

**TOWN OF WATERVILLE VALLEY,
N.H.**

Department of Municipal Services

Municipal Water & Sewer Regulations

Town of Waterville Valley, NH
Municipal Water & Sewer Regulations
December 13, 2018

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Section XXI **RATE SCHEDULE** page31

1 The Town of Waterville Valley, N.H. owns and operates a combined water and sewer department.

2

3 The Water System consists of three gravel packed wells, (Well #2, Well #3 and Well #4) a network
4 of mains and a reservoir storage capacity of 880,000 gallons of water in two tanks. The Water
5 System is designed to supply both domestic water and fire protection water with a number of
6 hydrants located throughout the Town.

7

8 The Sewer System includes a network of collector mains and an advanced treatment plant which
9 utilizes tertiary chemical-physical treatment and is capable of processing 550,000 gallons per day
10 which is ultimately discharged into the Mad River.

11

12 **Section I – GENERAL STATEMENT**

13 a) **Purpose:** The Rules and Regulations herein set forth, the maintenance and operation of the
14 Waterville Valley Municipal Water and Sewer Systems have been established by the
15 Selectmen of the Town of Waterville Valley, and the delivery of water service to private
16 customers is conditional upon their acceptance.

17 i) They are also established as necessary or desirable for the efficient operation of said
18 Waterville Valley Municipal Sewer System and for accomplishing the purposes of RSA
19 485, 485-A and 485-C, as amended, and RSA 147, as amended and for the protection of
20 the health and safety of the people of the Town of Waterville Valley.

21 ii) Pursuant to the above referenced state statutes, and every other authority thereto
22 enabling, the Selectmen of the Town of Waterville Valley herewith enact and ordain the
23 following Rules and Regulations effective from October 1, 1973 forward and as they
24 may be amended and revised from time to time.

25 iii) All or any part of these terms, conditions or rates may be changed and deleted and new
26 terms, conditions or rates may be added at any time by the Board of Selectmen when in
27 its opinion, it would be in the best interest of the Town, the customers or the
28 department to do so.

29

30 b) **Definitions:** Unless the context specifically and clearly indicates otherwise, the meaning of
31 terms and phrases used in the Ordinance shall be as follows:

32 i) **General**

33 (1) **Board:** Shall mean the Board of Selectmen

34 (2) **Construction Standards:** Shall mean those specifications and standards as may be
35 determined by the Town

36 (3) **Department:** Shall collectively mean the Municipal Services Department and shall
37 individually mean either the Water or Sewer Department.

38 (4) **Industrial Wastes:** Shall mean all wastes discharged from any industrial establishment,
39 other than sanitary sewage.

- 40 (5) Inspectors: Shall mean those authorized representatives of the Town who are
41 charged with the responsibility of inspecting the construction and installation of
42 water main and service pipes and of sewer mains, laterals and building sewers.
- 43 (6) Improved Property: Shall mean any property within the Town of Waterville Valley
44 upon which there is erected a structure intended for continuous or periodic
45 occupancy by human beings from which sanitary sewage or industrial waste will
46 be discharged.
- 47 (7) Manager: Shall mean Town Manager.
- 48 (8) Natural Outlet: Shall mean any outlet into a watercourse, pond, ditch, lake, or other
49 body of surface or groundwater.
- 50 (9) Owner: Shall mean any person vested with ownership of any improved property.
- 51 (10) Person: Shall mean any individuals, partnerships, firms, associations,
52 corporations, or other legal entities.
- 53 (11) Sanitary Sewage: Shall mean normal water-carried household and toilet wastes
54 discharged from any improved property, excluding ground, surface or storm
55 water.
- 56 (12) Sewer System: Shall mean all facilities located in the Town of Waterville Valley,
57 owned and operated by the Town of Waterville Valley, and used for collecting,
58 pumping, transporting, treating, and disposing of sanitary sewage and industrial
59 wastes.
- 60 (13) Building Sewer: Shall mean that part of the piping which receives the discharge
61 from inside the walls of a building and conveys it into a sewer lateral.
- 62 (14) Sewer Lateral: Shall mean a sewer pipe extending from a building sewer into a
63 sewer main.
- 64 (15) Sewer Main: Shall mean a sewer pipe that collects discharge from the lateral
65 pipes.
- 66 (16) Municipal Sewer Main: Shall mean a sewer main that is generally located along
67 highways, streets and roads which are dedicated to public use and are owned and
68 maintained by the Town. A municipal sewer main may collect discharge from
69 either a private sewer main or from lateral pipes.
- 70 (17) Private Sewer Main: Shall mean a sewer main that is located within the
71 boundaries of a private development, is intended for that development's use, and
72 is owned and maintained by the private development.
- 73 (18) Town: Shall mean the Town of Waterville Valley.
- 74 (19) Water System: Shall mean all facilities located in the Town of Waterville Valley,
75 owned and operated by the Town of Waterville Valley, and used for obtaining,
76 pumping, storing, and disbursing potable water to improved properties within
77 the Town.
- 78 (20) Main Pipe: Shall mean any supply pipe over two (2) inches inside diameter from
79 which service connections are made to supply water to customers.

80 (21) Municipal Water Main: Shall mean any supply pipe over eight (8) inches inside
81 diameter that is generally located along highways, streets and roads which are
82 dedicated to public use and are owned and maintained by the Town. A municipal
83 water main may supply water to customers through private water mains or
84 through service connections.

85 (22) Private Water Main: Shall mean any supply main that is located within the
86 boundaries of a private development, is intended for that development's use, and
87 is owned and maintained by that private development.

88 (23) Service Pipe: Shall mean the water pipe running from the main pipe to the
89 building to be served.

90 ii) Exceptions to the above mentioned eight inches (8") inside diameter are the six-inch (6")
91 installation along Lower Greeley Hill Road and the four-inch (4") installation along
92 Elliot Road which are already in place and shall be treated as Municipal Water Mains.
93 Authorization of Municipal Water Mains of less than eight inches (8") inside diameter
94 may be given by the Selectmen if they feel the situation warrants a smaller main.
95

96 Section II **WATER AS A PRECIOUS RESOURCE**

97 (a) Domestic water, in Waterville Valley, is considered to be a precious resource. It shall not be
98 wasted.

99 (b) The Department reserves the right to limit usage of domestic water, when in its judgment; it
100 is in the best of interest of the Town to do so.
101

102 Section III **USE OF PUBLIC SEWER REQUIRED**

103 (a) Pursuant to RSA 147:8, the owner of any property within one hundred feet (100 feet) of a
104 public sewer main shall connect the improved property to the sewer main, in such a manner
105 as the Town may require, within forty-five (45) days after notice to such owner from the
106 Town to make such connection for the purpose of discharge of all sanitary sewage and
107 industrial wastes from such improved property into the sewer system, subject to such
108 limitations and restrictions shall be established by the Town from time to time. Each owner
109 shall, within the same time limit, cease and desist from all further discharge of sanitary
110 sewage and/or industrial wastes into any other conduit or pre-existing system whether
111 privately or publicly owned.

112 (b) If the owner of any improved property located within the Town and is benefitted, improved,
113 served, or accommodated by any sewer main or to which any sewer main is available, after
114 the forty-five (45) days notice from the Town, in accordance with Section III. (a), shall fail to
115 connect such improved property as required, he shall be subject to the actions and penalties
116 prescribed in RSA 147 and regulations issued pursuant thereto; or the Town may make such
117 connection and may collect from such owner the costs and expenses thereof by such legal
118 proceedings as may be permitted by law. The Town shall have full authority to enter on the

- 119 owner's property to do whatever is necessary to properly drain the improved property via a
120 lateral sewer into a sewer main.
- 121 (c) All sanitary sewage and industrial wastes from any improved property, after connection of
122 such improved property with a sewer as required under Section III. (a) shall be connected to
123 a sewer main subject to such limitations and restrictions as shall be established herein or
124 otherwise shall be established by the Town from time to time.
- 125 (d) No person shall place or deposit or permit to be placed or deposited upon public or private
126 property within the Town any sanitary sewage or industrial wastes in violations of Section
127 III. (a).
- 128 (e) No person shall discharge, or permit to be discharged, to any natural outlet within the Town
129 any sanitary sewage or industrial wastes in violation of Section III. (a), except where suitable
130 treatment has been provided which is satisfactory to the Town and the New Hampshire
131 Water Supply and Pollution Control Commission.
- 132 (f) No privy vault, cesspool, sinkhole, septic tank, or similar receptacle shall be used and
133 maintained at any time upon any improved property which has been connected to a sewer
134 main or which shall be required under Section III. (a) to be connected to a sewer main.
- 135 (g) No privy vault, cesspool, sinkhole, septic tank, or similar receptacle shall be connected to a
136 sewer at any time.
- 137 (h) Improved properties benefitted, improved, served, or accommodated by any sewer main or
138 to which any sewer main is available, and within the 400 ft. Sanitary Protection Radius of a
139 potable water supply must connect to the sewer within sixty (60) days of the main becoming
140 operational in accordance with paragraphs (a) and (b) above even if they have a properly
141 functioning privately maintained sewer disposal property.
- 142 (i) Improved properties benefitted, improved, served, or accommodated by any sewer main or
143 to which any sewer main is available, and outside the 400 ft. Sanitary Protection Radius but
144 within the 1,000-foot Wellhead Protection Area Radius of a potable water supply must
145 connect to the Town's sewer system within sixty (60) days if their privately owned and
146 operated sewer disposal system malfunctions or otherwise becomes inoperable in
147 accordance with paragraphs (a) and (b) above.

