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# TOWNSEND WATER DEPARTMENT

540 Main Street West Townsend, Massachusetts 01474

Nathan Mattila, Chairman

Todd Melanson, Vice-Chairman

Michael MacEachern, Clerk

David Vigeant, Superintendent

(978) 597-2212

Email water@townsendwater.org

# WATER COMMISSIONERS MEETING MINUTES

March 8, 2021 - 6:00 P.M.

mm

# Water Department 540 Main Street, Meeting Room NOTE REGARDING ACCESS AND PARTICIPATION

Governor Baker declared a State of Emergency to respond to COVID-19 on March 10, 2020 and ordered a suspension of certain provisions of the Open Meeting Law M.G.L. c. 30A, s 20 on March 12, 2020. The Board of Selectmen closed the town offices, including boards and committee meetings consistent with the Governor's March 12th order, to public access to promote social distancing and reduce the spread of COVID-19. The Board of Water Commissioner's meetings will not be open to the public for physical attendance until further notice. The meeting will be available on Zoom.

#### Join Zoom Meeting

https://us02web.zoom.us/j/85791135724?pwd=VmZDUUR5M3g0SkdCU1o5MmNPZ0J1dz09

Meeting ID: 857 9113 5724 Password: 404130 Log on Monday March 8, 2021 at 6:00 P.M. to participate.

# I. PRELIMINARIES:

- 1.1 NM Called the meeting to order at 6:01 by Zoom.
- 1.2 NM announced that the meeting is being audio recorded and recorded on Zoom.
- 1.3 Roll call showed members present: Nathan Mattila (NM)-Chairman, Todd Melanson (TM)-Vice-Chairman, Michael MacEachern (MM)-Clerk. Roll call showed citizens present: Paul Rafuse, Tammy Rafuse, Katherine Fedoroff-from Town Council, Mistie Demazure-Office Assistant, Alec Gaetz-Water Technician, Ryan Lapierre-Water Foreman, Kevin Keefe-Water Technician, Dave Vigeant (DV)-Water Superintendent.
- 1.4 Chairman's additions or deletions. None Available.
- 1.5 Approve Meeting Minutes of January 5, 2021, January 11, 2021, February 8, 2021. **TM motioned to approve the meeting minutes of January 5, 2021, January 11, 2021, and February 8, 2021 as submitted. NM seconded. Unanimous vote.**
- 1.6 Review correspondence. None Available.

# II. APPOINTMENTS-VOTES MAY BE TAKEN

2.1

#### III. MEETING BUSINESS-VOTES MAY BE TAKEN:

- 3.1 Update/Discuss Cross Charge Agreement. No updates. TM is still waiting to meet with the Town Administrator regarding the breakdown of administrative costs.
- 3.2 Discuss/Review Master Plan. No updates.
- 3.3 Update/Discuss COVID-19. No updates.
- 3.4 Review/Discuss Updated SOP's. No updates.
- 3.5 Update/Discuss PFAS testing. DV reported that all bottles have been received and testing will occur on Wednesday March 10, 2021.
- 3.6 Update/Discuss Job descriptions and Office Staff Job Titles. MM expressed concerns about the benefits the office staff would receive if entering the Water/Highway Union. He has requested more information. TM motioned to approve the revised office staff job titles submitted to the Board of Selectmen. NM seconded. MM abstained. Vote passed with 2 in the affirmative.
- 3.7 Review/Discuss Holiday/On-Call stipend. The Board of Selectmen settled with the water technicians regarding their back pay for weekend overtime. Concerns remain about the holiday stipend in addition to the overtime pay. This will need to be discussed prior to finalizing any union negotiations.

- 3.8 Review/Discuss Televising meetings. Because the meetings are open and accessible to the public, as well as full access to recordings and minutes, the Board decided that they would not like to use the Town's resources to televise their meetings at this time.
- 3.9 Review/Discuss Summer Intern Program. The Union contract and the budget allows for a part-time assistant. Should be a town resident that is either in high school or college. Children of employees or holders of public offices would not be eligible for this program. DV will investigate any insurance requirements and their impact on the budget. This will be discussed in a later meeting.

## IV. COMMISSIONERS UPDATES AND REPORTS-VOTES MAY BE TAKEN:

4.1 None.

#### V. SUPERINTENDENT'S UPDATES AND REPORTS-VOTES MAY BE TAKEN:

- 5.1 Update/Discuss on Cross St Well. It is looking like the daytank will be involved at the end of March. From there, an electrician will come in to do the installation, then testing can begin.
- 5.2 Update/Discuss Main Street Station. Filing for Mass EPA filing for turtles has been completed, DV is waiting for the check, then permits will be mailed out for the final well. The final well will be installed in the summer. There is a scheduled meeting with the Conservation Department for the test well approval. Once approved, the test well will be installed, and a five-day pump test will be performed.
- 5.3 Update/Discuss Highland Storage Tank. Pressure washing will begin in April. After that, once temperatures are consistently over 50 degrees, painting will begin.
- 5.4 Update/Discuss Meters and Hydrants. 52 meters have been changed. The fire department has requested for a hydrant to be changed on Scales Ln. Town Hall has requested their hydrant to be changed as well.
- 5.5 Update/Discuss Billing Software-Vadar. The system has been installed and the office is currently in training.

## VI. OFFICE ADMINISTRATOR'S UPDATES AND REPORTS-VOTES MAY BE TAKEN:

- 6.1 Discuss a shared file location for correspondence. Any correspondence that impacts more than the day-to-day such as complaints, notifications, etc. should be put into the shared drive. Town council confirmed that there is no violation of the Open Meeting Law so long as it is informational and does not contain Commissioner's thoughts or comments.
- 6.2 Schedule next BOWC meeting. The next BOWC meeting will be scheduled for Monday, April 12, 2021 at 6:00PM.
- 6.3 The Board reviewed Bills Payable Warrants.
- 6.4 The Board reviewed February's Schedule of Bills Receivable report.
- 6.5 The Board reviewed Accounts Receivable Report.
- 6.6 The Board reviewed year to date expenditures.

#### VII. EXECUTIVE SESSION-VOTES MAY BE TAKEN:

- 6.1 Executive session pursuant to GL c. 30A, s. 21(a)(2) To conduct strategy sessions in preparation for negotiations with nonunion personnel or to conduct collective bargaining sessions or contract negotiations with nonunion personnel. Re: AFSCME-Supervisors Union. TM motioned to enter executive session pursuant to GL c. 30A, s. 21(a)(2) To conduct strategy sessions in preparation for negotiations with nonunion personnel or to conduct collective bargaining sessions or contract negotiations with nonunion personnel. Re: AFSCME-Supervisors Union. NM seconded. Unanimous vote.
- 6.2 Executive session pursuant to GL c. 30A, s. 21(a)(10) to discuss trade secrets or confidential, competitively-sensitive or other proprietary information provided. Re: Meter Upgrade Program. TM motioned to enter executive session pursuant to GL c. 30A, s. 21(a)(10) to discuss trade secrets or confidential, competitively-sensitive or other proprietary information provided. Re: Meter Upgrade Program. NM seconded. Unanimous vote.

#### ADJOURNMENT:

NM motioned to review and sign reports out of session. TM seconded. Unanimous vote.

The meeting of the Board of Water Commissioners was adjourned during executive session.

1.5

Respectfully submitted,

Mistie Demazure Office Assistant

**Townsend Water Department** 

# WATER DEPARTMENT Office Manager/ Water Technician

3.6

#### DEFINITION

Under general supervision, manages, organizes, and evaluates the Water Departments business operations and office staff; performs responsible secretarial, administrative, and general office work to ensure the proper functioning of the office; performs or supervises accounts receivable, accounts payable, and payroll; responds to customer complaints and concerns. Performs additional work as required.

