 THROUGH 40: The SDRP is a non-regulatory document with its goals being implemented through other programs. While the WQM Planning Rule supports implementation of the SDRP, t the WQMP rules do not restrict the delineation of sewer service areas in PA 4B and PA 5 state planning areas with the exception of CAFRA Coastal Fringe, Coastal Rural, and Coastal Environmentally Sensitive Planning Areas, pursuant to N.J.A.C. 7:15-4.4(f). The proposed project is not located within the CAFRA area and thus there is no restriction in the WQMP rule strictly based on SDRP PA 4B or 5 any of the aforementioned state planning areas.

Stormwater and Stormwater Management System

41. COMMENT: Environmentalists believe the stormwater management system (designed in 2006 for 48 townhomes that were never built on this site) cannot accommodate the large amount of runoff which will result from the great amount of impervious coverage at Colts Neck Manor. Detention basins designed for the smaller development are dangerously undersized for today's Colts Neck Manor, but this arrangement is being considered because the detention basins cannot be enlarged. If the site cannot accommodate the development, the development plans must be changed or the development should be built on another site. (22)

42. COMMENT: Storm vaults are being proposed for Colts Neck Manor, but these vaults do not provide for disbursement of stormwater to ground. Severe storms would fill these vaults only to have them overflow into the aforementioned undersized detention basins. Resulting runoff would carry automobile and roadway chemicals into the Yellow Brook tributary. The tributary, the Swimming River Reservoir and, ultimately, the drinking water of many towns would be contaminated with dangerous substances. (22)

43. COMMENT: The greater impervious surface will require much more intense engineering and the use of underground stormwater vaults which will not be able to capture all stormwater in current precipitation events. This site is so densely filled with parking lots

and buildings that there is no room for the storm water detention and water quality basins to be placed, utilizing a legacied 2006 permit for the original 48 townhouses, into the 300 foot DEP required C1 stream protection buffer. (7, 9, 15)

44. COMMENT: The Stormwater Management system for this site is not in compliance with NJDEP or the town's Stormwater Regulations. The steep slopes, wetlands, and stream corridor all lie in a buffer that is not to be disturbed. The added impervious surface must comply with current Best Management Practices. The site engineers are trying to avoid complying with Best Management practices through complicated engineering devices requiring rigorous and meticulous maintenance. Is this what we want to allow in a critical and degraded stream corridor that is one of the most important ones to serve our already degraded and threatened Swimming River Reservoir? (7, 11, 15, 17)

45. COMMENT: With much greater impervious cover than the previously proposed 48-townhome project for the site, this proposed development would greatly add to downstream contamination from vehicular drippings and road salt. Greater projected precipitation combined with under-sized basins, would lead to scouring and formation of silt in downstream wetlands, increasing the frequency and severity of flooding. Runoff would flow into a small stream bed that is currently fed mostly by a culvert that passes

under the Rt. 537 roadway, to carry roadway runoff as well as water from properties (notably, Colts Neck High School) on the south side of Rt. 537.

46. COMMENT: Because of its expected high flow rate over this gradient, the additional runoff caused by the large amount of impervious coverage would likely cause significant erosion of the slope – leading to much greater silting of the downstream C1 waterway. The combined effects of stormwater runoff from the development itself as well as proposed widening of Rt. 537 would greatly change the character of this portion of Colts Neck watershed and endanger quality of the C1 waterway. (6, 9, 11, 12, 14, 17)

47. COMMENT: Other concerns include the historic propensity of Yellow Brook to flood and the probability for major flooding in the future. With this projected increase on the proposed development site, we expect contaminated waters from parking lots and roadways associated with the construction of Colts Neck Manor (including the widening of Rt. 537), to enter the ecosystem of the C1 Yellow Brook and its tributary. Failure in the design of the stormwater management system to deal effectively with both routine and major storm runoff and the high risk of failures in the on-site Amphidrome Package Treatment Plant and its associated disposal fields, all increase dangers of a major contamination event for Yellow Brook and the Swimming River Reservoir. (9, 12, 14, 17)

48. COMMENT: State regulations require that Yellow Brook, because of its C1 status, must have its water quality maintained. How is this feasible when the detention basins for runoff are constrained to their original size as calculated for the 48-townhome development?

