3.5.8 Community Sewer Services Comments and Responses

Comment 3.5.8-1: (Letter 2, Steven Neuhaus, Orange County Executive, June 10, 2015):
Wastewater: There is no plan to expand capacities at the KJ Sewer Plant, as overflows from the pump station are routed to the rest of the Orange County collection system for treatment at the Harriman plant (i.e., with the exception of flows from the poultry processing plant, flows to the KJ plant are limited by pumping rates). While there is currently existing capacity at the Harriman plant, a facility study has been commissioned by the County to identify means of increasing treatment capacity within the Sewer District in order to meet projected future flows throughout the District. This expansion is needed with or without the annexation but if the annexation is permitted, the planned expansion may need to increase further. The cost of any potential expansions at Harriman will be borne by the entirety of the sewer district, even though growth rates, and thus treatment capacity allocation, is greater within KJ than other areas of the County. This is not inconsistent with the Orange County Sewer Use Law, nor is it in conflict with general sewer district practices. However, the statement that " ... annexation will not result in negative fiscal impacts to OCSD#1 (pp. 3.5-33 of the DGEIS) is not fully examined or substantiated. With respect to wastewater, growth in the annexation area will result in increased capital costs throughout the District. While these costs may be mitigated by the addition of new users to share the burden, no discussion of this aspect is included in the DGEIS. Both Monroe and Kiryas Joel, as part of determining whether this annexation is in the overall public interest, should quantify the cost of expanding wastewater treatment if the annexation goes through on taxpayers in both Monroe and Kiryas Joel.

> ***Response 3.5.8-1:*** *This comment appears to be directed to the underlying over-all public interest determination on the annexation petition, which is a topic that is outside of the SEQRA review. Growth in the Village of Kiryas Joel is projected to occur at similar rates, with or without the proposed annexation. Village and Town residents and businesses contribute to the Orange County Sewer District #1 (OCSD#1) through taxes and user fees. As new development occurs in the Village, those taxes and fees supporting the District are increased. While the Village comprises one portion of the the overall sewer district, natural growth is occuring throughout the District, as well as in the Moodna communities who rely on the District to provide excess treatment capacity on a contractual basis.*
>
> *Anticipated upgrades to the Harriman WWTP would benefit all municipalities and residents in the Sewer District, as well as the Moodna communities. Based upon past practices, following facility upgrades, OCSD#1 is likely to offer excess capacity to the Moodna communities which will reduce some of the potential fiscal impacts to the District.*
>
> *It is beyond the Scope of the DGEIS to analyze the capital costs for upgrades to the OCSD#1. While population growth and resultant wastewater treatment demand may be greater in the Village than for other municipalities in the District, it remains the responsibility of the District to serve its member communities and their residents.*

Comment 3.5.8-2: (Letter 3, James C Purcell, Village of Monroe Mayor, June 10, 2015):
The wastewater/sewer impacts are largely avoided because the DGEIS assumes that, based on the County's contractual and other obligations to the Village of Kiryas Joel, there is virtually unlimited capacity for wastewater/sewer demands. This is a severely flawed analysis. Whether or not the County has contractual obligations to Kiryas Joel (and other Harriman Sewer District members) does not resolve the issue of the environmental impacts to the Ramapo River. The

failure of the County to expand its wastewater treatment capacity to accommodate the growth anticipated in the proposed annexation properties may give rise to a breach of contract, but it does not resolve the environmental impacts of the capacity of the receiving waters or of the DEC to issue the necessary permits. The DGEIS concludes, without any basis in a study or analysis of data, that "there are no significant impacts to the receiving water body (Ramapo River) as a result of the proposed annexation action." (DGEIS at 3.5-27). There must be additional studies in a SGEIS or in the FGEIS to properly address the biological and chemical ability of the Ramapo River, as the receiving stream for the intended wastewater/sewer demands, to accommodate the significant growth anticipated of almost 20,000 people. Also, the DGEIS must study the wastewater/sewer demands of pending projects within the County sewer district.

Response 3.5.8-2: *The DGEIS adresses the issue of water quality and potential environmental impacts to the Ramapo River (see DGEIS pages 3.5-33 and 3.5-34).*

The 2006 NYSERDA study of the Harriman WWTP found that new technology could be utilized to expand the treatment capacity of the Harriman Plant to 9.0 mgd, and this technology could allow the Plant to meet more stringent future permit effluent standards, thereby improving water quality.[1]

A key consideration for the NYSERDA Study was the ability of the Membrane Bioreactor technology to meet current and future effluent quality standards with the proposed facility upgrades. The study reflects that NYSDEC was consulted to assist in determining the potential future State Pollutant Discharge Elimination System (SPDES) permit effluent limits. The wastewater treatment modeling and simulation done for the NYSERDA Study indicates that the facility upgrades could meet more stringent anticipated SPDES Permit limits. These limits were anticipated based on permits being issued in New Jersey watersheds that are downstream of the facility, permits being issued in other New York watersheds, and classification of the Ramapo River which is designated as a Class A water body as set by the NYSDEC. (See Table 10 of the NYSERDA Study).

In addition, NYSDEC regulates all discharges to the Ramapo River from the plants and it is, therefore, reasonable to expect that NYSDEC has considered the carrying capacity and other potential impacts on the receiving water body. In 2005, the Village added approximately 621,000 gallons of new water supply capacity with the permitting of two wells. Despite such an increase in the Village's water supply and corresponding waste water generation potential, NYSDEC expressly determined in its approvals that this new water supply would have no adverse impact on the Harriman WWTP or the Ramapo River. In response to public comments regarding the potential impact of this additional water supply on growth, wastewater and the Ramapo River, NYSDEC stated:

> In regards to the concern about growth impacts, particularly upon the sewage treatment capacity in the Ramapo River Basin, this Department carefully reviewed its files in regards to the capacity of both the Village' Sewage Treatment Plant and Orange County's Harriman Sewage Treatment Plant to treat this additional wastewater. We determined that there is sufficient excess capacity to treat this additional water, without adverse impacts on the Ramapo River.

[1] *Harriman Wastewater Treatment Facility Membrane Bioreactor Pilot Study* (CDM, October, 2006)

The Orange County Sewer Distirct No. 1 is responsble for the treatment plant operation and to ensure that effluent discharge limits are maintained in accordance with its SPDES discharge permit and State and federal law. Additional studies of the Ramapo River are beyond the scope of the DGEIS.

Comment 3.5.8-3: (Letter 5, Susan H. Shapiro, Esq., Preserve Hudson Valley, LLC., June 10, 2015): The DGEIS provides misleading and inaccurate information regarding Sewer Treatment Facilities and costs for the Annexation Territory. The DGEIS is replete with reference to KJ's plans to densely develop the annexaton terrtory, including plans to impact sewer treatment facilities with will in turn negatively impact the health of the Ramapo River watershed which supplies drinking water to Rockland County and Northern New Jersey.

The SEQR fails to consider the proposed annexation impacts on the regional New York State water supply, fails to consider the impacts increase sewage/water produced by the increase population being projected to live in the annexed territory will have on the interstate water supply of Rockland County and Northern New Jersey. The health of the Environmental Protection Agency ("EPA") protected Sole Source Ramapo-Mahwah Aquifer System will be negatively impacted by highly dense development in the annexation area, which will be sending its waste water into the Ramapo River and aquifer system.

Response 3.5.8-3: *See Response 3.5.8-2. The DGEIS projects the anticipated increase in population in the Village and in the annexation lands and uses population estimates to project sewer treatment demand. Although the studies are dated, ecological studies of the Ramapo River done by the NYSDEC in the 1990's showed minor impacts to Ramapo River water quality, when the Harriman Wastewater Treatment Plant is operated at capacity, which is its current condition. Rather, non-point stormwater run-off from surfaces such as roads and parking lots has the greatest impact to the Ramapo River.[2] Plant upgrades, including planned upgrades of treatment technology and of capacity will likely improve the water quality of the effluent discharge to the Ramapo River.*

Comment 3.5.8-4: (Letter 11, Patsy Wooters, June 14, 2015): The scope of the environmental review include the history of Kiryas Joel's oversight of business wastewater discharges, as a business in Kiryas Joel was found in serious violation of the Clean Water Act in 2014. The scope of the environmental review include any and all additional measures that Kiryas Joel must undertake to maintain effective oversight of business discharges into the wastewater stream.