#### ESSENTIAL FUNCTIONS

The essential functions or duties listed below are intended only as illustrations of the various type of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Duties may include, but are not necessarily limited to:

- Performs or supervises all office work regarding customer accounts including billing, processing payments, applications for service, final notices to discontinued customers, computer system updating, inquiries and complaints, etc.
- Performs or supervises bookkeeping work related to processing of accounts receivables invoicing, accounts payable, and payroll including reviewing for accuracy, calculating monthly journal entries, balancing to general ledger, and filing of required reports to State and Federal government.
- Performs confidential administrative tasks for the Water Superintendent when requested; keeps the Water Superintendent fully informed regarding all office activities and issues.
- Supervises, schedules, plans, monitors, and evaluates work of clerical staff responsible for accounting, customer services, and billing; recommends corrective actions, as necessary.
- Plans, prepares, reviews, and monitors operational budgets for office supplies and expenses, benefit insurance, employee retirement, and payroll taxes.
- Prepares, creates, and files reports such as capital expenditures, statistics, capital projects, payroll distribution, and monthly water sample reports.
- Carries out related banking functions such as deposits, transfers, and record keeping.
- Processes general ledger: inputs into computer, calculates monthly journal entries, performs trial balance, creates income statements.
- Organizes and maintains office filing system including general, financial, personnel, and payroll files.
- Prepares financial and other reports as directed by the Water Superintendent; prepares final reports drafted by the Water Superintendent and other staff members.
- Provides administrative services to the Water Department by performing a variety of administrative, technical, fiscal, and clerical responsibilities.
- Acts as staff liaison to Board of Water Commissioners; attends meetings and provides necessary administrative support.
- Prepares agendas and materials for all regular and special meetings (or hearings) of the Board.
- Attends and participates in all meetings of the Board; performs all necessary follow-up for

- decisions or inquiries made in those meetings and between those meetings.
- Oversees the issuance of various decisions, determinations, and permits under the jurisdiction of the Boards. Maintains public records and prepares reports as required.
- Provides extensive customer service in person, over the telephone and via e-mail; Interacts
  frequently with members of the public, vendors, Town departments and state and outside
  agencies.
- Enters new services and new water meters; Schedules and performs water meter reading using various systems; processes final water readings; issues payment demands and files liens, as necessary.
- Coordinate with private vendor to process the mailing of water bills; download and record
  payments to customer accounts. Apply abatements and/or refunds to water accounts; balance
  water receivables with Accounting office.
- Prepares and processes departmental payroll and payables; receives and processes applications; deposits fees with the Treasurer.
- Maintains department records and documentation, updates department records, electronic and paper files.
- Responds to complaints and prepares reports of investigations and related material for possible Board or legal action; provides educational information to the general public.

#### SUPERVISION RECEIVED

Under the general direction of the Water Superintendent.

#### JUDGMENT AND COMPLEXITY

The work requires examining, analyzing, and evaluating facts and circumstances surrounding individual problems, situations, or transactions, and determining actions to be taken within the limits of standard or accepted practices. Guidelines include a large body of policies, practices and precedents which may be complex or conflicting, at times. Judgment is used in analyzing specific situations to determine appropriate actions. Requires understanding, interpreting, and applying federal, state, and local regulations.

#### NATURE AND PURPOSE OF CONTACTS

Relationships are constantly with co-workers, vendors, the public, groups and/or individuals such as peers from other organizations, and representatives of professional organizations. May be required to discuss controversial matters where tact is required to avoid friction and obtain cooperation.

#### CONFIDENTIALITY

Employee has unlimited access to confidential information in the performance of their duties.

#### **EDUCATION AND EXPERIENCE**

High school diploma or equivalent, Associates Degree preferred, and three to five years of related experience required, or any equivalent combination of education, training, certification, and experience. Motor Vehicle Operator's License. Pass the D1/T1 Water Operator Class within

1 year and obtain a D1 License. Take and pass a course in procurement within 1 year.

#### KNOWLEDGE, ABILITY, AND SKILLS

<u>Knowledge</u>: Thorough knowledge of municipal and municipal utility finance and budgeting. Working knowledge of the Code of the Town of Townsend. Knowledge of related federal, state, and local laws, rules and regulations Knowledge of software commonly utilized by municipalities for billing, word processing, financial analysis, and presentations. Working knowledge of GIS mapping applications. Familiarity of office procedures and equipment. Working knowledge of Public Records, Open Meeting, Public Procurement, and Public Ethics laws.

Abilities: Ability to communicate effectively both orally and in writing. Ability to understand and explain various types of correspondence, reports, and media. Ability to maintain good public relations and to maintain effective collaborative working relationships with Town departments, department heads, fellow employees, officials, and the public. Ability to be diplomatic, professional, and courteous when dealing with others, especially in contentious or confrontational situations. Ability to meet deadlines. Ability to work independently and prioritize tasks. Ability to provide excellent customer service. Ability to keep accurate and detailed records; ability to use computers; ability to interact with the public in a professional and courteous manner; ability to handle multiple tasks in an effective manner.

<u>Skills:</u> Excellent organizational skills. Strong customer service skills. Strong research skills. Proficient in the use of computers and software applications for data management, word processing, mapping, and presentations. Detail orientated.

#### WORK ENVIRONMENT

The work is performed in a typical office environment.

#### PHYSICAL, MOTOR, AND VISUAL SKILLS

#### **Physical Skills**

The work involves sitting, standing, walking, and stooping. May be required to lift objects such as files, boxes of papers, office supplies, and office equipment weighing up to 30 pounds.

#### **Motor Skills**

Duties are largely mental rather than physical, but the job may occasionally require minimal motor skills for activities such as moving objects, using office equipment, including but not limited to telephones, personal computers, handheld technology, and other office equipment.

#### Visual Skills

Visual demands require routinely reading documents for general understanding and analytical purposes.

# WATER DEPARTMENT ACCOUNTS MANAGER/WATER TECHNICIAN

3.6

#### DEFINITION

Head of Accounts Receivable and Payable as well as HR for the Water Department.

#### **ESSENTIAL FUNCTIONS**

The essential functions or duties listed below are intended only as illustrations of the various type of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

- Reporting financial information and managing accounting staff.
- Achieves accounting operational objectives by contributing accounting information and recommendations to strategic plans and reviews; preparing and completing action plans; implementing production, productivity, quality, and customer-service standards; resolving problems; completing audits; identifying trends; determining system improvements; and implementing change.
- Meets accounting financial objectives by forecasting requirements, preparing an annual budget, scheduling expenditures, analyzing variances, and initiating corrective actions.
- Confirms financial status by monitoring revenue and expenses; coordinating the collection, consolidation, and evaluation of financial data; and preparing special reports.
- Maintains accounting controls by establishing a chart of accounts and defining accounting policies and procedures.
- Guides other departments by researching and interpreting accounting policy and applying observations and recommendations to operational issues.
- Maintains financial security by establishing internal controls.
- Avoids legal challenges by understanding current and proposed legislation, enforcing accounting regulations, and recommending new procedures.
- Protects organization's value by keeping information confidential.
- Updates job knowledge by participating in educational opportunities, reading professional publications, maintaining personal networks, and participating in professional organizations.
- Accomplishes accounting and organization mission by completing related results as needed.
- Provides administrative services to the Water Department by performing a variety of administrative, technical, fiscal, and clerical responsibilities.
- Leads in the preparation and administration of water billing; schedules final meter readings, prepares the lien list for transmittal to the Assessor's Office; processes notices and payment plans for delinquent accounts; reconciles accounts receivable with the Town Accountant monthly.
- Provides extensive customer service in person, over the telephone and via e-mail.
- Interacts frequently with members of the public, vendors, and Town departments.

- Handles phone and email inquiries from ratepayers, members of the public, and businesses; Processes in-coming and outgoing mail.
- Processes departmental payroll and accounts payable in a timely manner; posts to accounts payable and reconciles monthly with the Town Accountant.
- Processes work orders for action by operations personnel.
- · Performs clerical tasks including but not limited to typing, filing, copying, and scanning.
- Maintains accurate records, files, and correspondence.
   Attends and participates in all meetings of the Board; performs all necessary follow-up for decisions or inquiries made in those meetings and between those meetings.

