



TOWNSEND WATER DEPARTMENT
540 Main Street West Townsend, Massachusetts 01474

Michael MacEachern, *Chairman*
Paul L. Rafuse,
Water Superintendent

Nathan Mattila, *Vice-Chairman*

Lance Lewand, *Clerk*
(978) 597-2212
Fax (978) 597-5561

WATER COMMISSIONERS MEETING MINUTES

November 7, 2016 - 5:30P.M.

Water Department 540 Main Street, Meeting Room

*mm
LL 12-12-16*

I. PRELIMINARIES:

- 1.1 Call the meeting to order and announce meeting address. MM called the meeting to order at 5:30 P.M. at 540 Main Street.
- 1.2 Roll call showed Michael MacEachern (MM) and Lance Lewand (LL). Nathan Mattila was absent.
- 1.3 Announce that the meeting is being tape recorded. MM announced the meeting was being tape recorded.
- 1.4 Chairman's additions or deletions.
 - 1.4.1 MM requests review of Gary Amadon's future service connection instructions and plans. MM wanted to amend the minutes to show that he asked Gary at the September's meeting to connect the silcock from his mother's house to the silcock at his house and to delete the words end hydrant to the following paragraph. *"Mike made a request to Mr. Amadon to work with me and schedule a time to attach a hose to the end hydrant on Wheeler Rd. and run it up to his house and connect to his outside silcock and shut his well off and observe what he had for pressure. The matter was tabled until the next meeting when hopefully we would have an agreement to review and approve"*.
 - 1.4.2 Discuss meter valve replacement policy. MM wanted to set a specific price when replacing meter valves whether they are deemed faulty or not. PR reported that some meter valves that do not operate however for the most part the majority of the residents are charged. Paul does at times have to use his discretion. MM stated he feels that everyone should pay the same no matter what the reason and feels it should be consistent for all. **LL made a motion to charge a labor rate of \$50.00 first hour labor fee, price for valve plus 10% and miscellaneous parts if needed. MM seconded Unanimous vote.**
- 1.5 Review/Approve meeting minutes of October 11, 2016. **LL made a motion to accept the minutes of October 11, 2016 as written. MM seconded. Unanimous vote.**
- 1.6 Review correspondence. The Board reviewed the correspondence.

II. APPOINTMENTS:

2.1

III. MEETING BUSINESS:

- 3.1 Discuss/Review updating our Master Plan to include GIS capabilities and development of a Hydraulic Model and discuss date/s for a presentation by Tighe & Bond of the advantages and benefits of having GIS capabilities from other communities. Paul will schedule a presentation for the December BOWC meeting. Lance requests information on the actual (CMR) Code of Massachusetts Regulations and the specs required from DEP and age of the pipes in the water system. Mike and Lance would like to review the prior master plans.
- 3.2 Discuss/Review/Vote on engineering services proposal for the Fitchburg Rd. Tank Rehabilitation Project. **LL made a motion to accept the proposal for Tighe & Bond for the Fitchburg Road Tank Rehabilitation project in the amount of \$19,000.00. MM seconded. Unanimous vote.**

3.3

Discuss/Review/Vote Capital Improvement Plan to submit to Capital Planning Committee to meet December 1st deadline. MM added that he would like to see at least three generators added to the Master plan along with main cleaning by ice pigging on a yearly basis. LL made a motion to approve the amended 5 year Capital Plan to include gate valve insulation/replacement, Ice Pigging and generators. MM seconded. Unanimous vote. LL made a motion to have the Chairman sign after the changes are made. MM seconded. Unanimous vote.

3.4 Refund Acct #61655b, 9 Penny Lane, \$91.00 RE: Paid final bill twice. LL made a motion to refund acct# 61655 9 Penny Lane, in the amount of \$91.00. MM seconded. Unanimous vote.

3.5 Refund Acct #60460c, 1 Squannacook Terrace, \$37.50. RE: Paid final bill twice. LL made a motion to approve a refund for acct#60460C, 1 Squannacook Terrace in the amount of \$37.50. MM seconded. Unanimous vote.

3.6 Refund Acct #63000, Asphalt Services, \$200.00. RE: Paid fine twice. LL made a motion to approve a refund to acct#63000, Asphalt Services, in the amount of \$200.00. MM seconded. Unanimous vote.

IV. COMMISSIONERS UPDATES AND REPORTS.

4.1

V. WATER SUPERINTENDENTS UPDATES AND REPORTS.

5.1 Opinion from Town Counsel and Attorney General's Office on Open Meeting Law Re: Items that fall with the subject matter of "not reasonably anticipated by the Chair" i.e., Applications for water service submitted within 48 after posting of meeting. Paul reported that the opinion came back from town counsel for approving water service application. It is permissible however moving forward it should be placed on the next agenda to ratify.

VI. OFFICE UPDATES AND REPORTS.

6.1 Review and Sign Bills Payable Warrants.

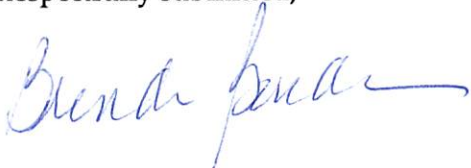
6.3 Review and sign Schedule of Bills Receivable report.

6.4 Review Accounts Receivable report.

VII. ADJOURNMENT:

MM made a motion to adjourn the meeting and sign the warrants and reports out of session. LL seconded. Unanimous. Meeting was adjourned at 7:00pm.

Respectfully submitted,



Brenda Boudreau, Office Administrator



TOWNSEND WATER DEPARTMENT
540 Main Street West Townsend, Massachusetts 01474

Michael MacEachern, Chairman

Paul L. Rafuse,
Water Superintendent

Nathan Mattila, Vice-Chairman

Lance Lewand, Clerk

(978) 597-2212
Fax (978) 597-5561

WATER COMMISSIONERS MEETING AGENDA

November 7, 2016 - 5:30P.M.

Water Department 540 Main Street, Meeting Room

I. PRELIMINARIES:

- 1.1 Call the meeting to order and announce meeting address.
- 1.2 Roll call.
- 1.3 Announce that the meeting is being tape recorded
- 1.4 Chairman's additions or deletions.
 - 1.4.1 MM requests review of Gary Amadon's future service connection instructions and plans
 - 1.4.2 Discuss meter valve replacement policy.
- 1.5 Review/Approve meeting minutes of October 11, 2016 (SF)
- 1.6 Review correspondence.

II. APPOINTMENTS:

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III. MEETING BUSINESS:

- 3.1 Discuss/Review updating our Master Plan to include GIS capabilities and development of a Hydraulic Model and discuss date/s for a presentation by Tighe & Bond of the advantages and benefits of having GIS capabilities from other communities.
- 3.2 Discuss/Review/Vote on engineering services proposal for the Fitchburg Rd. Tank Rehabilitation Project
- 3.3 Discuss/Review/Vote Capital Improvement Plan to submit to Capital Planning Committee to meet December 1st deadline.
- 3.4 Refund Acct #61655b, 9 Penny Lane, \$91.00 RE: Paid final bill twice
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- 6.1 Review and Sign Bills Payable Warrants.
- 6.3 Review and sign Schedule of Bills Receivable report (SF)
- 6.4 Review Accounts Receivable report.

**** (SF) signature folder**

VII. ADJOURNMENT:

Townsend Water Department Water System Master Plan Proposal - Draft

TO: Paul Rafuse, Superintendent
FROM: Lou Soracco
COPY: Tom Mahanna
DATE: November 2, 2016

3.1

As we have discussed, we have prepared a Draft Proposal to complete a Water System Master Plan for the Townsend Water Department (Water Department). This Master Plan will assist the Water Department in developing a planning tool for the operation and management of the water system for a twenty-year planning period.

SCOPE OF SERVICES

We recommend that the Water Department consider the following Scope of Services:

Task 1: Evaluation of Existing Facilities

Based on existing conditions and information made available by Water Department staff, Tighe & Bond will provide an inventory and description of the Water Department's existing system and facilities. This description will include discussion of:

- Sources
- Storage facilities
- Pumping stations
- Water distribution system assets (piping, valves, hydrants, and meters)
- System operations
- Water quality
- Current water conservation and demand management practices

This task includes a meeting with the Water Department staff to discuss the Department's goals and objectives for this study, interview key staff regarding the operation of the system, discuss our approach to the Scope of Work, and obtain up-to-date information including relevant reports and data.

With the assistance of Water Department staff, Tighe & Bond will visit and document the condition of each facility and the operational parameters. We will include the following locations:

1. **Well Pumping Stations:** Main Street, Cross Street, Harbor Trace, and Witch's Brook 1 and 2
2. **Booster Pumping Station:** West Meadow
3. **Storage Facilities:** Highland Street, and Fitchburg Road

Please note that these visits do not include completing comprehensive detailed condition assessments.

Task 2: Develop Water Supply Requirements

We will develop the water supply requirements for the Water Department utilizing historical water usage records and project future water demand requirements for a 20 year (through 2036) planning period. We will complete evaluations of the following:

- Population trends
 - Historical population
 - Population served
 - Future population for 20-year planning (based on Mass DCR projections for Water Management Act permit and Town Census)
- Water Demand Trends
 - Historical trends in residential, commercial, industrial, public, and non-revenue water consumption (including use per service connection)
 - Historical maximum month and maximum day peaking factors
 - Consumption trends by category
 - Unaccounted for water historical data
 - Estimate future average day, maximum month, and maximum day demands for the planning period (based on population and proposed developments)
 - Distribution storage capacity and future storage needs
 - Compare actual demands for the system and updated demand projections from the previous Water System Master Plan and Mass DCR projections.

Task 3: Review Adequacy of Existing Supplies

Tighe & Bond will review the water supply capacity, adequacy, and quality based on information from the Water Department along with any recent water quality analysis. The goal of this task is to determine the adequacy of existing groundwater supplies to meet existing and future demands, Federal and State Drinking Water Regulations, and the Water Department's Water Management Act Permit.

