

# **Byram Township Chapter of the Sussex County Wastewater Management Plan**

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Prepared by the State of New Jersey Highlands Water Protection  
and Planning Council in support of Byram Township's approved  
Petition for Plan Conformance and the Water Quality Management  
Planning Rules, N.J.A.C. 7:15

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# BYRAM TOWNSHIP CHAPTER: SUSSEX COUNTY WASTEWATER MANAGEMENT PLAN

## Introduction and Methods

Of the 88 municipalities in the Highlands Region, 77 have submitted to the Highlands Water Protection and Planning Council (Highlands Council) a Notice of Intent to conform to the Highlands Regional Master Plan (RMP, effective date September 8, 2008) regarding the Preservation Area, Planning Area or (where applicable) both within their municipalities. The New Jersey Department of Environmental Protection (NJDEP) is responsible for ensuring that all areas of New Jersey are addressed by Wastewater Management Plans (WMPs) that comply with the provisions of the Water Quality Management Planning Rules at N.J.A.C. 7:15-5. Within the Highlands Region, this process will be achieved through a coordinated process with the Highlands Council as provided in N.J.A.C. 7:15-3.10 and N.J.A.C. 7:38-1.1. One of the conditions for each municipality that fully conforms to the RMP (“Plan Conformance” for the entire municipality) is the development of a municipal WMP or municipal chapter for a County WMP, as appropriate, in conformance with the RMP and N.J.A.C. 7:15. The purpose of the WMP is to ensure that future sewer service areas and septic areas for planning flows of 2,000 gallons per day (gpd) or less (individual subsurface sewage disposal systems – ISSDS) are consistent with the Land Use Capability Zone Map designations and policies of the Highlands RMP. The WMP is therefore a direct result of the Plan Conformance process, intended to be adopted as the municipal chapter of the relevant County WMP where a County WMP is developed, or as a stand-alone document where a County WMP is not developed. Municipalities that do not pursue Plan Conformance for the Planning Area will address their wastewater planning responsibilities in cooperation with their counties or directly with NJDEP, which in turn will request a consistency determination from the Highlands Council.

On September 23, 2010, the Highlands Council adopted Resolution #2010-6 (attached as Appendix 1) which approved Byram Township’s Petition for Plan Conformance, subject to conditions as set forth in the Final Consistency Review and Recommendation Report for Byram Township. Plan Conformance applies to the entirety of Byram Township – both the Highlands Planning and Preservation Areas. A condition of the approved Petition for Plan Conformance, as detailed in the Final Consistency Review and Recommendation Report, is the requirement that Byram adopt a WMP working with the Highlands Council under Plan Conformance. As such, this Byram Township Chapter of the Sussex County WMP is developed under Plan Conformance for the entire Township (see Figures Byram-1 through Byram-3). The Highlands Council worked cooperatively with Byram Township throughout the Plan Conformance process to conduct an extensive analysis of the complete land area of the municipality, using a geodatabase that documents for each parcel the status of development, water supply and wastewater utility service, build-out potential, etc. Using the Highlands Municipal Build-Out Report and the Final Consistency Review and Recommendation Report for Byram Township, the Highlands Council has identified and mapped the following areas:

1. **Existing Areas Served** – As defined by the RMP, these are developed lands for which sewer service exists and is connected and operational. Sewer service is defined as the service area for any NJPDES-permitted domestic treatment works, including but not limited to Highlands Domestic Sewerage Facilities as defined by the RMP. Specifically, Existing Area Served “means areas connected to ... an existing public wastewater collection system ... where such infrastructure is already constructed. It does not include areas of designated sewer service areas ... where collection, transmission, or distribution systems do not currently exist.” These areas are generally but not

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exclusively located within the Existing Community Zone defined by the RMP, and may be within the Preservation Area or the Planning Area.

2. **Existing Sewer Service Area** – These areas include, in any RMP Land Use Capability Zone, as applicable for the municipality:
  - a. the Existing Areas Served including all NJPDES-permitted wastewater treatment facilities, including domestic or industrial, and whether discharging to surface or ground water, including T1 sites (NJPDES general permit for sanitary wastewater discharges to ground water), and
  - b. any other lands previously approved by the NJDEP as sewer service areas for which a currently valid municipal development approval and valid NJDEP treatment works approval have been received and are currently in effect, where such information was documented by the municipality or the NJDEP and provided to the Highlands Council, including through the geodatabase for the Highlands Municipal Build-Out Report.

NOTE: For any Existing Area Served parcel that is greater than 1 acre in total size and located in the Conservation Zone, Protection Zone or Existing Community Zone Environmentally-Constrained Sub-Zone, the map shows as Existing Sewer Service Area (SSA) only the developed portion of the parcel. Undeveloped portions of such parcels are not shown as Existing SSA. Within the Existing Community Zone and Lake Community Sub-Zone only, the undeveloped portions of such Existing Area Served parcels are included as Existing SSA regardless of size. For any Existing Area Served parcel that is less than or equal to 1 acre in total size, the map shows the entire parcel as Existing SSA regardless of development status and Land Use Capability Zone. Such parcels are considered fully developed.

3. **General Service Area for Wastewater Facilities with Planning Flows of Less Than 2,000 gpd which Discharge to Ground Water** – Included in Figure Byram-1 are areas served by septic systems (ISSDS) and other wastewater systems with planning flows of less than 2,000 gpd. This term incorporates those septic areas in WMPs adopted under previous versions of N.J.A.C. 7:15.
4. **Future Sewer Service Area**
  - a. Planning Area: These areas include all lands in the Existing SSA, plus all lands in the Highlands Planning Area identified by the RMP as being both within the Existing Community Zone (not including the Environmentally-Constrained Sub-Zone) and Lake Community Sub-Zone, and also are located within areas identified by the municipality for sewer service and approved by the Highlands Council as part of the municipality's Petition for Plan Conformance. Under this WMP, permits will not be granted by NJDEP for extension of sewer service into any other lands of the Planning Area unless:
    - i. The extension is consistent with municipal plans and ordinances approved by the Highlands Council pursuant to the municipal Petition for Plan Conformance; or
    - ii. A consistency determination has been approved by the Highlands Council, pursuant to N.J.A.C. 7:38-1.1(k) and 7:15-3.10(a); and for either (a) or (b),
    - iii. An amendment or revision to this WMP has been approved by NJDEP pursuant to N.J.A.C. 7:15.
  - b. Planning Area – Byram Highlands Village Center Designation – The approved Petition for Plan Conformance for Byram Township was accompanied by approval of a Highlands Center Designation for the Byram Highlands Village Center. This Highlands Center is within a previously approved NJDEP sewer service area associated with the Byram Center (expired May 19, 2010), as designated by the State Planning Commission pursuant to the standards and criteria of the State Development and Redevelopment Plan. Therefore, the Byram Highlands Village

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Center is part of the Future SSA, to the extent depicted in this WMP Chapter on Figure Byram VC-1. The Highlands Center is described in more detail below.

- c. **Preservation Area:** The Highlands Act limits future sewer service in the Highlands Preservation Area to those developments for which an exemption from the Highlands Act has been determined and remains valid, or where a Highlands Preservation Area Approval (HPAA) with waiver has been granted by the NJDEP. For all other areas of the Preservation Area, Future SSAs were rescinded by the Highlands Act (Section 42, N.J.S.A. 58:11A-7.1).
- 5. Septic Area (Planning Flows of 2,000 gallons per day (gpd) or Less)** – This category applies to all lands not included within the above categories, for which the density of new septic system development will be consistent with applicable septic density/nitrate dilution analyses. At a minimum, areas identified by the Highlands RMP as Protection Zone, Conservation Zone and Existing Community Zone-Environmentally Constrained Sub-Zone, which are outside of the Existing or Future SSA, are designated as “Septic Area (Planning Flows of 2,000 gpd or Less).” Portions of the Existing Community Zone that are not sewered and are not intended to receive sewer service may be designated in the same manner.
- a. Permits or approvals for projects in this area with cumulative wastewater flows of 2,000 gpd or less shall not be permitted by NJDEP unless:
    - i. The project is approved under septic system density provisions of the Highlands Land Use Ordinance (# [to be included upon adoption]) adopted by Byram Township pursuant to Highlands Council approval of its Petition for Plan Conformance. (NOTE: Approval pursuant to these provisions of the Highlands Land Use Ordinance is deemed in conformance with the septic system density requirements of N.J.A.C. 7:15); or
    - ii. Within the Preservation Area, the development activity is exempt from the Highlands Act or receives a Highlands Preservation Area Approval from NJDEP. Within the Planning Area, the development activity is exempt from the Highlands Act. Such development shall be in conformance with N.J.A.C. 7:15 regarding septic system densities.
  - b. Permits or approvals for projects in this area with cumulative wastewater flows in excess of 2,000 gpd shall not be permitted by NJDEP unless:
    - i. The project is approved under septic system density provisions of the Highlands Land Use Ordinance adopted by Byram Township pursuant to Highlands Council approval of its Petition for Plan Conformance. (NOTE: Approval pursuant to these provisions of the Highlands Land Ordinance is deemed in conformance with the septic system density requirements of N.J.A.C. 7:15); or
    - ii. The Highlands Council has determined that the discharge is consistent with the RMP and the discharge is approved by NJDEP as a revision or amendment to this Wastewater Management Plan; or
    - iii. Within the Planning Area, the development activity is exempt from the Highlands Act and the discharge is approved by NJDEP as a revision or amendment to this Wastewater Management Plan; or
    - iv. Within the Preservation Area, the development activity is exempt from the Highlands Act or receives a Highlands Preservation Area Approval from NJDEP and the discharge is approved by NJDEP as a revision or amendment to this Wastewater Management Plan. Such development shall be in conformance with N.J.A.C. 7:15 regarding septic system densities.