#### SUPERVISION RECEIVED

Under general direction of the Office Manager, employee plans and prioritizes most of the work independently, in accordance with standard practices. Employee is expected to solve most problems of detail or unusual situations by adapting methods or interpreting instructions accordingly. Instructions for new assignments or special projects usually consist of statements of desired objectives, deadlines, and priorities. Technical and policy problems or changes in procedures are discussed with supervisor.

#### JUDGMENT AND COMPLEXITY

The work involves numerous standardized practices, procedures, or general instructions that govern the work and, in some cases, may require additional interpretation. Judgment is needed to locate, select, and apply the most pertinent practice, procedure, regulation, or guideline.

#### NATURE AND PURPOSE OF CONTACTS

Relationships are constantly with co-workers, vendors, the public, groups and/or individuals such as peers from other organizations, and representatives of professional organizations. May be required to discuss controversial matters where tact is required to avoid friction and obtain cooperation.

#### CONFIDENTIALITY

Employee has access to sensitive information in the performance of their duties.

#### **EDUCATION AND EXPERIENCE**

High school diploma or equivalent and one to three years of related experience required, or any equivalent combination of education, training, certification, and experience. Motor Vehicle Operator's License. Take and pass the D1/T1 Drinking Water Introduction Course within 1 year. Take and pass the Procurement Course within 1 year.

#### KNOWLEDGE, ABILITY, AND SKILLS

<u>Knowledge</u>: Thorough knowledge of office practices and procedures. Thorough knowledge of departmental policies and practices regarding utility billing and payroll. Basic understanding of the Water Department operations. Working knowledge of public ethics, records, procurement, and open meeting laws.

# NON-EXEMPT HIGHWAY/WATER UNION

<u>Abilities:</u> Ability to communicate orally and in writing departmental policies, rules, and application procedures to the public. Ability to type, file, maintain records, and prepare reports. Ability to perform math. Ability to keep accurate and detailed records; ability to use computers; ability to interact with the public in a professional and courteous manner; ability to handle multiple tasks in an effective manner.

<u>Skills:</u> Skill in using a computer keyboard, typing, creating, and using word processing and spreadsheet applications.

#### WORK ENVIRONMENT

The work is performed in a typical office environment.

#### PHYSICAL, MOTOR, AND VISUAL SKILLS

#### **Physical Skills**

The work involves sitting, standing, walking, and stooping. May be required to lift objects such as files, boxes of papers, office supplies, and office equipment weighing up to 30 pounds.

#### **Motor Skills**

Duties are largely mental rather than physical, but the job may occasionally require minimal motor skills for activities such as moving objects, using office equipment, including but not limited to telephones, personal computers, handheld technology, and other office equipment.

#### Visual Skills

Visual demands require routinely reading documents for general understanding and analytical purposes.



Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

DEVAL L. PATRICK Governor

MAEVE VALLELY BARTLETT Secretary

> DAVID W. CASH Commissioner

June 30, 2014

Townsend Board of Selectmen

Attn: Andrew Sheehan, Town Administrator

272 Main St.

Townsend, MA 01469

City/Town: Townsend

PWS Name: Townsend Water Department

PWS ID: 2299000

Program: Water Management Act Action: 5 Year Review Final Permit

Dear Mr. Sheehan:

Please find the attached documents:

· Findings of Fact in Support of the Modified Permit Decision; and

 Final Water Management Act Permit #9P2-2-11-299.01 (Nashua River Basin) issued to the Town of Townsend, Massachusetts.

RE:

If you have any questions regarding the Permit, please contact Barbara Kickham at (508) 767-2724 or Susan Connors at (508) 767-2701.

Sincerely

Marielle Stone

Deputy Regional Director

Bureau of Resource Protection

#### Enclosures

Cc:

Duane LeVangie, WMA Manager, MassDEP-DWP-Boston

Paul Rafuse, Water Department, 540 Main St., West Townsend, MA 01474

Board of Health, 272 Main. St., Townsend, MA 01469

Martha Morgan, Nashua River Watershed Association (via email)

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Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

DEVAL L. PATRICK Governor MAEVE VALLELY BARTLETT Secretary

> DAVID W. CASH Commissioner

# Findings of Fact in Support of the Modified Permit Decision Water Management Permit # 9P2-2-11-299.01

The Massachusetts Department of Environmental Protection (MassDEP or the Department) has completed its 5 Year Review of the Town of Townsend's (Townsend) Water Management Act Permit in the Nashua River Basin pursuant to the Water Management Act Regulations (WMA) M.G.L. ch 21G. This compliance review is conducted to insure that the terms of the permit and the goals of the Water Management program are being met. As a result of the review and Townsend's response dated October 21, 2013 to the Order to Complete issued July 22, 2013, MassDEP hereby issues this Water Management Act Permit #9P2-2-11-299.01 (the "Permit") in accordance with the Act. A Draft Permit was issued on April 15, 2014 and no comments on the draft were submitted to MassDEP. MassDEP makes the following Findings of Fact in support of the attached Permit, and includes herewith its reasons for approving the Permit and for conditions of approval imposed, as required by MGL c 21G, §11 and 310 CMR 36.00.

# Townsend's Water Withdrawal History

Townsend is registered for an average annual daily withdrawal volume of 0.76 million gallons per day (MGD). Townsend was originally registered for 0.5 MGD and with the acquisition of the Witches Brook Water Co. in 2007, Townsend's registered withdrawal volume was increased by 0.26 MGD for a total of 0.76 MGD. Townsend has reported annual withdrawals below their registered volume. Townsend's WMA Permit includes the additional withdrawal locations; Well 3-98 and the Harbor Trace Well. The permit for Well 3-98 was issued with an effective date of May 29, 2002, however the well was never constructed due to financial constraints. Townsend received an amended permit on April 21, 2006, which added the Harbor Trace Well as an approved withdrawal point. Townsend's acquisition of the Witches Brook Water Co. included two additional, registered, groundwater sources. No increase in withdrawal capacity is authorized by this Modified Permit Decision. Townsend requested a 5 year review of the WMA permit in order to add the calendar triggered option for implementation of outside water use restrictions.

Table 3: Maximum Daily Withdrawal Volumes

Well Name	PWS Source ID Code	Maximum Daily Rate (MGD)				
Well 3-98	2299000-0AG	0.86				
Harbor Trace Well	2299000-03G	1.0				

#### 3. Wellhead Protection

Townsend is in compliance with the Groundwater Protection District Bylaw consistent with the requirements of the MassDEP's Wellhead Protection Regulations, 310 CMR 22.21(2). Furthermore, Lunenburg has protected the portion of Townsend's Zone II that is within the Town of Lunenburg through its Wellhead Protection Bylaw and Maps. No further work is required at this time.

#### 4. Performance Standard for Residential Gallons Per Capita Day Water Use

Townsend's Performance Standard for Residential Gallons Per Capita Day (RGPCD) is 65 gallons. Townsend was required to be in compliance with this Performance Standard by December 31, 2008. Townsend shall report its RGPCD water use annually in its Annual Statistical Report (ASR) and document compliance with this Performance Standard each year.

Townsend shall report its RGPCD and the calculation used to derive that figure as part of its ASR including, without limitation, the source of the data used to establish the service population and the year in which this data was developed. See Appendix A for additional information on the requirements if the Performance Standard for RGPCD is not met.

#### 5. Performance Standard for Unaccounted for Water

Townsend's Performance Standard for Unaccounted for Water (UAW) is 10% of overall water withdrawal. Townsend was required to be in compliance with this Performance Standard by December 31, 2008. Townsend shall report its UAW annually in its Annual Statistical Report (ASR) and document compliance with this Performance Standard each year.

Townsend shall report its UAW and the calculation used to derive that figure as part of its ASR. UAW is defined as the difference between water pumped or purchased and water that is metered or confidently estimated. UAW shall include, without limitation, water that cannot be accounted for due to meter problems, unauthorized hydrant openings, unavoidable leakage, recoverable leakage, illegal connections, stand pipe overflows, and fire protection where it cannot be confidently estimated. The need for water main flushing and the use of water in construction or meter calibration shall be metered or estimated as appropriate to assist in determining actual demand. Volumes flushed to waste shall be reported on Townsend's ASR.

