



TOWN OF MERRIMACK, NH
DEPARTMENT OF PUBLIC WORKS
WASTEWATER TREATMENT FACILITY

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MEMORANDUM

To: Eileen Cabanel, Town Manager

From: James E. Taylor, Assistant Director of Public Works

Date: March 7, 2018

Re: Merrimack- Bedford Intermunicipal Sewer Agreement Revisions

Both the Town of Merrimack and the Town of Bedford entered into a 20 year Intermunicipal agreement in 1996 to provide sewer service to the portion of Bedford know as Greenfield Farms as well as to serve the northern most area of Merrimack near the Bedford border (currently Grapevine Drive is connected to the Pearson Rd pumping station). The agreement expired in April 2016. The new agreement is proposed as a 20 year agreement.

Highlights of the major changes and additions are as follows:

- Removed language that was specific to the first agreement and is no longer relevant
- Added language that would require Bedford to pay for 90% of the direct operational and maintenance cost of the Pearson Rd. pumping station. The sewer users in Bedford pay the same rate as Merrimack residents
- Streamlined the payment calculations that capture Bedford's share of all capital improvement costs to the Merrimack system
- Made changes recommended by Merrimack legal counsel review and comments provided by the Town of Bedford's consultant, HTA
- Definitions were updated and in some cases corrections were made from the first agreement
- Reduced flow allocation to Bedford from 81,500 gallons per day to 66,800 gallons per day, allowing expansion from 240 homes to 334 homes in the Bedford Greenfield Farms area, but reduced from 408 homes as in the original agreement. The Merrimack sewer system is capable of accepting this flow to the treatment facility as well as treatment at the wastewater treatment facility
- Section 3.2, "Limitations on Pollutants" has been strengthened to require Bedford to develop a corrective action plan, with deadline, if any provision of Merrimack's SUO is violated.

The Town of Bedford approved the IMA and now need Merrimack's approval followed by the Attorney General of NH per RSA 53:A

Cc: Kyle Fox, PE
Public Works Director



**MERRIMACK/BEDFORD
INTERMUNICIPAL SEWER AGREEMENT
2018**

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INTERMUNICIPAL WASTEWATER AGREEMENT

THIS AGREEMENT made and entered into this _____ day of _____, 2018, by and between the Town of Merrimack, New Hampshire, a municipal corporation in the State of New Hampshire, hereinafter referred to as "Merrimack", and the Town of Bedford, New Hampshire, a municipal corporation in the State of New Hampshire, hereinafter referred to as "Bedford", is for the purpose of providing wastewater service to Bedford through the Merrimack System, thereby serving the public health and welfare of the people of Merrimack and Bedford and for all the people of the State of New Hampshire and additionally enhancing the water quality of the Merrimack River and its tributaries.

WHEREAS, the Town of Merrimack, through its Town Council operates and maintains wastewater facilities, hereafter known as the Merrimack System; and

WHEREAS, it is deemed in the best interest of Bedford and Merrimack that a portion of Bedford obtain wastewater service through the Merrimack system;

WHEREAS, Bedford, through its Town Council has determined that a subdivision known as Greenfield Farms rests within that portion of Bedford to be serviced by the wastewater system expansion;

WHEREAS, Merrimack through its Town Council is authorized to negotiate and execute an agreement with Bedford, as authorized by NH RSA 53-A under which Merrimack will provide wastewater service to Greenfield Farms in Bedford; and

WHEREAS, the Bedford Town Council is authorized by its Town Charter to negotiate and execute an agreement with Merrimack which authorization is evidenced by attached Appendix-A, under which Bedford will be provided wastewater service by Merrimack.

NOW THEREFORE, in consideration of the mutual undertakings, promises, benefits and agreements contained herein, Merrimack and Bedford covenant and agree as follows:

ARTICLE 1- DEFINITIONS:

As used in this Agreement, unless the context clearly indicates otherwise, the meaning of terms and abbreviations shall be as defined in Appendix "B", attached hereto.

ARTICLE 2 – OBLIGATIONS OF THE PARTIES

2.1 MERRIMACK TO PROVIDE WASTEWATER SERVICE

Merrimack agrees to provide domestic residential wastewater service to a portion of Bedford known as Greenfield Farms (hereinafter "Service Area") subject to the conditions hereafter provided. The Merrimack Town Council shall have exclusive jurisdiction and control over the Merrimack System and shall be responsible to local, state and federal authorities having jurisdiction over said facilities.