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6. **Consistency Determinations:** Any proposed modification to this Chapter of the County Wastewater Management Plan will not be approved without a determination of consistency from the Highlands Council as required by N.J.A.C. 7:38-1.1(k) and 7:15-3.10(a).

### Mapping Requirements Pursuant to N.J.A.C. 7:15-5

The relevant mapping requirements of the Water Quality Management Planning Rules at N.J.A.C. 7:15-5 are met through the following mapping for Byram Township, as developed specifically for the Wastewater Management Plan or as incorporated by reference from the Highlands Plan Conformance documents approved by the Highlands Council. Maps of existing and future domestic treatment works and service areas are used by the NJDEP for WQMP consistency reviews regarding proposed Treatment Works Approvals and NJPDES permits. They have been developed specifically for this WMP and are incorporated herein. Maps of environmental and administrative features are used by NJDEP as basis and background information for the identification of future sewer service areas. However, in the case of Byram Township, the Byram Township Chapter of the Sussex County WMP is based upon approval of Plan Conformance by the Highlands Council, which includes requirements that are as or more stringent than those of N.J.A.C. 7:15. Therefore, the relevant maps are incorporated by reference to the Highlands Council approval of Plan Conformance. These features are included in maps associated with the Highlands Municipal Build-Out Report, Highlands Environmental Resource Inventory (ERI), Highlands Element and Highlands Land Use Ordinance (as specified below) for Byram Township, approved for Plan Conformance by the Highlands Council, available from: [http://www.highlands.state.nj.us/njhighlands/planconformance/byram\\_twp.html](http://www.highlands.state.nj.us/njhighlands/planconformance/byram_twp.html). GIS spatial data have also been provided to NJDEP, Sussex County and the municipality.

- **Jurisdictional Boundaries** – The affected WMP Area and Areawide Water Quality Management Plan are both Sussex County, and are not shown on the municipal maps. Byram Township is entirely within the Highlands Region, with the Planning and Preservation Areas and major roads being shown in the WMP Figures Byram-1, -2 and -3.
- **Existing domestic treatment works and service areas** – See Figure Byram-1
- **Existing industrial treatment works and service areas** – Not applicable to Byram Township
- **Future domestic treatment works and service areas** – See Figure Byram-2
- **Future industrial treatment works and service areas** – Not applicable to Byram Township
- **Freshwater wetlands** – Byram Township Highlands ERI
- **Flood prone areas**, including flood hazard areas – Byram Township Highlands ERI
- **Public open space and recreational areas** – Byram Township Highlands ERI
- **Preserved agricultural lands** – Byram Township Highlands ERI
- **Wild and Scenic River** areas designated under the New Jersey Wild and Scenic Rivers Act or the Federal Wild and Scenic Rivers Act – Byram Township Highlands ERI. Applicable to Musconetcong River.
- **Category One Water, trout production waters, and trout maintenance waters** – Byram Township Highlands ERI (NOTE: Under the Regional Master Plan, all Highlands Open Waters in both the Preservation and Planning Areas are associated with 300 foot buffers.)
- **Surface waters and HUC14 boundaries** – Byram Township Highlands ERI
- **Suitable habitat for endangered and threatened wildlife species** – Byram Township Highlands ERI
- **Natural Heritage Priority Sites** – Byram Township Highlands ERI
- **Riparian Zones** – Byram Township Highlands ERI (NOTE: this map uses the Highlands Council definition, which is more expansive than the NJDEP definition.)
- **Steep slopes** – Byram Township Highlands ERI (NOTE: this map uses the Highlands Council definition and LiDAR data)

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- **Current composite or municipal zoning** – Byram Township Highlands Land Use Ordinance Exhibit 1, “Highlands Zones and Sub-Zones.” (In addition, Highlands Council approval of Plan Conformance and municipal adoption of the Highlands Land Use Ordinance addresses this requirement.)
- **Municipal parcel mapping and Roads** – WMP Figures Byram-1, -2 and -3, and also on all Byram Township Highlands Land Use Ordinance Exhibits
- **Undeveloped and underdeveloped property** – Byram Township Highlands Municipal Build-Out Report
- **Public water supply service area** – See Figure Byram-3

### Special Provisions Regarding Future Sewer Service Areas

The following are required statements of constraints, jurisdiction and caveats regarding the map of Future Sewer Service Areas (Figure Byram-2) used in the Byram Township Chapter of the Sussex County WMP:

1. **Highlands Restrictions:** New, expanded, or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-constrained Sub-Zones of the Planning Area are prohibited unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding purposes 1, 2 and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas (ARAs), steep slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding purpose 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes, and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural Lands of ARAs, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are:
  - 1) To address through a waiver under Policy 7G1 or 7 G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity;
  - 2) To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or
  - 3) To serve a cluster development that meets all requirements of Objective 2K3d.
2. **Highlands Open Water Buffers/Riparian Zones:** Pursuant to the Highlands Regional Master Plan, Highlands Open Water buffers extend to 300 feet from top of bank (or centerline of a first order stream where no bank is apparent). This requirement applies to all Highlands Open Waters within the Highlands Region, regardless of stream classification in the Surface Water Quality Standards at N.J.A.C. 7:9B. The Highlands Open Water buffers have not been graphically removed from the sewer service area but are not proposed for sewer service. Such buffers will be regulated through the Highlands Land Use Ordinance adopted by the Township, applicable to both the Planning and Preservation Areas. The Highlands Land Use Ordinance is equivalent with or more stringent than the Department’s riparian zone standard, the Flood Hazard Control Act Rules (N.J.A.C. 7:13) and Water Quality Management Rules (N.J.A.C. 7:15).
3. **NJDEP Riparian Zones:** For any proposed development that is not subject to the Highlands Land Use Ordinance or Highlands Regional Master Plan (i.e., exempt from the Highlands Act), pursuant to N.J.A.C. 7:15, riparian zones are:

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- a. 300 feet from top of bank (or centerline of a first order stream where no bank is apparent) for waters designated as Category One (C1) and all upstream tributaries within the same HUC 14 subwatershed;
- b. 150 feet for waters designated Trout Production and all upstream waters;
- c. 150 feet for water designated Trout Maintenance and all upstream waters within one linear mile as measured along the length of the regulated water;
- d. 150 feet for any segments of water flowing through an area that contains documented habitat for a threatened or endangered species of plant or animal, which is critically dependent on the surface water body for survival, and all upstream waters (including tributaries) within one linear mile as measured along the length of the surface water body;
- e. 150 feet for waters that run through acid-producing soils; and
- f. 50 feet for all waters not designated as C1, trout waters, critically water dependent Threatened and/or Endangered Species Habitat, or associated with acid soils.

Surface waters that are designated C1 are listed in the Surface Water Quality Standards at N.J.A.C. 7:9B. The Department's "Surface Water Quality Standards" GIS data layer was utilized to determine these waters. Jurisdictional determinations by the Department will be utilized to determine the extent of the sewer service area on individual lots. The riparian zones have not been graphically removed from the sewer service area but are not proposed for sewer service.