Townsend's first year to meet this performance standard was 2012, in which UAW was reported as 6%. For 2013, Townsend reported 22.1% UAW. See Appendix B for additional information on requirements if UAW is above 10%.

#### SPECIAL CONDITIONS

## 1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes the Town of Townsend to withdraw water from the Nashua River Basin at the rate described below (Table 2). The volume reflected by this rate is the 0.76 million gallons per day (MGD) previously authorized to Townsend under WMA Registration #211299.02 and to the former Witches Brook Water Company WMA Registration #211299.01 for withdrawal from the Nashua River Basin. The authorized volume is expressed in millions of gallons, both as an average daily withdrawal rate (MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each year of the five-year period of the permit term. No additional withdrawal volume is authorized under this permit.

Table 2: Maximum Authorized Withdrawal Volumes

	1401021	Total Raw Water Withdrawal Volumes							
5-Year Periods		Pe	rmit	Permit + Registration					
		Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)				
Period One	3/1/1994 to 2/28/1999	No permit	No permit	0.76	277.4				
Period Two	3/1/1999 to 2/29/2004	No permit	No permit	0.76	277.4				
Period Three	3/1/2004 to 2/28/2009	0.0	0.0	0.76	277.4				
Period Four	3/1/2009 to 2/28/2018	0.0	0.0	0.76	277.4				

<sup>\*</sup> This permit is issued under the Interim Safe Yield methodology adopted by MassDEP on December 14, 2009. Under MGL c21G, §11 MassDEP cannot issue permits when the combined existing, permitted and proposed withdrawal volumes exceed the safe yield of the water source. If MassDEP determines that the Long-Term Safe Yield is less than the Interim Safe Yield calculated for this basin, the volumes authorized in all Water Management permits in this basin shall be reviewed and the permitted volumes adjusted accordingly. MassDEP is currently developing the final Long-Term Safe Yield for the Nashua River Basin. Access to water volumes authorized beyond Period Four of this permit is contingent upon all permitted withdrawals in the basin being within the Long-Term Safe Yield, and on MassDEP completing a permit renewal or a permit amendment incorporating the Long-Term Safe Yield determination.

# 2. Maximum Authorized Daily Withdrawals From Each Withdrawal Point

Withdrawals from individual withdrawal points are not to exceed the approved maximum daily volumes listed below without specific advance written approval from MassDEP (Table 3). The authorized maximum daily volume is the approved rate of each source. In no event shall the combined withdrawals from the individual withdrawal points exceed the withdrawal volumes authorized above in Special Condition 1.

#### 6. Seasonal Limits on Nonessential Outdoor Water Use

Permittee shall limit nonessential outdoor water use through mandatory restrictions from May 1<sup>st</sup> through September 30<sup>th</sup> as outlined in Table 4 below.

Permittee shall be responsible for tracking streamflows and drought advisories and recording when restrictions are implemented if streamflow triggered restrictions are implemented. See *Accessing Streamflow and Drought Advisory Website Information* in Table 4 for instructions.

Permittee shall document compliance with the summer limits on nonessential outdoor water use annually in its Annual Statistical Report (ASR), and indicate whether it anticipates implementing calendar triggered restrictions or streamflow triggered restrictions during the next year. Nothing in this permit shall prevent Permittee from implementing water use restrictions that are more restrictive than those set forth in this permit.

#### Water Uses Restrictions

Nonessential outdoor water uses that are subject to mandatory restrictions include:

- irrigation of lawns via sprinklers or automatic irrigation systems;
- · washing of vehicles, except in a commercial car wash or as necessary for operator safety; and
- washing of exterior building surfaces, parking lots, driveways or sidewalks, except as necessary to apply surface treatments such as paint, preservatives, stucco, pavement or cement.

The following uses may be allowed when mandatory restrictions are in place:

- irrigation to establish a new lawn and new plantings during the months of May and September;
- irrigation of public parks and recreational fields by means of automatic sprinklers outside the hours of 9 am to 5 pm; and
  - irrigation of lawns, gardens, flowers and ornamental plants by means of a hand-held hose.

#### Water uses NOT subject to mandatory restrictions are those required:

- · for health or safety reasons;
- by regulation;
- · for the production of food and fiber;
- · for the maintenance of livestock; or
- to meet the core functions of a business (for example, irrigation by golf courses as necessary to maintain tees, greens, and limited fairway watering, or irrigation by plant nurseries as necessary to maintain stock).

To the extent feasible, all summer outdoor water use should take place before 9 am and after 5 pm when evaporation and evapotranspiration rates are lower.

Table 4: Seasonal Limits on Nonessential Outdoor Water Use

Permittees meeting the 65 RGPCD standard for the preceding year (as reported in the ASR and accepted by MassDEP) must implement either:

- Calendar Triggered Restrictions from May 1<sup>st</sup> through September 30<sup>th</sup> No nonessential outdoor water use from 9 am - 5 pm, OR,
- 2. Streamflow Triggered Restrictions from May 1<sup>st</sup> through September 30<sup>th</sup> No nonessential outdoor water use from 9 am 5 pm whenever:
  - a) Streamflow at the assigned USGS local stream gage 01096000 Sqannacook River Near West Groton, MA falls below the following designated flow triggers for three (3) consecutive days:
    - May 1<sup>st</sup> through June 30<sup>th</sup>: 62 cfs (based on minimum flows that are protective of habitat for fish spawning during the spring bioperiod), and
    - July 1<sup>st</sup> through September 30<sup>th</sup>: 24 cfs (based on minimum flows that are protective of habitat for fish rearing and growth during the summer bioperiod).

Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven (7) consecutive days; or

b) A Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force.

Permittees NOT meeting the 65 RGPCD standard for the preceding year (as reported in the ASR and accepted by MassDEP) must implement either:

- 1. Calendar Triggered Restrictions from May 1st through September 30th
  - a) Nonessential outdoor water use is allowed TWO DAYS per week before 9 am and after 5 pm; and
  - b) Nonessential outdoor water use is allowed ONE DAY per week whenever A Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force, OR,
- 2. Streamflow Triggered Restrictions from May 1<sup>st</sup> through September 30<sup>th</sup>
  Nonessential outdoor water use is allowed ONE DAY per week before 9 a.m. and after 5 p.m. whenever:
  - a) Streamflow at the assigned USGS local stream gage 01096000 Sqannacook River near West Groton, MA falls below the following designated flow triggers for three (3) consecutive days:
    - May 1<sup>st</sup> through June 30<sup>th</sup>: 62 cfs (based on minimum flows that are protective of habitat for fish spawning during the spring bioperiod), and
    - July 1<sup>st</sup> through September 30<sup>th</sup>: 24 cfs (based on minimum flows that are protective of habitat for fish rearing and growth during the summer bioperiod).

Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven (7) consecutive days; or

 A Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force.

# Instructions for Accessing Streamflow and Drought Advisory Website Information

**Streamflow information** is available at the USGS National Water Information System (NWIS): Web Interface. The USGS NWIS default shows Massachusetts streamflows in real time, i.e., the most recent, usually quarterly hourly, reading made at each USGS stream gage.

Seasonal Limits on Nonessential Outdoor Water Use are implemented when the mean daily streamflow falls below the designated trigger. The mean daily flow is not calculated until after midnight each day when the USGS computes the hourly data into a mean daily streamflow. As a result, permittees must use the mean daily streamflow from the preceding day when tracking streamflows.

**Mean daily streamflow gage** readings are available at the USGS NWIS Web Interface at <a href="http://waterdata.usgs.gov/ma/nwis/current/?type=flow">http://waterdata.usgs.gov/ma/nwis/current/?type=flow</a>.

- Scroll down to 01096000 Squannacook River near West Groton, MA.
- · Click on the gage number.
- Scroll down to "Provisional Date Subject to Revision Available data for this site" and click on the drop down menu.
- Click on "Time-series: Daily data" and hit GO.
- Scroll down to the "Available Parameters" box. Within the box, be sure "Discharge (mean)" is checked, then, under "Output Format" click "Table" and hit GO.
- Scroll down to "Daily Mean Discharge, cubic feet per second" table and find the current date on the table.
- Compare the cubic feet per second (cfs) measurement shown on the table to the cfs shown under Streamflow Triggered Restrictions above.