Response 3.5.8-4: *As owner of the Village wastewater treatment plant, the Village is responsible for compliance with the plant's SPDES discharge permit. NYSDEC is responsible for setting discharge limits in this permit and for enforcement of the same. Pre-treatment of industrial discharges to the Village plant is regulated and enforced by the U.S. Environmental Protection Agency and the Orange County Department of Public Works. Pursuant to contractual arrangement, the Village Plant is operated and maintained by Orange County Sewer District #1. The Village and District coordinate on regular upgrades and improvements at the plant, which is currently operating within its permit effluent limits.*

[2] Ramapo River Biological Assessment, 1998 Survey, NYSDEC 1998

Comment 3.5.8-5: (Letter 11, Patsy Wooters, June 14, 2015): The historic record suggests annexed land will become the site of businesses that see a public benefit in disregarding the Clean Water Act. That potential impact must be included in the environmental impact statement. The study must also address the level of diligence to which the Village of Kiryas Joel will attend to the requirements of the Clean Water Act based upon this history.

> ***Response 3.5.8-5:*** *See Response 3.5.8-4. There is no reasonable basis to support the statements in this comment.*

Comment 3.5.8-6: (Letter 18, Stephen Welle, Mayor, Village of Harriman, June 10, 2015): The Village of Harriman residents have had to endure years of odor issues with the Harriman Waste Water Treatment Plant. Increased flows created by the explosive growth of Kiryas Joel (or any other community) are going to exacerbate this problem. In addition to the odors, as this plant nears capacity, there is great concern as to what happens when the new construction causes the plant to be over capacity.

> ***Response 3.5.8-6:*** *The Village has no control over the location or the operation of the Harriman Waste Water Treatment Plant. The plant is owned and operated by the Orange County Sewer District No. 1 and serves the treatment needs of the entire District, as well as the Moodna communities pursuant to out of district contracts.*
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> *The OCSD#1 has recently selected an engineer to study the expansion of the District's treatment capacity by an additional 3.0 mgd either at the Harriman Plant or elsewhere. It is reasonable to expect that any planned upgrades will utilize the latest treatment technologies and that all improvements and resulting discharges will be approved, regulated and enforced by NYSDEC.* It is also reasonably expected that approval of any such upgrades will be subject to SEQRA.

Comment 3.5.8-7: (Letter 18, Stephen Welle, Mayor, Village of Harriman, June 10, 2015): At times over the past several years Harriman WWTP has been in violation of various regulations resulting in fines being assessed. This plant is monitored by the NYSDEC and the EPA and whatever fines are assessed are divided over the entire district not just the violators. There has been a lot of discussion of expanding capacity either through technology or the construction of a new plant or expanded plant elsewhere. Who is going to pay for this? Why should the Village of Harriman ratepayers have to pay for expanded capacity when we don't need it?

> ***Response 3.5.8-7:*** *The Village of Kiryas Joel comprises only a portion of the overall Orange County Sewer District No. 1. The residents and communities in the entire District, including the Village of Harriman as well as the Moodna communities, all contribute to the generation of wastewater and the cost of operation and maintenance and upgrades in accordance with Orange County rules, regulations and procedures.*
>
> *The District is responsible to maintain the Harriman Waste Water Treatment Plant and updgrade the system when necessary.*

Comment 3.5.8-8: (Letter 32, Robert A. Fromaget, Monroe, New York): As the DGEIS states time and again, the Village strives to provide its residents with several municipal services, including, most notably connection to the municipal sewer. However, the Orange County Sewer District No.1, the Harriman Wastewater Treatment Plant and the Ramapo River have a fixed capacity to accommodate sewage flow and the overutilization of that capacity by the Village of

Kiryas Joel's significant rezoning of property within the sewer district to accommodate such growth will undoubtedly affect the patterns of population concentration, distribution and growth for both communities within Orange County Sewer District No.1 and the Moodna communities because the sewage capacities these communities need to grow will be monopolized by the Village of Kiryas Joel.

Response 3.5.8-8: *The Orange County Sewer Distict No. was established in 1970 to serve the residents of the District. The Village residents support the District through taxes and user fees and have supported the Sewer district since the Village was formed in 1977. As the population of the entire District grows, including in the Village of Kiryas Joel, the District is obligated to expand its capacity to accommodate new users and natural growth in the communities it serves. The DGEIS acknowledges that the Village's population is growing faster than other communities in the OCSD#1, but Village residents contribute proportionately to the costs of the treatment facilities through user fees and taxes.*

The 2010 agreement between Orange County and the OCSD#1 provides a process for expansion of waste water treatment capacity at the HWWTP (see DGEIS Appendix G7). This agreement states:

> "Whereas, the population and residential, retail, commercial and industrial development within the communities of the OCSD#1 and the Moddna Basin Parties is expected to continue to grow and place greater demands on the existing wastewater treatment facilities of the OCSD#1 which will, from time to time, require additional increases in capacity of the wastewater treatment facilities of the OCSD#1 (and/or any enlarged or modified future district) in order to serve the needs of the OCSD#1 and the Moodna Parties".

The OCSD#1 and Orange County anticipate and plan for natural growth in the District service area and that planning includes expanding wastewater treatment capacity. The Village is not monopolizing sewage capacity.

Comment 3.5.8-9: (Letter 32, Robert A. Fromaget, Monroe, New York): Analyze the Village of Kiryas Joel's utilization of capacity of Orange County Sewer District No.1 and the potential utilization of such capacity by an expanded Village population within the Orange County Sewer District when compared with other communities in the sewer distirct and the Modena communities and analyze how limited sewer capacity within the sewer district due to overutilization of such capacity by Kiryas Joel will impact the patterns of population concentration, distribution and growth and the availability and affodability of housing in the other Orange County Sewer District No.1 communities and the Modena communities.

Response 3.5.8-9: *The DGEIS provided a study of the Village's sewer generation, its anticipated population growth and potential sewer generation with and without annexation. Further waste water comparison studies with other communities is beyond the scope of the GEIS.*

Comment 3.5.8-10: (Letter 32, Robert A. Fromaget, Monroe, New York): Their wastewater capacity to support this community will be based on housing units and this population with an average of 6 persons per household will require 24,510 housing units. The DEC states that the wastewater capacity depends on the number of bedrooms and number of kitchens per unit. However, the number of kitchens is not used in Orange County. At 450 gpd per unit Kiryas Joel

will require 11.0 million gallons per day to support the 147,063 people in their municipality. However then we need to add in the impact of infiltration and inflow (seepage into the sewer lines that ends up in the wastewater treatment plants). This could be in excess of 20% of the capacity, thus requiring an additional 2.2 million gallons of capacity.

Response 3.5.8-10: *The comment appears to extend the timeline for analysis for growth in the Kiryas Joel community. The DGEIS projects its analysis of potential population increase and impacts over a ten year period to the year 2025, which is a commonly used timeframe for professional planning studies.*

The DGEIS estimates of wastewater demand were based on Village water use and household size. Residences in the Village have an average of 5.9 persons per residence. Using an estimate of 66.0 gallons per day per person water usage (inclusive of all uses), the typical Kiryas Joel residence is estimated to generate 390 gallons of wastewater per residence per day. This estimate is consistent with the NYSDOH estimate of 400 gpd sewage generation per residence with the higher density per residence in the Village being offset by lower per capita water use[3].

In total, future population growth in both the Village Kiryas Joel and in nearby land in the Town of Monroe proposed for annexation will result in an estimated new demand for wastewater treatment of 1,297,858 gallons per day (1.30 mgd) by the year 2025. Infiltration and inflow is typically considered in the planning and engineering of wastewater treatment plants.

