Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

September 17, 2012

Mark Hollowell, Director
Board of Public Works
49 Whiting Street
North Attleborough, MA

Re: CWSRF – 3390

Dear Mr. Hollowell:

The MassDEP Municipal Services, in consultation with the Department of Housing and Community Development, has completed its review of the **Smart Growth Controls** you proposed in your letter of April 30, 2012 to me, to satisfy the requirements in applying for a zero interest subsidy for your SRF project. DMS finds for this item follows:

1. **Smart Growth Controls:** North Attleborough has proposed Flow Neutral Regulations, which should limit unchecked increase in wastewater flow. The proposed draft regulations are acceptable upon addressing the following issue and specifically including it within the regulation. The cover memo you submitted states in paragraph three "Applicants seeking to alter the Sewer Service Area would be responsible for filling a Notice of Project Change with the MEPA office as well as establishing the burden of proof to demonstrate need and public benefit." The North Attleborough BPW must be the applicant in filling a Notice of Project Change for amending its CWMP. It's acceptable if the cost of doing so is to be paid by the applicant. Finally, you need to provide MassDEP with a certified copy that the by law has been adopted.

   Secondly, you need to provide MassDEP satisfactory documentation that extends this bylaw requirement onto the Town of Plainville. Growth control is required throughout the service area, and that extends into Plainville.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868
MassDEP Website: www.mass.gov/dep

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In communications between Jack Hamm of my staff and you and your staff, DMS has determined that North Attleborough satisfies the remaining items needed for a complete application. Specific findings for each criterion are explained:

2. **CWMP:** North Attleborough has completed a Comprehensive Wastewater Management Plan (CWMP), with a specific focus on nutrient management for compliance with the new NPDES permit.

3. **Project Purpose:** North Attleborough has documentation that can satisfy that the project CWSRF – 3390, is intended to mitigate the impact of nutrient enrichment to the river that the town's wastewater treatment plant discharges MassDEP concurs that $364,000 of the project cost is non nutrient related while the remainder of $21,556,000 is nutrient management-related. Please submit as final the draft cost item analysis provided earlier.

4. **Regional Water Resources Management Plan:** Presently, there is no active regional water resources management plan covering North Attleborough, so the provision is not applicable.

5. **Enforcement:** North Attleborough is not subject to any state or federal compliance or court order concerning the project, and therefore meets the threshold for this provision. You will need to note in the application that you are under a schedule with EPA ; however, the program does not interpret that schedule as an enforcement action forcing you to implement the project.

To continue the application process requires that North Attleborough submit a supplemental Clean Water State Revolving Fund Loan Application Addendum that can be found on the DMS website, along with the documentation directed in the application and identified above. The completed application must be submitted to the program no later than February 1, 2013, which is the last date for North Attleborough to submit an application for the zero interest subsidies for this project. Upon successfully completing the application process, Mass DEP Municipal Services will work with North Attleborough and the Water Pollution Abatement Trust to facilitate the financing.

Sincerely,

Steven J. McCurdy
Director, MassDEP Municipal Services

Cc: Elaine Wijnja, DHCD

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Commissioner

February 6, 2012

Mr. Mark Hollowell
Department of Public Works
Town of North Attleborough
49 Whiting Street
North Attleborough, MA 02760

RE: North Attleborough
Comprehensive Wastewater Management Plan and
Environmental Impact Report

Dear Mr. Hollowell:

The Massachusetts Department of Environmental Protection (MassDEP), in response to a request made in your behalf by Tighe & Bond, Inc., has reviewed the Final Environmental Impact Report and Comprehensive Wastewater Management Plan (FEIR/CWMP) for the above referenced project. This report documents the wastewater facilities planning for wastewater treatment and is titled as follows:

FINAL ENVIRONMENTAL IMPACT REPORT /
COMPREHENSIVE WASTEWATER MANAGEMENT PLAN UPDATE
NORTH ATTLEBOROUGH, MASSACHUSETTS
AUGUST 2010
TIGHE&BOND, INC.

This FEIR/CWMP is the final report of a series of documents prepared for the wastewater facilities planning which included the following documents: Phase I, Needs Analysis; Phase II, Screening of Alternatives; Phase III, Draft Comprehensive Wastewater Management Plan / EIR; and Phase IV, Final EIR/CWMP.