**Drought Advisory** information is available at the Massachusetts Department of Conservation and Recreation (DCR) Drought Status Website at <a href="http://www.mass.gov/dcr/waterSupply/rainfall/drought.htm">http://www.mass.gov/dcr/waterSupply/rainfall/drought.htm</a>.

Under "Drought Status Reports", click on "drought map" on the right-hand side of the
page. The color coded map displays the six drought regions in Massachusetts.
Restrictions are implemented when a Drought Advisory, Watch, Warning or
Emergency is announced through the DCR website.

# **Public Notice of Water Use Restrictions**

Permittee shall notify its customers of the restrictions and the consequences of failing to adhere to the restrictions.

- For calendar-triggered restrictions, customers shall be notified by April 15<sup>th</sup> each year.
- For streamflow-triggered restrictions, when streamflow at the assigned USGS local stream gage falls below a streamflow trigger for three consecutive days, customers shall be notified as soon as possible, but within three days of implementing the restrictions.

Notice to customers shall include the following:

- A detailed description of the restrictions and penalties for violating the restrictions;
- The need to limit water use, especially nonessential outdoor water use, to ensure a sustainable drinking water supply and to protect natural resources and streamflow for aquatic life; and
- Ways individual homeowners can limit water use, especially nonessential outdoor water use.

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Notice that restrictions have been put in place shall be filed each year with MassDEP within 14 days of the restriction's effective date. Filing shall be in writing on the Water Use Restrictions Form at <a href="http://www.mass.gov/dep/water/approvals/wmgforms.htm#conserve">http://www.mass.gov/dep/water/approvals/wmgforms.htm#conserve</a>.

Notice to customers and MassDEP need not be provided if Permittee has already implemented water use restrictions that conform to the applicable restrictions and those restrictions are still in force.

# 7. Water Conservation Requirements

At a minimum, Townsend shall implement the following conservation measures forthwith and shall be in compliance with these measures on or before February 28, 2017. Compliance with the water conservation requirements shall be reported to MassDEP upon request or by February 28, 2017, unless otherwise noted below.

# Table 5: Minimum Water Conservation Requirements

# System Water Audits and Leak Detection

- At a minimum, conduct a full leak detection survey every three years. The first full leak detection survey shall be completed no later than 3 years from the date of last documented leak detection survey.
- 2. Perform a leak detection survey of those sections of the distribution system that have not been surveyed within the last year whenever the percentage of unaccounted for water increases by 5% or more (for example an increase from 3% to 8%) over the percentage reported on the ASR for the prior calendar year. Within 60 days of completing the leak detection survey, Permittee shall submit to MassDEP a report detailing the leak detection survey, any leaks uncovered as a result of the survey or otherwise, dates of repair and the estimated water savings as a result of the repairs.
- 3. Conduct field surveys for leaks and repair programs in accordance with the AWWA Manual 36.
- 4. Permittee shall have repair reports available for inspection by MassDEP. Permittee shall establish a schedule for repairing leaks that is at least as stringent as the following:
  - Leaks of 15 gallons per minute or more shall be repaired as soon as possible but not later than
    one month after leak detection.\*
  - Leaks of less than 15 gallons per minute, but greater than 5 gallons per minute, shall be repaired as soon as possible but not later than two months after leak detection.\*
  - Leaks of 5 gallons per minute or less shall be repaired as soon as possible but not later than six months after leak detection, except that hydrant leaks of one gallon or less per minute shall be repaired as soon as possible.\*
  - Leaks shall be repaired in accordance with the priority schedule including leaks up to the
    property line, curb stop or service meter, as applicable.
  - Have water use regulations in place that require property owners to expeditiously repair leaks on their property.

The following exceptions can be considered:

- Repair of leakage detected during winter months can be delayed until weather conditions become favorable for conducting repairs;\* and
- Leaks in freeway, arterial or collector roadways may be coordinated with other scheduled projects being performed on the roadway.\*\*
  - \*Reference: MWRA regulations 360 CMR 12.09

# Table 5: Minimum Water Conservation Requirements

\*\*Mass Highway or local regulations may regulate the timing of tearing up pavement on roads to repair leaks.

#### Metering

- Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.
- Ensure that the system is 100% metered, including all water use at municipal facilities (schools, school athletic fields, etc.).
- All water distribution system users shall have properly sized service lines and meters that meet AWWA calibration and accuracy performance standards.

AWWA References:

AWWA Manual M22 - Sizing Water Service Lines and Meters

AWWA Manual M6 - Water Meters, or as amended

- 4. Permittee shall have an ongoing program to inspect individual service meters to ensure that all service meters accurately measure the volume of water used by your customers. The metering program shall include regular meter maintenance, including testing, calibration, repair, replacement and checks for tampering to identify and correct illegal connections.
- Ensure placement of sufficient funds in the annual water budget to calibrate, repair, or replace meters as necessary.

#### Pricing

Implement a water revenue structure that includes the full cost of operating the water supply
system in compliance with state and federal requirements. Evaluate revenues every three to five
years and adjust rates as needed. Full cost pricing factors all costs - operations, maintenance,
capital, and indirect costs (environmental impacts, watershed protection) - into the revenue
structure.

AWWA References for Additional Information on Pricing:

AWWA Manual 1- Principals of Water Rates, Fees and Charges

AWWA Manual 29- Fundamentals of Water Utility Financing

2. Permittee reports using an increasing block rate structure and shall continue to do so.

# Residential and Public Sector Conservation

- Permittee shall meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.
- 2. Meter or estimate water used by contractors using fire hydrants for pipe flushing and construction.
- 3. Municipal buildings
  - Townsend reported in 2005 that all municipally owned public buildings in the service area were retrofitted with water saving devices.

## **Industrial and Commercial Water Conservation**

Permittee shall review the use records for its industrial, commercial and institutional water users
and develop an inventory of the largest water users. Permittee shall develop and implement an
outreach program designed to inform and (where appropriate) work with its largest industrial,
commercial and institutional water users on ways to reduce their water use. Such outreach plans
can include, but are not limited to: information on water audits, meter sizing, water reuse, lowflow plumbing fixtures, mandatory outdoor water use restrictions, suggestions for contacting trade

# Table 5: Minimum Water Conservation Requirements

associations for process specific information on water use reductions, and information on contacting the Executive Office of Environmental Affairs Office of Technical Assistance for Toxics Use Reduction (OTA) which offers a range of assistance and information to help facilities improve water use efficiency and reduce wastewater discharge. OTA can be contacted at (617) 626-1060 or at <a href="https://www.mass.gov/envir/ota">www.mass.gov/envir/ota</a>.

2. Upon request by MassDEP, Permittee shall report on industrial, commercial and institutional water conservation including the results of its review of water use records for industrial, commercial and institutional water users, the inventory of the largest water users, copies of any outreach materials distributed to industrial, commercial and institutional water users, and to the extent practical, a summary of water use reductions or savings that have resulted. Upon receipt of this report, MassDEP will take whatever action it deems appropriate to promote the interests of the Water Management Act, including without limitation requiring Permittee to take additional actions to reduce industrial, commercial and institutional water use.

## Lawn and Landscape

 Review Permittee's water use restriction bylaw to determine if it provides authority to implement and enforce water use restrictions required by the Special Condition, "Seasonal Limits on Nonessential Outdoor Water Use". Adopt a water use restriction bylaw, ordinance or regulation by May 1, 2015, to allow implementation of the new restrictions if necessary.