Comment 3.5.8-11: (Letter 32, Robert A. Fromaget, Monroe, New York): By Kiryas Joel's own words it will grow regardless of the availability of land and the infrastructure will be provided by the government (aka, taxpayers) to support that growth. If we continue to dump the effluent into the Ramapo waterway which now has more effluent than it has capacity to process we are exposing the downstream municipalities that rely on this waterway as a sole source aquifer and this must stop. … The last study completed on the amount of effluent that can be dumped into the Ramapo was when the plant was 1st built in approximately 1976. At that time it was rated as "not to exceed 6 million gallons per day (gpd)". With the Orange County Sewer District at 6 million gpd and the Kiryas Joel District at 970,000 gpd there is no more capacity and a new study must be performed.

Response 3.5.8-11: *The Village is committed to the planning and investment in the infrastructure necessary to support its growth whether that is in extending municipal sewer service, upgrades to the Village Wastewater Treatment Plant, or through the taxes and user fees used to support the Orange County Sewer District No. 1.*

The comment provides no basis or reference for the claim that the Ramapo River has more effluent than it has capacity to process.

The Orange County Sewer Distirct No. 1 is responsble for the treatment plant operation and to ensure that effluent discharge limits are maintained. In addition, NYSDEC regulates all discharges to the Ramapo River from the plants and it is, therefore, reasonable to expect that NYSDEC has considered the carrying capacity of the

[3] *Orange County Sewer District #1, Build-out Analysis, Orange County Department of Planning, January 21, 2010.*

receiving water body. Additional studies of the Ramapo River are beyond the scope of the GEIS.

Comment 3.5.8-12: (Letter 32, Robert A. Fromaget, Monroe, New York): As Superintendent of Public Works for the Village of Suffern our sewer plant, discharging just upstream of Mahwah, New Jersey, of course had to disinfect our sewage discharges under our SPDES permit with chlorine, but since this was a sole source aquifer the requirement was the chlorine had to be eliminated since the Ramapo River was a drinking water source, so after chlorine disinfection sulfur dioxide treatment was demanded. Since this meant storage of two highly hazardous chemicals with difficult process control standards, the Village of Suffern became the first in the United States to use UV light for disinfection. Should this not be required for the carrying capacity of a drinking water source not to be compromised for any expansion of the poorly run Harriman sewage treatment plant of Orange County?

The integrity of the Ramapo River as a bi-state sole source aquifer must be addressed in the DGEIS. An issue is whether the wastewater from the expansion will destroy federally protected bi-state water supplies. Remember, this is not simply in NJ, the Village of Suffern wells are recharged from the Ramapo River, as are the United Water wells along the Ramapo River.

Response 3.5.8-12: *See Responses 3.5.8-2 and 3.5.8-3. The Orange County Sewer District No. 1 is responsble for the Harriman WWTP operation and to ensure that effluent discharge limits are maintained. The Village of Kiryas Joel supports the OCSD#1 through taxes and user fees, along with other users in the District. In addition, NYSDEC regulates all discharges to the Ramapo River from the plants and it is, therefore, reasonable to expect that NYSDEC has considered the carrying capacity of the receiving water body and the appropriate treatment technology required.*

Comment 3.5.8-13: (Letter 40, Russ Kassoff, Monroe, June 22, 2015): Sewer-The system is set up so that those living in sewer district #1 MUST share in the burden of improvements and fines for environmental violations. We are running at capacity in Harriman most of the time. There is simply no body of water other than the Ramapo River to handle sewage. ONLY the needs of KJ exceed the rest of Orange County in needing sewage disposal. The system is unfairly stacked against the non-KJ communities in the county who are NOT growing at an uncontrollable exponential rate to share in the penalty of overuse and misuse of the sewage system yet KJ continuously has been shown to have environmental violations and fines in the hundreds of thousands of dollars. Harriman just cannot expand.

Response 3.5.8-13: *See Response 3.5.8-8. As noted in the DGEIS, Orange County and the OCSD#1 anticipate and plan for the continued residential, commercial and industrial growth in the entire District and increased demand for wastewater treatment. Please see Comment 3.5-8.1 by the County Executive.*

Comment 3.5.8-14: (Letter 42, Lorraine McNeill, June 21, 2015): In regard to sewer service, the DGEIS frequently refers to the lack of sewer service availability in the area to be annexed as one of the reasons for annexation. Since this area is already in OC Sewer District # 1, why would annexation be necessary for obtaining sewer service? The majority of the area is in that district, however approximately a quarter of the land “to be annexed” is in the Moodna Sewer district. The Moodna Group, because of litigation and other factors, does not have priority over OC Sewer #1.

If annexation were to occur, the *entire* area would be in OC #1 and therefore that one quarter of the annexed land would 'jump the queue" ahead of residents of Woodbury and other areas, who have been in the sewer district for years with no hook-up, due to "lack of capacity". The residents in the annexed area would obtain that service at the expense of their neighbors.

Response 3.5.8-14: *The commenter is correct that the majority of the annexation land is already in the OCSD#1. Annexation is not necessary for obtaining sewer service. Rather, annexation may make it easier for new development to connect to the OCSD#1 facilites. Connection to the sewer will, in part, be driven by proximity to the existing sewer lines and the costs for the infrastructure to connect. Those properties in close proximity to existing lines will likely connect earlier than properties distant from existing lines.*

However, annexation will not necessarily affect or expand the District boundaries. Since the OCSD#1 is legislatively formed by Orange County, expansion of the District boundary would require Orange County legistlative action. Note that certain parcels in the Town of Monroe are in the OCSD#1 and other parcels are not in the District, but are served as members of the Moodna communities.

Comment 3.5.8-15: (Letter 45, Edward Scarvalone, Willens & Scarvalone, LLP., June 22, 2015): KJ Poultry's has reduced its water consumption and its wastewater by 40% – from approximately 250,000 gallons-per-day to 150,000 gallons-per-day – through a series of extensive (and expensive) plumbing improvements. As a consequence, KJ Poultry is not only saving 100,000 gallons-per day in water usage each operational day, but has also decreased the amount of wastewater that it sends to the local sewage treatment plant – effectively reducing, by 100,000 gallons-per-day, the sewage loading of Orange County Sewer District #1. This improvement should be duly considered as part of your SEQRA analysis of potential water and sewer impacts.

Response 3.5.8-15: *Comment noted.*

Comment 3.5.8-16: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): The conclusions regarding wastewater treatment and impact on the Ramapo River are unsubstantiated and unrealistic. Under the WOA, the DGEIS must examine what is the likelihood of areas zoned for 1 acre and 3 acres per dwelling to be served by public sewers. It does not account for the real conditions that many of the parcels within the Mountainview Drive area are already developed, and do not require connection to any systems.

Response 3.5.8-16: *The DGEIS did examine the development potential of the annexation lands under the existing zoning. See Section 3.1.3 Land Use and Zoning – Potential Impacts and Table E-1 and E-2. This analysis was based on a lot-by-lot analysis of development potential of under-developed or vacant parcels and did account for existing developed parcels.*

Comment 3.5.8-17: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): Does the wastewater demand match current NYSDOH requirements for estimating the gallons per day of wastewater to be generated by dwelling unit? Does the NYSDOH evaluate wastewater generation based on the number of bedrooms per dwelling?

Response 3.5.8-17: *The NYSDOH typically estimates wastewater demand on a per household basis using an estimate of 400 gallons per day per household. This does not*

take into account number of bedrooms per dwelling, since it is used as a general estimate of sewage generation. The Orange County Planning Department used this estimate in its Orange County Sewer District #1, Build-out Analysis (January 21, 2010).

The DGEIS used an estimate of 390 gallons per day per residence based upon reported Village water use. This estimate is generally consistent with the NYSDOH estimate (400 gpd per residence) with the higher density per residence in the Village being offset by lower per capita water use.