4. **Industrial Pretreatment Facilities:** All existing, new, or expanded industrial pretreatment facilities requiring Significant Indirect User (SIU) permits and/or Treatment Works Approvals, and which are located within the specified sewer service area, are deemed to be consistent.
5. **Applicability of Grant Conditions:** Pre-existing grant conditions and requirements (from Federal and State grants or loans for sewerage facilities) that provide for restriction of sewer service to environmentally sensitive areas are unaffected by adoption of this WMP and compliance is required.
6. **Limitations on Individual Subsurface Sewage Disposal Systems:** Individual subsurface sewage disposal systems (ISSDS) for individual residences may be constructed in depicted sewer service areas (Figure Byram-2) only if legally enforceable guarantees are provided, before such construction, that use of such systems will be discontinued when the depicted sewer service becomes available. This applies to ISSDS that require certification from the Department under the Realty Improvement Sewerage and Facilities Act (N.J.S.A. 58:11-23) or individual Treatment Works Approval or New Jersey Pollutant Discharge Elimination System Permits (under N.J.A.C. 7:14A). It also applies to ISSDS which require only local approvals. However, this provision does not apply in the Preservation Area for properties not specifically denoted as Future Sewer Service Area in Figure Byram-2. Additional properties may be included in Figure Byram-2 through NJDEP approval of revision(s) to this Wastewater Management Plan, where determined to be exempt from the Highlands Act or consistent with (through a Highlands Council consistency determination) the Regional Master Plan. Specifically, revisions may be approved to address public health and safety issues related to failure of ISSDS on properties upon which repair or replacement with compliant systems is not practicable. Further, in both the Preservation Area and the Planning Area, connection of additional properties or expansion of flows from existing connections is subject to municipal approval regarding availability of utility capacity, regarding both remaining available utility capacity (i.e., wastewater flows) and infrastructure capacity (e.g., pump stations, mains), as required by Byram Township Codes, Chapter 201, Section 201-8. Compliance with the connection requirement has been demonstrated through adoption of Byram Township Ordinance [Byram Township Codes, Chapter 201].
7. **Environmental Features:** Development in areas mapped as wetlands, flood prone areas, suitable habitat for endangered and threatened species as identified on the Department's Landscape Project

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Maps of Habitat for Endangered, Threatened and Other Priority Wildlife as Rank 3, 4 and 5 (Version 3.0 or more recent), Natural Heritage Priority Sites, riparian zones as defined above, steep slopes (including steep slopes as defined and mapped in the Highlands Land Use Ordinance of Byram Township), or designated river areas may be subject to special regulation under Federal or State statutes or rules, and interested persons should check with the Department for the latest information. Depiction of environmental features shall be for general information purposes only, and shall not be construed to define the legal geographic jurisdiction of such statutes or rules.

8. **Future Treatment Works:** Locations of future pump stations, major interceptors, and trunk sewers are being provided for general information only and will not serve as the basis for any future WQMP consistency determinations or permit reviews unless the pump station, major interceptor or trunk sewer is part of a State or federally funded project.
9. **Water Quality Standards:** Areas located within the watershed of a Freshwater One (FW1) stream, as classified in the Surface Water Quality Standards, and/or that have Class 1-A ground water (Ground Water of Special Ecological Significance), as classified in the Ground Water Quality Standards, are identified as "Non-degradation water area based on the Surface Water Quality Standards at N.J.A.C. 7:9B, or the Ground Water Quality Standards at N.J.A.C. 7:9C." Non-degradation water areas shall be maintained in their natural state (set aside for posterity) and are subject to restrictions including, but not limited to, the following:
  - a. The Department will not approve any pollutant discharge to ground water nor approve any human activity which results in a degradation of natural quality except for the upgrade or continued operation of existing facilities serving existing development.
  - b. For additional information please see the Surface Water Quality Standards at N.J.A.C. 7:9B, and/or the Ground Water Quality Standards at N.J.A.C. 7:9C.

### Municipal Build-Out Results

Byram Township is located within both the Preservation Area and Planning Area. The Highlands municipal build-out analysis for Byram Township is based upon a combination of the Highlands Municipal Build-Out Report (see [http://www.highlands.state.nj.us/njhighlands/sussex\\_county/byram/byram\\_bor.pdf](http://www.highlands.state.nj.us/njhighlands/sussex_county/byram/byram_bor.pdf)) and the Highlands Council approval of the Byram Highlands Village Center. The Highlands Council estimated the following new development results for potential developable lands for the entire municipality, as summarized in **Table 1** below. The results for the Byram Highlands Village Center are specific to the proposed Center. The remainder of the Planning Area of Byram Township is within the approved Byram Highlands Center, much of which is Future SSA and therefore additional flows are ascribed to that area. As specified in the Highlands Municipal Build-Out Report, the results of the municipal build-out analysis are designed to be utilized at a municipal scale and are not appropriate for determining if a particular parcel or development project is consistent with the RMP (for example, the report includes certain results regarding residential or non-residential development that may be altered through a specific development review). Affected public water supply and wastewater facilities are discussed below. As noted in the Byram Highlands Municipal Build-Out Report, the municipal results are a result of current conditions and application of RMP requirements. The Report and the analysis below provide a critical planning tool but cannot be used as a definitive prediction of the future or as a basis for parcel-based development potential.

1. **Development in Sewer Service Areas:** All new development proposed to be served by public wastewater systems is within the Planning Area portion of Byram Township. No new wastewater demand for domestic treatment works is projected in the Preservation Area.
  - a. Total Projected Development: As summarized in **Table 1**, 130 residential dwelling units and 149,056 square feet of non-residential development, resulting in a wastewater demand of 45,851



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gallons per day (gpd), or 0.046 million gallons per day (MGD), and estimated public water supply demands of 47,706 gpd, or 0.048 MGD.

- b. Byram Highlands Village Center: 130 residential dwelling units and 90,550 square feet of non-residential development, resulting in a wastewater demand of 40,000 gallons per day (gpd), or 0.040 million gallons per day (MGD), and estimated public water supply demands of 44,889 gpd, or 0.045 MGD.
- c. Remainder of the Byram Highlands Center: Outside the Byram Highlands Village Center, the Highlands Municipal Build-Out Report estimates zero (0) residential dwelling units and 58,506 square feet of non-residential development, resulting in a wastewater demand of 5,851 gpd, or 0.005851 MGD, and estimated public water supply demands of 2,817 gpd, or 0.002817 MGD. (Note: Some of the development will use on-site water supply wells.)

**2. Development Reliant on Septic Systems:** 5 septic systems in the Planning Area for all RMP Land Use Capability Zones and HUC14 subwatersheds, and 5 septic systems in the Preservation Area.

The build-out results based on potential developable lands are not constrained by water supply utility capacity (which will be provided to the Byram Highlands Center as discussed below) and wastewater utility capacity from the Musconetcong Sewerage Authority, though with the creation of the Byram Highlands Village Center, essentially all available wastewater utility capacity will be committed.

The water supply demands from the build-out are constrained by water availability, defined as Net Water Availability per the RMP. Assuming that all water demand for development in Byram Township is derived from wells within the local HUC14 subwatershed, Net Water Availability represents a constraint on build-out potential. However, as discussed below, Byram Township anticipates that water supply for the Center will be provided by NJ American Water Company through extension of its system from neighboring Stanhope, under an existing Water Allocation Permit. Therefore, impacts on Net Water Availability will be addressed through the development and implementation of Water Use and Conservation Management Plans for any affected subwatersheds, and will not constrain implementation of the Highlands Village Center.

<b>Table 1 – Municipal Build-Out Results Summary</b>			
	<b>Preservation Area</b>	<b>Planning Area</b>	<b>Totals</b>
<b>Residential units – Sewered</b> (Highlands Village Center)	0	130	130
<b>Septic System Yield</b>	5	5	10
<b>Total Residential Units</b>	5	135	<b>140</b>
<b>Non-Residential – Sewered</b> (Highlands Village Center)	0	90,550 sq ft	90,550 sq ft
<b>Non-Residential – Sewered</b> (Byram Highlands Center, Outside Highlands Village Center)	0	58,506 sq ft	58,506 sq ft
<b>Total Non-Residential</b>	0	149,056 sq ft	<b>149,056 sq ft</b>

Overview of the Byram Highlands Center and Byram Highlands Village Center

The designated Byram Highlands Center is recognized as the only portion of the municipality suitable for increased growth. It is situated with extensive frontage on State Route 206 and consists of approximately 197 acres of Planning Area land (essentially the entire Planning Area within the Township), representing 124 acres of land that is developed and/or not able to be developed due to environmental constraints or preservation, 26 acres of developable land associated with existing developed lots and 31 acres of developable vacant land. Most of the vacant developable land in the proposed Byram Highlands Center is associated with the “Village Center Zone” (Block 365 Lot 2 and Lot 5) component of the Center, which is designated the Byram Highlands Village Center.