2.2 BEDFORD TO PAY FOR SERVICE

In consideration of the wastewater service to be provided by Merrimack under the provisions of this agreement, Bedford agrees to pay all charges as provided for in Article 4 of this Agreement and to comply with all other conditions of this Agreement.

2.3 BEDFORD USER CHARGE SYSTEM

Bedford shall develop and maintain an acceptable system of user charges which shall also be approved by the NH Department of Environmental Services.

2.4 MERRIMACK FACILITIES

Merrimack shall make available all existing wastewater facilities to perform its obligations under the terms of this Agreement ("Merrimack's System") for compensation as outlined in Article 4.

2.5 BEDFORD FACILITIES

Bedford shall provide such wastewater facilities as are required to collect and deliver Bedford's wastewater from within the area of Bedford to be serviced under this Agreement, to the point of interception with the Merrimack System. Bedford shall be responsible for land acquisition and for design, construction, maintenance, repair and operation of all wastewater facilities within the geographic area of Bedford, which is to be serviced by this Agreement.

2.6 JURISDICTION

The facilities provided in sections 2.4 and 2.5 may be modified on the basis of economic or engineering feasibility as deemed necessary and appropriate by their respective governing bodies.

2.7 LAWS AND ORDINANCES

Bedford, within its jurisdiction, shall comply with, and strictly enforce, all Federal, State and Local laws (including the Merrimack Sewer Use Ordinance), ordinances, rules, and regulations, by-laws, permits and agreements relating to water pollution control and to wastewater characteristics, collection, treatment and disposal, as they apply to Bedford's system. Bedford shall be liable to Merrimack for any damage caused to the Merrimack system resulting from the violation of any such law, ordinance, rule, regulation, by-law, permit or breach of this Agreement by Bedford or any of its users.

Merrimack has adopted and from time to time may revise, a Sewer Use Ordinance (SUO) and Discharge Permit System acceptable to the United State Environmental Protection Agency (USEPA) and the New Hampshire Department of Environmental Services (NHDES). Bedford shall adopt and from time to time revise, an SUO and Discharge Permit System acceptable to Merrimack, USEPA and NHDES. Bedford shall also be required to maintain and implement a cMOM plan (capacity, Management, Operations and Maintenance)as required by the Merrimack's NPDES permit of which Bedford is a co-permittee.

2.8 INSPECTION

It shall be the responsibility of Bedford to establish and maintain a permit, inspection, monitoring and sampling program within Bedford to assure proper and adequate control of the discharge of wastewaters. If failure of Bedford to properly and adequately control wastewater causes damage to Merrimack's System, then Bedford shall be liable to Merrimack for any and all damages which occur. In the event that such damages are caused to the Merrimack System, then Merrimack, after twenty-four (24) hours' notice, shall have the right to inspect, monitor and sample discharges within Bedford and Bedford shall cooperate with Merrimack in such an evaluation program. The cost of all inspection, monitoring, sampling and system upgrades shall be paid by the Town of Bedford.

2.9 LIABILITY INSURANCE AND INDEMNIFICATION

Bedford shall procure and maintain during the term of this Agreement, such Liability Insurance as will protect Bedford and Merrimack for claims for damages for injury to persons and damage to property which may arise from operations, actions or inactions under this Agreement, whether such operations be by Bedford directly or by anyone directly or indirectly employed by either Merrimack or Bedford, including independent contractors and their subcontractors. Such insurance shall be as follows:

- A. Bedford shall carry comprehensive general liability insurance with limits not less than as required by the Town of Merrimack. Merrimack shall be named as an additional insured on all policies. Such insurance shall cover anything related to this Agreement, including but not limited to the following:

1. Cover all operations including the use of any and all motor vehicles.

2. Contractual liability covering this contract and any other contracts pertaining to the servicing or modification of Bedford's System and its interconnection with the Merrimack System, entered into by Bedford and its independent contractors or subcontractors.
 3. Coverage for the so called "x, c, u" hazards, i.e., collapse of buildings, blasting, and damage to underground property.
 4. Include coverage for products and completed operations hazards.
 5. "Personal" injury coverage endorsement.
 6. Sudden and accidental pollution coverage.
- B. Bedford shall carry Workers Compensation Insurance including employers liability insurance as amended by the New Hampshire revised statutes annotated, covering all work performed by Bedford under this Agreement.
- C. Insurance similar to that required of Bedford shall be provided by or on behalf of all independent contractors or subcontractors to cover their operations performed under the Agreement. Bedford shall be held responsible for any modification in these insurance requirements as they apply to subcontractors.
- D. Insurance Certifications:
1. Insurance certificates evidencing the above are to be furnished to Merrimack on or before the effective date of this Agreement and shall provide for not less than thirty (30) days prior notice to Merrimack of any cancellation or major change in the policies.
 2. The Town Manager of Merrimack is to be furnished a copy of the policy or policies, including any endorsement required to provide states coverage, with thirty (30) days after commencement of the wastewater disposal service to Bedford by Merrimack. No changes or alterations in the policies shall be made without the approval of the Merrimack Town Manager. This same provision shall apply to independent contractors or others employed by Bedford to service, maintain, repair, or construct any portion of the Bedford system prior to the commencement of such work.
- E. Consulting Engineers and Architects:
In the event Merrimack or Bedford chooses to hire an outside architect or engineer to design or redesign any portion of the total system, Merrimack's basic insurance requirements for contracts for consulting engineers and architects shall apply to the Engineer.
- F. Bedford agrees to indemnify and save Merrimack harmless from any and all claims, demands, actions and suits of any kind that arise out of Merrimack's

acceptance of sewage from Bedford under this Agreement. Bedford's obligations under this paragraph shall continue despite the expiration of the term of this Agreement or its termination.

2.10 PERFORMANCE

No failure, or delay, in performance of this Agreement by either party shall be deemed to be a breach thereof, when such failure, or delay is occasioned by, or due to, any Act of God, strikes, lockouts, wars, riots, epidemics, explosions, sabotage, breakage or accident to machinery or lines of pipe, the binding order of any Court or governmental authority, or any other cause that is not within the control of the party claiming suspension; provided that no cause or contingency shall relieve Bedford of its obligation to make payment for wastewater entering the Merrimack System. Except for the previously mentioned conditions, the Merrimack Town Council shall assume full responsibility for maintaining service in accord with the standards of treatment as established by NHDES and USEPA and by local sewer use ordinance.

In the event of emergency, or unforeseen crisis, demanding or seeming to demand, joint action by the Merrimack Town Council and the Bedford Town Council, of whatsoever nature, magnitude, cause or probable effect, the Merrimack Town Council and the duly authorized representative of the Bedford Town Council are specifically empowered to take jointly whatever action may be called for, within the requirements of applicable federal and state regulations. Such action, or actions, shall be fully and promptly reported, in writing, to all members of the Merrimack Town Council, the Bedford Town Council and applicable Federal and State agencies. In the event of disagreement as to the action needed to correct, to prevent or to anticipate the emergency or crisis or in the event no authorized member or representative of the Bedford Town Council is available, the decision of the Merrimack Town Council shall be determinative for all actions concerning the Merrimack System. In the event of disagreement as to the action needed to correct, to prevent, or to anticipate the emergency or crisis or in the event the Merrimack Town Council cannot be reached then the decision of the Bedford Town Council shall be determinative for all actions concerning the Bedford System.

2.11 TEMPORARY DISCONTINUANCE

If because of actions, non-actions or issues occurring in Bedford, in the opinion of the Merrimack Town Council, proper operation of the system requires that the Merrimack Town Council discontinue temporarily all or part of the service to Bedford, no claim for damages for such temporary discontinuance shall be maintained by Bedford against Merrimack, or any of its duly authorized agents, provided that twenty-four (24) hours' notice of such discontinuance shall be given to Bedford, unless emergency conditions dictate otherwise.

ARTICLE 3 – OBLIGATIONS OF THE PARTIES

3.1 LIMITATION ON FLOW AND CHARACTERISTICS

The net wastewater flow, biochemical oxygen demand (BOD), suspended solids content (SS), and other parameters as specified in the Merrimack SUO, from Bedford into the Merrimack System, shall be subject to the following daily limitations:

Flow (million gallons per day – MGD)	0.0668 MGD(200 gal./day/user)
BOD	139 lbs/day
SS	167 lbs/day

Note: Flow includes infiltration / in flow.