On November 12, 2010 the Secretary of Environmental Affairs issued the certificate that the FEIR, EOEA # 11869, adequately and properly complies with the Massachusetts Environmental Policy Act General Law Chapter 30, Section 61-62H and with its implementing regulations.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868
MassDEP Website: www.mass.gov/dep

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In accordance with the foregoing review processes, the Department finds that the FEIR/CWMP satisfies the planning requirements of the Clean Water State Revolving Fund (CWSRF) Program for Water Pollution Abatement Projects set forth in 310 CMR 44.08, and hereby approves the documents on that basis.

Please note that this approval does not represent a commitment by the Department or the Water Pollution Abatement Trust to award financial assistance; nor does it constitute a determination of the project's eligible costs.

If you have any questions or if we can be of any further assistance please to contact Lilla Dick at (617) 556-1083.

Sincerely,

For the Division of Municipal Services
John Felix
Deputy Director

For the Bureau of Resource Protection
Southeast Regional Office
Jonathan Hobill
Deputy Regional Director

cc: Lilla Dick DEP/BOS
ecc: Christopher Bone, Tighe & Bond, Inc.
Dick Keith, DEP/CERO
David Burns, DEP/CERO
Jack Hamm, DEP/BOS

TO: Steven McCurdy, Director SRF Program

CC: Jack Hamm

EC: Brian Dudley, Dave Burns

FROM: Jim McLaughlin

DATE: June 4, 2012

RE: NORTH ATTLEBOROUGH CWMP NUTRIENT-BASED PROJECT REVIEW

PROPOSED PROJECT: Structural and process upgrades to the North Attleborough Wastewater Treatment Facility (WWTF) and upgrades to 8 pumping stations, CWSRF-3390

PROJECT GOALS: Nutrient discharge reduction to levels allowed by a newly-issued EPA NPDES permit.

REVIEW SUMMARY: The proposed work at the WWTF qualifies as a "Nutrient Removal Project" as defined by the SRF regulations at 310 CMR 44.03. The project is required to comply with a new NPDES permit, which is a defined condition of a "Nutrient Removal Project." The project, permit, and nutrient removal analysis are part of a larger CWMP that has undergone extensive public and Department review.

CWMP LINKAGE: The North Attleborough FEIR/CWMP Update dated August 2010, identifies upgrades necessary at the WWTF to meet the increasingly stringent NPDES permit limits imposed by EPA. The treatment plant work is described in Section 7.5 beginning on page 7-14 of the CWMP. A MEPA certificate (EOEEA #11869) for the entire CWMP was issued on November 12, 2010. The CWMP was accepted by the Department by a letter dated February 6, 2012, jointly signed by John Felix and Jonathan Hobill.

PEF: North Attleborough's consultant, Tighe & Bond, submitted a Project Evaluation Form for a project titled, "North Attleborough WWTF Upgrade and I/I Removal", that earned inclusion on the Department's 2010 IUP. The project identification number is CWSRF 3390.

NPDES PERMIT: MA0101036 issued by EPA on January 4, 2007

EPA ENFORCEMENT: EPA Administrative Order (AO) 08-018 issued against North Attleborough on June 11, 2008, outlines steps the Town must take to gain compliance with the new, more stringent NPDES permit. The AO is the result of new permit limits, and is not the result of violating previously-existing requirements, as allowed for consideration of 0% financing by 310 CMR 44.04(2)(a).

TOWN OF NORTH ATTLEBOROUGH, MASSACHUSETTS

BOARD OF PUBLIC WORKS

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49 Whiting Street, North Attleborough, MA
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www.north-attleboro.ma.us

MARK L. HOLLOWELL, DIRECTOR

April 30, 2012

Steven McCurdy
MassDEP Division of Municipal Services
One Winter Street – 6th Floor
Boston, MA 02108

Re: North Attleborough – Growth Neutral Land Use Controls

Dear Mr. McCurdy:

The Board of Public Works is adopting new Sewer Use Regulations that will ensure managed growth and prevent excessive growth based on availability of municipal sewer service.