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The approved Byram Highlands Center (including the Village Center) has access to wastewater utility services via the Township’s contractual agreement with the Musconetcong Sewer Authority, to provide a total capacity of 100,000 gallons per day. The ability to develop and redevelop in the Byram Highlands Village Center will be limited by sewer capacity conditions, and the proposed Village Center development has been sized to be within those limits. The public water service for the Byram Highlands Center is anticipated to be provided by NJ American Water Company via an extension of the existing water line at the Route 206 Stanhope border. Project developers may explore alternate options, however, with final proposed plans to be incorporated into development applications. The Highlands Municipal Build-out Report for Byram Township indicates that at full build-out, the multi-municipal HUC 14 subwatershed affected by the Byram Highlands Center area would be in deficit status for Net Water Availability. One condition of Plan Conformance approval is that a Water Use and Conservation Management Plan (WUCMP) be developed for the HUC14 subwatershed affected by the Byram Highlands Center. Further evaluation of the anticipated NJ American Water extension, or any alternate proposal, will be necessary as a part of development review and the WUCMP. The purpose of the WUCMP is to avoid creation of a deficit in Net Water Availability. While most of the Byram Highlands Center consists of developed areas, which are slated for infill and redevelopment, the Byram Township Smart Growth Plan, which was the planning basis for designation of the Byram Highlands Center, also envisions a “Village Center Zone” (see Figures Byram VC-1 and Byram VC-2) component of mixed-use development occupying approximately 60 acres, to be centered upon a village green (Block 365 Lot 2 and Lot 5). The Village Center Zone includes civic uses, public parks, commercial space, and residential units that include apartments over retail spaces in the Village Core, townhomes, 2- to 4- family units, and single family homes. The Village Center Zone Plan requires both active and passive open space set-asides and integrates the municipality’s Prior Round affordable housing obligation throughout the project area. The Byram Highlands Center also identifies Highlands Environmental Resources that are to be protected from future disturbance (such as the Lubbers Run Greenway area), Low Impact Development guidelines, and requirements pertaining to related aspects of development and redevelopment.

### Development in Wastewater Utility Service Areas of the Byram Highlands Village Center

Anticipated development in the Byram Highlands Center includes 30 single-family residential units, 32 duplexes and townhouses, civic use areas and a mixed use development with 68 apartments and 90,000 square feet of commercial space. The total estimated wastewater flow is 40,000 gallons per day (0.04 MGD). Flows associated with the Byram Highlands Village Center were calculated as follows in **Table 2**, based on details provided in **Table 10**:

<b>Development Category</b>	<b>Units</b>	<b>Demands (gpd)</b>
Residential Sewer Requirements	130 residential units	30,945
<i>Total One Bedroom Dwellings</i>	<i>(19)</i>	<i>(2,850)</i>
<i>Total Two Bedroom Dwellings</i>	<i>(65)</i>	<i>(14,295)</i>
<i>Total Three Plus Bedroom Dwellings</i>	<i>(46)</i>	<i>(13,800)</i>
Commercial Sewer Requirements	90,550 square feet	9,055
<b>TOTALS</b>		<b>40,000</b>

### Available Wastewater Utility Capacity and Municipal Build-Out Results

NJPDES permitted facilities affecting Byram Township are listed in **Table 5**. The Highlands Domestic Sewerage Facility (HDSF) serving Byram Township is the Musconetcong Sewer Authority (MSA), which at this time has an approved and operative total capacity of 4.31 million gallons per day (MGD), as described in NPDES Permit No. NJ0027821. MSA is a utility authority that provides service under contracts to Byram Township and six other municipalities (Hopatcong Borough, Mount Arlington Borough, Mount Olive

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Township, Netcong Borough, Roxbury Township and Stanhope Borough). The current available Highlands Region capacity for the utility is 1.39 MGD for all municipalities served by the system, based on flow data of January 2005 through July 2010, using the Highlands Regional Master Plan method which subtracts the maximum 3-month flow (MAX3MO) from the permitted capacity. However, MSA calculates its available capacity using the highest calendar quarterly flows for the prior year, which for the year 2010 results in flows of 2.698 MGD and remaining capacity of 1.605 MGD. Finally, NJDEP calculates available capacity by subtracting the most recent available 12-month average from the permitted capacity, which is 2.300 MGD for MSA for the period of January 2010 through December 2010, resulting in an available capacity of 2.003 MGD. This method applies to all non-conforming municipalities in the Highlands Region, and to NJDEP determinations regarding whether a facility expansion is required to accommodate existing or necessary future flows. The Highlands Council’s calculations used in the RMP are more conservative, as are those of MSA, and are used to determine whether extension of sewer service beyond the Existing Sewer Service Area may occur, other than for activities eligible for a waiver from the Regional Master Plan or Highlands Act. Regardless of the method used, most if not all of the available capacity is contracted to specific municipalities or individual customers. **Table 3** shows the current contracted allocation of flow for Byram Township to the MSA facility, based on the current contract and flow totals for the MSA sewer service area.

<b>Municipality</b>	<b>Maximum Contracted Allocation</b>	<b>2010 Maximum Quarterly Average Flow*</b>	<b>Remaining Contracted Allocation</b>
Byram Township	0.100	0.047	0.053
<b>MSA Service Area TOTAL</b>	<b>4.303</b>	<b>2.698</b>	<b>1.605</b>

\* Provided by MSA to the Highlands Council based upon metered flows through calendar 2010. MSA evaluates compliance with its contractual Maximum Allocations through comparison with the quarterly average flows, using the maximum calendar quarter flows.

**NOTE:** The contractual amounts identified in this document are neither NJDEP-determined nor NJDEP-enforced. They are used entirely by MSA and its customers for internal allocation and billing purposes.

Dry weather sewage flow during the period of 2010 through mid-2011 was approximately 28,000 gpd. For the same period, average flows were 39,000 gpd, with an estimated I&I (Inflow & Infiltration) rate of roughly 29%. I&I for the maximum month was 60% of flow (March 2011). The remaining available flow contracted to Byram Township is approximately 0.053 MGD, based upon flow data from 2010 provided by MSA. The total estimated wastewater generation from the build out for the MSA facility in Byram Township is 0.045851 MGD for the Planning Area, including the development potential of the Byram Highlands Village Center, and 0 MGD for the Preservation Area and does not exceed the utility capacity conditions, as shown in **Table 7**.

Byram Township may also contract for additional sewage flows to be transferred from another municipality within the system, upon conclusion of negotiations and approval by the MSA. The additional flows are not expected to exceed 50,000 gpd, and would be from a municipality that has at least that amount of available, uncommitted flow. All such new contractual capacity will be allocated for uses within the Byram Highlands Center as shown in Figure Byram VC-1. No expansion of the Future SSA is proposed.

Finally, it is noted that MSA’s NPDES Permit No. NJ0027821 has two different flows upon which its discharge limitations were based. At this time, the 4.31 MGD flow is operative. However, MSA has received NJDEP approval for an increase to 5.79 MGD when the permittee complies with Part IV, E.2.a of the Final Permit issued on December 1, 2011. However, an increase in flow to 5.79 MGD shall have no effect on the Future Sewer Service Area for MSA or any municipalities served by it, absent NJDEP approval of an amendment or revision, as appropriate, to the relevant WMP.

## Sussex County Wastewater Management Plan: Chapter for Byram Township

### **Other NJPDES Permitted Facilities**

There are six NJPDES permitted T1 facilities that serve in Byram Township (see **Table 6**). They include Boy Scouts of America Camp Allamuchy (NJG0136905), Rose Property-Dennis Hill Section (NJG0143057), the Rose Property-Division Lane Section (NJG0146919), 11 Parsons Rd Residence (NJG0141461), Panther Lake Camping Resort (NJG0085723), and Timbers Restaurant (NJG0174726). There is no additional wastewater generation for these facilities from the build-out analysis.

### **Available Public Community Water System Utility Capacity and Municipal Build-Out Results**

Public Water Supply utilities serving and proposed to serve Byram Township are listed in **Table 4**. The main public water utility serving Byram Township is Sparta Township Water Department (Summit Lake, Lake Mohawk, Lake Seneca), which serves a relatively small area to the north. The current available Highlands Region capacity for the utility is 30.69 million gallons per month (MGM). The current capacity available to Byram Township is approximately 2.46 MGM. The build-out analysis identifies no additional public water demand for this facility.

Byram Township is served also by several small public water utilities including Brookwood-Musconetcong River Property Owners Association, East Brookwood Property Owners Association, North Shore Water Association, Strawberry Point Property Owners Association, Byram Homeowners Association, Briar Heights and Della Heights Property Owners Association, Colby Water Company, Forest Lakes Water Company, and South Shore Water Company. The current available Highlands Region capacity for the Brookwood-Musconetcong River Property Owners Association utility is 4.5 MGM. The current available Highlands Region capacities for the other facilities are not known at this time due to their small size. The municipal available capacity is not known at this time for the facilities listed above. The total water demand from the build out indicates 0.002817 MGD for the East Brookwood Property Owners Association; it cannot be determined whether this demand exceeds the utility capacity conditions but the potential demand is minimal. All other water supply facilities have no total water demand calculated through the build-out, except as discussed below.

