

WASTEWATER MANAGEMENT PLAN
for
HUNTERDON COUNTY, NEW JERSEY

Amending the Areawide Water Quality Management Plans for:
Upper Delaware Water Quality Management Planning Area
and
Upper Raritan Water Quality Management Planning Area

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I. Introduction

The purpose of this document is to provide a comprehensive Wastewater Management Plan (WMP) for Hunterdon County. This WMP has been submitted to the New Jersey Department of Environmental Protection (NJDEP) for approval so that it may be incorporated into the Upper Delaware Areawide Water Quality Management (WQM) Plan and Upper Raritan WQM Plan via the plan amendment procedures at N.J.A.C. 7:15-3.

Alternative Assignment of Wastewater Management Planning Responsibility

As of the date of submittal, wastewater management planning responsibility for Hunterdon County remains with the Hunterdon County Board of Chosen Freeholders and no alternative assignments have occurred pursuant to NJAC 7:15-5.13.

The Hunterdon County Board of Chosen Freeholders has identified the Hunterdon County Planning Department as the county agency charged with WMP preparation and maintenance. Any proposed revisions or amendments to this WMP shall be submitted to:

Hunterdon County Planning Department,
Route 12 County Complex, Building #1
PO Box 2900
Flemington NJ 08822

Status of Previous Approved Local and Regional WMPs Affected by this Chapter of the County WMP

The Hunterdon County WMP modifies the Upper Delaware WQM Plan and the Upper Raritan WQM Plan. The WQM Planning Rules (N.J.A.C. 7:15) provide that any WMP previously adopted by NJDEP may remain in force and effect until six (6) years from that approval date. In Hunterdon County, the previously approved WMPs listed in **Table 1** are considered current.

This Hunterdon County WMP incorporates the adopted and current WMP for the City of Lambertville/Stockton Borough in the Upper Delaware WQM Planning Area. By virtue of this incorporation, the expiration date of this WMP is now coincident with that of this Hunterdon County WMP. Hard copies of this plan are accessible at the NJDEP.

Table 1. Current WMPs That Remain In Effect	
WQM Planning Area	Municipality
Upper Delaware	City of Lambertville / Stockton Borough

The wastewater service areas for Hunterdon County were adopted in the Future Wastewater Service Area (FWSA) Map prepared pursuant to P.L. 2011, c.203, which was adopted on April 24, 2012 as an amendment to the Upper Delaware WQM Plan and Upper Raritan WQM Plan. The FWSA Map was amended on July 30, 2013, as an amendment to the Upper Raritan WQM Plan. That FWSA Map remains current and in effect, except as modified as part of this WMP.

The municipalities that are not currently addressed by this WMP are listed in **Table 2**. These chapters will be submitted for NJDEP approval as they become available.

Alexandria Township	Hampton Borough*
Bethlehem Township*	High Bridge Borough*
Bloomsbury Borough*	Holland Township *
Califon Borough*	Kingwood Township
Town of Clinton*	Lebanon Borough*
Clinton Township*	Lebanon Township*
Delaware Township	Milford Borough
East Amwell Township	Raritan Township
Flemington Borough	Readington Township
Franklin Township	Tewksbury Township*
Glen Gardner Borough*	Union Township*
	West Amwell Township

*Denotes those municipalities that are conforming to the Highlands RMP. Those chapters are being developed cooperatively by the Highlands Council and the municipality. This table will be updated as individual municipal chapters are adopted.

The full county-wide analyses for municipalities not addressed in this WMP, required by the WQM Planning Rules, including wastewater services and responsibilities, water supply services and responsibilities, and environmental considerations, will be submitted as amendments to this WMP when completed.

Overview of Major Environmental, Regional and Local Considerations to Wastewater Services

Wastewater Management Planning is part of the continuing planning process required by the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and Section 208 of the federal Clean Water Act. The intent of the continuing planning process is to align federal, State, regional and local land use planning to ensure that these land use plans do not conflict with each other.

The provision of environmental infrastructure, in particular centralized sewer service, has a profound influence on development patterns and intensity. The wastewater management planning process is intended to assign an appropriate wastewater management treatment alternative to geographic areas based on environmental sensitivity and other land use planning objectives such as regional center-based development or farmland preservation. The extension of public sewers into areas designated for protection by federal, State, regional or local land use plans would be inconsistent with those protection objectives.

The adopted WQM Planning Rules (N.J.A.C. 7:15) generally exclude the extension of sewer service into large contiguous areas, defined as 25 acres or more, of wetlands, category one water buffers, Natural Heritage Priority Sites and/or endangered and threatened species habitat. The extension of sewer service into these areas would encourage their development and thus conflict with the Department of Environmental Protection's statutory mandate to protect these resources.

It should be noted that under limited circumstances environmentally sensitive areas that meet the 25 acre threshold may be included in the sewer service area as necessary to preserve the investment in projects having already received certain local and State approvals, to relate sewer service areas to recognizable geographic features, or to accomplish center based development proposed by the local land use planning authority and approved by the NJDEP through the plan endorsement process.

Additional regional and local land use planning objectives used in delineating appropriate areas for public sewer service are discussed in the municipal chapters of this WMP.

II. Environmental and Other Land Features

This section includes a description and mapping of environmental features and public open space for the County. These features are significant to wastewater management planning for three reasons: they may influence the delineation of sewer service areas, they may reduce the potential future wastewater generation due to existing regulatory programs, or they may be subject to federal grant limitations that prohibit the extension of sewer service into these areas. Some of this mapping has been used in the development of a map of environmentally sensitive areas where the extension of sewer service areas is restricted (see Delineation of Sewer Service Areas, below).

Development in areas mapped as wetlands, flood prone areas, designated river areas, or other environmentally sensitive areas may be subject to special regulation under Federal or State statutes or rules. Interested persons should check with the Department of Environmental Protection for the latest information. Depiction of environmental features is for general information purposes only, and shall not be construed to define the legal geographic jurisdiction of such statutes or rules.

Surface Waters and Classifications - Map 3C shows the surface waters as mapped by NJDEP based on 2002 aerial photography. This is the most current mapping of surface waters for which surface water quality standards classifications were available. Riparian zones or buffers that have been established along all surface waters under the Flood Hazard Area Control Act Rules, the Water Quality Management Planning Rules and through municipal ordinances are not shown on this map. Most development within these riparian zones is limited by these regulatory programs.

Major County Stream systems, lakes and reservoirs: Delaware River, South Branch Raritan River, Musconetcong River, Spruce Run Reservoir, Round Valley Reservoir.

C1 Waterways - Map 3C shows Category One (C-1) waters, their tributaries and all Highlands waters are shown. Surface waters that are designated Category One are listed in the Surface Water Quality Standards at N.J.A.C. 7:9B. The Department's "Surface Water Quality Standards" GIS data layer was utilized to determine these waters. The applicable 300 foot buffer (not shown on map) has been applied to these waterways and removed from the proposed sewer service area. Lesser width buffers have not been graphically removed from the sewer service area but are not proposed for sewer service and have been removed during the build-out analysis. Jurisdictional determinations by the NJDEP have been utilized to determine the extent of the sewer service area on individual lots.

C1 Waterways in Hunterdon County: Alexauken Creek, Beaver Brook, Black Brook, Boulder Hill Brook, Cakepoulin Creek, Cold Brook, Delaware River, Herzog Brook, Hickory Run, Grandin Stream, Guinea Hollow Brook, Hakhokake Creek, Lamington River, Little Nishisakawick Creek, Little York Creek, Locketong Creek, Muddy Run, Mulhockaway Creek, Musconetcong River, Nishisakawick Creek, North Branch Rockaway Creek, Plum Brook, Rocky Run, Round Valley Reservoir, South Branch Raritan River, South Branch Rockaway Creek, Spring Mills Brook, Spruce Run, Spruce Run Reservoir, Stony Brook, Teetertown Brook, Turkey Hill Brook, Warford Creek, West Portal Creek, Wickecheoke Creek, Willoughby Brook

Wild and Scenic Rivers and Corridors –Map 3C shows the County's wild and scenic rivers and corridors as mapped by the National Park Service or the NJDEP.

County Wild and Scenic Rivers and Corridors: Delaware River (entire length of the County's western Boundary), Musconetcong River (entire length of County's northern boundary)

Freshwater Wetlands -- County freshwater wetlands as mapped by the NJDEP are shown in **Map 3C**. Freshwater Wetlands are regulated under the Freshwater Wetlands Protection Act Rules, which place stringent limits on development within these areas.

Coastal Wetlands – There are no coastal wetlands, as defined pursuant to the Wetlands Act of 1970, nor non-coastal estuarine wetlands, in Hunterdon County.

Public Open Space, Recreation Areas,– **Map 4C** shows the land areas currently protected from development as public open space and also shows other recreational areas that are owned and operated by land trusts, non-profit associations, and for-profit recreational businesses. These areas are not expected to support additional development. While smaller dedicated open spaces exist, they do not have a significant effect on the delineation of wastewater service areas or the future generation of wastewater flow.

Total Public Open Space Acreage - 8344 Acres (as of June 2013)

Table 3 Major County Parks	
Name	Acres
Point Mountain Reservation	1,082
South Branch Reservation	905
Musconetcong Gorge	905
Cushetunk Mt. Nature Preserve	380
Sourland Nature Preserve	365
Hoffman Park	354
Schick Reserve	311
Miquin Woods Nature Preserve	302

Preserved Agricultural Areas and Other Conservation Easements on Private Lands, - **Map 4C** shows the land areas currently protected from development as agricultural lands from which the development rights have been retired by purchase, donation, lot size averaging, open space or conservation development, non-contiguous transfer of development credits, or Transfer of Development Rights, to the extent that data are available. These areas are not anticipated to support significant additional wastewater generating development.

Total Preserved Agricultural Acreage - 28,812 Acres (as of June 2013)

Table 4 Major County Farms Preserved	
Farm Owner	Acres
Amwell Conservancy	591
Gordeuk	330
Serenity Hills	286
Panacek	256
Mason	242
Dobozynski,	233
Kanach,	219
NJCF/Jones	216

Suitable Habitat for Threatened and Endangered Species – **Map 4C** shows the areas identified by the NJDEP as being suitable habitat for threatened and endangered species, Ranks 3, 4 and 5, using the Landscape Project Version 3.1.

Landscape Project Version 3.1 was not used to identify environmental constraints for the purpose of delineating the County's Sewer Service Area (SSA) as described in Section III. A combination of Landscape Project Version 2.1 and Version 3.0, the current versions of the Landscape Project when the FWSA Map was developed, were used for the remainder of the County. Changes to future wastewater service area in Frenchtown Borough, proposed as part of this WMP, utilize Landscape Project Version 3.1, which is the current version at the time of submittal. The County has not verified the mapping of these areas.

Natural Heritage Priority Sites – Map 4C shows the natural heritage priority sites mapped by NJDEP as of the date of this WMP. This mapping was primarily used in the delineation of sewer service areas as described in Section III.

Table 5 County Natural Heritage Priority Sites	
Abralyts - Pine Stand Site	Javes Road Site
Bulls Island	Milford Bluffs
Byram	Raven Rock
Devils Tea Table	Sand Brook
East Amwell Grasslands Macrosite	Solberg Airport
Goat Hill	Treasure Island
Hell Mountain	Vinces Ravine
Holcombe Island	

Steep Slopes –Steep slopes areas defined as those slopes with 20 percent or greater. Steep slopes will be shown on the applicable Municipal Chapter Maps (**Appendix F**) where relevant. These slopes are mapped using the USGS 10-meter Digital Elevation Model. There are limitations to the USGS data due to resolution issues. The development potential of steep slopes is reduced by the Water Quality Management Planning Rules.

III. Delineation of Sewer Service Areas and Planning Integration

The WQM Planning Rule at NJAC 7:15-5.22 requires coordination with and solicitation of comments or consent from certain agencies, entities and plans, and consistency with other plans. This section addresses those requirements. This chapter provides the method used to delineate future sewer service areas based on the mapping of significant environmentally sensitive areas, and consistency with other regional plans.

Environmentally Sensitive Areas

Under the WQM Planning Rules, large contiguous environmentally sensitive areas, generally defined as 25 acres or greater in size should be excluded from sewer service areas except under certain circumstances such as providing service to development that has already secured prior approvals or center based development approved by the NJDEP through the Plan Endorsement process. This analysis was performed using the following process:

Identify areas (to the extent that GIS interpretations are available) where pre-existing grant conditions and requirements (from Federal and State grants or loans for sewerage facilities) provide for restriction of sewer service to environmentally sensitive areas, and then delete areas (if any) where a map revision or grant waiver has been approved by USEPA. Note: pre-existing grant conditions and requirements (from Federal and State grants or loans for sewerage facilities) which provide for restriction of sewer service to environmentally sensitive areas are unaffected by adoption of this WMP and compliance is required.

Merge the GIS layers for wetlands, Category One riparian zones, Natural Heritage Priority Sites, and Threatened and Endangered Species habitats, and any others used by the County into a single composite GIS coverage. Correct the composite areas by eliminating areas designated as urban in the most recent land use land cover layer to address land use/land cover modifications that have occurred since the environmental feature layers were prepared. It is noted for public information purposes that the excluded areas may be protected through other NJDEP regulatory programs such as the Flood Hazard Area Control Act and Freshwater Wetlands Act Rules, and may be protected by municipal ordinances as well.

It should be noted that Landscape Project Version 3.1 was not used to identify environmental constraints for the purpose of delineating the County's Sewer Service Area (SSA) as described above. A combination of Landscape Project Version 2.1 and Version 3.0, the current versions of the Landscape Project when the FWSA Map was developed, were used for the remainder of the County. Changes to future wastewater service area in Frenchtown Borough, proposed as part of this WMP, utilize Landscape Project Version 3.1, which is the current version at the time of submittal.

Sewer Service Areas in Environmentally Sensitive Areas

The WQM Plan Rules allow for inclusion of environmentally sensitive areas under limited conditions.

Where a development has secured approval under the Municipal Land Use Law and possesses a valid wastewater approval, the site may be included in the sewer service area if consistent with that valid wastewater approval.

Where a project has an approved site-specific water quality management plan and wastewater management plan amendment from the Department the project may be included in the wastewater management plan consistent with that approved site specific amendment for a

period of six years from the date the amendment was adopted. There are not any projects in the County that fit this category.

Where environmentally sensitive areas are bordered on either side by areas with existing sewer service, and where the infill development would generate 2,000 gallons per day (GPD) or less of sewage based on existing zoning and where the area to be included does not include habitat critical to the recovery potential or the survival of a local population of an endangered or threatened species.

Where sewer service is necessary to support center based development under an "endorsed plan" (through the State Planning Commission relative to the State Development and Redevelopment Plan) and would not remove habitat critical to endangered or threatened species. Where such modifications have been made, they are noted in the individual municipal chapters.

Where necessary to create a linear boundary that related to recognizable geographic features and would not remove habitat critical to the recovery potential or the survival of a local population of an endangered or threatened species.

A listing of such instances are available in the individual municipal chapters.

Delaware River Basin Commission

The Delaware River Basin Commission (DRBC) regulates the discharge of pollutants into, and the withdrawal of water from, the Delaware River Basin; therefore, wastewater and water supply decisions affecting the Delaware River Basin must be coordinated with the Commission.

NJ Highlands Water Protection and Planning Council

The goals and objectives of the Highlands Water Protection and Planning Act (Highlands Act) require protection of designated water uses within areas that are within the Highlands region. The Highlands Council has developed their own methodology for computing appropriate septic system densities for municipalities within the Highlands region. The Highlands Council regulates the discharge of pollutants into, and the withdrawal of water from, the surface water and ground water that are within the Highlands region. Therefore, wastewater and water supply decisions affecting surface and ground water within the Highlands region must be coordinated with the Highlands Council.

Municipal chapters for those municipalities conforming to the Highlands Regional Master Plan are being developed cooperatively by the Highlands Council and the municipalities. Those chapters will be proposed as amendments as they are completed. See **Table 2** for a list of these municipalities.

Proposed Wastewater Service Areas

Map 2C shows the proposed wastewater service areas for the Hunterdon County WMP that are outside of the Highlands Region. These wastewater service areas are consistent with the adopted Future Wastewater Service Area (FWSA) map, as amended. Minor changes have also being made to the Frenchtown Borough SSA as part of this WMP.

Pre-existing grant conditions and requirements (from Federal and State grants or loans for sewerage facilities) which provide for restriction of sewer service to environmentally sensitive areas, are unaffected by adoption of this WMP and compliance is required. Please see municipal WMP Chapters for the existence of any applicable environmentally sensitive areas in which Federal 201 grant limitations prohibit the extension of sewer service.

The 300 foot riparian buffer has been applied to the applicable waterways and removed from the proposed sewer service areas on the mapping. Lesser width buffers have not been graphically removed from the sewer service area but are not proposed for sewer service. Jurisdictional determinations by the Department will be utilized to determine the extent of the sewer service area on individual lots.

All areas not mapped as sewer service areas and that are outside of the Highlands Region are designated as "Discharge to Groundwater less than 2,000 GPD".

IV. Future Wastewater Demand and Facilities

This chapter describes the build out methodology used to project future wastewater treatment demand for future sewer service areas and non-sewer service areas. Municipal zoning was applied to the developable area within the sewer service area after removing those areas where development is not expected to occur: open space, wetlands, steep slopes, riparian zones, and irregular polygons. The build out in the non-sewer service area was calculated by applying municipal zoning over all undeveloped land except polygons too small to support additional development generally defined as less than one acre. The number of residential units and non-residential floor area were then multiplied by the wastewater planning flow estimates in either N.J.A.C. 7:14A or 7:9A as appropriate. The same build-out used for the wastewater demand was also used to predict future water supply demand, except that the flow multiplier used to predict future water supply demand is slightly higher than that used for wastewater demand. The results of the analysis are presented in the Facility tables (**Appendix A**) and the Build-Out tables (**Appendix B**).

Conformance and Nonconformance with Zoning and Prior Land Use Approvals

Where the WMP build-out deviates from current zoning or prior land use approvals, such deviation and the reasons for the deviation are explained. Deviation from current zoning can be justified through reference to an adopted municipal master plan and the formal introduction of a new or revised zoning ordinance that would implement the master plan. Deviation from prior land use approvals can be justified through expectations of land preservation, a court decision or negotiated settlement, or sunset provisions applying to the approvals.

Calculating Future Wastewater and Water Supply Needs and Capacity

Using existing wastewater and water supply facilities, sewer service area delineation, environmentally sensitive areas, and municipal zoning to project build-out, an analysis of wastewater and water supply demands was performed to determine whether existing infrastructure capacity or zoning is the constraining factor. Where zoning is more restrictive than wastewater and water supply capacity and does not conflict with the environmentally sensitive areas, no change in zoning is needed. Where the demand projections exceed available wastewater treatment or water supply capacity, either the projections must be reduced or capacity increased.

Municipal Demand Projections in Urban Municipalities

The WQM Planning rules define urban municipalities as those municipalities where less than 10 percent of the total land area of the municipality is "available land for development" after subtracting out permanently preserved open space. In these municipalities it is assumed that redevelopment of previously developed portions of the municipality will make up the majority of the future wastewater management needs. Therefore, an application of zoning to the undeveloped and developable land area of the municipality in these municipalities may underestimate their future wastewater management needs. In these municipalities a 20-year wastewater projection is based on population and employment projections. Flemington Borough is the only municipality that meets NJDEP's definition of an urbanized municipality (http://www.state.nj.us/dep/wqmp/docs/municipal_table.pdf).

Municipal Demand Projections in Non-urban Municipalities

In the remaining municipalities it is anticipated that development of vacant land will be the predominant factor in determining future wastewater treatment needs. Further, because external market and economic forces, such as interest rates, are a dominant factor in determining the rate of construction, this analysis assesses the ability to provide wastewater treatment while protecting surface and ground water quality for the entire projected build out allowable by zoning. There are two separate methods employed for calculating future wastewater generation at build out depending based on the wastewater service area designation.

Future Wastewater from Non-Urban Municipalities' Sewer Service Areas

In designated sewer service areas the following features have been removed prior to the application of zoning to the undeveloped land area because they are unlikely to generate wastewater in the future: wetlands, riparian zones, permanently preserved farmland, permanently preserved open space and cemeteries. The existing zoning is then applied to the remaining developable land area within the sewer service area(s) to project a build out condition for use in estimating the future wastewater management needs of each sewer service area. Build out data for each municipality is presented in **Appendix B**. The build out data is then converted to a projected future wastewater flow by applying the planning flow criteria from N.J.A.C. 7:14A based on the type of development projected.

For example, single-family residential development is assumed to consist of houses having three or more bedrooms per house, and each projected new house is multiplied by 300 gallons per day to predict the future wastewater generated. For non-residential land uses the anticipated floor area is multiplied by 0.1 gallon per day to predict future wastewater generation. The projected wastewater data is also aggregated by wastewater treatment plant and presented as the future flow in facilities tables in **Appendix A** for comparison to the existing permitted capacity of each facility. This wastewater projection data is also aggregated by public water supply service area and wastewater treatment plant to facilitate an understanding of future depletive water uses in tables presented in **Appendix B**.

Septic System Development within the Sewer Service Areas

Individual subsurface sewage disposal systems (ISSDS) for individual residences can only be constructed in depicted sewer service areas 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. Compliance with the connection requirement has been demonstrated through adoption of Frenchtown Borough Ordinance 16-5.4.

Collection System Construction within the Sewer Service Areas

Where an area is designated for sewer service but the required trunk line or collection main has not yet been constructed, dry sewer lines will not be required to be constructed within each new development. The developments will be connected to the sewer system as line capacity is constructed.

Future Wastewater Outside of Sewer Service Areas

The default wastewater management alternative to support development in areas that are not designated as sewer service area is discharge to groundwater of 2,000 gallons per day or less. The nitrate dilution analysis for septic systems is performed in similar fashion to that conducted for sewer service areas except that environmentally sensitive areas are not removed prior to performing the build out analysis. This is due to the fact that while certain areas may be unbuildable, such as riparian zones or steep slopes, they still contribute to the overall available dilution of nitrate in groundwater. Environmentally sensitive areas *were not* removed when analyzing the available dilution on a HUC 11 basis used to establish the maximum number of units that can be built in a watershed and continue to meet the 2 ppm nitrate target. Thus while some areas may contribute less overall groundwater recharge, due to factors such as soils or topography, these limitations have already been taken into consideration when calculating the maximum average density allowable.

This analysis used NJDEP's nitrate-nitrogen target of 2 mg/L, with the assumption that all ammonium and other nitrogen compounds are converted to nitrate within the property, and that the nitrate concentrations dilute evenly across the HUC11. These assumptions are implicit in the nitrate dilution model developed by NJDEP. The County ran the analysis using annual average recharge (provided in the GSR-32 model)

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:(B, and/or the Ground Water Quality Standards at N.J.A.C. 7:9-6". Where this requirement has been studied and reviewed as part of the WMP process this classification appears on Map 3C. 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: 1) DEP 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. 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. 7:9-6.

The full county-wide analyses for municipalities not addressed in this WMP, required by the WQM Planning Rules, including wastewater services and responsibilities, water supply services and responsibilities, and environmental considerations, will be submitted as amendments to this WMP when completed.

VI. Analysis of Capacity to Meet Future Wastewater Needs

The next step in the wastewater management planning process is to assess whether there is sufficient wastewater treatment capacity to meet the needs of the county based on the projections described above. For sewer service areas this requires the aggregation of municipal wastewater projections by sewage treatment plant and a comparison of the projected future demand to the existing permitted capacity of the sewage treatment plant. Where a sewage treatment plant does not have sufficient remaining capacity to meet the future wastewater needs of the service area three possible solutions exist: 1. reduce the proposed sewer service area, 2. reduce the intensity of development within the sewer service area, or 3. demonstrate that the sewage treatment plant can be expanded without violating water quality standards.

In areas outside of sewer service areas, the default wastewater management alternative is discharge to groundwater of 2,000 gallons per day or less, commonly referred to as septic systems. The assessment of water quality impacts from development on septic systems relies on nitrate concentration. In this analysis, Nitrate acts as a conservative surrogate for any of a number of constituents that could be discharged from a septic system (e.g. cleaners, solvents, pharmaceuticals, etc.). Nitrate was chosen because it is highly soluble in water, and because it is a stable compound that by itself could render water unsuitable for human consumption. The capacity to support septic systems without violating groundwater quality standards is determined by the amount of dilution available. The WQM Planning Rules advocate a watershed approach to assessing the adequacy of available dilution to meet future development on septic systems. Using this approach, available dilution, (essentially groundwater recharge), is calculated within a HUC 11 watershed and translated into a finite amount of wastewater that can be discharged, which in turn can be translated into a finite number of housing units that can be supported while maintaining a target concentration of nitrate in groundwater. Zoning is then applied to the available land in that same watershed, outside of any sewer service area, to calculate the number of units that could be developed on septic systems. The results of these two analyses are then compared and if the number of units based on zoning does not exceed the maximum units that can be supported, adequate capacity has been demonstrated. If the number of units allowed by zoning exceeds that which can be supported in a particular watershed, then some adjustment to zoning within that watershed is required.

The full county-wide analyses for municipalities not addressed in this WMP, required by the WQM Planning Rules, including wastewater services and responsibilities, water supply services and responsibilities, and environmental considerations, will be submitted as amendments to this WMP when completed.

Domestic Wastewater Treatment Facility (NJPDES#) or General Service Area	Facility Permitted Flow (MGD)	Existing Flows (MGD)	Projected Residential Dwelling Units	Projected Residential Flow (MGD)	Projected Industrial Units (sq ft)	Projected Industrial Flow (MGD)	Projected Commercial Units (sq ft)	Projected Commercial Flow (MGD)	Total Future Planning Flows (MGD)	Excess (Deficit) Facility Capacity (MGD)
Frenchtown Boro STP (NJ0029831)	0.1500	0.154	288	0.0735	0	0	0	0	0.2275	(0.0775)
Albert Elias Residential Community Home (NJG0076422)	0.0032									
Boy Scout Camp Treasure Island, (NJG0154814)	0.003									
Buddie's Diner (NJG0174785)	N/A									
Century Tube Corp (NJG0169382)	N/A									
Clinton Town WWTP (NJ0020389)	2.03									
Copper Hill Country Club (NJG0074128)	0.0046									
Copper Hill School (NJ0108332)	0.015									
Deer Path Family YMCA (NJG0132454)	0.01									
Delaware Township MUA (NJ0027561)	0.065									
Delaware Valley Regional High School (NJG0173894)	N/A									
East Amwell Twp School (NJG0134317)	0.0083									
Franklin Twp Elementary School (NJG0072435)	0.0043									
Kingwood Twp School (NJG0023311)	N/A									
Lambertville Sewerage Authority (NJ0020915)	1.5									
Lester D. Wilson Elementary School, NJ0027553	0.005									
Magnesium Elektron INC, (NJ0128911)	N/A									
Milford Sewer Utility (NJ0021890)	0.4									
Pine Creek Miniature Golf (NJG0161136)	0.004									

Table 6 (Continued)		Future Wastewater Planning Flows By Facility or General Service Area								
Domestic Wastewater Treatment Facility (NJPDDES#) or General Service Area	Facility Permitted Flow (MGD)	Existing Flows (MGD)	Projected Residential Dwelling Units	Projected Residential Flow (MGD)	Projected Industrial Units (sq ft)	Projected Industrial Flow (MGD)	Projected Commercial Units (sq ft)	Projected Commercial Flow (MGD)	Total Future Planning Flows (MGD)	Excess (Deficit) Facility Capacity (MGD)
Rambling Pines Day Camp (NJG0161136)	.0097									
Raritan Township MUA STP (NJ0022047)	3.8									
Readington-Lebanon SA (NJ0098922)	0.8									
Ridge at Back Brook (NJ0139157)	N/A									
Route 12 Business Park LLC (NJ0145891)	0.0024									
Salvation Army, Camp Tecumseh WTP (NJ0023001)	0.018									
South Hunterdon Regional High School (NJG0131261)	N/A									
Stanton Properties (NJ007482)	N/A									
The Pittstown Inn (NJG0140708)	N/A									
Uncle Scott's Steakhouse (NJG0174424)	N/A									
Valley View Health Care & Rehabilitation (NJG0184772)	0.0083									
Verducci's Specialty Market (NJ0108294)	N/A									
Vianini Pipe Ic. (NJ0032328)	N/A									
West Amwell Elementary School (NJG0134520)	0.0053									
Whitehouse Plaza (NJG0142662)	0.002									

Adequacy of Sewage Treatment Plant Capacity

Table 7 further separates the countywide projections by sewage treatment facility and municipality. Details of the projections are included within the municipal chapters, which also address any needs for new or expanded treatment facility discharges.

Table 7 Wastewater Generation by Sewage Treatment Facility and Municipality				
Facility	NJPDES Permit	Facility Type (DGW/DSW)	Municipality	Projected Flow (MGD)
Frenchtown Borough STP	NJ0029831	SW	Frenchtown Borough	0.2275
Albert Elias Residential Community Home	NJG0076422	GW	East Amwell Twp	
Boy Scout Camp Treasure Island,	NJG0154814	GW	Kingwood Twp	
Buddie's Diner	NJG0174785	GW	West Amwell	
Century Tube Corp	NJG0169382	GW	Readington Twp	
Clinton Town WWTP	NJ0020389	SW	Franklin Twp	
Copper Hill Country Club	NJG0074128	GW	Raritan Twp	
Copper Hill School	NJ0108332	GW	Raritan Twp	
Deer Path Family YMCA	NJG0132454	GW	Readington	
Delaware Township MUA	NJ0027561	SW	Delaware Twp	
Delaware Valley Regional High School	NJG0173894	GW	Alexandria Twp	
East Amwell Twp School	NJG0134317	GW	East Amwell Twp	
Franklin Twp Elementary School	NJG0072435	GW	Franklin Twp	
Kingwood Twp School	NJG0023311	GW	Kingwood Twp	
Lambertville Sewerage Authority	NJ0020915	SW	City of Lambertville	
Lester D. Wilson Elementary School,	NJ0027553	GW	Alexandria	
Magnesium Elektron INC,	NJ0128911	GW	Flemington	
Milford Sewer Utility	NJ0021890	SW	Milford Borough	
Pine Creek Miniature Golf	NJG0161136	GW	West Amwell	
Rambling Pines Day Camp	NJG0161136	GW	East Amwell	
Raritan Township MUA STP	NJ0022047	SW	Raritan Twp / Readington Twp	
Readington-Lebanon SA	NJ0098922	SW	Readington Twp	
Ridge at Back Brook	N0139157	GW	East Amwell	
Route 12 Business Park LLC	NJ0145891	GW	Kingwood Twp	

The facilities tables in **Appendix A** provide detailed information on the planning flows for each new and expanded treatment facility. The following facilities will require new or expanded capacity:

Facility	Domestic (D) or Industrial (I)	DGW/DSW	Existing Permitted Flow (MGD)	Future Flow Projection (MGD)
Frenchtown Wastewater Treatment Plant	D	DSW	0.15	0.2275

Antidegradation Analysis for New and Expanded Domestic Treatment Works

For the Frenchtown Borough upgraded Wastewater Treatment Plant, the Delaware River Basin Commission performed a “no measurable change analysis” prior to issuing the Docket which is equivalent to an antidegradation study. Due to the use of Best Demonstrable Technology (BDT) in the upgraded Treatment Plant, there will be a significant load reduction from this project. The use of BDT for the potential incremental flow of 0.11 MGD “will satisfy the no measurable change (NMC) to existing water quality (EWQ) requirement for the expansion” (See DRC Docket No. D-2010-021 in **Appendix H**)

Relationship to Water Quality Classification

New and expanded discharges will not be permitted in FW1 surface waters or Class I-A ground waters. New and expanded discharges that would degrade current water quality will not be permitted in FW2- Category 1 surface waters or Highlands Preservation Area ground and surface waters. New and expanded discharges to FW2-Category 2 surface waters and Class II-A ground waters may be permitted subject to an analysis of their potential to degrade water quality, the justification for doing so, opportunities for avoiding such degradation, and an overriding requirement that any degradation may not be allowed to violate or increase the violation of standards.

Additional requirements for new or expanded treatment works or increased pollutant loads will be applied through the NJDEP regulatory process, including but not limited to compliance with antidegradation requirements of the Surface Water Quality Standards, NJAC 7:9B, and the Ground Water Quality Standards, NJAC 7:9C. Most stringent of these are the nondegradation requirements. Nondegradation 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: 1) DEP will not approve any pollutant discharges to an FW1 stream, with the exception of upgrades to or continued operation of existing facilities serving existing development. 2) DEP 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. 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. Nondegradation requirements also apply in most situations for waters of the Highlands Preservation Area.

Discharges to Ground Water

There are no major issues related to a comparison of generation to capacity, zoning changes needed to keep within capacity, etc. for municipal chapters included in this County WMP Amendment

Adequacy of dilution to meet future non-sewer service area demand

Average lot sizes were calculated for each the HUC 11 using a target of 2 ppm Nitrate concentration based on the overall dilution available in the watershed.

For the municipal chapters included in this County WMP Amendment, the algorithm used to determine allowable number of units in each HUC11 included the removal of permanently preserved open space and farmland. There was no consideration for distribution of units among neighboring municipalities within each HUC11.

Where a municipal chapter does not exist, the County WMP anticipates that NJDEP will use its regulatory authority under NJAC 7:15 and other laws to ensure compliance with this nitrate dilution analysis or the Highlands Rules at NJAC 7:38, whichever is more stringent, for any development regulated by NJDEP. Developments in such municipalities that do not require any NJDEP approval will not be affected.

For the purposes of this analysis it is inconsequential if one municipality's zoning exceeds its allocation provided that the HUC 11 does not exceed the total sustainable development. Where a municipal chapter does not exist, the County WMP removes that municipality's land area from the analysis. NJDEP will use its regulatory authority under NJAC 7:15 and other laws to ensure compliance with the 2 ppm nitrate dilution standard or the Highlands Rules at NJAC 7:38, whichever is more stringent, for any development regulated by NJDEP. Developments in such municipalities that do not require any NJDEP approval will not be affected.

The zoning within the general service area for discharges to ground water equal to or less than 2,000 gallons per day (i.e., septic systems or individual subsurface sewage disposal systems, ISSDS) is compared to the allowable densities as determined through nitrate dilution analysis.

Table 9 Septic System Densities and Allocations by HUC11 using Annual Average Ground Water Recharge (GSR-32)

Total Developable Land Outside of SSA / Average Lot size required = Units Allowed

HUC11	Municipality	Developable Land (Acres)	Density (Average Acreage)	Units Allowed	Build-Out ISSDS Units	HUC11 Surplus /(Deficit)
02030105010	Tewksbury Twp		3.9			
	Califon Borough					
	High Bridge Borough					
	Alexandria Twp					
	Clinton Twp					
	Town of Clinton					
02030105020	Raritan Twp		4.7			
	Readington Twp					
	Franklin Twp					
	Alexandria Twp					
	Clinton Twp					
	Town of Clinton					
	Lebanon Twp					
	Union Twp					
	Glen Gardner Borough					
	Bethlehem Twp					
	Flemington Borough					
02030105030	Delaware Twp		6			
	East Amwell Twp					
	Raritan Twp					
	West Amwell Twp					
02030105040	Raritan Twp		5.6			
	Readington Twp					
02030105050	Readington Twp		4.1			
	Lebanon Borough					
02030105070	Readington Twp		6			
02030105090	East Amwell Twp		6.2			
02030105110	East Amwell Twp		6.5			

Table 9 Septic System Densities and Allocations by HUC11 using Annual Average Ground Water Recharge (GSR-32)

Total Developable Land Outside of SSA / Average Lot size required = Units Allowed						
HUC11	Municipality	Developable Land (Acres)	Density (Average Acreage)	Units Allowed	Build-Out ISSDS Units	HUC11 Surplus / (Deficit)
02040105160	Bethlehem Twp		4.4			
	Bloomsbury					
	Holland Twp					
	Lebanon Twp					
02040105170	Franklin Twp		5.3			
	Frenchtown	185.5	5.3	35	5	30
	Kingwood Twp					
	Alexandria Twp					
	Holland Twp					
	Milford Borough					
02040105200	Franklin Twp		6			
	Kingwood Twp					
	Raritan Twp					
	Alexandria Twp					
	Delaware Twp					
02040105210	East Amwell Twp		6			
	Delaware Twp					
	Stockton Borough					
	City of Lambertville					
	West Amwell Twp					

Compliance with Environmental Protection Standards

The County WMP must ensure that proposed wastewater service areas are in the proper areas and will minimize or eliminate primary and secondary environmental impacts. The identification of appropriate wastewater service areas begins with the analysis of environmentally sensitive areas discussed above. Added to this result are the build-out analyses. The result is a determination of what areas are both zoned for and appropriate for community sewer service, and which areas are not appropriate for sewers due to zoning, environmentally sensitive areas, or both. The WQM Planning Rules require that development densities and aggregated demands or impacts remain within thresholds. Where the thresholds are exceeded, either the size or development density of a sewer service area or the development density of a non-sewered area must be reduced, or the impact must be mitigated. This plan has demonstrated compliance with these capacity constraints.

However, there are other environmental considerations regarding pollutant loadings, water supply and other factors. In some cases (e.g., riparian zones and steep slopes) the WQM Planning Rules require that municipal ordinance ensure protection of these areas regardless of their wastewater service area. Further, the WQM Planning Rules establish that avoidable development within these areas is inconsistent with the Statewide Water Quality management

plans and the Department cannot issue any permits or approvals for development of these areas

TMDLs and Watershed Restoration/Regional Stormwater Management Plans

There are no existing adopted TMDLs or regional stormwater management plan requirements that this submitted WMP amendment needs to comply with.

VII. Future County Water Supply

Sufficiency of Water Supply

Pursuant to N.J.A.C. 7:15-5.25(f), a water supply analysis for Hunterdon County is required to demonstrate that the water supply needs associated with existing and future development do not conflict with the current New Jersey State Water Supply Plan. The current New Jersey State Water Supply Plan was adopted in August 1996.

Insufficient water supply information is available at this time to make any firm determinations on the sufficiency of water supply.

Purveyor (PWSID#)	Municipality	Facility Water Allocation (MGD)	Existing Water Demand (MGD)	Projected Residential Demand (MGD)	Projected NonResidential Demand (MGD)	Excess (Deficit) (MGD)
<i>NJ American Water (1011001)</i>	Frenchtown Borough	0.2790	0.122	0.0655	0.0	0.0915
<i>Aqua New Jersey (1003001)</i>	Bloomsbury	0.1500				
<i>Aqua New Jersey (1004001)</i>	Califon	0.1839				
<i>Aqua NJ - Bunnvale (1019001)</i>	Lebanon Twp	0.0965				
<i>Aqua NJ - Fox Hill (1015004)</i>	Holland Twp	0.0516				
<i>Aqua NJ - Riegal Ridge (1015003)</i>	Holland Twp	0.1097				
<i>Bloomsbury Water Dept (1001301)</i>	Bloomsbury Twp	0.0116				
<i>Camelot at Spruce Ridge (1019003)</i>	Lebanon Twp	N/A				
<i>Clinton Water Dept. (1005001)</i>	Town of Clinton	2.8390				
<i>Crossroads at Oldwick (1024001)</i>	Tewksbury Twp	0.1000				
<i>Delaware Twp MUA (1007001)</i>	Delaware Twp	0.1000				
<i>Edna Mahan Correctional (1025001)</i>	Union Twp	0.0311				
<i>Flemington Water Dept (1009001)</i>	Flemington Borough	0.9678				
<i>Glen Gardner Water Dept (1012001)</i>	Glen Gardner	0.2000				
<i>Hagedorn Hospital (1019002)</i>	Lebanon Twp	0.0739				
<i>Hampton Water Dept (1013001)</i>	Hampton Borough	0.2129				

Purveyor (PWSID#)	Municipality	Facility Water Allocation (MGD)	Existing Water Demand (MGD)	Projected Residential Demand (MGD)	Projected NonResidential Demand (MGD)	Excess (Deficit) (MGD)
High Bridge Water Dept (1014001)	High Bridge	0.6171				
Hunterdon Care Center (1021363)	Raritan Twp	0.1000				
Hunterdon Hills Residential Homes (1019301)	Lebanon Twp	N/A				
Little Brook Nursing Home (1019311)	Lebanon Twp	N/A				
Meadows at Oldwick (1024003)	Tewksbury Twp	N/A				
Milford Water Dept (1020001)	Milford Borough	0.3226				
NJ American Water (2004002)	East Amwell Twp	N/A				
NJ American Water (2004002)	Raritan Twp	N/A				
NJ American Water (2004002)	Readington Twp	N/A				
NJ American Water (2004002)	Tewksbury Twp	N/A				
PattenBurg House (1025308)	Union Twp	N/A				
Rolling Hills Care Center (1006302)	Clinton Twp	N/A				
Rosemont Water Company (1007002)	Delaware Twp	0.1000				
Stockton Water Dept (1023001)	Stockton Borough	0.1935				
Stone Arch Care Center (1025313)	Union Twp	0.000				
Valley View Health Care (1001301)	Alexandria Twp	0.0116				
Washington Twp MUA (1438003)	Tewksbury Twp	N/A				
United Water Lambertville (1017001)	City of Lambertville	0.9806				

VIII. Municipal Wastewater Management Chapters

FRENCHTOWN BOROUGH

The Frenchtown Borough Chapter of the Hunterdon County WMP modifies the Upper Delaware WQM Plan. No existing WMP exists for Frenchtown Borough.

Overview of Municipality

Frenchtown Borough is located on the western boundary of Hunterdon County and is adjacent to the Delaware River. The Borough was established in 1867, is 1.36 square miles in size, and has a population of 1,373 people per the 2010 Census. The Borough contains three C1 waterways and has two state roads, Route 12 and Route 29, that have their terminus within the Borough.

The Borough is first and foremost a River town. The Delaware River helped spur economic growth throughout the 1800's and 1900's and has now helped Frenchtown establish itself as a tourist destination. The historical Central Business District is the core of the Borough by providing a downtown area that not only contains historically important structures but is also the economic hub for the Borough. Restaurants and retail stores line the main road in the District and annual events such as 'Bastille Day' are major draws that bring in thousands of visitors.

The Borough adopted a Village Center Redevelopment Plan in December 2004. To accommodate higher density development on former industrial sites, overlay zones were created and adopted in May 2009 within the potential redevelopment areas. This WMP and the approved SSAs herein, are consistent with the adopted Village Center Redevelopment Plan and are deemed necessary to implement the design standards that will support and maintain the historic nature of the Borough's Central Business District and to provide a foundation for the Borough to enter into Redeveloper Agreements.

There is no overlap between large contiguous environmentally sensitive areas and the SSA shown for Frenchtown Borough in this WMP.

Overview of Current Wastewater Services and Wastewater Responsibilities

Frenchtown Borough includes a community wastewater system that serves approximately 44 percent of the total municipal area and approximately 95 percent of the total municipal population. Sewer service areas may include industrial businesses that discharge process wastewater to the collection system for treatment by a facility not owned by that business.

Frenchtown Borough's wastewater infrastructure is comprised of 2 Pump Stations, and 8000 feet of 10 inch main pipes as well as 225 feet of forced main pipes. The remaining pipe infrastructure is comprised of 8 inch pipes. All manholes in the Borough are brick. The Borough is currently identifying all manholes that are in need of repair.

Infiltration and Inflow (I&I) studies have been completed to address the impact of the rise of the Delaware River during flood episodes on the increase in wastewater flow within the Borough.

There are no combined sewers within the municipality.

Overview of Major Water Resource Management Issues

The current Frenchtown Borough Wastewater Treatment Plant (WWTP) is obsolete. This is due to several factors which include:

- The metal tanks in the plant are over 40 years old and past their life expectancy
- The current plant cannot meet the new effluent limits as defined by the 2007 Protection Waters designation for the Lower Delaware River.
- Much of the equipment within the current plant has reached obsolescence.
- The current plant is vulnerable to flooding events. The major Delaware River flooding events of 2004, 2005 and 2006 resulted in a shutdown of operations of at least 3 days.
- Bacterial growth within the plant, a result of past major flooding events, remains a problem.

Overview of Future Wastewater Services and Responsibilities

Based on the environmental, regional and local land use planning objectives discussed above and the areas that are currently built but do not currently have adequate wastewater treatment, **Map 2M** identifies areas presently served by public sewers and **Map 3M (Appendix F)** identifies the appropriate areas to be served by public sewers in the future. Frenchtown Borough does not have any sites that are served by an on-site treatment works that is regulated under a New Jersey Pollutant Discharge Elimination System permit. The entire sewer service area of the Borough is serviced by the existing WWTP which is the facility authorized under this plan to accept and treat wastewater from that area. **Appendix A** includes a facility table for both the existing WWTP and the new WWTP that is currently under construction.

The construction of a new WWTP facility, to replace the existing facility, was necessary in order to accommodate the future build-out flow of the Borough as well as to meet estimated water quality-based effluent limits. The existing plant is over 40 years old. An antidegradation analysis for the new plant was completed and approved by the DRBC as part of their Docket approval for the new plant.

Coordination with the Delaware River Basin Commission

The Frenchtown Borough WWTP discharges to a portion of the Lower Delaware River which is designated as Special Protection Waters. Upgrades to WWTP facilities that discharge to Special Protection Waters are subject to DRBC jurisdiction, docketing and oversight. The DRBC was closely involved with the approval process for the upgraded WWTP. The proposed upgrades to the existing Frenchtown Borough WWTP are considered a "Substantial Alteration or Addition" and, therefore, required a Natural Treatment Alternatives analysis. Upon review of this analysis and all other information required, the DRBC adopted Docket No. D-2010-021 CP-1 (**Appendix H**) which provides projected effluent limits for the expanded flow of 0.26 million gallons per day (MGD). This docket restricts the discharge based on the currently approved 0.15 MGD, but upon NJDEP approval of the increased flow rate the DRBC can re-rate the upgraded/expanded WWTP.