    Although the developer proposes underground concrete "storm vaults" to buffer stormwater, these become ineffective during prolonged, intense storms that Cornell University studies predict will become more frequent in the future. In these conditions, the buffering capability of the vaults is overcome by the continued influx of intense rainwater. At that point, they simply become "flow-through" mechanisms. As a result, when needed most, they become least effective…and the under-sized detention basins will then be subjected to massive scouring. Silt resulting from this action will, on a periodic basis, continue to build up in downstream wetlands – causing greater flooding and damage to nearby properties. (9, 12, 14, 17)

49. COMMENT: More impervious surface results in both more pollutants in the water and less water going into our reservoir. The proposed Colts Neck Manor will have 14 acres of impervious surface, according to the testimony given at the July 13th public hearing. The Colts Neck Manor development, with 14 acres of impervious coverage, will move us in

the wrong direction, and threatens the drinking water of Monmouth County residents who rely on the Swimming River Reservoir. (6, 7, 12, 13, 15, 19)

50. COMMENT: There is no recognition of the added pollution arising from the increased number of vehicles at the site and the increased traffic on Route 537. (3)

RESPONSE TO COMMENTS 41 THROUGH 50: During the Department's review and subsequent approval of the new Flood Hazard Area Permit in 2021 (file number 1309-02-0008.2 LUP210001), the Department reviewed the stormwater management system for the revised larger development plan and determined that it complied with the Stormwater Management rules at N.J.A.C. 7:8. The proposed plan includes several subsurface basins and manufactured treatment devices (MTDs) as well as some existing on-site basins to meet the requirements of the Stormwater Management rules at N.J.A.C. 7:8.

The stormwater from the site was approved to discharge at two separate points. At the first point of discharge, the stormwater during the Water Quality Design Storm will be treated by hydrodynamic separation type MTDs, followed by extended detention (which provides water quality treatment by settling), and then is discharged into an infiltration basin, where the stormwater is infiltrated into the ground such that there will be no discharge to the Yellow Brook or its tributaries during the Water Quality Design Storm. This exceeds the

Stormwater Management rule requirement to provide 80 percent total suspended solids removal. At the second point of discharge, the stormwater is treated with a filtration type MTD that provides the required 80 percent total suspended solids removal. As such, the approved design will provide sufficient water quality treatment to meet the standards of the Stormwater Management rules.

The Department also determined that the average annual groundwater recharge across the site would not be reduced as a result of the project, when considering the effects of the proposed stormwater management system. The Department further determined that the peak flowrates of stormwater runoff leaving the site for the 2, 10, and 100-year storms will be reduced from existing conditions by at least 50%, 25%, and 20%, respectively, for those three storm events. Further, in order to prevent overflows resulting from several rain events in a relatively short time period, the Department requires that all stormwater detention facilities drain within 72 hours.

51. COMMENT: Where will the money come from to maintain this infrastructure for this complex situation with the massive stormwater vaults under parking lots with the massive disposal beds under the parking lots, when they start failing? (15)

RESPONSE: The Stormwater Management rules at N.J.A.C. 7:8-5.8(b) require the development of a maintenance plan that outlines the specific preventative maintenance tasks and schedules required for the proposed stormwater management system. As part of the approval of the FHA Permit, the applicant submitted the required plan to the Department, which was reviewed and approved. The plan identifies Colts Neck Building Associates, LLC as the entity responsible for the maintenance activities. As such, Colts Neck Building Associates, LLC is currently financially responsible for the required maintenance. However, it should be noted that it is commonplace for the developer to transfer those responsibilities to a homeowners' association after construction of the project is completed. If transferred, it would be the financial responsibility of the homeowners' association to ensure that the required maintenance is performed.

52. COMMENT: Considering the recent increase of erratic weather and storm intensity, this project should be subject to the updated stormwater regulations. (7, 15, 17)

RESPONSE: The Department's Flood Hazard Area and Stormwater Management rules require that applications received on or after July 17, 2023 be designed to comply with the new Inland Flood Protection Rule, which includes the use of updated and future projected rainfall. Since

the currently effective Flood Hazard Area Permit for Colts Neck Manor was received and approved by the Department in 2021, it is not subject to these updated requirements.