It is further agreed that for as long as Bedford continues to perform its contractual obligations hereunder, the preceding reserve capacities of flow, BOD, and SS are for the exclusive use of Bedford and cannot be sold or used by Merrimack or any other regional community.

3.2 LIMITATIONS ON POLLUTANTS

Merrimack has enacted an SUO which limits the discharge of certain pollutants into its system. That Ordinance may be revised from time to time as provided in Paragraph 2.7. Bedford shall be subject to the SUO, and any subsequent revisions, and the limitations contained therein shall apply. Should the limits in Merrimack's SUO be exceeded by Bedford, Merrimack shall provide written notice to Bedford, and within 120 days of receipt of said notice, Bedford shall develop and implement a plan to treat the wastewater so that it comes into compliance with said limits. Any plan must be approved by the Town of Merrimack prior to its implementation. If the exceedance of Merrimack's SUO limits by Bedford result in damage to Merrimack's System, Bedford shall be responsible for all costs associated with repairing, or if necessary, replacing the damaged parts of Merrimack's System. The limits in the SUO apply to the total wastewater discharge entering the Merrimack system at the Town line.

3.3 SEWER CONSTRUCTION

The limitations contained in Sections 3.1 and 3.2 herein are established to insure that the size and capacity of the Merrimack System is adequate and protective of said system and to serve the contemplated needs of Bedford. After signing this Agreement and during its term, Bedford shall notify the Merrimack Town Council of all proposed sewer construction and connections to Bedford's System so that the Merrimack Town Council will be able to coordinate the operation and maintenance of the Merrimack System with the development of the Bedford System.

Bedford shall also submit all proposed sewer construction and connections to NHDES for their review and approval. Copies of all such submittals and subsequent approvals by NHDES shall be sent to the Merrimack Department of Public Works for circulation within the Town.

3.4 INSPECTION OF FACILITIES AND RECORDS

Merrimack shall have the right to inspect all sewers, drains and wastewater facilities in Bedford at any time. Merrimack may inspect all financial and engineering records of Bedford wastewater facilities relating to the Merrimack facility and drainage system during ordinary business hours, upon thirty (30) days' notice.

3.5 DEFECTIVE FACILITIES

The proper maintenance of facilities is required to assure that the limitations outlined in Paragraph 3.1 and 3.2 are not exceeded. If any of Bedford's System which connects to the Merrimack System is found to be in defective condition, and such condition adversely affects the operation of the Merrimack System, or causes Bedford to exceed the limitations set forth in Paragraphs 3.1 and 3.2, then Bedford shall correct such defective condition immediately. If such defective condition does not cause Bedford to exceed the limitation set forth in Paragraphs 3.1 and 3.2, or adversely affect the operation of the Merrimack System, then Bedford, at its sole option, may elect to suspend further sewer construction or suspend the discharge of additional wastewater into the Merrimack System, in lieu of correcting the defective condition. In the event that Bedford suspends the discharge of wastewater into the Merrimack System, Bedford shall be responsible to pay for damages as determined by the Town of Merrimack. The expression "defective condition" as used herein, shall mean any condition that is in violation of any local, State or Federal standard which causes the maximum limitations in the discharge of pollutants into the Merrimack System, as provided in Paragraphs 3.1 and 3.2, to be exceeded.

3.6 PERMITS

The Town of Bedford shall adopt and administer a discharge permit system for its users no less stringent than that adopted and administered by the Town of Merrimack. No user shall be permitted to discharge to the Bedford System that connects to the Merrimack System without first obtaining the required permit. No such permit will be issued by the Town of Bedford until it determines the wastewater discharge shall comply with the requirements of all federal, state and local laws, each Town's sewer use ordinance, rules, regulations, by-laws, permits, agreements, and orders relating to water pollution control, to wastewater characteristics, collection, treatment and disposal; and that wastewater will not be adverse to either the Bedford System or Merrimack System. In no event shall the Town of Bedford issue any permit which allows any user of Bedford's System to discharge any wastewater not allowed to be discharged into the Merrimack System. Copies of all permits so issued are to be maintained as a permanent record of Bedford.

3.7 SEPTIC WASTES

No septic waste of any kind, whether it is treated or not treated, shall be discharged into the Bedford System that is connected to the Merrimack System, and no such septic waste shall be discharged into the Merrimack System that is connected to the Bedford System. Septic waste shall mean waste that is pumped from a household septic system.