Under this task, we will complete an evaluation of the following:

- Capacity of all five existing supplies
- Adequacy of existing supplies to meet existing and future (2036) demands
- Water quality of existing supplies
- Review proposed future water quality regulations, both Federal and State, to determine treatment facilities ability to meet regulations that may impact existing sources
- Confirm existing source status (active, inactive or emergency), source description data, and approved withdrawal amounts (registered and permitted)
- Review current Water Management Act Permit and potential impacts by the Sustainable Water Management Initiative
- Review potential future sources of supply and interconnections with neighboring water systems

Task 4: Water Distribution System Map Update

Tighe & Bond will coordinate with Water Department staff to complete updates to the water distribution system digital map available in AutoCAD format. We assume the Water Department will provide Tighe & Bond with the most recent map of the water system in AutoCAD format prior to initiating this task. We also assume the Water Department staff will

Identify areas within the distribution system that have had extensions or improvements since the last water system map update was completed. We will coordinate with Department staff to capture additional information known to exist that may not be recorded on existing record plans. Please note that this task does not include any field work to map additional features.

Deliverables: Tighe & Bond will provide all digital data developed (AutoCAD map) and will provide the Water Department with a hard copy of the updated distribution system map for review. Upon receipt of any comments or edits, we will revise the system map and provide the Water Department with both electronic and hard copies of the final distribution system map.

Task 5: Capital Improvement Plan

Tighe & Bond will prepare a Capital Improvement Plan (CIP) that will provide the Water Department with an overall plan to budget, fund, and implement improvements to the distribution system in a prioritized manner. The CIP will identify short term and long term capital improvement needs and budgets, priority of projects (high, medium, low), and a schedule for project implementation. In order to implement the capital improvements in an affordable, phased program, Tighe & Bond will prepare a Five Year CIP. This Five Year CIP will consider the Department's ability to fund the projects, impacts of grouping projects, grant funding, and bonding. Please note that this Task does not include an analysis of Water Department's rate structure to determine the adequacy to fund the CIP.

Deliverables: We will prepare a draft memorandum summarizing the proposed CIP and Five Year CIP, table of projects, prioritization, schedule, and associated costs, and map showing location of proposed improvements. We will solicit Water Department staff input on the draft CIP and Five Year CIP. Upon receipt of comments, we will revise the CIP accordingly for inclusion in the final Master Plan Report.

Task 6: Report Preparation

Tighe & Bond will prepare draft Water System Master Plan report summarizing the results of the evaluations completed under Tasks 1 through 6. We will provide the Water Department with three hard copies of the draft report for review. We will meet with Water Department staff to present the results of the report and provide a summary of the recommendations.

Based on comments received from the Water Department, we will revise the report and prepare a Final Water System Master Plan Report. Tighe & Bond will provide three bound hard copies of the report and one electronic copy in .pdf format.

Task 7: Develop Water Distribution System Computer Model (Optional)

Tighe & Bond will use information available from the existing water distribution system mapping provided by the Town to develop and calibrate a hydraulic model. We will complete the following services under this task:

Model Development and Calibration

- Review system operations data, including source controls and tank operating data.
- Prepare water system data for integration with modeling software, including pipe characteristics, node elevations, allocation of demands, and development of diurnal demand patterns.

- Create a hydraulic model to include any large water mains (i.e. 4-inches or greater) from mapping provided by the Town. Tighe & Bond will create the computer model using InfoWater software.
- Review any recent Insurance Services Organization (ISO) or other hydrant flow test data to determine adequacy and location of flow tests that may be used for calibration of the model.

Update Model Demand Allocation

- Develop a GIS layer that includes geo-referenced customer service locations and annual average water usage from the most recent available billing data. Utilize the GIS layer to allocate demands to model nodes.
- Prepare diurnal demand patterns for use in extended period simulations based on operating data provided by the Water Department.
- Perform a storage capacity evaluation examining:
 - Unusable storage
 - Available emergency storage
 - Available equalization storage
- Provide updated/revised water system GIS layers to the Water Department. The overall intention is to create a model that will mirror the GIS system.

Hydraulic Analysis of Distribution System

- Perform system-wide analyses for existing and 20-year conditions (after improvements completed) for the following demand conditions:
 - Average day
 - Maximum day
 - Peak hour
- Analyze distribution system pressures. In addition to high (>80 psi) and low (<35 psi) pressure, the system will also be analyzed for high pipe velocities (> 5 fps) and head losses (>10 ft/1,000 ft).
- Identify system hydraulic deficiencies and vulnerable areas due to lack of redundancy.
- Identify and model potential improvement(s) to address each hydraulic deficiency.
- Determine available fire flows at selected locations in the model under maximum day demands assuming sources of supply and pumps are operating and tanks are at the bottom of the normal operating range. Fire flows will be defined as the flow available at a residual pressure of 20 psi without reducing the pressure at any point in the distribution system below 20 psi.
- Compare the results of flows from the model with the most recent fire flow report conducted by ISO in Town (if available).
- Identify specific water main improvements to address transmission “bottlenecks”, sections of pipeline that exhibit high head loss, as well as low fire flow, low pressure and other operating deficiencies.
- Develop budgetary cost estimates for recommended improvements.

ENGINEERING BUDGET

We recommend that the Water Department budget approximately \$30K - \$50K for this Master Plan depending on the final agreed upon scope of work. We look forward to discussing this proposal with you and addressing any questions you may have.

29-0354-35
September 9, 2016

Mr. Paul Rafuse, Superintendent
Townsend Water Department
540 Main Street
West Townsend, MA 01474

Re: **Proposal for Engineering Services
Fitchburg Road Water Storage Tank Rehabilitation**

Dear Mr. Rafuse:

Tighe & Bond is pleased to provide this proposal to the Townsend Water Department for engineering services for the rehabilitation of the Fitchburg Road Tank. This project will provide recommendations to either apply an overcoat to the exterior surfaces before adhesion is lost, or remove the entire interior and exterior coating systems and apply a new coating system.

Project Understanding

The Fitchburg Road Tank was inspected by Utility Services in October 2014. During the inspection, several deficiencies were noted. These included the replacement of missing bolts and/or rivet in the roof, sealing the gap along the perimeter of the roof and side walls, installation of a finial vent to replace the existing finial ball, welding the ladder stationary to the tank roof, installation of a raised neck for the roof hatch, and installation of a railing on the roof around the area of the hatch.

In July 2016, Utility Services corrected the above deficiencies. While on site, they checked adhesion of the existing coating system. The results of the adhesion check indicated that it was still possible to apply an overcoat to the existing coating system. However the adhesion was not sufficient to guarantee the system would last longer than 1-year. In July 2016, Utility Services provided the Water Department with a proposal for a 15-year maintenance program for the Fitchburg Road Tank, which included the application of an overcoat. As part of the maintenance program, Utility Services would warranty the tank for 15-years, and as a result would accept the risk involved with implementing an overcoat.

After evaluating the proposal, the Water Department decided to proceed with the traditional design-bid-build approach to complete the rehabilitation of the coating system of the tank.

Scope of Services

The following Scope of Services was developed based on our understanding of the project.

Task 1 - Design

- 1.1 **Kickoff Meeting/Site Visit** – Conduct a kickoff meeting and site visit to review the proposed work at the tank and review the site constraints for construction access.
- 1.2 **Evaluation** – Prepare an evaluation of coating alternatives. Due to the condition of the existing coating as reported by Utility Services, we anticipate that all coatings will need to be removed from the exterior and interior of the tank.
- 1.3 **Cost Comparison** – Prepare cost comparisons for coating system alternatives. Based upon a technical evaluation of alternatives relative to the type and condition of the

existing coating systems and available new paint products, we will advise the Water Department of the relative risks, anticipated life expectancy, appearance and probable cost of available alternatives.

- 1.4 **Bid Documents** - Prepare contract bidding documents including technical specifications and contract provisions for the selected coating system alternative as well as draft agreement for review by Town Counsel.

Task 2 – Bidding Services

- 2.1 **Advertisement** – Assist the Water Department in advertising the project for public bidding in the Central Register. Tighe & Bond will prepare a Bid Advertisement for the Water Department to place in a local newspaper. Tighe & Bond will provide electronic bid documents for distribution to prospective bidders on our “Projects Out to Bid” website.
- 2.2 **Questions and Addenda** – Tighe & Bond will respond to questions and/or requests for information from prospective bidders and prepare addenda as required.
- 2.3 **Bid Opening** – Tighe & Bond will attend the bid opening for the general contractors on the project. We will assist the Water Department with opening of the bids received and recording the results.
- 2.4 **Recommendation to Award** – We will review all bids received and conduct reference checks on the apparent low bidder(s). Tighe & Bond will provide the Water Department with a letter recommending award to the lowest responsible and eligible bidder.

Engineering Fee

Tighe & Bond will perform the above listed services for a lump sum fee of **\$19,000.00** invoiced monthly based on percentage complete. In the event that the scope of work is increased for any reason, the lump sum fee to complete the work shall be mutually revised by written amendment. Our attached Terms and Conditions is part of this letter agreement.

For information purposes, the following fee summary provides the anticipated break out of the project. The summary is presented to provide the Town with a better understanding of how the project budget was developed. Invoices will be submitted based on the total project fee and not the individual line items.

Engineering Fee Summary

<u>Task</u>	<u>Description</u>	<u>Budget</u>
1	Design	\$14,200
2	Bidding	4,800
TOTAL FEE		\$19,000

Excluded Services

The following services have not included in this proposal. If the Water Department requests any of these services to be provided, we will modify our proposal accordingly.