Comment 3.5.8-18: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): The description of plans for water supply to accommodate the proposed Annexation and the plan for continued rapid population growth in the Village of Kiryas Joel (VKJ) include adding sources of water from within (groundwater) and outside of (groundwater and water to be supplied from the Catskill aqueduct) the watershed of the Ramapo River. Thus, wastewater generated from all these additional sources would be discharged to the Ramapo River at either the Harriman wastewater treatment plant (WWTP) or the VKJ WWTP (assuming substantial, expensive upgrades to the Harriman WWTP). However, our understanding is that under current conditions, the reach of the Ramapo River in our area has little if any remaining waste assimilative capacity (WAC). This needs to be clearly described in the DGEIS, along with the identification of feasible and affordable approaches for addressing this issue (if any) that would be acceptable to all stakeholders, before any of the expansion described in the DGEIS can be considered. Similarly, the concerns of stakeholders downstream of our area need to be clearly identified and addressed. A substantial component of the water supply for Rockland County in New York and Bergen County in New Jersey is supplied by well fields that tap aquifers recharged by the Ramapo River.

Response 3.5.8-18: *See Response 3.5.8-11. The Orange County Sewer Distirct No. 1 is responsible for the treatment plant operation and to ensure that effluent discharge limits are maintained or improved. The DGEIS describes the study done by NYSERDA that examined the feasibility of plant upgrades with new membrane Bioreactor technology (page 3.5-26). Such upgrades would increase plant capacity as well as water quaility.*

Comment 3.5.8-19: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): What are the plans/assumptions for management of wastewater produced from the Vintage Vista and Forest Edge projects? Is there capacity at the VKJ WWTP?

Response 3.5.8-19: *The Vintage Vista and the Forest Edge project are both to be connected to the OCSD#1, discharging to the Harriman Wastewater Treatment Plant due to sewer line routing. The SEQRA review for both projects indicated that there was sufficient capacity at the Harriman Plant for the two projects.*

Comment 3.5.8-20: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): In the second full paragraph on this page, it is stated that "As further discussed below, Orange County has recently retained an engineering consultant to develop plans over the next year to expand the treatment capacity of the District by up to an additional 3 mgd." Our understanding is that this work will be a "study" rather than the development of specific plans for plant expansion, and that the study will assess the feasibility of approaches to expanding capacity. The study results would be used as one consideration to determine whether expansion is feasible.

Response 3.5.8-20: *Comment noted.*

Comment 3.5.8-21: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): The third full paragraph on this page states that "Treatment rates at the Harriman WWTP have remained relatively stable over the past few years", and implies that there has not been an increase in treatment rates since 2008. This seems reasonable, since there has been little growth in Orange County outside of VKJ during this period. Note that the impacts of increased wastewater generated as a result of growth in VKJ would be reflected in data from the VKJ WWTP, not the Harriman WWTP.

Response 3.5.8-21: *Please see Comment 3.5.8-1 by the County Executive. Sanitary wastewater from the Village is treated at the Harriman WWTP. The discussion of the Harriman WWTP was provided to disclose capacity issues and overall growth in the demand for wastewater treatment in the OCSD#1, including the demand from Kiryas Joel. Note that the Village of Kiryas Joel WWTP is operating below its full capacity (see Discharge Monitoring Reports for the Kiryas Joel WWTP, Appendix G6).*

In its 2010 Amended FEIS, Orange County Department of Environmental Facilities & Services acknowledged available capacity for the entire Sewer District through 2015, including capacity at both the Harriman WWTP and the Kiryas Joel WWTP.[4] In that study, the capacity of the entire Sewer District is considered together. The document also acknowledges the Sewer District's obligation to increase capacity, pursuant to the 2010 Agreement between Orange County and the OCSD#1 (see DGEIS Appendix G7).

Comment 3.5.8-22: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): The second paragraph on this page states that the VKJ WWTP "…was initially designed to treat up to 500,000 gallons per day and has since been expanded to the current capacity of 970,000 gpd." This expansion provided a capacity increase of 94 percent. In consideration of the previous comment above, the date and purpose/basis for this large capacity increase in a plant that was constructed fairly recently (in 2000) should be described in detail in the DGEIS.

Response 3.5.8-22: *The Village of Kiyas Joel Wastewater Treatment Plant was constructed, in part, in response to a moritorium imposed by NYSDEC on new development projects due to sewage treatment capacity issues in Orange County Sewer District No. 1. The Village remains in the Sewer District and the Village Waste Water Treatment Plant is operated by the OCSD#1. The plant was expanded to accommodate growth in the community as well as overall demand for sewer capacity in the OCSD#1.*

Comment 3.5.8-23: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): The third paragraph on this page states that "Although somewhat dated, these surveys indicate that the Harriman WWTP plant has had minor impacts on water quality when operated within capacity, which is it's current operating condition". The water quality referred to in this sentence is the water in the Ramapo River. The survey referenced was conducted in 1998, and bases its conclusion on a comparison to data from 1987. The 1998 survey pre-dates the 50 percent capacity upgrade at the Harriman WWTP and pre-dates the startup of the VKJ WWTP. Thus, data from the 1998 survey is not representative of current conditions in the

[4] Amended FEIS for The Enhancements to The Harriman Wastewater Treatment Plant, Orange County Department of Environmental Facilites & Services, January, 2010.

Ramapo River. This needs to be addressed in the DGEIS using data representative of current conditions.

> ***Response 3.5.8-23:*** *See Responses 3.5.8-2 and 3.5.8-3. The data was provided in the DGEIS as limited available information regarding the Harriman Wastewater Treatment Plant's impacts to the Ramapo River. It is acknowledged in the document that the data is dated, but no new surveys by the NYSDEC or the County have been identified, though it is assumed that both the County and NYSDEC have considered the potential impacts of the expanded Harriman WWTP since the time of these identified studies. It is understood that the Harriman WWTP SPDES Permit is currently being updated by the NYSDEC.*
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> *The data provides an overall assessment of the Harriman Plant's potential impacts to the Ramapo River. Moreover, the 2006 NYSERDA study of the Harriman WWTP found that new technology could be utilized to expand the treatment capacity of the Harriman Plant to 9.0 mgd, and this technology could allow the Plant to meet more stringent future permit limits, thereby improving water quality.*[5]
>
> *In addition, NYSDEC regulates all discharges to the Ramapo River from the plants and it is, therefore, reasonable to expect that NYSDEC has considered the carrying capacity and other potential impacts on the receiving water body.*
>
> *The OCSD#1 is responsible for the operation of the Harriman Wastewater Treatment Plant and to ensure that the effluent meets SPDES permit standards.*

Comment 3.5.8-24: (Letter 50, John Ebert, Chairman, Monroe Conservation Commission, June 20, 2015): The third paragraph on this page indicates that Orange County has commissioned and engineering firm to "…prepare a facility plan to study enlarging treatment capacity at Harriman WWTP from 6 to 9 mgd". As mentioned in the comment on page 3.5-20, our understanding is that this work will be a study that assesses the feasibility of approaches to expanding capacity. The study results would be used as one consideration to determine whether expansion is feasible. Basing a near-term decision regarding the feasibility of Annexation and population expansion on the anticipation that the study will indicate the WWTP expansion is feasible, and that the WWTP would ultimately be expanded (funding, permitting, planning, design, public acceptance, etc.), is not prudent.

> ***Response 3.5.8-24:*** *The 2010 agreement between Orange County and the OCSD#1 provides for a process that will result in the expanded treatment capacity for the Harriman Wastewater Treatment Plant "when the 12-month rolling average flow from the facilities … reaches 85% of the total design treatment capacity of the facilities for any three months within a period of six consecutive months" (see DGEIS Appendix G-7). The legally binding agreement provides a schedule and milestones for the planning, design, funding and legislative approval of the expanded facilites. As noted, the County has commenced this planning process.*

Comment 3.5.8-25: (Letter 54, David E. Church, AICP, Commissioner, Orange County Department of Planning, June 22, 2015): Population growth through 2040 should then be utilized to determine the impact on the Harriman Wastewater Treatment Plant.

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[5] *Harriman Wastewater Treatment Facility Membrane Bioreactor Pilot Study* (CDM, October, 2006)

Response 3.5.8-25: *The DGEIS provided population growth estimates through 2025, or a ten year projection. This timeframe is a commonly used duration for planning studies, including recent studies completed by the County.*

The County's own projections for population growth in Orange County go out ten years as do most municipal comprehensive plans. For example the County's AFEIS for the Harriman Wastewater Treatment Plant (WWTP), completed in 2010 was based on a population growth and build out analysis through 2025. The 2010 update to the Orange County Comprehensive Plan also contained population projections and housing forcasts out only to 2020. Additionally the Orange County Final Water Master Plan, published in October 2010 only included five and ten year planning horizons.