Figure Byram-3 shows the existing areas served for all of the above facilities.

In addition, Byram Township will require approximately 0.048 MGD of additional water supply to serve the Byram Highlands Center. The Township will require that the developer of the Byram Highlands Village Center address this demand by one of two methods. First, an extension of water supply lines from Stanhope Borough by NJ American Water Company (which will operate the system with the Byram Highland Center), which is within the water utility capacity for Stanhope. As no developer has been identified as of this WMP, no contracts or agreements are in place. The other option would be an on-site water supply system, but if this option is pursued it must be consistent with the Regional Master Plan.

**Sussex County Wastewater Management Plan: Chapter for Byram Township**

<b>Table 4. Future Water Demand for Existing and Proposed Facilities Serving Byram Township</b>				
<b>Purveyor (Approval ID)</b>	<b>Water Allocation/ Approved Diversion (MGM)</b>	<b>Water Allocation/ Approved Diversion (MGD)</b>	<b>Projected Water Demand (MGD)</b>	<b>Excess (Deficit) MGD*</b>
<b>Existing Facilities</b>				
Byram Homeowners Association: (PWSID #1904009)	2.053	0.06623	0.0	N/A
Brookwood-Musconetcong River P.O.A: (PWSID #1904001)	4.5	0.145	0.0	0.021
Colby Water Co (PWSID #1904007)	N/A	0.003	0.0	0.0
East Brookwood P.O.A. (PWSID #1904002)	1.55	0.0516	0.002817	0.0
Forest Lakes Water Company (PWSID #1904003)	6.0	0.2	0.0	0.0665
North Shore Water Association (PWSID # 1904004)	N/A	N/A	0.0	N/A
Sparta Water Utility (PWSID #1918004)	103.2	3.329	0.0	0.4612
Strawberry Point P.O.A. (PWSID # 1904006)	N/A	N/A	0.0	N/A
<b>Proposed Facilities</b>				
Stanhope Borough Water Department (PWSID # 1919001) via proposed pipeline to be operated by NJ American Water Company	22.32	0.744	0.048	0.2137

\* Reflects maximum monthly demands where available, see <http://www.nj.gov/dep/watersupply/pws.htm>. Some facilities lack Water Allocation permits, as their demands are less than statutory thresholds.

**Designation of Wastewater Service Areas within Byram Township**

The following maps are provided to show the existing and future sewer service areas for NJPDES-permitted sanitary wastewater treatment facilities, and to show the existing water supply service areas for major public water systems serving the municipality:

1. **Existing Sewer Service Area** – This map (**Figure Byram-1**) shows the parcels and portions of parcels within the Existing Sewer Service Area as described in the Introduction, for the facilities discussed under the section Available Wastewater Utility Capacity and Municipal Build-Out Results and listed in **Table 5**. A listing of affected properties is provided as Attachment A. However, please note that Figure Byram-1 is considered definitive by NJDEP for purposes of permit approvals.
2. **Future Sewer Service Area** – This map (**Figure Byram-2**) shows the parcels and portions of parcels within the future sewer service area as described in the Introduction, for the facilities discussed under the section Available Wastewater Utility Capacity and Municipal Build-Out Results and listed in **Table 5**. Figure Byram-2 includes the approved Byram Highlands Center showing parcels that are within the Future SSA. Finally, Figure Byram-2 indicates all “Septic Area (Planning Flows of 2,000 gpd or Less).” The septic system yields associated with this latter area are listed in

## Sussex County Wastewater Management Plan: Chapter for Byram Township

**Tables 8 and 9.** A listing of affected properties is provided as Attachment A. However, please note that Figure Byram-2 is considered definitive by NJDEP for purposes of permit approvals.

- a. **Byram Highlands Center Designation** – These maps (**Figures Byram VC-1 and Byram VC-2**) show the parcels and portions of parcels within the Byram Highlands Center and Byram Highlands Village Center as described above. Please note that the specific land uses within the portion of the Byram Highlands Village Center to be developed are conceptual.
3. **Public Community Water System Utilities** – This map (**Figure Byram-3**) shows the parcels and portions of parcels within the existing service area for public community water supply systems as described in the Introduction, for the facilities discussed under the section Available Public Community Water System Utility Capacity and Municipal Build-Out Results. Water service for the approved Byram Highlands Center will approximate that of the Future SSA for the same area.

### **Municipal Ordinances Required by N.J.A.C. 7:15-5.25**

The following ordinances are required by the Water Quality Management Planning Rules. Most of the ordinance requirements are implemented through municipal adoption of the Highlands Land Use Ordinance in compliance with the Plan Conformance approval of the Highlands Council, as noted. Others are adopted independently by the municipality, where noted.

- **Zoning** – See Highlands Land Use Ordinance [ordinance # to be inserted upon adoption]. All extensions of sewer service must be in conformance with the Highlands Land Use Ordinance and subject to Plan Conformance approval and requirements of the Highlands Council. The Highlands Land Use Ordinance also regulated septic system density for new development that is subject to the ordinance.
- **Water Conservation** – See Highlands Land Use Ordinance, which is more stringent than the NJDEP model ordinance provisions.
- **Stormwater Management** – Byram Township has adopted the required stormwater management ordinance in compliance with its NJPDES MS4 stormwater permit [Byram Township Codes, Chapter 211-Stormwater Control, and Chapter 203-Municipal Separate Storm Sewer System]. Also, see Highlands Land Use Ordinance, which is more stringent than the NJDEP model ordinance provisions.
- **Riparian Zone** – See Highlands Land Use Ordinance, which is more stringent than the NJDEP model ordinance provisions.
- **Steep Slope** – See Highlands Land Use Ordinance, which is more stringent than the NJDEP model ordinance provisions.
- **Septic System Maintenance** – Byram Township has implemented an extensive program for septic system maintenance, focused upon its lake communities, as early as 1990. NJDEP has determined that municipality-wide septic system maintenance ordinances are not required at this time under N.J.A.C. 7:15, but rather that septic system maintenance plans are required. The Byram Township ordinances exhibit that the Township fully complies with this requirement, as been demonstrated through adoption of Byram Township Ordinance [Byram Township Codes, Chapter 272, Sewage Disposal Systems, Articles II and III].
- **Required Connection of Septic Systems to Sanitary Sewers in Adopted Sewer Service Areas** – Compliance with this requirement has been demonstrated through adoption of Byram Township Ordinance [Byram Township Codes, Chapter 201, Part 1 (to be amended, subject to constraints on sewer capacity as defined by Chapter 201, Section 201-8)]. Not addressed by Highlands Land Use Ordinance.

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<b>Table 5 – NJPDES Permitted Facilities in or Serving Byram Township</b>							<b>Discharge Location</b>	
<b>NJPDES Permit #</b>	<b>PI #</b>	<b>Facility Name</b>	<b>Discharge Category Code</b>	<b>Street Address</b>	<b>Post Office</b>	<b>ZIP</b>	<b>Longitude</b>	<b>Latitude</b>
NJ0027821	46474	Musconetcong Sewerage Authority	A	110 Continental Dr	Mount Olive	07828	74 43' 21"	40 45' 49".7 N
NJG0085723	47327	Panther Lake Camping Resort	T1	6 Panther Lake Rd	Byram Twp	07821		
NJG0141461	161287	11 Parsons Road Residence	T1	11 Parsons Rd	Byram Twp	07821		
NJG0136905	53810	BSA Camp Allamuchy	T1	750 Waterloo Rd	Stanhope	07874		
NJG0143057	49547	Rose Property - Dennis Hill Section	T1	Cabin Spring Trail	Andover Boro	07821		
NJG0146919	216849	Rose Property - Division Lane Section	T1	Division Lane	Andover Boro	07821		
NJG0174726	504317	Timbers Restaurant	T1	239 Route 206	Andover	07821		