Summary of Significant Actions

Service Area Changes

Amendments to the WQM Planning Rule adopted on July 7, 2008 [40 N.J.R.4000(a)] necessitated a modification to certain sewer service areas based on environmental sensitivity. In accordance with the regulatory requirement (325) acres were removed from the previously adopted sewer service area for Frenchtown Borough. These changes are reflected on **Map**

3M: 'Frenchtown Borough Future Wastewater Service Area' map in **Appendix F**. No parcels were added to the previously approved sewer service area based on local planning objectives and satisfaction of an environmental sensitivity assessment.

Areas not designated as sewer service area are now designated as "Septic Area (Planning Flows of 2,000 GPD or Less)". These areas have demonstrated that the zoning meets the nitrate planning standard of 2 mg/L on a HUC 11 basis.

New or Expanded Wastewater Facilities

The Borough has begun construction of a new WWTP at the site of the existing Department of Public Works building at the south end of River Road. Upon completion, the existing Frenchtown Borough WWTP will be abandoned and wastewater flows conveyed to the new Frenchtown Borough WWTP. The upgraded facility will be constructed to accommodate the additional calculated wastewater flows of 0.2275 MGD, based on the projected development in the service area of the Frenchtown Borough WWTP (**Appendix A**). The Construction Permit for the new plant is TWA Permit No.11-0018. A public hearing on the project was held on March 9, 2011. Construction of the new plant is estimated to cost approximately \$10.5 million which is being primarily funded by the New Jersey Environmental Infrastructure Trust. The discharge location of the Frenchtown Borough WWTP will not be relocated. The discharge location will remain at Delaware River Mile 164.5 which is designated as Significant Resource Waters (SRW).

Existing Areas Served by Wastewater Facilities

Map 2M shows the areas actively served by existing wastewater facilities, and the tables in **Appendix A** provide detailed information on the Frenchtown Borough's WWTP. "Actively served" means that the collection lines exist and that the property is either connected or has all regulatory approvals necessary to be connected.

The Frenchtown Borough WWTP is the only existing wastewater facility serving development in the Borough. Lots that are actively served by the WWTP were determined by first identifying all developed areas within the Borough. Those lots served by septic systems within these areas were then removed. Borough officials then verified the identified lots were correct.

Sewer service areas may include industrial businesses that discharge process wastewater to the collection system for treatment by a facility not owned by that business

Existing Public Wastewater Treatment Works

Table 11 lists the major domestic wastewater treatment facilities for Frenchtown Borough. The districts, franchise areas and wastewater management planning area are depicted on **Map 1M**

Table 11 Wastewater Districts, Franchise Areas and Municipalities Served	
Wastewater Utility	Municipalities Served
Frenchtown Borough WWTP	Frenchtown Borough Alexandria Township (5 lots)

Major Transmission Piping and Pumping Stations

Map 2M does not show the major interceptors, trunk lines and pumping stations within the Frenchtown sewer service areas for public wastewater treatment facilities. This locational information was not available.

Existing On-site, Non-industrial Wastewater Facilities

There are no existing on-site, non-industrial treatment facilities in Frenchtown Borough that discharge to surface water or that discharge more than 2,000 gallons per day to ground water of domestic wastewater and are regulated under a NJPDES permit.

Existing Industrial Treatment Works for Process Wastes and Sanitary Sewage

There are no existing industrial treatment works in Frenchtown Borough

Wastewater Management Areas for Septic Systems and Other Small Treatment Works Not Discharging to Surface Waters

Remaining areas of the Borough, not otherwise designated as service areas for treatment facilities requiring a NJPDES permit, are included within a general wastewater management area for septic systems and other small treatment works that treat 2,000 gallons per day or less of wastewater and discharge to ground water.

Frenchtown Demand Projections

In Frenchtown Borough it is anticipated that redevelopment of existing developed land will be the predominant factor in determining future wastewater treatment needs. Further, because external market and economic forces, such as interest rates, are a dominant factor in determining the rate of construction, this analysis assesses the ability to provide wastewater treatment while protecting surface and ground water quality for the entire projected build out allowable by zoning. Future wastewater generation has been calculated based on the following methodology

Future Wastewater from Frenchtown Borough's Sewer Service Areas

In designated sewer service areas the following features have been removed prior to the application of zoning to the undeveloped land area because they are unlikely to generate wastewater in the future: wetlands, riparian zones, permanently preserved farmland, permanently preserved open space, steep slopes and cemeteries. The existing zoning is then applied to the remaining developable land area within the sewer service area(s) to project a build-out condition for use in estimating the future wastewater management needs of each sewer service area. A build-out analysis for each Borough parcel is presented in **Appendix B**. The build-out data is then converted to a projected future wastewater flow by applying the planning flow criteria from N.J.A.C. 7:14A based on the type of development projected.

For example, single-family residential development is assumed to consist of houses having three or more bedrooms per house, and each projected new house is multiplied by 300 gallons per day to predict the future wastewater generated. For non-residential land uses the anticipated floor area is multiplied by 0.1 gallon per day to predict future wastewater generation. The projected wastewater data is also aggregated by wastewater treatment plant

and presented as the future flow in facility tables in Section VII for comparison to the existing permitted capacity of each facility.

There are currently 25 parcels on Septic systems that will be connected to the upgraded WWTP once it is online and operating. These parcels and their existing flow are included in the Borough's Build-Out Summary as well as in the detailed Existing Parcels on Septic spreadsheet. (**Appendix B**)

To obtain build-out residential units and commercial square footage, the NJDEP Model Builder application was used. This calculation was followed by a thorough review with Borough officials for each undeveloped, underdeveloped and redevelopable parcels with the Borough in order to determine the most realistic number of build-out residential units and non-residential equivalent units. Build-out flow was then calculated from these unit numbers (**Appendix B**). This analysis was consistent with the Borough's Reexamination Master Plan (adopted 2009) and Village Center Redevelopment Plan (revised/adopted 2006).

Table 12 provides a breakdown of the acreage of land available for development (i.e., either undeveloped or underdeveloped, and not constrained due to environmentally sensitive areas) within each general zone of the municipality, based on the build-out analysis.

Zone	Developable Area (Acres)	Residential Units/ Non-Residential Square Feet	Acres per Residential Lot	Total Units (Includes Septic Units to be connected)
Overlay	N/A	157	N/A	157
R-1	66.68	43	1.16	71
R-2	1.17	5	0.23	6
R-3	0	0	0	0
R-4A	1.92	0	N/A	2
R-4B	0	0	0	0
R-4C	0	0	0	0
R-5	0	0	0	0
R-7	0	0	0	0

Table 13 summarizes the wastewater projections by municipality and wastewater service area.

Municipality	Discharge to Surface Water (Aggregate MGD of all DSW WWTPs)	Discharge to Ground Water ≤2,000 GPD (Aggregate MGD of Septic Areas)	Discharge to Ground Water >2,000 GPD (Aggregate MGD of all DGW STPs)
Frenchtown Borough	0.2275 MGD	0.0006 MGD	0 MGD

Analysis of Capacity to Meet Future Wastewater Needs

Table 14 provides a breakdown of future wastewater demands by service area and by general development category for Frenchtown Borough, based on the development projections

provided above. The final column determines whether facility capacity is or is not adequate for the projected flows. Where capacities are inadequate, the issue is addressed in later sections.

Domestic Wastewater Treatment Facility (NJDPES#)	Facility Permitted Flow (MGD)	Existing Flows (MGD) November 2012 through October 2013	Projected Residential Dwelling Units	Projected Residential Flow (MGD)	Projected Industrial Units (sq ft)	Projected Industrial Flow (MGD)	Projected Commercial Units (sq ft)	Projected Commercial Flow (MGD)	Total Future Planning Flows (MGD)	Facility (Deficit)/Capacity (MGD)
Existing Frenchtown WWTP (NJ029831)	0.1500	0.154	288	0.0735	0	0	0	0	0.2275	(0.0775)

Adequacy of Sewage Treatment Plant Capacity

The facilities tables in **Appendix A** provide detailed information on the planning flows for each new and expanded treatment facility. The following facilities will require new or expanded capacity:

Facility	Domestic (D) or Industrial (I)	DGW / DSW	Existing Permitted Flow (MGD)	Future Flow Projection (MGD)
Proposed Frenchtown Sewage Treatment Plant	D	DSW	0.15 MGD	0.2275

As indicated in **Table 15** the Frenchtown Borough WWTP facility capacity is inadequate for the Build-out projection of 0.2275 MGD. The Borough has been aware of its WWTP facility limitations to handle future redevelopment increased flows for some time, which was the initiative to build an upgraded facility.

The upgraded Frenchtown Borough WWTP currently being constructed has been designed to handle a future annual average flow of 0.26 MGD. This anticipated build-out flow expansion was based on a reported annual average monthly flow of 0.019 for August 2010 through July 2011.

The calculated build-out flow used in **Table 15** is based on a reported annual average monthly flow of 0.154 MGD for period beginning November 2012 through October 2013. This additional capacity will be more than sufficient to safely process the estimated Build-Out flow of 0.2275 MGD.

Antidegradation Analysis for New and Expanded Domestic Treatment Works

The DRBC performed a “no measurable change analysis” prior to issuing the Docket which is equivalent to an antidegradation study. Due to the use of Best Demonstrable Technology (BDT) in the upgraded Treatment Plant, there will be a significant load reduction from this project. The use of BDT for the potential incremental flow of 0.11 MGD “will satisfy the no measurable change (NMC) to existing water quality (EWQ) requirement for the expansion” (See DRC Docket No. D-2010-021)

Adequacy of dilution to meet future non-sewer service area demand

The density of new development that can be accommodated on septic systems in developable areas consistent with the Ground Water Quality Standard of 2.0 mg/L nitrate (nitrate target) on a HUC 11 watershed basis must be determined. This nitrate standard has been established to satisfy the antidegradation standard intended to satisfy the Department’s obligation to prevent future degradation of water quality.

An average lot size for each HUC 11 within Frenchtown Borough was calculated using a target of 2 mg/l Nitrate concentration based on the overall dilution available in the watershed.

Table 16 compares the allowable units within Frenchtown Borough’s HUC11 to the number of new units that could be built under the existing zoning within that watershed for the Borough. The number of units allowed per zoning was reviewed on a parcel by parcel basis and revised per Borough comments. See **Appendix B** for a spreadsheet of this detailed parcel analysis.

Table 16 Septic System Densities and Allocations by HUC11 for Frenchtown Borough using Annual Average Ground Water Recharge (GSR-32)						
Total Developable Land Outside of SSA / Average Lot size required = Units Allowed						
HUC11	Municipality	Developable Land (Acres)	Density (Average Acreage)	Units Allowed	Build-Out ISSDS Units	HUC11 Surplus /(Deficit)
02040105170	Frenchtown Borough	185.5	5.3	35	5	30

There were no parcels present in non-residential zoning areas thus no calculation was needed for determining Equivalent Dwelling Units at this time. There are currently 25 units that are on Septic Systems proposed to be connected to the future Frenchtown Borough STP facility.

Therefore, the current zoning, as shown in Table 12, is sufficiently stringent for protection of the watershed’s ground water and ensures compliance with the 2 ppm nitrate dilution standard.

NJDEP will use its regulatory authority under NJAC 7:15 and other laws to ensure compliance with this nitrate dilution analysis for any development regulated by NJDEP.

The surplus units calculated for Frenchtown Borough can be used as part of a proportionate distribution for future Municipal Chapter submittals of neighboring Municipalities which contain this HUC11 watershed.

Existing Areas Served by Public Water Supply Facilities

Map 5M shows the areas actively served by existing public water supply facilities. As with sewer service, "actively served" means that the distribution lines exist and that the property either is connected or has all regulatory approvals necessary to be connected with no further review.

The NJ American Water Company supply service area for Frenchtown Borough was created from a Geographical Information Systems (GIS) shapefile provided by the company.

The following table lists the public community water supply facilities and the municipality or municipalities they serve. The existing areas served and franchise boundary for Frenchtown Borough's only Water Purveyor are depicted on **Map 5M**.

Sufficiency of Water Supply

The estimated water supply demand associated with the build-out analysis, disaggregated by wastewater service area and on a HUC 11 basis is required to be included in the WMP. Within public water supply service areas – more often than not, within sewer service areas – an estimate of the amount of future water supply demand shall be compared to the existing water availability as permitted in Water Allocation permits, Water Use Registrations, Water Diversion Approvals, or Well permit Approvals.

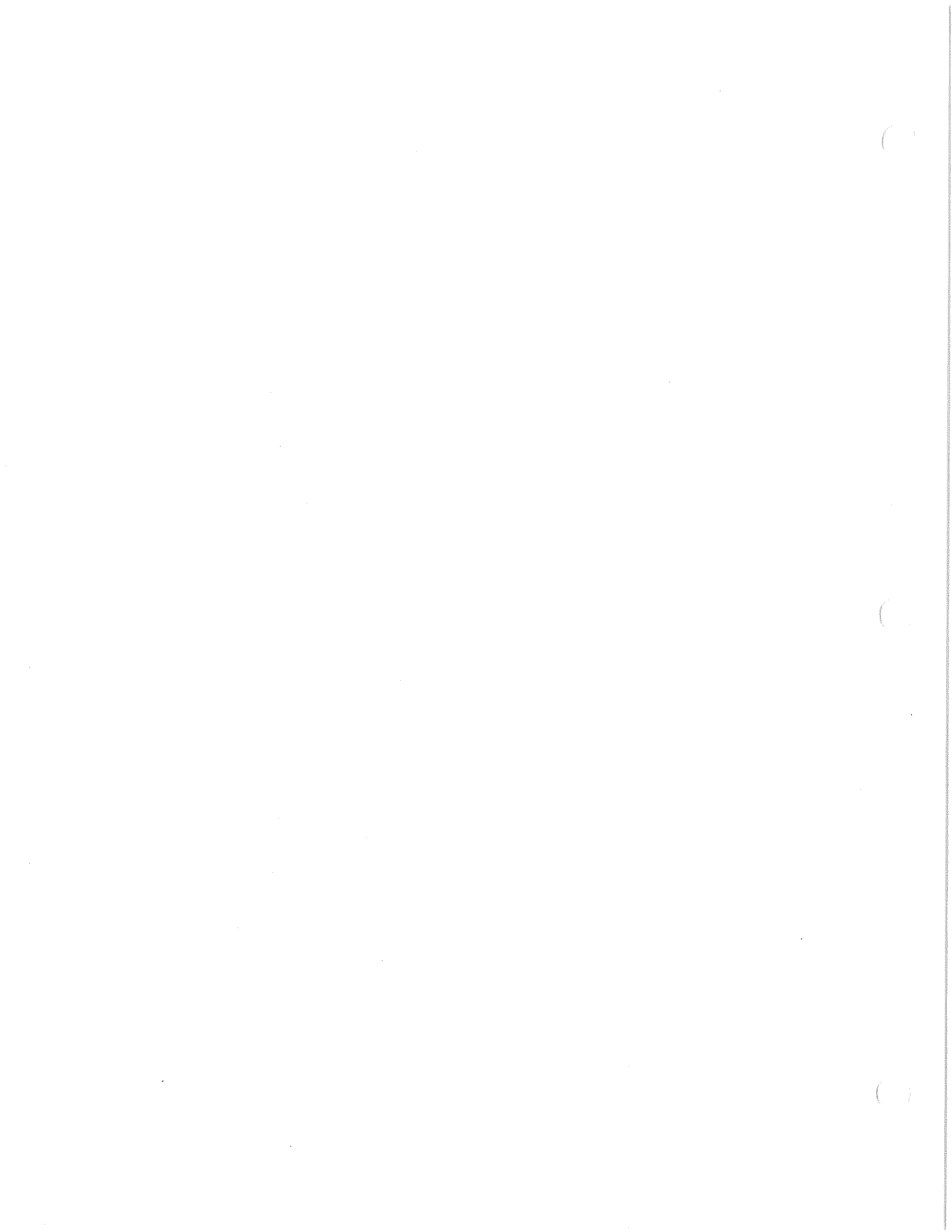
Purveyor (PWSID#)	Municipality	Facility Water Allocation (MGD)	Existing Water Demand (MGD)	Projected Residential Demand (MGD)	Projected NonResidential Demand (MGD)	Excess (Deficit) (MGD)
<i>NJ American Water (1011001)</i>	Frenchtown Borough	0.2790	0.122	.0655	0.0	0.0915

Table 17 indicates that there is not a future water supply deficit for the NJ American Water Company in Frenchtown Borough at full build-out. See **Appendix B** for a detailed parcel analysis.

Environmental Protection Ordinances

Table 18 addresses the status of requirements for municipal ordinances regarding the protection of steep slopes, riparian zones and the maintenance of septic systems for Frenchtown Borough. Applicable ordinances are provided in Appendices H through K.

Table 18 Summary of Ordinance Adoptions					
Ordinance	Ordinance No.	Date Adopted		Complies with NJAC 7:15	Comments and More Protective Standards
Stormwater Management (Ground Water Recharge Maintenance)	#638	03/15/2006	County 12/27/2006 (Approved)	YES	
Riparian Zone Protection	# 719	10/03/2012		YES	
Steep Slope Protection	# 718	10/03/2012		YES	
Septic System Maintenance	N/A				
Dry Conveyances in Sewer Service Area (optional)	N/A				
Master Plan Reexamination Report		04/22/2009		YES	
Zoning Map	# 699	06/01/2011		YES	
Septic Connection in Sewer Service Area	#274	02/02/1965		YES	Frenchtown's existing ordinance is mostly consistent with NJDEP's model ordinance. However, the following issues are discussed in the model but missing from Frenchtown's ordinance: 1) Interim use of ISSDS by existing and proposed development is allowed until such time when sanitary sewers are made available and operational. 2) The ordinance does not apply to buildings or structures for which sanitary sewer lines are not considered to be available (the NJDEP model provides a list of examples that should be included). 3) The Frenchtown ordinance mentions that continued use of a septic tank will be unlawful, but does not go into details about "deactivating" the septic tank. The NJDEP model ordinance states that upon connecting to the sanitary sewer, the ISSDS shall be pumped and all its contents removed by a licensed septic cleaner. The lid of the septic tank and/or cesspool shall then be broken or removed and the tank and/or cesspool backfilled with clean fill.



DOMESTIC TREATMENT FACILITIES SERVING MUNICIPALITY		
1. Existing or proposed facility:	Existing	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	NJ029831	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Delaware River Zone 1#	
6. Owner of facility:	Frenchtown Borough	
7. Operator of facility:	Frenchtown Borough	
8. Co-Permittee of facility (<i>where applicable</i>):		
9. Location of facility:	Foot of Old River Road, Frenchtown Borough	
a. Municipality & County	Frenchtown Borough, Hunterdon County	
b. Street address	29 2 nd Street	
c. Block(s) and Lot(s)	Block 60, Lot 2.01	
10. Location of discharge (i.e. degrees, minutes, seconds):	State Plane Coordinates Latitude 40d 31m 01.9s and Longitude 75d 03m 50.5s	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	.15 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current Year Population	Build-out Population
Total	1327	NA
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	Current Flow (November 2012 - October 2013) (in MGD)	Build-out Flow (in MGD)
Residential flow	0.139	NA
Commercial flow	0.015 (1)	NA
Industrial flow	0	NA
Infiltration/Inflow	(2)	NA
Total	0.154	NA

(1) Includes Infiltration and Inflow

(2) Included with Commercial Flow

*** This Facility is scheduled to be demolished once the new Treatment Facility goes online

DOMESTIC TREATMENT FACILITIES SERVING MULTIPLE MUNICIPALITIES

1. Existing or proposed facility:	Proposed	
2. New Jersey Pollutant Discharge Elimination System Permit Number:	N/A	
3. Discharge to ground water (DGW) or surface water (DSW):	DSW	
4. Receiving water or aquifer:	Delaware River	
5. Classification of receiving water or aquifer:	Delaware River Zone 1#	
6. Owner of facility:	Frenchtown Borough	
7. Operator of facility:	Frenchtown Borough	
8. Co-Permittee of facility (<i>where applicable</i>):		
9. Location of facility:	Foot of Old River Road, Frenchtown Borough	
a. Municipality & County	Frenchtown Borough, Hunterdon County	
b. Street address	29 2 nd Street	
c. Block(s) and Lot(s)	Block 60, Lot 2.01	
10. Location of discharge (i.e. degrees, minutes, seconds):	State Plane Coordinates Latitude 40d 31m 01.9s and Longitude 75d 03m 50.5s	
11. Present permitted flow or permit condition (DSW) or daily maximum (DGW):	.15 MGD	
*12. Summary of population served/to be served including major seasonal fluctuations:	Current Year Population	Build-out Population (Est.)
Total	NA	1669
*13. Summary of wastewater flow received/to be received as a 30-day average flow for DSW or a daily maximum flow for DGW:	NA	Build-out Flow (in MGD)
Residential flow	NA	0.2034
Commercial flow	NA	0.0241 (1)
Industrial flow	NA	0
Infiltration/Inflow	NA	(2)
Total	NA	0.2275

(1) Includes Infiltration and Inflow

(2) Included with Commercial Flow

*** This new Treatment Facility was scheduled to go online in 2013

**Frenchtown Borough
Wastewater Management Plan
SSA Build-Out Summary**

Facility	Zone	New Residential Units	New Non-Res Square Feet	Septic Units in Proposed SSA	New Flow (MGD)	Current Facility Flow (MGD)	Build-Out Flow	Contractual Flow (MGD) Old STP	<Over> / Under Capacity (MGD)	Contractual Flow (MGD) New STP	<Over> / Under Capacity (MGD)
Frenchtown STP (Frenchtown Borough)	R-1	43	0		0.0129						
	R-2	5	0		0.0015						
	Overlay	157	0		0.0470						
Frenchtown STP (Alexander Township))				25	0.0075						
	AR	56	0	2	0.0040						
Totals		261	0	27	0.0735	0.154	0.2275	0.1500	<0.0775>	0.2600	0.0325
Build-Out Model Notes:											
1) If undersized vacant lot then 1 unit allowable (Residential)											
2) All calculated units for Residential are rounded down. Example – Calculated build-out units for an individual lot = 5.7 units. This is rounded down to 5 units.											
3) Any developable land < 5,000 Square feet in a Sewer Service Area is considered undevelopable.											
The final number of New Residential Units includes any parcel by parcel adjustments of build-out potential determined by Frenchtown Borough and Alexandria Township											

**Frenchtown Borough
Wastewater Management Plan
SSA Residential Build-Out Detail**

FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Flow (GPD)
Frenchtown Boro STP	1011-000590000-000020000-00000	R-4A				1	Lot 59-2.01 (.64 acre) has house. Lot 59-2 has barn and could be another single family lot.	300
Frenchtown Boro STP	1011-000350000-000010000-00000	R-4A				1	Mixed Use Redevelopment Overlay	300
Frenchtown Boro STP	1011-000360000-000010000-00000	R-4A				1	Mixed Use Redevelopment Overlay	300
Frenchtown Boro STP	1011-000120000-000050000-00000	R-4A				3	Property has been in front of PB twice. PB considers max of 3 units in this zone.	900
Frenchtown Boro STP	1011-000030000-000020000-00000	R-5				5	Overlay zone for Redevelopment	1,500
Frenchtown Boro STP	1011-000180000-000010000-00000	R-2				5	Mixed Use Redevelopment Overlay	1,500
Frenchtown Boro STP	1011-000200000-000010000-00000	R-2				5	Mixed Use Redevelopment Overlay	1,500
Frenchtown Boro STP	1011-000520000-000090000-00000	R-2				12	In Village Center Plan in Zoning for redevelopment area	3,600
Frenchtown Boro STP	1011-000570000-000010000-00000	R-4A				12	Mixed Use Redevelopment Overlay	3,600
Frenchtown Boro STP	1011-000340000-000010000-00000	R-4A				12	Mixed Use Redevelopment Overlay	3,600
Frenchtown Boro STP	1011-000380000-000020000-00000	R-4A				20	Mixed Use Redevelopment Overlay	6,000
Frenchtown Boro STP	1011-000030000-000010000-00000	R-5				80	Overlay zone for Redevelopment	24,000
		Totals				157		47,100
Frenchtown Boro STP	1011-000540000-000070000-00000	R-1	1	1.90	1	0	Undevelopable per Borough. Two known wetlands areas on property	0

**Frenchtown Borough
Wastewater Management Plan
SSA Residential Build-Out Detail**

FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Flow (GPD)
Frenchtown Boro STP	1011-000480000-000090000-00000	R-1	1	2.62	2	0	Undevelopable per Borough. Steep Slopes.	0
Frenchtown Boro STP	1011-000480000-000080000-00000	R-1	1	3.66	3	0	Single lot, not subdivided, considered by PB as developed	0
Frenchtown Boro STP	1011-000150000-000070000-00000	R-1	1	4.41	4	0	Single lot, not subdivided, considered by PB as developed	0
Frenchtown Boro STP	1011-000160000-000010000-00000	R-1	1	3.17	3	3		900
Frenchtown Boro STP	1011-000470000-000010000-00000	R-1	1	0.40	1	1		300
Frenchtown Boro STP	1011-000430000-000090000-00000	R-1	1	0.43	1	1		300
Frenchtown Boro STP	1011-000430000-000030001-00000	R-1	1	0.43	1	1		300
Frenchtown Boro STP	1011-000480000-000030000-00000	R-1	1	0.45	1	1		300
Frenchtown Boro STP	1011-000440000-000110001-00000	R-1	1	0.57	1	1		300
Frenchtown Boro STP	1011-000430000-000070000-00000	R-1	1	0.85	1	1		300
Frenchtown Boro STP	1011-000430000-000060000-00000	R-1	1	0.90	1	1		300
Frenchtown Boro STP	1011-000490000-000010000-00000	R-1	1	1.02	1	1		300
Frenchtown Boro STP	1011-000480000-000070000-00000	R-1	1	1.73	1	1		300
Frenchtown Boro STP	1011-000440000-000020000-00000	R-1	1	1.91	1	1		300
Frenchtown Boro STP	1011-000490000-000040000-00000	R-1	1	1.97	1	1		300
Frenchtown Boro STP	1011-000420000-000050000-00000	R-1	1	2.04	2	1	single lot, not subdivided, considered by PB as developed	300
Frenchtown Boro STP	1011-000450000-000020000-00000	R-1				1	Model-Builder error. Should be an undersized lot	300

**Frenchtown Borough
Wastewater Management Plan
SSA Residential Build-Out Detail**

FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Flow (GPD)
Frenchtown Boro STP	1011-000170000-000020005-000000	R-1	1	2.28	2	2		600
Frenchtown Boro STP	1011-000150000-000020000-000000	R-1	1	4.62	4	4		1,200
Frenchtown Boro STP	1011-000150000-000100000-000000	R-1	1	6.05	6	5	Adjust per Borough. Steep slopes	1,500
Frenchtown Boro STP	1011-000480000-000040000-000000	R-1	1	5.38	5	6	Adjust per Borough. Allowable per zoning	1,800
Frenchtown Boro STP	1011-000150000-000010000-000000	R-1	1	9.52	9	10	Adjust per Borough. Allowable per zoning	3,000
TOTALS						43		12,900
Frenchtown Boro STP	1011-000060000-000060000-000000	R-2	0.758	0.12	1	1		300
Frenchtown Boro STP	1011-000060000-000040000-000000	R-2	0.758	0.13	1	1		300
Frenchtown Boro STP	1011-000520000-000320001-000000	R-2	0.758	0.34	1	1		300
Frenchtown Boro STP	1011-000100000-000010000-000000	R-2	0.758	0.56	1	2	Adjust per Borough. Allowable per zoning	600
TOTALS						5		1,500
FRENCHTOWN TOTALS						205		

**Frenchtown Borough
Wastewater Management Plan
SSA Residential Build-Out Detail**

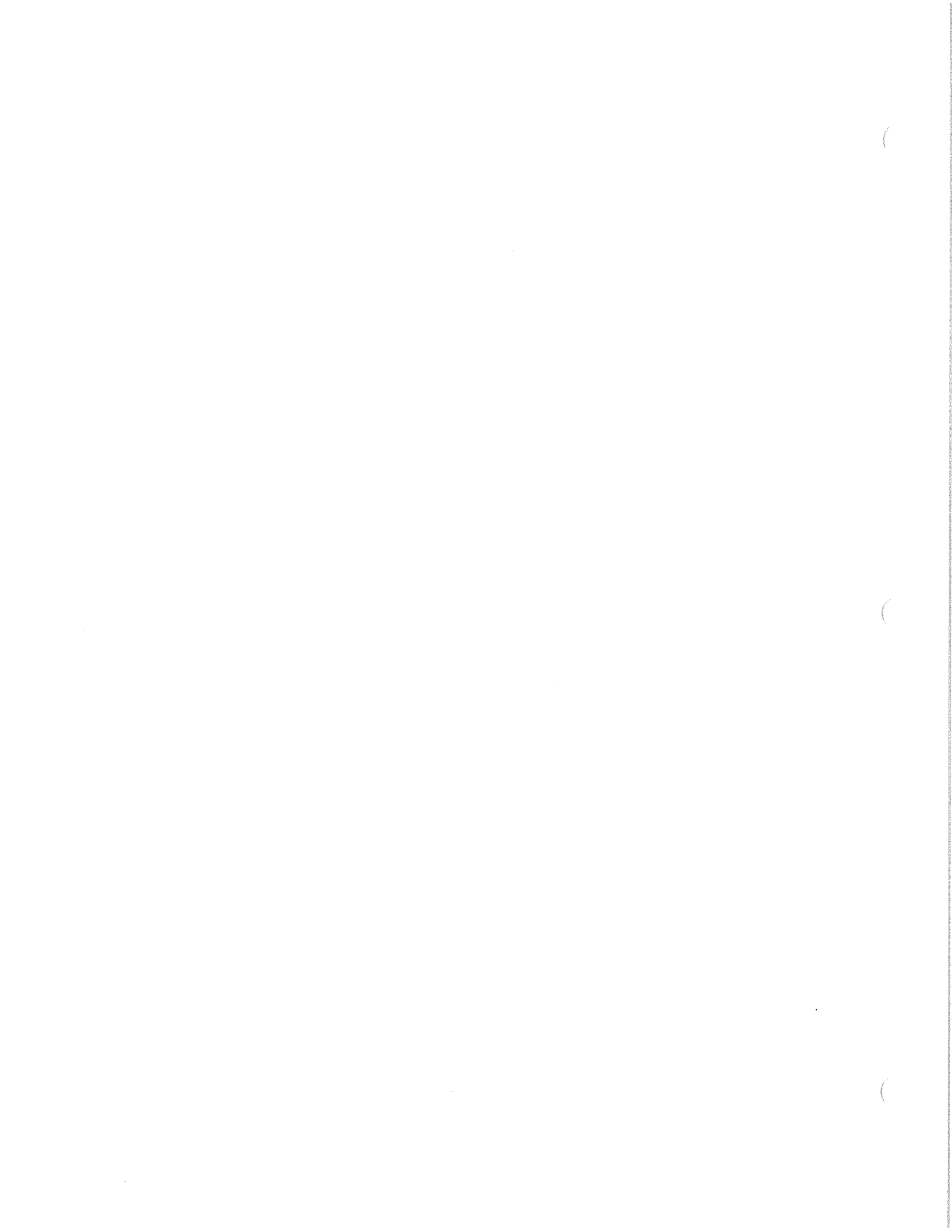
FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Flow (GPD)
Frenchtown Boro STP (Alexandria Twp)	1001-000180000-000390000-00000 1001-000180000-000390001-00000 1001-000180000-000410000-00000	AR	6.00	7.63	2	56	Adjust per Alexandria Township. Skilled Nursing Facility (Valley View Health) expansion to 56 beds at 75 gpd/bed	4,200
		GRAND TOTAL						65,700
NOTES:								
1) If undersized vacant lot then 1 unit allowable								
2) All calculated units are rounded down. Example – Calculated build-out units for an individual lot = 5.7 units. This is rounded down to 5 units.								
3) Any developable land < 5,000 Square feet in a Sewer Service Area is considered undevelopable.								

Frenchtown Borough Wastewater Management Plan
 Septic Build-Out Detail
 Septic Residential

WATERSHED	PIN	ZONE	MINIMUM LOT (ACRES)	DEVELOPABLE ACRES	NEW UNITS Per BUILD-OUT	ADJUSTED UNITS	Reason(s) for Adjustment
02040105170	1011-000170000-000020001-000000	R-1	1	1.17	1	1	
02040105170	1011-000170000-000020002-000000	R-1	1	2.06	2	1	Adjusted per Borough
02040105170	1011-000160000-000010000-000000	R-1	1	3.18	3	0	Parcel added to Proposed Sewer Service Area
02040105170	1011-000170000-000010000-000000	R-1	1	9.92	9	0	Undevelopable per Borough
02040105170	1011-000170000-000020000-000000	R-1	1	16.61	16	0	Undevelopable per Borough
2040105170	1011-000170000-000020000-000000	R-1	1	8.73	8		Adjust per Borough. Open Space.
TOTALS				42	39	2	
NOTES:							
1) If undersized vacant lot then 1 unit allowable							
2) All calculated units for Residential are rounded down. Example – Calculated build-out units for an individual lot = 5.7 units. This is rounded down to 5 units.							
3) Any developable land less than an acre is considered undevelopable.							

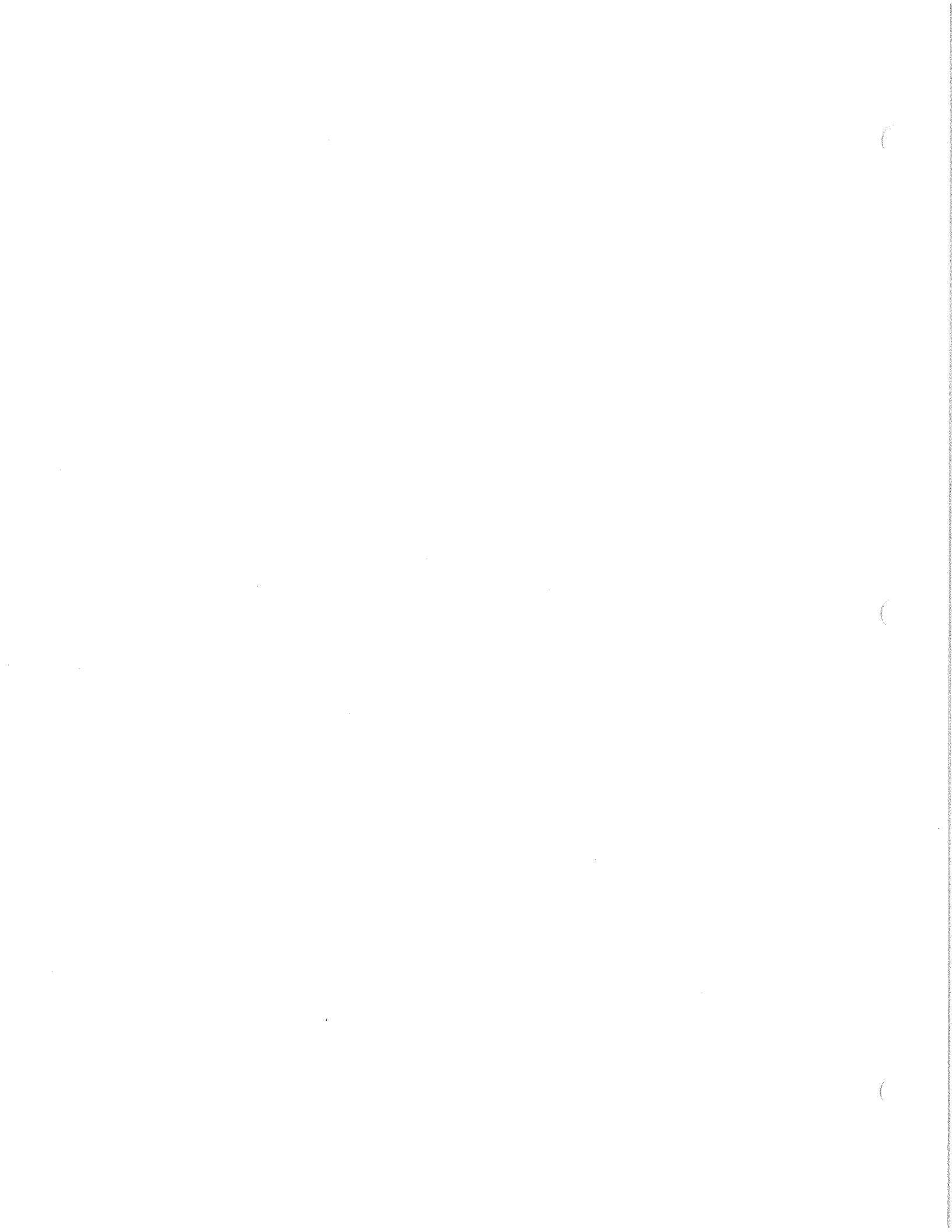
**Frenchtown Borough
Wastewater Management Plan
Current Septic in SSA Detail**

Block	Lot	Zone	Municipality
43	8	R-1	Frenchtown Borough
43	3	R-1	Frenchtown Borough
42	2	R-1	Frenchtown Borough
43	4	R-1	Frenchtown Borough
48	9	R-1	Frenchtown Borough
42	7	R-1	Frenchtown Borough
42	1	R-1	Frenchtown Borough
42	6	R-1	Frenchtown Borough
43	10	R-1	Frenchtown Borough
42	5	R-1	Frenchtown Borough
43	9	R-1	Frenchtown Borough
44	3	R-1	Frenchtown Borough
43	7	R-1	Frenchtown Borough
43	6	R-1	Frenchtown Borough
44	11	R-1	Frenchtown Borough
43	7.01	R-1	Frenchtown Borough
43	3.01	R-1	Frenchtown Borough
43	3	R-1	Frenchtown Borough
44	7.02	R-1	Frenchtown Borough
59	2.01	R-4A	Frenchtown Borough
59	2	R-4A	Frenchtown Borough
48	10	R-1	Frenchtown Borough
52	31.01	R-1	Frenchtown Borough
52	31	R-1	Frenchtown Borough
52	37	R-2	Frenchtown Borough
18	44	AR	Alexandria Twp
18	52	AR	Alexandria Twp



**Frenchtown Borough
Wastewater Management Plan
Water Purveyor Build-Out Summary**

Water Purveyor	Zone	New Residential Units	New Non-Res Square Feet	New Water Demand(MGD)	Current Water Usage (MGD)	Build-Out Demand (MGD)	Allocation (MGD)	(Over) / Under Capacity (MGD)
American Water (Frenchtown)	R-1	43	0	0.0138				
	R-2	5	0	0.0015				
	Overlay	157	0	0.0502				
Totals		205	0	0.0655	0.1220	0.1875	0.2790	0.0915
Build-Out Model Notes:								
1) If undersized vacant lot then 1 unit allowable (Residential)								
2) All calculated units for Residential are rounded down. Example - Calculated build-out units for an individual lot = 5.7 units. This is rounded down to 5 units.								
3) Any developable land < 5,000 Square feet in a Sewer Service Area is considered undevelopable.								
The final number of New Residential Units includes any parcel by parcel adjustments of build-out potential determined by Frenchtown Borough and Alexandria Township								



**Frenchtown Borough
Wastewater Management Plan
Water Purveyor Residential Build-Out Detail**

FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Demand(MSD)
NJ American Water	1011-000590000-000020000-000000	R-4A				1	Lot 59-2.01(.64 acre) has house. Lot 59-2 has barn and could be another single family lot.	320
NJ American Water	1011-000350000-000010000-000000	R-4A				1	Mixed Use Redevelopment Overlay	320
NJ American Water	1011-000360000-000010000-000000	R-4A				1	Mixed Use Redevelopment Overlay	320
NJ American Water	1011-000120000-000050000-000000	R-4A				3	Property has been in front of PB twice. PB considers max of 3 units in this 3 zone.	960
NJ American Water	1011-000030000-000020000-000000	R-5				5	Overlay zone for Redevelopment	1,600
NJ American Water	1011-000180000-000010000-000000	R-2				5	Mixed Use Redevelopment Overlay	1,600
NJ American Water	1011-000200000-000010000-000000	R-2				5	Mixed Use Redevelopment Overlay	1,600
NJ American Water	1011-000520000-000090000-000000	R-2				12	In Village Center Plan in Zoning for redevelopment area	3,840
NJ American Water	1011-000570000-000010000-000000	R-4A				12	Mixed Use Redevelopment Overlay	3,840
NJ American Water	1011-000340000-000010000-000000	R-4A				12	Mixed Use Redevelopment Overlay	3,840
NJ American Water	1011-000380000-000020000-000000	R-4A				20	Mixed Use Redevelopment Overlay	6,400
NJ American Water	1011-000030000-000010000-000000	R-5				80	Overlay zone for Redevelopment	25,600
		Totals				157		50,240
NJ American Water	1011-000540000-000070000-000000	R-1	1	1.90	1	0	Undevelopable per Borough. Two known wetlands areas on property	0
NJ American Water	1011-000480000-000090000-000000	R-1	1	2.62	2	0	Undevelopable per Borough. Steep Slopes.	0
NJ American Water	1011-000480000-000080000-000000	R-1	1	3.66	3	0	Single lot, not subdivided, considered 0 by PB as developed	0

**Frenchtown Borough
Wastewater Management Plan
Water Purveyor Residential Build-Out Detail**

FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Demand(MGD)
NJ American Water	1011-000150000-000070000-00000	R-1	1	4.41	4	0	Single lot, not subdivided, considered by PB as developed	0
NJ American Water	1011-000160000-000010000-00000	R-1	1	3.17	3	3		960
NJ American Water	1011-000470000-000010000-00000	R-1	1	0.40	1	1		320
NJ American Water	1011-000430000-000090000-00000	R-1	1	0.43	1	1		320
NJ American Water	1011-000430000-000030001-00000	R-1	1	0.43	1	1		320
NJ American Water	1011-000480000-000030000-00000	R-1	1	0.45	1	1		320
NJ American Water	1011-000440000-000110001-00000	R-1	1	0.57	1	1		320
NJ American Water	1011-000430000-000070000-00000	R-1	1	0.85	1	1		320
NJ American Water	1011-000430000-000060000-00000	R-1	1	0.90	1	1		320
NJ American Water	1011-000490000-000010000-00000	R-1	1	1.02	1	1		320
NJ American Water	1011-000480000-000070000-00000	R-1	1	1.73	1	1		320
NJ American Water	1011-000440000-000020000-00000	R-1	1	1.91	1	1		320
NJ American Water	1011-000490000-000040000-00000	R-1	1	1.97	1	1		320
NJ American Water	1011-000420000-000050000-00000	R-1	1	2.04	2	1	single lot, not subdivided, considered by PB as developed	320
NJ American Water	1011-000450000-000020000-00000	R-1				1	Model-Builder error. Should be an undersized lot	320
NJ American Water	1011-000170000-000020005-00000	R-1	1	2.28	2	2		640
NJ American Water	1011-000150000-000020000-00000	R-1	1	4.62	4	4		1,280
NJ American Water	1011-000150000-000100000-00000	R-1	1	6.05	6	5	Adjust per Borough. Steep slopes	1,600
NJ American Water	1011-000480000-000040000-00000	R-1	1	5.38	5	6	Adjust per Borough. Allowable per zoning	1,920

**Frenchtown Borough
Wastewater Management Plan
Water Purveyor Residential Build-Out Detail**

FACNAME	PIN	Zone	Minimum Lot Size (Acres)	Build-Out Developable Acreage	Build-Out Units	Adjusted Units	Reason(s) for Adjustment	Generated Demand(MGD)
NJ American Water								0
NJ American Water	1011-000150000-000010000-000000	R-1	1	9.52	9	10	Adjust per Borough. Allowable .per zoning	3,200
		TOTALS				43		13,760
								0
NJ American Water	1011-000060000-000060000-000000	R-2	0.758	0.12	1	1		320
NJ American Water	1011-000060000-000040000-000000	R-2	0.758	0.13	1	1		320
NJ American Water	1011-000520000-000320001-000000	R-2	0.758	0.34	1	1		320
NJ American Water	1011-000100000-000010000-000000	R-2	0.758	0.56	1	2	Adjust per Borough.Allowable per zoning	640
		TOTALS				5		1,500
		GRAND TOTAL				205		65,500

- NOTES:**
- 1) If undersized vacant lot then 1 unit allowable
 - 2) All calculated units are rounded down.
Example – Calculated build-out units for an individual lot = 5.7 units. This is rounded down to 5 units.
 - 3) Any developable land < 5,000 Square feet in a Sewer Service Area is considered undevelopable.

CHAPTER XVI

SEWERS

16-1 MANDATORY HOOKUP AND CONNECTION.

16-1.1 Connection Required. The owner of every existing house, building or structure, and the owner of every house, building or structure hereafter to be constructed or acquired, which may be occupied or used by human beings, located on a street along the line of any sewer now constructed or hereafter constructed in the Borough shall, within ninety (90) days after the date on which the services of such sewer are made available to such house, building or structure, install a toilet in such structure, unless a toilet is already installed therein, and connect and hook up the sewerage facilities emanating from such house, building or structure to the municipal sewer system. (1982 Code § 75-1)

16-1.2 Failure to Comply. If the owner of any property shall fail to make any connection or installation required by this section within the time herein required, the Borough may proceed to make such connection or installation or cause the same to be made and assess the cost thereof as a lien against such property pursuant to N.J.S.A. 40:63-52 et seq., as amended and revised, of the Revised Statutes of New Jersey. (1982 Code § 75-2)

16-2 CHARGES AND RENTS.