148
149 **Section IV – SEWER WASTE RESTRICTIONS**

- 150 (a) No person shall discharge or cause to be discharged any storm water, surface water, ground
151 water, roof run-off, subsurface drainage, uncontaminated cooling water, or unpolluted
152 industrial process waters to any sewer main.
- 153 (b) Storm water and all other unpolluted process drainage shall be discharged to storm sewers, if
154 available, or to a natural outlet approved by the Town.
- 155 (c) Industrial cooling water or unpolluted process waters may be discharged, on approval of the
156 Town and New Hampshire Water Supply and Pollution Control Commission, to a storm
157 sewer, if available, or to a natural outlet approved by the Town.

- 158 (d) No person shall discharge or cause to be discharged any of the following described waters or
159 wastes to any public sewer main:
- 160 (e) Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas;
- 161 (f) Any waters or wastes containing toxic or poisonous solids, liquids or gases in sufficient
162 quantity, either singly or by interaction with other wastes, to injure or interfere with any
163 sewage treatment process, constitute a hazard to humans or animals, create a public
164 nuisance, or create any hazard at the sewage treatment plant, including but not limited to
165 cyanides in excess of 0.004 mg/1 as CN in the wastes discharged to the public sewer;
- 166 (g) Any waters or wastes having a pH lower than 5.5, or having any other corrosive property
167 capable of causing damage or hazard to structures, equipment and personnel of the sewage
168 works;
- 169 (h) Solid or viscous substances in quantities or of such size so as to be capable of causing
170 obstruction to the flow in sewers, or other interference with property operation of the
171 sewage works such as but not limited to ashes, cinders, sand, mud, straw, shavings, metal,
172 glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure,
173 hair and fleshing, entrails, paper dishes/cups, milk containers, etc. either whole or ground by
174 garbage grinders.
- 175 (i) No person shall discharge or cause to be discharged the following described substances,
176 materials, waters, or wastes if it appears likely, in the opinion of the Town, that such wastes
177 can harm either the sewer mains, sewage treatment process, or equipment, have an adverse
178 effect on the receiving stream, or can otherwise endanger life, limb, public property, or
179 constitute a nuisance. In forming such opinion as to the acceptability of these wastes, the
180 Town will give consideration to such factors as the quantities of subject wastes in relation to
181 flows and velocities in the sewers, materials of construction of the sewers, nature of the
182 sewage treatment process, capacity of the sewage treatment plant, degree of treatability of
183 wastes in the sewage treatment plan and other pertinent factors.
- 184 (i) The substances prohibited are:
- 185 1. Any liquid or vapor having a temperature higher than one-hundred-fifty
186 (150 degrees Fahrenheit (65° C) ;
 - 187 2. Any water or waste containing fats, wax, grease, oils – whether emulsified
188 or not – in excess of one hundred (100) mg/1 or contained substances
189 which may solidify or become viscous at temperatures between thirty two
190 (32) and one-hundred-fifty (150) degrees Fahrenheit (0 to 65° C);
 - 191 3. Any garbage that has not been properly shredded. The installation and
192 operations of any garbage grinder equipped with a motor of three fourths
193 (3/4) horsepower (0.76 metric) or greater shall be subject to review and
194 approval of the Town;
 - 195 4. Any waters or wastes containing strong acid iron pickling wastes, or
196 concentrated plating solutions whether neutralized or not;

- 197 5. Any waters or wastes containing iron, chromium, copper, zinc, and
198 similar objectionable or toxic substances, or wastes exerting an excessive
199 chlorine requirement, to such degree that any such material received in
200 the composite sewage at the treatment works exceeds the limit
201 established by the Town for such materials;
- 202 6. Any waters or wastes containing phenols or other taste or odor
203 producing substances, in such concentrations exceeding limits which may
204 be established by the Town as necessary, after treatment of the
205 composite sewage, to meet the requirements of the state, federal or other
206 public agencies of jurisdiction for such discharge to the receiving water;
- 207 7. Any radioactive wastes or isotopes of such half-life or concentration as
208 may exceed limits established by the Town in compliance with
209 application state and federal regulations;
- 210 8. Any waters or wastes having a pH in excess of 9.5.
- 211 (j) No person shall discharge or cause to be discharged any materials which exert or cause the
212 following:
- 213 (i) Unusual concentrations of inert suspended solids (such as, but not limited to,
214 Fuller's Earth, lime slurries and lime residues) or of dissolved solids (such as,
215 but not limited to, sodium chloride and sodium sulfate);
- 216 (ii) Excessive discoloration (such as, but not limited to, dye wastes and vegetable
217 tanning solutions);
- 218 (iii) Unusual BOD, chemical oxygen demand or chlorine requirements in such
219 quantities as to constitute a significant load on the sewage treatment works;
- 220 (iv) Unusual volume of flow or concentration of wastes or both, constituting
221 slugs widely variant from the normal or average.
- 222 (k) No person shall discharge or cause to be discharged any waters or wastes containing
223 substances which are not amenable to treatment or reduction by the sewage treatment
224 processes employed, or are amenable to treatment only to such a degree that the sewage
225 treatment plant effluent cannot meet the requirements of other agencies having jurisdiction
226 over discharge to the receiving waters.
- 227 (l) If any waters or wastes are discharged, or are proposed to be discharged, into any sewer
228 main which contain the substances or possess the characteristics enumerated in Section IV
229 A-G of these Regulations, and which in the judgment of the Town may be deleterious to the
230 sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard
231 to life or constitute a public nuisance, the Town may:
- 232 (i) Reject the waste;
- 233 (ii) Require pretreatment to an acceptable condition for discharge to the public
234 sewers;
- 235 (iii) Require control over the quantities and rates of discharge;

- 236 (iv) Require payment to cover the added costs not covered by existing taxes or
237 sewer charge of handling and treating wastes.
- 238 (m) If the Town permits the pretreatment or equalization of waste flows, the design and
239 installation of the plants and equipment shall be subject to the review and approval of the
240 Town and be subject to the requirements of all applicable codes, ordinances and laws.
- 241 (n) Where preliminary treatment or flow-equalizing facilities are provided for any waters or
242 wastes, they shall be maintained continuously in satisfactory and effective operation by the
243 owner at his expense.
- 244 (o) Grease, oil and sand interceptors shall be provided by the owner of the improved property
245 when, in the opinion of the Town, they are necessary for the proper handling of liquid
246 wastes containing grease in excessive amounts or flammable wastes, sand or other harmful
247 ingredients; except that such interceptors shall not be required for private living quarters or
248 dwelling units. All interceptors shall be of a type and capacity approved by the Town and
249 shall be located as to be readily and easily accessible for cleaning and inspection.
- 250 (p) When required by the Town, the owner of any property serviced by a building sewer
251 carrying industrial wastes shall install a suitable control manhole together with such
252 necessary meters and other appurtenances to facilitate observation, sampling and
253 measurement of the wastes. When required, such manhole shall be accessible, safely located
254 and shall be constructed in accordance with plans approved by the Town. The manhole shall
255 be installed by the owner at his expense and shall be maintained by him so as to be safe and
256 accessible at all times.
- 257 (q) All measurements, tests, and analyses of the characteristics of waters and wastes to which
258 reference is made in these Rules and Regulations shall be determined in accordance with the
259 latest edition of “Standard Methods of Examination of Water and Wastewater”, published
260 by the American Public Health Association, and shall be determined at the control manhole
261 provided or upon suitable samples taken at said control manhole. In the event that no
262 special manhole has been required, the control manhole shall be considered to be the nearest
263 downstream manhole in the municipal sewer main at the point the building sewer is
264 connected. Sampling shall be carried out by customarily accepted methods to reflect the
265 effect on constituents upon the sewage works, and to determine the existence of hazards to
266 life, limb or property (the particular analysis involved will determine whether a twenty-four
267 (24) hour composite of all outfalls of a premise is appropriate or whether a grab sample or
268 samples should be taken. Normally, but not always, BOD and suspended solids analysis are
269 obtained from twenty-four (24) composite of all outfalls whereas pH levels are determined
270 from periodic samples).
- 271 (r) No statement contained in the Section shall be construed as precluding any special
272 agreement or arrangement between the Town and any industrial concern whereby an
273 industrial waste of unusual strength or character may be accepted by the Town for treatment
274 subject to extra payment therefore by the industrial concern.
- 275

276 **Section V – POWERS OF ASSESSMENT AND COLLECTIONS**

277 The assessment and collection of the expense of construction and maintaining the sewer system
278 shall be governed by the provisions of RSA 485, 485-A and 485-C inclusive, and any other
279 applicable general laws. The Selectmen of the Town shall have all powers granted to Boards of
280 Mayor and Aldermen hereunder with reference to establishing and assessing sewer charges and/or
281 rentals.