Consistent with the County's 2010 AFEIS for the Expanded Harriman Plant and the analysis in the Village's AFEIS for the Aqueduct Connection, additional wastewater flow from Kiryas Joel (with or without annexation) would not happen immediately. Growth in Kiryas Joel and other communities of OCSD No.1 will utilize additional wastewater treatment capacity over time. It is acknowledged by the Village and the County that expansion of the Harriman WWTP or other District facilities beyond 6.0 mgd to serve all of OCSD No.1 has been recognized as a future need to plan for. Thus, as Kiryas Joel and the other communities grow, further expansion of the wastewater infrastructure can be reasonably anticipated.

Comment 3.5.8-26: (Letter 54, David E. Church, AICP, Commissioner, Orange County Department of Planning, June 22, 2015): There is no plan to expand capacities at the Kiryas Joel Sewer Plant (KJSP). Currently, overflows from the pump station are routed to the Orange County collection system for treatment at the Harriman plant (i.e., with the exception of flows from the poultry processing plant, flows to the KJSP are limited by pumping rates). While there is currently existing capacity at the Harriman plant, a facility study has been commissioned by the County to identify means of increasing treatment capacity within the Sewer District in order to meet projected future flows throughout the District.

The cost of any potential expansions at Harriman will be shouldered by the entirety of the sewer district, even though growth rates, and thus treatment capacity allocation, are anticipated to be substantially greater within Kiryas Joel than other areas of the District. This is not inconsistent with the Orange County Sewer Use Law, nor is it in conflict with general sewer district practices. However, the statement that "…*annexation will not result in negative fiscal impacts to OCSD#1*" (pg 3.5-33 of the DGEIS) is not fully examined or substantiated.

Response 3.5.8-26: *See Response 3.5.8-1. Growth in the Village of Kiryas Joel is projected to occur at similar rates, with or without the proposed annexation. Village and Town residents and businesses contribute to the Orange County Sewer District #1 (OCSD#1) through taxes and user fees. As new development occurs in the Village, those taxes and fees supporting the District are increased. While the Village comprises one portion of the the overall sewer district, natural growth is occuring throughout the District, as well as in the Moodna communities that rely on the District to provide excess treatment capacity on a contractual basis.*

Anticipated upgrades to the Harriman WWTP would benefit all municipalities and residents in the Sewer District, as well as the Moodna communities. Based upon past practices, following facility upgrades, OCSD#1 is likely to offer excess capacity to the

Moodna communities which will reduce some of the potential fiscal impacts to the District.

Although there are no immediate plans to expand the capacity of the Kiryas Joel Sewer Plant, the Village is committed to maintaining and improving plant operations. The Village has recently implemented facility upgrades that have improved operation of the plant and improved efficiency and effluent water quality. These improvements include: Rotating Biological Contactor (RCB) improvements in 2010, trunk sewer, lift station and headworks screening improvements in 2014, and filter backwash storage and handling improvements in 2014.

In addition, water use at the privately-owned poultry plant in the Village has been reduced by approximately one-third (2011 to 2012). Taken together, the improvements and conservation efforts made at both the Village treatment plant and at the poultry plant have effectively reduced the demand for sewage treatment by well over 100,000 gpd for the OCSD#1 (See Comment 3.5.8-15).

As indicated in the comment, the OCSD#1 is responsible for the expansion of treatment capacity as the demand for treatment increases with growth in the entire District service area. The Village residents, both existing and new, will contribute to any required facility expansions, through taxes and user fees, along with other District communities.

Comment 3.5.8-27: (Letter 54, David E. Church, AICP, Commissioner, Orange County Department of Planning, June 22, 2015): With respect to wastewater, growth in the annexation area will result in increased capital costs throughout the District. While these costs may be mitigated by the addition of new users to share the burden, no discussion of this aspect is included in the DGEIS. The DGEIS should provide an analysis of the capital costs that are attributable to growth within Kirays Joel/Annexation territory and how these capital costs will be assessed to the users.

Response 3.5.8-27: *It is correct that the new users in the Village will contribute to support capital costs in the District. It is beyond the Scope of the DGEIS to analyze the capital costs for upgrades to the OCSD#1. It is expected that this analysis will be carried out by the County as part of its pending sewer expansion planning study. While population growth and resultant wastewater treatment demand may be greater in the Village than for other municipalities in the District, it remains the responsibility of the District to serve its member communities.*

Comment 3.5.8-28: (Letter 55, Sheila Conroy, June 22, 2015): Page 2-9, "By a 1978 intermunicipal agreement, OCSD#1 allows additional connections to District facilities from properties outside the boundaries of the District in several municipalities … Parcels in the western portion of the annexation territory thus have access to the District facilities." Does the County agree with this interpretation? If the lands described above are entitled to use the District's facilities, this contradicts those statements justifying the annexation in order to provide these lands with sewer service. It would appear that they do not need to be annexed into the Village in order to be connected.

Response 3.5.8-28*: It is not known if the County agrees with this interpretation. Land in the Town of Monroe, including portions of the annexation territory, lie outside of the District but are part of the Moodna communities and obtain sewer services by contract*

through the District as out of district users. Properties in the OCSD#1 have precedent over the Moodna communities. See Response 3.5.8-14.

Comment 3.5.8-29: (Letter 55, Sheila Conroy, June 22, 2015): This agreement was signed in 2010, Agreement between Orange County and the Sewer District, but 5 years later there are still no completed studies or data to prove if and how expansion can occur. In fact, the study has only just begun. Where is the data to support the above statement that there is capacity beyond 2015? Since monthly operating reports are filled regarding the Harriman Plant's outflow, where is the data from January-May 2015 which will show if the plant is operating at, below or above capacity?

Response 3.5.8-29: *See Response 3.5.8-24. The 2010 agreement between Orange County and the OCSD#1 provides for a process that will result in the expanded treatment capacity for the District at either the Harriman Wastewater Treatment Plant or elsewhere when the 12-month rolling average flow from the facilities reaches 85% of the total design treatment capacity of the facilities. (DGEIS Appendix G-7). The legally binding agreement provides a schedule and milestones for the planning, design, SEQRA review, funding and legislative approval of the expanded facilites. As noted, the County has commenced this planning process.*

The statement that there is treatment plant capacity through 2015 is from the County's 2010 Amended Final Environmental Impact Statement (AFEIS) for the Expanded Harriman WWTP, which included a detailed growth study prepared by Orange County Department of Planning (see DGEIS page 3.5-25 and 3.5-26). As of June 2015, the plant was reportedly operating at approximately 70% capacity (see Harriman Sewage Treatment Plant Monthly flow Report, Appendix G5). Therefore, the current flow rates appear to confirm that there is available capacity beyond 2015.

Comment 3.5.8-30: (Letter 55, Sheila Conroy, June 22, 2015): Besides the County wastewater study, an Environmental Impact Statement also must be completed before the County can even begin to work on an expansion?

1) What will be the mitigation until an expansion occurs?
2) Will the Plant be inundated with sewage beyond its capacity and continue to receive violations and fines from the DEC? Will the other communities who share this plant and do not have the unusual growth rate of the Village of Kiryas Joel be expected to share these fines?
3) What is the mitigation if the Harriman Plant cannot expand enough to meet the growth demands of Kiryas Joel? At some point, the Ramapo River will not be able to accept any more treated effluent-nobody has any idea right now how close we are to that limit. What is the mitigation when the Ramapo can accept no more effluent?
4) Once the Harriman Plant can no longer expand, where will the sewage go?