16-2.1 Service Charge per Rental Unit. There is hereby established a service charge or rent for the use of the Borough of Frenchtown sanitary sewerage system to be established and amended periodically by resolution of the Borough Council. (1982 Code § 75-3; Ord. No. 472; Ord. No. 458; Ord. No. 463)

16-5 BOROUGH OF FRENCHTOWN CODE

accordance with provisions of these rules and regulations.
(1982 Code § 75-21; Ord. No. 425)

16-5.3 Prohibited Disposal of Wastewater. Except as provided in these rules and regulations, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of wastewater. (1982 Code § 75-22; Ord. No. 425)



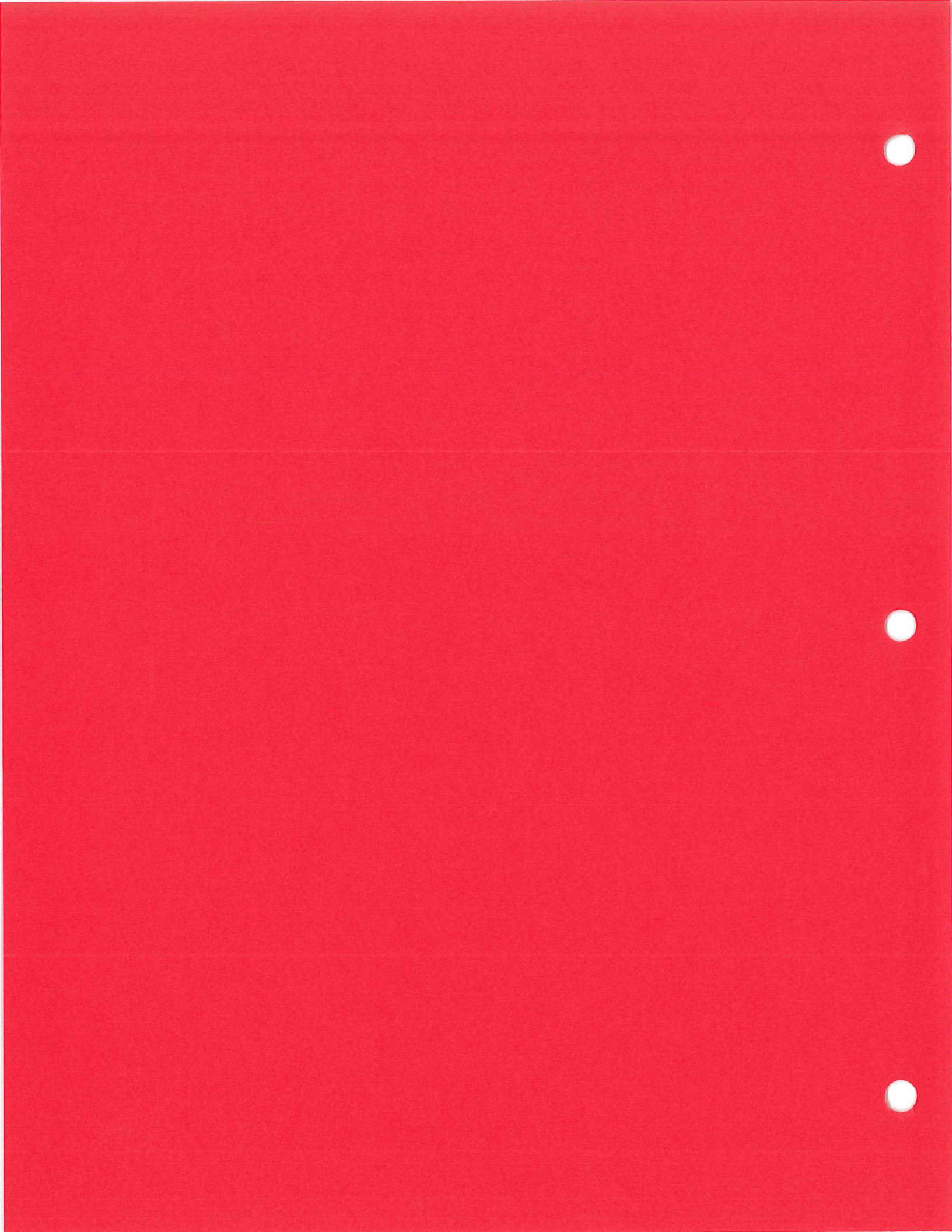
16-5.4 Connection to Wastewater Sewer Required. The owner of any house, building or property which is used for human occupancy, employment, recreation or other purposes, under the jurisdiction of these rules and regulations, and abutting on any street, alley or right-of-way in which there is or may be located a wastewater sewer connected to the treatment facility of the Borough, is required at the owner's expense to install suitable toilet facilities therein, and to connect such facilities directly to the proper sewer in accordance with the provisions of these rules and regulations, within one hundred twenty (120) days after the date of the official notice to do so, provided that the proper wastewater sewer is within two hundred (200) feet of the property line. (1982 Code § 75-23; Ord. No. 425)

16-6 SERVICE LATERALS AND CONNECTIONS.

16-6.1 Connection Permit.

- a. No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb any wastewater sewer without first obtaining a written permit from the Borough.
- b. There shall be three (3) classes of permits for connections to the Borough's wastewater facilities: Class I, Residential; Class II, Commercial; and Class III, Industrial. In all cases, the owner shall make application for a permit to connect to the Borough's





BOROUGH OF FRENCHTOWN

Mayor
Warren E. Cooper

Incorporated April 4, 1867
Borough Hall 29 Second Street
Frenchtown, NJ 08825

Municipal Clerk
Brenda S. Shepherd, R.M.C.

August 8, 2013

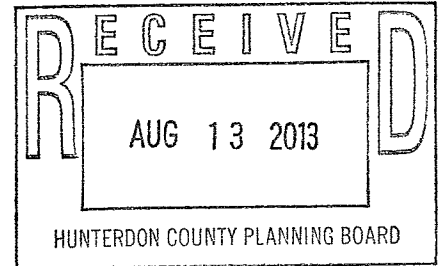
Hunterdon County Planning Board
P.O. Box 2900
Flemington, NJ 08822

Municipal Clerk
Alexandria Township
782 Frenchtown Road
Milford, NJ 08848

Municipal Clerk
Kingwood Township
P.O. Box 199
Baptistown, NJ 08803

Dear County Director and Municipal Clerks:

Enclosed please find a certified copy of the Borough of Frenchtown's Ordinance #729 entitled "AN ORDINANCE AMENDING THE STEEP SLOPE REGULATIONS IN THE LAND USE ORDINANCE OF THE BOROUGH OF FRENCHTOWN IN THE COUNTY OF HUNTERDON AND STATE OF NEW JERSEY TO AMEND THE REQUIREMENTS APPLICABLE TO SLOPES OVER FIFTEEN PERCENT (15%) PER N.J.D.E.P. REQUIREMENTS FOR APPROVAL OF THE WASTEWATER MANAGEMENT PLAN" which is an amendment to the Borough's Land Use Ordinance. Ordinance #729 was introduced and passed on first reading by the Mayor and Common Council at its regular meeting on July 3, 2013. The ordinance was ordered published which publication took place on July 11, 2013. The ordinance was passed and adopted on final reading at a meeting held on Wednesday, August 7, 2013 at 7:30 pm at the Borough of Frenchtown, Borough Hall, 29 Second Street, Frenchtown, NJ after a public hearing. The ordinance is available for view at the office of the Borough Clerk during regular business hours.



Very truly yours,

A handwritten signature in cursive script that reads "Brenda S. Shepherd".

Brenda S. Shepherd, RMC
Borough Clerk

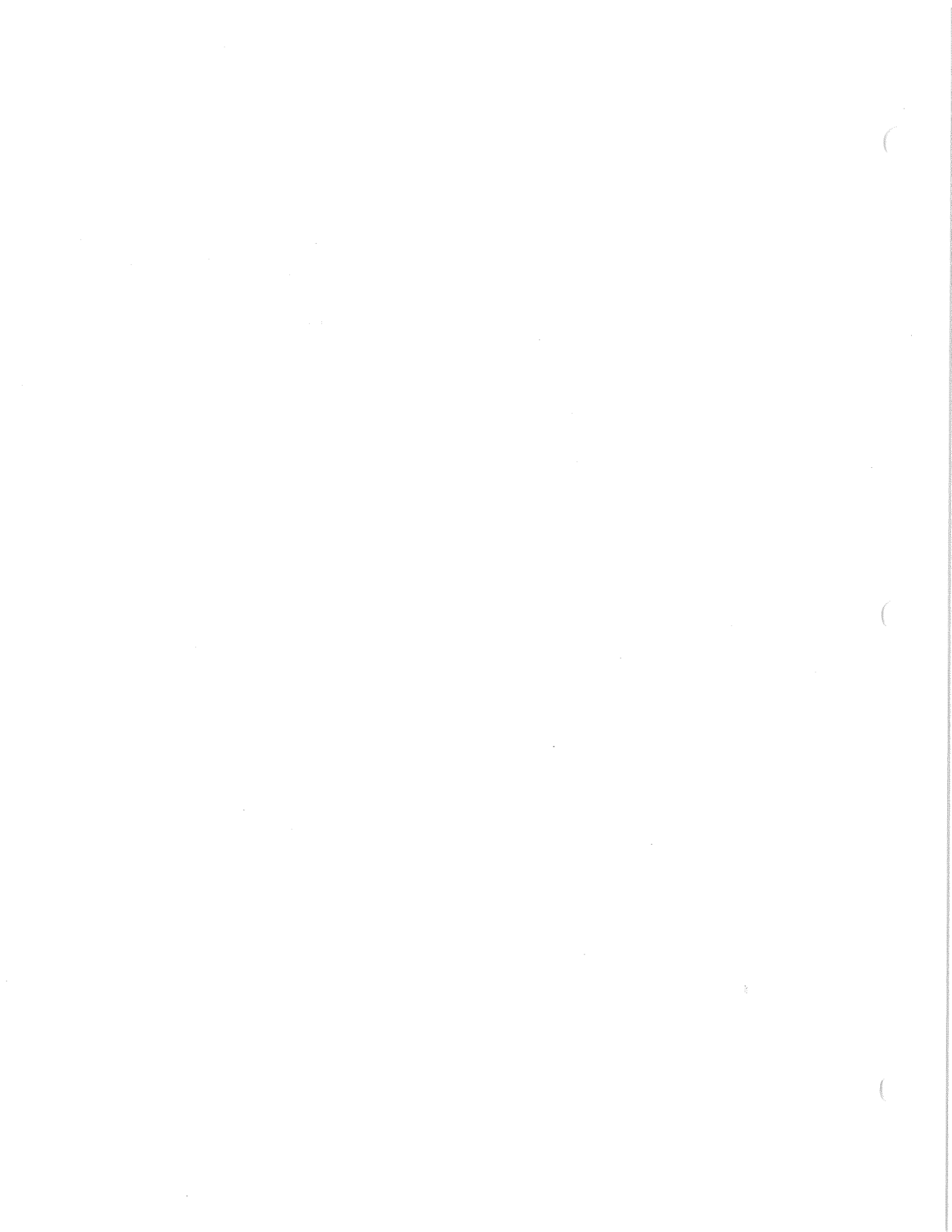


7012 1010 0001 3440 6592

Certified Mail 7012 1010 0001 3440 6615 - Kingwood Township

92- Hunterdon County Planning Board

08 - Alexandria Township



ORDINANCE NO. 729

AN ORDINANCE AMENDING THE STEEP SLOPE REGULATIONS IN THE LAND USE ORDINANCE OF THE BOROUGH OF FRENCHTOWN IN THE COUNTY OF HUNTERDON AND STATE OF NEW JERSEY TO AMEND THE REQUIREMENTS APPLICABLE TO SLOPES OVER FIFTEEN PERCENT (15%) PER N.J.D.E.P. REQUIREMENTS FOR APPROVAL OF THE WASTEWATER MANAGEMENT PLAN

It is hereby ordained by the Borough Council of the Borough of Frenchtown, County of Hunterdon, State of New Jersey, as follows:

Section 1. Section 310 of the Land use Ordinance, entitled Steep Slope Development Requirements, is hereby deleted in its entirety and substituted with the following:

Section 310. Steep Slope Development Requirements.

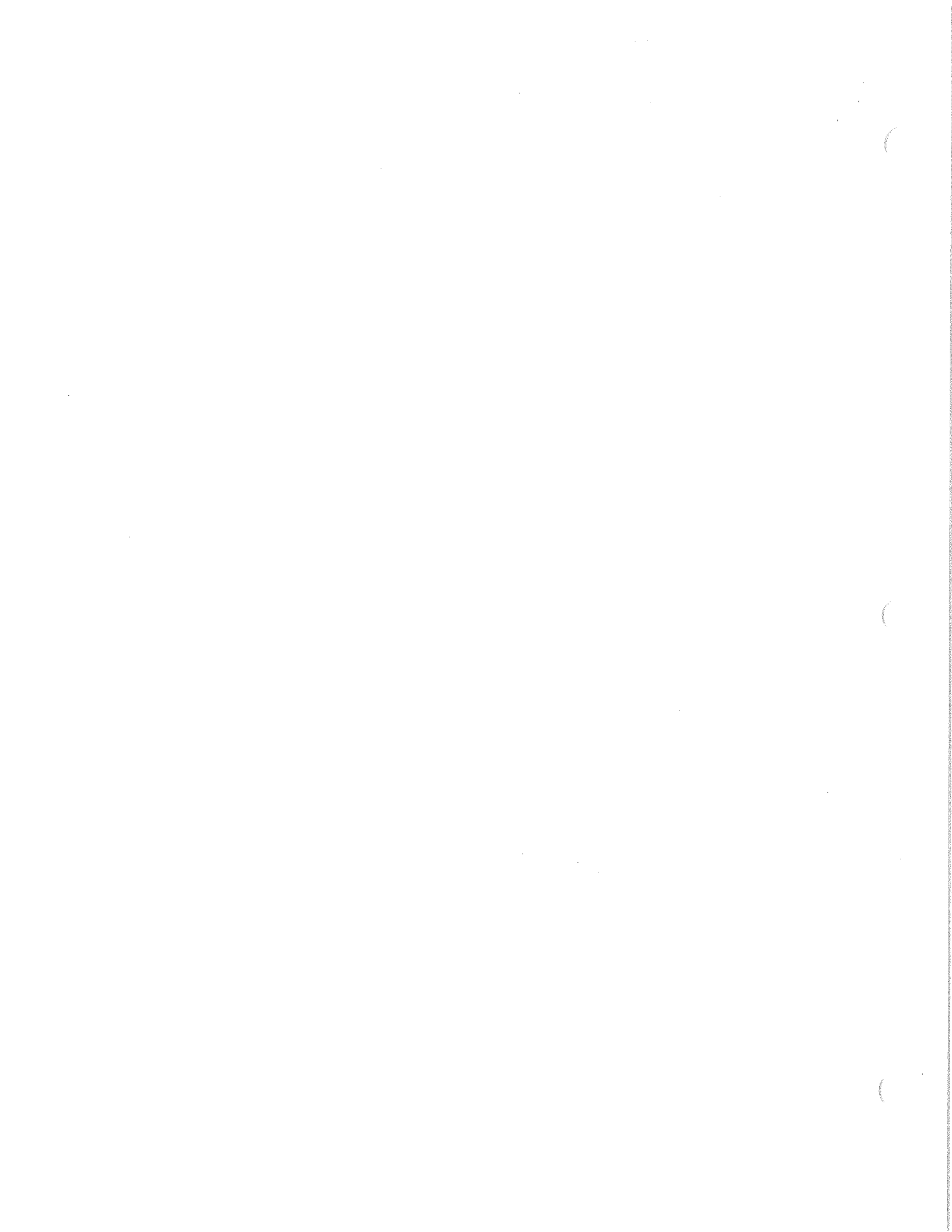
A. The following requirements shall apply to the subdivision or development of any lot or tract in the R-1 zone districts:

1. The applicable provisions of Sections 401 and 203 of this Ordinance relating to minimum lot sizes, dwelling unit densities and impervious surface coverage for permitted nonresidential uses shall be modified as follows:

a. The boundaries of the tract that is proposed to be subdivided or developed shall be superimposed over a topographic map of the area (at two foot contour intervals) prepared and certified by a licensed land surveyor from an actual field survey. A steep slope analysis showing each of the slope classes listed below shall be delineated on the subdivision plat or site plan. The percent of the area within each slope range indicated below shall be multiplied by the corresponding development factor:

<u>Percent of Tract Area</u>	<u>Slope Range</u>	<u>Development Factor</u>	<u>Product</u>
	(0% - 10%)	x 1.00	=
	(+10% - 15%)	x .70	=
	(+15% - 20%)	x .20	=
	(+20%)	x 0.00	=

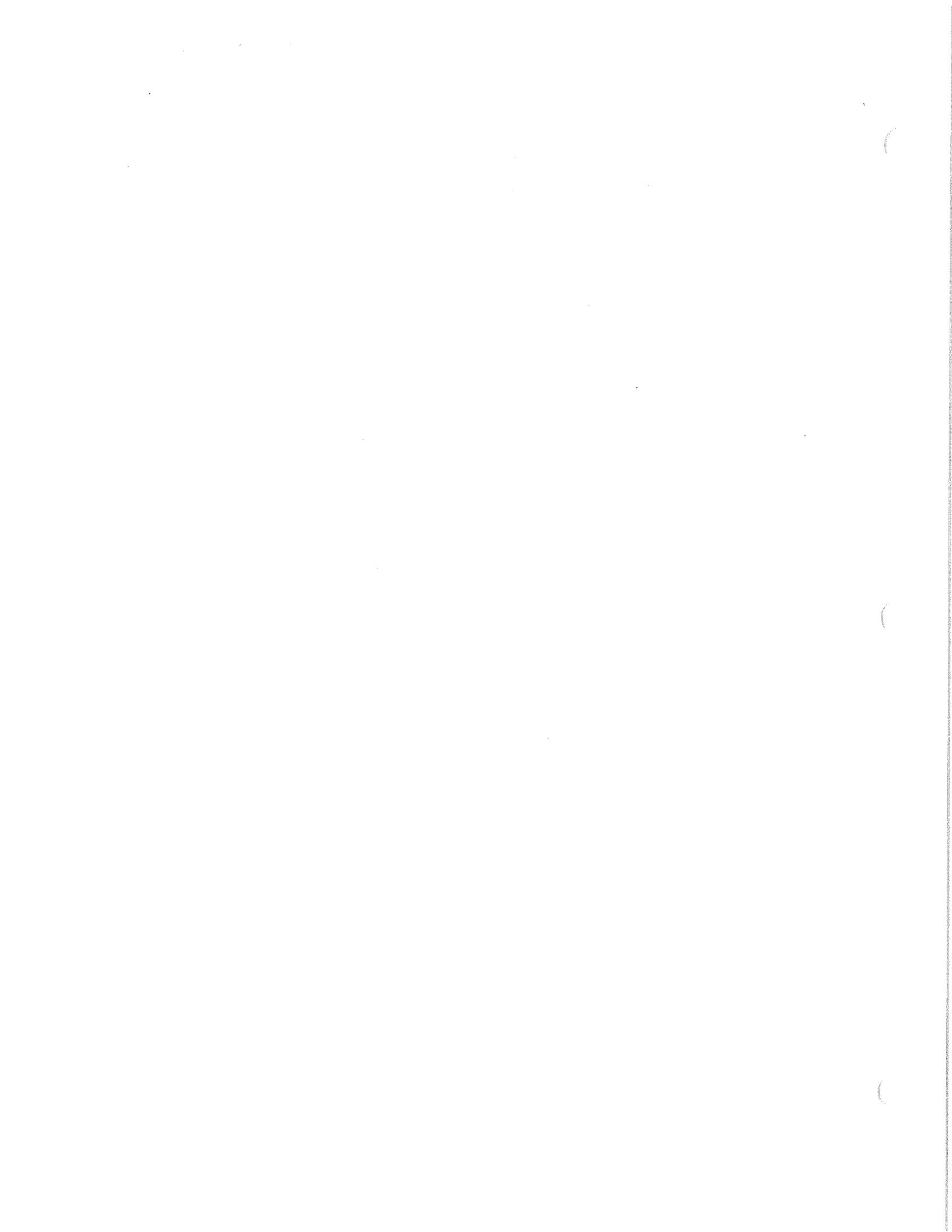
b. The sum of the products resulting from the multiplication of the percent of the total tract area within each slope range by the corresponding development factor shall be the




developable tract area.

- c. The developable tract area shall be divided by the required minimum lot size for the district, in the case of a subdivision, to determine the permitted number of lots in the subdivision.
 - d. The developable tract area shall be multiplied by the maximum permitted density of residential development or, in the case of a nonresidential development, by the maximum permitted impervious surface coverage to determine the number of dwelling units or square footage of impervious surface coverage (for a nonresidential development) permitted to be developed.
2. In areas with slopes of fifteen (15) percent to twenty (20) percent, no more than fifteen (15) percent of such areas shall be developed and/or regraded or stripped of vegetation, and a drainage plan shall be submitted indicating that the development, regrading or stripping of vegetation in such areas will not increase runoff from the site over predevelopment conditions.
 3. In areas with slopes of twenty (20) percent or more, no development, regrading or stripping of vegetation shall be permitted.
- B. Notwithstanding the above, redevelopment of an existing developed lot of record at the time of the passage of this Ordinance may be permitted in the R-1 district and shall be exempt from the above provisions as long as the redevelopment is limited to the footprint of the existing impervious surface areas on the lot.
- C. Variances in accordance with the requirements of N.J.S.A. 40:55D-70c from Sections 310.A.2. and 3. And 310.B. hereinabove shall only be granted by the Planning Board to prevent extraordinary hardship to the property owner; to achieve a compensatory net environmental benefit; or to otherwise promote the public health, safety and general welfare.
- D. The following requirements shall apply to any development or redevelopment for which construction of any improvement is proposed on a slope of 15 percent or more regardless of the nature or extent of the improvement:
1. A lot grading plan which indicates the proposed driveway plan and profile and other site grading information relating to the proposed improvement(s) shall be submitted for review and approval by the Borough Engineer. Such plan shall also provide for the proper protection and stabilization of all disturbed areas consistent with the design techniques established by the Soil Erosion and Sediment Control Standards adopted and amended by the New Jersey State Soil Conservation Committee.
 2. The Borough Engineer shall verify that the proposed driveway design is capable of providing access for emergency vehicles and equipment under all weather conditions

Section 2.

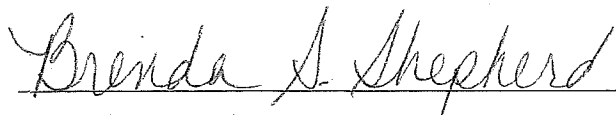


This Ordinance shall take effect immediately upon final passage and publication according to law.



Warren Cooper, Mayor

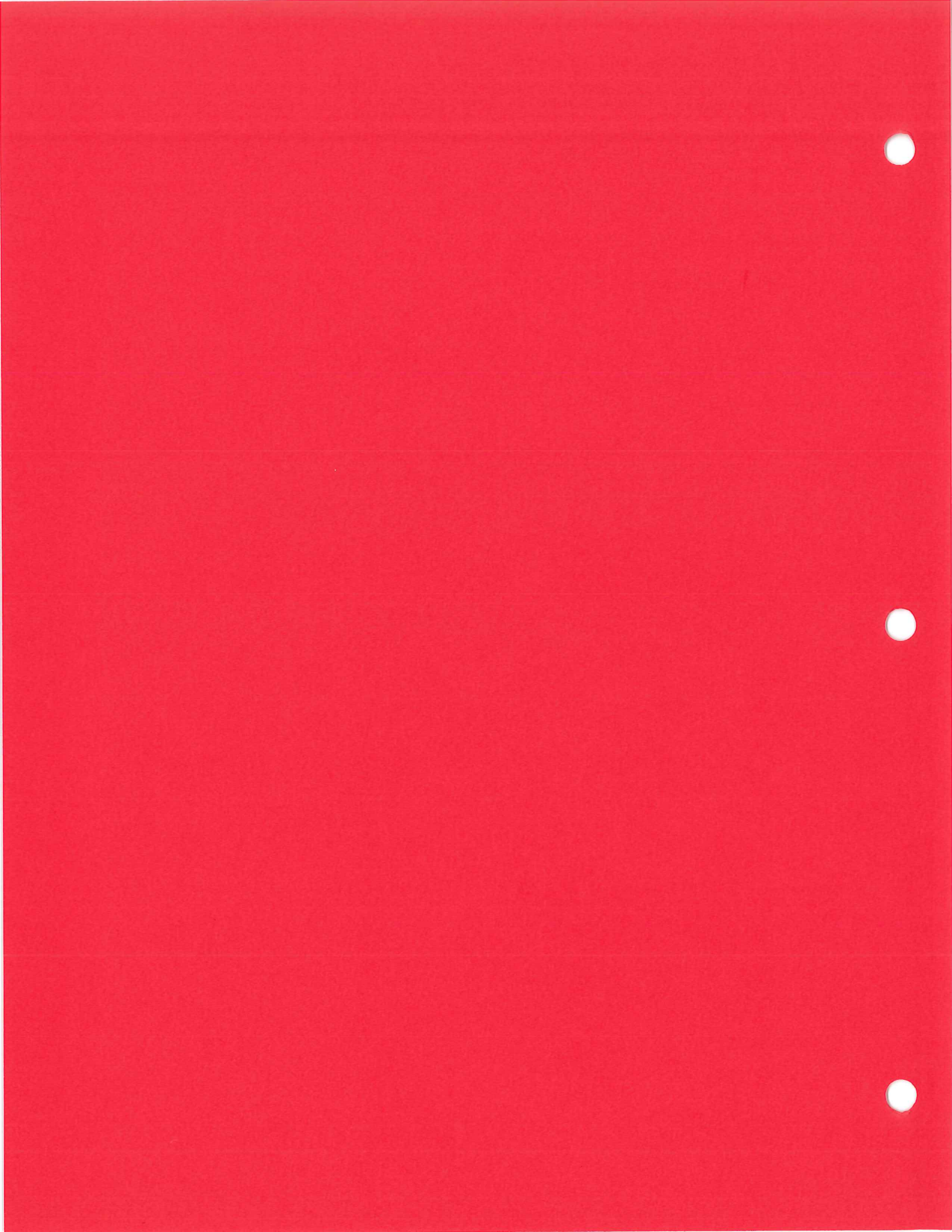
ATTEST:



Brenda Shepherd, RMC
Borough Clerk







BOROUGH OF FRENCHTOWN

Mayor
Warren E. Cooper

Incorporated April 4, 1867
Borough Hall 29 Second Street
Frenchtown, NJ 08825

Municipal Clerk
Brenda S. Shepherd, R.M.C.

October 9, 2012

Hunterdon County Planning Board
P.O. Box 2900
Flemington, NJ 08822

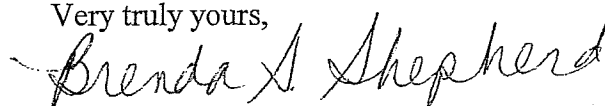
Municipal Clerk
Alexandria Township
782 Frenchtown Road
Milford, NJ 08848

Municipal Clerk
Kingwood Township
P.O. Box 199
Baptistown, NJ 08803

Dear County Director and Municipal Clerks:

Enclosed please find a certified copy of the Borough of Frenchtown's Ordinance #719 entitled "MINIMUM RIPARIAN ZONE ORDINANCE" which is an amendment to the Borough's Land Use Ordinance. Ordinance #719 was introduced and passed on first reading by the Mayor and Common Council at its regular meeting on September 5, 2012. The ordinance was ordered published which publication took place on September 13, 2012. The ordinance was passed and adopted on final reading at a meeting held on Wednesday, October 3, 2012 at 7:30 pm at the Borough of Frenchtown, Borough Hall, 29 Second Street, Frenchtown, NJ after a public hearing. The ordinance is available for view at the office of the Borough Clerk during regular business hours.

Very truly yours,



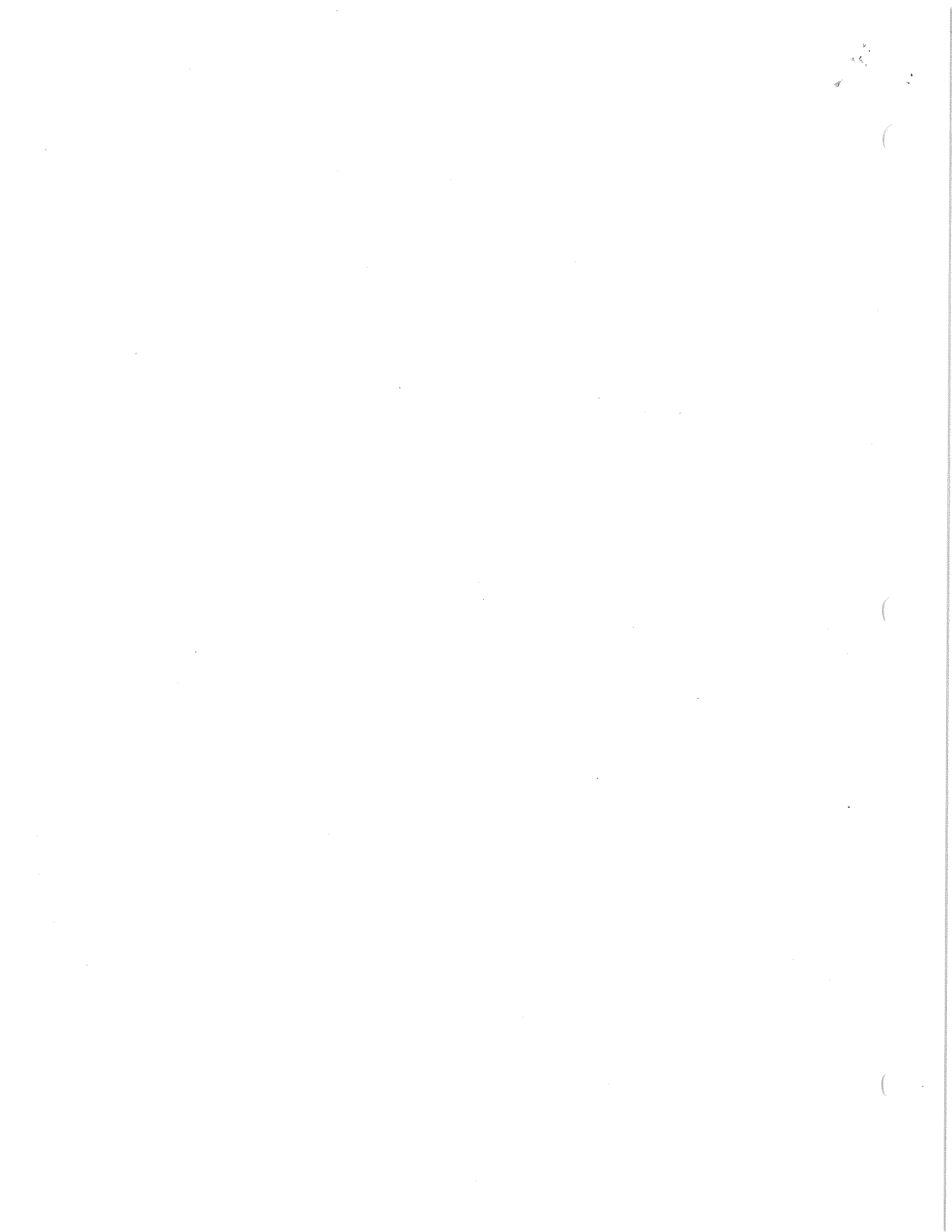
Brenda S. Shepherd, RMC
Borough Clerk

Encl.

Certified Mail 7012 1010 0001 3440 6233 – Hunterdon County Planning Board

Certified Mail 7012 1010 0001 3440 6240 – Alexandria Township

Certified Mail 7012 1010 0001 3440 6257 – Kingwood Township



ORDINANCE #719
MINIMUM RIPARIAN ZONE ORDINANCE

- I. Purpose and Authority**
- II. Definitions**
- III. Establishment and Protection of Riparian Zones**
- IV. Variances**
- V. Exceptions**
- VI. Appeals, Conflicts, and Severability**
- VII. Enforcement**
- VIII. Effective Date**

I. PURPOSE AND AUTHORITY

The purpose of this Ordinance is to designate riparian zones, and to provide for land use regulation therein in order to protect the streams, lakes, and other surface water bodies of the Borough of Frenchtown and to comply with N.J.A.C. 7:15-5.25(g)3, which requires municipalities to adopt an ordinance that prevents new disturbance for projects or activities in riparian zones as described herein. Compliance with the riparian zone requirements of this Ordinance does not constitute compliance with the riparian zone or buffer requirements imposed under any other Federal, State or local statute, regulation or ordinance.

II. DEFINITIONS

The following definitions shall be used in interpreting and applying the provisions of this Ordinance:

Acid Producing Soils means soils that contain geologic deposits of iron sulfide minerals (pyrite and marcasite) which, when exposed to oxygen from the air or from surface waters, oxidize to produce sulfuric acid. Acid producing soils, upon excavation, generally have a pH of 4.0 or lower. After exposure to oxygen, these soils generally have a pH of 3.0 or lower.

Information regarding the location of acid producing soils in New Jersey can be obtained from local Soil Conservation District offices.

Applicant means a person, corporation, government body or other legal entity applying to the Borough Planning Board/Board of Adjustment or applying for a Zoning Permit or for a Construction Permit who is proposing to engage in any activity that is regulated by the provisions of this Ordinance, and that would be located in whole or in part within a regulated Riparian Zone.

Category One Waters or C1 Waters shall have the meaning ascribed to this term by the Surface Water Quality Standards, N.J.A.C. 7:9B, for purposes of implementing the antidegradation policies set forth in those standards, for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, and other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resources.

Disturbance means the placement of impervious surface, the exposure or movement of soil or bedrock, or the clearing, cutting, or removing of vegetation.

Intermittent Stream means a surface water body with definite bed and banks in which there is not a permanent flow of water and shown on the New Jersey Department of Environmental Protection Geographic Information System (GIS) hydrography coverages or, in the case of a Special Water Resource Protection Area (SWRPA) pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h), C1 waters as shown on the USGS quadrangle map or in the County Soil Surveys.

Lake, Pond, or Reservoir means any surface water body shown on the New Jersey Department of Environmental Protection Geographic Information System (GIS) hydrography coverages or, in the case of a Special Water Resource Protection Area (SWRPA) pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h), C1 waters as shown on the USGS quadrangle map or in the County Soil Surveys; that is an impoundment, whether naturally occurring or created in whole or in part by the building of structures for the retention of surface water. This excludes sedimentation control and stormwater retention/detention basins and ponds designed for treatment of wastewater.

Perennial Stream means a surface water body that flows continuously throughout the year in most years and shown on the New Jersey Department of Environmental Protection Geographic Information System (GIS) hydrography coverages or, in the case of a Special Water Resource Protection Area (SWRPA) pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h), C1 waters as shown on the USGS quadrangle map or in the County Soil Surveys.

Riparian Zone means the land and vegetation within and directly adjacent to all surface water bodies including, but not limited to lakes, ponds, reservoirs, perennial and intermittent streams, up to and including their point of origin, such as seeps and springs, as shown on the New Jersey Department of Environmental Protection's GIS hydrography coverages or, in the case of a Special Water Resource Protection Area (SWRPA) pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h), C1 waters as shown on the USGS quadrangle map or in the County Soil Surveys. There is no riparian zone along the Atlantic Ocean nor along any manmade lagoon or oceanfront barrier island, spit or peninsula.

Special Water Resource Protection Area or SWRPA means a 300 foot area provided on each side of a surface water body designated as a C1 water or tributary to a C1 water that is a perennial stream, intermittent stream, lake, pond, or reservoir, as defined herein and shown on the USGS quadrangle map or in the County Soil Surveys within the associated HUC 14 drainage, pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h).

Surface Water Body(ies) means any perennial stream, intermittent stream, lake, pond, or reservoir, as defined herein. In addition, any regulated water under the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-2.2, or State open waters identified in a Letter of Interpretation issued under the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-3 by the New Jersey Department of Environmental Protection Division of Land Use Regulation shall also be considered surface water bodies.

Threatened or Endangered Species means a species identified pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-1 et seq., the Endangered Species Act of 1973, 16 U.S.C. §§1531 et seq. or the Endangered Plant Species List, N.J.A.C. 7:5C-5.1, and any subsequent amendments thereto.

Trout Maintenance Water means a section of water designated as trout maintenance in the New Jersey Department of Environmental Protection's Surface Water Quality Standards at N.J.A.C. 7:9B.

Trout Production Water means a section of water identified as trout production in the New Jersey Department of Environmental Protection's Surface Water Quality Standards at N.J.A.C. 7:9B.

III. ESTABLISHMENT AND PROTECTION OF RIPARIAN ZONES

- A. Except as provided in Sections IV. and V. below, riparian zones adjacent to all surface water bodies shall be protected from avoidable disturbance and shall be delineated as follows:
1. The riparian zone shall be 300 feet wide along both sides of any Category One water (C1 water), and all upstream tributaries situated within the same HUC 14 watershed.
 2. The riparian zone shall be 150 feet wide along both sides of the following waters not designated as C1 waters:
 - a. Any trout production water and all upstream waters (including tributaries);
 - b. Any trout maintenance water and all upstream waters (including tributaries) within one linear mile as measured along the length of the regulated water;
 - c. Any segment of a 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 regulated water; and
 - d. Any segment of a water flowing through an area that contains acid producing soils.
 3. For all other surface water bodies, a riparian zone of 50 feet wide shall be maintained along both sides of the water.
- B. If a discernible bank is not present along a surface water body, the portion of the riparian zone outside the surface water body is measured landward as follows:
1. Along a linear fluvial or tidal water, such as a stream, the riparian zone is measured landward of the feature's centerline;
 2. Along a non-linear fluvial water, such as a lake or pond, the riparian zone is measured landward of the normal water surface limit;
 3. Along a non-linear tidal water, such as a bay or inlet, the riparian zone is measured landward of the mean high water line; and
 4. Along an amorphously-shaped feature such as a wetland complex, through which water flows but which lacks a discernible channel, the riparian zone is measured landward of the feature's centerline.
- C. The applicant or designated representative shall be responsible for the initial determination of the presence of a riparian zone on a site, and for identifying the area of the riparian zone on any plan submitted to the Borough of Frenchtown in conjunction with an application for

a construction permit, subdivision, land development, or other improvement that requires plan submissions or permits. This initial determination shall be subject to review and approval by the municipal engineer, governing body, or its appointed representative, and, where required by State regulation, the New Jersey Department of Environmental Protection.

IV. VARIANCES

To the extent allowed by the Stormwater Management Rules (N.J.A.C. 7:8), the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13), and the Highlands Water Protection and Planning Act Rules (N.J.A.C. 7:38), new disturbances for projects or activities in the riparian zone established by this Ordinance may be allowed through the Zoning Board of Adjustment review and approval of a variance, provided the disturbance is proposed to be located on a pre-existing lot (existing as of the effective date of this ordinance) when there is insufficient room outside the riparian zone for the proposed use otherwise permitted by the underlying zoning; there is no other reasonable or prudent alternative to placement in the riparian zone, including obtaining variances from setback or other requirements that would allow conformance with the riparian zone requirements; and upon proof by virtue of submission of appropriate maps, drawings, reports and testimony, that the disturbance is:

- A. Necessary to protect public health, safety or welfare;
- B. To provide an environmental benefit;
- C. To prevent extraordinary hardship on the property owner peculiar to the property; or
- D. To prevent extraordinary hardship, provided the hardship was not created by the property owner, by not allowing a minimum economically viable use of the property based upon reasonable investment.

V. EXCEPTIONS

To the extent allowed under the Stormwater Management Rules (N.J.A.C. 7:8), the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13), and the Highlands Water Protection and Planning Act Rules (N.J.A.C. 7:38) and subject to review and approval by the New Jersey Department of Environmental Protection to the extent required by those rules, the following disturbances for projects or activities in the riparian zone established by this Ordinance are allowed:

- A. Redevelopment within the limits of existing impervious surfaces;
- B. Linear development with no feasible alternative route;
- C. Disturbance that is in accordance with a stream corridor restoration or stream bank stabilization plan or project approved by the New Jersey Department of Environmental Protection;

D. Disturbance necessary to provide for public pedestrian access or water dependent recreation that meets the requirements of the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A, the Flood Hazard Area Control Act rules, N.J.A.C. 7:13, or the Coastal Zone Management rules, N.J.A.C. 7:7E; or

E. Disturbance with no feasible alternative required for the remediation of hazardous Substances performed with New Jersey Department of Environmental Protection or Federal oversight pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq. or the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§9601 et seq.

VI. APPEALS, CONFLICTS, AND SEVERABILITY

- A. Any party aggrieved by the location of the riparian zone boundary determination under this Ordinance may appeal to the Zoning Officer under the provisions of this Ordinance. The party contesting the location of the riparian zone boundary shall have the burden of proof in case of any such appeal.
- B. Any party aggrieved by any determination or decision of the Zoning Officer under this Ordinance may appeal to the Mayor and Common Council of the Borough of Frenchtown. The party contesting the determination or decision shall have the burden of proof in case of any such appeal.
- C. Conflicts: All other ordinances, parts of ordinances, or other local requirements that are inconsistent or in conflict with this ordinance are hereby superseded to the extent of any inconsistency or conflict, and the provisions of this Ordinance shall apply.
- D. Severability:
 - 1. Interpretation: This Ordinance shall be so construed as not to conflict with any provision of New Jersey or Federal law.
 - 2. Notwithstanding that any provision of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, all remaining provisions of the Ordinance shall continue to be of full force and effect.
 - 3. The provisions of this Ordinance shall be cumulative with, and not in substitution for, all other applicable zoning, planning and land use regulations.

VII. ENFORCEMENT

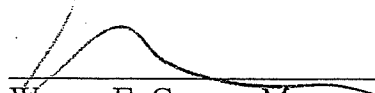
A prompt investigation shall be made by the Code Enforcement Office/Zoning Officer of the Borough of Frenchtown, of any person or entity believed to be in violation hereof. If, upon inspection, a condition which is in violation of this Ordinance is discovered, a civil action in the Special Part of the Superior Court, or in the Superior Court, if the primary relief sought is injunctive or if penalties may exceed the jurisdictional limit of the Special Civil Part, by the filing and serving of appropriate process. Nothing in this Ordinance shall be construed to preclude the right of Borough of Frenchtown, pursuant to N.J.S.A 26:3A2-25, to initiate legal proceedings hereunder in Municipal Court. The violation of any section or subsection of this Ordinance shall constitute a separate and distinct offense independent of the violation of any other section or subsection, or of any order issued pursuant to this Ordinance. Each day a violation continues shall be considered a separate offense.

VIII. CODIFICATION

The enumeration of the separate provisions of this Ordinance may be changed to accommodate codification of the provisions of this adopted Ordinance into the Borough's Land Use Ordinance.

IX EFFECTIVE DATE

This Ordinance shall take effect upon final adoption and publication in accordance with the law on the date it is filed with the County Planning Board after adoption.


Warren E. Cooper, Mayor

ATTEST:

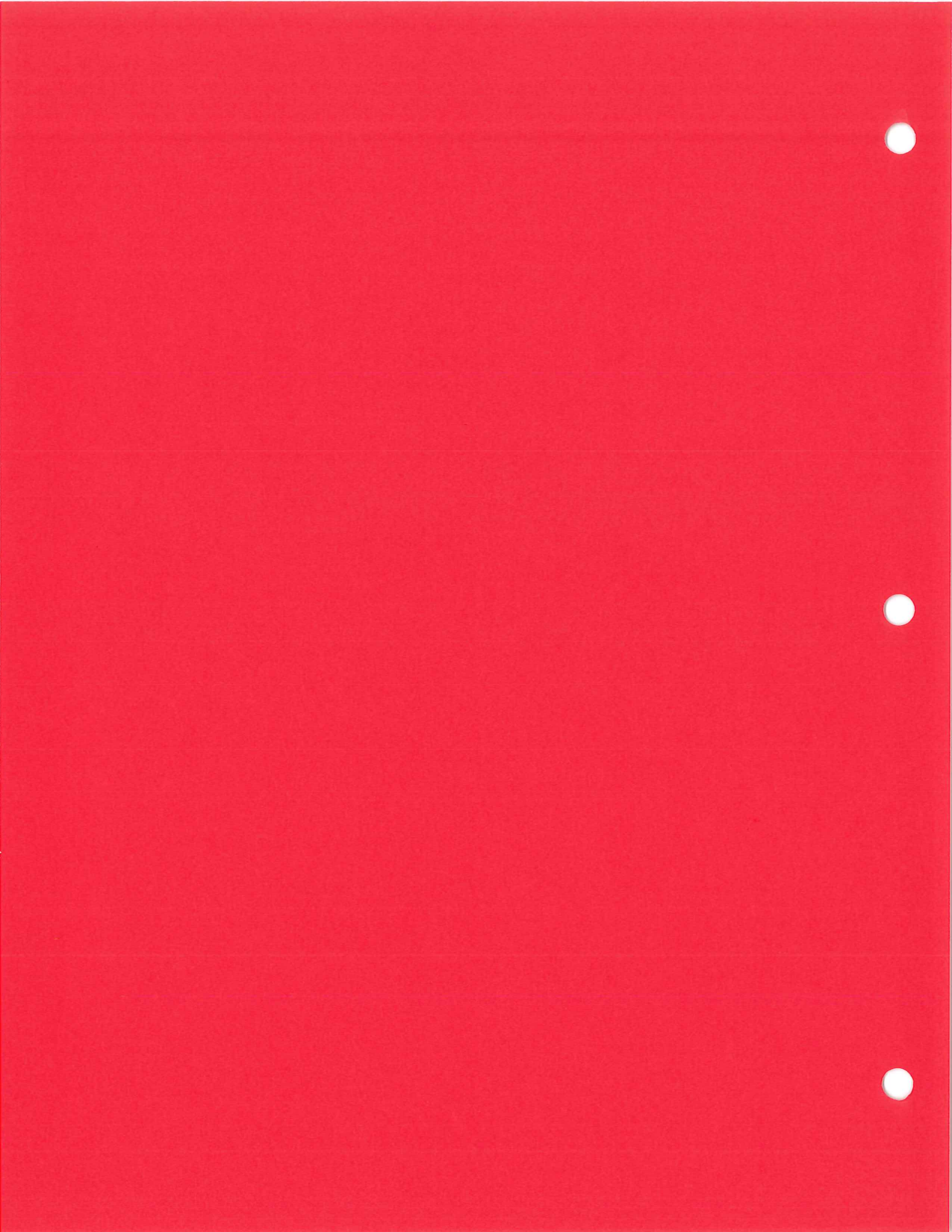

Brenda Shepherd, RMC, Borough Clerk

Introduction: 9-5-12

Publication: 9-13-12

Second Reading: 10-3-12





BOROUGH OF FRENCHTOWN

Mayor
Ronald M. Sworen

Incorporated April 4, 1867
Borough Hall 29 Second Street
Frenchtown, NJ 08825

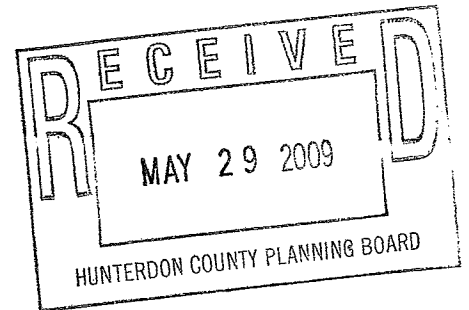
Municipal Clerk
Brenda S. Shepherd, R.M.C.