53. COMMENT: There was a failure to apply Green Infrastructure Stormwater Practices even though the application was Not Technically Complete (and hence "legacied") at the time the new stormwater regulations went into effect. (9, 12, 14, 17)

RESPONSE: The Flood Hazard Area Control Act Rules define the term technically complete at N.J.A.C. 7:13-2.1. Pursuant to these rules, "'technically complete' means that each item included in an application for a verification, an authorization under a general permit, or an individual permit provides sufficient information for the Department to declare the application complete for review." Furthermore, N.J.A.C. 7:13-21.2 provides the Department with 20 working days after receiving an application to conduct the completeness review. Within this timeframe, the Department determined that the applicant submitted sufficient information for the review to proceed. Because the application was received prior to the operative date of the 2020 Stormwater Management rules, and because the Department determined that said application was complete for review, it was not subject to the green infrastructure standards.

STP – Malfunctions, Maintenance and Repair Issues

54. COMMENT: The approval of the Amendment would greatly increase the risk of catastrophe in the event of a malfunction of the on-site wastewater system or its segmented disposal field. Such failure seems more likely in light of the fact that this system has not previously been installed (on other sites) as it will be at Colts Neck Manor. (22)

55. COMMENT: Who pays for any failures of the on-site wastewater system or its segmented disposal field, now or in ten years? Certainly it should not be the tax payers of Colts Neck, Monmouth County or State of New Jersey! If Colts Neck Manor has confidence in this and installs it, they should put up a hefty bond to cover repairs, damages, health claims--a long term bond, of at least 30 years. (20)

56. COMMENT: The type of septic system proposed for Colts Neck Manor has only been implemented, perhaps 12 times. This resident of Colts Neck is concerned over it meeting standards. (8)

57. COMMENT: Due to the potentially high capacity of effluent that flows through large-capacity septic systems daily, there are strict rules and regulations surrounding their use. Any misstep in the installation process, failure to notice damage that needs repair, or not properly maintaining a large capacity septic system can result in a contaminated water

supply, exposure to harmful bacteria, and damage to the integrity of the septic system installed under a parking lot. Due to the safety hazards that unmaintained commercial septic systems can place on individuals, wildlife and surrounding bodies of water, the septic system must be maintained on a regular basis. I don't recall there being any backup system proposed to address power failures. During Hurricane Sandy many in Colts Neck were without power for a week. How will the more current frequency of the "hundred-year storm", impact drainage as well as the absorption rate of the effluent, on a system installed perhaps 12 times? Large-capacity septic systems require specialized cleaners and equipment to handle the larger amounts of waste buildup in the septic tank. As more and more people contribute to the effluent flowing into the large commercial septic system, buildup within the septic tank will occur at a much faster rate. I don't recall any reference to the type of cleaners to be used or the frequency of maintenance. While pumping can be done on a scheduled basis, there is no justified reasoning, other than to increase corporate profits, to exceed the existing limits on effluent/dirty water discharge in the area. (8, 15)

58. COMMENT: The wastewater treatment system proposed for this site is the largest ever in New Jersey for residential use. The system has two independent failure modes, either of which would subject adjacent Yellow Brook wetlands to major contamination. Because

of its size (71,250 Gallons Per Day of effluent), a prolonged power outage would likely cause an overflow event requiring a massive cleanup operation. Although developer's engineers cite advanced features of the system, when requested by the Colts Neck Planning Board to provide environmental liability insurance in case of a contamination event, the developer's attorney refused to make this commitment. (9, 12, 14, 17)

59. COMMENT: The proposed development site is severely over-engineered with a package plant that will require intensive, long term, costly maintenance, and repair. (7, 15, 19)

60. COMMENT: The Department should look at doing a reliability, sustainability, maintainability, and supportability assessment of the proposed wastewater treatment plant. There's a lot of electromechanical components to the system and if one fails, are there redundancies associated with it? If something fails, do they have a means to quickly get subject matter experts in there to diagnose and repair the problem when an event occurs? (14, 21)