282
283 **Section VI – CUSTOMER SERVICE**

284 (a) **Application Procedure:** No person shall connect into the municipal water or sewer systems
285 until a permit has been granted by the respective department. A copy of the permit
286 application to be filled out by the prospective customer may be obtained from the Town
287 Manager’s office.

288 (b) **Connection Procedure:** All connections to the water and sewer systems shall be made
289 under the direct supervision of an authorized employee of the Town or its representative.

290 (i) Except as herein provided, each improved property shall be connected
291 separately, and independently, with the water or sewer main through a water
292 service pipe or a sewer lateral. Grouping of more than one (1) structure on
293 one building sewer shall not be permitted, except under special circumstances
294 and for good sanitary reasons or other good cause shown but then only after
295 permission of the Town in writing shall have been secured and subject to
296 such rules, regulations and conditions as may be prescribed by the Town.

297 (ii) All costs and expenses of construction of the water service pipe or a sewer
298 lateral, including connection to the structure served, shall be borne by the
299 owner of the improved property to be connected, and such owner shall
300 indemnify and save harmless the Town, its officers and agents from all loss
301 or damage that may be occasioned directly or indirectly as a result of
302 construction of a water service pipe or a sewer lateral on his premises or its
303 connection to the water or sewer systems. Any person desiring new water
304 and/or sewer service shall be charged for all material, labor and equipment
305 involved to make such a connection. That person shall be required to
306 reimburse the Town for the following costs when making a water
307 connection: water meters, meter pits and boxes, tapping sleeves, tapping
308 valves, and all pipes and shutoffs.

309 (iii) Every excavation for a water and/or sewer line shall be guarded adequately
310 with barricades and lights to protect all persons from damage and injury.
311 Streets, sidewalks and other public property disturbed in the course of
312 installation, repair or maintenance of a water service pipe, a lateral or building
313 sewer shall be restored t the cost and expense of the owner of the improved
314 property being served in a manner satisfactory to the Town.

315 (iv) No water service line, building sewer or sewer lateral shall be covered until it
316 has been inspected and approved by the Town inspectors. If any part of the
317 foregoing is covered before it has been inspected and approved, it shall be
318 uncovered for inspection at the cost and expense of the owner of the
319 improved property to be connected.

320 (v) Winter construction will be limited to emergency service only. In the case of
321 winter construction, the person requiring such service will pay any increased
322 costs involved.

323 (vi) All materials used in the construction of the system connections shall
324 conform to the Department Specifications as listed under Section IX
325 *MATERIALS AND METHODS* of these Rules and Regulations.

326 (c) **Connection Procedure – Building Sewers**

327 (i) A building sewer at the point of connection shall be at the same or a higher
328 elevation than the invert of the lateral. A smooth, neat joint using a service
329 boot shall be made, and the connection of a building sewer to the lateral shall
330 be made secure and water tight, and be acceptable to the Town.

331 (ii) Every building sewer of any improved property shall be maintained in a
332 sanitary and safe operating condition by the owner of said improved
333 property.

334 (iii) It is recommended that a back valve be installed in each building sewer to
335 prevent the backward flow of sewage into the building

336 (iv) If the owner of the improved property does not comply with the above, the
337 Town will not be responsible for any damage caused to the improved
338 property by the backup of sewage or sewer gases.

339 (v) Under no circumstances will it be legal to use the sewer system for a drain of
340 ground water during construction of any other time.

341 (vi) If the building sewer is run under a cement slab or other undiggable material,
342 the sewer lateral shall be air tested to the inside of the building.

343 (vii) If the water service and the sewer lateral are run in the same trench, it
344 shall be done in compliance with the National Plumbing Code, and the
345 owner will still be responsible for all maintenance and repair of either line
346 from the respective mains to the building served.

347 (viii) Cleanout shall be installed not more than fifty (50) feet apart in the
348 horizontal drainage lines of a 4-inch (4”) diameter or less, and not more than
349 one hundred (100) feet apart for larger pipes. Accessible cleanouts shall be
350 installed at each change of direction which is greater than 45 degrees.

351 (ix) All building sewer lines going under building foundations or footings will be
352 at least eighteen (18) inches under the same.

353 (x) When any new additions are made to any existing sewer or extension, the
354 new line will be completely blocked from the existing sewers until the new

work is completely clean of sand, rocks, silt, or any other matter that could affect lines, pumps, related equipment, or the treatment process in the sewage treatment plant. Any person, contractor or developer will be responsible for any damage that occurs at the pumping station caused by rocks, sand, gravel, or water that enters the system when making repairs or connecting sewers to mains.

(d) **Maintenance of System**

- (i) Maintenance of Water Pipes – The Town shall maintain all Municipal water mains which have been accepted by the Town and shall maintain all private water mains and all service pipes to the shut-off or to the edge of the right-of-way or private property boundary, whichever comes first. Private water mains and water service pipes shall be installed, owned and maintained by the customer. All hydrants, whether located on municipal or private water mains, shall be controlled and maintained by the Town.
- (ii) Maintenance of Sewer System – The Town shall maintain all municipal sewer mains which have been accepted by the Town. The owner shall be obligated to pay all costs of installation, expense of operation, repair, maintenance, and reconstruction (if needed) or private sewer mains, the building sewer and the lateral sewer beginning at the manhole on the municipal water main and ending at the building.
- (iii) Frozen Pipes – When it becomes necessary to thaw a frozen service pipe, and it cannot be determined where it is frozen; and the water department undertakes to thaw the same at the customer's requires, the customer will be charged 50% of the cost of thawing.

(e) **Right to Access**

- (i) The Town reserves the right to enter at any time onto any improved property without prior notice and make whatever repairs it deems necessary in its sole judgment to any water or sewer main, or sewer lateral, or water service pipe if the Town deems that an emergency situation exists that constitutes or could constitute a health hazard to the community or a danger to the system.
- (ii) In the event that the Town deems the effect to be of a nature that does not constitute an immediate hazard to health, the Town shall give notice in writing to the owner of the improved property, who shall be given forty-five (45) days from the receipt of the notice to make such corrections as may be determined by the Town. If said owner shall fail or shall refuse to correct such defect upon receipt of said notice, the Town may remedy the unsatisfactory condition and may collect from the owner the costs and expenses thereof such legal proceedings as may be provided by law. The Town shall have full authority to remedy the unsatisfactory condition.

394 (iii) Any authorized representative of the department shall have the right to
395 access at any reasonable time to any part of any customer's premises for the
396 purpose of inspection, meter reading, repair, or replacement of meters or any
397 other legitimate purpose.

398 (f) **Liability for Interrupted or Unsatisfactory Service**

399 (i) If by reason of shortage of supply or for the purpose of making repairs,
400 extensions or connections, or for any reason beyond the control of the Water
401 Department, it becomes necessary to shut off water in the mains, the
402 department will not be responsible for damage caused by dirty water which
403 may be occasioned by cleaning pipes, reservoirs or standpipes, or by the
404 opening and closing of any gates or hydrants.
405

406 **Section VII – PROTECTION OF SYSTEM PROPERTY**

- 407 (a) The water system, including wells, pumping stations, reservoirs, storage tanks, and all mains,
408 is the property of the Town.
- 409 (b) The sewer system, including treatment plan and all mains, is the property of the Town.
- 410 (c) No person shall tamper with, alter, change, cut into, dig up, or do anything to the above
411 systems. This shall not apply to construction for which a permit has been issued by the
412 Town.
- 413 (d) Hydrants may not be used for any purpose other than the extinguishing of fires and for such
414 other purposes as may be mutually agreed to by the Department and the Board, but in no
415 case shall hydrants be opened by any other person other than an agent of the department.
- 416 (e) Any person doing excavation work on or in proximity to any water mains, service pipes,
417 sewers, or sewer property shall be required to notify the department at least twenty-four
418 (24) hours in advance of the planned excavation and shall be responsible for any damage to
419 the foregoing property and liable for all costs involved in repairing or replacing such
420 property. All such work shall be done under the direction of the department.
- 421 (f) Any person wishing to build or rebuild any walkway or driveway or do any other work which
422 may in any way affect any property of the departments, or the amount of cover over any
423 existing mains, service lines, or laterals must first apply to the department for permission to
424 do so and must agree to pay any additional costs to the department as a result of such work.
- 425 (g) Any person violating any of the provisions of this section may be prosecuted to the full
426 extent of the law.
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432 **Section VIII – MAIN EXTENSIONS**