Response 3.5.8-30: *See Response 3.5.8-24 and 3.5.8-29. It is reasonably assumed that the issues identified by the comment will be considered as part of the County's planning process. The expansion of treatment capacity at the Harriman WWTP will take time, but the agreement provides a timeline and milestones, which includes review pursuant to SEQRA. Plant improvements can be implemented well before treatment capacity is reached. The NYSERDA study completed in 2006 indicates that the capacity at the Harriman WWTP can be expanded by one-third or 3.0 mgd, allowing the plant to serve the District well into the future.*

Comment 3.5.8-31: (Letter 55, Sheila Conroy, June 22, 2015): Page 2-10, "Pursuant to legal precedent, the County is obligated to serve the needs of District properties before contracting to sell excel capacity to communities outside of the District. Therefore, the annexation properties located outside of the District boundaries are not entitled to sewer service without either annexation to the Village or approval of an outside user agreement."

This statement seems to contradict the earlier statement that almost all of the land proposed for annexation is in the sewer district. It seems an appropriate time to raise the entire issue of fairness – fairness to those already in the District who are not yet being served. How do you justify what is in effect expanding a District that is currently having problems serving its existing users, including an ongoing tract record of violations, by annexing 507 acres that will not be developed with 7,356 people under its current Monroe zoning (Page 2-8), but which will be developed with over 20,000 people under Village zoning, thereby greatly increasing sewer demands. Therein lies the crux of the problem: while the Village repeatedly claims that growth is inevitable, it fails to acknowledge the finite limitations of available resources to support is growth. This is why people question how such an incredible growth rate that creates demand for high density city resources can sustain itself in a rural/suburban environment?

> **Response 3.5.8-31:** *See Response 3.5.8-14. It is uncertain if annexation would bring the rights of OCSD#1 to those parcels that are currently not within the District, consisting of 115 acres (23 percent of the developable land). Since the OCSD#1 is legislatively formed by Orange County, expansion of the District boundary would require Orange County legistlative action. Note that certain parcels in the annexation territory are in the OCSD#1 and other parcels are not in the District, but are served as members of the Moodna communities pursuant to contractual arrangements as out of District users.*

Comment 3.5.8-32: (Letter 55, Sheila Conroy, June 22, 2015): Page #3.5-24: Outdated data for impact on Ramapo River. Unfortunately, the 1987, 1991, 1993 and 1998 biological surveys of the Ramapo River cited here to demonstrate minimal impact on the Ramapo River from the upstream 2 sewer plants, are interesting for baseline information, but are so outdated (17 years old) that they have very little practical use. The Harriman Plant was much smaller and was phasing in sewage in-flow over a period of years so that the accumulative effect would take longer than the above time periods to fully realize the plant's long term impacts. These are a few of the reasons why the above surveys have little value and new ones need to be undertaken before any expansion of the plant can proceed. Since the Village relies on the County to manage the plants and undertake any further expansions, there is no way that anyone can know how much or if expansion can occur relative to its impact on the Ramapo River. Data from 17 years ago does not tell us anything about the current condition of the Ramapo River or how much more effluent it can accept.

> ***Response 3.5.8-32:*** *See Responses 3.5.8-3 and 3.5.8-23.*

Comment 3.5.8-33: (Letter 55, Sheila Conroy, June 22, 2015): Page #3.5-21 to 23: Permit Exceedances and average flows. The document cites average flow rates for 2008 and 2009. More current figures should be used, and not just picking out a month here or there but looking at entire years. As stated above, I found correspondence from the DEC showing that between January 2011 to December 2011, the Harriman Plant exceeded its SPDES Permit effluent limits a total of 67 times. Clearly, there was a problem. Again, the information cited is interesting history, but not relevant for decision making 6/7 years later. These surveys are too outdated to support the conclusion that these plants, one of which didn't even exist at the time, have had only a minor impact on the Ramapo River, a federally designated sole source aquifer for 30% of

Rockland County and for over 2,000,000 New Jersey residents. More accurate and complete figures need to be provided before any annexation decision can be made.

> ***Response 3.5.8-33****: See Responses 3.5.8-2, 3.5.8-3 and 3.5.8-23. The NYSDEC administers the SPDES permit program, establishes permit limits and is responsible for enforcement of the permit conditions. It is beyond the scope of the DGEIS to study the potential impacts of the Harriman Waste Water Treatment Plant on the Ramapo River.*

Comment 3.5.8-34: (Letter 55, Sheila Conroy, June 22, 2015): Page #3.5-25. This document notes that the projected growth studies done by Orange County in 2010 regarding sewer capacity are higher than the numbers submitted by the Village in either the EIS for the Aqueduct connection or for annexation proposal which re-enforces my earlier suggestion that a low to high range be used for this calculation. Given that the Village has a strong vested interest to approve the Aqueduct connection and this application, suspicions that growth numbers might be understated so as to support these decisions could be reduced by using a broader method for doing the calculations.

> ***Response 3.5.8-34:*** *The study done by Orange County in 2010 used different assumptions in its projection of growth and sewer demand. The differences in assumptions are explained in DGEIS pages 3.5-29 and 3.5-30. The Orange County study estimates were based upon 400 gallons per day per residence and the DGEIS estimated 390 gpd per residence. These estimates are within three percent and consistent for planning projections.*

Comment 3.5.8-35: (Letter 55, Sheila Conroy, June 22, 2015): Pages #3.5-26 & 27: Harriman Plant Expansion. The DGEIS cites a 2006 study that looked at and concluded that the Harriman Plant could be expanded from 6.0 mgd to 9.0 mgd by changing over to an MBR technology treatment system instead of the one being currently used. While the MBR technology would not require additional land for plant expansion and could replace systems that have reached their maximum life expectancy at a more economical cost the MBR technology also has some down sides. Since the study to consider all of this began in January 2015, there are no conclusions yet.

And, it is important to note that, nowhere in the discussion of expanding the Harriman Plant with one of the above two technologies , is there any mention of more updated surveys to determine the impacts on the Ramapo River from the 2 existing plants or anticipated impacts of the Harriman Plant adding another 2.0 mgd of discharge into the river. At the time of the last survey, perhaps 2.0 mgd of sewage was discharging into the river. Today, combined with the Kiryas Joel Plant, that total has increased to somewhere between 6.0 to just under 7.0 mgd if the plants are operating at their full capacity. Since we do not figure for how often that happens or how often the plants exceed their permitted effluent discharges, many important questions remain unanswered. Therefore, the conclusions drawn here cannot be supported.

> ***Response 3.5.8-35:*** *See Response 3.5.8-33. It is beyond the scope of the DGEIS to study the potential impacts of the Harriman Waste Water Treatment Plant on the Ramapo River. Note that 2006 study by NYSERDA indicates that with facility improvements, treated effluent quality would likely improve compared to existing effluent quality.*

Comment 3.5.8-36: (Letter 55, Sheila Conroy, June 22, 2015): I must respectfully disagree with the statement that: “the quality of the wastewater treatment plant effluent is not affected by

the level of population growth ….." Just the opposite is true. The frequent need to expand the plant has a direct relationship to the growth within the district. Kiryas Joel's growth is far above any norm, and as described in this document numerous times, is unique to the culture and religion of the Hasidim community. At some point in the not too distant future, based on historical data, the growth of the Village will outstrip the ability of the 2 plants to process effluent to the quality required by the permits -- either by the fact that no more expansions can physically and practically occur at the plants or by the fact that the Ramapo has reached its maximum capacity to accept effluent. It is disturbing that there does not seem to be a recognition or understanding of this.

> ***Response 3.5.8-36:*** *See Response 3.5.8-2. Wastewater treatment plants are designed to treat the effluent to certain standards. Treatment technology has become more efficient and varied over time. Growth in the Village will not outstrip the ability of the two existing plants to treat wastewater from the Village. The plants can be expanded, treatment technology improved and, if necessary new plants constructed. The Village will continue to support the District as it grows through taxes and user fees from its residents.*

Comment 3.5.8-37: (Letter 55, Sheila Conroy, June 22, 2015): But there might be an underlying motive for annexation which now becomes clearer if one put together the facts -- via litigation, it appears that those communities that are a part of OCSD#1 (which includes the Village of Kiryas Joel) have first claims on sewer capacity at the Harriman Plant and that the plant must be expanded ad infinitum whenever that capacity reaches 85%. Therefore, 23% of the land in the annexed area falls into a lower category for sewer rights by being in the Moodna group which it appears can only get additional capacity if there is anything left over after from OCSW#1's needs are met. Thus this 23% of land area can only be elevated to a category of guaranteed first rights by annexing it into the Village, which then raises it into the higher ranking of being in OCSW#1, jumping over others in its previous Moodna group.