3.8 TERM OF AGREEMENT; RENEWAL

The term of this Agreement shall be twenty (20) years from the date hereof. Every five (5) years the Town of Merrimack has the option to reopen negotiations regarding the

amount of reserved capacity and actual usage and projections for undeveloped land. Upon agreement of the parties regarding appropriate allocations, the parties agree that the Agreement shall thereafter be renewed for successive period of five (5) years unless either party shall elect to terminate the same by written notice to the other at least one (1) year prior to the expiration of the original term of renewal thereof, but in no case shall they agreement extend beyond 20 years from the date of authorization.

3.9 TERMINATION FOR BREACH OF AGREEMENT

In the event that Bedford or Merrimack fails to comply with the terms or conditions of this Agreement, the other party shall give notice of said failure of compliance and the party at fault shall immediately and diligently proceed to cure the default. If said party shall fail to respond with corrective methods or procedures to cure the default for thirty (30) days after said notice, Merrimack or Bedford, as the case may be, shall have the right to terminate the Agreement at any time after One Hundred Eighty (180) days written notice by certified mail to Bedford or Merrimack. Nothing herein shall be construed as limiting the right of either party to proceed against the other at law or in equity to enforce all provisions of the Agreement. In the event Merrimack elects to terminate the Agreement, Merrimack by any lawful means at its command, may take action to terminate continued introduction of wastewater in the Merrimack System from Bedford. Until Bedford's wastewater discharge to Merrimack has been completely terminated, Bedford shall be required to pay all wastewater charges provided in Article 4 of this Agreement. Bedford shall be allowed a reasonable amount of time to find alternative treatment or disposal options as determined by an engineering evaluation of options.

ARTICLE – COSTS AND CHARGES

4.1 BASIC PREMISES

- A. Bedford shall pay the total cost of those facilities within Bedford that are solely for Bedford's use.
- B. Bedford shall pay its fair share of the cost of the existing facilities in Merrimack which are for the benefit of Bedford homeowners and for the Greenfield Farms project.
- C. Bedford shall pay to Merrimack an operation and maintenance user charge per residential service which shall be identical to the Merrimack rate structure in terms of methodology and equivalency of costs for a Merrimack residential service. In addition, Bedford shall pay 90% of the direct Operations and Maintenance costs associated with the Pearson Road pumping station. A tabulated summary of expenses shall be provided to Bedford on an annual basis along with an invoice payable within 30 days. From time to time the percentage shall be adjusted as flow is added to the Merrimack system. The percent basis is determined

by the number of connected units in each town and may be adjusted by the Town of Merrimack.

4.2 FUTURE CAPITAL COSTS

Future Capital Costs are all costs incurred due to the modification and/or expansion of the Merrimack treatment system. The term "Capital Cost" includes all costs for planning, engineering, land acquisition, legal, financing, permitting, administration and construction of a facility. Future Capital Costs shall be allocated to Bedford in proportion to the design capacity Bedford has reserved in the treatment plant, interceptors and pumping stations, hereinafter referred to as "Bedford's Share" less any State Aid Grant funds that may be available to the Town of Merrimack.

Bedford shall pay for "Bedford's Share" for the Capital Cost of the Merrimack System that was designed for, or which will be utilized by, Bedford that has been constructed at the date of execution of the Agreement as follows:

"Local Share": Local share payments shall be made payable to Merrimack thirty (30) days prior to the date Merrimack's payment to the bondholders or NHDES is made. Payments to Merrimack shall be calculated based on the annual payment due to the bondholders or NHDES and the formula contained in Appendix D.

A payment schedule shall be provided to Bedford based on the calculated share of the annual loan or bond repayment. Bedford shall make payment within 30 days of the date of the annual payment by the Town.

4.3 OPERATION AND MAINTENANCE COSTS

Operation and Maintenance costs are incurred to provide continuous treatment service which include but are not limited to such items as labor and (to include all benefits and related costs), utilities, chemicals, supplies, and replacement of equipment, parts and other costs.

Bedford shall pay a user charge identical to the Merrimack rate structure in terms of methodology and equivalency of costs in order to pay for its share of Operation and Maintenance Costs and other costs identified in 4.1.C. Bedford shall begin to pay Operation and Maintenance Cost for a user as of the time that the Certificate of Occupancy is issued.