May 28, 2009

Hunterdon County Planning Board
P.O. Box 2900
Flemington, NJ 08822

Municipal Clerk
Alexandria Township
21 Hog Hollow Road
Pittstown, NJ 08867

Municipal Clerk
Kingwood Township
P.O. Box 199
Baptistown, NJ 08803



Dear County Director and Municipal Clerks:

Enclosed please find Memorializing Resolution #2009-20 which was adopted by the Frenchtown Planning/Zoning Board of Adjustment at its meeting on May 27, 2009 memorializing the action of the Board at its April 22, 2009 meeting wherein they adopted the 2009 Periodic Reexamination Report for the Borough of Frenchtown, the Amendment to the Land Use Element of the Master Plan for the creation of overlay zoning in portions of the R5 and R2 zones with attached overlay zoning regulations and the March 1, 2006 Borough of Frenchtown Municipal Stormwater Management Plan adopted as an element of Frenchtown's Master Plan.

If you need any further information, please do not hesitate to call.

Very truly yours,

A handwritten signature in cursive script that reads "Brenda S. Shepherd".

Brenda S. Shepherd, RMC
Borough Clerk

Encl.

Certified Mail 7004 0750 0002 3875 2033 – Hunterdon County Planning Board

Certified Mail 7004 0750 0002 3875 2040 – Alexandria Township

Certified Mail 7004 0750 0002 3875 2057 – Kingwood Township

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7004 0750 0002 3875 2033

RESOLUTION #2009-20

**OF THE FRENCHTOWN BOROUGH PLANNING/ZONING BOARD OF ADJUSTMENT
MEMORIALIZING ITS ADOPTION OF THE 2009 PERIODIC REEXAMINATION
REPORT, ITS ADOPTION OF THE AMENDMENT TO LAND USE PLAN ELEMENT OF
FRENCHTOWN BOROUGH MASTER PLAN FOR CREATION OF OVERLAY ZONING
IN PORTIONS OF R-5 AND R-2 ZONES, AND ITS ADOPTION OF THE 2006
STORMWATER MANAGEMENT PLAN AS AN ELEMENT OF THE MASTER PLAN**

WHEREAS, the Planning/Zoning Board of Adjustment of the Borough of Frenchtown ("the Board") is a duly constituted body responsible for orderly development and planning in the Borough of Frenchtown; and

WHEREAS, pursuant to N.J.S.A. 40:55D-89, the Board is required to conduct a general reexamination of the master plan and development regulations every six years and to prepare and adopt by resolution a report on the findings of such general reexamination; and

WHEREAS, pursuant to N.J.S.A. 40:55D-25, 28 and 62, the Board is empowered to adopt and amend the master plan for the Borough; and

WHEREAS, the Board has undertaken a general reexamination of its master plan and development regulations as required by law and has directed the preparation of a report summarizing its findings; and

WHEREAS, such report, dated March 30, 2009, was prepared by Elizabeth C. McKenzie, AICP, PP, Planning Consultant to the Borough of Frenchtown; and

WHEREAS, the report recommends the creation of overlay zoning in portions of the Borough's R-5 and R-2 Zones and, in furtherance of that recommendation and consistent with the requirements of N.J.S.A. 40:55D-62, includes an attached Amendment to Land Use Plan Element of Frenchtown Borough Master Plan for Creation of Overlay Zoning in Portions of R-5 and R-2 Zones; and

WHEREAS, the report also recommends that the Stormwater Management Plan that was prepared in 2006 and adopted by the Borough Council in 2006 be adopted by the Planning Board as an element of the Master Plan; and

WHEREAS, the Planning/Zoning Board of Adjustment held a duly noticed public hearing on the 2009 Periodic Reexamination Report, the Amendment to Land Use Plan

Element of Frenchtown Borough Master Plan for Creation of Overlay Zoning in Portions of R-5 and R-2 Zones, and the 2006 Stormwater Management Plan; and

WHEREAS, the 2009 Periodic Reexamination Report was adopted with minor revisions by the Board following the public hearing on April 22, 2009; and

WHEREAS, the Amendment to Land Use Plan Element of Frenchtown Borough Master Plan for Creation of Overlay Zoning in Portions of R-5 and R-2 Zones was adopted with minor revisions by the Board following the public hearing on April 22, 2009; and

WHEREAS, the 2006 Stormwater Management Plan was adopted without revision by the Board following the public hearing on April 22, 2009;

NOW THEREFORE, BE IT RESOLVED by the Planning/Zoning Board of Adjustment of the Borough of Frenchtown as follows:

1. The Board hereby memorializes its April 22, 2009, adoption of the 2009 Reexamination Report as revised through April 22, 2009.
2. The Board hereby memorializes its April 22, 2009, adoption of the Amendment to Land Use Plan Element of Frenchtown Borough Master Plan for Creation of Overlay Zoning in Portions of R-5 and R-2 Zones as revised through April 22, 2009.
3. The Board hereby memorializes its April 22, 2009, adoption of the 2006 Stormwater Management Plan as an element of the Frenchtown Borough Master Plan.
4. Copies of the adopted 2009 Periodic Reexamination Report, the adopted Amendment to Land Use Plan Element of Frenchtown Borough Master Plan for Creation of Overlay Zoning in Portions of R-5 and R-2 Zones, and the 2006 Stormwater Management Plan, which has now been adopted as an element of the Frenchtown Borough Master Plan, and this resolution memorializing the adoption of these documents shall be sent to the Hunterdon County Planning Board and the Clerk of each municipality adjoining the Borough of Frenchtown.
5. This resolution shall take effect immediately.

I, Brenda Shepherd, Secretary to the Planning/Zoning Board of Adjustment of the Borough of Frenchtown in the County of Hunterdon, do hereby certify that the foregoing is a true and correct copy of a resolution duly adopted by the said Board on the 27th day of May, 2009.

A handwritten signature in cursive script that reads "Brenda Shepherd". The signature is written in black ink and is positioned above a solid horizontal line.

Brenda Shepherd, RMC, Board Secretary

**2009 PERIODIC REEXAMINATION REPORT
BOROUGH OF FRENCHTOWN, HUNTERDON COUNTY**

Adopted April 22, 2009

Introduction

Until the New Jersey Legislature adopted the Municipal Land Use Law (N.J.S.A. 40:55D-1 *et seq.*; Chapter 291, Laws of N.J., 1975), in 1975, municipal master plans had been accorded little weight in the planning process. Although Federal and State funding programs of the 1960's encouraged municipalities to prepare master plans, once adopted these documents were seldom consulted and infrequently updated.

The adoption of the Municipal Land Use Law (MLUL) in 1975 elevated the status of local master plans by making the adoption of the land use plan element of the master plan (and, later, a housing plan element, as well) a prerequisite to the exercise of the zoning power. Further, the MLUL requires the zoning ordinance to be substantially consistent with the land use and housing plan elements of the master plan.

The MLUL requires the Planning Board to review, on a periodic basis, the need for master plan, zoning and development regulations modifications so that these documents would be consistent with one another and reflect changing conditions in the community and changing policies at the County and State level. This is the purpose of the periodic reexamination report, which all New Jersey towns must conduct at least every six (6) years.

The Frenchtown Planning Board/Zoning Board of Adjustment undertook its first such reexamination in 1988. In 1994, the Board adopted a Master Plan Revision, which consisted of Community Data (Part I) and Goals, Objectives and Implementation Strategies (Part II). The 1994 Master Plan Revision was reviewed in 1996 by the staff of the Office of State Planning in the context of a report on the consistency of Frenchtown's adopted Master Plan with the State

Plan (Master Plan Consistency Review, Borough of Frenchtown, May 24, 1996). On July 26, 2000, Frenchtown's Planning Board/Zoning Board of Adjustment adopted a new Reexamination Report. Since its adoption, the 2000 Reexamination Report has been amended on four separate occasions (and as recently as 2005) to keep it current with the Borough's evolving planning policies.

This Reexamination Report has been prepared, not only to satisfy the statutory requirement for reviewing the municipal master plan and development regulations at least every six (6) years (due next for Frenchtown in 2010), but also to present certain specific amendments to the Master Plan and Land Use Ordinance that the Board has been considering over the past year and to establish an agenda for the preparation of a whole new Master Plan.

The Board is not normally required to hold a public hearing on a Reexamination Report. Ordinarily, the Reexamination Report is prepared, adopted by resolution of the Board, and filed with the County Planning Board, the Borough Clerk and the Clerks of the adjoining municipalities. If, at the conclusion of the reexamination process, it is recommended that all or part of the existing Master Plan should be updated or amended, then a public hearing (or hearings) would be held on the amended or updated Master Plan once it has been prepared. ***In Frenchtown's case, however, certain Master Plan amendments are included in the Reexamination Report, and its adoption must therefore follow the procedures in the MLUL for notice, public hearing and adoption of a Master Plan or Master Plan amendment.***

The MLUL requires consideration of five topics within a Reexamination Report. These topics are as follows:

- a. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.
- b. The extent to which such problems and objectives have been reduced or have increased subsequent to such date.

c. The extent to which there have been significant changes in the assumptions, policies and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives.

d. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.

e. The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the "Local Redevelopment and Housing Law," P.L. 1992, c.79 (C.40A:12A-1 *et seq.*) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

(N.J.S.A. 40:55D-89)

The ensuing sections of this report address each of these topics.

Section I: The Major Problems and Objectives Relating to Land Development in the Municipality at the Time of the Adoption of the Last Reexamination Report

The major problems and objectives identified in Frenchtown's 2000 Master Plan Reexamination Report, as updated through 2005, were as follows:

1. At the time the 2000 Reexamination Report was prepared, the Borough was on the verge of adopting a comprehensive Land Use Ordinance, and the Reexamination Report urged its adoption, recognizing that it was a "working document" that might well require further amendment from time to time.

In 2003, prior to the Borough's adoption of a new Zoning Map to accompany the Land Use Ordinance, the 2000 Reexamination Report was amended to identify and explain each of the zoning changes embodied within the new Zoning Map. The Zoning Map was subsequently amended in 2004 and again in 2005, and these changes were reflected in further amendments to the 2000 Reexamination Report. A few amendments were also made to the text of the Land Use

Ordinance to address such issues as updating the flood damage prevention provisions; adding requirements for addressing the presence of steep slopes in the calculation of the developable tract area; repealing the Development Fee Ordinance; strengthening the enforcement provisions of the Ordinance; and adding affordable housing growth share requirements consistent with COAH's previous Third Round Rules. Apart from these specific amendments, the Land Use Ordinance has generally withstood the test of time. All of the amendments to the substantive provisions of the Land Use Ordinance were preceded by amendments to the Reexamination Report.

2. The 2000 Reexamination Report had recommended the preparation of Stream Corridor Protection Regulations and their incorporation into the Land Use Ordinance. *This has not yet been undertaken.*

3. The 2000 Reexamination Report had recommended that the Developers' Agreement with the DeSapio Brothers regarding the provision of three (3) instead of two (2) dedicated low and moderate income units out of the sixteen (16) senior citizens' housing units already approved for construction on the site of the former Barn Theater be finalized. Additionally, the report had recommended that the Borough seek a waiver of COAH's center designation requirement for inclusionary developments in Planning Area Five, a process which required a favorable recommendation from the State Planning Commission. These tasks were necessary to advance COAH's review and approval of the Borough's amended prior round Housing Element and Fair Share Plan. *The Developer's Agreement with the DeSapio Brothers was finalized, the entire project has been built and occupied, and three of the sixteen units in the Barn Theater development have been deed restricted as low and moderate income units consistent with COAH's Rules. Frenchtown also requested and received a favorable recommendation from the State Planning Commission as to the waiver of the center designation requirement, which enabled COAH to approve the Borough's amended second round Housing Element and Fair Share Plan.*

4. The 2000 Reexamination Report, as updated through 2005, had recommended the preparation of a Strategic Master Plan for Sustainable Development and Redevelopment in the Borough which would include as elements one or more redevelopment plans for key areas of the Borough, *as outlined within the Reexamination Report*, a downtown parking plan based upon and incorporating the redevelopment plan(s), an open space and recreation plan, a land use plan, a utility services plan, a community facilities plan and a circulation plan. At the time, there was an opportunity to obtain Smart Growth funding from the State of New Jersey to undertake these studies. In the event that such funding could not be obtained or was insufficient, the Reexamination Report had recommended that the preparation of all of the various elements of the Strategic Master Plan for Sustainable Development and Redevelopment could be spread out over a period of up to three years, to keep costs manageable, and that the work should culminate in Frenchtown's obtaining center designation as a *village center* from the State Planning Commission. *Note that Frenchtown did utilize Smart Growth funds to cover the cost of preparing the Village Center Plan for the development and redevelopment of land within the Frenchtown Village Center, which is the Borough's designated Area in Need of Rehabilitation.*

The following items had been recommended to be addressed as part of the foregoing Strategic Master Plan work and, where applicable, in the Land Use Ordinance:

- * Identify all vacant lands within the Borough and identify those owned by the Borough and those owned by other public entities.

- * Analyze natural features throughout the Borough. Evaluate how the physical characteristics of the remaining vacant parcels may affect their use and development. Evaluate the constraints of flooding on the development and redevelopment potential of parcels in the downtown area of the Borough. *Note that significant baseline environmental information has become available to the Borough from the State's 2002 GIS database, although updates to the GIS database are needed, and from NJDEP approvals of subsequent applications for permits and approvals within the Borough.*

* Evaluate the existing zoning on the remaining large, unsewered, environmentally sensitive tracts within Frenchtown, with particular emphasis on *increasing* the minimum lot sizes required for single-family homes *and reducing densities*. *Since regulations such as critical areas deductions were upheld by the New Jersey Supreme Court, in an August, 2003, decision, it would be appropriate to include such regulations among those applicable within the R-1 and R-6 districts of the Borough, rather than simply increasing the minimum lot sizes required throughout these zones. In this way, the owners of less critical lands in these zones need not be penalized for the presence of other lands in the same zone that is severely impacted by steep slopes. The resulting reduction in the built density of development should be more comparable to and more compatible with the lower residential densities permitted in the adjoining portions of Kingwood and Alexandria Townships. Note that the Borough has modified its Land Use Ordinance to include deductions of steep slope areas in the calculation of the developable tract area used to establish density. It simultaneously modified the permitted density of development in the R-6 zone to base it on the net developable tract area rather than the gross tract area and it included a prohibition against any development on certain critical areas.*

* *Designate the following large, vacant or underdeveloped parcels, which are currently privately owned, for acquisition by a public or non-profit entity:*

a. *Block 52, Lots 29, 36.05 and 36.06.*

These lots are zoned R-6, although portions of the latter two along Trenton Avenue are shown on the revised Zoning Map as R-2. These three lots together form a large tract of steeply sloping, wooded land traversed by the Little Nississackaway Creek. This tract in its current undeveloped state helps to frame the village of Frenchtown, creating the environs for a future village center designation.

b. *Block 17, Lots 1, 2, 2.01 and 2.02.*

These lots contain steeply sloping and wooded land that, in their undeveloped (or underdeveloped) state, serve the same purpose as the tract in Block 52.

c. Any lots in Blocks 14, 53, 54 and 60 which are subject to flooding and have not already been acquired by the State of New Jersey and have remained undeveloped.

These lots would be appropriate for acquisition by the State of New Jersey as part of its ongoing efforts to preserve land along the Delaware River.

d. Vacant lots in Block 15 or large underdeveloped parcels in Block 15 as they become available.

The lots in this block tend to be large, and many are steeply sloping with rock outcroppings. This block is unsuited for more intensive development than has already occurred, and the acquisition of any of the larger properties in this block that become available for sale would be a desirable way to preserve additional areas of open space around the village of Frenchtown.

Note that Frenchtown has made significant strides in the implementation of this recommendation, having already secured through public acquisition the parcels identified in paragraph a. above..

** Promote an expanded business economy by creating locations for new or improved commercial opportunities. One specific area where this is recommended is in the block bounded by Hawk Street, Lott Street, Kerr Street and Trenton Avenue. This area has been zoned residentially (R-2) but is proposed to be shown on the revised Zoning Map as R-4A. It currently contains historic single and two-family residences facing Trenton Avenue on deep lots accessed from Kerr Street to the rear. The existing garages along Kerr Street, many of which are themselves historic, should be encourage to be preserved and adaptively reused for offices or, perhaps, limited retail establishments. Paving of the rear yards for parking is specifically discouraged, however. Instead it is recommended that off-site parking*

opportunities be created or captured to serve this block and that intra-block green space be retained.

* *Declare one or more redevelopment areas as recommended to be shown on the revised Zoning Map and prepare redevelopment plans for them. One such plan should encompass at least the parcels along Lott Street currently occupied by large nonresidential buildings that are no longer fully utilized and are incongruous to the rest of Frenchtown, creating opportunities for new residential and commercial space as well as additional public and private parking areas, but taking care to provide an appropriate transition between any such redevelopment and the existing historic homes located between Kerr Street and the River. **Wherever redevelopment is recommended to occur, it will be important for the adopted redevelopment plan(s) to provide for the preservation of existing historic structures and for any new construction to be consistent with the character of the Historic District.***

* Encourage Bed and Breakfast Inns throughout the Borough, especially in areas close to the Central Commercial (R-4A) zone.

* *Develop a strategic parking plan for the downtown area, including plans for semi-remote parking and plans for intrablock parking.* Seek outside funding for development and implementation of the strategic parking plan. Consider the possibility of establishing an independent parking authority, if appropriate, to manage and finance new public parking lots, or, in the alternative, of tying in the creation of new public parking opportunities with redevelopment plans to be implemented by a redevelopment agency.

* Maximize the beneficial use of the large parking area behind the Frenchtown Inn and create improved access to that lot. Work cooperatively with the owners of the Inn to create more public parking opportunities incorporating a portion of their site in exchange for improved parking facilities for their customers.

* *As part of the preceding undertaking, consider completing Second Street through to the Frenchtown Inn parking lot. Note that this recommendation has been mooted by the approval of the River Mills redevelopment plan, which does not extend Second Street all the way through to the Frenchtown Inn parking lot.*

* Address the future development potential of Lot 1, Block 34; **Lot 1, Block 35; and Lot 1, Block 36.** Determine flood elevations and provide for necessary flood storage while creating additional opportunities for retail (and, perhaps upper story residential) development appropriately elevated above the flood line, taking care to limit the overall height of buildings so as not to exceed that of surrounding structures in the downtown. Development of this site should be integrated to the extent possible with the towpath along the River. ***This area is recommended to be shown on the revised Zoning Map as R-4A, Central Commercial, and to be included in the Mixed-Use Redevelopment Overlay Zone.***

* Explore the potential to redevelop the former gas station site on Race Street as a public parking lot. A parking lot would be an appropriate use of this parcel, ***since the NJDEP-approved clean-up solution was to cap the property with pavement. Pedestrian improvements should be provided along the street frontage.***

* Explore the potential cooperative use of church/municipal parking lots for public/church parking, especially in the vicinity of Borough Hall.

* Improve the uses, sight distances and visual appearance of intersections located at the gateways to the Borough, especially at the entrances to the downtown area. It is specifically recommended that the southeast corner of Route 12 and Race Street be better defined and reinforced with ***sidewalks***, curbing and landscaping in conjunction with site plan approval for any modification, reuse or redevelopment of the corner property.

* ***Modify the boundaries of the R-4A and R-4B districts as recommended and described ...on the revised Zoning Map.***

* Establish a recommended framework for improving Planning/Zoning Board relationships with the business community while facilitating the improvement of properties in the downtown in accordance with the Board's policies. This could involve streamlining the site plan approval process through the use of subcommittee and technical review meetings. *Note that Frenchtown has already instituted these practices in an effort to promote constructive dialogue at the conceptual review stage and avoid applicants' having to expend money unnecessarily on plans that will need revision.*

* ***Prepare and adopt a strategic open space and recreation plan as an element of the Master Plan. This plan element should not only identify and describe each of the previously listed parcels that are recommended for acquisition, it should also develop a strategy for involving the County, the State and the federal government in their acquisition. As examples, the Wild and Scenic Rivers Program targets the acquisition of riverfront properties along the Delaware River, and the Hunterdon County Land Trust has recently purchased land along the (Big) Nississackaway Creek.***

The continued use of volunteer efforts to maintain parks and conservation areas, particularly along the River, should be promoted and expanded where possible.

* Prepare and adopt a utilities service plan element of the Master Plan consistent with the NJDEP's watershed based water resource planning strategies, when the DEP's new rules are adopted. The utilities service plan element should delineate the future utility service areas for public water and public sewerage. It should identify any further improvements needed to the Borough's sewerage system to accommodate existing development and evaluate the treatment plant upgrades and additional sewage treatment capacity required to accommodate the additional development provided for in the land use plan and in any redevelopment plan(s). The utilities service plan element should also establish the mechanism for assessing developers their pro-rata share of necessary utility system extensions and improvements and identify potential sources of outside funding to correct any existing deficiencies. *Note that a Utilities Service Element was prepared for the Borough by Schoor de Palma on March 14, 2007, and was adopted as an*

element of the Borough's Master Plan in May of 2007. Guliet Hirsch, Esquire, attorney for the Planning/Zoning Board of Adjustment, drafted a set of proposed amendments to the existing off-tract improvement provisions of the Borough's Ordinance to include off-tract contributions for sewage treatment capacity, but it is not known whether these amendments were ever adopted by the Council.

* Prepare and adopt a strategic community facilities plan element of the Master Plan. The community facilities plan element should evaluate the adequacy of the Borough's school and municipal and emergency facilities and services to meet the needs of Frenchtown's existing and future residents as well as the needs of the business community and of the tourists who patronize the business community, especially on weekends. The focus of the community facilities plan should be on finding ways to meet needs for community facilities and services without unduly burdening taxpayers or exceeding the Borough's bonding capacity. Any new facilities planned should be economically sustainable and well as providing sustenance to the community as a whole. Volunteerism should be promoted as a way of involving residents and business owners in meeting needs for various services at minimal cost.

* Prepare and adopt a circulation element of the Master Plan which will incorporate the following policies and recommendations, among others:

a. Encourage the creation of walking paths between properties to improve pedestrian access from remote or shared parking lots.

b. Promote pedestrian access to and from Trenton Avenue and simultaneously calm traffic entering the Borough from the south by reducing the existing street pavement width and adding sidewalks and additional sidewalk space along the River side of Trenton Avenue, with a crosswalk over to the existing sidewalk in front of The Commons.

c. Establish a policy for the continued maintenance of Milford Road that will reflect the Borough's long-term intentions for its use.

- d. Include provisions to better accommodate bicycle traffic and parking.
 - e. Quantify demand/capacity problems within the Borough's roadway network.
 - f. Provide for a street tree planting plan that developers and redevelopers of properties can participate in implementing.
 - g. Identify streets that have been or should be designated as Scenic Roads or Highways and devise ways in which Frenchtown can help to protect their scenic value.
 - h. Evaluate existing private roads in the Borough to determine what (if anything) should be done to bring them up to municipal standards, and consider Special Improvement Districts, if appropriate, to fund their improvement.
 - i. Evaluate the advisability of either vacating or improving existing paper streets.
 - j. Explore ways in which existing alleys might be improved to provide additional residential parking opportunities for adjacent property owners.
 - k. Explore the advisability of establishing a one-way street network in the vicinity of the Central Commercial zone to improve on-street parking opportunities and create space for street tree plantings.
- * Evaluate the relationship between Frenchtown's zoning and planning policies and those of the surrounding communities and the County and call out specific recommendations for zoning changes that should be made to promote consistency along municipal boundaries.
- * When the 2000 Census data is available, analyze changes in Frenchtown's demographics to better understand the needs of the community. *Note that 2000 Census data were included in the 2005 Housing Element and Fair Share Plan and in the 2008 Housing Element and Fair*

Share Plan, both of which were adopted as elements of the Borough's Master Plan. The community facilities implications of the 2000 Census data, which are, by now (in 2009), out of date, were not addressed. When the 2010 Census is issued, the Master Plan should incorporate the new data and also include consideration of the anticipated demographic impacts of anticipated developments yet to be built.

* If Smart Growth funds can be obtained for the Strategic Master Plan recommended herein, the timing of the preparation of various plan elements will depend upon how the grant award is structured. If Smart Growth funds are not sought or cannot be obtained for the full undertaking, however, it is recommended that the Borough approach the preparation of the Strategic Master Plan as a three-year program.

The first year would be devoted to a vacant land inventory and analysis, an open space and recreation plan, a land use plan and a statement of the relationship of Frenchtown's planning policies to those of the County and the surrounding municipalities.

The second year would be devoted to a demographics analysis, a parking plan, a circulation plan and a community facilities plan.

The third year would involve the preparation of one or more redevelopment plans for the redevelopment areas shown on the revised Zoning Map and described in the land use plan element.

5. *Adopt appropriate amendments to the Land Use Ordinance to require that all developers address the "growth share" obligation to provide low and moderate income housing generated by their developments according to the formulae established at N.J.A.C. 5:94-1, et seq. (the "Third Round Rules" of the New Jersey Council on Affordable Housing). In the R-3, R-4A, R-4B, R-4C, R-5 and R-6 zones, where development or redevelopment may occur with higher density residential uses in the future, 20 percent of the new dwelling units constructed should be set-aside for occupancy by and affordability to qualified low and*

moderate income households. In this way, Frenchtown will be able to keep pace with its accruing obligations to provide new housing affordable to low and moderate income households.

6. In addition to the foregoing, Frenchtown amended its comment regarding redevelopment plans (in Section V of the Reexamination Report) in 2003 to include the following statement:

Frenchtown does not currently have any pending redevelopment plans, although it is recommended in Section IV of this Reexamination Report that one or more redevelopment areas be designated within the Borough that would be addressed by the adoption of redevelopment plans to be developed as part of a Strategic Master Plan for Sustainable Development and Redevelopment within the Borough. At the appropriate time, the Borough will need to establish a redevelopment agency to facilitate the process. The redevelopment agency could, but need not, consist of all or a part of the Borough Council or be comprised of both Borough Council and Planning Board members.

Of critical importance to the Borough is the relationship of any adopted redevelopment plans to the preservation of the Historic District. Redevelopment plans should incorporate existing historic structures, and new construction should be consistent with the scale and character of the buildings in the Historic District.

The potential Redevelopment Areas covered in Section IV of the 2000 Reexamination Report, as amended through 2005, had been identified in the following manner:

Delineation of a Future Mixed-Use Redevelopment Overlay Zone to include the R-4A zoned portion of Lot 1, Block 57; a portion of Block 55; Block 52, Lots 1 and 2; a portion of Block 38; Block 36, Lot 1; Block 35, Lot 1; Block 23, Lot 1.01 (the site of the former A&P); Block 12, Lot 5; Block 10, Lot 1; Block 11, Lot 1; Block 18, Lot 1; Block 20, Lot 1; **Block 3, the southern portion of Lot 1 and all of Lot 2;** and all of Block 34. This list is not intended to limit any redevelopment area(s) that may be designated in the future. There are sites adjacent to the

foregoing properties that may well be appropriate to include in a redevelopment plan; such sites should be designated at the time a formal declaration of an area in need of redevelopment is adopted. Any redevelopment plan(s) that may be adopted should include the preservation of existing historic buildings and should require that any new construction be consistent with the character of Frenchtown's Historic District.

Section II: The Extent to Which Such Problems and Objectives Have Been Reduced or Have Increased Subsequent to the Adoption of the Last Reexamination Report

The extent to which the foregoing problems and objectives have been reduced or have increased subsequent to the adoption of the last amendment to the Reexamination Report in 2005 has been described throughout Section I of this Reexamination Report. It is summarized in the following paragraphs:

1. The Land Use Ordinance was adopted in September of 2000, and a new Zoning Map was prepared and first adopted in the beginning of 2003. Subsequent to their adoption, the Zoning Map was amended on two occasions and there were a number of substantive amendments to the Land Use Ordinance to address evolving changes in the Borough's land use, affordable housing and enforcement policies.
2. Stream Corridor Protection Regulations were not prepared or adopted. This is something that should be undertaken. There are now several good models available from the Hunterdon County Planning Board's Environmental Toolbox, from other Hunterdon County municipalities, and through the NJDEP, on which to base such regulations.
3. The Developer's Agreement with the DeSapio Brothers was finalized, the entire project has been built and occupied, and three of the sixteen senior housing units in the Barn Theater development have been deed restricted as low and moderate income units consistent with COAH's Rules. In addition, Frenchtown requested and received a favorable recommendation from the State Planning Commission as to the waiver of the center designation requirement,

which enabled COAH to approve the Borough's amended second round Housing Element and Fair Share Plan. As will be discussed under Section III of this Reexamination Report, the Borough has moved beyond the second round Housing Element and Fair Share Plan and is in the process of implementing an adopted and recently revised Third Round Housing Element and Fair Share Plan. Since inclusionary developments in areas of Planning Area Five that are served by sewers are no longer required under COAH's current Rules to seek center designation (now Plan Endorsement), or a waiver thereof, from the State Planning Commission, the Borough can decide whether or not it is in its interests to seek center designation independently of the need to satisfy the requirements for certification of its latest Housing Element and Fair Share Plan by COAH.

4. The Borough of Frenchtown did not contract for the preparation of the entire Strategic Master Plan for Sustainable Development and Redevelopment called for in the last Reexamination Report. The Borough has not, however, ignored the planning process. Through its various amendments to the Reexamination Report, the Borough's Planning/Zoning Board of Adjustment has kept pace with changing conditions and the need to update its planning policies and development regulations.

Moreover, the Borough contracted for, received, and adopted a new Utilities Service Element of the Master Plan in the Spring of 2007.

It has also prepared and adopted two new Third Round Housing Elements and Fair Share Plans (in 2005 and 2008) to address its ongoing affordable housing obligations in response to new Rule adoptions by COAH as well as amendments to the Fair Housing Act by the New Jersey Legislature. Its most recent (2008) Housing Element and Fair Share Plan has been declared complete by COAH and is currently being reviewed by COAH staff for substantive certification.

Finally, the Borough adopted, in December of 2004, a Village Center Plan for its designated Rehabilitation Area. The Rehabilitation Area was created by adoption of a resolution of the Borough Council in November of 2004 pursuant to the Local Redevelopment and Housing Law (N.J.S.A. 40A:12A-1, et seq.). The Rehabilitation Area includes a number of the properties

identified in the Reexamination Report and on the Zoning Map as potential redevelopment sites, but not all of them. The Village Center Plan was created to incorporate many of the goals and objectives outlined in the Reexamination Report pertaining to historic preservation, parking, vehicular and pedestrian traffic circulation, open spaces and the like. It has been amended on three separate occasions to refine how these goals and objectives are to be addressed on sites challenged by flood plain issues, in particular. Smart Growth funds were obtained from the State's Department of Community Affairs to help cover the costs of the preparation of the Village Center Plan.

5. In addition to the foregoing, certain issues raised in the Reexamination Report that were recommended to be addressed via the new Master Plan have been at least partially addressed in other ways:

a. Significant baseline environmental information has become available to the Borough from the State's 2002 GIS database, although updates to the GIS database are now needed. Additionally, recent NJDEP approvals of permits requested in connection with, for example, the River Mills and Shale Cliff redevelopment plans, have provided further information concerning the specific effects of environmental constraints on the development potential of key parcels.

b. The Borough has modified its Land Use Ordinance to include deductions of steep slope areas in the calculation of the developable tract area used to establish density. At the time it did this, it simultaneously modified the permitted density of development in the R-6 zone to base it on the net developable tract area rather than the gross tract area and added regulations prohibiting development on certain critical areas. In this way, it has addressed the density concerns initially raised in the 2000 Reexamination Report, and the original Reexamination Report was, in fact, modified to reflect this accomplishment.

c. The Borough identified specific parcels that should be earmarked for public acquisition in a 2003 amendment to the original 2000 Reexamination Report. It then went on to arrange for certain key parcels in Block 52 to be acquired and permanently preserved as open space. The

other parcels listed in the Reexamination Report have yet to be acquired and protected. They include the following:

- * Block 17, Lots 1, 2, 2.01 and 2.02.

- * Any lots in Blocks 14, 53, 54 and 60 that are subject to flooding, have not already been acquired by the State of New Jersey, and have remained undeveloped.

- * Vacant lots or underdeveloped parcels in Block 15, as they become available.

d. Although the zoning recommendations of the Reexamination Report for the block bounded by Hawk Street, Lott Street, Kerr Street and Trenton Avenue have been implemented, and some of the individual buildings have been attractively restored, the buildings in the area have continued to be used residentially.

e. The redevelopment of parcels along Lott Street currently occupied by large non-residential buildings has not occurred, but improvements have been made to properties in this area and at least portions of these buildings are currently occupied. Moreover, efforts have been made to create a clearer separation between the largest of these non-residential buildings and the adjacent residential use facing Front Street to the south.

f. Bed and Breakfast Inns have been encouraged in the Borough since 2000, but they appear to be less popular as uses for large, older homes than they were at the beginning of the decade. Given the current economy, this trend is likely to continue for at least the next five (5) years.

g. Although the notion of creating a separate parking authority to acquire and manage intrablock parking lots within the Borough has not taken hold, the Borough will be creating a new park and ride facility and Village Green funded by a substantial grant from the Delaware River Joint Toll Bridge Commission as part of its riverfront beautification initiative. These facilities will flank the southern and northern sides, respectively, of the Delaware River bridge.

The policy of creating intrablock parking lots appears to have been replaced by a policy of creating more centralized public parking areas on appropriate sites within the Borough. The recommendations concerning the use of portions of the Frenchtown Inn parking lot as part of an improved public parking plan have not been implemented and probably will not be except at the initiative of the owners of that property.

h. The notion of completing Second Street through to the Frenchtown Inn parking lot has been mooted by the approval of the River Mills redevelopment plan, which does not extend Second Street all the way through to the Frenchtown Inn parking lot.

i. The recommendation to address the future development potential of Lot 1, Block 34, Lot 1, Block 35, and Lot 1, Block 36, as a mixed use redevelopment project has been fully addressed by the Board's approval of the River Mills redevelopment plan. The questions of flood storage and flood elevations were resolved by the NJDEP through their permitting process. The NJDEP regulations have been found to have major implications for the heights of the buildings constructed in the flood plain, and the Borough now needs to be especially vigilant as to the impact of the State's requirement to elevate residential access and required parking areas above the flood hazard area in its review of redevelopment proposals along the riverfront.

j. The former gas station site on Race Street is now used for motorcycle parking, and temporary pedestrian improvements have been made along the Race Street frontage in front of this site, although the Borough is unsure about the status of the clean-up efforts and whether or not the site will remain permanently available for parking purposes.

k. To date, there is no agreement to secure cooperative use of church and municipal parking lots for public/church parking in the vicinity of Borough Hall. Overflow parking for Borough Hall activities continues to occur along Second Street and in the parking lot of the now vacant National Hotel across the street from Borough Hall.

l. The Planning/Zoning Board of Adjustment has instituted a subcommittee/technical review committee practice in an effort to streamline meeting discussions and promote constructive dialogue with developers at the conceptual review stage. This practice is working well, except that improvements need to be made in keeping the rest of the Planning/Zoning Board members apprised of the activities of the subcommittee and/or technical review committee. Recently, the Board's Chairman has taken steps to correct this by instituting regular reporting of subcommittee activities to the rest of the Board.

m. A strategic open space and recreation plan has not yet been prepared. This remains a high priority for the Borough.

n. As noted in Section I above, a Utilities Service Element was prepared for the Borough by the firm of Schoor de Palma (now known as CMX) on March 14, 2007, and was adopted by the Planning/Zoning Board of Adjustment as an element of the Master Plan in May of 2007. Guliet Hirsch, Esquire, attorney for the Planning/Zoning Board of Adjustment, prepared amendments to the existing off-tract improvement provisions of the Borough's Land Use Ordinance to include off-tract contributions for sewage treatment capacity, and these amendments were adopted by the Council on December 26, 2007 (Ordinance #648).

o. A strategic community facilities plan element of the Master Plan has not been prepared. As previously recommended, the community facilities plan element should evaluate the adequacy of the Borough's school and municipal and emergency facilities and services to meet the needs of Frenchtown's existing and future residents as well as the needs of the business community and of the tourists who patronize the business community, especially on weekends. The focus of the community facilities plan should be on finding ways to meet needs for community facilities and services without unduly burdening taxpayers or exceeding the Borough's bonding capacity. Any new facilities planned should be economically sustainable and well as providing sustenance to the community as a whole. Volunteerism should be promoted as a way of involving residents and business owners in meeting needs for various services at minimal cost.

p. A circulation element of the Master Plan has yet to be prepared. As previously recommended, such a document should incorporate at least the following, as recommended in the previous Reexamination Report:

- * Encourage the creation of walking paths between properties to improve pedestrian access from remote or shared parking lots.

- * Promote pedestrian access to and from Trenton Avenue and simultaneously calm traffic entering the Borough from the south by reducing the existing street pavement width and adding sidewalks and additional sidewalk space along the River side of Trenton Avenue, with a crosswalk over to the existing sidewalk in front of The Commons.

- * Establish a policy for the continued maintenance of Milford Road that will reflect the Borough's long-term intentions for its use.

- * Include provisions to better accommodate bicycle traffic and parking.

- * Quantify demand/capacity problems within the Borough's roadway network.

- * Provide for a street tree planting plan that developers and redevelopers of properties can participate in implementing.

- * Identify streets that have been or should be designated as Scenic Roads or Highways and devise ways in which Frenchtown can help to protect their scenic value.

- * Evaluate existing private roads in the Borough to determine what (if anything) should be done to bring them up to municipal standards, and consider Special Improvement Districts, if appropriate, to fund their improvement.

- * Evaluate the advisability of either vacating or improving existing paper streets.
- * Explore ways in which existing alleys might be improved to provide additional residential parking opportunities for adjacent property owners.
- * Explore the advisability of establishing a one-way street network in the vicinity of the Central Commercial zone to improve on-street parking opportunities and create space for street tree plantings.

6. As part of any Master Plan undertaking, the Borough should continue to be mindful of, and (as required by law) should identify the relationship of its planning and zoning policies to, the planning and zoning policies of the surrounding municipalities, the County and the State.

7. In a little over a year, the 2010 Census will be undertaken. The results of the Census are unlikely to be available immediately, but, by 2012, the data regarding Frenchtown Borough should be summarized and evaluated to determine what if any implications it may have for the Borough's future planning efforts, particularly in the area of community facilities. Additionally, the potential demographic impacts of anticipated developments that have been zoned or approved but not yet developed should be acknowledged and incorporated into the Borough's planning efforts.

8. It continues to be recommended that the Borough divide its work on the completion of a Strategic Master Plan for Sustainable Development and Redevelopment into segments, to be undertaken over a period of two or three years. This will help the Borough to manage the costs of such work. The availability of Smart Growth funds for Master Plan work is dwindling, but to the extent that such funds (or other applicable funding programs) become available, the Borough should apply for them.

9. The Borough has now adopted a particular type of Redevelopment Plan in the form of its Village Center Plan, which governs development and redevelopment within the Borough's

designated Rehabilitation Area. Two major sites have been proposed for redevelopment consistent with the Village Center Plan. One of these, the River Mills site, has received final approval. The second, Shale Cliff, is currently undergoing site plan review.

The Board has also been presented with a redevelopment proposal involving the former Ceramics Plant located on a portion of Lot 1 in Block 3. This area is currently zoned R-5, which is a Light Industrial designation, but it lies adjacent to Plessey Field and across from the Borough's school. The property is developed with an agglomeration of mismatched industrial buildings and structures (including wireless communications facilities) and is not currently in an attractive condition, although a number of the buildings are still occupied. Because this site is not in or adjacent to the designated Rehabilitation Area, it cannot be encompassed in the Village Center Plan. After a thorough consideration of the issues associated the proposal, the Planning/Zoning Board of Adjustment is recommending that the Council adopt overlay zoning to permit redevelopment of this site and others along the River as far south as Sixth Street, and will be entertaining a Master Plan amendment, appended to this Reexamination Report, addressing the creation of this and other overlay zones.

Section III: The Extent to Which There Have Been Significant Changes in the Assumptions, Policies and Objectives Forming the Basis for the Current Master Plan and Development Regulations

HIGHLANDS ACT

In 2004, the State Legislature adopted the Highlands Water Protection and Planning Act. While Frenchtown is not located within the Highlands Region, the implications of the Highlands Regional Master Plan, which has now been adopted, for non-Highlands municipalities have yet to be understood. While the current state of the economy has significantly slowed development pressure, an eventual economic recovery could intensify the development pressures felt by Hunterdon County towns lying outside of the Highlands.

The Borough needs to use the hiatus provided by current economic conditions to plan wisely for future growth where appropriate and for preservation where appropriate so that when development pressures do increase, the Borough will be prepared to harness that pressure and direct it for the benefit of the Borough, its residents and its merchants.

STATE PLAN

Frenchtown remains in Planning Area Five on the State Plan. It has never been formally designated as a Center. Recent changes in COAH's Rules no longer require Plan Endorsement as a condition of Substantive Certification and permit sewerred areas within Planning Area Five on the State Plan to be developed or redeveloped with inclusionary developments (developments that include affordable housing among the market priced units). Consequently, Frenchtown is no longer required to seek Plan Endorsement as a condition of obtaining substantive certification of its Housing Element and Fair Share Plan from COAH, and is at liberty to decide whether or not to seek Plan Endorsement (and center designation) from the State Planning Commission based on an independent analysis of the advantages and disadvantages of doing so. The Borough will also be free to decide when it wishes to pursue Plan Endorsement, assuming it chooses to do so.

COUNTY AND SURROUNDING MUNICIPALITIES

The communities that abut Frenchtown are zoned for low densities of development, consistent with the environmental sensitivity of the area. Frenchtown, as an historic village center, is zoned for and developed at a much higher density than the adjacent municipalities.

The Hunterdon County Growth Management Plan was adopted in 1986 and had not, until recently, been proposed for amendment. In September of 2007, the County issued a draft of its new 2007 Growth Management Plan.

Frenchtown was designated as a "small town" in the County's 1986 Plan, which endorsed infill development, preservation of undeveloped outlying areas, economic revitalization of existing

business areas and separation of regional and local traffic in the County's small towns. The Borough's land use policies have been consistent with these recommendations.

The draft 2007 Growth Management Plan contains more generalized policies for development and preservation throughout the County, and is less specific concerning its recommendations for individual municipalities.

PLANNING INCENTIVE GRANTS/SMART GROWTH FUNDING

The Borough has been diligent in availing itself of funding and grant programs for planning and infrastructure improvements and for land acquisition to date. Some of this funding has dried up, but to the extent outside help becomes available, the Borough should continue its efforts to use such programs to defray the costs of planning and infrastructure improvements.

STORMWATER MANAGEMENT AND C-1 STREAM BUFFERS

NJDEP adopted new Stormwater Management Regulations in 2004; these have had a substantial impact on the way the Planning/Zoning Board of Adjustment is permitted to review and approve development applications. The Borough prepared a Stormwater Management Plan as required by the NJDEP Regulations. The Council approved the Stormwater Management Plan on March 1, 2006, and adopted the implementing Stormwater Management Ordinance on March 15, 2006 (Ordinance #638). Both of these documents were approved by Hunterdon County and by the NJDEP. The Planning/Zoning Board of Adjustment is also required to adopt the Stormwater Management Plan as an element of the Borough's Master Plan. This has not yet been done.

As part of the State's Stormwater Management Regulations, all NJDEP-designated C-1 waterways are required to maintain a 300 foot buffer. This affects large areas of Frenchtown, since both the Little Nississackaway and Nississackaway Creeks, and all of their tributary streams, are designated as C-1 streams.

WILDLIFE HABITAT DATA

The State now has GIS data available from the Landscape Project regarding the existence of known or suspected habitats for threatened and endangered species. The Borough will need to adopt stream corridor regulations (consistent with the C-1 waterway regulations) and woodland protection regulations that will help to maintain these habitats where they exist.

THIRD ROUND COAH RULES

The New Jersey Council on Affordable Housing (COAH) issued its initial set of third round Rules in December of 2004. Municipalities, like Frenchtown, whose second round certifications had essentially expired, were protected by extensions of their previous certifications based upon the commitment of each municipality to submit a Third Round Housing Element and Fair Share Plan to COAH on or before December 20, 2005. Frenchtown fulfilled its commitment and submitted its 2005 Third Round Housing Element and Fair Share Plan to COAH before that deadline.