In November 2010, the Executive Office of Energy and Environmental Affairs approved the Town's Comprehensive Wastewater Management Plan Update and Environmental Impact Report (CWMP). In that report, the Town designated the extent of the Sewer Service Area. This service area included discrete 'study areas' in town not presently connected to the sewer system. The study areas were analyzed based on average lot size, soils conditions, age of existing residences and septic systems and available septic pumping records. As part of the CWMP, the Town quantified anticipated sewer flows from these areas based on current zoning regulations in effect. Selected sewer study areas were included in the Sewer Service area based on needs criteria established by the Town. The Sewer Service Area map and the anticipated flows are included in the regulation for adoption.

The Sewer Use Regulations to be adopted by the Board of Public Works delineates and designates the Sewer Service Area and would limit the total amount of sewer flow to be allocated to these individual areas. Areas not contained within the Sewer Service Area would not be eligible for municipal sewer. Applicants seeking to alter the Sewer Service Area would be responsible for filing a Notice of Project Change with the MEPA office as well as the burden of proof to demonstrate need and public benefit. After receiving approval for the project change, the Applicant would require a 2/3 majority Town Meeting vote in order to alter the Sewer Service Area and to re-allocate the designated flows from the existing areas. In this manner, the legislative body of the Town has the sole ability to alter the Sewer Service Area.

The North Attleborough Advanced Wastewater Treatment Facility is currently operating just below its permitted capacity. The Board of Public Works is taking aggressive action to detect and remove extraneous flow from the system in order to restore plant capacity. The amendments to the existing Sewer Use Regulations also include requiring all applicants for

new connections or extensions within the Sewer Service Area to effect flow offsets in a ratio of 5 gallons removed for each proposed additional gallon of wastewater flow to the system. Applicants may elect to physically perform repairs on system deficiencies identified by the Sewer Department or pay a Capacity Fee which will provide funding for the Department to use for system capacity improvements.

These new regulations are for the sole purpose of limiting and controlling residential and/or commercial development in order to manage the limited remaining capacity at the WWTF. The study areas chosen in the Sewer Service Area were chosen based on the presence of existing homes and prioritized based on the likelihood of existing septic system or cesspool failure based on 310 CMR 15.000 criteria. The greater portion of open, undeveloped properties in the Town of North Attleborough were excluded from the service area in an effort to control unchecked growth, protect the resource of flow capacity at the plant and manage it to the degree that existing homes and businesses were clearly favored. It is felt that these regulations, along with existing Zoning Regulations and the requirements for compliance with Title V, will effectively control growth in the Town while providing options for existing homes and businesses.

The Town of North Attleborough has complied with state and federal requirements to perform upgrades to the Wastewater Treatment facility in order to better protect downstream resources. The construction of these upgrades represents a substantial, long-term investment by the Town. The Board of Public Works remains committed to obtaining the best possible financial terms for our rate payers. The promulgation of these Sewer Use regulations will adopt growth controls proposed by the approved Comprehensive Wastewater Management Plan and will serve to actively manage development and responsibly allocate limited capacity resources in a deliberate and intentional manner. The Board of Public Works believes that adoption of the Sewer Service Area will effectively establish flow-neutral growth controls for development in North Attleborough and set definitive limits for the collection system. The Town urges your support in obtaining approval for zero per cent financing through the Massachusetts Water Pollution Abatement Trust.

Thank you for your time and attention to this matter.

Sincerely,

Donald Cerrone, Chairman,
North Attleborough Board of Public Works

The Board of Public Works in their capacity as Sewer Commissioners for the Town of North Attleborough, do hereby adopt the following Sewer Service Area Regulation. This Sewer Service Area has been designated following a comprehensive and deliberate study of the existing and projected wastewater needs and wastewater management alternatives for the Town of North Attleborough. Reference is hereby made to the Comprehensive Wastewater Management Plan Update and Final Environmental Impact Report prepared by Tighe & Bond, dated August 2010, and accepted by the Massachusetts Executive Office of Energy and Environmental Affairs on November 12, 2010.