**Selected NJPDES Discharge Activity Category Codes**

**Discharge to Surface Water (DSW)**

- A – Domestic Surface Water Discharge

**Discharge to Ground Water (DGW)**

- T1 – General Permit Sanitary Subsurface Disposal

**Sussex County Wastewater Management Plan: Chapter for Byram Township**

<b>Table 6. Byram Township NJPDES T1 Facilities</b>								
<b>NJPDES</b>	<b>Facility Name</b>	<b>Project Summary</b>	<b>Block</b>	<b>Lot</b>	<b>Street Address</b>	<b>Street City</b>	<b>X Coord. Number</b>	<b>Y Coord. Number</b>
NJG0141461	11 Parsons Road Residence	7 houses each with their own septic systems and potable wells. One entity owns the land upon which the 7 houses sit.	332	3.25	11 Parsons Road	Byram Twp	425245	772293
NJG0136905	BSA Camp Allamuchy	Boy Scout camp with a subsurface sewage disposal system constructed in 1955 for sanitary wastes from a dining hall and cooks cottage.	384	1	750 Waterloo Road	Byram Twp	416843	760118
NJG0085723	Panther Lake Camping Resort	Seasonal campground with 435 campsites (with RV hookups), 2 RV waste disposal stations, 11 bathhouses, centralized Laundry facility and an office/residence building located on 126 acres served by 150 onsite septic systems.	360	31	6 Panther Lake Road	Byram Twp	427127	776025
NJG0143057	Rose Property – Dennis Hill Section	5 (3-bedroom) houses with an aggregate design flow of 2,500 gpd. Each house has its own septic system and water supply although the land is owned by one entity.	332	3.06, 3.13 thru 3.16	Cabin Spring Trail	Byram Twp	423900	772324
NJG0146919	Rose Property – Division Lane Section	10 (2 or 3 bedroom) homes on a common lot.	330	1	Division Lane	Byram Twp	423904	771559
NJG0174726	Timbers Restaurant	200 seat restaurant and a residential dwelling served by a septic system.	212	5	239 State Route 206	Byram Twp	427400	771136



**Sussex County Wastewater Management Plan: Chapter for Byram Township**

Facility	Facility Type	NJPDES Permit	Permitted Flow (GPD)	Existing Flow (GPD)*	Byram Township Source	Projected Flow (GPD)
Musconetcong Sewerage Authority	DSW	NJ0027821	4,310,000	2,300,000	Existing Flows (Maximum Quarter 2010) (Includes estimated I&I)	47,000
					Projected Residential	30,945
					Projected Commercial – Village Center	9,055
					Projected Commercial – Byram Highlands Center (Outside Village Center)	5,851
					<b>Total Projected</b>	<b>92,851</b>

\* Based on Monthly Report for period between January 2010 and December 2010.

HUC14 Subwatershed	Subwatershed Name	Density (Average Recharge) NJAC 7:15	Density (Drought Recharge) RMP	Total Units Allowed (Average Recharge) NJAC 7:15	Total Units Allowed (Drought Recharge) RMP
02040105150030	Musconetcong R (Wills Brook to Lake Hopatcong)		By LUCZ		0
02040105150050	Lubbers Run (below Dallis Pond)		By LUCZ		5
02040105150070	Musconetcong R(Waterloo to/incl Wills Brook)		By LUCZ		0

Planning Area				
HUC14 Subwatershed	Subwatershed Name	CZ Yield	ECZ Yield	PZ Yield
02040105150030	Musconetcong R (Wills Brook to Lake Hopatcong)	0	0	0
02040105150050	Lubbers Run (below Dallis Pond)	0	3	2
02040105150070	Musconetcong R(Waterloo to/incl Wills Brook)	0	0	0
	<b>totals</b>	<b>0</b>	<b>3</b>	<b>2</b>
<b>Preservation Area</b>	<b>5 units (Not disaggregated by HUC14)</b>			

Figure Byram VC-1. Byram Highlands Center Delineation

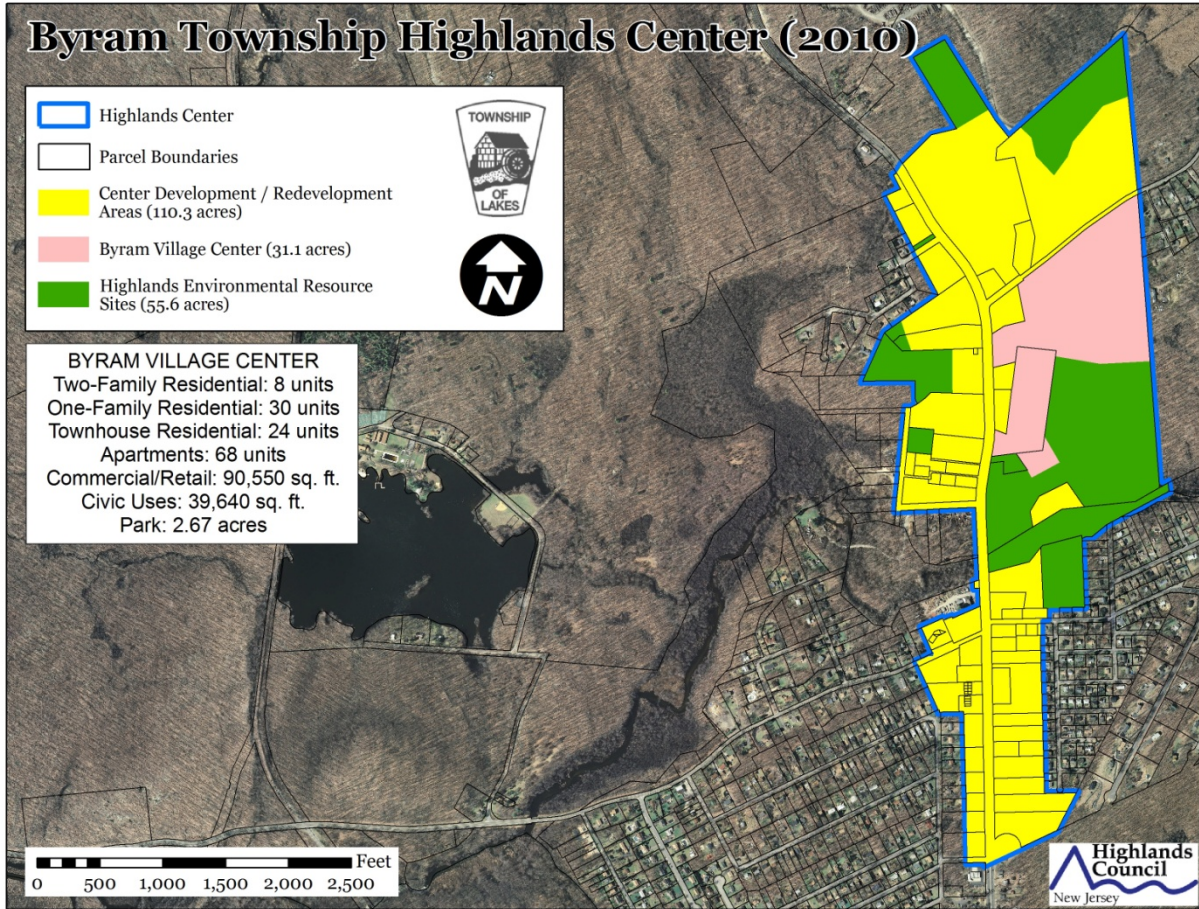
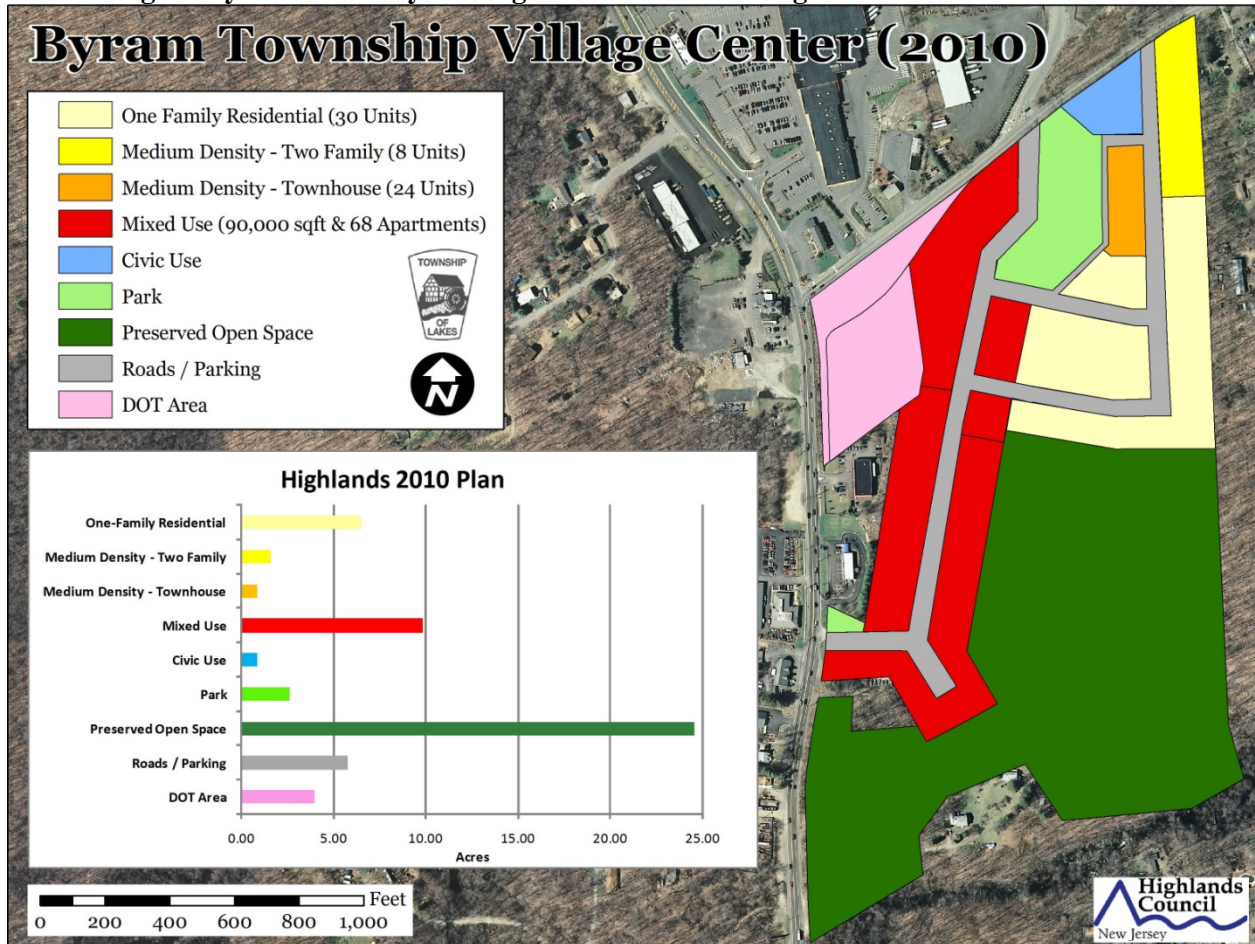