# **Public Education and Outreach**

- Develop and implement a Water Conservation Education Plan. Permittee's Water Conservation
   Education Plan shall be designed to educate Permittee's water customers of ways to conserve water.
   Without limitation, Permittee's plan may include the following actions:
  - Annual work sheets, included in water bills or under separate cover, to enable customers to track water use and conservation efforts and estimate the dollar savings;
  - Public space advertising/media stories on successes (and failures);
  - Conservation information centers perhaps run jointly with electric or gas company;
  - Speakers for community organizations;
  - Partner with garden clubs, or other private and non-profit organizations, to promote efficient water use;
  - Provide information on water-wise landscaping, gardening, efficient irrigation and lawn care practice;
  - Public service announcements; radio/T.V./audio-visual presentations;
  - Joint advertising with hardware stores to promote conservation devices;
  - Water conservation workshops for the general public
  - Use of civic and professional organization resources;
  - Special events such as Conservation Fairs;
  - Develop materials that are targeted to schools with media that appeals to children, including materials on water resource projects and field trips; and

Make multilingual materials available as needed.

References and additional information available through the USEPA Water Sense Program at http://www.epa.gov/watersense.

 Upon request of MassDEP, Permittee shall report on its pubic education and outreach effort, including a summary of activities developed for specific target audiences, any events or activities sponsored to promote water conservation and copies of written materials.

# GENERAL PERMIT CONDITIONS (applicable to all permittees)

No withdrawal in excess of 100,000 gallons per day over the registered volume (if any) shall be made following the expiration of this permit, unless before that date the Department has received a renewal permit application pursuant to 310 CMR 36.00.

- Duty to Comply The permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.
- 2. Operation and Maintenance The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw water so as not to impair the purposes and interests of the Act.
- 3. <u>Entry and Inspections</u> The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
- 4. Water Emergency Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to MGL c 21G ss 15-17, MGL c 150 ss 111, or any other enabling authority.
- Transfer of Permits This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.37.
- **Duty to Report** The permittee shall complete and submit annually, on a form provided by the Department, all of the information required by said form including, without limitation, a certified statement of the withdrawal. Such report shall be received by the Department by the date specified on the form each year.
- Duty to Maintain Records The permittee shall maintain withdrawal records and other information in sufficient detail to demonstrate compliance with this permit.
- 8. Metering All withdrawal points included within the permit shall be metered within one year of the date of issuance of the permit. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

# APPEAL RIGHTS AND TIME LIMITS

This permit is a decision of the Department. Any person aggrieved by this decision may request an adjudicatory hearing under the provisions of MGL c 30A. Any such request must be made in writing, by certified mail and received by the Department within twenty-one (21) days of the date of receipt of this permit. No request for an appeal of this permit shall be validly filed unless a copy of the request is sent by certified mail or delivered by hand to the local water resources management official in the city or town in which the withdrawal point(s) is located; and for any person appealing this decision, who is not the applicant, unless such person notifies the permit applicant of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

# CONTENTS OF HEARING REQUEST

310 CMR 1.01(6)(b) requires the request to include a clear and concise statement of the facts which are the grounds for the request and the relief sought. In addition, the request must include a statement of the reasons why the decision of the Department is not consistent with applicable rules and regulations, and for any person appealing this decision who is not the applicant, a clear and concise statement of how that person is aggrieved by the issuance of this permit.

## FILING FEE AND ADDRESS

The hearing request, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

Commonwealth of Massachusetts Department of Environmental Protection P.O. Box 4062 Boston, MA 02211

The request shall be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

#### **EXEMPTIONS**

The filing fee is not required if the appellant is a city or town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority.

#### WAIVER

The Department may waive the adjudicatory hearing filing fee for any person who demonstrates to the satisfaction of the Department that the fee will create an undue financial hardship. A person, seeking a waiver must file, together with the hearing request, an affidavit setting forth the facts which support the claim of undue hardship.

# Appendix A - Residential Gallons Per Capita Day (RGPCD)

I. Compliance Plan Requirement

If the permittee fails to achieve and document compliance with the RGPCD performance standard in its Annual Statistical Report (ASR), then the permittee must file with that ASR a Residential Gallons Per Capita Day Compliance Plan (RGPCD Plan) which shall:

a. meet the requirement set forth below in Section II;

- b. include measures to be implemented to meet the performance standard); and
- c. include the schedule for implementing such measures.

The filing of an RGPCD Plan shall not constitute a return to compliance, nor shall it affect MassDEP's authority to take action in response to the permittee's failure to meet the performance standard.

If an RGPCD Plan is required, the permittee must:

- a. submit information and supporting documentation sufficient to demonstrate compliance with its RGPCD Plan annually at the time it files its ASR; and
- b. continue to implement the RGPCD Plan until it complies with the performance standard and such compliance is documented in the permittee's ASR for the calendar year in which the standard is met.

#### II. Contents of an RGPCD Plan

A permittee that does not meet the 65 RGPCD performance standard within 2 years, has the choice to file an RGPCD Plan containing measures that the permittee believes will be sufficient to bring the system into compliance with the performance standard (Individual RGPCD Plan) or may adopt the MassDEP RGPCD Functional Equivalence Plan that includes mandated Best Management Practices (BMPs).

A permittee that has been unable to meet the 65 RGPCD performance standard within 5 years must implement the MassDEP RGPCD Functional Equivalence Plan to be considered functionally equivalent with the performance standard. At a minimum, all RGPCD Compliance Plans must include a detailed:

- a. description of the actions taken during the prior calendar year to meet the performance standard;
- b. analysis of the cause of the failure to meet the performance standard;
- description and schedule of the actions that will be taken to meet the performance standard; and
- d. analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the performance standard.

RGPCD Plans may be amended to revise the actions that will be taken to meet the performance standard.

#### **Individual RGPCD Plan**

Individual RGPCD Plan will document a plan to adopt and implement measures tailored to the specific needs of the water supply system that the permittee believes will be sufficient to bring the system into compliance with the performance standard within three years.

At a minimum, all Individual RGPCD Plans for failure to meet the RGPCD performance standard must include implementation of at least one of the following residential conservation programs:

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a. a program that provides water saving devices such as faucet aerators and low flow shower heads at cost;

b. a program that provides rebates or other incentives for the purchase of low water use

appliances (washing machines, dishwashers, and toilets); or

c. the adoption and enforcement of an ordinance, bylaw or regulation to require the installation of moisture sensors or similar climate related control technology on all automatic irrigation systems.

If the permittee is already implementing one or more of these programs, it must include in its Individual RGPCD Plan the continued implementation of such program(s), as well as implementation of at least one additional program. All programs must include a public information component designed to inform customers of the program and to encourage participation in the program.

Without limitation, the Individual RGPCD Plan for failure to meet the RGPCD performance standard may include any of the actions set forth in the MassDEP RGPCD Functional Equivalence Plan below.

MassDEP RGPCD Functional Equivalence Plan

In order to be considered functionally equivalent with the RGPCD performance standard, the permittee must adopt and implement the MassDEP RGPCD Functional Equivalence Plan that requires all the following residential conservation programs:

a. a program that provides water saving devices such as faucet aerators and low flow

shower heads at cost;

b. a program that provides rebates or other incentives for the purchase of low water use

appliances (washing machines, dishwashers, and toilets);

c. the adoption and enforcement of an ordinance, bylaw or regulation to require the installation of soil moisture sensors or similar climate related control technology on all automatic irrigation systems;

d. the use of an increasing block water rate or a seasonal water rate structure as a tool to

encourage water conservation;

- e. the adoption and enforcement of an ordinance, bylaw or regulation to require that all new construction include water saving devices and low water use appliances; and
- the implementation of monthly or quarterly billing.

Hardship

A permittee may present an analysis of the cost effectiveness of implementing certain conservation measures included in the MassDEP RGPCD Functional Equivalence Plan and offer alternative measures. Any analysis must explicitly consider environmental impacts and must produce equal or greater environmental benefits. Suppliers will be able to present:

a. Reasons why specific measures are not cost effective because the cost would exceed the

costs of alternative methods of achieving the appropriate standard;

b. Alternative specific conservation measures that would result in equal or greater systemwide water savings or equal or greater environmental benefits than the conservation measures included in the MassDEP RGPCD Functional Equivalence Plan; and

c. When applicable, an analysis demonstrating that implementation of specific measures

will cause or exacerbate significant economic hardship.