- Conducting field site survey
- Additional tank inspection (design shall be based on Utility Services 2014 Report)
- Soils sampling and analysis
- Advertising fees



- Construction Services (proposal for these services will be provided during the bidding phase)

Schedule

Tighe & Bond is prepared to begin work immediately on this project and complete the services listed in Task 1 within six weeks from authorization to proceed. We will proceed with the bidding services phase upon authorization of the Water Department. We recommend that the Water Department bid the project during the winter so that construction can begin as soon as weather permits in the spring of 2017.

If this proposal is acceptable, please sign below and return one signed copy to our office. If you have any questions or require any additional information, please contact me at our office.

Very truly yours,

Tighe & Bond, Inc.



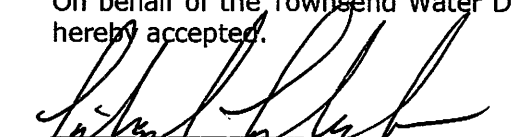
Thomas J. Mahanna, P.E.
Vice President
Tel: 508.471.9607
Cell: 978.846.0675
e: timahanna@tighebond.com



Louis A. Soracco, P.E.
Project Manager
Tel: 508.304.6358
Cell: 978.501.4911
e: lasoracco@tighebond.com

ACCEPTANCE:

On behalf of the Townsend Water Department, the scope, fee, and terms of this proposal are hereby accepted.



Authorized Representative

11-7-16

Date

Enclosure: Terms and Conditions

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"CLIENT" is defined in the acceptance line of the accompanying proposal letter or the name the proposal is issued to; Tighe & Bond, Inc. is hereby referenced as "ENGINEER".

1. SCHEDULE OF PAYMENTS

1.1 Invoices will generally be submitted once a month for services performed during the previous month. Payment will be due within 30 days of invoice date. Monthly payments to ENGINEER shall be made on the basis of invoices submitted by ENGINEER and approved by CLIENT. If requested by CLIENT, monthly invoices may be supplemented with such supporting data as reasonably requested to substantiate them.

1.2 In the event of a disagreement as to billing, the CLIENT shall pay the agreed portion.

1.3 Interest will be added to accounts in arrears at the rate of one and one-half (1.5) percent per month (18 percent per annum) or the maximum rate allowed by law, whichever is less, of the outstanding balance. In the event counsel is retained to obtain payment of an outstanding balance, CLIENT will reimburse ENGINEER for all reasonable attorney's fees and court costs.

1.4 If CLIENT fails to make payment in full within 30 days of the date due for any undisputed billing, ENGINEER may, after giving seven days' written notice to CLIENT, suspend services and retain work product until paid in full, including interest. In the event of suspension of services, ENGINEER will have no liability to CLIENT for delays or damages caused by such suspension.

2. SUCCESSORS AND ASSIGNS

2.1 CLIENT and ENGINEER each binds itself, its partners, successors, assigns and legal representatives to the other parties to this Agreement and to the partners, successors, assigns and legal representatives of such other parties with respect to all covenants of this Agreement. ENGINEER shall not assign, sublet or transfer its interest in this Agreement without the written consent of CLIENT, which consent shall not be unreasonably withheld.

2.2 This Agreement represents the entire and integrated Agreement between CLIENT and ENGINEER and supersedes all prior negotiations, representations or Agreements, whether written or oral. This Agreement may be amended only by written instrument signed by both CLIENT and ENGINEER.

2.3 Nothing contained in this Agreement shall create a contractual relationship or cause of action in favor of a third party against CLIENT or against ENGINEER.

3. STANDARD OF CARE

3.1 In performing professional services, ENGINEER will use that degree of care and skill ordinarily exercised under similar circumstances by members of the profession practicing in the same or similar locality.

4. TERMINATION

4.1 This Agreement may be terminated by either party upon seven days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In addition, CLIENT may terminate this Agreement for its convenience at any time by giving written notice to ENGINEER. In the event of any termination, CLIENT will pay ENGINEER for all services rendered and reimbursable expenses incurred under the Agreement to the date of termination and all services and expenses related to the orderly termination of this Agreement.

5. RECORD RETENTION

5.1 ENGINEER will retain pertinent records relating to the services performed for the time required by law, during which period the records will be made available upon reasonable request and upon reimbursement for any applicable retrieval/copying charges.

5.2 Samples - All soil, rock and water samples will be discarded 30 days after submission of ENGINEER's report, unless mutually agreed otherwise or unless ENGINEER's customary practice is to retain for a longer period of time for the specific type of services which ENGINEER has agreed to perform. Upon request and mutual agreement regarding applicable charges, ENGINEER will ship, deliver and/or store samples for CLIENT.

6. OWNERSHIP OF DOCUMENTS

6.1 All reports, drawings, specifications, computer files, field data, notes, and other documents, whether in paper or electronic format or otherwise ("documents"), are instruments of service and shall remain the property of ENGINEER, which shall retain all common law, statutory and other reserved rights including, without limitation, the copyright thereto. CLIENT's payment to ENGINEER of the compensation set forth in the Agreement shall be a condition precedent to the CLIENT's right to use documents prepared by ENGINEER.

6.2 Documents provided by ENGINEER are not intended or represented to be suitable for reuse by CLIENT or others on any extension or modification of this project or for any other projects or sites. Documents provided by ENGINEER on this project shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party, other than regulatory agencies, without the prior written consent of ENGINEER. Reuse of documents by CLIENT or others on extensions or modifications of this project or on other sites or use by others on this project, without ENGINEER's written permission and mutual agreement as to scope of use and as to compensation, if applicable, shall be at the user's sole risk, without liability on ENGINEER's part, and CLIENT agrees to indemnify and hold ENGINEER harmless from all claims, damages, and expenses, including attorney's fees, arising out of such unauthorized use or reuse.

6.3 Electronic Documents - ENGINEER cannot guarantee the authenticity, integrity or completeness of data files supplied in electronic format. If ENGINEER provides documents in electronic format for CLIENT's convenience, CLIENT agrees to waive any and all claims against ENGINEER resulting in any way from the unauthorized use, alteration, misuse or reuse of the electronic documents, and to defend, indemnify, and hold ENGINEER harmless from any claims, losses, damages, or costs, including attorney's fees, arising out of the unauthorized use, alteration, misuse or reuse of any electronic documents provided to CLIENT.

6.4 Electronic Data Bases - In the event that ENGINEER prepares electronic data bases, geographical information system (GIS) deliverables, or similar electronic documents, it is acknowledged by CLIENT and ENGINEER that such project deliverables will be used and perhaps modified by CLIENT and that ENGINEER's obligations are limited to the deliverables and not to any subsequent modifications thereof. Once CLIENT accepts the delivery of maps, databases, or similar documents developed by ENGINEER, ownership is passed to CLIENT. ENGINEER will retain the right to use the developed data and will archive the data for a period of three years from the date of project completion.

7. INSURANCE

7.1 ENGINEER will retain Workmen's Compensation Insurance, Professional Liability Insurance with respect to liabilities arising from negligent errors and omissions, Commercial General Liability Insurance, Excess Liability, and Automobile Liability during this project. ENGINEER will furnish certificates at CLIENT's request.

7.2 Risk Allocation - For any claim, loss, damage, or liability resulting from error, omission, or other professional negligence in the performance of services, the liability of ENGINEER to all claimants with respect to this project will be limited to an aggregate sum not to exceed \$50,000 or ENGINEER's compensation for consulting services, whichever is greater.

7.3 Damages - Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither CLIENT nor ENGINEER, their respective officers, directors, partners, employees, contractors or subconsultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the project or to this Agreement. This mutual waiver of certain damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation and any other consequential damages that may be incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty. Both CLIENT and ENGINEER shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.

8. INDEMNIFICATION AND DISPUTE RESOLUTION

8.1 ENGINEER agrees, to the fullest extent permitted by law, to indemnify and hold CLIENT harmless from any damage, liability or cost to the extent caused by ENGINEER's negligent acts, errors or omissions in the performance of professional services under this Agreement and those of its subconsultants or anyone for whom ENGINEER is legally liable. ENGINEER is not obligated to indemnify CLIENT in any manner whatsoever for CLIENT's own negligence.

8.2 CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold ENGINEER harmless from any damage, liability or cost to the extent caused by CLIENT's negligent acts, errors or omissions in the performance of this Agreement or anyone for whom CLIENT is legally liable. CLIENT is not obligated to indemnify ENGINEER in any manner whatsoever for ENGINEER's own negligence.

8.3 CLIENT agrees that any and all limitations of ENGINEER's liability, waivers of damages by CLIENT to ENGINEER shall include and extend to those individuals and entities ENGINEER retains for performance of the services under this Agreement, including but not limited to ENGINEER's officers, partners, and employees and their heirs and assigns, as well as ENGINEER's subconsultants and their officers, employees, and heirs and assigns.

8.4 In the event of a disagreement arising out of or relating to this Agreement or the services provided hereunder, CLIENT and ENGINEER agree to attempt to resolve any such disagreement through direct negotiations between senior, authorized representatives of each party. If any disagreement is not resolved by such direct negotiations, CLIENT and ENGINEER further agree to consider using mutually acceptable non-binding mediation service in order to resolve any disagreement without litigation.

9. SITE ACCESS

9.1 Right of Entry - Unless otherwise agreed, CLIENT will furnish right-of-entry on the land for ENGINEER to make any surveys, borings, explorations, tests or similar field investigations. ENGINEER will take reasonable precautions to limit damage to the land from use of equipment, but the cost for restoration of any damage that may result from such field investigations is not included in the agreed compensation for ENGINEER. If restoration of the land is required to its former condition, upon mutual agreement this may be accomplished as a reimbursable additional service at cost plus ten percent.

9.2 Damage to Underground Structures - Reasonable care will be exercised in locating underground structures in the vicinity of proposed subsurface explorations. This may include contact with the local agency coordinating subsurface utility information and/or a review of plans provided by CLIENT or CLIENT representatives for the site to be investigated. ENGINEER shall be entitled to rely upon any information or plans prepared or made available by others. In the absence of confirmed underground structure locations, CLIENT agrees to accept the risk of damage and costs associated with repair and restoration of damage resulting from the exploration work.