Figure Byram VC-2. Byram Highlands Center – Village Center Land Use Details<sup>1</sup>














<sup>1</sup> Specific land uses within the area to be developed are conceptual. Wastewater generation is limited to 40,000 gpd.

Sussex County Wastewater Management Plan: Chapter for Byram Township

<b>Table 10: Byram Highlands Village Center: Sewer Demand Calculations</b>			
<b>Single Family Residential (30 Dwellings)</b>			
<i>Unit Type</i>	<i>Sewer Capacity (gpd) Required/ Dwelling</i>	<i># of Units</i>	<i>Sewer (gpd) Requirement</i>
Two Bedroom	225	15	3,375
Three Plus Bedrooms	300	15	4,500
	<b>Total</b>	<b>30</b>	<b>7,875</b>
<b>Townhomes (24 Dwellings)</b>			
<i>Unit Type</i>	<i>Sewer Capacity (gpd) Required/ Dwelling</i>	<i># of Units</i>	<i>Sewer Requirement</i>
2 Bedroom - COAH - Age Restricted For Sale	170	6	1,020
Two Bedroom	225	9	2,025
Three Plus Bedrooms	300	9	2,700
	<b>Total</b>	<b>24</b>	<b>5,745</b>
<b>2-4 Family (8 Dwellings)</b>			
<i>Unit Type</i>	<i>Sewer Capacity (gpd) Required/ Dwelling</i>	<i># of Units</i>	<i>Sewer Requirement</i>
Two Bedrooms	225	8	1,800
	<b>Total</b>	<b>8</b>	<b>1,800</b>
<b>Apartments (68 Dwellings)</b>			
<i>Unit Type</i>	<i>Sewer Capacity (gpd) Required/ Dwelling</i>	<i># of Units</i>	<i>Sewer Requirement</i>
One Bedroom	150	14	2,100
1 Bedroom - COAH - Family Rental	150	5	750
Two Bedroom	225	18	4,050
2 Bedroom - COAH - Family Rental	225	9	2,025
Three Plus Bedrooms	300	16	4,800
3+ Bedrooms - COAH - Family Rental	300	6	1,800
	<b>Total</b>	<b>68</b>	<b>15,525</b>
<b>Commercial/Office (90,550 sf)</b>			
	<i>Sewer Capacity (gpd) Required/ 1 sf</i>	<i>Development Size (sf)</i>	<i>Sewer Requirement</i>
	<b>0.1</b>	<b>90,550</b>	<b>9,055</b>
<b>TOTALS (in gpd)</b>			<b>40,000</b>
<i>Residential Sewer Requirements</i>		<i>130 units</i>	<i>30,945</i>
<i>Total One Bedroom Dwellings</i>		<i>19</i>	<i>2850</i>
<i>Total Two Bedroom Dwellings</i>		<i>65</i>	<i>14295</i>
<i>Total Three Plus Bedroom Dwellings</i>		<i>46</i>	<i>13800</i>
<i>Non-Residential Sewer Requirements</i>			<i>9,055</i>

**FIGURE BYRAM-1  
EXISTING SEWER SERVICE AREAS**

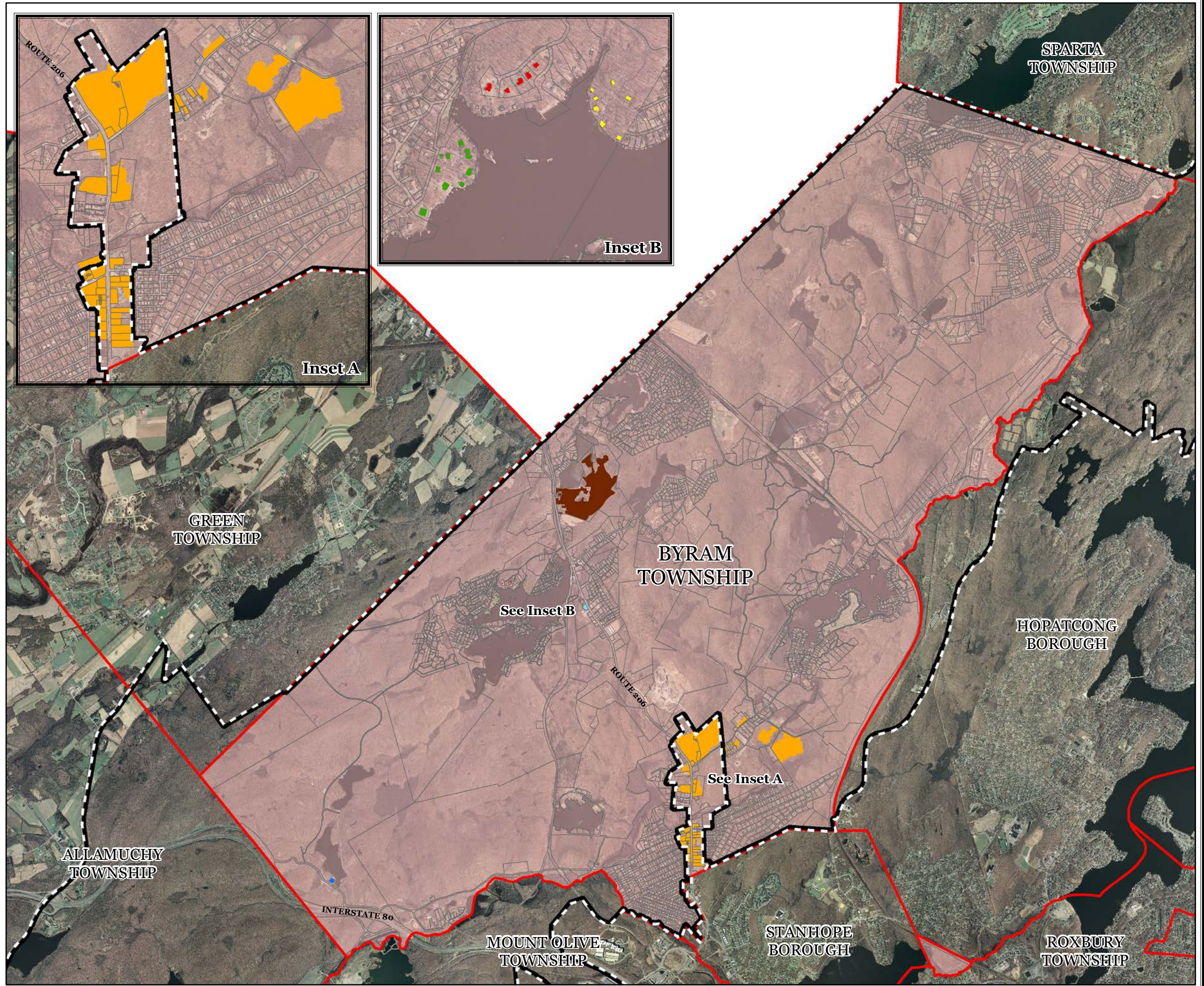
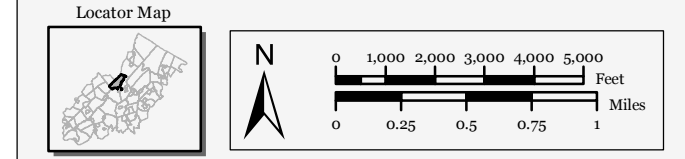
Wastewater Management Plan  
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-  NJ0027821 / Musconetcong SA / HDSF
-  NJG0085723 / Panther Lake / NON-HDSF
-  NJG0141461 / 11 Parsons Road / NON-HDSF
-  NJG0146919 / Rose Property: Division Lane / NON-HDSF
-  NJG0143057 / Rose Property: Dennis Hill / NON-HDSF
-  NJG0136905 / Camp Allamuchy / NON-HDSF
-  NJG0174726 / Timbers Restaurant / NON-HDSF
-  Municipal Boundaries
-  General Service Area for Wastewater Facilities with Planning Flows of Less Than 2,000 gallons per day (gpd) which Discharge to Ground Water\*
-  Preservation Area
-  Parcel Boundaries

\*Wastewater flows in excess of 2,000 gpd shall not be permitted in this area unless the Highlands Council has determined that the discharge is consistent with the Regional Master Plan and the discharge is approved by NJDEP as a revision or amendment to this Wastewater Management Plan. This designation includes restriction of individual subsurface sewage disposal system development or subdivisions of 6 units or greater, unless approved under septic system density provisions of the Highlands Land Use Ordinance adopted by Byram Township pursuant to Highlands Council approval of its Petition for Plan Conformance.