BACKGROUND

The Town of North Attleborough was directed by the Massachusetts Department of Environmental Protection (DEP) and the Massachusetts Environmental Policy Act (MEPA) to complete an update to their Comprehensive Wastewater Management Plan (CWMP). Following an exhaustive analysis of the Town's Advanced Wastewater treatment Facility (WWTF), the Town's sewer collection system and appurtenant structures as well as projected future wastewater requirements of the Town for a 25 year planning horizon, the Board of Public Works approved a wastewater management plan that will aggressively seek out and eliminate extraneous flow to the collection system, limit the projected buildout of the sewer collection system and increase the treatment capabilities at the WWTF . In support of this plan, the Board of Public Works developed the following regulations to ensure responsible and deliberate growth controls in and around the subject Sewer Service Area.

NORTH ATTLEBOROUGH SEWER SERVICE AREA

Purpose:

The purpose of this regulation is to protect the water resources of the Town of North Attleborough in order to:

1. Promote the health, safety and welfare of the residents of the Town of North Attleborough through the preservation of the town's groundwater and surface water by addressing primarily existing sewage disposal problems.
2. Protect groundwater and surface water from nitrogen contamination and pollution from subsurface disposal of wastewater.
3. Protect other sensitive water resource areas, including those lands that contribute recharge to public or private drinking water supplies.
4. Regulate the connections to and extensions of the Town's sewer system in order to preserve and manage limited treatment capacity at the Advanced Wastewater Treatment Facility.

1.0 DEFINITIONS

Available Capacity: The capacity remaining to the North Attleborough Advanced Wastewater Treatment Facility expressed in gallons per day (gpd). Available Capacity is calculated as the difference between the Permitted Capacity of the plant minus the Average Daily Flow for the previous calendar year as reported in monthly DMR reports. Available Capacity shall be calculated and updated annually.

Capacity Fee: A Fee, duly created by the Board of Public Works to fund system improvements that will preserve and restore limited permitted flow capacity at the Advanced Wastewater Treatment Plant. The fee shall be imposed upon any entity approved for a connection to or extension of the existing sewer system. The Capacity Fee shall be set based on existing wastewater treatment and transportation costs and may be modified by vote the Board of Public Works from time to time, as required, after properly advertised Public Hearings, based on fluctuations of these costs.

Change of Use: - a projected change of 15 % or more in the strength or volume characteristics of wastewater generated by activities of an Existing Facility as determined solely by the Chairman of the Board of Public Works using standard wastewater characteristic data published by Massachusetts Department of Environmental Protection, as applicable.

Existing Facilities: - a building or lot presently connected to the Town's sewer system.

Existing Sewershed: that area designated in **Figure 3-12** of the Final Environmental Impact Report/Comprehensive Wastewater Management Plan Update completed by Tighe & Bond dated August 2010,. **Figure 3-12** is appended to and hereby accepted as part of this Regulation. This area includes the extent of the existing municipal sewer collection system as of August, 2010.

Frontage: that portion of a street, uninterrupted between the sidelines of a single lot.

Lot: an area of land in ownership either single or multiple, with definite boundaries ascertainable by recorded deed(s) or a plan and used or available for use as the site of one or more buildings.

Reserve Capacity: That portion of Available Capacity, expressed in gpd, reserved for sewer connections or extensions constructed to service the sewer study areas designated as Study Areas 1,2,3,4,5,7,8,9 and 21 on **Figure 7-2** of the Final Environmental Impact Report/Comprehensive Wastewater Management Plan Update completed by Tighe & Bond dated August 2010. **Figure 7-2** is hereby accepted as part of this By-Law., Reserve Capacity shall be calculated annually and shall be no more than 1/3 of Available Capacity.

Sewer Service Area:_The area designated on **Figure 7-2** of the North Attleborough Comprehensive Wastewater Management Plan and Environmental Impact Report prepared by Tighe & Bond dated August 2010. **Figure 7-2** is appended to and hereby adopted as part of this By-Law. The sewer study areas designated as Priority Group 1 Study Areas, areas 1,2,3,4,5,7,8,9, 21 and 25 are included within the Sewer Service Area.

Street: a public way or a way approved by the Town of North Attleborough Planning Board pursuant to the Massachusetts Subdivision Control Law, as time to time amended.

