

## TABLE OF CONTENTS

Ordinance #1

Ordinance #2

By-Laws

Articles of Incorporation

Financing Contract

Sewer Bond Notice

Resolution of Intent - Grayling Twp.

Resolution of Intent - Beaver Creek Twp

Affidavit of Publication

Contracts

**BEAVER CREEK-GRAYLING TOWNSHIPS UTILITIES  
AUTHORITY**

**ORDINANCE NO. 1**

AN ORDINANCE TO ESTABLISH THE SEWAGE DISPOSAL SYSTEM OF THE BEAVER CREEK-GRAYLING TOWNSHIPS UTILITIES AUTHORITY PURSUANT TO ACT 94, PUBLIC ACTS OF MICHIGAN, 1933, AS AMENDED, AND ACT 3, PUBLIC ACTS OF MICHIGAN, 1895, AS AMENDED, AND TO ESTABLISH THE RULES AND STANDARDS RELATED TO RATES AND CHARGES TO USERS OF THE SYSTEM TO PROVIDE FOR THE COLLECTION OF REVENUES FROM THE SYSTEM SUFFICIENT FOR THE PURPOSE OF PAYING THE COSTS OF OPERATION, MAINTENANCE AND ADMINISTRATION OF THE SYSTEM AND TO PAY THE PRINCIPAL OF AND INTEREST ON THE REVENUE BONDS OF THE SYSTEM; AND TO PROVIDE FOR THE SEGREGATION AND DISTRIBUTION OF THE REVENUES.

**THE BEAVER CREEK-GRAYLING TOWNSHIP UTILITIES AUTHORITY  
ORDAINS:**

**SECTION 1. PREAMBLE/TITLE.**

The objective of this Ordinance is to provide for equitable distribution of the cost of the Publicly Owned Treatment Works as defined in the Sewer Use Ordinance definitions (the "POTW"). The POTW is intended to service residential and business premises within the established Beaver Creek-Grayling Townships Utilities Authority ("BCGUA") Special Assessment District and is constituted a sewage disposal system (the "System") in Section 3 of this Ordinance. This Ordinance shall be known and may be cited as the "Beaver Creek-Grayling Townships Utilities Authority Sewer Rates and Charges Ordinance of 2017.

BCGTUA has determined that it is in the best interest of the persons, the business and institutions located in the BCGTUA Special Assessment District to transport and treat sanitary sewage from all developed properties located in the Special Assessment District and to pay for the costs of providing that service of transport and treatment in part from user fees and charges and in part from special assessments of properties specially benefited by that service.

The BCGTUA Board has determined that in order to assure safe transportation and treatment of sewage discharged into the System, the System must receive sufficient total annual revenue to ensure the proper operation and maintenance of the System, the development and perpetuation of the System, and the preservation of the financial integrity of the System. The BCGTUA Board has also determined that the System shall be self-sustaining and shall be supported solely by the revenues of the System and not dependent upon the property taxpayers of the BCGTUA.

**SECTION 2. SEWERS-Definitions, Conditions to Discharge, Use of Public Sewers, and Authority.**

**Sec. 2.1. Definitions.**

The following words, terms and phrases, when used herein, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Biochemical oxygen demand (BOD)* means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five days at 20 degrees centigrade expressed in terms of weight and concentration (milligrams per liter).

*Building drain* means that part of the lowest horizontal piping of a drainage system which receives discharge from drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five feet outside the inner face of the building wall.

*Building sewer* means the extension from the building drain to the public sewer or other place of disposal.

*Capital costs* means the capital costs of the POTW, including principle, interest, and administrative costs on any debt of the system, a reasonable rate of return, a payment in lieu of taxes and other appropriate capital cost.

*Categorical standards* means national categorical pretreatment standards of pretreatment standard.

*Chemical oxygen demand (COD)* means a measure of the oxygen-consuming capacity of inorganic and organic matter present in water or wastewater. It is expressed as the amount of oxygen consumed from a chemical oxidant in a specified test. It does not differentiate between stable and unstable organic matter and thus does not necessarily correlate with biochemical oxygen demand. Also known as OC and DOC, oxygen consumer and dichromate oxygen consumed.

*Chlorine demand* means the difference between the amount of chlorine applied and the amount of free chlorine available at the end of the contact time, expressed in milligrams per liter.

*Combined sewer* means a sewer receiving both surface runoff and sewage.

*Commercial waste* means a liquid or water-carried waste material from a commercial business engaged in buying, selling, exchanging goods or engaging in said goods or service.

*Compatible pollutant* means a substance amenable to treatment in the wastewater treatment plant such as biochemical oxygen demand, pollutants identified in the NPDES permit if the publicly owned treatment works was designed to treat such pollutants, and in fact does remove such pollutant to a substantial degree. Examples of such additional pollutants may include: chemical

oxygen demand, total organic carbon, phosphorus and phosphorus compounds, nitrogen compounds, fats, oils, and greases of animal or vegetable origin.

*Cooling water* means the water discharged from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

*Direct discharge* means the discharge of treated or untreated wastewater directly to the waters of the state.

*DPW supervisor* means the person designated to supervise the operation of the publicly owned treatment works, or his duly authorized representative.

*Garbage* means solid wastes from the preparation, cooking and dispensing of food and from the handling, storage and sale of produce.

*Grab sample* means a sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

*Incompatible pollutants* means any pollutant which is not a compatible pollutant.