61. COMMENT: The commenters are concerned about the lack of an effective monitoring regime for detecting a variety of toxic and carcinogenic chemicals before they cause a

major contamination event, and the lack of a workable emergency plan for stopping contaminated effluent entering the reservoir if failure were to occur. (9, 12, 14, 17)

RESPONSE TO COMMENTS 54 THROUGH 61: The subject NJPDES permit contains pollutant discharge limits that must be met prior to discharge of the sanitary wastewater to the ground via subsurface sewage disposal systems. Specifically, the Department's standard sanitary wastewater parameters have been included in the NJPDES permit in the form of monitoring requirements and limits in Part III. The permittee is required to monitor for flow rate, total nitrogen (as NO3 + NH3), pH, Fecal Coliform, and twenty-four (24) individual volatile organic compounds. Additionally, the permit contains discharge limits for flow and total nitrogen. Further, bacterial indicators such as fecal coliform should be addressed via the proposed advanced wastewater treatment system.

While the applicant is currently proposing to utilize the Amphidrome System to meet the discharge limits, the permittee has the ability to change the particular treatment system when a Treatment Works Approval (TWA) for construction and operation is applied for. The TWA is required to be obtained after the final NJPDES DGW permit for the project is issued. During the TWA application review process, the applicant must demonstrate to the

satisfaction of the Department that the proposed design will meet the permit limitations and have adequate capacity to treat the permitted volume of sanitary wastewater.

In accordance with the subject permit, an Operation and Maintenance (O&M) Manual is required to be prepared within 60 days prior to commencement of discharge. The O&M Manual shall include an assessment of emergency situations which affect the discharge activities and provide detailed procedures for addressing and correcting these emergency situations. Hydraulic failure and unpermitted discharges are emergency situations that shall be addressed in the O&M Manual. Further, the NJPDES regulations concerning operations and maintenance are incorporated into the NJDPES permit by reference at Part I.A.c.

Pursuant to the Rules and Regulations Governing the Licensing of Water Supply and Wastewater Treatment System Operators at N.J.A.C. 7:10A, the proposed treatment system for Colts Neck Manor will require a licensed operator. A "Licensed operator" means the licensee approved by the Department holding any local title, designation, or job description who is on-site at a system a significant amount of time, although not necessarily full time, and who has active involvement in and is responsible for the operation, and maintenance, and effectiveness of the system and who holds a license equal or superior to that required for the system. The Bureau of Environmental, Engineering and Permitting (BEEP) reviews all treatment system design proposals. During the Bureau of Environmental Engineering and

Permitting (BEEP) review of the TWA application for the proposed system, the treatment system class will be identified, resulting in requirements for the Licensed Operator to possess the appropriate treatment license within the identified system classification. The level of licensed operator will correlate with the amount of time that the Licensed Operator must be physically present to ensure the system's continued functionality.

The Department agrees that regular maintenance of the treatment and disposal systems is essential for the protection of human health and the environment. As such, the NJPDES permit requires weekly inspections of the treatment and disposal systems for evidence of malfunction. In addition, the NJPDES permit has been modified between draft and final issuance to require the installation of a minimum of three (3) piezometer wells representative of 3 separate disposal areas onsite to ensure a minimum of two (2) feet of unsaturated soil is maintained during all periods of discharge between the highest elevation of the mounded ground water table and the infiltrative surface. This is an increase as compared to the requirement for one piezometer well in the draft NJPDES permit. Lastly, as noted in Response to Comment 6, an Operation and Maintenance (O&M) Manual is required to be prepared within 60 days prior to commencement of discharge and shall include a schedule of inspections and maintenance and address emergency situations that may occur

as a result of system malfunction. See Response to Comments 6 and 7 for further information regarding operations and maintenance.

The treatment and disposal systems proposed are required to be sized to treat and dispose of the estimated maximum daily volume of sanitary wastewater that will be generated on the property based on the anticipated use. See Response to Comment 4 for additional information on the Department's calculation of the maximum daily volume.