4.4 MERRIMACK COLLECTION SYSTEM

It is agreed that all future sewer connections in the Town of Bedford will be made only to the Bedford Sewer Collection System known as Greenfield Farms. No other connections from Bedford shall be made to the Merrimack Sewer Collection System unless by written agreement.

All operations and maintenance fees shall be calculated per the 2009 Sewer Rate Study as adopted and subsequently amended by the Merrimack Town Council.

4.5 MONITORING PROCEDURES

Wastewater flow from Bedford into the Merrimack System shall be continuously metered and recorded by the Town of Merrimack at the Pearson Road pump station. Should Merrimack determine that the volume of flow exceeds that volume permitted in Section 3.1, Bedford shall pay Merrimack the cost of collecting and treating the net additional flow in accordance with Merrimack's rate schedule at that time. In no instance shall Bedford's flow exceed the volumes and concentrations in Section 3.1.

4.6 BILLINGS

Within thirty (30) days of the close of each calendar month, Merrimack shall send an itemized bill to Bedford for all charges incurred under the provisions of this contract during the month. Said bill shall be mailed in duplicate to the Town of Merrimack Finance Department. The bill shall be paid by Bedford within thirty (30) days, to the order of the Town of Merrimack, mailed to the Town of Merrimack, Finance Department, 6 Baboosic Lake Road, Merrimack, New Hampshire, 03054.

If not paid within thirty (30) days of the receipt of the billing, Bedford shall pay an eighteen (18) percent per annum interest charge on monthly billings.

4.7 RECORDS INSPECTION

Merrimack or Bedford may inspect, review and copy any and all records maintained by one another which relate to costs, rates or charges under this Agreement.

ARTICLE 5 – ADMINISTRATION

5.1 JOINT MEETINGS

A joint meeting may be called by either party with thirty (30) days written notice. Meetings will be held at the offices of the Merrimack Town Council. The Bedford Town Manager and/or his or her duly authorized representative shall represent Bedford; the Merrimack Town Manager and/or his or her duly authorized representative will represent the Town of Merrimack.

ARTICLE VI – UNIFORM PROVISIONS

The parties hereto believe they have negotiated fairly an Agreement which allocates the benefits and costs of their respective water, pollution abatement programs on an equitable basis.

[APPENDIX -A-]

CERTIFICATION OF AUTHORIZATION

[APPENDIX –B-)

DEFINITIONS AND ABBREVIATIONS

1. BOD denotes BIOCHEMICAL OXYGEN DEMAND – The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard lab procedures in five (5) days at twenty (20) Centigrade expressed in parts per million by weight determined by Standard Methods.
2. COLLECTION SYSTEM – A system of pipes and appurtenances that carry wastewater.
3. USEPA-United States Environmental Protection Agency
4. INTERCEPTOR – Shall mean the main pipe or conduit, manholes and other structures and equipment appurtenance thereto, which connects a series of sewers to the Wastewater Treatment Facility.
5. MGD – Wastewater flow in million gallons per day.
6. MERRIMACK SYSTEM – Shall mean the Town's sewer interceptors, pumping stations and Waste Treatment Facilities.
7. POINT OF INTERCEPTION – That location, or locations in which a contributing community connects to the Merrimack System.
8. SEPTIC TANK – Shall mean an approved type of wastewater settling basin in which the solid mass settles and undergoes partial decomposition.
9. SEPTIC WASTES – Shall mean the mass pumped from septic tanks.
10. SEWER – Shall mean a pipe or conduit that carries wastewater or drainage water.
11. SEWER USE ORDINANCE (SUO) – A by-law regulating the use of public sewers and drains, public sewerage disposal; installation and connection of building sewers; garbage disposal units; the discharge of water and wastewaters into the Wastewater Facilities providing penalties for violations thereof.
12. STANDARD METHODS – Shall mean the latest edition of "Standard Methods for the Examination of Water and Wastewater", as published by the American Public Works Association.
13. SUSPENDED SOLIDS – Shall mean the solids that either float on the surface of, or are in suspension in laboratory filtering, as determined by Standard Methods.
14. WASTEWATER – The spent water of a community. The water may be a combination from residences, commercial, industrial plants, and institutions.