10. OIL AND HAZARDOUS MATERIALS

10.1 If, at any time, evidence of the existence or possible existence of asbestos, oil, or other hazardous materials or substances is discovered, ENGINEER reserves the right to renegotiate the terms and conditions of this Agreement, the fees for ENGINEER's services and ENGINEER's continued involvement in the project. ENGINEER will notify CLIENT as soon as practical if evidence of the existence or possible existence of such hazardous materials or substances is discovered.

10.2 The discovery of the existence or possible existence of hazardous materials or substances may make it necessary for ENGINEER to take accelerated action to protect human health and safety, and/or the environment. CLIENT agrees to compensate ENGINEER for the cost of any and all measures that in its professional opinion are appropriate to preserve and/or protect the health and safety of the public, the environment, and/or ENGINEER's personnel. To the full extent permitted by law, CLIENT waives any claims against ENGINEER and agrees to indemnify, defend and hold harmless ENGINEER from any and all claims, losses, damages, liability, and costs, including but not limited to cost of defense, arising out of or in any way connected with the existence or possible existence of such hazardous materials substances at the site.

11. SUBSURFACE INVESTIGATIONS

11.1 In soils, groundwater, and other subsurface investigations, conditions may vary significantly between successive test points and sample intervals and at locations other than where observations, exploration, and investigations have been made. Because of the variability of conditions and the inherent uncertainties in subsurface evaluations, changed or unanticipated underground conditions may occur that may affect overall project costs and/or execution. These variable conditions and related impacts on cost and project execution are not the responsibility of ENGINEER.

12. FEDERAL AND STATE REGULATORY AGENCY AUDITS

12.1 For certain services rendered by ENGINEER, documents filed with federal and state regulatory agencies may be audited after the date of filing. In the event that CLIENT's project is selected for an audit, CLIENT agrees to compensate ENGINEER for time spent preparing for and complying with an

agency request for information or interviews in conjunction with such audit. CLIENT will be notified at the time of any such request by an agency, and ENGINEER will invoice CLIENT based on its standard billing rates in effect at the time of the audit.

13. CLIENT'S RESPONSIBILITIES

13.1 Unless otherwise stated in the Agreement, CLIENT will obtain, arrange, and pay for all notices, permits, and licenses required by local, state, or federal authorities; and CLIENT will make available the land, easements, rights-of-way, and access necessary for ENGINEER's services or project implementation.

13.2 CLIENT will examine ENGINEER's studies, reports, sketches, drawings, specifications, proposals, and other documents and communicate promptly to ENGINEER in the event of disagreement regarding the contents of any of the foregoing. CLIENT, at its own cost, will obtain advice of an attorney, insurance counselor, accountant, auditor, bond and financial advisors, and other consultants as CLIENT deems appropriate; and render in writing decisions required by CLIENT in a timely manner.

14. OPINIONS OF COST, FINANCIAL ANALYSES, ECONOMIC FEASIBILITY PROJECTIONS, AND SCHEDULES

14.1 ENGINEER has no control over cost or price of labor and materials required to implement CLIENT's project, unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs, competitive bidding procedures and market conditions, time or quality of performance by operating personnel or third parties, and other economic and operational factors that may materially affect the ultimate project cost or schedule. Therefore, ENGINEER makes no warranty, expressed or implied, that CLIENT's actual project costs, financial aspects, economic feasibility, or schedules will not vary from any opinions, analyses, projections, or estimates which may be provided by ENGINEER. If CLIENT wishes additional information as to any element of project cost, feasibility, or schedule, CLIENT at its own cost will employ an independent cost estimator, contractor, or other appropriate advisor.

15. CONSTRUCTION PHASE PROVISIONS

15.1 CLIENT and Contractor - The presence of ENGINEER's personnel at a construction site, whether as onsite representatives or otherwise, does not make ENGINEER or ENGINEER's personnel in any way responsible for the obligations, duties, and responsibilities of the CLIENT and/or the construction contractors or other entities, and does not relieve the construction contractors or any other entity of their respective obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction contract documents and for providing and/or enforcing all health and safety precautions required for such construction work.

15.2 Contractor Control - ENGINEER and ENGINEER's personnel have no authority or obligation to monitor, to inspect, to supervise, or to exercise any control over any construction contractor or other entity or their employees in connection with their work or the health and safety precautions for the construction work and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except ENGINEER's own personnel.

15.3 On-site Responsibility - The presence of ENGINEER's personnel at a construction site is for the purpose of providing to CLIENT an increased degree of confidence that the completed construction work will conform generally to the construction documents and that the design concept as reflected in the construction documents generally has been implemented and preserved by the construction contractor(s). ENGINEER neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents.

15.4 Payment Recommendations - Recommendations by ENGINEER to CLIENT for periodic construction progress payments to the construction contractor(s) are based on ENGINEER's knowledge, information, and belief from selective observation that the work has progressed to the point indicated. Such recommendations do not represent that continuous or detailed examinations have been made by ENGINEER to ascertain that the construction contractor(s) have completed the work in exact accordance with the construction documents; that the final work will be acceptable in all respects; that ENGINEER has made an examination to ascertain how or for what purpose the construction contractor(s) have used the moneys paid; that title to any of the work, materials, or equipment has passed to CLIENT free and clear of liens, claims, security interests, or encumbrances; or that there are no other matters at issue between CLIENT and the construction contractors that affect the amount that should be paid.

15.5 Record Drawings - Record drawings, if required as part of ENGINEER's agreed scope of work, will be prepared, in part, on the basis of information compiled and furnished by others, and may not always represent the exact location, type of various components, or exact manner in which the project was finally constructed. ENGINEER is not responsible for any errors or omissions in the information from others that are incorporated into the record drawings.

16. DESIGN WITHOUT CONSTRUCTION PHASE SERVICES

The following provisions shall be applicable should the ENGINEER not provide Construction Phase Services in connection with the PROJECT:

16.1 It is understood and agreed that the ENGINEER's Scope of Services under this proposal does not include project observation or review of the Contractor's performance or any other construction phase services, and that such services will be provided by the CLIENT or others. The CLIENT assumes all responsibility for interpretation of the Contract Documents and for construction observation, and the CLIENT waives any claims against the ENGINEER that may be in any way connected thereto.

16.2 In addition, the client agrees, to the fullest extent permitted by law, to indemnify and hold harmless the ENGINEER, its officers, directors, employees and subconsultants (collectively, ENGINEER) against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance of such services by other persons or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments or changes made to the Contract Documents to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct of the ENGINEER.

**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM B - EQUIPMENT PURCHASE/LEASE REQUEST**

1. Department: Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse	4. Phone: Extension: 978-597-2212
5. Project Title: Purchase 4WD 1 Ton Dump Truck	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Equipment Request Form (check): <input type="checkbox"/> Add a New Equipment to the CIP <input type="checkbox"/> Modify a Equipment Already in the CIP <input checked="" type="checkbox"/> Resubmit Previous Equipment Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 19
	9. Department Priority: 2
	10. Form of Acquisition (check): <input checked="" type="checkbox"/> Purchase <input type="checkbox"/> Lease <input type="checkbox"/> Lease/Purchase
11. Purpose of Expenditure (check all applicable):	
<input type="checkbox"/> Increased Safety/Emergency <input type="checkbox"/> Reduce Personnel Time <input type="checkbox"/> Expanded Service <input type="checkbox"/> Mandated by Federal, State, or Local Law <input checked="" type="checkbox"/> Scheduled Replacement <input type="checkbox"/> New Operation <input type="checkbox"/> Improve Procedures, Records, etc. <input type="checkbox"/> Replace Worn-Out Equipment <input type="checkbox"/> Present Equipment Obsolete	
12. Number of Units Requested: 1	13. Number of Similar Items in Inventory: 0
14. Cost of Purchase or Annual Lease: Per Unit: \$ 50,000.00 Total: \$ 50,000.00	15. Estimated Useful Life in Years: 10
16. Description/Justification (attach any relevant background information): This is to replace our existing 2002 Ford F-450 1 Ton Dump Truck used for constructio and hauling material.	

17. Replaced Equipment (if any):				Prior Fiscal Year's		
Item	Make	Age	Mileage	Maintenance Costs	# of Breakdowns	Rental Costs
A.						
B.						