# Appendix B - Unaccounted for Water (UAW)

UAW is defined as the residual resulting from the total amount of water supplied to a distribution system as measured by master meters, minus the sum of all amounts of water measured by consumption meters in the distribution systems, and minus confidently estimated and documented amounts used for certain necessary purposes.

UAW shall include, without limitation: unavoidable leakage, recoverable leakage, meter inaccuracies (unless they fall under the category of source meter calibration which allows for adjustment per results of source meter calibration); errors in estimation of stopped meters, unauthorized hydrant openings, illegal connections, stand pipe overflows, data processing errors; and undocumented fire fighting uses. The need for water main flushing and the use of water in construction or meter calibration shall be metered or estimated as appropriate to assist in determining actual demand. Volumes flushed to waste shall be reported on permittee's ASR.

Uses that can be confidently estimated and documented in writing include: storage tank overflow and drainage; water main flushing and flow testing; fire fighting; bleeding or blow-offs; sewer and storm water system flushing; and cleaning and street cleaning. Any adjustments made as a result of the properly documented source meter calibration shall be provided as required by the ASR. Any adjustment in the calculation of UAW made as a result of confidently estimated uses shall be fully documented as required in the ASR.

## I. Compliance Plan Requirement

If the permittee fails to document compliance with the UAW performance standard in its Annual Statistical Report (ASR), then the permittee must file with that ASR an Unaccounted for Water Compliance Plan (UAW Plan) which shall:

- a. meet the requirements set forth below in Section II;
- b. include measures to be implemented to meet the performance standard; and
- c. include the schedule for implementing such measures.

The filing of a UAW Plan shall not constitute a return to compliance, nor shall it affect MassDEP's authority to take action in response to the permittee's failure to meet the performance standard.

If a UAW Plan is required, the permittee must:

- a. submit information and supporting documentation sufficient to demonstrate compliance with its UAW Plan annually at the time it files its ASR; and
- b. continue to implement the UAW Plan until it complies with the performance standard and such compliance is documented in the permittee's ASR for the calendar year in which the standard is met.

# II. Contents of a UAW Compliance Plan

A permittee that does not meet the 10% UAW performance standard within 2 years, has the choice to file a UAW Plan containing measures that the permittee believes will be sufficient to bring the system into compliance with the performance standard (Individual UAW Plan) or may

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adopt the MassDEP UAW Functional Equivalence Plan that includes mandated Best Management Practices (BMPs).

A permittee that has been unable to meet the 10% UAW performance standard within 5 years must implement the MassDEP UAW Functional Equivalence Plan to be considered functionally equivalent with the performance standard.

At a minimum, all UAW plans must include a detailed:

 description of the actions taken during the prior calendar year to meet the applicable performance standard;

b. analysis of the cause of the failure to meet the performance standard;

 description and schedule of the actions that will be taken to meet the performance standard; and

 analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the performance standard.

UAW plans may be amended to revise the actions that will be taken to meet the performance standard.

Individual UAW Compliance Plan

Individual UAW Plan will document a plan to adopt and implement measures tailored to the specific needs of the water supply system that the permittee believes will be sufficient to bring the system into compliance with the performance standard within three years. Individual UAW compliance plans may include any of the actions set forth in the MassDEP UAW Functional Equivalence Plan compliance plan below.

MassDEP UAW Functional Equivalence Plan

In order to be considered functionally equivalent with the UAW performance standard, the permittee must adopt and implement the MassDEP UAW Functional Equivalence Plan that, at a minimum, requires all the following measures:

a. within one year of filing the MassDEP UAW Functional Equivalence Plan, complete a water audit and leak detection survey of the entire system and submit completed audit and survey to MassDEP; within one year of completing the audit and leak detection survey, conduct sufficient repairs to reduce by 75% (by water volume) all leaks detected in the survey; within one year of completing such repairs, conduct additional repairs of leaks detected in the survey as may be necessary to reduce permittee's UAW to 10% or the minimum level possible;

b. if UAW remains above 10%, repeat the steps outlined in paragraph a.;

c. implementation of a program that ensures the inspection and evaluation of all water meters and, as appropriate, the repair, replacement and calibration of water meters in accordance with the following schedule:

<u>Large Meters</u> (2" or greater) - within one year of filing the MassDEP UAW Functional Equivalence Plan

Medium Meters (1" or greater and less than 2") - within two years of filing the MassDEP UAW Functional Equivalence Plan

Small Meters (less than 1") - within three years of filing the MassDEP UAW Functional Equivalence Plan;

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d. implementation of monthly or quarterly billing within three years of fling the MassDEP UAW Functional Equivalence Plan; and

e. within one year of filing the MassDEP UAW Functional Equivalence Plan, implementation of a water pricing structure that achieves sufficient revenues to pay the full cost of operating the system including, without limitation, the costs of repairs under paragraph a., the costs of meter repairs, replacements and calibrations under paragraph c., the costs of employees and equipment, and ongoing maintenance and capital costs.

#### Hardship

A permittee may present an analysis of the cost effectiveness of implementing certain conservation measures included in the MassDEP UAW Functional Equivalence Plan and offer alternative measures. Any analysis must explicitly consider environmental impacts and must produce equal or greater environmental benefits. Suppliers will be able to present:

a. Reasons why specific measures are not cost effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard;

b. Alternative specific conservation measures that would result in equal or greater systemwide water savings or equal or greater environmental benefits than the conservation measures included in the MassDEP UAW Functional Equivalence Plan; and

c. When applicable, an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship.

# FISCAL YEAR 21 SUMMARY TOWNSEND WATER DEPARTMENT - ACCOUNTS RECEIVABLE February 28, 2021

UNCOLLECTED FRO	M JUNE 30	. 2020
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93,833.10

				85
CHARGED 07/01/20 02/28/21	2/28/2021	Previous Balance	Total	
USER CHARGES	4,607.84	969,938.52	974,546.36	
SERVICE CHARGES	322.44	22,728.18	23,050.62	
CONNECTION CHARGES	0.00	6,500.00	6,500.00	
LATE CHARGES	2,099.41	11,605.26	13,704.67	
BACKFLOW SUBTOTAL TOTAL CHARGES	0.00 <b>7,029.69</b>	4,730.00	4,730.00	1,022,531.65 1,116,364.75
RECEIVED 07/01/20 02/28/21 USER CHARGES	<b>2/28/2021</b> 47,797.99	899,945.24	947,743.23	
SERVICE CHARGES	835.17	22,276.33	23,111.50	
CONNECTION CHARGES	0.00	6,500.00	6,500.00	
LATE CHARGES	1,086.22	10,312.55	11,398.77	
BACKFLOW SUBTOTAL	0.00 <b>49,719.38</b>	5,619.44	5,619.44	
TOTAL RECEIPTS				994,372.94
SENT TO LIEN LIENS COLLECTED				26,291.35
ABATEMENTS				-1,314.14
ADJUSTMENTS				-1,387.71
AJD TO MASTER				
UNCOLLECTED				98,402.31 1,116,364.75
OUTSTANDING:	00 500 05			
USER CHARGES	92,598.87			

BACKFLOW TOTAL OUTSTANDING	12.62 <b>98,402.31</b>
LATE CHARGES	3,931.86
CONNECTION CHARGES	-1,600.00
SERVICE CHARGES	3,458.96
USER CHARGES	92,598.87

\$ Over (Under)