Town: The Town of North Attleborough, Massachusetts or its duly Authorized Agents

2.0 IDENTIFICATION OF LOTS TO BE SERVED

Only those lots existing as of record and recorded in the Northern Bristol County Registry of Deeds as of [insert date] within the Sewer Service Area as illustrated by **Figure 7-2** of the Final Environmental Impact Report/Comprehensive Wastewater Management Plan Update completed by Tighe & Bond dated August 2010 shall be permitted to connect to the town's sewer collection system.

3.0 SEWER EXTENSIONS FOR NEW LOTS

Sewer extensions to new streets, subdivisions or lots created and recorded in the Northern Bristol County Registry of Deeds after [insert date] within the Sewer Service Area shall not be permitted except by approval of the Board of Public Works. Sewer Extension Approval to new lots or subdivisions shall expire two (2) years after the extension is approved by the Board of Public Works if work has not been substantially initiated, as determined by the Board of Public Works or unless an extension has been expressly granted by the Board. All sewer extensions shall require a public hearing with the public hearing notification printed in newspaper of general publication in the Town, at least two weeks prior to the public hearing. Costs for advertising and/or notification shall be borne by the Applicant. All sewer mains installed for approved sewer extensions shall be gifted to the Town upon completion and successful pressure testing of pipes and manholes.

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4.0 ALLOCATION OF FLOW

In order to preserve and distribute sewer capacity in a deliberate and prescribed manner, Available Capacity and Reserve Capacity shall be allocated in the following priority order:

Reserve Capacity is reserved for priority group 1 study areas 1, 2, 3, 4, 5, 7, 8, 9 and 21 and represents 1/3 of Available Capacity at the plant.
All other flow capacity (2/3 of Available Capacity) shall remain for existing committed flows to the Town of Plainville, the Route 1 Commercial area south of Hoppin Hill Ave and priority group study area 25.

4.1 Allocation of Reserve Capacity for Failed Septic Systems

At the discretion of the Board of Public Works and subject to available capacity, residences with failed septic systems as defined by 310 CMR 15.000 (Title V) for developed lots in existence prior to [insert date] within the designated Sewer Service Area may be connected to the sewer system. The sewer service design flows calculated for failed septic systems shall be determined by the sewer design capacity and sewer unit calculation set forth in Section 5.0 . Upon Approval for a sewer connection by the Board The Reserve Capacity shall be reduced by a like amount. The owner(s) of failed septic systems shall reimburse the town for the expense of maintaining their portion of the reserve capacity through payment of a Capacity Fee as outlined in Section XX of these Sewer Use Regulations. The Capacity Fee shall be determined annually based on treatment and transport costs from the previous calendar year at the Wastewater Treatment Facility.

4.2 Allocation of Reserve Capacity for Expansion of Existing Facilities

At the discretion of the Board of Public Works and subject to available capacity, existing residential or commercial facilities may expand and increase their wastewater flow within the Sewer Service Area. The design flow for the expansion of the existing facilities shall be calculated in accordance with the sewer design capacity and sewer unit calculation set forth in Section 5.0. The Reserve Capacity shall be reduced by a like amount. The owner(s) of the expanded facility shall reimburse the town for the expense of maintaining their portion of the reserve capacity through payment of a Capacity Fee as outlined in Section XX of these Sewer Use Regulations.

4.3 Allocation of Reserve Capacity for Change in Use of Existing Facilities

At the discretion of the Board of Public Works, and subject to available capacity, existing facilities within the Sewer Service Area may change their primary use that

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will result in increased sewage flow from the existing facility. The design flow for the change in use of the existing facility shall be calculated as follows:

Additional design flow = New Design Flow – Existing Design Flow

The existing design flow is the average daily water consumption for the new facility as recorded by the North Attleborough Water Department for the prior full calendar year and the New Design Flow is the Sewage Flow as estimated by 310 CMR 15.000 (Title V) flow estimates, or by flow estimates mutually agreed to by the Applicant and the Town based on water use. The reserve capacity shall be reduced by a like amount. The owner(s) of the expanded facility shall reimburse the town for the expense of maintaining their portion of the reserve capacity through payment of a Capacity Fee as outlined in Section XX of these Sewer Use Regulations No rebates shall be granted for change of use which reduces water consumption.