18. Recommended Disposal of Replaced Equipment (check):
 Trade-In Sale Possible Use by Other Agencies Other _____

19. Estimated Net Effects on Future Operating Costs (+/-):			20. Recommended Financing Source (if known):
	One-Time \$	Annual \$	
Personnel			
Utilities			
Supplies			
Other (specify):			
TOTAL	\$ 50,000	\$ -	

21. Signature: _____

Notes (reserved):

For Capital Planning Committee's Use Only: Recommended Number of Years (if any): Statutory Reference:	Estimated Annual Debt Service (Initial Fiscal Year): Maximum Number of Years Allowed: Date Estimated Provided:
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TOWN OF TOWNSEND
SUMMARY SHEET FOR THE CAPITAL IMPROVEMENT PLAN OF FISCAL YEAR 2017- 2021
DEPARTMENT NAME:

FY Req'd	Dept. Priority	Project/Equipment Title	FY 17	FY 18	FY 19	FY 20	FY 21	Total
17	2	Water Main Cleaning	50,000					\$ 50,000
17	1	Construct and develop replacement well at our Cross Street well with treatment facility.		1,000,000				\$ 1,000,000
19	3	Main St. Pump Station Replacement Well Development, Wellfield decommissioned, and Pump Station Modifications			1,200,000			\$ 1,200,000
18	2	Emery Rd. to South Harbor Rd. Water Main Loop		1,500,000				\$ 1,500,000
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
Total All Projects & Equipment			\$ 50,000	\$ 2,500,000	\$ 1,200,000	\$ -	\$ -	\$ 3,750,000

Department Head Signature _____

Date Submitted _____

**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM A - CAPITAL PROJECT REQUEST**

1. Department Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse, Superintendent	4. Phone: Extension: 978-597-2212
5. Project Title: Emery Road to South Harbor Road Water Main Loop	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Project Request Form (check): () Add a New Project to the CIP () Modify a Project Already in the CIP (<input checked="" type="checkbox"/>) Resubmit Previous Project Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 19
	9. Department Priority: 2
	10. Estimated Useful Life in Years: indefinite
11. Description/Justification (attach any relevant background information): This project is beneficial to the distribution system because it would improve water quality by creating a loop and eliminating two dead ends in the system. Also, it would provide another main supply line parallel with Main St. on the South side in the event a section of Main had to be shut down on Main St. between the center and Harbor lights. Although the Harbor area is supplied from a loop on Wallace Hill Rd. this would provide an addition source of supply for the Harbor area and customers on the South side of the Squannacook River.	
12. Need for Consultant Advisory Services? (check): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
13. Month & Year Project Will Begin If Funded? unknown Month & Year Project Will End If Funded unknown	

14. Estimated Capital Costs:	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Planning & Design						
Land Acquisition						
Site Development						
Construction		1,500,000				1,500,000
Other (specify):						
TOTAL	\$ -	\$ 1,500,000		\$ -	\$ -	\$ 1,500,000

15. Estimated Net Effects on Operation Costs (+/-): One-Time \$ Annual \$	16. Estimated Net Effects On Municipal Revenue (+/-):
Personnel	17. Recommended Financing Source (if known):
Utilities	
Supplies	
Other (specify):	
TOTAL \$ - \$ -	18. Signature:

Notes (reserved):

For Capital Committee Use Only: Recommended Number of Years (if any): Statutory Reference:	Estimated Annual Debt Service (Initial Fiscal Year): Maximum Number of Years Allowed: Date Estimated Provided:
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**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM A - CAPITAL PROJECT REQUEST**

1. Department Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse, Superintendent	4. Phone: Extension: 978-597-2212
5. Project Title: Main St. Pump Station replacement well development, Wellfield decommissioned, and pump station modifications.	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Project Request Form (check): () Add a New Project to the CIP () Modify a Project Already in the CIP (<input checked="" type="checkbox"/>) Resubmit Previous Project Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 19
	9. Department Priority: 3
	10. Estimated Useful Life in Years: indefinite
11. Description/Justification (attach any relevant background information): A replacement well has already been located tested and permitted by the state MassDEP to replace the existing wellfield. Although a consistently good source the wellfield that consists of 52, 2½" wells has become costly to maintain and is very close to a brook. Each well would need to be filled with cement. The replacement well would need to be developed and connected to the existing pump station with a new supply main. Modifications to the existing pump station would consist of removal of existing pumps, priming system components, and control panel. Other modifications may include updating instrumentation and controls. This project would be beneficial to the system by providing us with a more updated, reliable source and eliminate the possibility to impact or be impacted by surface water (brook that surrounds the property).	
12. Need for Consultant Advisory Services? (check): (<input checked="" type="checkbox"/>) Yes () No	
13. Month & Year Project Will Begin If Funded? unknown Month & Year Project Will End If Funded unknown	

14. Estimated Capital Costs:	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Planning & Design						
Land Acquisition						
Site Development						
Construction		1,200,000				1,200,000
Other (specify):						
TOTAL	\$ -	\$ 1,200,000	\$ -	\$ -	\$ -	\$ 1,200,000

15. Estimated Net Effects on Operation Costs (+/-): One-Time \$ Annual \$	16. Estimated Net Effects On Municipal Revenue (+/-):
Personnel	17. Recommended Financing Source (if known):
Utilities	
Supplies	
Other (specify):	
TOTAL	18. Signature:
\$ - \$ -	

Notes (reserved):

For Capital Committee Use Only: Recommended Number of Years (if any): Statutory Reference:	Estimated Annual Debt Service (Initial Fiscal Year): Maximum Number of Years Allowed: Date Estimated Provided:
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**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM A - CAPITAL PROJECT REQUEST**

1. Department Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse, Superintendent	4. Phone: Extension: 978-597-2212
5. Project Title: Construct and Develop replacement well with water treatment facility at our Cross Street well to address Water Quality Issues.	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Project Request Form (check): () Add a New Project to the CIP (<input checked="" type="checkbox"/>) Modify a Project Already in the CIP () Resubmit Previous Project Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 18
	9. Department Priority: 1
	10. Estimated Useful Life in Years: indefinite
11. Description/Justification (attach any relevant background information): Unfortunately we have had to take this well offline for water quality reasons. Historically since constructed in 1980 water supplied from this well has been very good. Recently high levels of Iron and Manganese have been detected. These are naturally occurring minerals in water and are not a health risk. However, it does create an aesthetic problem resulting in discolored (rusty) appearance to the water as well as a "musty" odor. Although despite our efforts to reduce or eliminate the levels of iron and manganese through additional testing, cleaning and inspecting the well and, conventional treatment levels did come down but, aesthetically the water did not improve. Additional specialized testing was performed and provided their opinion that the main source of the problem was confined to the well and not from the ground formation around the well. In consultation with our engineers the most advantageous, cost effective solution is to locate and develop a replacement well within a 250 ft. area of the existing well. Upon doing so it was discovered that the cause or origin of the Iron & Manganese was within the ground formation confirming that in order to maintain this source construction of a treatment facility was needed. On a positive note, test well installation and development discovered a much higher yielding source.	
12. Need for Consultant Advisory Services? (check): (<input checked="" type="checkbox"/>) Yes () No	
13. Month & Year Project Will Begin If Funded? unknown Month & Year Project Will End If Funded unknown	

14. Estimated Capital Costs:	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Planning & Design						
Land Acquisition						
Site Development						
Construction	1,000,000					1,000,000
Other (specify):						
TOTAL	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000

15. Estimated Net Effects on Operation Costs (+/-):		16. Estimated Net Effects On Municipal Revenue (+/-):	
	One-Time \$	Annual \$	
Personnel			17. Recommended Financing Source (if known):
Utilities			
Supplies			
Other (specify):			18. Signature:
TOTAL	\$ -	\$ -	

Notes (reserved):

For Capital Committee Use Only:	Estimated Annual Debt Service (Initial Fiscal Year):
Recommended Number of Years (if any):	Maximum Number of Years Allowed:
Statutory Reference:	Date Estimated Provided:

**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM A - CAPITAL PROJECT REQUEST**

1. Department Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse, Superintendent	4. Phone: Extension: 978-597-2212
5. Project Title: Water Main Cleaning	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Project Request Form (check): <input checked="" type="checkbox"/> Add a New Project to the CIP <input type="checkbox"/> Modify a Project Already in the CIP <input type="checkbox"/> Resubmit Previous Project Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 18
	9. Department Priority: 2
	10. Estimated Useful Life in Years: indefinite
11. Description/Justification (attach any relevant background information): To address a slight decline in available flow in one section recommended for improvement in our 2003 Water Systems Analysis that is approximately 3,000 ft. West of our Main St. Pump Station. Another section we'd like to add to this project is approximately 3,000 ft East of the Main St. Pump Station. Both these jobs are on Main St. This project is both beneficial, cost effective, and less inconvenient to customers. Using ice as an abrasive to clean out the inside of the main is accepted by the American Water Works Association (AWWA), allows the main to be back in service in a matter of hours to service customers, eliminates the costly and time consuming installation of by-pass lines, and eliminates cost and disturbance of main roadways.	
12. Need for Consultant Advisory Services? (check): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
13. Month & Year Project Will Begin If Funded? unknown Month & Year Project Will End If Funded unknown	

14. Estimated Capital Costs:						
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Planning & Design						
Land Acquisition						
Site Development						
Construction	50,000					50,000
Other (specify):						
TOTAL	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

15. Estimated Net Effects on Operation Costs (+/-):	16. Estimated Net Effects On Municipal Revenue (+/-):																		
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">One-Time \$</th> <th style="width: 25%;">Annual \$</th> </tr> <tr> <td>Personnel</td> <td></td> <td></td> </tr> <tr> <td>Utilities</td> <td></td> <td></td> </tr> <tr> <td>Supplies</td> <td></td> <td></td> </tr> <tr> <td>Other (specify):</td> <td></td> <td></td> </tr> <tr> <td>TOTAL</td> <td>\$ -</td> <td>\$ -</td> </tr> </table>		One-Time \$	Annual \$	Personnel			Utilities			Supplies			Other (specify):			TOTAL	\$ -	\$ -	17. Recommended Financing Source (if known):
	One-Time \$	Annual \$																	
Personnel																			
Utilities																			
Supplies																			
Other (specify):																			
TOTAL	\$ -	\$ -																	
Notes (reserved):	18. Signature:																		

For Capital Committee Use Only:	Estimated Annual Debt Service (Initial Fiscal Year):
Recommended Number of Years (if any):	Maximum Number of Years Allowed:
Statutory Reference:	Date Estimated Provided:

**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM A - CAPITAL PROJECT REQUEST**

1. Department Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse, Superintendent	4. Phone: Extension: 978-597-2212
5. Project Title: Update Water System Master Plan	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Project Request Form (check): <input checked="" type="checkbox"/> Add a New Project to the CIP <input type="checkbox"/> Modify a Project Already in the CIP <input type="checkbox"/> Resubmit Previous Project Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 17
	9. Department Priority: 2
	10. Estimated Useful Life in Years: indefinite
11. Description/Justification (attach any relevant background information): Updating our Master Plan will provide us with an evaluation of the existing facilities, develop water supply requirements, review the adequacy of our existing sources, update our water distribution map, prepare a Capital Improvement Plan, and provide a draft report summarizing the evaluation results. Information from this Master Plan can be used to develop a hydraulic model of the system and used to incorporate GIS layering to locate services, mains, gates, hydrants, curbstops, and prioritize work.	
12. Need for Consultant Advisory Services? (check): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
13. Month & Year Project Will Begin If Funded? unknown Month & Year Project Will End If Funded unknown	