In January of 2007, while the Borough's 2005 Third Round Housing Element and Fair Share Plan was still under review by COAH, the Appellate Court invalidated significant portions of COAH's third round Rules having to do, primarily, with the methodology used for the projection of the statewide housing need and with the COAH regulations that permitted municipalities to require developers to provide affordable housing with no compensatory density bonuses or other benefits. The Supreme Court upheld the Appellate Court's findings, and COAH was required to issue revised third round Rules. COAH went back to the drawing boards and prepared new Rules, which were introduced in December of 2007 and adopted in May of 2008. COAH received an overwhelming number of comments on the December, 2007, Rule proposals. Consequently, when COAH adopted the Rules, it simultaneously introduced a set of comprehensive amendments to the newly adopted Rules. These amendments were adopted in September of 2008. In addition, the New Jersey Legislature adopted amendments to the Fair Housing Act in June of 2008 that were signed into law by the Governor in July of 2008. The

amendments to the Fair Housing Act affect, among other things, the requirement to provide very low income housing and the role of non-residential developments in providing affordable housing.

The Rules now in effect provide that municipalities must address a third round fair share obligation based upon COAH's projections of growth in households and employment in each municipality during the delivery period. Municipalities are required to provide one affordable housing unit for every four market priced housing units projected and one affordable housing unit for every 16 jobs projected.

The third round now covers the period from 2004 to 2018 (but also includes the housing need generated between 2000 and 2004). Unlike the prior rounds of COAH allocations and approvals, which lasted for six years, if a municipality obtains *and maintains* substantive certification from COAH in the third round, it will be protected for a 10 year period from builder's remedy litigation. However, the implementation of the municipality's plan will be subject to scrutiny by COAH every two years, and the failure to provide affordable housing in a timely fashion (related to the rate of market-priced residential and non-residential development) could jeopardize the Borough's substantive certification.

Frenchtown prepared and adopted a new Third Round Housing Element and Fair Share Plan in 2008. That plan was submitted to COAH within the required time period, has been found by COAH to be complete and is now undergoing a substantive review by COAH staff. Since Frenchtown has planned for and requires the provision of affordable housing wherever the Borough has allowed a density increase (via redevelopment and otherwise), the Borough has not had to make any changes to its overall zone plan in order to accommodate the affordable housing it will be required to provide.

Nevertheless, a new affordable housing ordinance and affirmative marketing plan must be adopted, along with a new Spending Plan and revised Development Fee Ordinance (and the Borough's Growth Share affordable housing regulations must be repealed). Additionally, the

Borough must contract with an Administrative Agent and must establish and fund a rehabilitation program and hire a rehabilitation consultant in order to comply with COAH's requirements. All of these steps are required in order to ensure that the affordable housing that is provided and rehabilitated within the Borough complies with all of COAH's Rules. The adopted 2008 Third Round Housing Element and Fair Share Plan includes all of the resolutions, ordinances and contracts the Borough is required to undertake in order to achieve COAH compliance.

Section IV: The Specific Changes Recommended for the Master Plan or Development Regulations

1. Stream Corridor Protection Regulations should be prepared and adopted by the Borough Council. This is something that should be undertaken in the immediate future, using models available from the Hunterdon County Planning Board's Environmental Toolbox, from other Hunterdon County municipalities, and through the NJDEP.
2. The Borough should contract for the preparation of the remaining elements of the Strategic Master Plan for Sustainable Development and Redevelopment that had been called for in the last Reexamination Report but never completed. As indicated in Section II of this report, it continues to be recommended that the Borough divide its work on the completion of the Strategic Master Plan into segments, to be undertaken over a period of two or three years. This will help the Borough to manage the costs of such work. The availability of Smart Growth funds for Master Plan work is dwindling, but to the extent that such funds (or other applicable funding programs) become available, the Borough can and should apply for them.

The preparation of a strategic open space and recreation plan element remains a high priority for the Borough, second only to the preparation of a new land use plan element. As a key element of the open space plan, acquisition of the following parcels by a public or non-profit entity continues to be recommended: Block 17, Lots 1, 2, 2.01 and 2.02; any lots in Blocks 14, 53, 54 and 60 that are subject to flooding, have not already been acquired by the State of New Jersey,

and have remained undeveloped; and vacant lots or underdeveloped parcels in Block 15, as they become available.

A traffic circulation plan element that addresses vehicular, pedestrian and bicycle circulation throughout the entirety of the Borough should be completed as a first-stage priority, right after the completion of the land use plan element and the open space and recreation plan element.

The Borough may wish to wait on the preparation of the community facilities plan element until the 2010 Census data are available for analysis (perhaps in 2012).

3. The Borough should introduce and adopt the Ordinances contained in the Fair Share Plan portion of the adopted 2008 Third Round Housing Element and Fair Share Plan once COAH has approved them and make the necessary contractual arrangements with a rehabilitation consultant and an Administrative Agent to implement the plan.

4. The Planning/Zoning Board of Adjustment should conclude its informal review of the proposal for the redevelopment of the former Ceramics Plant and adopt the Amendment to the Master Plan attached to this Reexamination Report. The Amendment to the Master Plan recommends the creation of two different Overlay Zones covering the area from approximately the extension of Tenth Street south to Sixth Street. The Ordinance creating these Overlay Zones (also attached to this Reexamination Report) should be forwarded to the Council for introduction and eventual adoption.

5. The Borough's Stormwater Management Plan should be adopted by the Planning/Zoning Board of Adjustment as an element of the Borough's Master Plan.

6. Density and/or floor area ratio and impervious surface coverage limits should be added to each of the Borough's zones and assigned to each of the potential redevelopment sites within the Borough. This will provide a yardstick for the Planning/Zoning Board of Adjustment's

evaluation of variance applications and rezoning proposals and facilitate the projection of the Borough's eventual build-out, which is something that needs to be done as part of the preparation of a new Land Use Plan Element of the Master Plan.

7. The Borough's signage regulations need to be reevaluated.

In particular, the regulations pertaining to ground signs in the R-4A, R-4B, R-4C and R-5 zones do not appear to be consistent with the other objectives of the Land Use Ordinance and Village Center Plan for these areas.

Clarification is also needed regarding two-sided signs. It needs to be made clear that two-sided signs are permitted and that each side is to be evaluated separately as to its compliance with the sign regulations.

The sign regulations should also be studied to determine the feasibility of requiring the use of an historic color palette for painted signs; of limiting sign installations to non-illuminated, fixed (non-moving) wood or wood-like signs; and of placing limitations on the extent to which decals and the like may be used in windows and on doors.

The Ordinance should be tightened up to better control the placement of interior signs that are visible from the exterior of the building.

The sign permit application form needs to be revised so that all of the information required to review a proposed sign is, in fact, provided.

It is specifically recommended that a signage study be undertaken that will examine how best to balance effective advertising for merchants, conformance with case law regarding sign regulations, and maintenance of the historic character of the Borough's downtown area.

8. Regulations should be adopted to ensure that vacant buildings do not adversely affect neighboring properties. In particular, the boarding up of windows and doors on vacant buildings must be regulated and limited to emergency situations or specified non-emergency situations. Within commercial areas, regulations should be added to make creative use of storefront windows in vacant buildings or in vacant store spaces until such time as the building or space can be reoccupied by another commercial entity. Maintenance of the grounds around vacant buildings should be required.

In view of the current economic crisis, the Board acknowledges that the temporary use of vacant commercial space for residential purposes may in some cases be more desirable than leaving the space vacant, but the current prohibition in the Ordinance is recommended to be continued, nevertheless. Any proposal to deviate from the use regulations in the Ordinance should be addressed on a case-by-case basis through a use variance application. The Board should give due consideration to the length of time the space has remained vacant, efforts to market the space for permitted uses, the appropriateness of the space for the permitted uses and the proposed alternative use, and the long term effect on the zone plan from approving the use variance.

9. Consistent with the Borough's efforts to streamline its development review processes, provisions should be added to the Land Use Ordinance to reduce the submission and notice requirements for amendments to previously approved site plans and for minor site plans. The description of a minor site plan in the Land Use Ordinance should be reviewed and possibly modified. Minor site plan and minor subdivision checklists should be prepared, and the existing checklists should all be reviewed and streamlined where possible. Notwithstanding the foregoing, the Planning/Zoning Board of Adjustment wishes to retain its current level of control over exterior building materials and changes to building exteriors.

10. The Borough should reopen its discussion on the pros and cons of adopting historic district regulations and broadening its identification of historic sites outside of the district. In the past, it was believed that the regulation of historic districts and sites would prove too onerous to property owners. However, the availability of more relaxed Construction Code requirements

applicable to State designated historic sites has recently come to light. It may be beneficial not only to property owners in undertaking a restoration project but also in helping to preserve the Borough's historic heritage to determine the eligibility of additional sites outside of the historic district for designation as historic sites.

11. The Borough should review its off-street parking requirements for business uses to confirm their appropriateness in a downtown area with both on-street parking and public parking lots available. The Rutgers Center for Urban Policy Research has prepared a report analyzing improvement standards in the State's more urban environments; this report may be helpful in determining whether or not Frenchtown's parking requirements are realistic and should be enforced or whether they should be modified. Clearly, there needs to be a policy for approving exceptions to the parking standards for commercial buildings in the Borough's R-4A zone, where on-street and other public parking opportunities exist. Additionally, the Borough's parking standard for houses of worship is incorrectly stated. It should be changed from one space for every 24 linear inches of pew space to one space for every 72 linear inches of pew space.

12. The Borough should reexamine its regulations pertaining to non-conforming uses and structures. Preexisting non-conforming uses and structures are afforded certain protections by Statute, although municipalities need to tread carefully and not overprotect the non-conforming uses and structures to the extent that they are favored over developments conforming to the zoning. Nevertheless, in a community like Frenchtown, many non-conforming uses occupy historically important structures and many non-conforming structures have historic value. The goal is not to make preservation or restoration of such buildings and structures onerous simply because they are nonconforming. The recommendation of paragraph 11. above, that the Borough reopen the discussion of the pros and cons of adopting historic district regulations and broadening its identification of historic sites outside of the district may be relevant to this issue.

13. If the Ceramics Plant is redeveloped under the proposed Overlay Zoning regulations, the only remaining R-5 zone in Frenchtown will be the site of the former Aries Electric plant, which

lies adjacent to the southern tip of the R-4A zone. It is recommended that this site be rezoned R-4A or R-4B or, in the alternative, that the R-5 zone be modified to allow certain retail and service business uses in addition to the permitted light industrial uses to ensure that this property remains viable.

14. When the 2010 Census data is available for evaluation, the Borough should update its Community Facilities Plan Element to consider the most recent demographic information. In addition, the Borough's analysis should incorporate a projection of the demographic impacts of the build-out of the Borough considering the anticipated redevelopment sites and any sites that may redevelop under adopted overlay zoning regulations.

15. Two continuing objectives of the Planning Board have been to maintain the desirability of the Borough's residential areas by protecting them from inappropriate commercial intrusions and also to maintain a strong commercial core.

The economic benefits of having commercial uses that continue to bring in tourists should not be overlooked, but neither should the importance of maintaining commercial uses that address primarily local community needs. A mix of commercial businesses serving regional and local interests is desired. These commercial businesses should continue to be confined to designated commercial areas.

16. The status of the NJDEP clean-up efforts with respect to the former gas station property on Race Street should be determined, and the Borough should work with the NJDEP to ensure that the property will be permanently maintained as a public parking lot, with pedestrian improvements along the street frontage.

17. The Zoning Map should be amended to change the R-6 Zone, which is now public open space, to R-7, and to add the Overlay Zones recommended to be created in the Amendment to the Master Plan that is attached to this Reexamination Report.

18. The Board's by-laws should be reviewed and updated. Particular issues to be addressed should include at least: the separation of completeness reviews from public hearings; and the length of time that inactive applications should be carried on the Board's agenda.

19. It is recommended that the Borough consider a program of Borough-sponsored way-finding signs within public parking areas, along roadways and at critical points along the towpath (if approval can be obtained from the NJDEP) to direct tourists and towpath users to points of interest within Frenchtown.

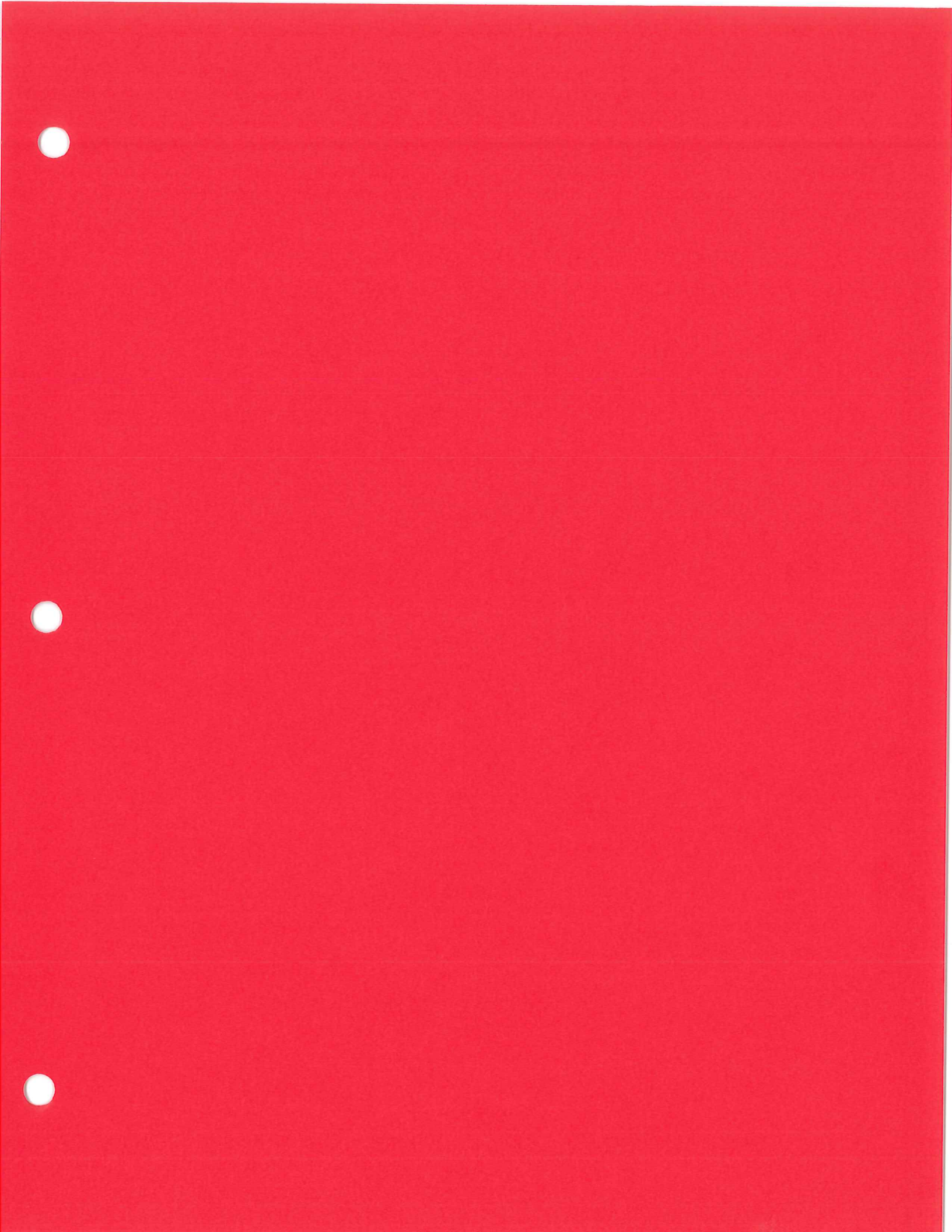
Section V: The Recommendations of the Land Use Board Concerning Redevelopment Plans

The Borough of Frenchtown's policies with respect to redevelopment plans are now well-established. The Borough has an adopted Village Center Plan that addresses development and redevelopment within its designated Area in Need of Rehabilitation. The Village Center Plan has been amended three times to refine and clarify the applicable standards.

There are areas outside of the designated Area in Need of Rehabilitation that are also potentially appropriate for redevelopment, and these areas have been identified as such on the Borough's Zoning Map. However, sites that lie outside of and that are not adjacent to the Area in Need of Rehabilitation will require a different sort of approach, such as Zoning Overlays, to be developed on a case by case basis for each discrete property or group of properties. A Zoning Overlay would provide incentives for redevelopment while retaining the underlying zoning and would also provide for appropriate controls on the height, density, building mass, coverage, setbacks, uses and design of any new development within each Overlay area, based upon its context. What works within one Overlay area may not be appropriate or necessary in another. The Master Plan should include specific criteria to be considered in developing Zoning Overlay regulations.

A proposed Amendment to the Master Plan recommending the creation of two new Overlay Zones affecting portions of the R-5 and R-2 Districts is attached to this Reexamination Report

and is recommended to be adopted. In addition, a proposed Ordinance containing recommended Overlay Zoning provisions for these two Overlay Zones is also attached to this Reexamination Report. The Planning/Zoning Board of Adjustment has not reached a consensus as to the maximum densities that should be assigned to each of the Overlay Zones, but the densities in the proposed Ordinance do reflect the higher end of the density ranges discussed in the Amendment to the Master Plan.





**ORDINANCE OF THE BOROUGH COUNCIL
BOROUGH OF FRENCHTOWN
ORDINANCE #638**

ADOPTION OF THE FRENCHTOWN STORMWATER CONTROL ORDINANCE

STATEMENT OF PURPOSE:

The purpose of this ordinance is to adopt a Stormwater Control Plan for the Borough of Frenchtown as required by the New Jersey Department of Environmental Protection which will establish minimum stormwater management requirements and controls for major development and to reduce the amount of nonpoint source pollution entering surface and ground water.

WHEREAS, Stormwater Management is the process of minimizing stormwater runoff and directing stormwater appropriate nonstructural and structural stormwater management measures so as to control flooding, recharge ground water and reduce pollution of water resources; and

WHEREAS, the Stormwater Control Plan establishes minimum stormwater management requirements and controls for major development and to reduce the amount of nonpoint source pollution entering surface and ground water; and

WHEREAS, the Stormwater Control Plan guides new development in a manner that is proactive and minimizes harmful impacts to natural resources; and

WHEREAS, the Borough Council of the Borough of Frenchtown has applied and received its Stormwater Management Tier B Permit; and

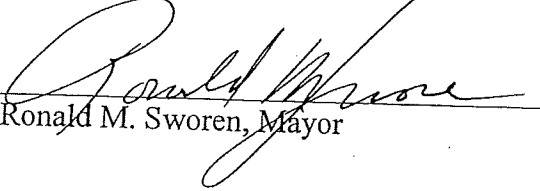
WHEREAS, the Borough Council has adopted a Stormwater Management Plan on March 16, 2005 as part of the permit requirements; and

WHEREAS, the New Jersey Department of Environmental Protection requires as part of the Tier B Permit, that the Borough also adopt a Stormwater Control Plan Ordinance by April 1, 2006; and


NOW, THEREFORE, BE IT RESOLVED, by the Borough Council of the Borough of Frenchtown, that the Stormwater Control Plan and Ordinance be and is hereby adopted by Ordinance of the Borough Council of the Borough of Frenchtown, Hunterdon County, New Jersey, subject to review and approval by the Hunterdon County Planning Board and State of New Jersey, Department of Environmental Protection, and after a public hearing and adoption according to law.

This Ordinance shall take effect immediately upon final passage and action as required by law.

Adopted: 03-15-06


Ronald M. Sworen, Mayor

Attest:


Brenda S. Shepherd, RMC
Borough Clerk

BOROUGH OF FRENCHTOWN
MUNICIPAL STORMWATER MANAGEMENT PLAN

REVISED

March 1, 2006

Sargent Russell
Municipal Stormwater Coordinator *and*
Sewer Commissioner
Borough of Frenchtown, Hunterdon County, New Jersey

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**BOROUGH OF FRENCHTOWN
STORMWATER MANAGEMENT PLAN
REVISED 02.13.06**

INTRODUCTION

This Municipal Stormwater Management Plan (MSWMP) documents the strategy for Frenchtown Borough ("the borough") to address stormwater-related impacts. The creation of this plan is required by N.J.A.C. 7:14A-25 Municipal Stormwater Regulations. This plan contains all of the required elements described in N.J.A.C. 7:8 Stormwater Management Rules. The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one quarter acre or more or create one thousand square feet of impervious surface. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.

The Borough of Frenchtown is a built-out historic town with a very intimate relationship to highly valued water resources. Throughout the borough are structures and systems that are obsolete, or nonfunctional, or unknown. The plan being prepared will inventory all outdoor infrastructure; analyze and map the system; and define boundaries of municipal jurisdictions, of private and public responsibility, of built and natural, of natural and wild. The outline here presented is of a systematic effort to compile historical, legal and technical information.

The Borough contains less than one square mile of developable land. To have any practical effect, the plan must focus on means of influencing "developers" whose projects are too small to be regulated (home-improvement contractors, landscapers, small general contractors, carpenters, roofers, home gardeners – and, most especially, the homeowner). The outreach and education possibilities are strongly supported by our community's intimate relation to our creeks and the river; we can see present evidence all around us of the effect of flood. It is not unreasonable to hope that practical and thrifty low-impact measures will appeal to the homeowner and help promote voluntary compliance and remediation.

The plan also addresses the review and updating of existing ordinances, the borough's Master Plan, and other planning documents to mandate project designs that include low-impact development techniques. The final component of this plan is a mitigation strategy for cases in which a variance or exemption from the design and performance standards is sought. As part of the mitigation section of the stormwater plan, specific stormwater management measures are identified to lessen the impact of existing development.

The importance of the role of Borough, County and State agencies in realizing any important gains cannot be overstressed. The exemptions to governments and boards of

education are insupportable. The highway planning and engineering community, public and private, finds the overturning of the system of doing business inconvenient. Changing the way the Borough of Frenchtown plans, builds, and maintains infrastructure, its "housekeeping" practices and routines, require systematic examination. These are not matters of ordinance, or even regulation, but rather institutional habit or custom.

The committee system of Borough Council government as established suggests the implementation of MSWMP goals through reorganization of procedures and practices within that framework. The council members must understand these goals and the BMPs, and support the implementation of low-impact measures in municipal functions, and privately through their influence on their neighbors.

The implementation of Best Management Practice stormwater measures, structural and non-structural, and maintenance guarantees, ought to be assured by ordinance requirements which reference the Revised Residential Site Improvement Standards. These referenced standards apply to projects which would undergo engineering review. The municipal stormwater control ordinance will further widen the application of BMPs to all major development (as defined). It is felt that the goals of reducing non-point source pollution and runoff can only be met by a cooperative citizenry; it is important that we not unnecessarily impede a resident's projects or burden him with unnecessary engineering costs. We must be able to induce cooperation as well as enforce compliance.

The measures necessary to achieve such an end partake of idealism and rely on a social dynamic which is outside the scope of most traditional planning. The present-day sensitivity to emergencies caused by natural disaster and environmental degradation is a strong positive condition. The expenses in lives lost or overturned, property ruined, destroyed or lost, vital elements of community infrastructure nullified or ruined (sewage treatment, water supply), are headline news. We may hope that borough residents will be brought to see that they each have a part to play if we are to achieve our goals.

It is hoped that our active and sincere efforts to accomplish the investigative and planning program outlined here will indicate to State and County officials that we are more interested in maintaining existing systems than in constructing new ones. Our maintenance efforts can, over time, obviate the need for new construction. We have innovative ideas for getting work done.

We the property owners and residents are the proprietors of our borough; we share legal responsibilities in a way that is clearly understandable and distinctly felt. In a functioning small town, much is required of each individual, and there is no cash equivalent for what we owe to one another and to our community.

The renewal of infrastructure harnesses natural forces and follows the seasons; in every way our maintenance and rebuilding ought to harmonize our living arrangement more and more perfectly with the natural world. Our work can be joyful: such things we might do! As my father said, setting me to work one glorious morning, "Son, the world is at the end of your shovel."

GOALS

The goals of this MSWMP are to:

- Reduce flood damage, including damage to life and property;
- Minimize, to the extent practical, any increase in stormwater runoff from any new development;
- Reduce soil erosion from any development or construction project;
- Assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, an increase in nonpoint source pollution;
- Maintain the integrity of stream channels for their biological functions, as well as for drainage;
- Minimize pollutants in stormwater runoff from new and existing development to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state; to protect public health; to safeguard fish and aquatic life and scenic and ecological values; and to enhance the domestic, municipal, recreational, industrial, and other uses of water;
- Protect public safety through the proper design and operation of stormwater basins;
- Provide for maintenance of map/inventory and report files (*manual*);
- Establish a procedure for contacting private property owners regarding sanitary sewer and stormwater;
- Engender and nourish friendly community spirit, neighborly cooperation, pride in our town, pride in taking care of our own problems. Use positive strategies, not such negative ones as threats, persecution, or ruinous fines.
- Identify the specific *municipal* functions and infrastructure which must be inventoried, mapped, analyzed, etc;
- Initiate communication and cooperative planning with key government entities whose jurisdictions and infrastructure overlay the municipal and private jurisdictions in the borough.
- Suggest appropriate and tempered approaches to standing problems; maintenance and rehabilitation of old fabric; adaptive reconstruction of the natural infrastructure.

To achieve these goals, this plan references specific stormwater design and performance standards for new development. Additionally, the plan proposes stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies are included in the plan to ensure the long-term effectiveness of stormwater management facilities. The plan also outlines safety standards for stormwater infrastructure to be implemented to protect public safety.

STORMWATER DISCUSSION

[Figure 1. Groundwater Recharge in the Hydrologic Cycle]

Land development can dramatically alter the hydrologic cycle of a site and ultimately an entire watershed. Prior to development, native vegetation can either directly intercept precipitation or draw that portion which has infiltrated into the ground, and return it to the atmosphere through evapotranspiration. Development can remove this beneficial native vegetation and replace it with lawn or impervious cover, reducing the site's evapotranspiration and infiltration rates. Clearing and grading a site can remove depressions that store rainfall. Construction activities may also compact the soil and diminish its infiltration ability, resulting in increased volumes and rates of stormwater runoff from the site. Impervious areas that are connected to each other through gutters, channels, and storm sewers can transport runoff more quickly than natural areas. This shortening of the transport or travel time quickens the rainfall-runoff response of the drainage area, causing flow in downstream waterways to peak faster and higher than under natural conditions. These increases can create new and aggravate existing downstream flooding and erosion problems, and increase the quantity of sediment in the channel. Filtration of runoff and removal of pollutants by surface and channel vegetation is eliminated by storm sewers that discharge runoff directly into a stream. Increases in impervious area can also decrease opportunities for infiltration which, in turn, reduce stream base flow and groundwater recharge. Reduced base flows and increased peak flows produce greater fluctuations between normal and storm flow rates, which can increase channel erosion. Reduced base flows can also negatively impact the hydrology of adjacent wetlands and the health of biological communities that depend on base flows. Finally, erosion and sedimentation can destroy habitat: events to which some species cannot adapt.

In addition to increases in runoff peaks, volumes, and loss of groundwater recharge, land development often results in the accumulation of pollutants on the land surface that runoff can mobilize and transport to streams. New impervious surfaces and cleared areas created by development can accumulate a variety of pollutants from the atmosphere, fertilizers, animal wastes, and leakage from and wear on vehicles. Pollutants can include metals, suspended solids, hydrocarbons, pathogens, and nutrients.

In addition to increased pollutant loading, land development can adversely affect water quality and stream biota in more subtle ways. For example, stormwater falling on impervious surfaces or stored in detention or retention basins can become heated and raise the temperature of the downstream waterway, adversely affecting such cold water fish species as trout. Development can remove trees along stream banks that normally provide shading, stabilization, and leaf litter that falls into streams and becomes food for the aquatic community.

The implementation of low-impact development strategies in retrofit and new projects will prevent the destruction of, or even increase the habitat areas of, wildlife, particularly birds. The small marginal areas affected help to create more nearly continuous zones and

to buffer existing larger reserved areas against degradation as wildlife habitat. Increased groundwater recharge ensures vitality of woodland and meadow ecosystems.

In order to plan for our sanitary sewers, the Mayor and Council have discussed realistic population projections. The County provided an estimate based on build-out according to current zoning; this figure does not take into account densities possible under the new Frenchtown Center Redevelopment Plan. This plan identified several potential large developments in the village Center and others elsewhere in the borough. Our conclusion on the demographic projection is based on the following reasoning:

1. The County's build-out analysis yields an increase of around 200 people.
2. The potential redevelopment projects are not included in the undeveloped lots analyzed by the County. The increase of residential population resulting from redevelopment is variable, and presumably under the control of the borough.
3. The total increase in population from build-out plus redevelopment might be 50% (or 700 people), giving a total population of 2,200. This increase could be accommodated without scaling up our government, school, or basic infrastructure (given the appropriate new sewer plant).
4. The borough's Redevelopment Plan gives it the power to plan. We need a population estimate. The build-out analysis gives us approximately 200 more residents, and we cannot handle more than 500 in addition to that. Therefore, 500 more people can be permitted from redevelopment.

Our design population figure for a stable, built-out, thrifty, livable town is 2,200 people.

The key principle of this stormwater management plan, from the homeowner's point of view, is to deal with stormwater *on the property*. Stormwater, however, does not recognize property boundaries, so, where constraints do not forbid, the property owner must devise a way to contain it. When the property owner is compelled to study his situation and come up with ways to keep the water on his property, he will discover a basic truth: that the water which is not collected and focused (as with a system of gutters and leaders) may well take care of itself.

Most modern houses have a system of roof gutters, connected to leaders and downspouts. This system collects and focuses runoff. But is the gutter system the only, or even the best way to deal with roof water? Once we have gutters we must maintain them, keep them clear, replace and rehang portions of them. Houses can be built in such a way that they do not need gutters, or so that water is collected for storage. An example of this is the single-story bungalow with deeply extended eaves. The bungalow roof itself directs the water evenly toward the ground, without gutters.

When we look at archaic roof drainage systems, we can see what works, and how systems fail. The following examples were once common on Frenchtown houses:

The *Yankee or box gutter* was common on 19th-century houses two stories tall and higher. Our climate required that houses have either a deep roof overhang or an eaves trough (Yankee gutter) – otherwise the weather would attack the walls. When the maintenance of the outlets was neglected, water ran over the eaves and rotted the soffits. But when maintained, the Yankee gutter system worked, and it had its advantages. Most Yankee or box gutters have been roofed over and replaced by modern hanging gutter-and-leader systems. These, too, require regular maintenance.

Another common feature of old Frenchtown houses is the *cistern*. This interior drain system was fed by roof water, the cistern itself commonly located under the kitchen. (Mine is a stone cube approximately six feet square and as deep, plastered inside, the top flush with the subfloor of the kitchen.) A handpump drew the water up into the kitchen sink. An eaves trough or gutter collected rain or snowmelt into a leader, which drained into the cistern. The supply pipe had a valve, normally closed, which dumped water until the roof was clean and the system flushed. Then the valve had to be opened so the cistern could fill until the overflow pipe ran, at which time it had to be closed. It is obvious that this system had to be attended to carefully and regularly. The water collection system was critical to the health of the household. The contamination of shallow wells (because of the proximity of the river) and surface waters (agricultural and human waste runoff) made safe drinking water problematical before the advent of municipally supplied water.

I have thus elaborated to demonstrate the depth and complexity of one small piece of the stormwater study discussion. The usefulness of such analysis is that sometimes we can understand the nature of a problem and resolve it at the source, rather than to contrive a more or less expedient (and expensive) means of solving it.

BACKGROUND

The Borough of Frenchtown (pop. 1500) encompasses 810 acres in western Hunterdon County, New Jersey. It contains less than one square mile of developable land. (Please refer to Map C-3, Frenchtown Borough, on USGS Quadrangle, Hunterdon Cty, N. J.) The borough is roughly rectangular in shape, and somewhat greater than a mile and a quarter long from north to south, and somewhat less than a mile wide from east to west. The borough is bounded on the west for its entire length by the Delaware River. Two major year-round creeks empty into the Delaware River at Frenchtown: the Greater and the Lesser Nississackaway. These two creeks come within a hundred feet or less of meeting, but a (mostly) natural structure keeps them separate until they reach the floodway of the river.

The roadbed of the old Belvidere-Delaware Railroad defines the floodway and the floodplain of the river on the west. The eastern boundary of the floodplain is a regular line of weathered bluffs, thickly wooded, about three-eighths of a mile east of the river. The line of bluffs is broken where the valleys of the two creeks intersect and meet the river.

Frenchtown is located within Watershed Management Area 11, Central Delaware. It contains part of two HUC14 drainage areas, approximately 662 acres within the Greater Nississackaway Creek area, and approximately 119 acres within the Lesser Nississackaway Creek area.

The New Jersey Department of Environmental Protection (NJDEP) has established an Ambient Biomonitoring Network (AMNET) to document the health of the state's waterways. There are over 800 AMNET sites throughout the state of New Jersey. These sites are sampled for benthic macroinvertebrates by NJDEP on a five-year cycle. Streams are classified as non-impaired, moderately impaired, or severely impaired based on the AMNET data. The data is used to generate a New Jersey Impairment Score (NJIS), which is based on a number of biometrics related to benthic macroinvertebrate community dynamics. There are two AMNET sites located within the Borough, one on the Greater Nississackaway Creek at Creek Road, and one the Lesser Nississackaway on State Highway 29. Neither creek is impaired.

A TMDL is the amount of a pollutant that can be accepted by a waterbody without causing an exceedance of water quality standards or interfering with the ability to use a waterbody for one or more of its designated uses. The allowable load is allocated to the various sources of the pollutant, such as stormwater and wastewater discharges, which require an NJPDES permit to discharge, and nonpoint source, which includes stormwater runoff from agricultural areas and residential areas, along with a margin of safety. Provisions may also be made for future sources in the form of reserve capacity. An implementation plan is developed to identify how the various sources will be reduced to the designated allocations. Implementation strategies may include improved stormwater treatment plants, adoption of ordinances, reforestation of stream corridors, retrofitting stormwater systems, and other BMPs.

The New Jersey Integrated Water Quality Monitoring and Assessment Report (305(b) and 303(d)) (Integrated List) is required by the federal Clean Water Act to be prepared biennially and is a valuable source of water quality information. This combined report presents the extent to which New Jersey waters are attaining water quality standards, and identifies waters that are impaired. Sublist 5 of the Integrated List constitutes the list of waters impaired or threatened by pollutants, for which one or more TMDLs are needed. No TMDLs have been developed for our unimpaired waterways.

For the present purpose we have divided the borough into four zones (please see above-referenced map):

1. Northern River: Beginning on the west side of Everittstown Road (County Route 513) at the borough line, west along said line to the corner in (or at) the river, then south along the river to the bridge. Then along the south side of Bridge Street (including the buildings) to a corner at the west side of Trenton Avenue, then north across Bridge Street and continuing through the blocks to Third Street. From there, east to Milford Road, then south to the corner of Route 513, then north along the west side of Route 513 to the place of beginning.

These boundaries reflect both the natural topography and drainage and the existing stormwater drainage infrastructure. Please note that although the real boundary is the river (the riverbank proper, that is), all the land west of the old railroad roadbed is considered wild (although there are some structures, etc., see Appendix for details), and thus the roadbed is the end of "built" structure in this zone.

2. Southern River: Beginning on the west side of State Highway 29 at the borough line and continuing along said line west to the corner in or at the river, then north along the river to the bridge, then east to the railroad roadbed, then south along said roadbed to the south side of Sinclair (Aries Electronics) property. Then east along Sinclair boundary to the west side of Trenton Avenue (Route 29) then south along Trenton Avenue to the place of beginning.

This zone is mostly in the floodway of the river, that is, west of the railroad roadbed. For the most part, Old River Road defines the boundary of the wild shore. For our purposes the old railroad bridges (or culverts) define the river/creek boundaries.

3. Greater Nississackaway: From the point of beginning of Zone 1 above, south along the boundary of said Zone 1 and following it to the corner at the west side of Trenton Avenue. Then south along Trenton Avenue to the back of the corner building, then west behind the buildings on Bridge Street through the block to the railroad roadbed, then south along said roadbed to the far bank of the Greater Nississackaway Creek. Then east along the top of said bank across Trenton Avenue through the cemetery, still along the top of the bank, north to the corner of the cemetery, then east along the cemetery boundary to the corner of Block 52, Lot 19 or thereabouts. Then north along the ridge to Kingwood Avenue, then across behind the house on the east side of Ward Street, then west along the alley to Ward Street, then north along the east side of Ward Street to Hilltop Avenue, then east along Hilltop Avenue to the easterly borough boundary, then north along said boundary to the corner with the northerly boundary of the borough, then west along said boundary to the point of beginning on the west side of County Route 513.

These zone boundaries represent the natural topography and drainage, and the existing stormwater drainage infrastructure as well as the drainage infrastructure planned for County Route 610 and for Front and Loft streets. The boundaries of the wild in this zone will be detailed in the Appendix.

4. Lesser Nississackaway: Beginning at the corner of Zone 3 above at Hilltop Avenue and the easterly boundary of the borough, and south along said boundary to the corner of Zone 2 above (across Highway 29), then north along the boundary of Zone 2 following said boundary to the corner of Zone 3 above (the top of the

bank of the Greater Nississackaway). Then east along said Zone 3 boundary to the place of beginning.

These zone boundaries represent the natural topography and drainage and the existing stormwater drainage infrastructure. The boundaries of the wild in this zone will be detailed in the appendix.

There is serious streambed erosion/degradation in the Greater Nississackaway Creek throughout its length in the borough. This is due mostly to increased peak runoff flows from the upper tributary headwaters (outside the borough), but its heavy use for stormwater drainage from around the bridge and points south has helped create serious streambed degradation, bank erosion, and a great potential for flooding.

The railroad roadbed poses a continuing problem to natural stormwater drainage in the Northern River zone above. The focusing of stormwater collection along the railroad roadbed, mostly in an open ditch, contributes to excessive groundwater and basement flooding, and possibly to the infiltration into the sanitary sewer system that is currently being studied.

Likewise, the focusing of stormwater collection at or around the Kingwood Avenue bridge contributes to excessive peak flows in the creek and probably also to infiltration into the sanitary sewer. Further study of these conditions, as part of an integrated stormwater plan, is indicated for the proposed rebuilding of County Route 610, the proposed rebuilding of the intersection of Route 610 and Race Street, and the drainages around the DEP site at the former Mobil Station.

The population projections calculated by the county for Frenchtown Borough seem unrealistically low. The zone appendices contain specific observations regarding the environmental impact of various likely developments in the borough as well as the appropriateness, efficiency, etc. of existing and proposed infrastructure.

ZONE DESCRIPTIONS

Zone 1

Northern River

The eastern zone boundary follows the division of the watershed of the Nississackaway Creek to the east, and the Delaware River to the west. There is no municipal stormwater drainage system in the highland section of the zone (east of Milford Road) except for the piping of stormwater from the storm channel/creek that runs through the Beck property (see Zone Appendix). The lots on Everittstown Road (Route 513) and Cedar Street are deep and well vegetated in meadow/woods. A wide belt of thick woods/forest begins at the western (dead) end of Cedar Street. The steep slope of the bluff is thickly wooded except for the Beck property. The wooded belt ends at a small farm (approximately 15 acres of meadow/pasture) east of the JCP&L right-of-way.

The floodplain section of the zone is the old built-up part of town characterized by a grid of streets and property divisions as shown on the appended maps. An obsolete industrial zone hugs the former railroad, still containing some light industry/offices; a public school; and two large commercials in the mostly residential section above (east of) Harrison Street. The civic and commercial center of town is on Second, Bridge and Race streets. (Race Street and part of Second Street are in Zone 3.) The entire section has considerable impervious surface.

The built infrastructure in the floodplain section is well documented in the engineering drawings for the Milford Road, Harrison Street and Second Street projects, and has been compiled as an overlay on the tax map. The serious problems in this section of the zone chiefly involve the ditch along the railroad roadbed (see Zone Appendix). There are reports of basement flooding around Lower (western) Fourth, Fifth and Sixth streets, likely due to oversaturated soils. The ditch's outlet to the river at the bottom of Second Street collects all the roof and street drainage from Bridge Street (see Zone Appendix) and Second Street, Harrison Street, and surrounding lands. Ownership of and responsibility for the ditch are confused, both legally and physically.

Zone 2

Southern River

This zone comprises the flood plain of the river west of the railroad bed from the south side of the river bridge to the southerly borough line, and the lands lying between State Highway 29 and the railroad bed that are not drained by the Lesser Nississackaway. The borough garages and municipal sewer plant occupy the southeast corner of the zone; there is a small auto service facility at South Washington Street and the railroad path. There is a great deal of riparian land – river shore, wetland, ponds. The railroad bed, once again, offers something of a barrier to drainage, although the land is so flat it might naturally be wetland meadow. There is a considerable amount of open land, and relatively little impervious surface.

The borough is currently conducting studies for the replacement of the sewer plant. (See Zone Appendix.)

Zone 3

Greater Nississackaway

The zone consists of the watershed of the Greater Nississackaway Creek in the borough of Frenchtown. The lands lying on the east side of Everittstown Road (County Route 513) trend down toward the creek in a narrowing band. This band ends in a variably steep hillside or bluff all along its length. The break between backyard and bluff is the boundary of the wild. (See Zone Appendix for details of the Gorge of the Nississackaway.) There is no built municipal stormwater infrastructure on County Route 513 except for an inlet at the very bottom of the hill. The built infrastructure in the zone focuses at and around the Kingwood Avenue Bridge, on both sides (See County Route

610 reconstruction engineering drawings, and Bridge and Race streets reconstruction engineering drawings for details); and just below the foot of Lott Street (see Trenton Avenue reconstruction, and Front & Lott streets proposed reconstruction engineering drawings for details). The creek exhibits very serious erosion and channel degradation problems (see Zone Appendix). The proposed Front & Lott streets project will increase peak flow runoff.

The eastern side of the zone is mostly wild/natural (see Zone Appendix). Several drainages combine at the Kingwood Avenue Bridge: they are both natural and built. This system is projected to be rebuilt, and is the subject of a special study currently being conducted of possible stormwater inflows into the sanitary sewer system (see Appendix).

Zone 4

Lesser Nississackaway

This zone consists of the entire watershed of the Lesser Nississackaway Creek in the borough of Frenchtown, including the whole massif in the southeast quadrant of the borough and its steep slope and the meadow to its west, bounded by State Highway 29. There are very large areas of open space, both wild and natural, in the zone.

There are two distinct systems of infrastructure in the zone, that on County Route 610 (see County Route 610 reconstruction engineering drawings), and that on Trenton Avenue (see Trenton Avenue reconstruction engineering drawings). The collector system at the foot of Ridge Road is projected to be reworked during the Route 610 reconstruction. There have been complaints of water running off Kingwood Avenue onto low-lying properties. The collected stormwater empties by a swale into the Lesser Nississackaway west of the foot of Ridge Road, apparently without serious problem.

The collector system on Trenton Avenue would be insignificant except for the drainage from the Frenchtown Commons apartments (see Zone Appendix).

DESIGN AND PERFORMANCE STANDARDS

The borough will adopt design and performance standards for stormwater management measures as presented in N.J.A.C. 7:8-5 to minimize the adverse impact of stormwater runoff on water quality and water quantity, and loss of groundwater recharge in receiving water bodies. The design and performance standards include language for maintenance of stormwater management measures consistent with the stormwater management rules at N.J.A.C. 7:8-5.8 Maintenance Requirements, and language for safety standards consistent with N.J.A.C. 7:8-6 Safety Standards for Stormwater Management Basins. The ordinances will be submitted to the county for review and approval within [24 months of the effective date of the Stormwater Management Rules].

During construction, borough inspectors will observe the construction of projects to ensure that stormwater management measures are constructed and function as designed.

The Stormwater Control Ordinance will ensure that all major development which is not subject to engineering review by the Planning and Zoning Board (which has adopted the Revised Residential Site Improvement Standards) will be covered by other municipal review under the same guidelines. In addition, the lowering of the threshold of "major development" to one-quarter acre disturbance or 1,000 square feet of impervious surface brings many more projects under municipal review. The ability to waive expensive engineering in favor of prescribing BMPs and low-impact strategies minimizes expense and inconvenience to most small property owners.

The application of design and performance standards to Borough projects and activities, and those of other governments and entities (utilities, schools, etc.), and to their respective infrastructure systems, cannot readily be accomplished through ordinance. It is expected that the analysis of land and infrastructure within each zone will lead to detection of areas where BMP retrofit, rebuild, or maintenance can be cost-effective and beneficial. Entities that are exempt from project review are nonetheless committed by policy to the philosophy and strategies of low-impact development. They should be amenable to approach on these issues.

The system of zone oversight will ensure: that long-term maintenance commitments are monitored; that effectiveness of strategies is measured or at least observed; that integrative measures may need to be taken; that emergent situations not go unobserved. The public will become aware of an access to the technology and strategies of low-impact development as it applies to their immediate and particular situations.

The nature of stormwater management in the borough as it now stands is less a matter of future development than of maintenance and/or rebuilding existing infrastructure, and of community outreach and education. One of the purposes of dividing the borough into zones is to allow for local oversight. An ordinance will be introduced to establish a board of four local Zone Overseers, and to outline their responsibilities in inspecting, reporting, and record-keeping. Mapping and inventorying the standing infrastructure in the zones will allow incremental mitigation and short- and long-range planning to proceed steadily. These activities will also suggest future planning and strategy directions. It is intended that these local overseers will help minimize the impact of stormwater management on borough taxpayers.

The maintenance and construction work carried on by borough personnel or by its contractors will be planned and executed so as to maximize benefits of design and performance standards and Best Management Practices (BMPs) in the appropriate built, natural, or wild context.