- 433 (a) **Purpose:** It is the intent of this section to establish regulations and standards governing
434 the extension of water and/or sewer mains within the Town. This section shall apply to
435 developers, sub dividers and land owners intending to utilize the water and/or sewer
436 systems of the Town.
- 437 (b) **Construction Application Procedure:** It shall be unlawful for any person to extend or
438 modify water and/or sewer main with the Town without first having made a formal
439 written application to the Board of Selectmen through the Town Manager.
- 440 (i) Plans for such extensions shall be prepared by a qualified engineer
441 considered competent by the department and submitted to the Board of
442 Selectmen, along with the construction application a minimum of sixty (60)
443 days prior to the projected start of construction. However, prior to the
444 formal application, the person wishing to extend the main is encouraged to
445 review the preliminary plans with the department heads and the Town
446 Manager. In any event, no excavation shall be started until the plans have
447 been approved and all state and Town permits granted.
- 448 (ii) A copy of the Department Rules and Regulations will be given to the
449 applicant, and it shall be the duty of the applicant to comply with the Rules
450 and Regulations contained therein.
- 451 (iii) Mains shall be extended preferably along highways, streets and roads (public
452 or private) which are laid out, in which grades have been established, and
453 which are dedicated to public use; or through utility easements which have
454 been granted to the Town.
- 455 (iv) Mains shall be laid out by the department or an authorized contractor for the
456 department. The Water or Sewer Department Heads shall have final
457 authority over the location of all mains within the system.
- 458 (v) The size and type of pipe shall be determined by the department in
459 accordance with conditions surrounding the extension, including the
460 possibility of future extensions or additions for fire protection service.
- 461 (c) **Main Extension Financing**
- 462 (i) The cost of installing sewer and/or water main extensions may either be
463 financed by the Town through a request presented to the voters at the annual
464 Town Meeting or may be financed by a party or parties other than the Town.
- 465 (ii) In the case of water main extensions that are to be financed or constructed
466 by the Town, the Town Manager (Selectmen) may determine to utilize
467 competitive bidding or such other methods as shall be deemed appropriate.
468 If competitive bidding is utilized for any phase of constructions, the Town
469 reserves the right to reject any and all bids for whatever reason may be
470 deemed appropriate by authorized Town officials. A rejection of a low bid
471 shall not be arbitrary, capricious or unreasonable but may be based upon

- 472 such factors as the Town determines appropriate in the public interest, for
473 example, including:
- 474 (iii) The ability, capacity, skill, and availability of any bidder to perform the
475 contract, provide the service indicated or provide additional follow-up
476 services;
 - 477 (iv) The bidder's ability to perform promptly, without delay or interference and
478 without regard to any bid completion deadlines;
 - 479 (v) The character, integrity, reputation, judgment, experience, and efficiency of
480 any bidder;
 - 481 (vi) The quality of performance of previous contacts or services with the Town
482 or with other entities of which the Town has knowledge.
- 483 (d) **Shared Financing** – If the extension is financed by a party, or parties, other than the
484 Town, the total cost of the installation and/or main extension shall be borne by the
485 developer or individual proposing the construction.

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487 **Section IX – MATERIALS AND METHODS**

- 488 (a) **General Material Specifications:** The purpose of this section is to establish general
489 minimum requirements and specifications relating to materials to be incorporated and
490 methods of installation to be used in the Water Distribution System and Sewer Collection
491 system.
- 492 (b) **Materials – Water Distribution System:** Materials to be incorporated into the
493 construction of the water mains and fittings shall be approved by the Town Manager or
494 the Superintendent of the Water Department. In general, items specified by manufacturer's
495 name below are those presently in use in the existing system and are preferred use items, in
496 order to retain consistency.
- 497 (i) Water mains shall be ductile iron pipe, cement/mortar lined, thickness Class
498 52 minimum, mechanical or push-on joints, rubber gasket with metal tips or
499 wedges, size of the main shall be eight (8) inches in diameter minimum as
500 shall be determined by the department and shall be manufactured to meet all
501 applicable requirements of AWWA C104-74.
 - 502 (ii) Fittings for ductile iron water mains shall be of standard manufacture,
503 cement/mortar lined, mechanical joint, and suitable for the service intended.
 - 504 (iii) Gate Valves shall be of the size of the pipe to which they are connected, shall
505 be resilient wedge design, non-rising stems, open by turning left and
506 provided with 2" square nuts, o-ring seals, and shall be manufactured to meet
507 all applicable requirements of AWWA Specifications C500.
 - 508 (iv) Hydrants shall be Eddy Compression-type hydrant with break flange
509 construction, figure number F-2640 with 5-1/4" main valve opening and 7"
510 minimum barrel diameter, two 2-1/2" hose nozzle (National Standard
511 thread), and one 4-1/2" pumper nozzle (National Standard thread). The

512 hydrant valve shall open left. Inlet connection shall be 6" mechanical joint
513 and be equipped with O-ring packing. The barrel length shall be suitable for
514 5-1/2' cover (6' bury). The operating nut shall be National Standard 1-1/2"
515 pentagon. Hydrants shall be gated from the main with 6" gate valves as
516 specified above.

517 (v) Blow-Off Valve shall be installed on all dead-end mains and sub-mains in a
518 location to be determined by the department.

519 (vi) Service Connections shall be installed with the following materials and shall
520 be a minimum size of 3/4". Larger sizes will be installed as directed by the
521 department.

522 (vii) Corporation stops shall be Hayes ball valve with check compression-type
523 fittings with NPT thread for 2" valves and Mueller thread for 3/4" to 1-1/2"
524 valves.

525 (viii) Curb stops shall be Hayes compression-type fittings, inverted key stop with
526 drain and check.

527 (ix) Service pipe shall be type K copper and shall run from the shut off at the
528 main to a point within the interior heated spaces of the building or buildings
529 to be served.

530 (x) Backflow Preventers shall be incorporated in every service within the heated
531 spaces of the building. These shall be similar in type to Watts series no. 709
532 QT, or Conbraco XL series for 3/4" and 1" size and similar in type to Watts
533 Series No. 709 QT, and Conbraco XL series for larger size for services.

534 (xi) Meters shall be purchased through the Water Department. The size of the
535 meter shall be determined by the Department. Meter installation shall employ
536 standard catalog products for meter settings.

- 537 1. Meters shall be installed on all commercial facilities. All water passing
538 through a meter will be charged to the customer.
- 539 2. Meters shall be provided by and installed under the supervision of the
540 Water Department. Specific location of the meter within the building
541 must be mutually acceptable to the Town and owner, but shall be set at
542 nearly as possible at the point of entrance of the service pipe into the
543 building and in a proper and accessible location for all purposes.
- 544 3. Meter purchase, repairs or replacement will be charged to the owner,
545 however; the meter shall become the property of the Town and must
546 not be tampered with.
- 547 4. If additional or auxiliary meters are desired by the customer for the
548 purpose of showing subdivision of supply, the cost of such meters,
549 their installation and maintenance shall be paid for by the customer.
- 550 5. In case of meter registration failure or removal of repairs, charges for
551 water consumption will be based on the last similar period.

- 552 6. Meters are carefully tested by the manufacturer before installation. If
553 requested by a customer, a meter is tested and found to be within 95%
554 accurate, the customer will be charged the total cost of having the
555 meter tested. If inaccurate, an adjustment for the previous period will
556 be made at no charge to the customer.
- 557 7. All water meters two (2) inches or larger shall have a bypass installed so
558 the meter can be removed for service without interrupting the water
559 supply. The Water Department may require a bypass on any size meter
560 if they deem it necessary.
- 561 (xii) Water Closest shall be of the low-flow type with a flushometer tank using 1.6
562 gallons or less per flush. It is recommended that shower heads also be of the
563 low-flow type.
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565 **Section X – CONSTRUCTION METHODS – WATER DISTRIBUTION SYSTEM**

- 566 (a) **General** – Methods of construction and installation of all water mains, fittings, service
567 connections, and accessories shall be in accordance with generally-accepted waterworks
568 practices and the requirements set forth herein. All operations in conjunction with water
569 main installations, particularly the connection to the existing system, shall be coordinated
570 with the department, notices of operation given, and every reasonable attempt made to
571 minimize periods of service disruption.
- 572 (b) **Excavation**
- 573 (i) Excavation shall conform to the dimensions, elevations and details indicated
574 on the drawings or as necessary to complete the work.
- 575 (ii) All excavation shall be unclassified and shall include the satisfactory removal
576 of all materials of whatever substance encountered within the indicated
577 limits. If blasting is required, it will be done in strict accordance with all
578 federal, state and local regulations and only by person(s) experienced and
579 skilled in such work.
- 580 (iii) Elevations of pipes shown on the drawings are invert elevations unless
581 specifically designated otherwise. Trenches shall be excavated to a depth of
582 six (6) inches below the invert elevations.
- 583 (iv) The maximum width of the trench to a plan of twelve (12) inches above the
584 pipe shall be thirty-six (36) inches. The width above this level may be as
585 wide as necessary for safe and proper performance of the work.
- 586 (v) The contractor shall provide temporary drains and ditches as required to
587 maintain the site of work and adjacent areas in a well-drained condition.
588 Excavations shall be maintained in a drained state at all times. All water
589 pumped or drained from the work shall be disposed of so as not to endanger
590 public health, property or any portion of the work under construction or
591 completed in a manner consistent with federal, state and local regulations