14. Estimated Capital Costs:						
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTAL
Planning & Design						
Land Acquisition						
Site Development						
Construction	50,000					50,000
Other (specify):						
TOTAL	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

15. Estimated Net Effects on Operation Costs (+/-):		16. Estimated Net Effects On Municipal Revenue (+/-):	
	One-Time \$	Annual \$	
Personnel			17. Recommended Financing Source (if known):
Utilities			
Supplies			
Other (specify):			
TOTAL	\$ -	\$ -	18. Signature:

Notes (reserved):

For Capital Committee Use Only: Recommended Number of Years (if any): Statutory Reference:	Estimated Annual Debt Service (Initial Fiscal Year): Maximum Number of Years Allowed: Date Estimated Provided:
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**TOWN OF TOWNSEND CAPITAL PLANNING COMMITTEE
FORM B - EQUIPMENT PURCHASE/LEASE REQUEST**

1. Department Water	2. Date: 11/7/2016
3. Contact Person & Title: Paul Rafuse	4. Phone: Extension: 978-597-2212
5. Project Title: Purchase 4WD 1 Ton Dump Truck	6. Contact Email Address: prafuse@townsend.ma.us
7. Purpose of Equipment Request Form (check): () Add a New Equipment to the CIP () Modify a Equipment Already in the CIP (<input checked="" type="checkbox"/>) Resubmit Previous Equipment Request If Prior Unfunded Request, What FY 1st Submitted? _____	8. Fiscal Year Requested in CIP: 19
	9. Department Priority: 2
	10. Form of Acquisition (check): (<input checked="" type="checkbox"/>) Purchase () Lease () Lease/Purchase

11. Purpose of Expenditure (check all applicable):

() Increased Safety/Emergency	() Reduce Personnel Time	() Expanded Service
() Mandated by Federal, State, or Local Law	(<input checked="" type="checkbox"/>) Scheduled Replacement	() New Operation
() Improve Procedures, Records, etc.	() Replace Worn-Out Equipment	() Present Equipment Obsolete

12. Number of Units Requested: 1	13. Number of Similar Items in Inventory: 0
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14. Cost of Purchase or Annual Lease: Per Unit: \$ 50,000.00 Total:\$ 50,000.00	15. Estimated Useful Life in Years: 10
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16. Description/Justification (attach any relevant background information):
This is to replace our existing 2002 Ford F-450 1 Ton Dump Truck used for constructio and hauling material.

17. Replaced Equipment (if any):				Prior Fiscal Year's		
Item	Make	Age	Mileage	Maintenance Costs	# of Breakdowns	Rental Costs
A.						
B.						

18. Recommended Disposal of Replaced Equipment (check):

() Trade-In () Sale () Possible Use by Other Agencies () Other _____

19. Estimated Net Effects on Future Operating Costs (+/-):			20. Recommended Financing Source (if known):	
	One-Time \$	Annual \$		
Personnel				
Utilities				
Supplies				
Other (specify):				
TOTAL	\$ 50,000	\$ -		

Notes (reserved):

For Capital Planning Committee's Use Only: Recommended Number of Years (if any): Statutory Reference:	Estimated Annual Debt Service (Initial Fiscal Year): Maximum Number of Years Allowed: Date Estimated Provided:
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Facilities Capital Inventory

Capital Facilities Inventory Form				Department Water			
Capital Planning Committee				Date 3/5/2016			Target date replacement
	Facility Name/Adress	Year Acquired	Year Built	Latest Improvements	Condition	Extent of Use	or Expansion
1	Water Dept. Office, 540 Main St., West Townsend	1988		Roof replaced w/rubber roof 1994, Siding replaced w/vinyl siding 2005	3	daily	unknown
2	Main St, Pumping Station & 2 bay Garage 512 Main St.	1934		Maintenance as needed	4	daily	unknown
3	Cross St. Pumping Station, Off Cross St.	1980		Maintenance as needed	4	daily	unknown
4	Harbor Trace Pumping Station, 25 Harbor Trace Rd.	2006		Maintenance as needed	4	daily	unknown
5	Witch's Brook Pumping Station # 1, 14 Ash St.	1980		Chain Link Fence Installed around Pump station 2008	4	daily	unknown
6	Witch's Brook Pumping Station # 2, 14 Ash St.	1972		Chain Link Fence Installed around Pump station 2008	4	daily	unknown
7	Garage, 14 Ash St.	1987		None planning to tear down	3	storage	None
8	Storage Tank, Highland Street	1979		Installed mixing system 2012, Cleaned and inspected in accordance with state and federal regulations	4	daily	unknown
9	Storage Tank, Fitchburg Rd.	1934		Installed mixing system 2015, Cleaned and inspected in accordance with state and federal regulations.	4	daily	unknown
10	Booster Pumping Station, 88 West Meadow Rd.	1995		Maintenance as needed	4	daily	unknown
11							
12							
13							
14							
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19							
20							
21							
22							