The Frenchtown Street Department shall be responsible for complying with the standards set forth in Attachment C of the permit to control the passage of solids and floatable materials through storm drain inlets installed by the municipality by March 31st, 2005.

It shall be the further responsibility of the Frenchtown Street Department, by March 31, 2005, to develop a storm drain inlet labeling program to label all storm drain inlets that are along municipal streets with sidewalks, and all storm drain inlets within plazas, parking areas and maintenance yards that are owned and operated by the municipality.

The Borough Clerk's Office shall have the responsibility to provide for the duplication and annual mailing (or other means of delivery) of the informational brochure provided by the Department of Environmental Protection to all residents and businesses within the municipality by March 31, 2005, and every year thereafter. Postage and other expenses are to be paid out of the Stormwater grant or other moneys budgeted for stormwater management.

The annual educational event will be held in the spring in conjunction with the locally supported (volunteer) effort to rebuild the Nature Trail in the Borough Park. This trail follows the course of the Level Ditch that runs from New Dam (at the power line right-of-way on Creek Road) to the end of the escarpment above the New Jersey American Water Company building on Race Street. The program will feature maps of old water power and water supply system in the Greater Nississackaway – a history of the relation between humankind and the stream in modern times.

The educational event will include walking tours, dam-building, map-making, refreshments, and fun for young and old. The event will be planned by the Stormwater Coordinator with the cooperation of the Stormwater Committee.

The Borough Clerk's Office shall be responsible for making available the informational brochure specified in the permit during the educational event.

The Stormwater Committee shall act as an advisor to the Borough Council through the Stormwater Coordinator. In addition, each member shall have a "committee of one" special area, such as "educational program for elementary school children," or "stormwater implications of projects currently before the Frenchtown Planning & Zoning Board," etc. The committee's full responsibilities and procedures, and those of the Stormwater Coordinator and the Zone Overseers, will be spelled out in ordinances.

PLAN CONSISTENCY

The borough is not within a Regional Stormwater Management Planning Area and no TMDLs have been developed for waters within it. Therefore, this plan does not need to be consistent with any regional stormwater management plans (RSWMPs) nor any TMDLs. If any RSWMPs or TMDLs are developed in the future, this Municipal Stormwater Management Plan will be updated to be consistent.

The Municipal Stormwater Management Plan is consistent with the Residential Site Improvement Standards (RSIS) at N.J.A.C. 5:21. The borough will utilize the most current update of the RSIS in the stormwater management review of residential areas.

This Municipal Stormwater Management Plan will be updated to be consistent with any future updates to the RSIS.

The borough's Stormwater Management Ordinance requires all new development and redevelopment plans to comply with New Jersey's Soil Erosion and Sediment Control Standards. During construction, borough inspectors will observe on-site soil erosion and sediment control measures and report any inconsistencies to the local Soil Conservation District.

NONSTRUCTURAL STORMWATER MANAGEMENT STRATEGIES

The Borough has reviewed the master plan and ordinances, and has provided a list of the sections in these and in the Borough land use and zoning ordinances that are to be modified to incorporate nonstructural stormwater management strategies. These are the ordinances identified for revision. Once the ordinance texts are completed, they will be submitted to the county review agency for review and approval within 12 months of the adoption of the Revised Stormwater Plan and Stormwater Control Ordinance. A copy will be sent to the Department of Environmental Protection at the time of submission.

General Ordinances

Chapter II. Administration

Sec. 2-65.2.i. General Research (applicant to be advised in advance and deposit based on estimated time shall be required): Fee to be charged as actual cost to the borough for staff members' labor. (Ordinance No. 587, Section II.)

This may be the easiest way for the borough to recoup – a certification by the Stormwater Coordinator would require office time by staff, etc; however, the Coordinator's time would be gratis and the Zone Overseer's prepaid.

Chapter XVI. Sewers.

Sec. 16-6.7.b. "Except as provided in paragraph a. above, the roof, foundation, basement, sump pump, areaway, parking lot, roadway or other surface-runoff or groundwater drains shall discharge to natural outlets or storm sewers."

This needs to be changed to make reference to BMP Manual appropriate strategies. It is important to note that the Borough Sewer Plant Superintendent and Commissioner or designee will be conducting house-by-house inspections to detect any sump pump hookups, etc, to sanitary sewer. The ordinance should require diversion to appropriate non-structural strategy at the time of detection.

Sec. 16-6.8.b. "The connection of a surface-runoff or groundwater drain to a storm sewer or natural outlet designed to transport surface runoff or groundwater drainage shall

conform to the requirements of the applicable Building Code or other applicable requirements of the Borough.”

This section must send the applicant directly to the BMP Manual and the Stormwater Coordinator and Zone Overseer.

Chapter XVIII. Solid Waste Management.

This chapter should be rewritten to reflect the importance of controlling litter, solids and floatables. The emphasis must be upon the ways in which garbage is stored and put out for pickup, and collected; recyclables likewise. Containment must be adequate to prevent water and wind turning curbside trash and recycling into litter. Trash contractor and homeowner should pay attention to spills, etc. Perhaps a uniform container system is the most expedient measure. At the same time, a garbage and recycling philosophy expressed in simple dos and don'ts might be developed and disseminated.

Chapter XXII. Cable Television

Sec. 22 – 1.8. Construction Requirements. “Restoration: . . . in as good condition as existed prior to the commencement of the work.”

The statutory language should reflect that restoration shall be according to Best Management Practices, whatever the situation may have been before the work.

Sec. 22 – 1.8 Trimming of Trees: [whole section]

Make less permissive; emphasize BMPs.

There should be a reference to an acceptable standard for right-of-way maintenance regarding tree trimming, brush removal, herbicides, etc. Utility R.O.Ws are very significant in the borough as factors in surface water movement and in impact on the Greater Nississackaway Creek.

Land Use Ordinance

The purposes and objectives of the ordinance must be rewritten to reflect the goals of N.J.A.C. 7:8 et al and the BMP approach. The imposition of design standards which flow from a radically different philosophy and approach requires a drastic reworking. This has been begun, and significant progress made. The definitions have been studied and revised, and augmented to reflect the low-impact development approach. Action on proposed changes will follow adoption of the Stormwater Control Ordinance and the Revised Stormwater Management Plan.

The reworking of the Master Plan as it is now contemplated will be drastic but should not surprise.

Both these, Master Plan and Ordinance Revision, will be presented for public study and comment, and Council and Planning Board study and action, within 12 months of the adoption of the Revised Stormwater Management Plan and Stormwater Control Ordinance.

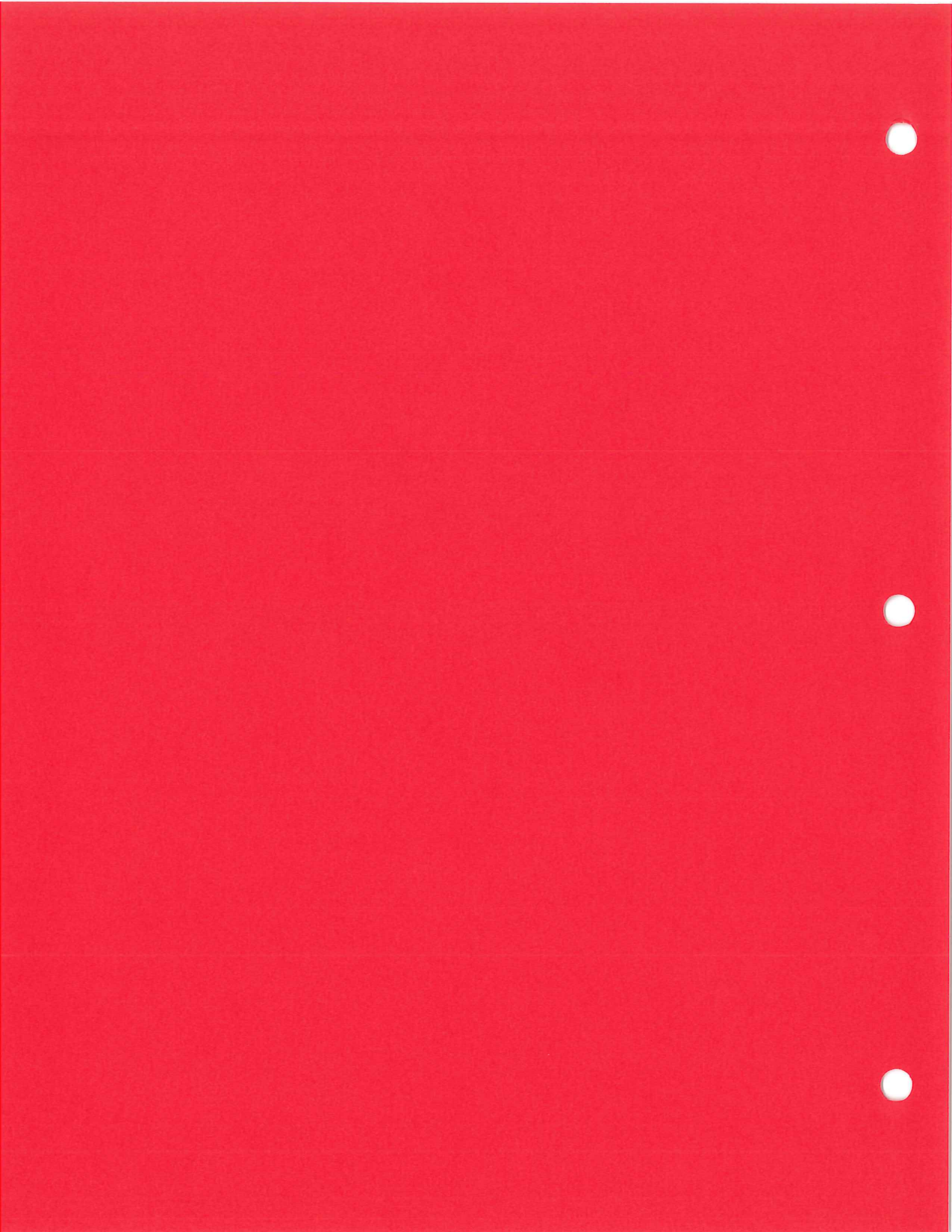
MITIGATION PLANS

The purpose of the zone system outlined in the plan is as stated, to map and inventory existing natural and manmade situations in the respective zones. Since the zone breakdown is by watershed, which corresponds to infrastructure system limits, an integrated and prioritized program of stormwater management within each zone can be developed; mitigation options can be designed to implement the program. Many of these are suggested in the Appendices (to follow).

APPENDIX

The Appendix describes the structures and specific features of each of the four zones. It is currently in preparation.





ORDINANCE #699

AN ORDINANCE ADOPTING A NEW ZONING MAP FOR
THE BOROUGH OF FRENCHTOWN, HUNTERDON COUNTY, NEW JERSEY,
AS AN AMENDMENT TO THE BOROUGH'S LAND USE ORDINANCE

WHEREAS, since the adoption of the last Zoning Map, dated April, 2005, amendments have been adopted to the Land Use Ordinance of the Borough of Frenchtown, including amendments that have created new overlay zones that are not yet reflected on the Zoning Map; and

WHEREAS, since the adoption of the last Zoning Map, dated April, 2005, lands previously zoned R-2 and R-6 lying east of Route 29 and south of Kingwood Avenue have been acquired as public open space and therefore now satisfy the criteria for inclusion in the R-7 Zone; and


WHEREAS, the Mayor and Borough Council of the Borough of Frenchtown wish to update the Zoning Map to be consistent with these changes and to comply with the County's and the NJDEP's submission requirements for the proposed sewer service area;

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Borough Council of the Borough of Frenchtown, in the County of Hunterdon, State of New Jersey as follows:

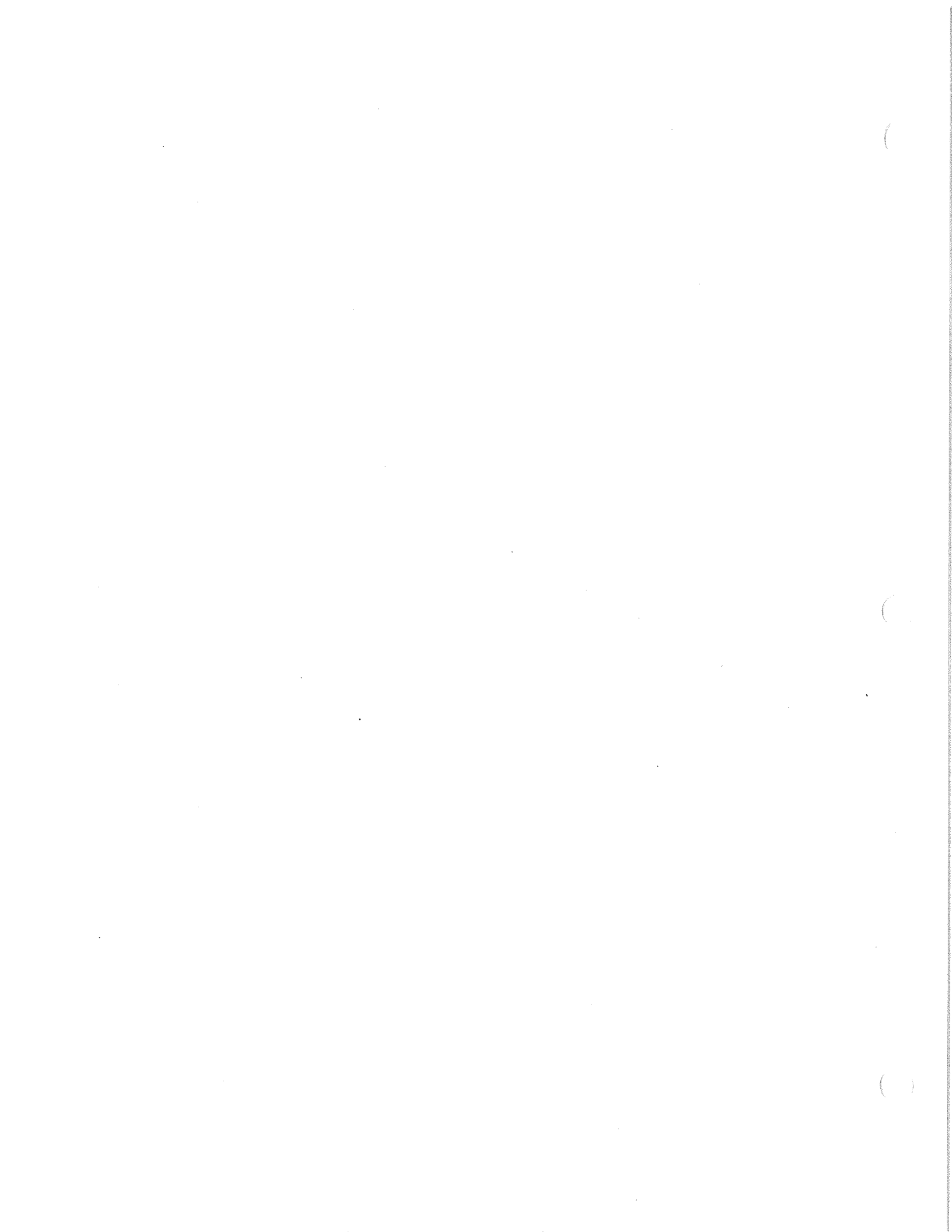
- I. The Zoning Map for the Borough of Frenchtown, Hunterdon County, New Jersey, prepared by Elizabeth C. McKenzie, PP, PA, dated May, 2011, is hereby adopted as an amendment to the Borough's Land Use Ordinance.
- II. Severability. If any portion, paragraph, clause, sentence or phrase of this Ordinance is determined to be invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining portions of this Ordinance.
- III. Effective Date. This Ordinance shall take effect immediately upon publication of Notice of Final Passage in the manner provided by law.
- IV. Repealer. All ordinances or parts thereof inconsistent herewith are hereby repealed as to the extent of such inconsistency only.

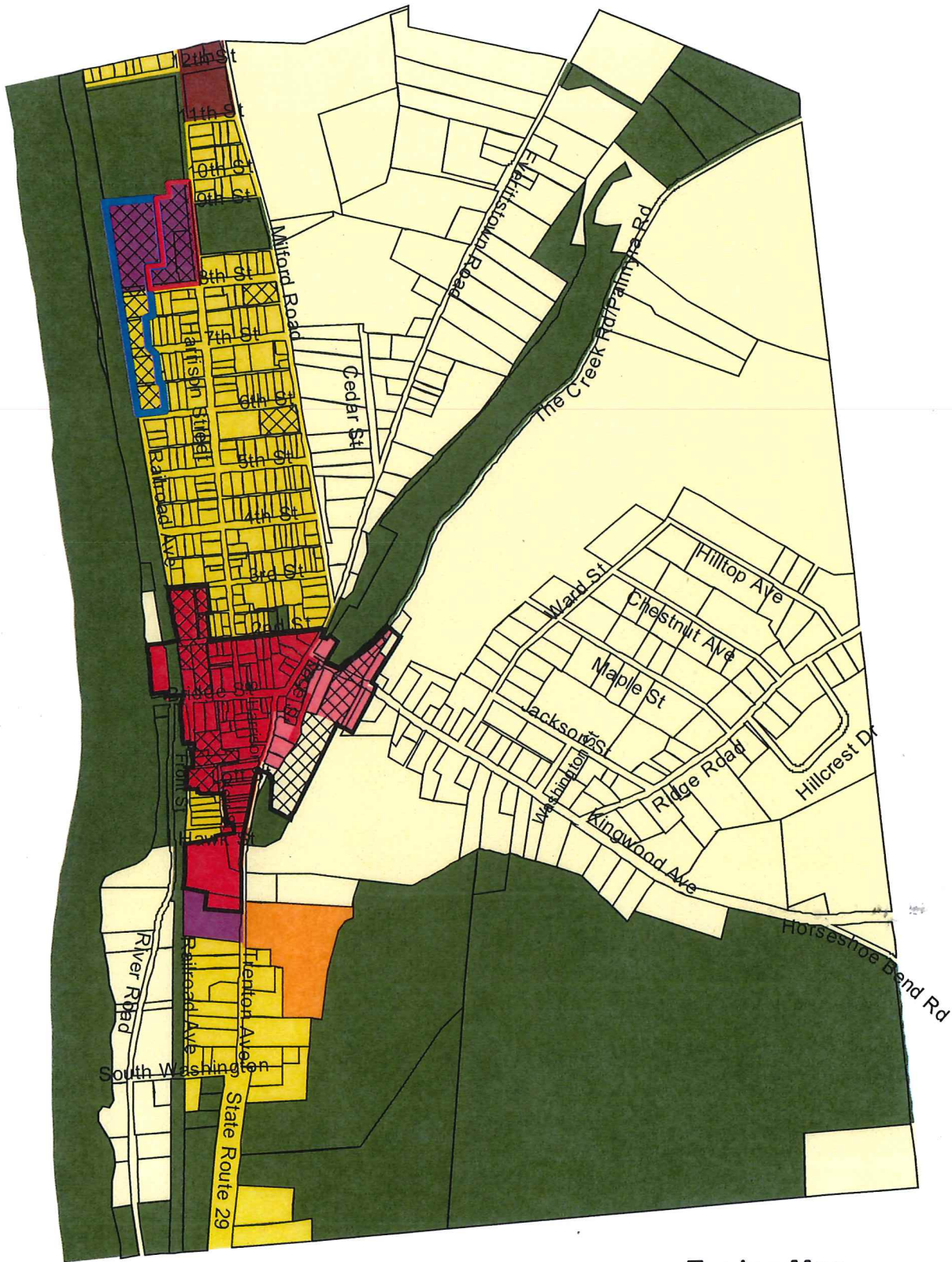

THE HONORABLE RONALD M. SWOREN, MAYOR

ATTEST:


BRENDA SHEPHERD, RMC, BOROUGH CLERK

Introduction: 5-4-11
Publication: 5-12-11
Second Reading: 6-1-11





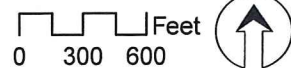
Zoning Map Borough of Frenchtown Hunterdon County, New Jersey

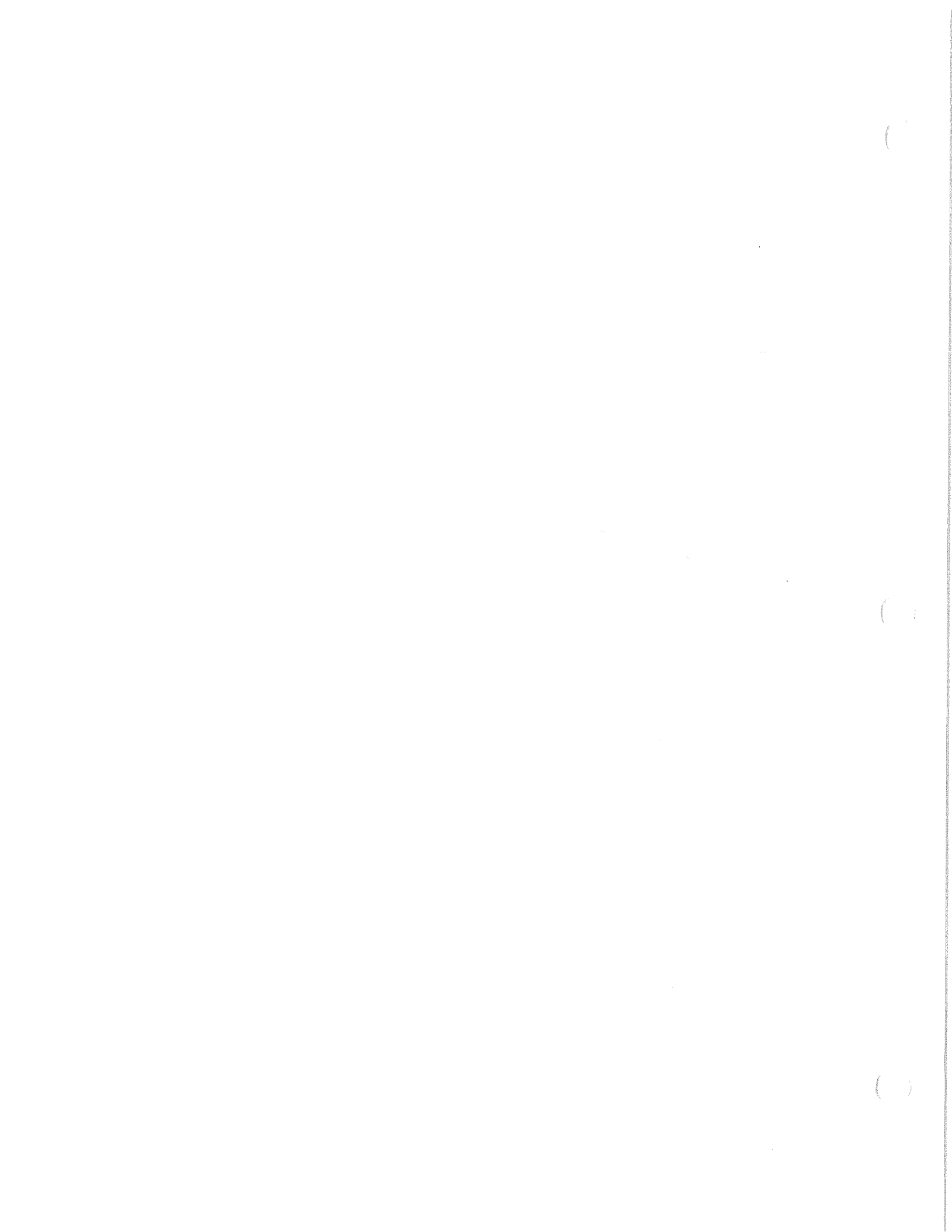
May 2011

Prepared by:
Elizabeth C. McKenzie, PP, PA
Data Source:
Hunterdon County Division of GIS
Hunterdon County Planning Board

Legend

- | | | | |
|--|--|--|------------------------------|
| | Village Center Rehabilitation Area Overlay | | R-3 Multi-Family Residential |
| | Overlay Zone A | | R-4A Central Commercial |
| | Overlay Zone B | | R-4B Transitional Commercial |
| | Potential Redevelopment Site | | R-4C Satellite Commercial |
| | R-1 Low Density Residential | | R-5 Low Impact Industrial |
| | R-2 Medium Density Residential | | R-7 Open Space/Conservation |





Appendix D – Habitat Suitability Determinations/Wetlands Letters of Interpretation

Documentation of any Habitat Suitability Determinations and Wetlands Letters of Interpretation is included in this appendix, based on the following listing:

Habitat Suitability Determinations/Wetlands Letters of Interpretation		
Municipality	Recipient	Correspondence Date

***** There were no HSD's or Wetlands Letters of Interpretation received for Frenchtown Borough**

Appendix D– USEPA Section 201 Map Revisions or Grant Waivers

Documentation of any USEPA Section 201 Map Revisions or Grant Waivers is included in this appendix, based on the following listing:

USEPA Section 201 Map Revisions or Grant Waivers		
Municipality	Recipient	Correspondence Date

***** There were no USEPA Section 201 Map Revisions or Grant Waivers received for Frenchtown Borough**

Appendix D – Coordination, Consistency and Notification Process

Documentation of notifications is included in this appendix, based on the following listing:

Table E-1. County WMP Notifications and Responses		
Notification Recipient	Notification Date	Response Date

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Amendment & Revision Application Form
Form A**

For Office Use Only Project Name _____ Project Identification Number _____ Activity Tracking Number _____

Type of Water Quality Management Plan Modification Proposal Requested

<input type="checkbox"/> Amendment application Type: <input checked="" type="checkbox"/> Wastewater Management Plan (only available to WMP agencies) <input type="checkbox"/> Future Wastewater Service Area Map (only available to WMP agencies) <input type="checkbox"/> Site Specific Amendment <input type="checkbox"/> Site Specific Amendment (eligible with definition at P.L. 2011, c.203)
<input type="checkbox"/> Revision application Type: <input type="checkbox"/> Revision (pursuant to N.J.A.C. 7:15-3.5) <input type="checkbox"/> Revision (eligible with section 8 of P.L. 2011, c.203)

PLEASE TYPE

1. WATER QUALITY MANAGEMENT PLAN INFORMATION:

A. NAME OF THE AREAWIDE WATER QUALITY MANAGEMENT PLAN(S) [WQMP] TO BE AMENDED: UPPER DELAWARE WQMP AREA AND UPPER RARITAN WQMP AREA

B. NAME OF THE WASTEWATER MANAGEMENT PLAN(S) [WMP] TO BE AMENDED (IF NO WMP EXISTS, WRITE NONE):
NONE

2. NAME OF PROPOSAL, PROJECT OR DEVELOPMENT:

FRENCHTOWN BOROUGH WASTEWATER MANAGEMENT PLAN

3. LOCATION OF PROPOSAL, PROJECT OR DEVELOPMENT:

A. MUNICIPALITY(IES):

FRENCHTOWN BOROUGH , City of Lambertville, Stockton Borough, West Amwell Township

B. COUNTY(IES):

HUNTERDON COUNTY

C. BLOCK / LOT NUMBERS: N/A

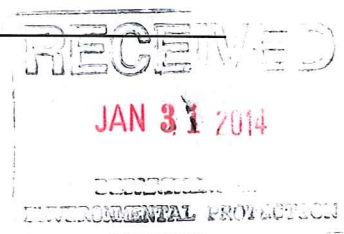
D. STATE PLANE COORDINATES: X N/A Y N/A

E. LEGISLATIVE DISTRICT:

23rd

F. CONGRESSIONAL DISTRICT:

7TH



4. PRIMARY CONTACT/APPLICANT'S AGENT/PREPARER OF AMENDMENT OR REVISION:

NAME/AGENT/ENGINEER:

KEN BOGEN

TITLE:

PRINCIPAL PLANNER

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Amendment & Revision Application Form
Form A**

AGENCY/COMPANY:

HUNTERDON COUNTY PLANNING BOARD

ADDRESS:

PO BOX 2900

Street Address Suite Number
FLEMINGTON, NJ 08822-2900

City State Zip
PHONE: (908) 788-1490 FAX: (908) 788-1662

E-MAIL ADDRESS:

kbogen@co.hunterdon.nj.us

5. APPLICANT/AGENCY/ENTITY REQUESTING AMENDMENT/REVISION:

NAME/AGENCY/COMPANY:

HUNTERDON COUNTY BOARD OF CHOSEN FREEHOLDERS

CONTACT PERSON (if different from above): ROBERT G. WALTON

TITLE: DIRECTOR

AGENCY/COMPANY:

HUNTERDON COUNTY

ADDRESS:

PO BOX 2900 FLEMINGTON, NJ 08822-2900

Street Address Suite Number

City State Zip
PHONE: (908) 788-1102 FAX: (908) 806-4236

E-MAIL ADDRESS:

freeholders@co.hunterdon.nj.us

6. PROPERTY OWNER:

NAME/AGENCY/COMPANY: N/A

CONTACT PERSON (if different from above): _____

TITLE: _____

AGENCY/COMPANY: _____

ADDRESS:

Street Address Suite Number

City State Zip
PHONE: () _____ FAX: () _____

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Amendment & Revision Application Form
Form A**

E-MAIL ADDRESS:

7. REGIONAL PLANNING CONSIDERATIONS:

A. ARE ANY PORTIONS OF THE PROPOSAL WITHIN THE HIGHLANDS PRESERVATION AREA?

Yes No

B. ARE ANY PORTIONS OF THE PROPOSAL WITHIN A MUNICIPALITY FULLY CONFORMING TO THE HIGHLANDS REGIONAL MASTER PLAN (BOTH PLANNING AND PRESERVATION AREAS)?

Yes No

C. ARE ANY PORTIONS OF THE PROPOSAL WITHIN NJ's REGULATED COASTAL ZONE?

Yes No

IF YES, WHICH PLANNING AREA?

D. ARE ANY PORTIONS OF THE PROPOSAL WITHIN THE PINELANDS AREA OR PINELANDS NATIONAL RESERVE AREA OF JURISDICTION UNDER THE PINELANDS COMPREHENSIVE MANAGEMENT PLAN?

Yes No

IF YES, WHICH CATEGORY? _____

E. ARE ANY PORTIONS OF PROPOSAL LOCATED WITHIN THE JURISDICTION OF THE NEW JERSEY MEADOWLANDS COMMISSION?

Yes No

F. ARE ANY PORTIONS OF THE PROPOSAL WITHIN AN ENDORSED PLAN APPROVED BY THE STATE PLANNING COMMISSION?

Yes No

IF YES, WHICH ENDORSED PLAN? _____

G. IS THE PROPOSAL IN CONFORMANCE WITH ALL APPLICABLE LOCAL ORDINANCES?

Yes No

IF NO, EXPLAIN

H. IS THE PROPOSAL IN CONFORMANCE WITH THE MUNICIPAL MASTER PLAN(S)?

Yes No

IF NO, EXPLAIN

I. IS THE PROPOSAL IN CONFORMANCE WITH THE MUNICIPAL STORMWATER MANAGEMENT PLAN?

Yes No

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Amendment & Revision Application Form
Form A**

IF NO, EXPLAIN _____

J. IS THE PROPOSAL IN CONFORMANCE WITH THE REGIONAL STORMWATER MANAGEMENT PLAN?

Yes No N/A

IF NO, EXPLAIN _____

K. HAS A TOTAL MAXIMUM DAILY LOAD (TMDL) BEEN ESTABLISHED FOR ANY LAKES OR STREAMS WITHIN THE PROJECT AREA/PLANNING AREA OF THE PROPOSAL?

Yes No N/A

IF YES, EXPLAIN _____

L. IS THE PROPOSAL WITHIN THE SAME WATERSHED/HUC 14 AS A STREAM/LAKE THAT HAS AN ESTABLISHED TMDL?

Yes No N/A

IF YES, EXPLAIN _____

8. WATER SUPPLY CONSIDERATIONS:

A. IS YOUR PROJECT/ACTIVITY LOCATED IN A WATER SUPPLY PLANNING DEFICIT AREA AS IDENTIFIED IN THE CURRENTLY ADOPTED NEW JERSEY STATEWIDE WATER SUPPLY PLAN?

Yes No N/A

CHECK THE APPROPRIATE BOX BELOW TO INDICATE WHETHER THE PROJECT/ACTIVITY IS LOCATED WITHIN AN AREA OF CRITICAL WATER SUPPLY CONCERN.

Critical Area 1 Critical Area 2 Not Applicable

C. HAS AN ORDINANCE BEEN ADOPTED BY THE MUNICIPALITY/MUNICIPALITIES AFFECTED BY YOUR PROJECT/ACTIVITY THAT LIMITS OUTDOOR WATER USE (OTHER THAN DURING TIMES OF DROUGHT WARNING OR DROUGHT EMERGENCY)?

Yes No

IF YES, ATTACH A COPY OF THE ORDINANCE(S).

9. CERTIFICATION:

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS ACCURATE, TO THE BEST OF MY KNOWLEDGE.

SIGNATURE: _____

DATE: _____

TITLE: Principal Planner

LIC. #: 33LJ00611300

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Amendment & Revision Application Form
Form A**

This form should be submitted along with the *Site Specific Amendment & Revision Application Form (FORM B)* or the *Wastewater Management Plan & Future Wastewater Service Area Map Application Form (FORM C)*, as applicable.

Please also refer to the appropriate *Checklist for Administrative Completeness* regarding additional information, analysis or assessments that are required for a complete application. Additional information may be required upon technical review by the NJDEP.

**SEND COMPLETED FORMS WITH REQUIRED ATTACHMENTS TO:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
LAND USE MANAGEMENT
DIVISION OF COASTAL & LAND USE PLANNING
401 E. STATE ST., PO BOX 420
MC-401-07C
TRENTON, NJ 08625-0420**

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Wastewater Management Plan & Future Wastewater Service Area Map
Amendment Application
Form C**

For Office Use Only	
Project Name _____	
Project Identification Number _____	
Activity Tracking Number _____	

1. NAME OF WASTEWATER MANAGAEMENT PLAN / FUTURE WASTEWATER SERVICE AREA MAP: _____

2. MUNICIPALITIES ADDRESSED BY THE WASTEWATER MANAGEMENT PLAN / FUTURE WASTEWATER SERVICE AREA MAP:

In addition, please note each municipality that is fully conforming (both Planning and Preservation Areas) to the Highlands Regional Master Plan or that is located within the Pinelands Area.

COUNTY: <u>HUNTERDON</u>	COUNTY: _____
MUNICIPALITY: <u>FRENCHTOWN BOROUGH</u>	MUNICIPALITY: _____
MUNICIPALITY: <u>City of Lambertville</u>	MUNICIPALITY: _____
MUNICIPALITY: <u>Stockton Borough</u>	MUNICIPALITY: _____
MUNICIPALITY: <u>West Amwell Township</u>	MUNICIPALITY: _____
MUNICIPALITY: _____	MUNICIPALITY: _____

3. SIGNIFICANT ACTIONS (Check all that apply):

- CHANGES TO SEWER SERVICE AREAS
 - Expansion
 - Reduction
 - Transfers of Sewer Service Areas from _____ to _____
 - Transfer of WMP Responsibility from Municipalities to Hunterdon County
- WASTEWATER TREATMENT FACILITIES (WTF)
 - New or Expanded Discharge to Surface Water
 - New or Expanded Discharge to Ground Water
 - Abandonment of Wastewater Treatment Facility
 - Change in Discharge Location (e.g. DSW to DGW or from tributary to main stem)
 - Increase in projected wastewater flow above that approved in the areawide
- CAPACITY ANALYSIS
 - New or Modified Sewer Service Area Capacity Analysis
 - New or Modified Septic Area Capacity Analysis (Septic Density)
 - New or Modified Water Supply Capacity Analysis
- OTHER _____

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Wastewater Management Plan & Future Wastewater Service Area Map
Amendment Application
Form C**

4. CERTIFICATION:

The signature of an authorized Wastewater Management Planning Agency representative below certifies that the Wastewater Management Plan/Future Wastewater Service Area Map is being submitted on behalf of the Wastewater Management Planning Agency. (The representative should be the same as the contact person in item 5 of Form A of the application.)

REPRESENTATIVE: KEN BOGEN

TITLE: PRINCIPAL PLANNER

SIGNATURE:  DATE: 01/21/2014

**SEND COMPLETED FORMS WITH REQUIRED ATTACHMENTS TO:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
LAND USE MANAGEMENT
DIVISION OF COASTAL & LAND USE PLANNING
401 E. STATE ST., PO BOX 420
MC-401-07C
TRENTON, NJ 08625-0420**

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Wastewater Management Plan & Future Wastewater Service Area Map
Amendment Application – Checklist for Administrative Completeness
Form D**

Below are the submission requirements for an administratively complete application for a Wastewater Management Plan or Future Wastewater Service Area Map Amendment. Please read each section and check each area after you have fully completed or compiled the information for each applicable requirement.

Type of Water Quality Management Plan Modification Proposal Requested

- Wastewater Management Plan (only available to WMP agencies)**
 Future Wastewater Service Area Map (only available to WMP agencies)

- 1. Completed copy of this Checklist
- 2. Completed Amendment & Revision Application Form – FORM A
- 3. Completed Site Specific Amendment & Revision Application Form – FORM C
A Pre-Application Meeting was held on _____ or was
 Not Requested
- 4. Complete WMP text [refer to County or Municipal Wastewater Management Plan Template as applicable] (Not required if only submitting the FWSA Map) [in both paper and digital format]
- 5. Required Maps:
 - For a WMP:
 - Folded hard copy maps of all maps consistent with the Wastewater Management Plan Template and Mapping Requirements Guidance
 - Digital format of all maps consistent with the Wastewater Management Plan Template and Mapping Requirements Guidance
 - For a FWSA Map:
 - Folded hard copy map(s) consistent with the Future Wastewater Service Area Map Requirements Guidance
 - Digital format map(s) consistent with the Future Wastewater Service Area Map Requirements Guidance
- 6. Digital shapefile of proposed sewer service area compliant with N.J.A.C. 7:15-5.24 and 5.25. Digital map submittals must be consistent with the Department GIS Mapping and Digital Data Standards.
- 7. Environmental Analysis (EA) Document (Not required if only submitting the FWSA Map):
 - Environmental Buildout Analysis [see N.J.A.C. 7:15-5.25(c)]
 - Wastewater Capacity Analysis/Antideg [see N.J.A.C. 7:15-5.25(d)]
 - Nitrate Dilution Analysis [see N.J.A.C. 7:15-5.25(e)]
 - Water Supply Analysis [see N.J.A.C. 7:15-5.25(f)]
 - Municipal Ordinances [see N.J.A.C. 7:15-5.25(g) and 4.4(b)]
 - Septic Management Program [see N.J.A.C. 7:15-5.25(e)]
- 8. If any areas of the composite geographic information system Environmentally Sensitive Areas (ESA) analysis identified in N.J.A.C. 7:15-5.24(b) are proposed for sewer service submit the following as part of the EA Document if a WMP or separately if only FWSA Map:
 - Wetlands - Approved and currently valid LOI letter and map survey or valid Freshwater Wetlands Permit authorizing activity within the wetlands area

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Wastewater Management Plan & Future Wastewater Service Area Map
Amendment Application – Checklist for Administrative Completeness
Form D**

- Landscape Project Rank 3, 4, or 5 habitat- Letter of determination from Division of Land Use Regulation regarding Habitat Suitability Determination (HSD) Application [see N.J.A.C. 7:15-5.26 for requirements of a HSD application]
- Natural Heritage Priority Site – Letter and map from the Natural Heritage Program issued within the last six months of the date of application stating that the proposed sewer service area does not adversely impact any rare plant species or ecological communities identified within the Natural Heritage Priority Site
- 9. If the WMP/FWSA Map is proposing to include ESAs that would otherwise be excluded under N.J.A.C. 7:15-5.24(b) from being a sewer service area, provide documentation that the proposal complies with N.J.A.C. 7:15-5.24(g) and (h) as part of the EA Document if a WMP or separately if FWSA Map.
- 10. If the WMP/FWSA Map is proposing to include ESAs that would otherwise be excluded under N.J.A.C. 7:15-5.24(d) from being a sewer service area, provide documentation that the proposal complies with N.J.A.C. 7:15-5.24(f) as part of the EA Document if a WMP or separately if FWSA Map.
- 11. If the WMP/FWSA Map is proposing to include riparian zones or steep slope areas that would otherwise be excluded under N.J.A.C. 7:15-5.25(g) from being a sewer service area, provide documentation that the proposal complies with N.J.A.C. 7:15-5.24(g)3, 5 and 6 as part of the EA Document if a WMP or separately if FWSA Map.
- 12. Administrative Record Document including:
 - Evidence of notification and offer of consultation with affected governmental agencies as required under N.J.A.C. 7:15-5.22, including but not limited to:
 - Designated Planning Agencies (DPA)
 - Wastewater Management Planning (WMP) Agencies
 - Municipal Governing Bodies
 - Municipal Planning Boards
 - County Planning Boards
 - Sewerage Authorities/Municipal Authorities/Joint Meetings/PVSC
 - New Jersey Meadowlands/Delaware River Basin Commission
 - Pinelands Commission/Highlands Council
 - Water Purveyors
 - Documentation that application was submitted to all affected Designated Planning Agencies (DPA): n/a
 - DPA with adopted procedures: (This is applicable to Atlantic, Cape May, Lower Raritan/Middlesex, Mercer, Monmouth, & Sussex WQM Planning Areas)
 - DPA without adopted procedures: (This is applicable to Ocean and Tri-County WQM Planning Areas)
 - No DPA exists for any area affected by the WMP/Map. (This is applicable to Lower Delaware, Northeast, Upper Delaware, and Upper Raritan WQM Planning Areas)
 - If applicable to the WMP/FWSA Map area submit the following: n/a
 - Pinelands Area: Comments from the Pinelands Commission in response to a request seeking comments on the proposed application.

**New Jersey Department of Environmental Protection
Water Quality Management Plan
Wastewater Management Plan & Future Wastewater Service Area Map
Amendment Application – Checklist for Administrative Completeness
Form D**

- Highlands Region: Documentation demonstrating submittal to the Highlands Council seeking comments on the proposed application. Submit any comments received from the Highlands Council.
- 13. For proposals of new or expanded NJPDES permitted DGWs submit documentation ^{n/a} demonstrating compliance with the nitrate planning standard of 2 mg/L [see N.J.A.C. 7:15-5.25(h)2]. (If submitting a new or expanded DGW proposal application pursuant to P.L. 2011, C.203, in lieu of this requirement, provide a letter from the Division of Water Quality confirming that the DGW meets administrative completeness and technical requirements for eligibility for a NJPDES permit.)
- 14. Four complete copies of the above information.

This form should be submitted along with the Amendment & Revision Application Form (FORM A) and the Wastewater Management Plan & Future Wastewater Service Area Map Application Form (FORM C).

Additional information may be required upon technical review by the NJDEP.

**SEND COMPLETED FORMS WITH REQUIRED ATTACHMENTS TO:
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
LAND USE MANAGEMENT
DIVISION OF COASTAL & LAND USE PLANNING
401 E. STATE ST., PO BOX 420
MC-401-07C
TRENTON, NJ 08625-0420**

**STATE OF NEW JERSEY
COUNTY OF HUNTERDON**

RESOLUTION

Authorizing Submittal of the County Wastewater Management Plan Chapter for Frenchtown Borough

WHEREAS, on May 20, 2008, the Hunterdon County Board of Chosen Freeholders considered the New Jersey Department of Environmental Protection (NJDEP) request to become the County Wastewater Management Planning (WMP) Agency in accordance with the proposed re-adoption and amendments to the New Jersey Water Quality Management Planning (WQMP) Rules: N.J.A.C. 7:15 published in the NJ Register on May 21, 2007; and

WHEREAS, the Hunterdon County Board of Chosen Freeholders acknowledged its role and accepted the responsibilities that fall on the County as specified in Section 7:15-5.4 of the Water Quality Management Planning Rules; and

WHEREAS, in accepting this role as lead WMP agency, the Hunterdon County Board of Chosen Freeholders reinforced its commitment to shared services with our municipalities; and

WHEREAS, participating Municipalities passed resolutions or provided letters of support accepting the responsibilities in completing their Chapter in the County WMP as specified in Section 7:15-5.8 of the Rules; and

WHEREAS, the Hunterdon County Board of Chosen Freeholders designated the Hunterdon County Planning Board Staff as the designated primary resource to develop and complete the County WMP for all participating municipalities; and

WHEREAS, the Hunterdon County Planning Board has been continually updated by Staff concerning the status and progress of the County WMP and has provided support for those efforts; and

WHEREAS, a Bill that was passed by the State Legislature (P.L.2011,c.203) and signed into law on January 17, 2012 provides that wastewater service area designations and sewer service area designations remain in effect and not be withdrawn for a period of 180 days after its enactment and permits the Wastewater Management Planning Agency to prepare and submit to the Department at least that portion of a WMP designating a Sewer Service Area, which shall comply with the NJDEP's regulatory criteria; and

WHEREAS, submittal to the NJDEP on July 2, 2012 and of the modified Sewer Service Area boundaries as shown on the Map titled "Hunterdon County Future Wastewater Service Area Map" (FWSA) fulfilled the requirements of P.L.2011,c.203 as part of the amendment application to the Upper Raritan and Upper Delaware Water Quality Management Planning Areas; and

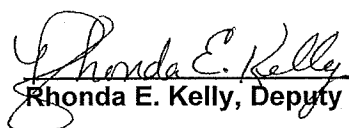
WHEREAS, the County FWSA Map was adopted by the NJDEP on April 24, 2013; and

WHEREAS, the schedule for the preparation and submittal of WMP Chapters for participating Municipalities pursuant to the New Jersey WQMP Rules (N.J.A.C. 7:15), will be dependent upon further guidance from the NJDEP.