4.4 Allocation of Reserve Capacity for New Construction

The town may, by majority vote of the Board of Public Works and subject to available capacity, allow sewer connections to new residential or commercial units. Design flow shall be determined by 310 CMR 15.000 (Title V) flow estimates, or by flow estimates mutually agreed to by the Applicant and the Town based on water use. All new construction connections shall be subject to entrance fees and Capacity Fees as determined by the Board of Public Works.

5.0 DETERMINATION OF DESIGN SEWER FLOW

Design sewer flow shall conform to 310 CMR 15.203. (Massachusetts Title V) as most recently updated. Single family homes up to 4 Bedroom (440 gpd) shall be designated as One Sewer Unit. Non-residential design sewer flow for new facilities shall be estimated using Title V guidelines. If no similar use exists, the Applicant shall provide water use records of an identical or highly similar use for a period of not less than two years. Alternate water use estimates must be approved by the Board of Public Works. Sewer flow shall be reduced to Sewer units by dividing the proposed sewer flow by 440 gpd. In no case shall a property apply for less than one-half (1/2) sewer unit. All other values shall be rounded to the nearest half unit. Design Flow shall be the number of sewer units X 440 gpd. The Board reserves the right to limit flow based on available flow capacity at the WWTF. The Board shall consider each application for sewer flow capacity on a case by case basis The Board may choose/favor projects that will provide a clear public benefit such as employment, or other services that will provide a benefit to the Town including providing access to municipal sewer for existing buildings who are not currently served.

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6.0 FLOW OFFSETS/COST REIMBURSEMENT FOR RESERVE CAPACITY

All entities permitted to connect to or extend the municipal sewer system shall be required to perform flow offsetting measures. All permitees shall offset their proposed sewer design flow by removing sources of extraneous flow equaling 5 times the design flow amount (expressed as gpd) from extraneous flow sources currently entering the system. Permitees may elect to perform constructive mitigation work on the municipal sewer system by prior approval of the Board of Public Works and under the auspice of Department of Public Works and/or the permitee may elect to pay the Capacity Fee as most recently determined by the Board of Public Works based on annual treatment and transport costs at the WWTF. The Board of Public Works working through the Department of Public Works reserves the right to negotiate with and enter into binding agreements with Applicants regarding flow offsets including combinations of payment and constructive efforts. In no case shall the aggregate total of flow offset be less than 5 gallons removed for each proposed new gallon of wastewater flow to the WWTF.

The Capacity Fee shall be used by the Department of Public Works to fund projects, including but not limited to: detection of extraneous flow, inspections of system components and connections, sump pump detection and removal, engineering design of removal projects, and construction of system improvements in order to increase the municipal sewer collection system's capacity or efficiency.

Fees collected for this purpose shall be accumulated in a Capacity Bank, which shall be administered by the Department of Public Works. Funding from the Capacity Bank shall be used to increase the efficiency and capacity of the collection system, the WWTF or appurtenant structures such as sewer lift stations. Capacity Bank funding may also be used to augment street drainage systems in order to collect or control extraneous flow removed from the sewer collection system. All funding collected and expended from the sewer capacity bank shall be accounted for by the Department, including an estimate of the gallons of extraneous flow removed from the sewer collection system.

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The following amounts will be reserved for each study area within the future sewer shed as shown on Figure 7-2 of the Final Environmental Impact Report/Comprehensive Wastewater Management Plan Update completed by Tighe & Bond dated August 2010. In no case shall flow be allocated in excess of the designated flows.

Study Area #	Flow Allocation (gallons/day)
Route 1 Commercial Allotment	132,000
Developed Parcels in existing Sewer Service Area (directly abut an existing sewer main)	96,995
Area 25	316,817
Area 1	34,670
Area 2	27,923
Area 3	12,298
Area 4	63,858
Area 5	25,161
Area 7	65,486
Area 8	42,121
Area 9	11,428
Area 21	46,316

No facility outside of the Sewer Service Area shall be allowed to connect to or extend the existing sewer system in order to provide access to the municipal sewer collection system . A property owner or project proponent may petition the Board of Public Works to be included in the Sewer Service Area. Changes to the Sewer Service Area may be approved by a unanimous vote of the Board of Public Works. Allocation of flow shall be subject to simple majority vote of the Board.