Condition Rating Scale

5 - Very Good 4 - Good 3 - Fair

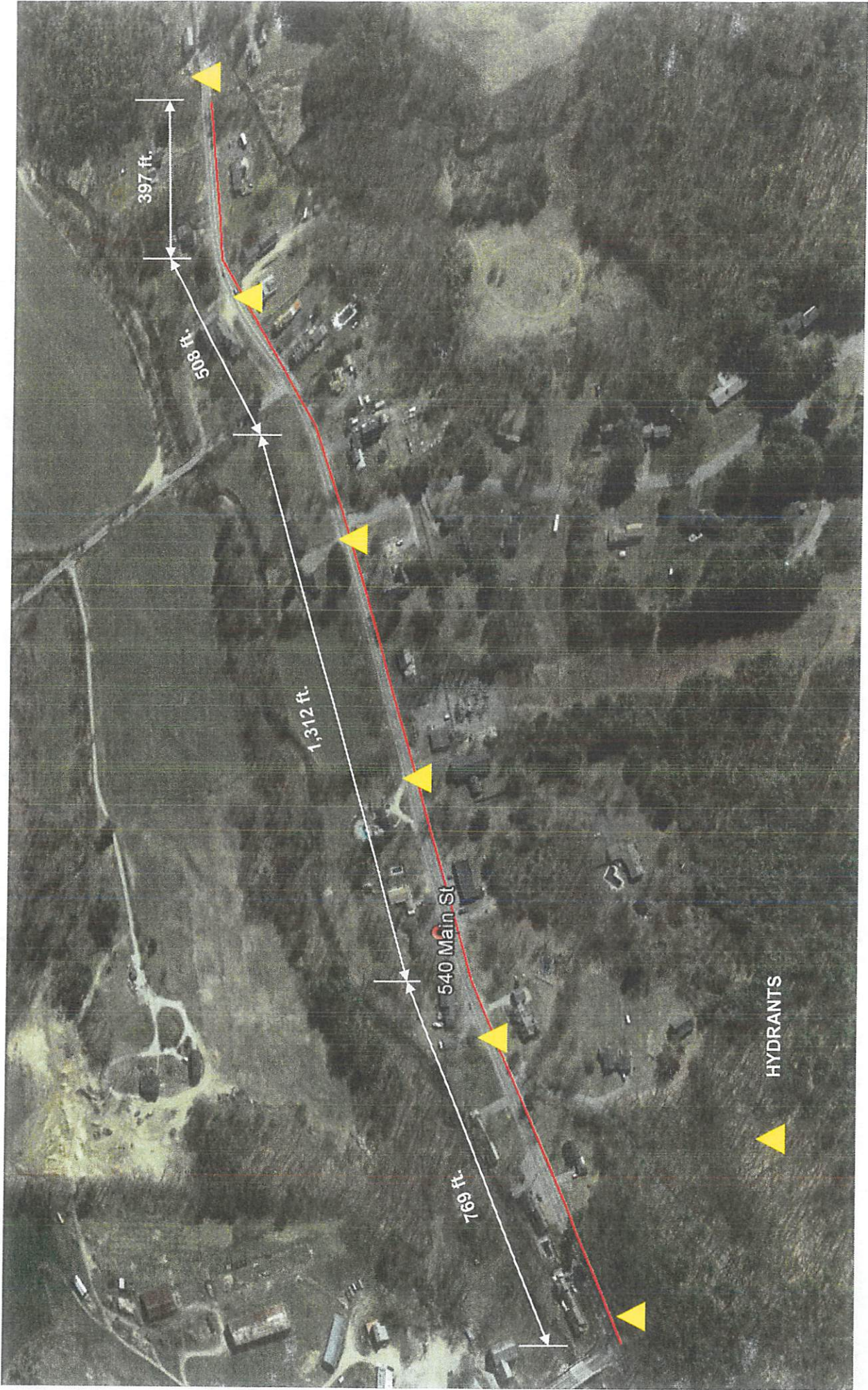
2 - Poor 1 - Not Usable

Equipment/Vehicle Capital Inventory

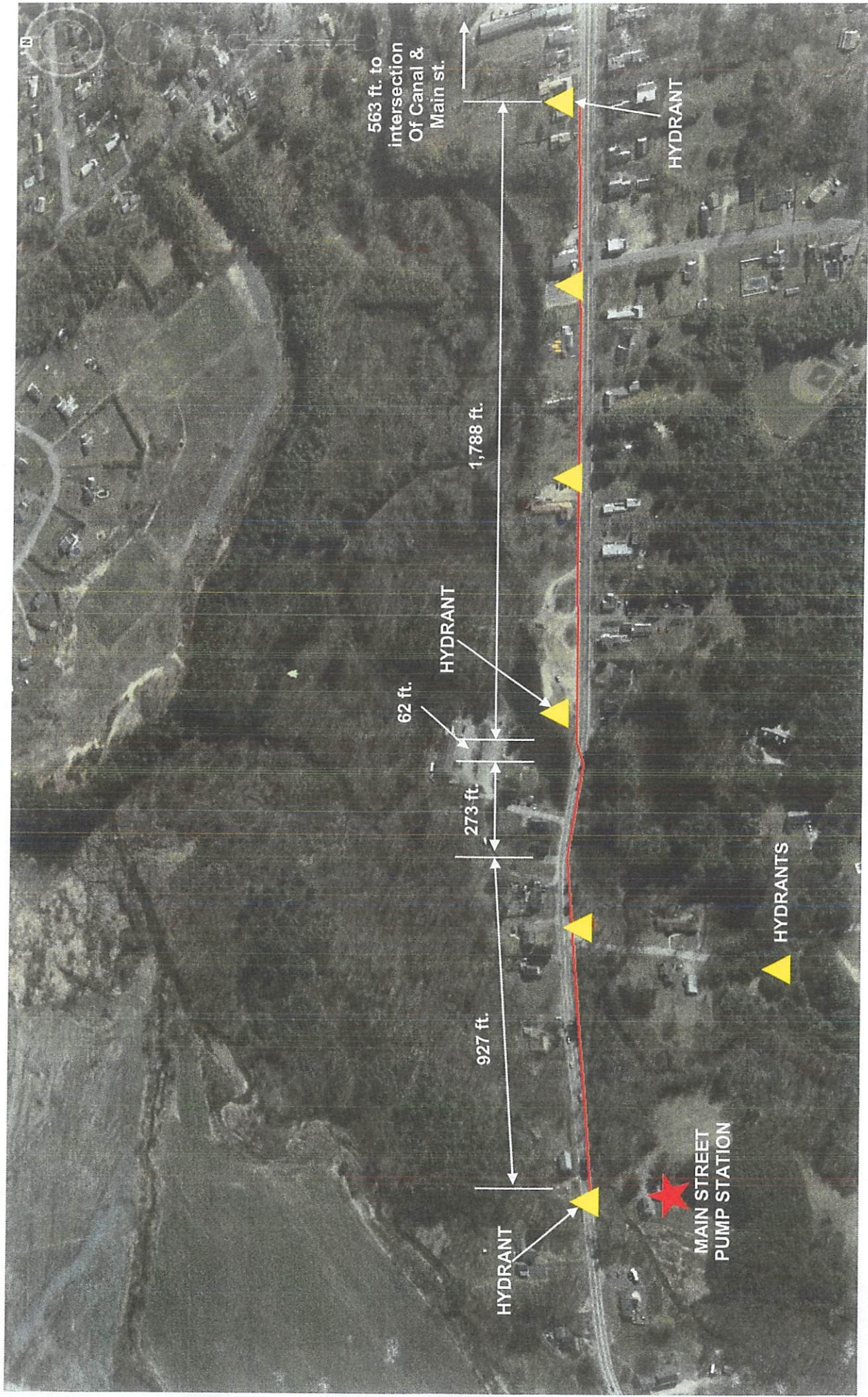
Capital Equipment Vehicle Inventory Form				Department Water			Target date replacement or Expansion
Capital Planning Committee				Date 3/5/2016			
	Equipment or Vehicle	Year Acquired	Year Built	Latest Improvements	Condition	Hours of Use	
1	2016 Ford Fusion	Dec-15			5	4 hrs./day	FY 21
2	2015 4WD Cheverolet 2500 Silverado Utility Truck	Jan-14			5	6 hrs./day	FY 23
3	2002 4WD Ford F-450 1 Ton Dump Truck	Dec-01		Replaced Dump Body 2013 Body Work on Cab 2014	4	As needed	FY 19
4	2005 John Deere 4WD 310SG Backhoe	Mar-05		Regular Maintenance	4	As needed	FY 22
5	Sullivan Air Compressor Tow Behind	1996		Regular Maintenance	4	As needed	Unknown
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							

Condition Rating Scale
 5 - Very Good 4 - Good 3 - Fair
 2 - Poor 1 - Not Usable

**ICE PIGGING PROJECT
APPROXIMATELY 2,986 FT. OF 8" MAIN WEST OF MAIN ST. PUMPING STATION**



**ICE PIGGING PROJECT
APPROXIMATELY 3,050 FT. OF 10" MAIN EAST OF MAIN ST. PUMPING STATION**



3.4



TOWN OF TOWNSEND
BOARD OF WATER COMMISSIONERS
APPLICATION TO ABATE OR ADJUST CHARGES

Name: ATTY John Fitzgerald Account # 101655 B

Address: 99 Walnut ST Saugus Ma 01904

Phone # _____ Email Address _____

Billing date 9/27

Refund

AMOUNT: 91.00 ABATEMENT [] ADJUSTMENT [] (check one)

REQUESTED BY: CUSTOMER [] OFFICE [] OTHER [] - if other please explain below:

Reasons: (please attached supporting documentation if applicable)

Final Bm Paid 2x - ATTY will send check to
Client - \$91.00 uscc 061-000-4210

APPROVED [] DENIED [] (check one)

DATE: 11-7-16

TOWNSEND BOARD OF WATER COMMISSIONERS

[Signature]
[Signature] 11-7-16

Customer Name
Juha Vierinen
9 Penny lane
Townsend

WATER SUPERINTENDENT

3.5



TOWN OF TOWNSEND
BOARD OF WATER COMMISSIONERS
APPLICATION TO ABATE OR ADJUST CHARGES

Name: Lynn Bulva Account # 604606

Address: 261 Wares Rd - 1 Squannacook Terrace

Phone # _____ Email Address _____

Billing date 10/31/14

AMOUNT: 37.80 ABATEMENT [] ADJUSTMENT [] (check one)

REQUESTED BY: CUSTOMER [] OFFICE [] OTHER [] - if other please explain below:

Reasons: (please attached supporting documentation if applicable)

Customer pd Oct bill 37.80
Final Bill was pd that included Oct Bill

APPROVED DENIED [] (check one)

DATE: 11-7-16

TOWNSEND BOARD OF WATER COMMISSIONERS

[Signature]
[Signature] 11-7-16

37.80 user
061 000 4210

WATER SUPERINTENDENT



TOWN OF TOWNSEND
BOARD OF WATER COMMISSIONERS
APPLICATION TO ABATE OR ADJUST CHARGES

Name: Asphalt Service Account # 1p3000

Address: 210 New Boston Road Woburn MA 01801

Phone # _____ Email Address _____

Payment Billing date 1/19/14 or 1/8/14

Refund -

AMOUNT: 200.00 ABATEMENT [] ADJUSTMENT [] (check one)

REQUESTED BY: CUSTOMER [] OFFICE [] OTHER [] - if other please explain below:

Reasons: (please attached supporting documentation if applicable)

Fine issued company paid twice

APPROVED DENIED [] (check one)

DATE: 11-7-16

200.00 late charges

TOWNSEND BOARD OF WATER COMMISSIONERS

[Signature]
[Signature] 11-7-16

061-000.4231.000

WATER SUPERINTENDENT



TOWNSEND WATER DEPARTMENT
540 Main Street West Townsend, Massachusetts

5.1

Michael MacEachern, Chairman
Paul L. Rafuse,
Water Superintendent

Nathan Matilla, Vice-Chairman

LANCE LEWIS, Clerk
(978) 597-2212
Fax (978) 597-5611

MEMORANDUM

TO: Board of Water Commissioners

FROM: Paul Rafuse, Superintendent *PR*

RE: Legal opinion regarding discussing and acting on water service applications submitted after posting of the Board of Water Commissioners meeting.

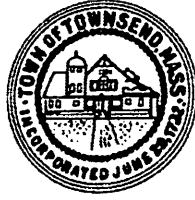
DATE: October 24, 2016

As requested at the last Board of Water Commissioners meeting held on October 11, 2016, I submitted a request for legal services to the Town Administrator on October 12, 2016 for a legal opinion as to whether the Board could act on water service applications submitted after posting of the meeting and under the 48 hour requirement. Also, requested was an opinion if this would fall within the category of subject matter not reasonably anticipated by the Chair. On October 23, 2016 I received an email from Town Counsel David Jenkins notifying me that the matter had been referred to him and if I still had any questions to call him. Upon calling him and discussing the matter with him he offered the following opinion and recommendation on the matter.

Water service applications submitted after posting of the meeting and under the required 48 hours does fall within the category of subject matter not reasonably anticipated by the Chair. Therefore, it is permissible for the Board of Water Commissioners to discuss and act on these item/s. Also, it is recommended that a "Revised" agenda be submitted with the items added and put under the heading of "Matters not reasonably anticipated by the Chair". It is also recommended that the matters be put on the agenda for the next meeting to ratify the vote previously taken at the last meeting as a matter of record.

REQUEST FOR LEGAL SERVICES

TOWN OF TOWNSEND



Date: 10/12/2016
Name: Paul Rafuse
Title: Superintendent
Department: Water
Board or Committee¹: 10/11/2016

Emergency/Same Day Urgent/24 Hours Important Routine

Description of Request

("Request for Legal Opinion" or "Relates to pending litigation". Is this request from a Committee, or individual committee member's concern? Is the request of high or low priority? Please attach all relevant documentation.)

The Board of Water Commissioners requests a legal opinion on proper subject matter that would fall within the category of "matters not reasonably anticipated by the chair" to include on meeting agenda's. Specifically, if a resident or contractor submits an application for water service (which requires approval by the Board of Water Commissioners) and meets the criteria for water service approval in accordance with the Water Department's rules and reg's, but is submitted after posting of the meeting and the 48 hour deadline. So as not to delay the installation of the service/s or risk missing seasonal deadlines for excavation, would this subject matter fall within this provision in order to act on it? Since we are approaching the end of the excavation season the Board of Water Commissioners considers this "High Priority".