> ***Response 3.5.8-37:*** *The applicant's goals for annexation are for their properties to become a part of the Village, with the infrastructure, services and community that the Village provides its residents. As noted elsewhere, annexation will not automatically expand the boundaries of the District, such action would require County legislative action.*

Comment 3.5.8-38: (Letter 59, Robert Kecskes, June 22, 2015): Uncertainty of the Location of the OCSD#1 Discharge Location. The Kiryas Joel inflow to the OCSD#1 wastewater treatment plant will be the largest contributor of wastewater if the annexation is approved. The EIS minimally discusses (or does not discuss at all) the discharge and how it affects downstream water uses and users, despite the Village playing such a large role in these effects. The current OCSD#1 discharge affects these users in both a positive and a negative way, assuming that the OCSD#1 discharge will be continued at its present location on the Ramapo River.

From a positive perspective, and assuming that the OCSD#1 discharge will remain at its current location in the future and that the Village will connect to the New York City aqueduct, the additional wastewater that Kiryas Joel and the annexation will contribute to the Ramapo River flow will be beneficial. This supplemental flow will allow the United Water New York (UWNY) passing flow to be met more frequently in the future, as well as augment the North Jersey District Water Supply Commission Wanaque Reservoir system.

From a negative perspective, the additional wastewater can negatively impact these water supplies and aquatic resources. In addition, Orange County planning officials are evaluating relocating the OCSD#1 discharge location, largely as a result of additional wastewater inflow that Kiryas Joel and the annexed properties will be conveying to the plant. If the location is changed, the reduction in the safe yield of downstream supplies would be significant.

None of the above impacts were discussed in the EIS. It is strongly recommended that these effects be quantified and thoroughly described. This assessment should take into consideration all the inflows and outflows in the Ramapo River watershed in order to be accurate. If not, Kiryas Joel should await the findings of the OCSD#1 plan, which is scheduled to be completed next year.

> ***Response 3.5.8-38:*** *See Responses 3.5.8-2, 3.5.8-3 and 3.5.8-23. It is important to note that the OCSD#1 serves all residents in the District, not specific municipalities. The potential impacts of future wastewater effluent discharge to the Ramapo River were discussed in the DGEIS, specifically in pages 3.5-33 and 3.5-34. A more detailed study of the Harriman WWTP impacts to the Ramapo River are beyond the Scope of the DGEIS. As noted in the DGEIS, future applications for site development will be subject to SEQRA as well as all other applicable federal, State and local laws. The availability of adequate sewer capacity will be a significant component of such review.*

Comment 3.5.8-39: (Letter 59, Robert Kecskes, June 22, 2015): Being that the most of the additional wastewater discharged from the Harriman Plant will have its origin from the Kiryas Joel and annexation property expansion, the EIS should comprehensively evaluate the above-described impacts. It is emphasized that these pollutants can have impacts on public health, and that Kiryas Joel (and Orange County) can be found legally responsible if these impacts are validated. It is also possible that Kiryas Joel can be found to be legally responsible for expensive upgrades to downstream water suppliers if they are degraded.

> ***Response 3.5.8-39:*** *The Village of Kiryas Joel is one of eight municipalities whose residents are served by the OCSD#1. All District members share in the costs for maintenance of the District facilities and in the upgrade of facilities as necessary.*

Comment 3.5.8-40: (Letter 59, Robert Kecskes, June 22, 2015): Similar to water supply are the delays in providing wastewater service to the 507-acre properties if they were not annexed. According to the EIS, annexation of these properties would provide the assurance of connecting new development in these lands to the OCSD#1 public sewer system, as well as allow properties with existing individual septic systems to connect to the public sewer system.

On the other hand, without annexation certain properties in these lands may be required to install individual septic systems for future development if public sewers are not practically available. Thus, without annexation wastewater service would be expected to be delayed and to cover less of the properties on these 507 acres. In addition, if most of the 507-acre properties were served by private wells and septic systems, down-zoning may be necessary to ensure that the wells are not contaminated.

It is thus recommended that the EIS be revised to more accurately quantify how many dwelling would potentially be sewered versus now many would be served by septic systems, plus an improved projection of when these would occur over time. This revision should also include an assessment of both scenarios on streamflow depletion and wastewater impacts where the

OCSD#1 discharge either remains in the Ramapo River watershed, or is relocated to the Moodna Creek watershed or to the Hudson River.

> ***Response 3.5.8-40:*** *The comment is correct in that, without annexation, development of the annexation lands may occur over a longer period, than with annexation. Without annexation, growth will still occur in the Village, contributing to wastewater treatment demand. The DGEIS provides an analysis of potential population growth, development and infrastructure improvement, with and without annexation. It is beyond the scope of the DGEIS to project development pace over time on specific parcels.*

Comment 3.5.8-41: (Letter 59, Robert Kecskes, June 22, 2015): It is assumed that these statements were made to support the EIS's premise that the annexation would be similarly developed regardless of whether it was annexed by Kiryas Joel. As shown above, is likely to accelerate the pace of dense development in these 507-acre Town of Monroe properties. Without annexation, the probability that these properties will grow at the rate predicted in the EIS is lessened. The fact that development in these properties while not annexed has been historically low over the last few decades confirms this view.

Consequently, it is recommended that the EIS indicate that the rate of development and the need to construct wastewater infrastructure is expected to be delayed if the 507-acre properties in the Town of Monroe is not annexed by the Village of Kiryas Joel. The EIS should further state that the water quality impacts associated with delayed growth in these properties (e.g., more wastewater and non-point source pollutants in the Ramapo River, reduced streamflow depletion from ground water withdrawals and impervious cover, etc.) will also be delayed if these properties are not annexed.

> ***Response 3.5.8-41:*** *Comment noted. See Response 3.5.8-40 above. The DGEIS provides an analysis of potential population growth, development and infrastructure improvement, with and without annexation.*

Comment 3.5.8-42: (Letter 59, Robert Kecskes, June 22, 2015): The EIS employed a ten-year planning horizon to evaluate the effects of Kiryas Joel annexing the 507-acre properties in the Town of Monroe. This obviously is of little value in estimating the long-term environmental effects of the proposed annexation. It is also an insufficient planning period in determining the long-term economic effects of the potential joining of the two land areas. A planning period should be established that is long enough to more adequately assess these environmental and financial impacts. Otherwise, these effects can cross impact thresholds that are highly undesirable a short time subsequent to the end of an abbreviated planning horizon. A more prolonged planning period may have been capable of identifying these thresholds so that another course of action could have been selected.

An appropriate example might be increasing the size of the OCSD#1 plant to 9 mgd to meet mostly the proposed annexation project's planning needs over the next decade. In this example, the current location of the OCSD#1 outfall to the Ramapo River may be adequate. This location may be found to be cost-effective in the shorter term. However, if a 20 or 25 year planning period were employed, it may have been determined that the increase in the discharge could only be dealt with by relocating it 15 years from now to a larger body of water for dilution purposes (such as the Hudson River). This would result in higher costs to all OCSD#1 customers, including Kiryas Joel and its annexed customers. It is possible that this would not be financially feasible if known today.

Response 3.5.8-42: *A ten year time frame is a commonly used duration for planning studies. See Response 3.5.8-25. The DGEIS also relied on the conclusions from the County's NYSERDA study which acknowledged that the Harriman plant could be expanded by an additional 3 mgd while also improving the quality of the discharge to the Ramapo River. The speculative example provided by the comment is beyond the scope of the DGEIS.*

Comment 3.5.8-43: (Letter 61, Denis E. A. Lynch, Feerick, Lynch, MacCarthney, PLLC, June 22, 2015): Additional information should be provided regarding the wastewater treatment facility located in Kiryas Joel. A single month's worth of historical data is provided in Appendix G. This is grossly inadequate. No indication of current WWTP performance is provided in the report. An operational audit of the facility must be completed to identify actual available treatment capacity based on the current loadings to the facility.