- 592 governing such disposal. *SEWERS SHALL NOT BE USED TO CARRY*
593 *GROUNDWATER FROM EXCAVATIONS.*
- 594 (vi) The contractor shall provide shoring, sheeting and bracing as may be
595 required to maintain excavations and trenches secure and safe from collapse
596 and to protect adjacent structures, property and utilities. Temporary sheeting
597 and bracing may be removed or cut off below grade as approved by the
598 Town Inspector.
- 599 (vii) Unless specifically designated otherwise, excavations shall be open cut.
- 600 (viii) If through his error or improper protection of the work, the excavation is
601 carried beyond the depths and dimensions indicated on the drawings, the
602 contractor shall, at his own expense, furnish and install approved structural
603 backfill as directed by the Town Inspector.
- 604 (ix) Excavated materials suitable for backfilling shall be stockpiled a safe distance
605 from the trench. Excess material unsuitable for backfill shall be disposed of
606 in areas approved by the Town.
- 607 (x) Should construction operations reveal or express a water line (main or
608 service) running approximately parallel and less than ten (10) feet
609 horizontally from the proposed sewer installation and where it is not
610 practicable to relocate the sewer, the following methods of protection must
611 be employed;
- 612 (xi) If the water line can be kept at least eighteen (18) inches above and three (3)
613 feet to one side of the sewer and supported on a bench of original soil, no
614 other protection is required.
- 615 (xii) If the above separation cannot be achieved, the sewer shall be encased in
616 concrete or else ductile iron pipe the same size shall be utilized. Appropriate
617 manufactured fittings shall be employed to adapt the iron pipe to the sewer
618 pipe.
- 619 (xiii) Should the water line cross over the new sewer line with less than eighteen
620 (18) inches separation, the sewer line for a distance of ten (10) feet on each
621 side of the water line shall be encased in concrete or else ductile iron pipe
622 shall be utilized. Appropriate manufactured fittings shall be employed to
623 adapt iron pipe to the sewer pipe. As an alternative, the water line may be
624 raised, if feasible, to achieve the required separation.
- 625 (xiv) Should the water line in either situation be at or below the sewer elevation,
626 the water or sewer line must be relocated to achieve ten (10) feet separation
627 or the water line raised.
- 628 (c) **Backfilling**
- 629 (i) All materials shall be placed and compacted to conform to the lines,
630 elevations and cross sections indicated on the drawings. Backfill shall not be
631 placed on a surface of frozen materials, nor shall snow, frozen earth, rubbish

- 632 or debris be incorporated in the backfill. All materials shall be approved by
633 the Town Inspector before use.
- 634 (ii) Sand bedding shall be placed and compacted to provide a minimum
635 thickness of six (6) inches beneath the pipe. The trench bottom shall be
636 carefully cut and shaped so that the barrel of the pipe will have bearings for
637 the entire length. Trench bottoms shall be smoothed and leveled by hand
638 prior to pipe installation. Bell holes shall be provided under each joint.
- 639 (iii) Earth material backfill shall be placed to a depth of one (1) foot over the pipe
640 and thoroughly compacted. This material shall be free from stones larger
641 than two (2) inches maximum dimension.
- 642 (iv) The remainder of the upper trench backfill shall be suitable excavated
643 materials, compacted and placed in lifts not exceeding two (2) feet in depth.
644 Suitable materials shall be free of stones or rock fragments greater than eight
645 (8) inches maximum dimension and shall be such as earth, loam, sandy clay,
646 sands and gravels, etc.
- 647 (v) Compaction shall be by rolling and mechanical tamping. "Puddling" or
648 settling with water will **NOT** be permitted.
- 649 (vi) Any trenches improperly backfilled, or where settlement occurs, shall be
650 reopened as required and refilled and compacted with the surface to proper
651 grade and condition.
- 652 (d) **Pipe Laying – Water**
- 653 (i) Proper handling of pipe must be exercised during unloading and lowering
654 operations to prevent damage and cracking.
- 655 (ii) All pipes must be handled, placed and coupled in accordance with the
656 manufacturer's recommendations.
- 657 (iii) Pipe must be swabbed or brushed out prior to lowering in trench. Spigot end
658 of pipe must be checked and wiped clean.
- 659 (iv) All pipes shall be carefully bedded as previously specified and shall be laid in
660 location approved by the Department.
- 661 (v) Even alignment of the pipe shall be maintained. Abrupt changes in direction
662 shall be made only with standard fittings.
- 663 (vi) Pipe shall be cut with a pipe saw.
- 664 (vii) Cut ends of push-on joint shall be beveled prior to joining.
- 665 (viii) Pipe shall be laid to a depth sufficient to provide a minimum of six (6) feet
666 of cover over the pipe to finish grade over the roadway.
- 667 (ix) At least two (2) metal wedges shall be inserted between each joint in the main
668 pipe.
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- 672 (e) **Blocking Restraints**
673 (i) All plugs, caps and fittings at which a change of direction occurs shall be
674 backed with a block of concrete of at least two (2) cubic feet in volume.
675 (ii) Joint restraints may be used and shall be employed when so directed by the
676 department.
677 (iii) Thrust blocks shall be installed in accordance with good practice.
678 (f) **Hydrant Installation**
679 (i) Hydrants shall be set in the exact locations as determined by the department
680 and shall be set plumb and vertical.
681 (ii) Hydrants shall be of proper length to provide ground clearance of at least
682 eighteen (18) inches under the pumper nozzle.
683 (iii) Hydrants and leads shall be connected to mains using mechanical joint
684 anchoring fittings and anchoring pipe.
685 (iv) Drain pit of crushed stone of at least seven (7) cubic feet in volume shall be
686 provided at the base of the hydrant.
687 (v) Hydrants will be flushed, oiled and left in good working condition.
688 (g) **Service Connections**
689 (i) Service connections shall be installed in locations to be determined by the
690 department, and all installation shall be done either by the department or an
691 authorized agent of the department.
692 (ii) Tapping of the main shall be accomplished by means of a tapping machine
693 of standard manufacture in good conditions using tap and drill in first-class
694 condition to produce clear sharp threads.
695 (iii) Service lines will be installed in a separate trench from the sewer, unless
696 specific prior written permission is granted by the Board. If the same trench
697 is approved, installation shall comply with the standards set forth in the
698 National Plumbing Code.
699 (iv) Curb boxes shall be installed plumb and the tops shall be flush with the
700 finish ground.
701 (v) Extension of service lines from the main to the building or buildings actually
702 served will be the responsibility of the owner and will be built in accordance
703 with both these regulations and the state standards and under the supervision
704 of the department.
705 (h) **Gate Valve Boxes**
706 (i) Gate valve boxes shall be set plumb, properly centered over the valve, clean
707 from soil and other debris and the tops shall be flush with the finish road
708 surface.
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- 712 (i) **Testing**
- 713 (i) Formal testing for strength and leakage on the completed water main work is
- 714 required. Such testing will be done at the installer's expense and no
- 715 reimbursement will be made by the Department for such testing.
- 716 (ii) Strength tests shall be made by subjecting completed work, or sections
- 717 thereof, to pressures up to two hundred (200) pounds per square inch for
- 718 periods of ten (10) minutes and/or leakage tests to be conducted at system
- 719 pressures over twenty-four (24) hours. Leakage shall be within the
- 720 requirements of Cast Iron Water Main (AWWAC-600).
- 721 (j) **Flushing and Disinfecting**
- 722 (i) Before placing the work or any part thereof in use, the pipelines shall be
- 723 thoroughly cleaned by flushing and shall be disinfected by injecting and
- 724 circulating a chlorine solution of not less than fifty (50) parts per million (50
- 725 PPM).
- 726 (ii) The chlorine line shall be allowed to stand for at least twenty-four (24) hours,
- 727 the flushed and a sample taken from the line for sanitary analysis by a
- 728 laboratory certified by the State of New Hampshire.
- 729 (iii) Flushing and disinfecting procedures will be repeated until no harmful
- 730 contamination is present and authorization to use the line is received from
- 731 the commission.
- 732

733 **Section X – MATERIALS – SEWER SYSTEM**

- 734 (a) **General** – Materials to be incorporated into the construction of sewer mains and fittings
- 735 shall be approved by the Town Manager or the Superintendent of the Sewer
- 736 Department. In general, items specified by manufacturer's name are those presently in use
- 737 in the existing system and are preferred use items in order to retain consistency.
- 738 (b) **Plastic Non-Pressure Sewer Pipe, Fittings and Joints**
- 739 (i) Plastic non-pressure sewer pipe is intended to use in conveying sewage in
- 740 gravity-flow systems.
- 741 (ii) Pipe and fittings shall conform to ASTM D3034, SDR or better, polymer
- 742 compounding and classification shall be in accordance with ASTM D1784
- 743 (class 1454 B).
- 744 (iii) Joint seals for PVC pipe shall be oil resistant compression rings of
- 745 electrometric material conforming to ASTM D3212. Type shall be push-on,
- 746 bell and spigot.
- 747 (c) **Manholes**
- 748 (i) Pre-case manhole sections shall be reinforced concrete units conforming to
- 749 the requirements of ASTM C478.