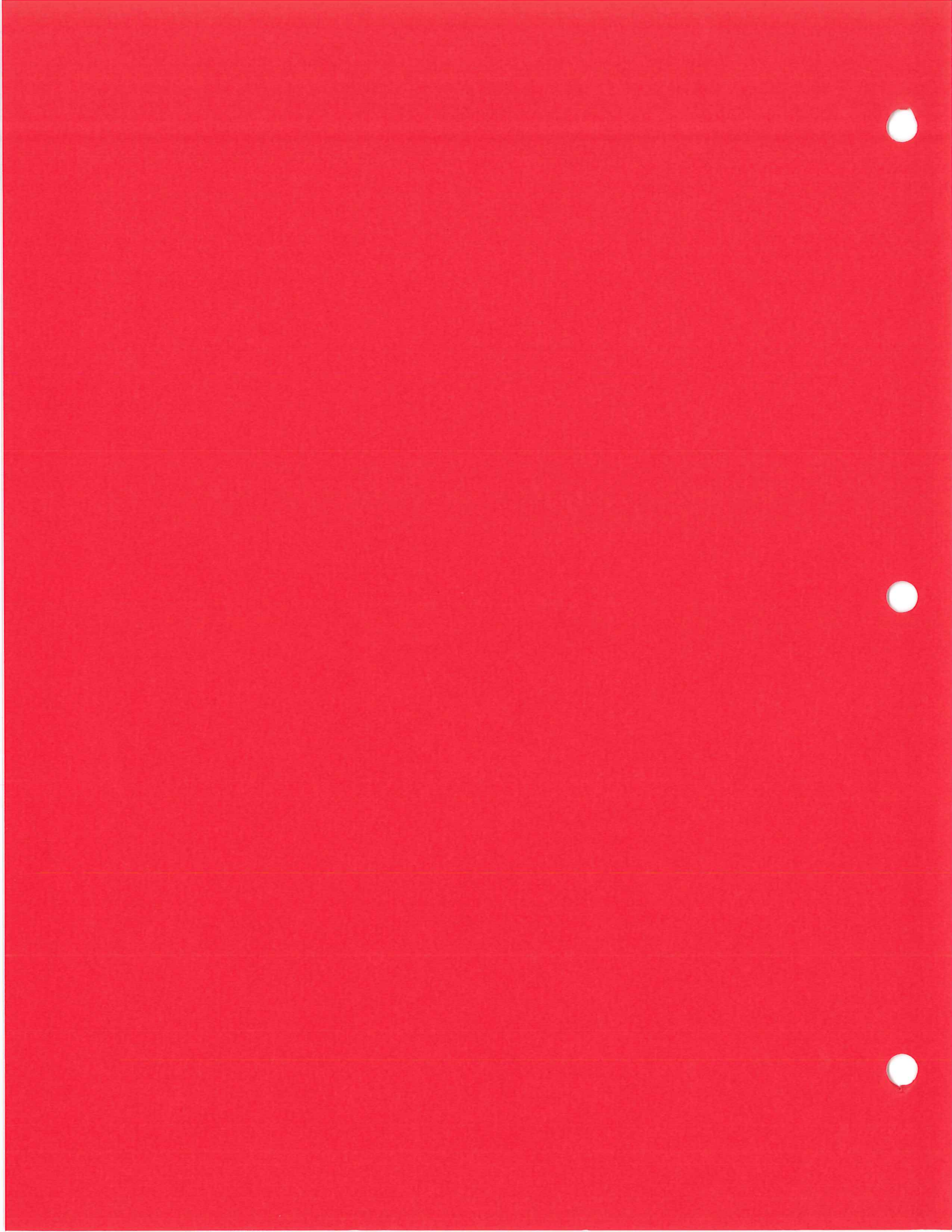
NOW, THEREFORE, BE IT RESOLVED, that the Board of Chosen Freeholders of the County of Hunterdon, as the designated WMP Agency for Hunterdon County, authorizes the submittal of the Frenchtown Borough of the Hunterdon County Wastewater Management Plan to the NJDEP by the designated County Planning Board staff.

ROLL CALL	MOVED	SECONDED	AYES	NAYS	ABSTAIN	ABSENT
Robert G. Walton, Director			X			
J. Matthew Holt, Deputy Director		X	X			
John W. King, Freeholder			X			
George B. Melick, Freeholder	X		X			
William G. Mennen, Freeholder			X			

ADOPTED December 3, 2013


Rhonda E. Kelly, Deputy CLERK





RESOLUTION 2013-040 OF THE TOWNSHIP OF ALEXANDRIA, COUNTY OF HUNTERDON AND STATE OF NEW JERSEY FOR WASTEWATER SERVICE AT VALLEY VIEW HEALTH CARE CENTER

WHEREAS, on July 2, 2012, the County of Hunterdon, State of New Jersey (hereinafter "County") submitted a proposed Countywide Future Wastewater Service Area Map to the New Jersey Department of Environmental Protection (hereinafter "NJDEP" or "Agency") for review and adoption by the Agency; and

WHEREAS, the aforesaid map submitted by the County included a map of the future sewer service area for the Frenchtown Borough sewerage treatment plant as requested by Frenchtown Borough ("hereinafter "Frenchtown") which proposed the expansion of Frenchtown's sewer service area to include Block 18, Lot 39 located within Alexandria Township; and

WHEREAS, Block 18, Lot 39 contains the Valley View Health Care Facility (hereinafter "Valley View"), which also owns Block 18, Lots 39.01 and 41, which may need sewerage capacity in the future and which Valley View, in 2009, asked the Township Committee to be included in any proposed sewer service area expansion; and

WHEREAS, the County has requested confirmation from the Township of Alexandria that the Township agrees to include Block 18, Lot 39 in the proposed future sewer service area of Frenchtown's sewerage treatment plant, as well as Block 18, Lots 39.01 and 41, both of which are located between Block 18, Lot 39 and Frenchtown's delineated future sewer service area; and

WHEREAS, the Alexandria Township Engineer has also recommended including within the aforesaid future sewer service area, Block 18, Lots 44 and 52 in Alexandria Township because they are both small residential lots under one acre each, are both located between Block 18, Lot 41 and Frenchtown's future sewer service area, and could someday experience failing septic systems; and

WHEREAS, the Alexandria Township Committee has reviewed the proposed maps depicting Frenchtown's proposed future sewer service area and agrees that including Block 18, Lots 39, 39.01, 41, 44 and 52 within the future sewer service area of the Frenchtown sewerage treatment plant makes rational planning sense.

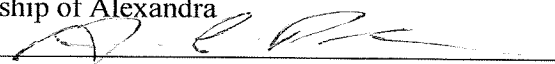
NOW, THEREFORE, BE IT RESOLVED by the Township Committee of the Township of Alexandria, County of Hunterdon, State of New Jersey, as follows:

The Committee hereby confirms that it agrees to the inclusion of Block 18, Lots 39, 39.01, 41, 44 and 52 in the revised Frenchtown Sewerage Treatment Plant Future Sewer Service Area Map, provided that none of the aforesaid properties shall be required to hook up or connect

into Frenchtown's sewerage treatment plant until such time as the capacity is actually needed by a particular lot.

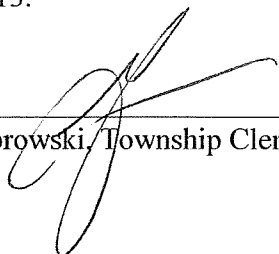
BE IT FURTHER RESOLVED, that this Resolution shall take effect immediately.

Township of Alexandra

By: 

Gabriel C. Plumer, Mayor

Certified to be a true copy of a Resolution adopted on
April 10, 2013.

By: 

Michele Bobrowski, Township Clerk, RMC





Public Water System Deficit/Surplus

NEW JERSEY AMERICAN WATER COMPANY - FRENCHTOWN

PWSID: 1011001
County: Hunterdon

Last Updated: 10/25/2012

▶ [Glossary of Terms Listed Below](#)

Water Supply Firm Capacity: 0.209 MGD

Available Water Supply Limits

	Allocation	Contract	Total
Monthly Limit	8.650 MGM	N/A MGM	8.650 MGM
Yearly Limit	82.130 MGY	N/A MGY	82.130 MGY

Water Demand

	Current Peak	Date	Committed Peak	Total Peak
Daily Demand	0.122 MGD	05/2009	0.000 MGD	0.122 MGD
Monthly Demand	3.784 MGM	05/2009	0.000 MGM	3.784 MGM
Yearly Demand	36.685 MGY	2009	0.000 MGY	36.685 MGY

Water Supply Deficit or Surplus

Firm Capacity	Water Allocation Permit
0.087 MGD	4.866 MGM
	45.445 MGY

Note: Negative values (a deficit) indicate a shortfall in firm capacity and/or diversion privileges or available supplies through bulk purchase agreements.

Bureau of Water System and Well Permitting Comments:

Updated until September 2012

Bureau of Water Allocation Comments:

no comments provided

For more information concerning water supply deficit and surplus, please refer to:

- ▶ [Firm Capacity and Water Allocation Analysis \(Pdf Format\)](#)
- ▶ [Currently Effective Water Allocation Permits by County](#)
 This report displays all effective water allocation permits issued by the department.
- ▶ [Pending Water Allocation Permits with Requests for a Hearing](#)
 All pending water allocation permits with public hearing requests.
- ▶ [Water Allocation Permits Made Effective within a Selected Timeframe](#)
 This report displays water allocation permits based on a specified date range.

Questions regarding safe demands and firm capacity please contact the Bureau of Water System and Well Permitting at 609-984-6831 or for questions concerning water allocation and status please contact the Bureau of Water Allocation at 609-292-2957.

Questions may also be sent to the [Division of Water Supply](#)

[back to search results](#)

Glossary of Terms

Allocation Limit: The maximum allowed by a valid Water Allocation Permit issued by the Bureau of Water Allocation. This may be surface or ground water, and may be expressed in MGD, MGM, MGY or some combination thereof. Withdrawals may also be limited by other factors and have seasonal or other restrictions such as passing flow requirements.

Committed Peak Demand: The demand associated with projects that have been approved for ultimate connection to the system, but are not yet constructed as indicated through the submission of construction certifications or certificates of occupancy. This is calculated by totaling the demand as included in Water Main Extension (WME) permits and the demand associated with projects not requiring a WME permit. For various review purposes this quantity may be represented as MGD, MGM and/or MGY.

Contract Limit: Purchased water, where regulated by an approved service contract, may be included in the overall allocation quantity where appropriate. Contracts may exist with minimum, maximum, seasonal or other restrictions. In some instances, the value is an estimate, not an exact limit.

Current Peak Demand: This is the average day of the highest recorded demand month occurring within the last five (5) years. (For the purpose of this table, the calculation for current peak demand was based on 31 days. Systems will be reviewed on an individual basis.) This includes water from a system's own sources and all other sources of water (i.e. purchased water).

Firm Capacity: Adequate pumping equipment and/or treatment capacity (excluding coagulation, flocculation and sedimentation) to meet peak daily demand, when the largest pumping unit or treatment unit is out of service. The value is represented in MGD.

Firm Capacity Deficit or Surplus = (Firm Capacity - Total Peak Daily Demand): The difference between the Firm Capacity and the sum of the peak daily demand and committed daily demand. This is a measure of the physical ability to provide treated water at adequate pressure when the largest pumping unit or treatment unit is out of service. Negative values indicate a shortfall in Firm Capacity.

Requested Allocation: The amount of water the public water system is requesting as part of its water allocation permit application, including existing allocations. This value is represented in MGM and MGY.

Total Peak Water Demand: The sum of the public water system's current peak demand and committed peak demand. The value is represented in MGD, MGM, and MGY.

Total Available Water Supply: The sum of the Allocation Limit and Contract Limit. This value is represented in MGM and MGY.

Water Supply Deficit or Surplus = (Total Water Allocation Permit Limit- Total Peak Demand): The monthly and/or annual limitations of an Allocation Permit minus the sum of the monthly and/or annual demands recorded based on the water use records plus the monthly and/or annual demand projected for approved but not yet constructed projects. Negative values indicate a shortfall in diversion privileges or available supplies through bulk purchase agreements.

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NJPDES DMP Data by NJPDES

NJPDES Permit #	Facility Name	Start Date	End Date	DMR Parameter Description abbrev.	Sample Point Description	Quantity Units Description	Reported Value Quantity Average
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	11/01/12	11/30/12	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.106
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	12/01/12	12/31/12	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.172
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	01/01/13	01/31/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.165
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	02/01/13	02/28/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.179
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	03/01/13	03/31/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.187
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	04/01/13	04/30/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.173
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	05/01/13	05/31/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.144
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	06/01/13	06/30/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.255
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	07/01/13	07/31/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.175
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	08/01/13	08/31/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.109
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	09/01/13	09/30/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.095
NJ0029831	FRENCHTOWN WASTEWATER TREATMENT PLANT	10/01/13	10/31/13	Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	MILLION GALLONS PER DAY(MASS)	0.088
	TOTAL FLOW						1.848
	AVERAGE FLOW (TOTAL FLOW / 12 MONTHS)						0.154







State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY
MUNICIPAL FINANCE & CONSTRUCTION ELEMENT
BUREAU OF ENGINEERING AND ENVIRONMENTAL REVIEW
ENVIRONMENTAL REVIEW SECTION
MAIL CODE 401-03D
P.O. BOX 420
TRENTON, N.J. 08625-0420
TELEPHONE (609) 633-1170
Fax (609) 633-8165

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

August 31, 2011

To All Interested Government Agencies and Public Groups:

In accordance with procedures established to evaluate projects that have applied for assistance under the New Jersey Environmental Infrastructure Financing Program, an environmental review has been completed for the proposed project described below:

- Project Name:** Frenchtown Borough Wastewater Treatment Plant Upgrade, Expansion and Relocation
- Project Number:** 340331-01
- Purpose of Project:** The components of the Frenchtown Borough Wastewater Treatment Plant, which discharges to the Delaware River, are more than forty (40) years old, near the end of their service life and in need of replacement. The plant does not have sufficient capacity to meet the current and future wastewater treatment needs of the Borough. A new facility will be constructed which will ensure compliance with the Delaware River Basin Commission Special Protection Waters and NJDEP treatment requirements and provide sufficient capacity for the present and future needs of the Borough.
- Project Originator:** Frenchtown Borough
- Project Location:** Frenchtown Borough, Hunterdon County
- Project Description:** The improvements consist of the installation of the following facilities: a new, flood-proof, influent pumping station; a combined fine screen and grit removal system; an oxidation ditch; two final clarifiers; new return activated sludge pumps; a sludge storage tank with odor control; disc-type effluent filters; post-aeration; an upgraded UV disinfection system; a coagulant storage and feed system and ancillary site improvements as required.

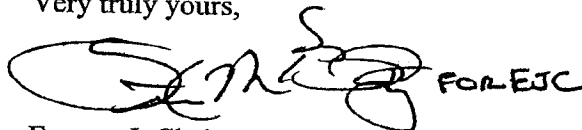
Proposed
Project Cost: \$13,632,500

Proposed Loan: \$13,632,500

The environmental review for this project indicates that no significant environmental impacts will result from the proposed action. This decision is based on a careful review of the data submitted in support of this proposed project. All documents submitted are on file at the New Jersey Department of Environmental Protection (Department), where they are available for public review upon request. A copy of the Environmental Appraisal prepared by the Department for the proposed action is enclosed.

Based on the results of the environmental review, the Department has made a preliminary decision to assist this project under the New Jersey Environmental Infrastructure Financing Program. This decision allows the applicant to retain eligibility under this program but is not a commitment of federal or state funds for the project. Comments supporting or disagreeing with this decision or the Environmental Appraisal may be submitted to the Department for review. All comments must be received within thirty days of the date of this letter. Please address your comments to: Anthony Puniello, Ph.D., Section Chief, Environmental Review Section, Municipal Finance and Construction Element, Mail Code, 401-03D, P. O. Box 420, Trenton, New Jersey, 08625-0420. After evaluating any comments received, the Department will make a final decision at the conclusion of the comment period.

Very truly yours,

A handwritten signature in black ink, appearing to read "E. Chebra", with the letters "FOR EJC" written in a smaller font to the right of the signature.

Eugene J. Chebra, P.E.
Acting Assistant Director
Municipal Finance and Construction Element
Division of Water Quality

Enclosure

ENVIRONMENTAL APPRAISAL

I. Project Identification

Project Name: Frenchtown Borough
Wastewater Treatment Plant Upgrade,
Expansion and Relocation

Name and Address
of Applicant: Borough of Frenchtown
Borough Hall
Second Street
Frenchtown, NJ 08825

Project Number: S340331-01

Project Location: Frenchtown, Hunterdon County

II. Project Description

The Borough of Frenchtown (Borough) encompasses a land area of 1.22 square miles and is located in western Hunterdon County. The Borough is bordered by Alexandria Township to the north, Kingwood Township to the east and south and the Delaware River and the State of Pennsylvania to the west (Figure 1). According to the U.S. Census Bureau, the population estimate for Frenchtown Borough is 1,467 and the current population for the sewer service area is estimated to be 1,373.

The areas of proposed construction are the Frenchtown Wastewater Treatment Plant (WWTP) and Department of Public Works (DPW) sites which are located within the Borough (Figure 2). Presently, the WWTP site contains the treatment plant facilities and the DPW site houses a shed and recycling storage area. The majority of Frenchtown Borough residents, with the exception of approximately 25 properties that are on septic systems, and all Frenchtown Borough commercial establishments are served by the WWTP. The Frenchtown Borough WWTP does not provide sewer service to any residential, commercial or industrial users located outside Frenchtown Borough.

The WWTP discharges to the Delaware River between Hancock, NJ and Trenton, NJ. This discharge has been reviewed by the Delaware River Basin Commission (DRBC) as Special Protection Waters. Also, the existing wastewater treatment plant is authorized to discharge to the Delaware River in accordance with New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water Permit No. NJ0029831.

Most of the components of Frenchtown Borough's WWTP are more than forty (40) years old, near the end of their service life, and need replacement. The proposed upgrades to the existing plant will trigger compliance with the DRBC's Special Protection Waters requirements which include a higher level of treatment that the existing plant can achieve. The WWTP has received more flow on a monthly average basis than the NJPDES Discharge to Surface Water permit's flow value, presenting operational challenges in achieving reliable compliance with the mass loading limitations.

The WWTP does not have sufficient capacity to meet the current and future needs of the Borough. The plant is currently receiving 0.19 million gallons per day (MGD) although the NJPDES permit's discharge limitations are based on an average flow of 0.15 MGD. The flow for the existing Wastewater Management Plan is 0.15 MGD. For the proposed project, Frenchtown Borough has estimated that build-out of its service area (Figure 3) will result in 236 additional units being connected to the system including 25 units which are currently using septic systems. The proposed project will upgrade the WWTP to a design capacity of 0.26 MGD annual average flow which reflects the 20-year need (N.J.A.C. 7:22-10) for the project (Tables 1, 2 and 3). The Frenchtown chapter of the Hunterdon County Wastewater Management Plan is being developed to include the 0.26 MGD flow. Requests for modifications to all existing permits and approvals necessary for the plant's operation under this increase in flow will be submitted by the Borough of Frenchtown. When the Wastewater Management Plan is adopted, the Borough will apply for a modification of the NJPDES permit to accommodate the 0.26 MGD flow.

The proposed project is to replace the existing plant with a new facility that enables compliance with Delaware River Basin Commission (DRBC) Special Protection Waters and New Jersey Department of Environmental Protection (NJDEP) treatment requirements. It will also improve the quality of effluent discharged to the Delaware River and provide sufficient capacity for present and future needs of the Borough including the elimination of the remaining septic systems.

The proposed WWTP facilities are to be constructed adjacent to the existing plant, which will be demolished once the new WWTP is placed into operation with the exception of the existing pump station wet well and UV disinfection structure which will remain (Figure 4).

The proposed improvements consist of the following:

- A new, flood-proof influent pumping station with flood-tight access hatches. Pump replacement will be sized for the design peak hourly flow.
- A new combined fine screen and grit removal system ("complete plant") sized for the design peak hourly flow.
- A new oxidation ditch to provide biological activated sludge treatment and sized for the design maximum monthly flow. The tankage will be constructed as oval shaped concentric channels.

- Two new final clarifiers to settle mixed liquor suspended solids (MLSS) from the oxidation ditch effluent for return to the oxidation ditch. The final clarifiers will be sized for the design maximum monthly flow.
- New return activated sludge pumps within the new Operations Building, sized for the design maximum monthly and peak hourly flows.
- A mixed sludge storage tank, with odor control, for temporary storage of wasted MLSS to be disposed of offsite. The storage tank will be sized for the design maximum monthly solids production.
- New disc-type effluent filters designed to achieve the anticipated future effluent limitations and sized for the design peak hourly flow.
- The existing disinfection building retrofitted to provide post aeration designed to meet the anticipated future effluent dissolved oxygen limit.
- The existing UV disinfection building retrofitted with upgraded UV lamp technology designed to meet effluent limitations. The new system will be sized for the design peak hourly flow. A TideFlex-type check valve will be added to the plant effluent line to prevent river water from backing-up into the UV disinfection structure during flooding conditions. The existing Parshall flume will remain to meter the flow rate of treated effluent discharged to the Delaware River.
- A coagulant storage tank and metering pump system for phosphorus removal will be installed in the new Operations Building.

Ancillary site improvements will be installed as required to support the upgraded and expanded facility.

As a result of the construction of the proposed WWTP, the existing DPW structures on that site will be demolished. A new DPW facility is proposed to be constructed adjacent to South Washington Street (Figure 5).

III. Evaluation of Alternatives

A. No Action

Under the “No Action” alternative the Frenchtown Borough WWTP will continue to degrade. This would ultimately lead to failure over time and the remaining septic systems would be unable to tie-in to the sewer system. This alternative would also result in a degradation of the quality of the discharge being released to the Delaware River. Therefore, this alternative was not selected.

B. Upgrade with Sequencing Batch Reactor

Sequencing batch reactors (SBRs) typically have a smaller “foot print” compared to most variations of the activated sludge process and are used to provide stringent treatment. An advantage of a sequencing batch reactor (SBR) is that the cycle

times can be adjusted to optimize performance. However, under this alternative, both influent flow equalization and decant equalization would be required, and the flow must be pumped multiple times through the equalization tanks and SBR tankage. This would result in higher energy costs. Therefore, this alternative was not selected.

C. Upgrade with Extended Aeration "Package" Plant

While a package plant would have a reduced construction period, the disadvantages include a higher capital cost, higher energy costs and a shorter ultimate service life due to the use of metal tankage. Therefore, this alternative was not selected.

D. Upgrade with Constructed Wetlands

The use of Constructed Wetlands for this project would require 21.7 acres to treat an annual average flow of 0.26 and 34.2 acres would be required to treat a maximum monthly flow of 0.41. This amount of land is not available for use in this project. For this reason, this alternative was eliminated from consideration.

E. Process Change to Oxidation Ditch (Selected Plan)

As presented in detail at the beginning of this document, the proposed project consists of a process oxidation ditch with three concentric channels followed by two final clarifiers. Internal piping within the oxidation ditch would enable individual channels to be removed from service for maintenance if required.

Specialized designs can be used during severe peak flow events to ensure that the biological process is not adversely affected. An influent flow equalization tank would not be needed for this alternative, eliminating the cost of its construction and reducing energy costs. The oxidation ditch is the most energy efficient alternative. For these reasons, this alternative was selected.

IV. Environmental Consequences of the Selected Plan

A. Direct and Indirect Impacts

Water Quality and Hydrology

The technologies installed during this project will be used to provide treatment equivalent to or more stringent than the anticipated effluent limitations for the treatment plant. Properties currently using on-site systems will be able to connect to the upgraded WWTP which could prevent local groundwater contamination. Without an upgrade to the treatment plant and the ability to eliminate the

remaining septic systems within the Borough, the effluent quality could degrade over time adversely impacting the existing water quality of the Delaware River. The proposed upgrade would provide an increased level of protection to surface water and groundwater and an improved ability to comply with mandated effluent limitations. Construction activities may result in short term erosion and sedimentation of surface waters. These impacts will be minimized by requiring proper erosion control measures to be used during construction.

Plant and Animal Communities

Since the construction of the plant would primarily be within previously disturbed land, there are no anticipated long-term impacts to the plant and animal communities on the project site. The construction of the plant and DPW buildings may cause short-term impacts to the animal communities due to noise and traffic. Animals that typically use the maintained/grassland portion of the site may avoid this area and seek a similar habitat on lands adjacent to the plant during construction activities. There are no sensitive species of plants or animals on the DPW site.

Air Quality

No significant direct, long-term adverse impacts on air quality are expected as a result of this project and no significant point sources of air pollution will be created as a result of this project. Some short-term impacts on air quality may include increased vehicular emissions from construction equipment. These impacts will be temporary, localized and minimized by requiring proper operation and maintenance of construction equipment.

The proposed upgrade will reduce the potential for nuisance odors and there will be a reduction in greenhouse gas emissions due to the installation of solar panels on the WWTP and DPW buildings. There are no negative impacts to air quality anticipated from the implementation of this proposed project.

Noise

There will be some short-term, localized noise impacts during the construction period. However, this activity will be a temporary construction phase and will only be permitted Monday through Friday between the hours of 7:00 A.M. and 6:00 P.M. No driving, pulling, or other operations entailing the use of vibratory hammers or compactors will be permitted other than between the hours of 8:00 A.M. and 5:00 P.M. Other unavoidable construction related noise impacts will be minimized by requiring construction vehicles to be equipped with proper mufflers and limiting the number of machines in operation.

Cultural Resources

Stage I and Stage II cultural resources surveys were completed to evaluate the DPW and WWTP sites in Frenchtown for their potential to affect significant cultural resources, and to evaluate the archaeological sites that were found for their eligibility for listing on the New Jersey and National Registers of Historic Places. At the DPW, the Stage I survey identified two non-diagnostic artifacts, and soils disturbance was also observed. The site was registered with the New Jersey State Museum as 28HU560, but the report concluded that it did not meet the criteria for eligibility for listing on the New Jersey or National Registers of Historic Places. The Department concurred with this conclusion.

At the WWTP, a deeply buried, well-stratified prehistoric archaeological site was identified during the Stage I survey. The site was further evaluated for Register-eligibility with a Stage II survey. This site was identified as having already been registered at the New Jersey State Museum as 28HU18. Over 1700 artifacts have been recovered from this site from both the Stage I and Stage II surveys. Diagnostic stone tools indicate that the site was occupied from the Middle Archaic through the Early Woodland prehistoric periods. The core area of the site is located in the western portion of the property. Postmolds have also been identified at this site. Postmolds are features that are believed to be remains of structures that were once built on the site. The horizontal stratigraphy of the site suggests that there were two distinct periods of occupation. The preliminary interpretation of these findings is that they may represent the remains of a seasonal camp, and also the remains of a resource procurement and processing location. On the basis of these surveys, the Department has concluded that construction of the wastewater treatment plant will have an adverse effect on this site, which is eligible for listing on the New Jersey and National Registers of Historic Places. The Department is in the process of Section 106 consultation with the New Jersey Historic Preservation Office, with Native American tribes that may have an interest in this property, and the federal Advisory Council on Historic Preservation. This consultation process will culminate in a plan to mitigate the effects of construction on site 28HU18, with a plan for public dissemination of the survey findings, and also a plan for curation of the artifacts recovered in the Stage I, Stage II and any future surveys. The Department will issue a public notice relating the results of the Section 106 consultation, and the findings of any additional surveys that are conducted for this project.

Natural Resources

Upgrading the WWTP with oxidation ditch technology is anticipated to have very minor environmental impacts to natural resources. Measures will be taken to not disturb wetlands and their animal communities. The use of these technologies will allow for a high level of treatment by the WWTP. This will allow compliance

with the permit discharge limits which are designed to protect the existing water quality of the Delaware River as well as the habitat of threatened aquatic species.

All areas not being used for buildings, access roads and parking lots will be vegetated following construction activity. Since existing tankage will be removed and other pervious surfaces will be vegetated, the proposed upgrade of the WWTP will result in a net gain of pervious area.

The land on the sites of both the WWTP and the DPW is property of the Borough. No other environmental resources will be utilized to complete the project. The positive impacts of this project to natural resources include improved surface water and groundwater quality, and more pervious surfaces.

Environmentally Critical Areas

The proposed project will not result in any direct or indirect adverse impacts to any Agricultural Development Areas, important farmlands, parks and preserves, designated wild and scenic rivers, or steep slopes. Vernal habitats, Agricultural Development Areas, and coastal areas are not located on or adjacent to the sites. No significant direct or indirect adverse impacts are expected.

The 100-year floodplain boundary runs along the Delaware River on the western edge of the planning area and along the Nishisakawick Creek and Little Nishisakawick Creek. The entirety of the existing and proposed WWTP site is within the 100-year floodplain, however, disturbance will be limited to disturbance to the flood fringe. Only the southwest corner of the future DPW site (Block 60, Lot 3.04) is in the 100-year floodplain and the disturbance on this property will occur east of this area and all areas free of impervious surfaces will be vegetated.

NJDEP Landscape Project Version 2.1 mapping found Wood Turtle and Species of Special Concern Great Blue Heron habitat in the southern half of the planning area. An inquiry to the New Jersey Natural Heritage Program revealed threatened Yellow Lampmussel habitats in the area as well.

Although the Soil Survey Geographic (SSURGO) Database designates the WWTP and DPW sites as "prime farmland", this area is currently not being used for farming and the proposed upgrade will not disturb any existing farmland. Parkland is located adjacent to the site, but the project will not affect this area.

Wetlands are located outside of the area of disturbance associated with this alternative. Since the wetlands on Block 53, Lot 9.01 are associated with Wood Turtle habitat and therefore are classified as exceptional resource value wetlands, Block 60, Lot 2.01 contains land within a 150-foot transition area. This will require the Borough to obtain a Transition Area Waiver. Preliminary results of

the wetlands study found wetlands on the east side of Block 60, Lot 2 and a 150-foot transition area is recommended. Construction will be executed in ways to minimize disturbance. Wetlands are not found on or near the proposed DPW site.

Both the WWTP and the DPW are located on an important aquifer recharge area. However, because the area of impervious surfaces will be reduced on the WWTP site and minimized on the DPW site, these alternatives should not substantially reduce groundwater recharge on the sites.

Social and Economic Factors

Construction of the facilities on the WWTP and DPW sites would be of limited duration. Any short-term impacts would be minimized through the use of fugitive dust emission control measures and restriction of construction hours and no adverse long term impacts are anticipated as a result of this project.

The upgraded plant would minimize the potential for off-site nuisance odors, provide sufficient capacity to allow elimination of the remaining septic systems as well as support planned redevelopment and development. Solar panels will be installed on the buildings of the WWTP and DPW sites, which are expected to result in an energy savings. Without the project, property owners within the Borough could suffer an economic burden due to the possibility of a sewer ban/moratorium on redevelopment or new development in the sewer service area.

B. Steps to Minimize Adverse Effects to the Environment

1. Project construction areas were chosen to minimize adverse impacts to natural resources and critical areas by avoiding these areas to the extent practicable. The use of proper construction techniques and constraints will minimize and adequately mitigate any potential for adverse effects of the proposed construction on the environment. Included are:

- a. use of proper erosion and sediment control measures in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" and the "Environmental Assessment Requirements for State Assisted Environmental Infrastructure Facilities" (N.J.A.C. 7:22-10). A Soil Erosion and Sediment Control Permit will be obtained for the proposed site disturbance through the Hunterdon County Soil Conservation District);
- b. avoidance of environmentally critical areas, such as wetlands and floodplains;
- c. dust control measures;
- d. noise control measures;
- e. creation of additional pervious surface and vegetated areas; and

- f. obtaining and adhering to all necessary state permits, including a Stormwater Permit for Construction Activity, prior to the initiation of construction.

V. Coordination of the Environmental Review

A. Public Participation

A public hearing on the Frenchtown Borough Wastewater Treatment Plant Upgrade Project was held on March 9, 2011. A number of concerns were raised at this hearing regarding the proposed location of the DPW facilities, the orientation of the entrances and exits and offsite parking. As a result of the public comments, the DPW garage location was moved further away from both South Washington Street and the neighbor to the west of the site, proposed parking spaces were relocated and additional landscaping was incorporated into the DPW site proposal. No written comments were submitted.

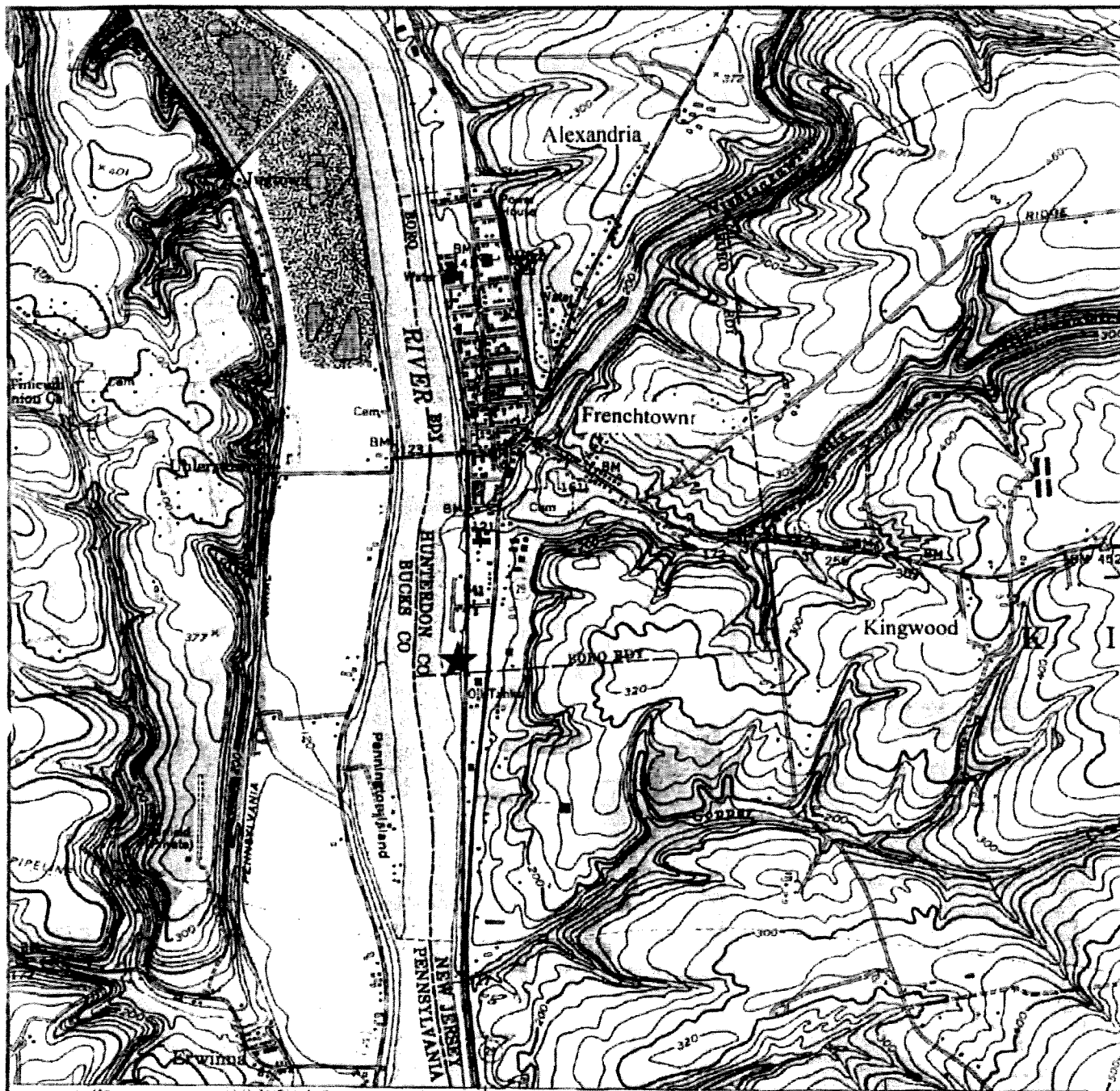
B. Agencies Consulted About the Project

1. New Jersey Department of Environmental Protection
 - a. Division of Water Quality
 - b. Office of Land Use Planning
 - c. New Jersey Environmental Infrastructure Trust
 - d. New Jersey Historic Preservation Office
2. Hunterdon County Planning Office
3. US Environmental Protection Agency Archaeologist
4. The Delaware Nation
5. The Delaware Tribe
6. The Stockbridge-Munsee Tribe

C. Reference Documents

1. Frenchtown Borough WWTP Upgrade Project Planning Document Submission, Environmental Assessment Report, prepared by Omni Environmental, LLC September 30, 2010.
2. Frenchtown Borough WWTP Upgrade Project Planning Document Submission, Project Report/Facilities Plan, prepared by Omni Environmental, LLC September 30, 2010.
3. Information for Bidders, Form for Bid, Agreement and Bonds Specifications for Frenchtown Borough WWTP Upgrade Project, prepared by Omni Environmental, March 2011.
4. Stage IA Cultural Resources Survey, Wastewater Treatment Plant Upgrade, Frenchtown Borough, Hunterdon County, New Jersey;

- by Sharon White, Richard Grubb & Associates., Inc., Cranbury, NJ. March 2011.
5. Stage IB Cultural Resources Survey, Wastewater Treatment Plant Upgrade, Frenchtown Borough, Hunterdon County, New Jersey; by Sharon White, Richard Grubb & Associates., Inc., Cranbury, NJ. May 2011.
 6. Stage II Cultural Resources Survey, Wastewater Treatment Plant Upgrade Project, Frenchtown Borough, Hunterdon County, New Jersey; by Sharon White, Richard Grubb & Associates., Inc., Cranbury, NJ. June 2011.
 7. Project correspondence.



**FIGURE 1
LOCATION MAP**

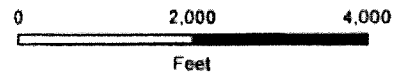
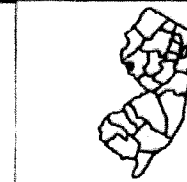
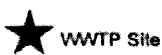
**Frenchtown Borough
Wastewater Treatment Plant**

September 2010

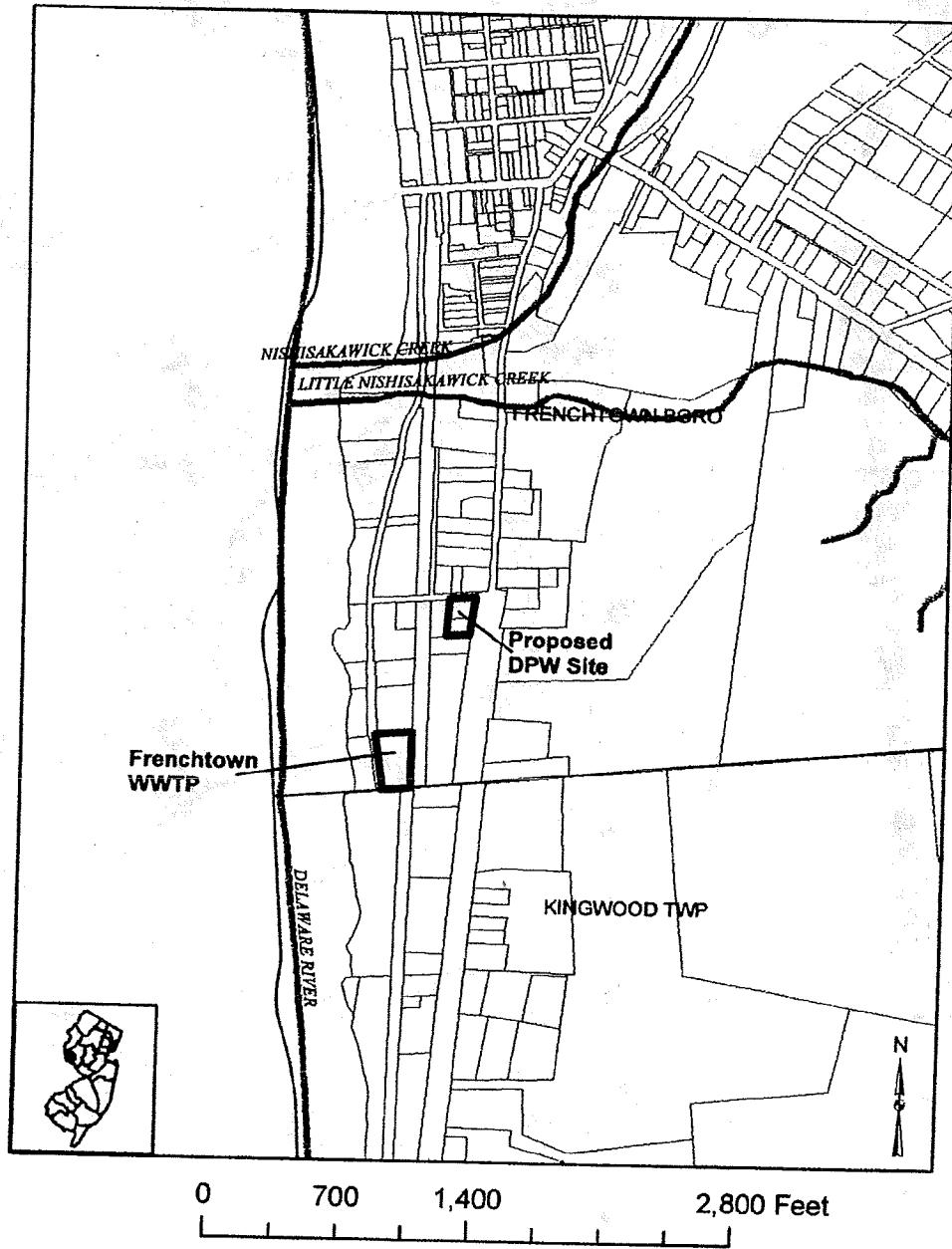


321 Wall Street
Princeton, NJ 08540
Tel: 609-924-8821
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www.Omni-Env.com

Frenchtown, NJ-PA USGS Quadrangle



Frenchtown Borough WWTP Upgrade, Expansion and Relocation



Explanation

- Municipalities
- Parcels
- - - Streams

Figure 2

Frenchtown Borough

Sewer Service Area



0 0.03 0.06 0.09 Miles

Map Prepared By:
 Hamilton County Planning Department
 Date: 8/2001
 Hamilton County Division of GIS
 Hamilton County Planning Department
 from using Department of Geomatics/Production
 Map Date: August 1, 2001

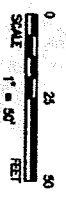
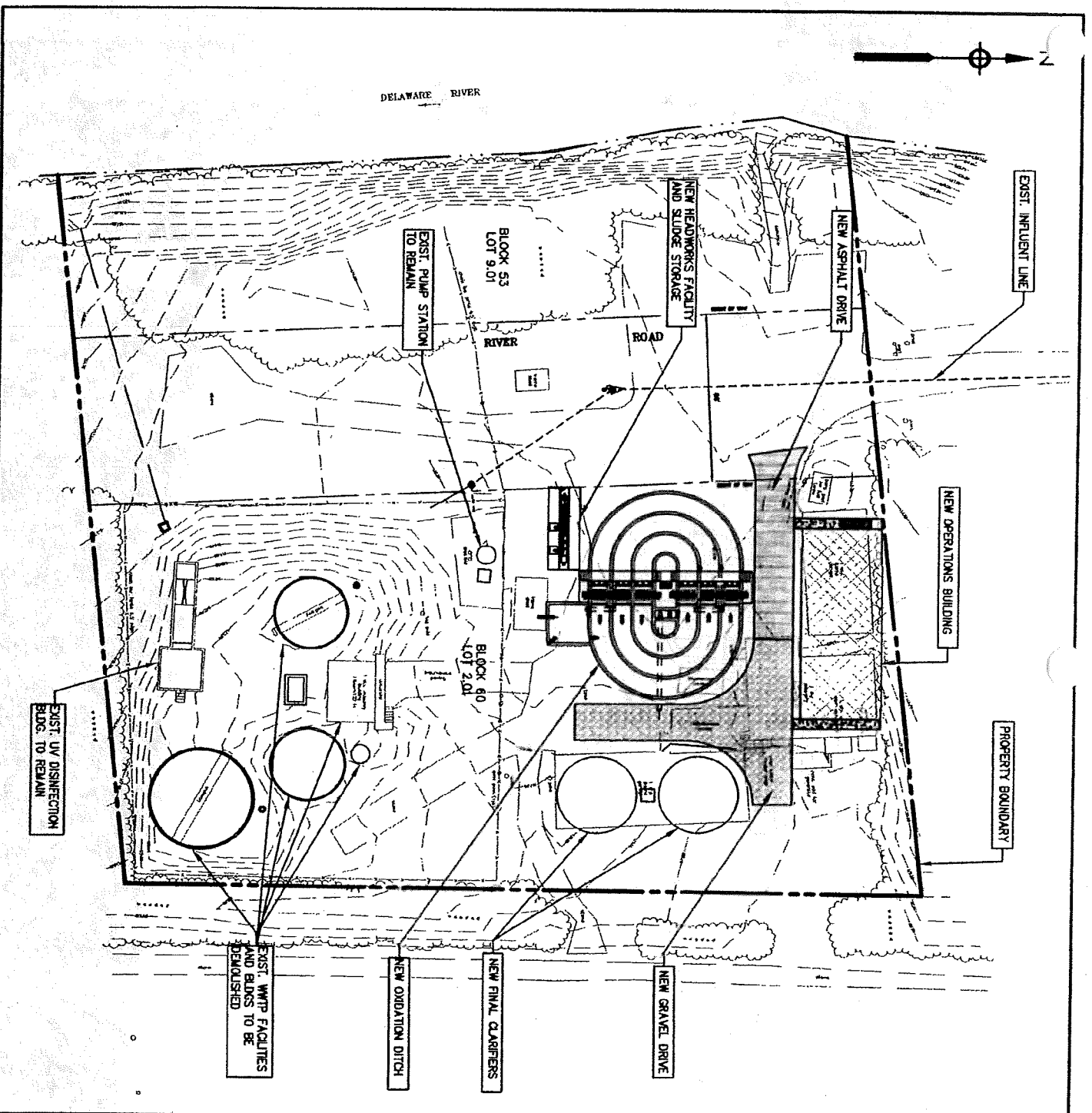
Hamilton County uses the following map projections and coordinate systems when preparing GIS data:
 Horizontal: North American Datum 1983 (NAD83)
 Vertical: North American Vertical Datum 1985 (NAVD85)
 Coordinate System: UTM Zone 18N
 Data Source: Hamilton County Planning Board