15. RESIDENTIAL WASTEWATER – The spent water of a residential building.
 16. WASTEWATER FACILITIES – The structures, equipment, and processes required to collect, transport, wastewater and dispose of the effluent.
 17. WASTEWATER SERVICE – The act of collecting and treating wastewater prior to its discharge to the Merrimack River.
 18. NHDES – New Hampshire Department of Environmental Services.
- The following abbreviations are used in the formulas in Appendix "D":
19. Q – Shall mean average Daily Flow of the Facility.
 20. QB – Shall mean average Daily Flow of Bedford.
 21. BOD – Shall mean Biochemical Oxygen Demand of the Facility.
 22. BODB – Shall mean Biochemical Oxygen Demand of Bedford.
 23. SS – Shall mean Suspended Solids of the Facility.
 24. SSB – Shall mean Suspended Solids of Bedford.
 25. INF – Shall mean Infiltration of the Facility.
 26. INFB – Shall mean Infiltration of Bedford.
 27. PF – Shall mean Peaking factor as defined by the New Hampshire Department of Environmental Service. The peaking factor shall be based on the average Daily Flow of the Facility, minus Infiltration of the Facility, and shall be the same for all computations of any one facility.
 28. (D) – Preceded by one of the above indicates design values.
 29. (M) – Preceded by one of the above indicates current measured (or estimated) values.
 30. tsh – Shall mean the Town's Share of cost.
 31. LN – Shall mean Length of pipe.
 32. DIA – Shall mean Diameter of pipe.
 33. CC – Shall mean Capital Cost of the facility, including planning, engineering, land acquisition, administration, legal, financing, and construction costs.
 34. OM – Shall mean Operation and Maintenance cost.
 35. AC – Shall mean Administrative Cost.

[APPENDIX -C-]

COST ALLOCATION PROCEDURES, ESTIMATES AND EXAMPLES

ALLOCATION PROCEDURES

Costs shall be allocated in accordance with the following:

1.2 CAPITAL COSTS

A. TREATMENT PLANT

The Capital Cost of the treatment plant shall be proportioned into the cost attributable to flow (23.6%); the cost attributable to Biochemical Oxygen Demand (38.2%); and the cost attributable to Suspended Solids (38.2%).

Bedford's share of Capital Cost of the treatment plant shall be computed on the basis of the Average Daily Design Flow, divided by the Average Daily Design Flow, times 23.6% of Capital Cost; plus the Town's Design Biochemical Oxygen Demand, divided by the Total Design Biochemical Oxygen Demand, times 38.2% of the Capital Cost of the Town's Design Suspended Solids, divided by the Total Design Suspended Solids, times 38.2% of the Capital Cost.

Bedford's share of the Capital Cost of the treatment plant shall be calculated as follows:

$$\text{TSH} = \frac{\text{QT(D)}}{\text{Q (D)}} \times .236 + \frac{\text{BODT(D)}}{\text{BOD (D)}} \times .382 + \frac{\text{BODT(D)}}{\text{BOD (D)}} \times .382$$

B. PUMPING STATION(S), INTERCEPTOR(S) AND COLLECTOR(S)

Bedford's share of Capital Cost of pumping station(s) and interceptor(s) shall be computed on the basis of Bedford's Design Peak Flow, divided by the Total Design Peak Flow of the Facility times the Capital Cost of the Facility. Peaking factors shall be based on the standards of the Department of environmental Services.

1. Pumping Station(s)

Bedford's share of Capital Cost of pumping station(s) shall be calculated as follows:

$$\text{TSH} = \frac{\text{QT(D)}}{\text{Q (D)}} - \frac{\text{INFT(D)}}{\text{INF (D)}} \times \frac{\text{PF}}{\text{PF}} + \frac{\text{INFT(D)}}{\text{INF (D)}}$$

Interceptor(s) and Collector(s)

The interceptor(s) and collector(s) shall be divided segments. The delineation of segments shall be at each location where flow is introduced into the interceptor(s) and collector(s). Bedford's share of the Capital Cost of the interceptor(s) and collector(s) shall be calculated as follows:

$$TSH = \frac{(QT(D) - INF(D) \times PF + INF(D))}{(LN \times DIA) \times (Q(D) - INF(D) \times PF + INF(D))} \times (LN \times DIA)$$

The average daily flows for Merrimack to calculate the segmental distribution costs of the interceptor(s) are shown on Table 3, attached hereto.