- 750 (ii) Base sections shall be cast monolithically to a height six (6) inches above the
751 inlet pipe opening. Cones shall be eccentric and provide for a thirty (30) inch
752 diameter opening.
- 753 (iii) Concrete for manholes shall have an ultimate strength of 4,000 psi and
754 conform to NH Std. Class AA Concrete.
- 755 (iv) Horizontal section joints shall be sealed with a retained neoprene O-ring
756 gasket or elastomeric sealing strips.
- 757 (v) Horizontal joints shall be water plugged, "Preco", both on the exterior and
758 interior.
- 759 (vi) Pipe to manhole joints shall be watertight, flexible sleeve-type using an
760 aluminum compression ring at the manhole equal to the "Kor-N-Seal" type
761 as manufactured by Nashua Pre-Cast Corp.
- 762 (vii) Completed manhole shell shall be capable of withstanding a standard H-2
763 loading.
- 764 (d) **Brick Masonry**
 - 765 (i) Bricks for manhole inverts and shelves shall be Grade SM sewer brick
766 conforming to the requirements of ASTM C32073.
 - 767 (ii) Masonry cement shall be a type II Portland cement-base cement meeting the
768 requirements of ASTM C91-71.
- 769 (e) **Non-Shrinking Mortar**

770 Non-shrinking mortar for pointing and sealing manholes shall be equal to
771 "Waterplug" as manufactured by Standard Drywall Products
- 772 (f) **Frames and Covers**
 - 773 (i) Manhole frames and covers shall provide a thirty (30) inch clear opening and
774 be fabricated of heavy-duty cast iron capable of sustaining a standard H-20
775 loading.
 - 776 (ii) Castings shall be of uniform quality, free from blowholes, porosity, hard
777 spots, distortion, or other defects. They shall be cleaned by sandblasting and
778 coated with two coats of asphalt paint which shall result in a smooth coating,
779 which shall be neither tacky nor brittle when cold.
 - 780 (iii) The word SEWER shall be cast in the center of the cover and bearing
781 surfaces shall be machined to provide a true, non-rocking fit.
- 782 (g) **Cast-In-Place Concrete**
 - 783 (i) Concrete for encasement and protective arches at wyes shall conform to NH
784 Standard Class C, having an ultimate strength of 2000 psi.
 - 785 (ii) Concrete for support of manhole drops shall conform to NH Standard Class
786 A, having a minimum of 3000 psi.
 - 787 (iii) Cement: 60 bags/C.Y.
 - 788 (iv) Water: 5.57 gallons/bag cement
 - 789

- 790 (v) Aggregate: 1-1/2" maximum
- 791 (vi) Formwork shall be left in place with no backfilling before concrete has taken
- 792 initial set (seven-hour minimum). Backfilling to be brought up evenly on all
- 793 sides.

794 (h) **Sand Backfill**

795 (i) Sand backfill for pipe shall consist of clean sand free from organic matter

796 and graded within the following limits:

797 (ii) <u>Sieve Size:</u>	<u>% Passing by Weight:</u>
798 1"	100%
799 No. 4	85-100%
800 No. 2	0-5%

801 (i) **Backfill**

802 (i) Upper trench backfill shall be excavated material which can be readily spread

803 and compacted; and consists of mineral soil, substantially free of organic

804 material, loam, rubbish or other perishable substances.

805 (ii) If excavated material is deemed unsuitable, gravel consisting of a mixture of

806 stones or rock fragments and particles with 95% to 100% passing the 3-inch

807 sieve and 25% to 70% passing the No. 4 sieve may be used with the approval

808 of the Town Inspector.

810 **Section XII – CONSTRUCTION METHODS – SEWER SYSTEM**

811 (a) **Excavating**

- 812 (i) Excavation shall conform to the dimensions, elevations and details indicated
- 813 on the drawings or as necessary to complete the work.
- 814 (ii) Excavation shall be unclassified and shall include the satisfactory removal of
- 815 all materials of whatever substance encountered within the indicated limits. If
- 816 blasting is required, it will be done in strict accordance with all federal, state
- 817 and local regulations and only by persons experienced and skilled in such
- 818 work.
- 819 (iii) Elevations of pipes shown on the drawings are invert elevations unless
- 820 specifically designated otherwise. Trenches shall be excavated to a depth of
- 821 six (6) inches below the invert elevations.
- 822 (iv) The maximum width of the trench to a plane twelve (12) inches above the
- 823 pipe shall be thirty-six (36) inches. The width above this level may be as wide
- 824 as necessary for safe and proper performance of the work.
- 825 (v) The contractor shall provide temporary drains and ditches as required to
- 826 maintain the site of work and adjacent areas in a well-drained condition. All
- 827 water pumped or drained from the work shall be disposed of so as not to
- 828 endanger public health, property or any portion of the work under
- 829 construction or completed in a manner consistent with federal, state and

- 830 local regulations governing such disposal. SEWERS SHALL NOT BE
831 USED TO CARRY GROUNDWATER FROM EXCAVATIONS.
- 832 (vi) The contractor shall provide shoring, sheeting and bracing as may be
833 required to maintain excavations and trenches secure and safe from collapse
834 and to protect adjacent structures, property and utilities. Temporary sheeting
835 and bracing may be removed or cut off below grade as approved by the
836 Town Inspector.
- 837 (vii) Unless specifically designated otherwise, excavations shall be open cut.
- 838 (viii) If through his error improper protection of the work, the excavation is
839 carried beyond the depths and dimensions indicated on the drawings, the
840 contractor shall, at his own expense, furnish and install approved structural
841 backfill as directed by the Town Inspector.
- 842 (ix) Excavated material suitable for backfilling shall be stockpiled a safe distance
843 from the trench. Excess material unsuitable for backfill shall be disposed of
844 in areas approved by the Town.
- 845 (x) Should construction operations reveal or express a water line (main of
846 service) running approximately parallel and less than ten feet (10')
847 horizontally from the proposed sewer installation and where it is not
848 practicable to relocate the sewer the following methods of protection must
849 be employed:
- 850 1. If the water line can be kept at least eighteen inches (18") above and
851 three (3) feet to one side of the sewer and supported on a bench of
852 original soil, no other protection is required.
 - 853 2. If the above separation cannot be achieved, the sewer shall be
854 encased in concrete or else ductile iron pipe of the same size shall be
855 utilized. Appropriate manufactured fittings shall be employed to
856 adapt the iron pipe to the sewer pipe.
 - 857 3. Should the water line cross over the new sewer line with less than
858 eighteen inches (18") separation, the sewer for a distance of ten feet
859 (10') on each side of the water line shall be encased in concrete or
860 else ductile iron pipe shall be utilized. Appropriate manufactured
861 fittings shall be employed to adapt iron pipe to the sewer pipe. As an
862 alternative, the water line may be raised, if feasible, to achieve the
863 required separation.
 - 864 4. Should the water line in either situation be at or below the sewer
865 elevation, the water line or the sewer must be relocated to achieve ten
866 feet (10') separation or the water line raised.
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(b) **Backfilling**

- (i) All material shall be placed and compacted to conform to the lines, elevations and cross sections indicated on the drawings. Backfill shall not be placed on a surface of frozen material, nor shall snow, frozen earth, rubbish, or debris be incorporated in the backfill. All materials shall be approved by the Town Inspector before use.
- (ii) Stone bedding shall be placed and compacted to provide a minimum thickness of six (6) inches beneath the pipe. The bedding shall be shaped to fit the lower portion of the pipe so that the lower quadrant will be firmly supported for the entire length. Additional bedding shall be placed and compacted on either side of the pipe to its mid-line.
- (iii) Sand backfill shall be placed to a minimum of one foot (1') over the pipe.
- (iv) The remainder of the upper trench backfill shall be suitable excavated materials, compacted and placed in lifts not exceeding two feet (2') in depth. Suitable material shall be free of stones or rock fragments greater than eight inches (8") in maximum dimension and shall be such as earth, loam, sandy clay, and gravel, etc.
- (v) Compaction shall be by rolling or mechanical tamping. "Puddling" or settling with water will NOT be permitted.
- (vi) Any trenches improperly backfilled, or where settlement occurs, shall be reopened as required and refilled and compacted with the surface restored to proper grade and condition.

(c) **Pipe Laying – Sewer**

- (i) All pipes shall be handled, placed and coupled in accordance with the manufacturer's recommendations.
- (ii) All pipes shall be carefully bedded as previously specified and shall be laid up-grade starting from a manhole location approved by the Town.
- (iii) Interior of pipe shall be wiped clean of dirt before placing. The contractor shall provide appropriate plugs to prevent dirt, debris and water from entering the pipe place.
- (iv) Pipe cutting shall be done in accordance with manufacturer's recommendations, but only with the approval of the Town Inspector.
- (v) If possible, laterals shall go directly to the nearest manhole, if not wye branches for individual services shall be sized and located as indicated on the drawings or as otherwise directed by the Town. Each such wye shall be protected by a cast-in-place concrete arch which shall be allowed to achieve initial set before backfilling.
- (vi) Wye locations shall be accurately recorded by the contractor before backfilling. This information shall be given to the Town Inspector for inclusion in the permanent project records.