Legend

-  Proposed Frenchtown SBA
-  Parcels

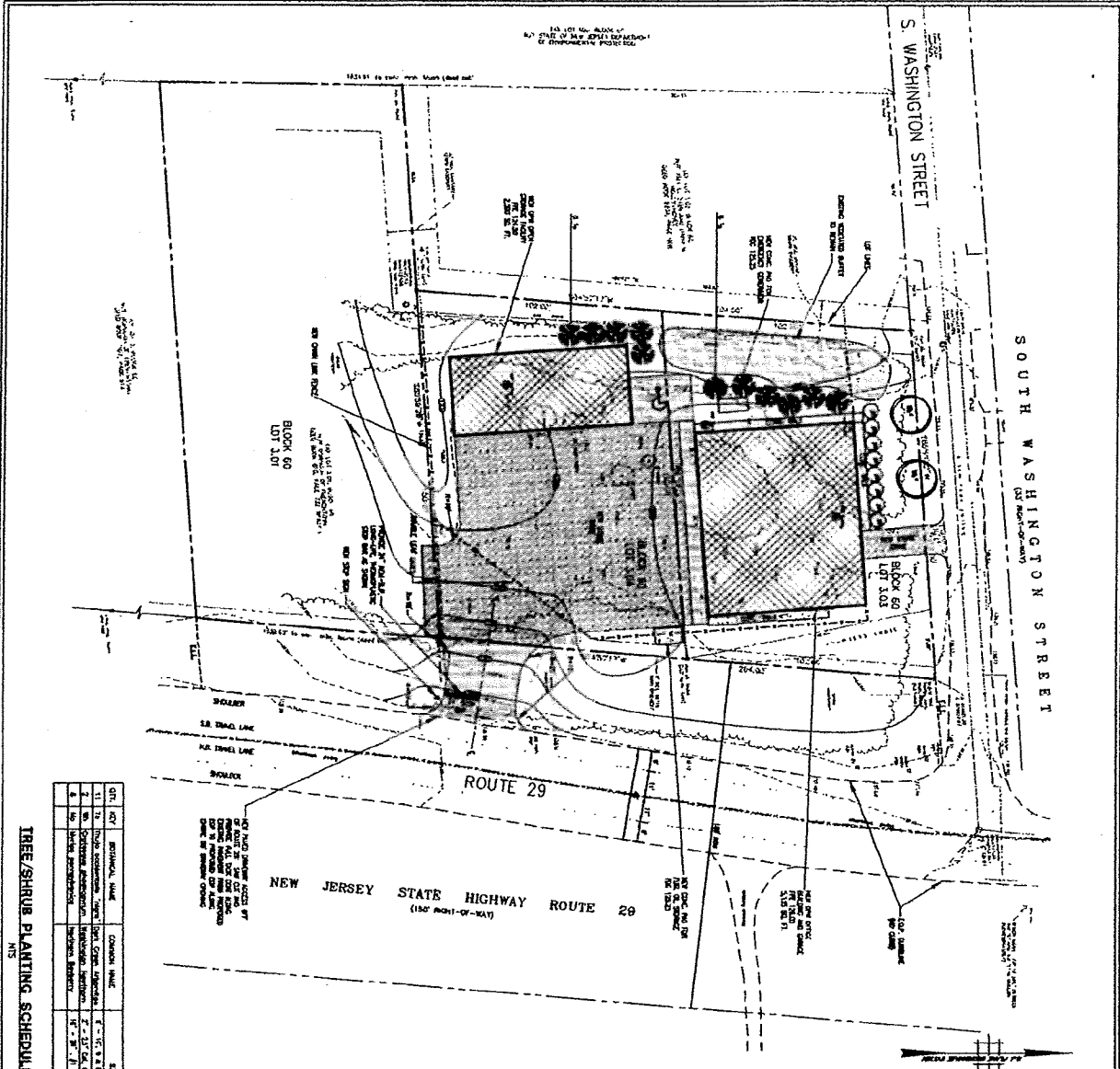
Figure 3

Figure 4
**Conceptual Site Plan
 WWTP SITE**
 Frenchtown WTP
 Frenchtown Borough
 Hunterdon County, NJ



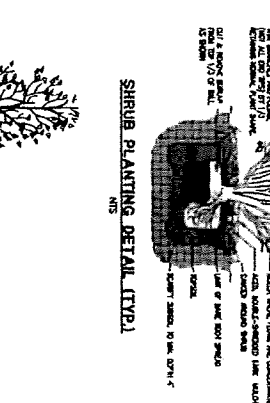
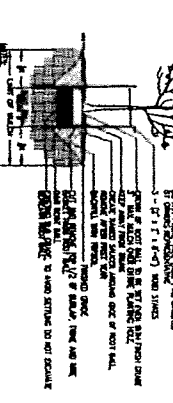
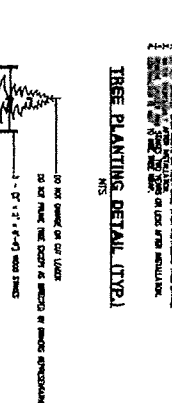
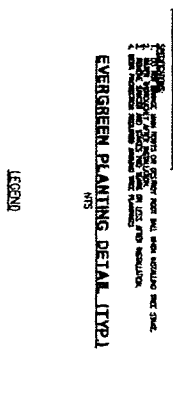
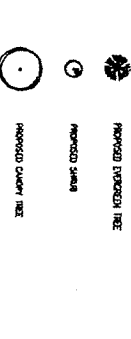
SEPTEMBER 2010

OMNI
 ENVIRONMENTAL, LLC
 121 WALL STREET PH: (609) 824-8271
 PRINCETON, NJ 08540 FAX: (609) 524-4831



TREE/SHRUB PLANTING SCHEDULE

LOT	QTY	RECOMMENDATION	COMMON NAME	SIZE
11	12	DOGWOOD	DOGWOOD	4" - 6" DBH
12	12	DOGWOOD	DOGWOOD	4" - 6" DBH
13	12	DOGWOOD	DOGWOOD	4" - 6" DBH
14	12	DOGWOOD	DOGWOOD	4" - 6" DBH
15	12	DOGWOOD	DOGWOOD	4" - 6" DBH
16	12	DOGWOOD	DOGWOOD	4" - 6" DBH
17	12	DOGWOOD	DOGWOOD	4" - 6" DBH
18	12	DOGWOOD	DOGWOOD	4" - 6" DBH
19	12	DOGWOOD	DOGWOOD	4" - 6" DBH
20	12	DOGWOOD	DOGWOOD	4" - 6" DBH



FINAL

OMNI

Figure 5

PROJECT TITLE: FRESHWATER BIODIVERSITY URBANIZATION PROJECT

PROJECT LOCATION: WASHINGTON PARSONS WASHINGTON COUNTY, NEW JERSEY

DATE: August 1, 2017

SCALE: 1" = 20'

DESIGNED BY: [Name]

DATE: [Date]

Frenchtown Borough
Proposed Sewer Service Area
Environmental Constraints Table

Zones	Description	Developed Acres	Environmentally Constrained Acres (2)	Developable Acres	# of units per Acre Allowed	Built-Out of Units	# Septic Units to be connected	Total Units	FLOW Allowance (gpd) based on the WQMP regulations	Future Flow (gpd)	census (people / unit)	Future Population
Overlay	Mixed-Use Redevelopment Overlay	17.13	2.76		Various	157		157	300	47,100		471
R-1	Low Density Residential	248.19	27.3	66.68	1	49	22	71	300	21,300		147
R-2	Medium Density Residential	67.79	0.43	1.17	1.32	5	1	6	300	1,800	3	15
R-3	Multi-family housing	6.44	0.59	0	N/A	0	0	0	300	0	3	0
R-4A	Central Commercial	15.51	0.2	1.92	N/A	0	2	2	300	600	3	0
R-4B	Transitional Commercial	2.8	0.05	0	N/A	0			0.125	0 N/A	N/A	N/A
R-4C	Satellite Commercial	3.03	0	0	N/A	0			0.125	0 N/A	N/A	N/A
R-5	Low impact Industrial	8.28	0.05	0	N/A	0			0.125	0 N/A	N/A	N/A
R-7	Open Space/Conservation	33.22	9.55	0	N/A	0			N/A	N/A	N/A	N/A
						211	25	236		70,800		633

Notes - (1) Acreage is based on zoning areas within Proposed Sewer Service Area

(2) Environmentally Constrained Acres = (Steep Slopes > 20%, Surface Water, Wetlands, Preserved Open Space / Farmland, 50/100/300 foot stream buffers).

Table 1.

**Frenchtown Borough
Future Flow Breakdown**

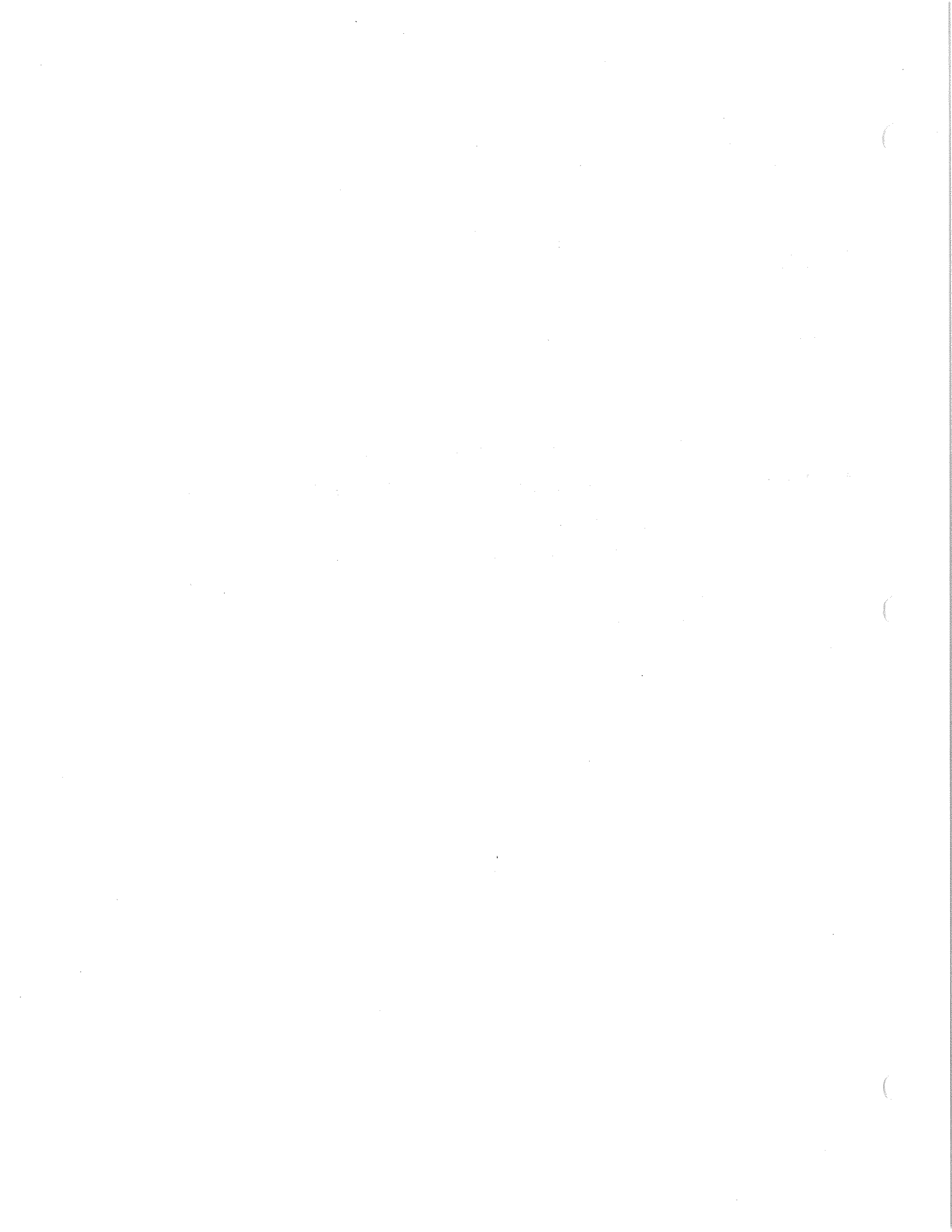
Zones	Existing Flow (gpd)	Future flow from current Septics (gpd)	Build-Out Flow from new units (gpd)	Total Future Flow
Total Residential	158,025	7,500	70,800	236,325
Total Commercial & Infiltration/Inflow	27,975	0	0	27,975
Total Industrial	0	0	0	0
Total Flow for Project Area	186,000	7,500	70,800	264,300

Table 2.

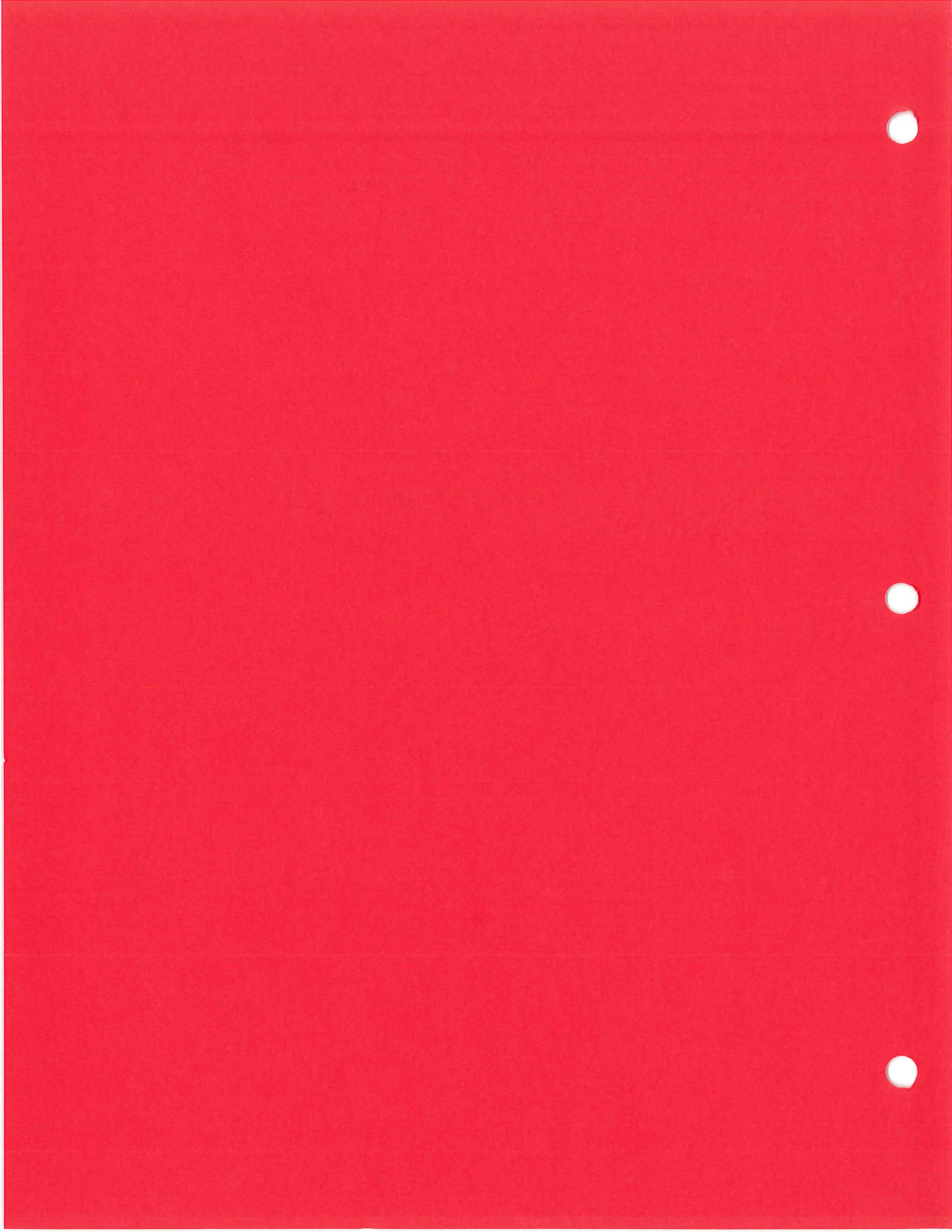
Frenchtown Borough - Population Summary

Current Population	New Sewered Units	Additional Population	Maximum Population Allowed
1373	211	633	2006

Table 3.







DOCKET NO. D-2010-021 CP-1

DELAWARE RIVER BASIN COMMISSION

Discharge to Special Protection Waters

**Frenchtown Borough
Wastewater Treatment Plant Upgrade
Frenchtown Borough, Hunterdon County, New Jersey**

PROCEEDINGS

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Omni Environmental on behalf of Frenchtown Borough on May 26, 2010 (Application), for review of a wastewater treatment plant (WWTP) modification. The New Jersey Department of Environmental Protections (NJDEP) issued a draft New Jersey Pollutant Discharge Elimination System (NJPDES) renewal permit (Permit No. NJ0029831) for this project on October 5, 2010. However, this renewal does not address the expansion nor discuss the proposed WWTP upgrades covered by this docket.

The Application was reviewed for addition of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Hunterdon County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on December 8, 2010.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to approve a complete upgrade and establish conditions for expansion of the existing Frenchtown Borough WWTP. The Frenchtown Borough WWTP is existing, but was never approved by the Commission. The WWTP is currently designed and permitted to treat an annual average flow of 0.15 million gallons per day (mgd). The proposed upgrade to the WWTP consists of replacing the existing trickling filter treatment system with a new oxidation ditch treatment system. The hydraulic design capacity of the upgraded WWTP is also being expanded from 0.15 mgd to 0.26 mgd; however, the docket holder has applied for and is awaiting planning approval from the NJDEP for the expansion.

Since the docket holder does not yet have planning approval for the expanded flow, this docket approves the upgrade of the WWTP only.

2. **Location.** The project WWTP is located on the east side of Old River Road, adjacent to the Delaware River, on the southern border of Frenchtown Borough, Hunterdon County, New Jersey. The project WWTP discharges directly to Water Quality Zone 1E, which is in the Lower Delaware Special Protection Water (SPW) Area. The project discharge is located at Delaware River Mile 164.5, which is designated as Significant Resource Waters (SRW).

The project outfall is located in the Delaware River Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 31' 2"	75° 03' 51"

3. **Area Served.** The WWTP will continue to serve Frenchtown Borough. For the purpose of defining the Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. **Physical features.**

a. **Design criteria.** The existing trickling filter treatment system is designed and permitted to discharge an annual average flow of 0.15 mgd. The proposed oxidation ditch treatment system is hydraulically designed to treat 0.26 mgd; however, the WWTP will remain at a permitted annual average flow of 0.15 mgd since the docket holder does not have planning approval for an annual average flow above 0.15 mgd.

b. **Facilities.** The existing WWTP treatment system consists of an influent pumping station, a bar screen, a primary settling tank, a trickling filter, a secondary settling tank, two (2) sand filters, ultraviolet light (UV) disinfection, and a sludge digester. The WWTP was constructed in the 1960s, with upgrades (sand filters and UV disinfection system) constructed in 1989.

The proposed project is to replace the existing trickling filter treatment system with an oxidation ditch treatment system. The proposed upgrades include a new influent pumping station, a screening and grit removal process, an oxidation ditch, two (2) final clarifiers, effluent filters, high intensity UV disinfection (to replace the existing low intensity UV disinfection), post aeration, and sludge holding.

The docket holder's wastewater treatment facility discharges to waters classified as SPW and is required to have available emergency power. The docket holder has indicated that full emergency power will be provided via a back-up diesel generator for the upgraded WWTP. The docket holder is required to submit evidence to the DRBC that emergency power

has been provided for the WWTP by June 8, 2011, or upon completion of the upgraded WWTP, whichever occurs first (see Condition II.t.).

The docket holder's wastewater treatment facility is not staffed 24 hours per day, and shall have a remote alarm system that continuously monitors plant operations. Presently, the WWTP does not have a remote alarm. The docket holder is required to submit evidence to the DRBC that a remote alarm system has been installed for the WWTP by June 8, 2011, or upon completion of the upgraded WWTP, whichever occurs first (see Condition II.t. in Section C).

The docket holder's wastewater treatment facility does not discharge to Outstanding Basin Waters (OBW), and is not required to have a nonvisible discharge plume.

The docket holder is required to prepare and implement an emergency management plan (EMP) for the WWTP and shall submit a copy of this plan to the DRBC by June 8, 2011, or upon completion of the upgraded WWTP, whichever occurs first (see Condition II.t. in Section C).

The docket holder's upgraded wastewater treatment facility is a direct discharge to SPW designated waters and is required to provide "Best Demonstrable Technology" (BDT) as a minimum level of treatment for the expanded flow (increase from 0.15 mgd to 0.26 mgd). The docket holder has indicated the upgraded WWTP will provide BDT as a minimum level of treatment for the entire design flow, and therefore meets BDT requirements for the expanded flow.

The docket holder has evaluated non-discharge and load reduction alternatives for the upgraded WWTP. The docket holder proposes that the upgraded WWTP meet the Commission-defined BDT effluent limits for the entire plant flow, which demonstrates load reduction for the WWTP. The docket holder has satisfactorily proven to the Commission the technical and/or financial infeasibility of the implementation of non-discharge alternatives.

Portions of the existing and proposed project facilities are located in the flood fringe portion of the 100-year floodplain. The docket holder has indicated that the all WWTP facilities (existing and proposed) are to be flood-proofed up to the flood protection elevation (one foot above the 100-year flood elevation). The docket holder is required to submit plans and specifications indicating that all WWTP structures located in the flood plain will be flood-proofed up to the flood protection elevation prior to construction of the project upgrades. Upon completion of construction of the WWTP upgrade, the docket holder is required to submit a statement to the DRBC, signed by the docket holder's engineer or other responsible agent, advising the Commission that the construction has been completed in compliance with the approved plans (See Condition II.k.).

Wasted sludge will continue to be hauled off-site by a licensed hauler for deposit at a (State-approved) facility.

c. **Water withdrawals.** The potable water supply in the project service area is provided by two (2) existing groundwater wells (Wells Nos. 1 and 2) owned and operated by the New Jersey-American Water Company (formerly the Frenchtown Water Company). The groundwater withdrawal is described in detail in Docket No. D-1968-115 CP-1, which was approved on September 25, 1968.

d. **NJPDES Permit / DRBC Docket.** Draft NJPDES Permit No. NJ0029831, issued by the NJDEP on October 5, 2010, includes effluent limitations for the existing project discharge of 0.15 mgd to surface waters classified by the NJDEP as Delaware River Zone 1E. This permit is a renewal of the existing discharge and does not include effluent limitations for a flow above 0.15 mgd

The following average monthly effluent limits listed in Effluent Table A-1 are among those listed in the NJPDES permit and meet or are more stringent than the effluent requirements of the DRBC. Effluent limits listed in Effluent Table A-2 are requirements for DRBC parameters that are not listed in the NJPDES permit. Effluent limits listed in Effluent Tables A-1 & A-2 are DRBC requirements that apply to the existing WWTP prior to the proposed upgrade being completed.

EFFLUENT TABLE A-1: DRBC parameters included in NJPDES permit, effective until the project upgrades are completed

OUTFALL 001 (Discharge to Water Quality Zone 1E)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NJPDES permit
Total Suspended Solids	30 mg/l (85% minimum removal)	As required by NJPDES permit
BOD (5-Day at 20° C)	30 mg/l (85% minimum removal)	As required by NJPDES permit
Ammonia Nitrogen	20 mg/l	As required by NJPDES permit
Dissolved Oxygen (D.O.)	5.0 mg/l (weekly avg. minimum)	As required by NJPDES permit
Fecal Coliform (5-1 to 9-30)	200 colonies per 100 ml	As required by NJPDES permit
Nitrate (Total as N)	Monitor & Report only	Monthly*
Total Phosphorous	Monitor & Report only	Monthly*

* DRBC Requirement

EFFLUENT TABLE A-2: DRBC parameters not included in NJPDES permit, effective until the project upgrades are completed

OUTFALL 001 (Discharge to Water Quality Zone 1E)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,000 mg/l	Monthly*
Total Nitrogen	Monitor & Report only	Monthly

* See Condition II.x in Section C.

The following average monthly effluent limits shall be effective upon completion of the upgraded WWTP.

EFFLUENT TABLE A-3: DRBC parameters effective after the project upgrades are completed

OUTFALL 001 (Discharge to Water Quality Zone 1E)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	Daily
Total Suspended Solids**	85% minimum removal, or not to exceed 10 mg/l* or 9.0 kgs/day, whichever is more stringent	Twice per month
BOD (5-Day at 20° C)**	85% minimum removal or not to exceed 10 mg/l*, whichever is more stringent	Twice per month
Dissolved Oxygen (D.O.)	6.0 mg/l* (minimum at all times)	Twice per month
Fecal Coliform (5-1 to 9-30)	50 colonies per 100 ml*	Twice per month
Ammonia Nitrogen**	Not to exceed 1.5 mg/l* or 6.5 kgs/day, whichever is more stringent	Twice per month
Nitrate as N	8.7 kgs/day	Monthly
Total Nitrogen**	Not to exceed 10.0 mg/l* or 15.2 kgs/day, whichever is more stringent	Monthly
Total Phosphorous**	Not to exceed 2.0 mg/l* or 4.1 kgs/day, whichever is more stringent	Monthly
Total Dissolved Solids***	1,000 mg/l	Monthly

* BDT Effluent Concentration Limits, as defined in Article 3.10.3A.2.d.5. of the WQR ** TSS, BOD, Ammonia, TN, and TP must meet the more stringent of the effluent limits listed: TSS (percent removal, concentration, and kilograms per day); BOD (percent removal and concentration); and Ammonia, TN, and TP (concentration and kilograms per day)

*** See Condition II.x in Section C.

e. **Cost.** The overall cost of this project is estimated to be \$8,951,000.00.

f. **Relationship to the Comprehensive Plan.** The WWTP will be added to the Comprehensive Plan via this docket.

FINDINGS

The docket holder is applying to upgrade and expand the Frenchtown Borough WWTP by replacing the existing trickling filter treatment system with an oxidation ditch treatment system. The existing Frenchtown Borough WWTP is currently designed and permitted to treat an annual average flow of 0.15 mgd; however, the WWTP has consistently operated above this annual average flow since 2001. The upgraded WWTP is being designed to treat an annual average flow of 0.26 mgd. The expansion to 0.26 mgd is intended to supply sufficient treatment

capacity to meet current needs and anticipated future development and redevelopment needs of the Borough. The docket holder does not have planning approval from the NJDEP (approved by the County-wide Wastewater Management Plan) above 0.15 mgd and is proceeding with the construction of a facility with a hydraulic design capacity of up to 0.26 mgd in anticipation that planning approval will be obtained. The docketed effluent limits in Effluent Table A-3 are based on an annual average flow rate of 0.15 mgd. Future expected effluent limits for a flow up to 0.26 mgd are included in Effluent Table B-3 for informational and planning purposes. Upon receipt of planning approval by the NJDEP for the expanded flow up to 0.26 mgd, the docket holder is required to submit an application to the DRBC for an approval to re-rate the WWTP from 0.15 mgd to 0.26 mgd.

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC Water Quality Regulations (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area, known as the Upper/Middle Delaware River SPW area.

On January 19, 2005, September 26, 2005, September 27, 2006, and May 14, 2008, the DRBC approved interim amendments to its Water Quality Regulations that provide increased protection for downstream waters that the Commission classifies as Special Protection Waters. On July 16, 2008, the DRBC approved permanent amendments to its Water Quality Regulations that included the portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area. This area was approved for Special Protection Waters designation and definitions and terms were clarified and updated for the entire program.

The docket holder's WWTP discharges to the Delaware River Water Quality Zone 1E, which is a portion of the Lower Delaware River and is designated as Special Protection Waters. Therefore, the docket holder's WWTP discharge is required to comply with the Special Protection Waters requirements, as outlined in Article 3.10.3A.2. of the WQR.

Existing WWTPs directly discharging to SPW are required to perform a Non-Discharge Alternatives (NDA) and Load Reduction Alternatives (LRA) analysis when they propose "*Substantial Alterations or Additions*" (as defined in WQR Section 3.10.3A.2.a.). Additionally, existing WWTPs located in any SPW area are required to perform a Natural Treatment Alternatives (NTA) analysis when they propose "*Substantial Alterations or Additions*". The upgrade of the treatment system from trickling filter to an oxidation ditch and the WWTP expansion is considered to be a "*Substantial Alteration or Addition*". The docket holder submitted a report entitled "Natural Treatment Alternatives (NTA) Analysis, Non-Discharge Alternatives (NDA) Analysis, Load Reduction Alternatives (LRA) Analysis (NTA/NDA/LRA

Report), dated November 18, 2010, prepared by Omni Environmental LLC, indicating the following:

The existing WWTP is located on Block 60, Lot 2.01 in Frenchtown Borough. The site is bound by River Road to the west (beyond which lies the Delaware River), the Delaware & Raritan Canal to the east, a Frenchtown Borough residential property to the north, and Kingwood Township to the south. Additionally, Frenchtown Borough owns Block 53, Lot 9.01 to the west of the WWTP (situated between the River Road right-of-way and the Delaware River) and Block 60, Lot 3 (situated between the D&R Canal and State Highway Rout 29 right-of-way to the east of the WWTP).

The current WWTP lot (Block 60, Lot 2.01) contains the existing WWTP and Frenchtown Borough Dept. of Public Works (DPW) buildings. The docket holder investigated using the existing lot for non-discharge and natural treatment alternatives; however, the available portion of the lot was not large enough to accommodate natural treatment alternatives (such as constructed wetlands) or non-discharge alternatives (such as spray irrigation). Additionally, the report indicates that soil conditions in Frenchtown Borough are poor and consist of a shallow layer of silty/sandy surface materials underlain by stiff to hard clayey silts, with rock is encountered 9 to 14 feet below grade. Such soils are not conducive towards infiltration rates required for many of the natural treatment and non-discharge alternatives.

The existing WWTP is proposed to remain in service until the replacement WWTP is constructed, and therefore this portion of the lot is unable to be used for natural treatment or non-discharge alternatives. The remainder of the lot is not large enough to accommodate natural treatment or non-discharge alternatives. The docket holder investigated using the adjacent lots owned by Frenchtown Borough (Block 53 Lot 9.01 and Block 60, Lot 3). The Delaware River 100-year regulatory floodway, as defined on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map No. 34019C0214F (effective date September 25, 2009) is located on approximately half of Block 53 Lot 9.01 and the remaining portion of the lot is not large enough to accommodate natural treatment or non-discharge alternatives. The entirety of Block 60, Lot 3 has been identified as Threatened and Endangered (T&E) species habitat for Wood Turtle, and although construction in T&E habitat is not prohibited, the lengthy regulatory permitting process combined with the immediate need to address capacity issues make the development of this property prohibitive.

The docket holder's upgraded wastewater treatment facility is a direct discharge to SPW designated waters and is required to provide "Best Demonstrable Technology" (BDT) as a minimum level of treatment for the expanded flow (increase from 0.15 mgd to 0.26 mgd). The docket holder proposes that the upgraded WWTP meet the Commission-defined BDT effluent limits for the entire plant flow, which demonstrates load reduction for the WWTP. These BDT effluent limits are included in Effluent Table A-3 of this docket, and therefore the docket holder has demonstrated there will be a significant load reduction as a result of the proposed project.

The docket holder indicated that the WWTP site does not have available land or suitable soils for the construction of non-discharge or natural treatment alternatives. DRBC staff agree with this assessment.

Grandfathered Load

DRBC WQR Section 3.10.A.2.d.8. reads in part:

“For wastewater treatment facilities within the drainage area to Special Protection Waters, the actual loads and design flows included in a NDPES permit or docket effective at the time of Special Protection Waters designation (“SPW designation”) may continue without triggering the additional treatment requirements and alternatives analysis required by these regulations. However, when Substantial Alterations or Additions as defined herein are proposed, ... the actual discharge at the time of SPW designation remains exempt from additional requirements, the proposed expansion cannot be approved until... the applicant demonstrates that the project will cause no measurable change (NMC) to Existing Water Quality (EWQ) as defined herein”.

The project upgrade is considered by the DRBC as a “*Substantial Alteration or Addition*”, since the definition in Article 3.10.3A.2.a.16. provides for “*a complete modernization of an existing WWTP*”. As stated in the paragraph above, “*the actual discharge at the time of SPW designation remains exempt from additional requirements*”. The actual load at the time of SPW designation (2005 for the Lower Delaware River SPW area), is referred to as the “grandfathered load”. The parameters for which NMC to EWQ must be demonstrated are: Total Suspended Solids (TSS), Ammonia Nitrogen (NH₃-N), Nitrate as Nitrogen (NO₃- N), Total Nitrogen (TN), and Total Phosphorous (TP).

For a typical WWTP located in the SPW, the grandfathered load is estimated by using the WWTP average historical flow and concentration sampling data to calculate the pollutant load that the WWTP was discharging at time of SPW designation, in pounds per day or kilograms per day. For the Lower Delaware River, which was designated as SPW in 2005, SPW dischargers have been asked to provide sampling data for the years leading up to SPW designation (2000-2004) in order to establish the grandfathered load. The Frenchtown Borough WWTP submitted sampling data for this time period for the following parameters: TSS, Ammonia, and Phosphorous. The docket holder did not monitor for the remaining two (2) parameters prior to SPW designation (Nitrate and Total Nitrogen). However, the current treatment technology has not been modified since 2005. Commission Staff have determined that in the case that the WTWP does not have effluent data for the time of SPW designation, current effluent data may be used in lieu of the 2005 data if the existing WWTP treatment technology operations and flow conditions are similar to those at the time of designation.

Note: The Frenchtown Borough WWTP operated above its permitted annual average flow of 0.15 mgd since 2001. The maximum average annual flow rate during the years 2001 and the year of SPW designation (2005) was 0.22 mgd, which occurred in 2004. DRBC staff used

actual effluent concentrations and permitted flow to establish grandfathered load. Because the WWTP experienced annual average flows above the permitted design flow, the load limits for the proposed upgrade will be based on grandfathered load plus an additional incremental load. This incremental load will account for the additional flow above the permitted flow (0.22 mgd – 0.15 mgd = 0.07 mgd) and is calculated using this difference (0.07 mgd) and BDT effluent concentrations.

The docket holder submitted effluent concentration data for the SPW parameters, indicated in the table below. Grandfathered Load is calculated as the grandfathered flow (0.15 mgd), multiplied by the sampling data effluent concentration of each pollutant, multiplied by a conversion factor (3.79): Grandfathered Load (kilograms/day) = Grandfathered Flow (mgd) X Effluent Concentration (mg/l) X 3.79. Incremental Load (kilograms/day) = [difference between permitted design flow (0.15 mgd) vs. maximum average annual flow (0.22 mgd)] X BDT Effluent Concentration (mg/l) X 3.79. Total Load = Grandfathered Load + Incremental Load

TABLE B-1: Frenchtown Borough Grandfathered Load

	TSS*	NH3-N*	NO3- N ***	TN ***	TP **
Avg. Eff. Conc. (mg/l)*	11.0	10.8	N/A*****	21.9	6.4
Grandfathered Load (kg/d)	6.3	6.1	N/A*****	12.5	3.6
BDT (mg/l)****	10.0	1.5	N/A*****	10.0	2.0
Incremental Load (kg/d)	2.7	0.4	N/A*****	2.7	0.5
Total Load (kg/d)	9.0	6.5	8.7*****	15.2	4.1

* Ammonia and TSS effluent data was collected during the years 2000-2004

** Total Phosphorous effluent data was collected during the years 2004-2010

*** Nitrate and Total Nitrogen effluent data was collected in 2010

**** BDT Effluent Concentration Limits, as defined in Article 3.10.3A.2.d.5. of the WQR

***** The Commission does not have a BDT effluent concentration value for Nitrate. Commission staff has indicated that Nitrate total allowable load should not exceed the difference between total loads for Total Nitrogen and Ammonia (15.2 kg/day - 6.5 kg/d = 8.7 kg/day)

The above calculated load (kilograms per day) restrictions are included in Effluent Table A-3 in Section A of this docket, effective after the upgraded WWTP goes into operation.

WWTP Expansion - Projected Effluent Limits

The docket holder has indicated that they have applied for and are awaiting planning approval from NJDEP for a flow up to 0.26 mgd. As indicated earlier, this docket restricts the discharge based on 0.15 mgd (Effluent Table A-3). Once the increase in flow rate has been approved, the docket holder must apply to the DRBC to re-rate the upgraded/expanded WWTP. In order to design the proposed upgrade in anticipation of a future re-rate to 0.26 mgd, the docket holder has requested the Commission to provide them with projected effluent limits for the expanded flow.

The above-mentioned grandfathered load is applicable for a flow up to 0.15 mgd. Any expansion above 0.15 mgd must meet the requirements of no measurable change (NMC) to existing water quality (EWQ). Article 3.10.3A.2.d.5. of the WQR states that “*the minimum level of wastewater treatment for the following categories of projects will be “Best Demonstrable Technology” as defined below: all new wastewater treatment facilities or substantial alterations or additions to existing wastewater treatment facilities when the new or expanding facility discharges directly to Outstanding Basin Waters or Significant Resource Waters*”.

The Frenchtown Borough WWTP discharges directly to the Significant Resource Waters (SRW). The upgrade of the WWTP and the future expansion to 0.26 mgd is considered a substantial alteration or addition and an expanding facility. The docket holder has also requested effluent limits for a design flow up to 0.26. A minimum of Best Demonstrable Technology (BDT) applies to the portion of the flow greater than 0.15 mgd, referred to as the incremental flow. DRBC staff has indicated that based on the location of the WWTP and WWTP design flow, meeting BDT for the incremental flow will satisfy the no measurable change (NMC) to existing water quality (EWQ) requirement for the expansion. The incremental flow is calculated as the peak design flow (0.26 mgd) – the current permitted flow (0.15 mgd) = 0.11 mgd. The following table lists the allowable incremental load, based on the additional flow of 0.11 mgd, and the future expansion allowable load, calculated as the incremental load plus the grandfathered load. The establishment of grandfathered load is discussed in the previous section.

TABLE B-2: Frenchtown Borough Incremental Load and Future Expansion Allowable Load

	TSS	NH3-N	NO3 -N	TN	TP
BDT (mg/l)*	10.0	1.5	N/A**	10.0	2.0
Incremental Load (kg/day) ***	4.2	0.6	N/A**	4.2	0.8
Grandfathered Load (kg/day)	6.3	6.1	N/A**	12.5	3.6
Total Load	10.5	6.7	10.0	16.7	4.4

* BDT Effluent Concentration Limits, as defined in Article 3.10.3A.2.d.5. of the WQR

** The Commission does not have a BDT effluent concentration value for Nitrate. Commission staff has indicated that Nitrate total load should not exceed the difference between total loads for Total Nitrogen and Ammonia (16.7 kg/day - 6.7 kg/d =10.0 kg/day)

*** Incremental Load (kilograms/day) = Incremental Flow (0.11 mgd) X BDT Effluent Concentration (mg/l) X 3.79

The following table lists the allowable load for the WWTP design flow for the future expansion up to 0.26 mgd. Note: This information is provided for planning purposes only. This docket approves effluent and load limits based on flow up to 0.15 mgd. Once the docket holder receives planning approval for a flow up to 0.26 mgd, the docket holder must submit an application to re-rate the WWTP and obtain DRBC approval for effluent and load limits for a flow above 0.15 mgd.

EFFLUENT TABLE B-3: Frenchtown Borough Effluent Limits for the expanded flow, based on the design flow (0.26 mgd)

OUTFALL 001 (Discharge to Water Quality Zone 1E)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	Daily
Total Suspended Solids***	85% minimum removal, or not to exceed 10 mg/l* or 10.5 kgs/day**, whichever is more stringent	Twice per month
BOD (5-Day at 20° C)	85% minimum removal, or not to exceed 10 mg/l*, whichever is more stringent	Twice per month
Dissolved Oxygen (D.O.)	6.0* (minimum at all times)	Twice per month
Fecal Coliform (5-1 to 9-30)	50 colonies per 100 ml*	Twice per month
Ammonia Nitrogen***	Not to exceed 1.5 mg/l* or 6.7 kgs/day**, whichever is more stringent	Twice per month
Nitrate as N	10.0 kgs/day	Monthly
Total Nitrogen***	Not to exceed 10.0 mg/l* or 16.7 kgs/day**, whichever is more stringent	Monthly
Total Phosphorous***	Not to exceed 2.0 mg/l* or 4.4 kgs/day**, whichever is more stringent	Monthly
Total Dissolved Solids****	1,000 mg/l	Monthly

* BDT Effluent Concentration Limits, as defined in Article 3.10.3A.2.d.5. of the WQR

** Design Allowable Load calculated as the Grandfathered Load (Table B-1) + the Incremental Load (Table B-2)

*** TSS, BOD, Ammonia, TN, and TP must meet the more stringent of the effluent limits listed: TSS (concentration, percent removal, and kilograms per day); BOD (concentration and percent removal); Ammonia, TN, and TP (concentration and kilograms per day); and Ammonia (concentration and kilograms per day)

**** See Condition II.x in Section C.

Article 3.10.3A.2.e.1). and 2). of the DRBC WQR states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The service area of the docket holder is located within in the drainage area to the Special Protection Waters. Since this project does entail additional construction (i.e., there are new or increased non-point source loads associated with this approval), the non-point source pollution control plan requirement is applicable at this time. Accordingly, Special Condition II.s. has been included in the Decision section of this docket.

The docket holder's service area is not proposed to be expanded or modified as part of the proposed project. However, connections from any new development within the service area

or additions to the docket holder's service area must provide a NPSPCP for the additional connections or service area. Accordingly, Special Condition II. r. has been included in the Decision section of this docket.

The limits in the NJPDES Permit for the existing discharge are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the *Water Quality Regulations* of the DRBC.

At the project site, the Delaware River has an estimated seven-day low flow with a recurrence interval of ten years of 1,103 mgd (1,710 cfs). The ratio of this low flow to the design wastewater discharge from the WWTP is 4200:1.

The nearest surface water intake of record for public water supply downstream of the project discharge is the Forest Park, Point Pleasant Diversion on the Delaware River, located approximately seven (7) miles downstream.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

C. DECISION

I. Effective on the approval date for Docket No. D-2010-021 CP-1 below, the project and the appurtenant facilities described in the Section A "Physical Features" of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A "Physical features" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the NJDEP in its NJPDES permit and Treatment Works Approval, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the *Water Quality Regulations* of the DRBC.

d. The docket holder shall comply with the requirements contained in Effluent Tables A-1 and A-2 in Section A.4.d. of this docket. Upon completion of the construction of the upgrades approved in this docket, the docket holder shall comply with the requirements contained in Effluent Table A-3 in Section A.4.d. of this docket. The docket holder shall submit DRBC required monitoring results directly to DRBC (Project Review Section). The monitoring results shall be submitted annually absent any observed limit violations (by January 31st). If a DRBC effluent limit is violated, the docket holder shall submit the results and provide a written explanation within 30 days of the violation and the action(s) the docket holder has taken to correct the violation and protect against a future violation.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

f. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

g. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

h. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F.

i. Sound practices of excavation, backfill and reseeded shall be followed to minimize erosion and deposition of sediment in streams.

j. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date.

k. Upon completion of construction of the approved project, the docket holder shall submit a statement to the DRBC, signed by the docket holder's engineer or other responsible agent, advising the Commission that the construction has been completed in compliance with the approved plans, giving the final construction cost of the approved project and the date the project is placed into operation.

l. The WWTP modifications shall be completed within three years of approval of this docket or the docket holder shall demonstrate to the Executive Director that it has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval. If the modifications have not been completed within three years of Docket Approval

and the docket holder does not submit a cost analysis demonstrating substantial funds have been expended, Commission approval of the modifications to the existing WWTP shall expire and all other conditions and requirements shall remain effective. The docket holder shall file a new application with the Commission and receive Commission approval prior to initiating construction of any modifications to the WWTP.

m. The docket holder is permitted to treat and discharge the categories of wastewaters defined in the "Area Served" section of this docket.

n. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish, wildlife, or aquatic life and shall avoid any injury to public or private property.

o. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

p. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

q. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

r. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

s. Prior to construction of the WWTP upgrade, the docket holder shall submit and have approved by the Executive Director of the DRBC, a Non-Point Source Pollution Control Plan in accordance with Article 3.10.3A.2.e.1). and 2). of the Water Quality Regulations, Administrative Manual - Part III.

t. The docket holder shall provide for emergency power, install remote alarm controls, and prepare an emergency management plan (EMP) within six months of docket approval (or upon completion of the upgraded WWTP, whichever occurs first.) The docket holder shall certify in writing to the Commission that it has complied with this condition by June 8, 2011.

u. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration

date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

v. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

w. The docket holder and any other person aggrieved by a reviewable action or decision taken by the Executive Director or Commission pursuant to this docket may seek an administrative hearing pursuant to Articles 5 and 6 of the Commission's *Rules of Practice and Procedure*, and after exhausting all administrative remedies may seek judicial review pursuant to Article 6, section 2.6.10 of the *Rules of Practice and Procedure* and section 15.1(p) of the Commission's *Compact*.

x. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

y. Nothing in this docket constitutes a defense to any penalty action for past conduct of the docket holder.

BY THE COMMISSION

DATE APPROVED: December 8, 2010

EXPIRATION DATE: December 31, 2015 (Expected future NJPDES expiration)