Response 3.5.8-43: *An operational audit is beyond the scope of the DGEIS. The Village of Kiryas Joel Wastewater treatment plant is operated by OCSD#1. The permit to operate the plant requires monthly reporting to the NYSDEC. The plant is currently operating well within its design capacity. As of May, 2015 the Kiryas Joel WWTP is operating at approximately 78 percent of its design capacity (6 month average). See attached monthly Discharge Monitoring Reports for the Kiryas Joel WWTP (Appendix G6).*

Comment 3.5.8-44: (Letter 61, Denis E. A. Lynch, Feerick, Lynch, MacCarthney, PLLC, June 22, 2015): The statements regarding the potential availability of adequate sewer service are at best speculative and do not indicate, for example, whether the various permitting agencies have committed to providing access, capacity, or service if permit requirements are met. The DGEIS fails to consider or evaluate alternative wastewater disposal plans in the event that the Harriman WWTP is not viable and fails to consider alternatives in the even that approvals are not received from the State and any other permitting agencies.

Response 3.5.8-44: *The Village is located in the OCSD#1 and has been since the Village incorporation. The OCSD#1 anticipates natural growth and increased demand for waste water treatment services. The District anticipates expanding capacity to meet this growth and its obligation to provide service to District members. See Response 3.5.8-8.*

Comment 3.5.8-45: (Letter 67, Richard J. Pearson, PE, PTOE, Robert B. Peake, AICP, JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC, June 18, 2015): What is the impact on the Village of Kiryas Joel (either with or without the annexation) should an upgrade to the County's wastewater treatment plant not be completed prior to reaching maximum capacity for the existing plant, and a moratorium on new sanitary connections is enacted?

Response 3.5.8-45: *Orange County and the OCSD#1 are committed and legally obligated to expand available sewer treatment capacity (either at the Harriman WWTP or elsewhere), prior to its reaching capacity according to the 2010 agreement. In addition to the Harriman plant, the petitioners also have access to additional unused capacity at the Village's plant. See Response 5.5.8-30.*

Comment 3.5.8-46: (Letter 67, Richard J. Pearson, PE, PTOE, Robert B. Peake, AICP, JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC, June 18, 2015): Referencing our overall comment regarding the necessity of the completion of a buildout

analysis, the results of such an analysis must be evaluated for its related impacts to community water and sewer services. JMC Buildout Scenario "1" of Table JMC-1 of this memo shows a buildout population of 81,361 with the buildout of the 507 acre annexation and existing Village of Kiryas Joel. Using the 66.0 gallons per person average daily water usage rate as described in Section 3.5.5 page 3.5-30 of the DGEIS, yields a total average daily water usage and sanitary flow of 5,369,826 gallons per day, which is approximately 90% of the existing Harriman Wastewater Treatment Plant capacity of 6.0 million gallons per day (mgd). Under JMC Buildout Scenario "2" of Table JMC-1, the 164 acre annexation alternative yields a buildout population of 35,007, which in turn yields a 2,310,462 gallons per day average daily water usage and sanitary flow. The potential 3.0 mgd upgrade to the sanitary wastewater treatment capacity of the Orange County Sewer District #1 is not sufficient to accommodate these buildout populations in addition to continued population growth in other areas of the Sewer District. Clearly, there are significant water and sanitary buildout impacts and these must be analyzed in a supplemental DGEIS.

> ***Response 3.5.8-46:*** *The DGEIS provides a reasonable, detailed analysis of potential build-out of the annexation lands, with and without annexation. The analysis is based upon verifiable population and development growth rates in the Village, including census data and school records. The JMC build-out scenarios are unsubstantiated and project much higher population than is supported by historical Village growth. Further analysis of water use or sewage treatment demand is unwarranted.*

Comment 3.5.8-47: (Letter 68, Gale Pisha, Sierra Club Lower Hudson Group, June 22, 2015): The wastewater for KJ currently discharges to the Ramapo. River basin via two waste water treatment plants (WWTPs), the Harriman and the Village of KJ WWTPs. The Village proposes to meet the increased need for wastewater discharge by increasing Harriman's capacity 50 % from 6 mgd to 9 mgd to accommodate the 1.3 .mgd average daily sewage flow increase. The DGEIS acknowledges that "thirty percent of Rockland County and two million residents in New Jersey receive their drinking water from the Ramapo River aquifer" (p. 3.5-24).

While the DGEIS may be technically correct that "the quality of the wastewater treatment plant effluent is not affected by the level of population growth or its location," (p. 3.5-27), it is clearly not correct to conclude from this statement that "therefore, there are no significant impacts to the receiving water body (Ramapo River) as a result of the proposed annexation action" (p. ~ -5-27). This conclusion completely ignores the fact that the increased amount of wastewater effluent very much, impacts the receiving water body.

> ***Response 3.5.8-47:*** *See Response 3.5.7-29. The SPDES permit effluent limits for the Harriman and KJ WWTPs were established by the NYSDEC to protect the water quality of the receiving water bodies. While an increase in the volume of effluent may marginally impact the receiving water body, if the permit effluent limits are maintained, water quality will be maintained in the receiving waters. As described herein, the NYSERDA study of the Harriman WWTP completed by CDM Smith in 2006, anticipates stricter permit limits for the Harriman Plant and new treatment technology to meet those limits. These factors will maintain water quality for the Ramapo River.*

Comment 3.5.8-48: (Letter 68, Gale Pisha, Sierra Club Lower Hudson Group, June 22, 2015): Although effluent is treated to some extent by WWTPs, the wastewater is clearly not treated to drinking water standards. Not only does the Harriman WWTP discharge.info the Ramapo, but the Kiryas Joel WWTP discharges into a tributary of the Ramapo River. According to 2013 reports (attached), the Kiryas Joel WWTP was implicated as the primary source of a

dramatic and steady increase of specific conductance levels in water samples from the tributary of the Ramapo downstream of the plant that significantly exceeded NYS Department of Environmental Conservation levels of concern. The SCLHG believes that KJ ought to remedy this defect in its WWTP before undertaking any expansion.

> ***Response 3.5.8-48:*** *The Village of Kiryas Joel Wastewater Treatment Plant, operated by the OCSD#1, currently meets its permit requirements (see Discharge Monitoring Reports for the Kiryas Joel WWTP, Appendix G-6).*

Comment 3.5.8-49: (Letter 68, Gale Pisha, Sierra Club Lower Hudson Group, June 22, 2015): Sierra Club Lower Hudson Group believes that the increase of wastcwater in the Ramapo River will result in the drinking water for one-third of Rockland County from the Ramapo well fields needing bigger levels of treatment to be potable. This will cost Rockland County ratepayers more money, yet the fiscal impacts of increased wastewater discharge from KJ were not included in section 3.5.5, which discusses the costs only to the residents of Orange County Sewer District #1.

There is also a danger that some of the contaminants in the wells might not be discovered by United Water, since it is only required to test for certain substances. Another possibility is that residents will be exposed to these contaminants before the water company discovers them via tests.

> ***Response 3.5.8-49****: See Responses 3.5.8-2 and 3.5.8-3. The issues suggested by the comment are beyond the scope of the DGEIS. The OCSD#1 is responsible for the operation and maintenance of the Harriman WWTP and to ensure that the plant meets its SPDES permit discharge limits. Those limits are established and enforced by the NYSDEC to protect water quality of the receiving waters. The residents of the Village support the maintenance and upgrades of the Harriman WWTP thorough taxes and fees they contribute to the District.*

Comment 3.5.8-50: (Letter 69, Daniel Richmond, Zarin & Steinmetz, June 22, 2015): The DGEIS's statement with respect to wastewater that "[t]he demand for wastewater treatment" either with or without the Proposed Annexation "will be generally the same" fails to consider the growth inducing impacts of the Annexation.

> ***Response 3.5.8-50:*** *See Responses 3.5.8-14 and 3.5.8-40. The demand for wastewater treatment with or without annexation is expected to be generally the same due to similar projected population growth in the study area, with and without annexation.*