Meeting Attendance Requested

Date: _____ Time: _____

Location: _____

Time Frame

By what date is a response needed? Please explain.

Before October 31, 2016. As stated above because we are approaching the end of the excavation seasonal deadline of November 15th and other applications are anticipated.

Submit completed request form to the Office of the Town Administrator for processing.

James M. Kreidler, Jr.
Interim Town Administrator

APPROVED

DISAPPROVED

¹ Boards, Commissions and Committees must provide the date of the Board, Commission or Committee vote authorizing the request.

From: David C. Jenkins <DJenkins@k-plaw.com>
Sent: Sunday, October 23, 2016 11:02 AM
To: 'Paul Rafuse'
Cc: jkreidler@townsend.ma.us
Subject: OML Question

Paul:

Your open meeting law question has been referred to me. If you still have the question could you call me at the cell number below on Monday morning. Thanks.

David

Kopelman and Paige is now **KP | LAW**

David C. Jenkins, Esq.
KP | LAW
101 Arch Street, 11th Floor
Boston, MA 02110
O: (617) 654 1761
F: (617) 654 1735
C: (617) 257 9584
djenkins@k-plaw.com
www.k-plaw.com

This message and the documents attached to it, if any, are intended only for the use of the addressee and may contain information that is PRIVILEGED and CONFIDENTIAL and/or may contain ATTORNEY WORK PRODUCT. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please delete all electronic copies of this message and attachments thereto, if any, and destroy any hard copies you may have created and notify me immediately.

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2016.0.7859 / Virus Database: 4664/13263 - Release Date: 10/24/16

6.5

NO. 17-4

10/31/2016

SCHEDULE OF BILLS RECEIVABLE

To the Accountant:
Treasurer:

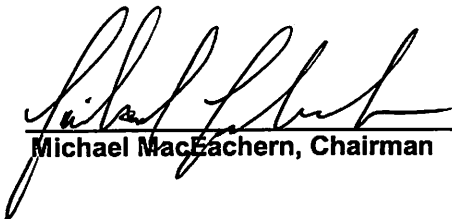
The following bills, amounting in the aggregate to

FOUR HUNDRED SEVENTHOUSAND NINETY-FIVE AND 26/100***** Dollars

are herewith committed for collection.

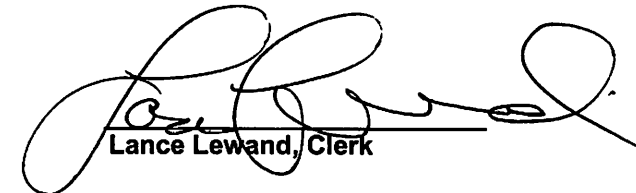
<u>DATE</u>	<u>USER CHARGES</u>	<u>SERVICE CHARGES</u>	<u>CONN CHARGES</u>	<u>BACK FLOW</u>	<u>LATE CHARGES</u>	<u>TOTAL</u>
10/31/16	391,726.50	6,339.62	4,000.00	3,400.00	1,629.14	\$407,095.26

BOARD OF WATER COMMISSIONERS



Michael MacEachern, Chairman

Nathan Mattila, Vice-Chairman



Lance Lewand, Clerk

6.4

3:57 PM
11/06/16
Accrual Basis

Townsend Water Department
Budget vs. Actual
July through October 2016

	<u>Jul - Oct 16</u>	<u>Budget</u>	<u>\$ Over Bud...</u>
Ordinary Income/Expense			
Expense			
061.000 · General Operations 000			
061.001 · Personal Services 1			
5100 · Salaries & Wages-Water Super	22,874.40	80,305.00	-57,430.60
5110 · Salary & Wages-Oper Staff	30,650.40	152,463.00	-121,812.60
5112 · Salary & Wages-Support Staff	12,130.56	53,355.00	-41,224.44
5120 · Wages - Temp. Help	0.00	1.00	-1.00
5130 · Additional Gross	1,550.21	10,500.00	-8,949.79
5134 · Additional Gross-Reg&SpecOnc...	4,225.00	10,725.00	-6,500.00
5190 · Other Stipened-Longevity	900.00	3,900.00	-3,000.00
5191 · Other - Stipend BOWC	0.00	3.00	-3.00
5193 · Retirement Benefit	0.00	2,000.00	-2,000.00
5195 · Other-Clothing Allowance	384.60	3,800.00	-3,415.40
Total 061.001 · Personal Services 1	72,715.17	317,052.00	-244,336.83
061.002 · Purchased Services 2			
5210 · Energy	19,948.18	70,000.00	-50,051.82
5240 · Repair & Maint Building	152.00	5,000.00	-4,848.00
5245 · Repair & Maint Equipment	8,235.11	20,000.00	-11,764.89
5245100 · Repair & Maintain Equip SC...	0.00	10,000.00	-10,000.00
5270 · Rentals	1,095.00	1,000.00	95.00
Total 061.002 · Purchased Services 2	29,430.29	106,000.00	-76,569.71
061.003 · Purchased Services 3			
5300 · Professional Services	2,172.60	20,000.00	-17,827.40
5300100 · Proff Service Backflow	0.00	6,000.00	-6,000.00
5340 · Communication	3,480.04	17,600.00	-14,119.96
5380 · Other Services	0.00	2,600.00	-2,600.00
Total 061.003 · Purchased Services 3	5,652.64	46,200.00	-40,547.36

3:57 PM
 11/06/16
 Accrual Basis

Townsend Water Department
Budget vs. Actual
 July through October 2016

	<u>Jul - Oct 16</u>	<u>Budget</u>	<u>\$ Over Bud...</u>
061.004 · Purchased Supplies 4			
5420 · Office Supplies	1,318.80	5,000.00	-3,681.20
5430 · Building Supplies	0.00	1,500.00	-1,500.00
5435 · Equipment Maint Supplies	0.00	1,500.00	-1,500.00
5460 · Groundskeeping Supplies	0.00	500.00	-500.00
5480 · Vehicular Supplies	2,395.57	8,000.00	-5,604.43
Total 061.004 · Purchased Supplies 4	<u>3,714.37</u>	<u>16,500.00</u>	<u>-12,785.63</u>
061.005 · Purchased Supplies 5			
5530 · Public Works Supplies	7,939.43	35,000.00	-27,060.57
5531 · Chemicals	3,112.20	23,000.00	-19,887.80
5580 · Other Supplies	0.00	1,000.00	-1,000.00
Total 061.005 · Purchased Supplies 5	<u>11,051.63</u>	<u>59,000.00</u>	<u>-47,948.37</u>
061.007 · Other Charges & Exp 7			
5710 · Travel/mileage-in state	0.00	1,100.00	-1,100.00
5720 · Out of State Travel	0.00	100.00	-100.00
5730 · Dues and Memberships	805.00	2,000.00	-1,195.00
5780 · Other Charges	0.00	500.00	-500.00
5782 · Other Charges-Bank	0.00	0.00	0.00
5785 · Water Assessment D.E.P.	0.00	2,000.00	-2,000.00
5850 · New Equipment	0.00	10,000.00	-10,000.00
5910 · Long Term Debt-East Side Phase1	35,043.00	35,043.00	0.00
5911 · Long Term Debt-East Side Ph 2	49,921.07	51,001.00	-1,079.93
5920 · Long term Interest-Phase1	3,840.65	7,331.00	-3,490.35
5921 · Long Term Int East Side Ph2	6,080.95	13,915.00	-7,834.05
Total 061.007 · Other Charges & Exp 7	<u>95,690.67</u>	<u>122,990.00</u>	<u>-27,299.33</u>
061.008 · Articles 8			
5890 · Hydrants	0.00	0.00	0.00
Total 061.008 · Articles 8	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>

3:57 PM
 11/06/16
 Accrual Basis

Townsend Water Department
Budget vs. Actual
 July through October 2016

	<u>Jul - Oct 16</u>	<u>Budget</u>	<u>\$ Over Bud...</u>
061.400 · Special Projects 400			
5012 · System Enhancement	26,321.30	814,054.17	-787,732.87
Total 061.400 · Special Projects 400	<u>26,321.30</u>	<u>814,054.17</u>	<u>-787,732.87</u>
061.500 · Special Articles 500			
5000 · Water Oper Emergency Res Fund	0.00	20,000.00	-20,000.00
5020 · Storage Tank Maintenance	0.00	13,883.40	-13,883.40
5050-20 · Water-CIP-VFD&Elec SVS Pu...	0.00	25,000.00	-25,000.00
5600 · Prior Year Encumbrance	974.90	1,155.00	-180.10
5804-20 · Upgrade Witches Brook	0.00	40,000.00	-40,000.00
5804 · Witches Brook Repairs	3,715.84	34,000.00	-30,284.16
5805-20 · Water Meter Replacements	7,300.00	14,557.50	-7,257.50
5809-20 · Highland Street Storage Tank	0.00	75,000.00	-75,000.00
5902-20 · Water-CIP-Tank Mixing System	0.00	36,250.00	-36,250.00
Total 061.500 · Special Articles 500	<u>11,990.74</u>	<u>259,845.90</u>	<u>-247,855.16</u>
Total 061.000 · General Operations 000	<u>256,566.81</u>	<u>1,741,642.07</u>	<u>-1,485,075.26</u>
Total Expense	<u>256,566.81</u>	<u>1,741,642.07</u>	<u>-1,485,075.26</u>
Net Ordinary Income	<u>-255,402.80</u>	<u>-1,741,642.07</u>	<u>1,486,239.27</u>
Net Income	<u><u>-255,402.80</u></u>	<u><u>-1,741,642.07</u></u>	<u><u>1,486,239.27</u></u>