910 (vii) Leakage tests for piping shall be by low-pressure air or hydrostatic pressure.
 911 The air test will consist of a minimum of 4-pound pressure for ten (10)
 912 minutes with no drop in pressure. The hydrostatic test must provide a
 913 minimum of 4-pound pressure at the highest point in the pipe line and not
 914 show any drop. Ten (10) % of all PVC pipe must pass a five (5) %
 915 deflection test according to ASTM 2412.

916 (d) **Service Connection – Sewer**

- 917 (i) Pipe for services shall be laid from the wye at a continuous and constant
 918 grade (minimum slope 1/8 inch per foot) within ten feet (10') of building
 919 foundations.
- 920 (ii) Service pipe shall be bedded and covered as previously specified.
- 921 (iii) The ends of service pipes shall be capped and the end marked with the
 922 length of strapping as indicated on the drawings.

923 (e) **Manholes**

- 924 (i) Precast manholes shall be constructed at the locations indicated on the
 925 drawings.
- 926 (ii) Prior to construction inverts and points of joints, manhole must pass a
 927 leakage test.
- 928 (iii) Testing of Manholes:
 - 929 1. Testing shall consist of filling the manhole with water before backfilling.
 930 The exterior shall be observed for a period of fifteen (15) minutes, and
 931 any visible leakage shall be unsatisfactory and cause for rejection. The
 932 manhole must then stand overnight and will be allowed a drop in water
 933 level at a maximum of .072 feet per vertical foot of manhole. Any more
 934 drop than this will not be allowed and will be rejected. OR
 - 935 2. After each manhole has been set in place (but before backfilling) all inlet
 936 and outlet pipes connected, joints and openings sealed and otherwise
 937 ready to be backfilled, the contractor shall perform a vacuum test of each
 938 manhole in the presence of the Town Inspector.
 - 939 3. Set the testing equipment on the top section of the manhole and inflate
 940 the compression band to affect a seal between the structure and the
 941 vacuum base.
 - 942 4. Connect the vacuum pump to the outlet port, open the valve and draw a
 943 vacuum of 10" Hg (Mercury).
 - 944 5. Close the valve and monitor the vacuum gauge.
 - 945 6. The manhole shall pass this test if the vacuum holds at 10" Hg or drops
 946 no lower than 9" Hg within the following times:

a. <u>Depth of 4' or 5'</u>	<u>Diameter M.H.</u>	<u>Min.</u>	<u>Sec.</u>
	0' – 10'	2	0
	11' – 15'	2	30

- | | | | | |
|-----|--|-----------|---|----|
| 950 | | 16' – 20' | 3 | 0 |
| 951 | | 21' – 25' | 3 | 30 |
- 952 iv) If the vacuum drop exceeds 1" Hg during the specified time periods, the
 - 953 manhole shall be released and steps a-d above repeated until the vacuum
 - 954 holds for the specified time.
 - 955 v) After the manhole passes the vacuum test, it shall be backfilled carefully so
 - 956 that no leaks are created. If the manhole is disturbed in any way during
 - 957 backfill, it shall again be vacuum tested according to steps a-d above. If the
 - 958 manhole fails the vacuum test, the contractor shall test the manhole using the
 - 959 manhole exfiltration test.
 - 960 vi) The contractor shall provide the Town Inspector with a written log of each
 - 961 manhole leakage test result.
 - 962 vii) Manholes shall be tested and accepted prior to building manhole inverts.
 - 963 viii) Interior and exterior joints shall be pointed with non-shrinking mortar upon
 - 964 completion of a leakage test with acceptance by the
 - 965 Town Inspector.
 - 966 f) **Inverts and Shelves**
 - 967 i) Brick inverts and shelves shall be constructed after acceptance by the Town.
 - 968 ii) The invert shall be constructed to conform to the size of the pipe, having a
 - 969 rounded cross section formed by laying bricks on edge as indicated on the
 - 970 drawings. No filler material shall be allowed.
 - 971 iii) At changes in direction, the inverts shall be laid out in curves of the longest
 - 972 radius possible tangent to the center of the pipes.
 - 973 iv) Shelves shall be constructed to the elevation of the crown of the highest pipe
 - 974 and shall slope to drain into the flow channel.
 - 975 g) **Frames and Covers**
 - 976 i) The contractor shall, at all times, conduct his operations so as to prevent the
 - 977 passage of dirt, silt or other debris into new or existing sewers.
 - 978 ii) If ordered by the Town Inspector, the sewers and manholes shall be cleaned
 - 979 and flushed to remove foreign material resulting from construction activities.
 - 980 h) **Connection to Existing Sewer**
 - 981 i) Connection to the existing manhole shall be made by core drilling and
 - 982 installing a flexible sleeve of the "Kor-'N-Seal" type.
 - 983 ii) Work on the manhole masonry must not damage or impair the water
 - 984 tightness of the concrete shell.
 - 985 iii) The contractor must provide and maintain a tight seal on existing sewer prior
 - 986 to and during construction work. This seal shall not be removed until all new
 - 987 construction has been cleaned and flushed.
 - 988
 - 989

990 **Section XIII – INSPECTION OF CONSTRUCTION**

- 991 (a) All work performed in installing water and/or sewer mains, service connections, fitting, and
- 992 accessories shall be subject to inspection and approval by an authorized agent of the
- 993 department.
- 994 (b) The department shall reserve the right to reject any defective or unspecified materials,
- 995 improper workmanship and faulty installation.
- 996 (c) Duly authorized inspectors for the Town shall have the right and the duty to enter onto any
- 997 property for the purpose of inspecting the installation of the water or sewer lines and all
- 998 parts thereof for the purpose of ensuring compliance with existing state and town
- 999 regulations.
- 1000 (d) The Board of Selectmen or its agents have the authority to issue change orders, cease-and-
- 1001 desist orders and to take whatever legal steps may be necessary to effect compliance with all
- 1002 department rules and regulations.
- 1003

1004 **Section XIV – SUBMISSION OF RECORD DRAWINGS FOR UTILITIES**

- 1005 (a) Record drawings of all utilities, public and private, will be submitted with certifications by
- 1006 the developer and/or contractor printed thereon that all installations are as shown. These
- 1007 record drawings will show true locations of sewer and drain manholes, culverts, headers,
- 1008 underground utility (telephone, electric and TV cable) locations and depths, water mains,
- 1009 shut-off and entrances, and any other pertinent information.
- 1010 (b) The above information may be posted to the approved plat. Two copies of which must be
- 1011 submitted within seven (7) days of the testing of the utilities.
- 1012

1013 **Section XV – PENALTIES**

- 1014 (a) Any person who allows a violation of Departmental Regulations to continue after the date
- 1015 specified in the cease and desist order, shall upon conviction be guilty of a misdemeanor and
- 1016 shall be fined two hundred dollars (\$200.00) for each offense.
- 1017 (b) For the purpose of this section, each day that the violation is not corrected shall be deemed
- 1018 to be a separate offense.
- 1019 (c) Upon conviction under this section, the guilty person shall also be liable to the Town of all
- 1020 costs incurred by the Town in the prosecution of the case.
- 1021

1022 **Section XVI – OWNERSHIP**

- 1023 (a) All water and/or sewer mains and appurtenances within the rights-of-way of Town-owned
- 1024 streets and in easements, established for water and/or sewer mains shall become the
- 1025 property of the Town upon acceptance of the work of the department in accordance with
- 1026 this section.
- 1027 (b) Transfer of ownership shall be evidenced in writing.
- 1028 (c) Notwithstanding transfer of ownership upon acceptance, the installer shall be responsible
- 1029 for remedial work and any potential liability, directly or indirectly attributable to the Town,

1030 arising from such installations for a period of not less than eighteen (18) months after
1031 acceptance. The installer shall agree in writing to the guarantee and hold harmless
1032 provisions of this Section upon application to the Town for the installation.
1033

1034 **Section XVII – GUARANTEE**

- 1035 (a) The installer shall guarantee all work performed for a period of not less than eighteen (18)
1036 months after acceptance. This period may be extended if warranted by existing conditions.
1037 The installer shall remedy any defects in work or materials and pay for any damage to
1038 other work resulting during the guarantee period.
- 1039 (b) The department shall provide prompt notice of observed defects.
- 1040 (c) The department may perform such remedial work as it deems necessary upon failure of the
1041 installer, after notice, to do so. All costs thereof shall be paid by the installer. When
1042 deemed necessary, the installer may be required to provide adequate surety in such form as
1043 the Board may require.
- 1044 (d) The installer shall agree to hold the Town harmless from any liability for damages arising
1045 from the installation. The installer shall possess and present evidence of adequate
1046 insurance coverage for this purpose.
- 1047 (e) Any installer undertaking to perform such work in the Town shall sign an application form
1048 for the installation which shall include an assent to the conditions of this Section.
1049