The information contained on this map is the best available according to the Highlands Council. However, unintentional inaccuracies may occur, particularly where data or information is derived from sources other than the Highlands Council. The Highlands Council cannot be responsible for the misuse or misinterpretation of the information presented herein. Therefore, under no circumstances shall the State of New Jersey or specifically, the Highlands Council be liable for any actions taken or omissions made from reliance on any information contained herein from whatever source nor shall the State be liable for any other consequences from any such reliance. Additional sources of information may include NJDOT and NJDEP GIS digital data, but this secondary product has not been verified by NJDEP.

Note: This figure incorporates by reference the Mapping Requirements pursuant to N.J.A.C. 7:15-5. See page 4 of the Byram Township Chapter of the Sussex County Wastewater Management Plan.



**FIGURE BYRAM-2  
FUTURE SEWER SERVICE AREAS**

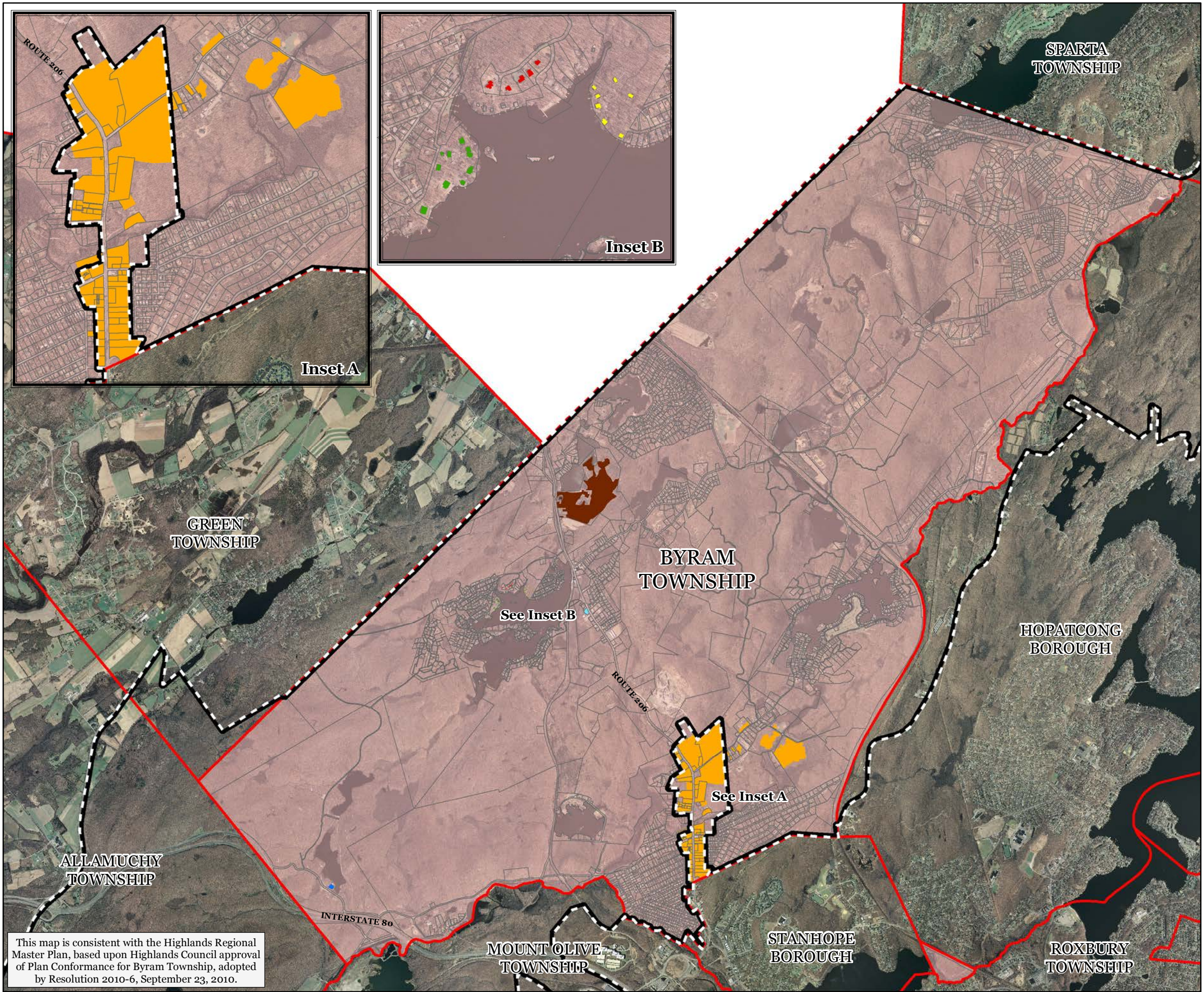
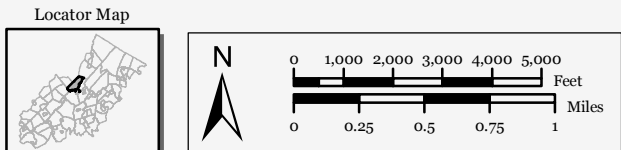
Wastewater Management Plan  
Byram Township, Sussex County, New Jersey  
December 5, 2011

- NJ0027821 / Musconetcong SA / HDSF
- NJG0085723 / Panther Lake / NON-HDSF
- NJG0141461 / 11 Parsons Road / NON-HDSF
- NJG0146919 / Rose Property: Division Lane / NON-HDSF
- NJG0143057 / Rose Property: Dennis Hill / NON-HDSF
- NJG0136905 / Camp Allamuchy / NON-HDSF
- NJG0174726 / Timbers Restaurant / NON-HDSF
- Municipal Boundaries
- Septic Area (Planning Flows of 2,000 gallons per day (gpd) or Less)\*
- Preservation Area
- Parcel Boundaries

\*Wastewater flows in excess of 2,000 gpd shall not be permitted in this area unless the Highlands Council has determined that the discharge is consistent with the Regional Master Plan and the discharge is approved by NJDEP as a revision or amendment to this Wastewater Management Plan. This designation includes restriction of individual subsurface sewage disposal system development or subdivisions of 6 units or greater, unless approved under septic system density provisions of the Highlands Land Use Ordinance adopted by Byram Township pursuant to Highlands Council approval of its Petition for Plan Conformance.

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Note: This figure incorporates by reference the Mapping Requirements pursuant to N.J.A.C. 7:15-5. See page 4 of the Byram Township Chapter of the Sussex County Wastewater Management Plan.



This map is consistent with the Highlands Regional Master Plan, based upon Highlands Council approval of Plan Conformance for Byram Township, adopted by Resolution 2010-6, September 23, 2010.

**FIGURE BYRAM-3  
PUBLIC COMMUNITY WATER SYSTEMS**

Wastewater Management Plan  
Byram Township, Sussex County, New Jersey  
December 5, 2011

**Public Community Water Systems  
Existing Area Served**

- 1918004 / Sparta Township Water
- 1904009 / Byram Homeowners Association Water Company Inc.
- 1904001 / Brookwood Musconetcong River Property Owners Association
- 1904002 / East Brookwood Estates Property Owners Association Inc.
- 1904003 / Forest Lakes Water Company
- 1904007 / Colby Water Company
- 1904004 / Northshore Water Association
- 1904006 / Strawberry Point Property Owners Association
- Briar Heights & Della Heights Property Owners Association
- South Shore Water Company
- HUC14 Subwatersheds
- Municipal Boundaries
- Preservation Area

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