B:SEWER/BMcDEDIT2N_Attleboro_0%DraftUpdate

DETAILED PROJECT DESCRIPTION PERTAINING TO 0% INTEREST APPLICATION:

The project as described in the PEF has two objectives: 1. Upgrade the WWTF to comply with the new EPA NPDES permit limits of 8 mg/l of total nitrogen and 0.1 mg/l of total phosphorous; 2. Reduce infiltration and inflow (I/I) from the collection system to reduce the amount of flow needing treatment.

The upgrades to the WWTF include constructing new processes to meet the total nitrogen and total phosphorus NPDES permit limits, as well as upgrades to existing processes and systems that are impacted by the nutrient upgrades. The scope of the WWTF upgrade is being defined as part of the on-going NPDES Implementation Plan Study to meet the requirements of the AO. A pilot test of several technologies for phosphorus removal was conducted at the North Attleborough WWTF in July and August 2009.

The Construction Contract dated March, 2011, includes upgrades to the Attleboro Falls Pump Station, and separately includes upgrades to seven pumping stations in the collection system. These upgrades appear to be driven by age and routine maintenance and don't appear to impact the nutrient removal treatment.

The scope of the WWTF upgrades according to the PEF includes: construction of a 5-stage Bardenpho process to provide both biological nitrogen and phosphorus removal; new aeration tanks, and modifications to the baffle walls within existing tanks. New equipment includes new fine bubble aeration and high efficiency blowers, mixing equipment and recycle pumping equipment. Secondary clarifiers: modifications to existing first-stage clarifiers to serve as additional second-stage clarifiers to provide additional capacity to the biological treatment system. Upgrades include pumping, piping modifications and clarifier equipment replacement. Tertiary phosphorus removal system: replace existing sand filters with tertiary phosphorus removal system. Chemical addition: new chemical storage and feed systems related to nutrient removal, including new supplemental carbon, pH control and coagulant systems. New buildings will be constructed to house the biological treatment system blowers, chemical systems and tertiary phosphorus removal system. Existing influent and intermediate pumping systems to accommodate design flows and new treatment processes will be upgraded. Primary treatment: replace grit blower VFDs and primary sludge grinders that have reached the end of their useful life. Flow metering: upgrades to the flow metering systems, including larger effluent flume to provide more accurate measurement and metering of pumping systems. Solids handling: additional solids handling capacity for additional solids from future influent loads and chemical sludge associated with the tertiary phosphorus removal systems. Upgrades include additional thickening and sludge storage capacity and equipment. Support systems: upgrades to support systems, including additional plant water capacity and energy efficiency upgrades and odor control capacity for the expanded solids handling system. Standby power: new standby power generator for the additional loads associated with the new and expanded treatment and pumping systems that exceed the capacity of the existing standby generator. Electrical systems: upgrade existing

electrical system and plant electrical service to accommodate new and expanded treatment and pumping systems. Instrumentation and SCADA: upgrade existing SCADA system to accommodate new and expanded treatment and pumping systems. Provide instrumentation, as needed, to monitor and control the upgraded treatment systems.

An Infiltration/Inflow Removal Project is described in the original PEF as follows: The I/I Removal Project is a 5-year program with $1 million per year for I/I removal projects. The scope of the I/I removal project will include a comprehensive approach to removal of both inflow and infiltration and will include the following tasks: Rehabilitate and/or replace pipelines, manholes and service laterals – seal service wyes and manholes; point repairs of pipelines; line pipelines; Disconnect storm system cross connections, sump pumps, roof leaders and yard drains. Note that the I/I Removal Project is not specifically mentioned in the March 2011 Construction Contract. According to the consultant on the WWTF contract, Tighe & Bond, the I/I Removal Project has been separated from the WWTF contract and is being designed by a different consultant. Tighe & Bond notes that flow meters have been added to six pump stations in the current contract which will give North Attleborough greater ability to monitor I/I flows.