The permit does not specify particular types of cleaners which may or may not be used, however, the discharge of non-sanitary waste is a permit violation. In addition, the permit includes monitoring for volatile organics with limitations to ensure that chemicals used do not result in a discharge that contravenes the ground water quality standards. An unmaintained treatment and disposal system is a violation of the NJPDES permit's operation and maintenance requirements.

Wastewater Quantity

62. COMMENT: If the Amendment is approved, the amount of wastewater effluent allowed to be disbursed to wetland grounds will have increased 35 times since the NJDEP exception for the Pinelands in the early 2000s. Precedent would be set, and lawsuits threatened by future builders who want to do the same. (22)

63. COMMENT: The proposed system is being asked to handle more population density than is environmentally sustainable. There will be serious negative impacts from handling that amount of wastewater for the number of people that would be living there leading to negative impacts on the Yellow Brook stream and our downstream reservoir. (19)

RESPONSE TO COMMENTS 62 AND 63: The NJPDES Discharge to Groundwater permit action increases the daily maximum design volume from 14,400 gpd to 71,250 gpd. This increase is a result of a modification to the scope of the proposed housing development from 48 single-family homes to 360 residential units. Therefore, the modification to flow accounts for the additional sanitary wastewater generated from the increase in type and number of residential living units on the property. The amendment allows for the continued review by the Department of various permits including the NJPDES and TWA permits. During the NJPDES permit technical review the discharge limits are established to be protective of the environment. During the TWA technical review, the adequacy of the onsite system to handle the proposed flow volume will be evaluated. The Department has determined that the proposed project is in conformance with applicable rules and regulations, and that adequate controls and safeguards are included as part of the permits that will be issued.

64. COMMENT: The commentor has spoken to a retired wastewater management professional from one of the other counties who has managed all the wastewater

treatment systems in that county. He said that the average rule of thumb is a hundred gallons per day (gpd) per person. Therefore, 71,250 gpd is not enough for this proposed development. The Department says 75 gpd per person but he said the rule is approximately 100 gpd per person. (10)

RESPONSE: The NJPDES regulations at N.J.A.C. 7:14A-23.3 establish the projected flow criteria a project shall utilize to calculate the estimated volume of sanitary sewage. Consistent with N.J.A.C. 7:14A-23.3, the estimated volume of sanitary sewage for the proposed project is 71,250 gpd, and was based on the following projected flow criteria:

180 one (1)-bedroom units @ 150 gpd per unit
= 27,000 gpd
165 two (2)-bedroom units @ 225 gpd per unit
= 37,125 gpd
15 three (3)-bedroom units @ 300 gpd per unit
= 4,500 gpd
Club house with 35 residential club members @ 75 gpd per member
= 2,625 gpd

TOTAL = 71,250 gpd

The permit requires continuous flow monitoring and reporting to ensure that the maximum daily permitted flow is not exceeded. If an exceedance occurs, corrective actions to reduce flow generating activities or an upgrade of the treatment system may be required.

NOTE: THIS IS A COURTESY COPY OF THIS PLAN AMENDMENT ADOPTION. THE OFFICIAL VERSION WILL BE PUBLISHED IN THE APRIL 1, 2024, NEW JERSEY REGISTER. SHOULD THERE BE ANY DISCREPANCIES BETWEEN THIS TEXT AND THE OFFICIAL VERSION, THE OFFICIAL VERSION WILL GOVERN.

The proposed Water Quality Management Plan (WQMP) amendment, identified as "Colts Neck Manor" (Program Interest No. 435462, Activity No. AMD230001) also identifies the flow for the facility to be 71,250 gpd. Any expansion of the design flow beyond 71,250 gpd will require a subsequent WQMP amendment and an additional modification to the NJPDES permit.

Sewer service is not guaranteed by adoption of this amendment since it represents only one part of the permit process and other issues may need to be addressed. Inclusion in the SSA as a result of the approval of this amendment does not eliminate the need to obtain all necessary permits, approvals or certifications required by any Federal, State, county or municipal review agency with jurisdiction over this project/activity.

3/6/2024
Date

Gabriel Mahon, Bureau Chief
Bureau of NJPDES Stormwater Permitting and Water Quality Management
Division of Watershed Protection and Restoration
NJ Department of Environmental Protection