Jul '20 - Feb 21 Budget

Budget

% of Budget

	Ju	l '20 - Feb 21	Budget		Budget		% of Budget
Ordinary Income/Expense							_
Expense							
061.000 · General Operations 000							
061.001 · Personal Services 1							
5100 · Salaries & Wages-Water Super	\$	19,624.62	\$	110,000.00	\$	(90,375.38)	17.80%
5110 · Salary & Wages-Oper Staff	\$	98,757.12	\$	168,135.55	\$	(69,378.43)	58.70%
5112 · Salary & Wages-Support Staff	\$	43,166.24	\$	70,624.22	\$	(27,457.98)	61.10%
5130 · Additional Gross	\$	7,186.08	\$	14,240.00	\$	(7,053.92)	50.50%
5134 · Additional Gross-Reg&SpecOncall	\$	9,117.20	\$	20,363.10	\$	(11,245.90)	44.80%
5190 · Other Stipened-Longevity	\$	1,200.00	\$	1,200.00	\$	-	100.00%
5191 · Other - Stipend BOWC	\$	10.00	\$	3.00	\$	(3.00)	0.00%
5192 · Other-Certification/Stipend	\$	1,500.00	\$	1,500.00	\$	-	100.00%
5193 · Retirement Benefit	\$		\$		\$		0.00%
5195 · Other-Clothing Allowance	\$	600.00	\$	-	\$	600.00	100.00%
5197 · Vehicle Allowance -Super	\$	2,993.70	\$		\$	2,993.70	100.00%
5198 · Snow Storm Stipend	\$	-	\$	4,000.00	\$	(4,000.00)	0.00%
Total 061.001 · Personal Services 1	\$	184,144.96	\$	390,065.87	\$	(205,920.91)	47.20%
061.002 · Purchased Services 2							
5210 · Energy	\$	50,783.42	\$	80,000.00	\$	(29,216.58)	63.50%
5240 · Repair & Maint Building	\$	1,131.06	\$	50,000.00	\$	(48,868.94)	2.30%
5245 · Repair & Maint Equipment	\$	4,448.23	\$	40,000.00	\$	(35,551.77)	11.10%
5245006 · Repair & Maintain Equip SCADA	\$	6,390.00	\$	10,500.00	\$	(4,110.00)	60.90%
5245007 · Repair & Maintain-Distribution	\$	4,800.00	\$	30,000.00	\$	(25,200.00)	16.00%
5270 · Rentals	\$	1,050.00	\$	1,050.00	\$	-	100.00%
Total 061.002 · Purchased Services 2	\$	68,602.71	\$	211,550.00	\$	(142,947.29)	32.40%
061.003 · Purchased Services 3							
5300-02 · Proff Legal Expense	\$		\$	12,000.00	\$	(12,000.00)	0.00%
5300 · Professional Services	\$	43,805.08	\$	63,000.00	\$	(19,194.92)	69.50%
5300100 · Proff Service Backflow	\$	4,300.00	\$	9,500.00	\$	(5,200.00)	45.30%
5340 · Communication	\$	15,283.84	\$	21,000.00	\$	(5,716.16)	72.80%
5380 · Other Services	\$	7	\$	2,730.00	\$	(2,730.00)	0.00%
Total 061.003 · Purchased Services 3	\$	63,388.92	\$	108,230.00	\$	(44,841.08)	58.60%
061.004 · Purchased Supplies 4					S		
5420 · Office Supplies	\$	2,334.09	\$	5,250.00	\$	(2,915.91)	44.50%
5430 · Building Supplies	\$	137.57	\$	1,575.00	\$	(1,437.43)	8.70%
5435 · Equipment Maint Supplies	\$	-	\$	1,575.00	\$	(1,575.00)	0.00%
5460 · Groundskeeping Supplies	\$	86.95	\$	525.00	\$	(438.05)	16.60%
5480 · Vehicular Supplies	\$	2,295.79	\$	9,000.00	\$	(6,704.21)	25.50%
Total 061.004 · Purchased Supplies 4	\$	4,854.40	\$	17,925.00	\$	(13,070.60)	27.10%
<u>061.005</u> · Purchased Supplies <u>5</u>					0,000		
5530 · Public Works Supplies	\$	77,783.36	\$	55,000.00	\$	22,783.36	141.40%
5531 · Chemicals	\$	12,253.70	\$	24,150.00	\$	(11,896.30)	50.70%
5580 · Other Supplies	\$		\$	1,050.00	\$	(1,050.00)	0.00%
5585 · Clothing Allowance	\$	2,697.87	\$	5,250.00	\$	(2,552.13)	51.40%

Total 061.005 · Purchased Supplies 5	\$ 92,734.93	\$ 85,450.00	\$ 7,284.93	108.50%
061.007 · Other Charges & Exp 7				
5710 · Travel/mileage-in state	\$ 149.32	\$ 1,155.00	\$ (1,005.68)	12.90%
5720 · Out of State Travel	\$ -	\$ -	\$ -	0.00%
5730 · Dues and Memberships	\$ 5,027.00	\$ 4,300.00	\$ 727.00	116.90%
5780 · Other Charges	\$ -	\$ 525.00	\$ (525.00)	0.00%
5785 · Water Assessment D.E.P.	\$ 1,946.25	\$ 2,200.00	\$ (253.75)	88.50%
5850 · New Equipment	\$ 8,105.41	\$ 10,500.00	\$ (2,394.59)	77.20%
Total 061.007 · Other Charges & Exp 7	\$ 15,227.98	\$ 18,680.00	\$ (3,452.02)	81.50%
061.400 · Special Projects 400				
5012 · System Enhancement	\$	\$ 122,632.92	\$ (122,632.92)	0.00%
5805 · Meadow Rd Main Replacement	\$ 30,480.50	\$ 41,435.98	\$ (10,955.48)	73.60%
5895 · Main Line Gate/Valve Replacemen	\$ 29,683.11	\$ 60,000.00	\$ (30,316.89)	49.50%
5902-18 · Main St Cleaning	\$ -	\$ -	\$ -	0.00%
Total 061.400 · Special Projects 400	\$ 60,163.61	\$ 224,068.90	\$ (163,905.29)	26.90%
061.500 · Special Articles 500				
5000 · Water Oper Emergency Res Fund	\$	\$	\$	0.00%
5005-18 · Update Master Plan	\$ 15,500.00	\$ 25,000.00	\$ (9,500.00)	62.00%
5020 · Storage Tank Maintenance	\$	\$ 5,198.40	\$ (5,198.40)	0.00%
5803-19 · Generator 540 Main St	\$ -	\$ 30,000.00	\$ (30,000.00)	0.00%
5804-16 · Upgrade Witches Brook	\$	\$ 40,000.00	\$ (40,000.00)	0.00%
5809-17 · Highland Street Storange Tank	\$ 1,711.32	\$ 75,000.00	\$ (73,288.68)	2.30%
5895-21 · Witches Brook Daytank	\$ 36,145.12	\$ 75,000.00	\$ (38,854.88)	48.20%
590218 · STM ART Utility Billing	\$ 	\$ 18,000.00	\$ (18,000.00)	0.00%
Total 061.500 · Special Articles 500	\$ 53,356.44	\$ 268,198.40	\$ (214,841.96)	19.90%
Total 061.000 · General Operations 000	\$ 542,473.95	\$ 1,324,168.17	\$ (781,694.22)	41.00%
061.009 · Debt Service 9				
5910 · Long Term Debt-East Side Phase1	\$ -	\$ 37,962.00	\$ (37,962.00)	0.00%
5911 · Long Term Debt-East Side Ph 2	\$	\$ 54,078.00	\$ (54,078.00)	0.00%
5920 · Long term Interest-Phase1	\$ 2,016.26	\$ 4,412.00	\$ (2,395.74)	45.70%
5921 · Long Term Int East Side Ph2	\$ 3,482.01	\$ 7,505.00	\$ (4,022.99)	46.40%
Total 061.009 · Debt Service 9	\$ 5,498.27	\$ 103,957.00	\$ (98,458.73)	5.30%
063,400 · Projects				
5895-18 · West End-Water Main	\$ 46,146.37	\$ 70,884.23	\$ (24,737.86)	65.10%
Total 063.400 · Projects	\$ 46,146.37	\$ 70,884.23	\$ (24,737.86)	65.10%
Total Expense	\$ 594,118.59	\$ 1,499,009.40	\$ (904,890.81)	39.60%
Net Ordinary Income	\$ (592,730.46)	\$ (1,499,009.40)	\$ 906,278.94	39.50%
Net Income	\$ (592,730.46)	\$ (1,499,009.40)	\$ 906,278.94	39.50%