1050 **Section XVIII – MUNICIPAL SERVICES – RATES AND CHARGES**

- 1051 (a) Any owner of improved property who applies to the Department of Municipal Services to
1052 connect to either the Town’s water system or the Town’s sewer system may be liable for
1053 the following costs:
 - 1054 (i) Connection Charges shall be based upon the actual out-of-pocket expenses
1055 incurred by the Town in making the physical connection.
 - 1056 (ii) Tap Fees shall be an initial, one-time fee that entitles the user to tap into the
1057 Town water and/or sewer systems. Tap fees are based upon a point/unit
1058 system that is explained subsequently in this section of these rules and
1059 regulations.
 - 1060 (iii) Usage Charges shall be billed quarterly for subsequent usage of the water
1061 and/or sewer systems. Usage charges are computed according to two
1062 methods:
 - 1063 1. For private dwellings and condominiums, a point/unit system is used
1064 which is the same as that used to compute tap fees.
 - 1065 2. In commercial establishments water charges are based on metered
1066 consumption and the sewer charges are proportional to the water
1067 charges.
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(b) **Point/Unit System**

- (i) The following point/unit system is used to compute tap fees for all properties and usage charges for commercial properties:
1. Ten points compromise one water or sewer unit, and there is a minimum of one water/sewer unit per living unit.
 2. The point system will be used for commercial buildings insofar as applicable, and units will be assigned for special situations such as service stations, sauna, etc. on the most practical basis possible
 3. Lodges will be assessed 4.00 points for each room and bath. The public areas shall be assessed in accordance with the point schedule.
 4. Restaurants, Bars and Lounges shall be assessed on seating capacity. The maximum number of seats shall be divided by four and then multiplied by 2.50 points.
 5. Convention Centers, with banquet and dining facilities, shall be assessed by estimating the capacity to be served, and multiplying by 1.0 points for each person served. Facilities such as cafeterias and dining rooms serving meals on a daily or seasonal basis shall not qualify for the convention center assessment.
 6. Lounges and Bars shall be assessed by estimating the number of persons to be served and divided by four which is the average number of persons served by the average kitchen.
 7. Laundry Facilities shall be classified as either residential or commercial
 8. Residential laundry facilities shall be assessed 3.50 points per washer.
 9. Commercial laundry facilities shall be assessed 2.50 points per washer and shall be defined simply as nonresidential facilities whose use is intended for more than one family; or one which is coin-operated, or one with laundry facilities for linens for lodges, motels, etc., or designed for public use.
 10. Transient Toilet Facilities shall be assessed by estimating the number of transients to be served and by multiplying by 0.25 of a point.
 11. Bar Sink/Wash Bowls shall be assessed 0.75 points and shall include all washbowls which are not counted in the full bath or half bath categories. Examples of locations where wash bowls shall be assessed at 0.25 points, but not limited to are:
 - a. In bedrooms of both residential and commercial establishments.
 - b. In bars of both residential and commercial establishments.
 - c. In barbershops and beauty salons.
 - d. In offices and shops.
 - e. In maid service areas which would not come under the Laundry Facility classification.

- 1110 f. Simply water outlets inside residential and commercial
1111 establishments.
- 1112 12. Outside Water Facilities shall be assessed 1.00 for each water spigot. All
1113 residential or commercial establishments shall be charged for at least one
1114 outside water facility even though there may be none present on the
1115 outside of the building.
- 1116 13. Baths
- 1117 a. Full Baths shall be assessed 3.00 points when they include a regular
1118 tub or shower, a basin and a toilet.
- 1119 b. Full Baths shall be assessed 4.50 points when they include a
1120 whirlpool tub or shower, a basin and a toilet.
- 1121 c. Half Baths shall be assessed 1.50 points and shall include a basin and
1122 a toilet.
- 1123 d. Full Bath shall be assessed when a basin is located in a room directly
1124 adjacent to a shower or tub and toilet.
- 1125 e. Extra Basin in a half bath or a full bath area shall be assessed an
1126 additional .75 points.
- 1127 f. Extra Toilet, urinal or bidet in a half bath area shall be assessed an
1128 additional .75 points.
- 1129 g. Extra Shower in a full bath area shall be assessed an additional 1.50
1130 points.
- 1131 14. Any area that is ever used as sleeping facilities shall be assessed 1.00
1132 points. Examples of such areas, but not limited to, are:
- 1133 a. Bedrooms
- 1134 b. Living Rooms
- 1135 c. Lofts
- 1136 d. Recreation Rooms
- 1137 15. Living Room area with full bath accommodations adjacent shall be
1138 assessed 1.00 points; i.e. condominiums with 3 full baths, 2 bedrooms
1139 and living room which may also serve as a sleeping facility shall be
1140 assessed for 3 full baths and 3 bedrooms.
- 1141 16. Studio and Efficiency Apartments or Apartments Shall be assessed as a
1142 separate dwelling on its own Tap Fee Assessment Sheet.
- 1143 17. Water and Ice Makers in the refrigerator door or freezer shall be assessed
1144 .50 points.
- 1145 18. Fountains shall be assessed 0.25 points.
- 1146 19. Saunas shall be assessed 0.25 points, whether or not water facilities are
1147 located inside the sauna.
- 1148 20. Spas and Whirlpools (Jacuzzi) shall be assessed 3.00 points.
- 1149

- 1150 21. Spigots shall be assessed 1.00 point on all units.
- 1151 22. Swimming Pools shall be connected to a water meter and shall be
- 1152 assessed the standard commercial service charge for water.
- 1153 23. Service Stations shall be assessed 30.00 points regardless of size or the
- 1154 station, the number of restroom facilities or the number of car washing
- 1155 machines.
- 1156

1157 **Section XIX - INSPECTION**

- 1158 (a) Following the completion of construction of all residential and commercial structures, the
- 1159 Town shall perform a physical inspection of all premises to determine the number of
- 1160 points to be assessed according to the **POINT/UNIT SYSTEM**. The total points
- 1161 determined by this inspection shall be used in levying both the Tap Fee and the quarterly
- 1162 usage fee.
- 1163 (a) No Certificate of Occupancy will be issued until arrangements have been made with the
- 1164 Town for payment of the Tap Fee.
- 1165 (b) From time to time, the Town may direct its employees to perform physical inspections of
- 1166 residential and/or commercial structures to determine if the assessment based on the point
- 1167 system is correct or requires adjustment. The owner of the improved property shall be
- 1168 responsible for paying any additional tap fee which may result from the inspection of the
- 1169 premises. The owner's quarterly water/sewer usage charge shall be adjusted to reflect the
- 1170 actual number of points assess by the recent inspection. Should the use of a residential or
- 1171 commercial structure be altered, thereby causing a reduction in the number of original
- 1172 points assessed, the Town shall not refund any Tap Fee; however, the quarterly usage
- 1173 charge shall be adjusted to reflect the correct number of points assessed by the recent
- 1174 inspection.
- 1175

1176 **Section XX – PENALTIES AND REMEDIES FOR NONPAYMENT OF**
1177 **WATER/SEWER CHARGES**

- 1178 (a) All department usage bills will be rendered quarterly by the Town.
- 1179 (b) Interest at the rate of 12% per year, computed daily, will be charged on all unpaid accounts
- 1180 30 days from the date of billing. There will be a minimum interest charge of .50¢.
- 1181 (c) When any account is 90 days in arrears, a collection notice shall be mailed to the customer,
- 1182 at the address on file in the department's office, giving the customer 30 days in which to
- 1183 pay the account in full. This notice will be sent by certified mail. At the end of the 30-day
- 1184 period the Town reserves the right to disconnect the water service and to turn the sewer
- 1185 portion of the account over to legal counsel for appropriate collection action.
- 1186 (d) All unpaid charges for water shall be liable for a lien on the property in accordance with
- 1187 applicable state statute.
- 1188 (e) Reconnection of the water service shall not be made until all previous charges for usage
- 1189 plus a \$50.00 reconnection fee has been paid in full.

- 1190 (f) If a commercial water meter is tampered with in any manner the property owner may be
 1191 liable for a lump sum penalty of \$200.00 and reconnection fee of \$50.00 in additional to
 1192 the quarterly water and sewer charges based on the previous year's quarterly bill for the
 1193 same time period.
 1194

1195 **Section XXI – RATE SCHEDULE** (effective January 1, 2006)

1196	(a) Permit Application Fee (Water)	\$50.00
1197	(b) Permit Application Fee (Sewer)	\$50.00
1198	(c) Tap Fee (per Water Unit)	\$395.00
1199	(d) Tap Fee (per Sewer Unit)	\$682.00
1200	(e) Water Usage (per Water Unit per Month)	\$11.05
1201	(f) Sewer Usage (per Sewer Unit per Month)	\$15.52
1202	(g) Water Usage (Commercial Metered per 1,000 Gallons)	\$2.40
1203	(h) Sewer Usage (Commercial)	130%/Water Charge
1204	(i) Sewer Usage (Commercial, single user)	\$9,450.00
1205	(j) Turn On/Turn Off Charge (Water)	\$50.00