*Industrial wastes* means the wastewater discharges from industrial, manufacturing, trade or business processes, or wastewater discharge from any structure with these characteristics.

*Infiltration* means any waters entering the system from the ground through such means as, but not limited to, defective pipes, pipe joints, connections or manhole wells. Infiltration does not include and is distinguished from inflow.

*Infiltration/inflow* means the total quantity of water from both infiltration and inflow.

*Inflow* means any waters entering the system through such sources as, but not limited to, building downspouts, footing or yard drains, cooling water discharges, seepage lines from springs and swampy areas and storm drain cross connections.

*Interference* means the inhibition or disruption of the POTW treatment processes or operations, or that which contributes to a violation of any requirement of the NPDES permit, or that which reduces the efficiency of the POTW, or that which prevents sewage sludge use or disposal by the POTW.

*Lateral line* means that portion of the sewer system located under the street or within the street right-of way from the property line to the trunk line and which collects sewage from a particular property for transfer to the trunk line.

*National categorical pretreatment standard of pretreatment standard* means any federal regulation containing pollutant discharge limits promulgated by the EPA which applies to a specific category of industrial users.

*National pollution discharge elimination system or NPDES permit* means the permit issued pursuant to section 402 of the Act (33 USC 1342).

*National prohibitive discharge standard or prohibitive discharge standard* means any regulation developed under the authority of 307(b) of the Act and 40 CFR 403.5.

*Natural outlet* means any outlet into a watercourse, pond, ditch, lake or other body of surface water or groundwater.

*New source* means any source, the construction or discharge of which, is commenced after the adoption of this article.

*Normal domestic sewage (NDS)* means the wastewater, which when analyzed, shows a daily average concentration of not more than 250 milligrams per liter (mg/l) of BOD; nor more than 250 mg/l of suspended solids; nor more than 50 mg/l of fats, oils, and grease; nor more than 40 mg/l of total kjeldahl nitrogen, nor more than 13 mg/l of phosphorus.

*Operation and maintenance* mean all work, materials, equipment, utilities, and other effort required to operate and maintain the POTW consistent with adequate treatment of wastewater to produce an effluent in compliance with the NPDES permit and other applicable state and federal regulations, and includes the cost of replacement.

*Owner* means the owners of the premises or lesser estate therein, a mortgagor or vendee in possession, assignee of rents, receiver, executor, trustee, lessee, or other person in control or possession of a building or premises.

*Pollutant* means any of the various chemicals, substances and refuse materials such as solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, radioactive materials, heat, and industrial, municipal and agricultural wastes which impair the purity of the water or soil.

*Pretreatment or treatment* means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the POTW.

The reduction or alteration can be obtained by physical, chemical or biological processes, or process changes by other means, except as prohibited by 40 CFR 403.6(d).

*Private sewer lines* means all service lines and equipment for the disposal of sewage installed or located on any private property, from the property line, to and including any structure or facility which exists on the property.

*Properly shredded garbage* means the wastes from the preparation, cooking and dispensing of food that has been shredded to such degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch in any dimension.

*Publicly owned treatment works (POTW)* means the complete wastewater collection, treatment, and disposal system of BCGTUA, including all structures, land, and equipment used for those purposes. It shall also include any sewers that convey wastewaters to the POTW from customers outside the Special Assessment District who are, by contract or agreement with BCGTUA, users of the POTW.

*Replacement* means the replacement in whole or in part of any equipment, appurtenances and accessories of the POTW during its useful life to ensure continuous treatment of wastewater in accordance with the NPDES permit and other applicable state and federal regulations.

*Sanitary sewer* means a sewer which carries sewage and to which stormwaters, surface waters, and groundwaters are not intentionally admitted.

*Sewage* means a combination of the water-carried wastes from any structure, residence, building, institution or industrial establishment, together with such ground waters as may be present.

*Sewer* means a pipe or conduit for carrying sewage.

*Sewer service charge* means the sum of applicable user charges, surcharges and capital charges.

*Slug load* means any substance released in a discharge at a rate and/or concentration which causes interference to a POTW.

*Storm sewer or storm drain* means a sewer which carries stormwaters and surface waters and drainage, but excludes sewage and polluted industrial wastes.

*Stormwater* means any flow occurring during or following any form of natural precipitation and resulting therefrom.

*Suspended solids* means the total suspended matter that floats on the surface of, or is suspended in, water, wastewater or other liquids, and which is removable by laboratory filtering.

*Toxic pollutant* means any pollutant or combination of pollutants which is or can potentially be harmful to public health or environment including those listed as toxic in regulations promulgated by the administrator of the environmental protection agency under the provisions of the CWA 307(a) or other acts.

*Trunk line* means the main sewer line located under any street or within any street right-of-way which collects and transmits the sewage of the various properties served by the sewer system.

*Uncontaminated industrial waste* means wastewater which has not come into contact with any substance used in or incidental to industrial processing operations and to which no chemical or other substance has been added.

*User* means any person who contributes, causes or permits the contribution of wastewater into the POTW and/or the owner or occupant of any property from which a discharge is made.

*User charge* means a charge levied on users of a treatment works for the cost of operation and maintenance of sewerage works pursuant to section 204(b) of PL 92-500 and includes the cost of replacement, as defined by the EPA.

*User class* means the kind of user connected to sanitary sewers, including, but not limited to, residential, industrial, commercial, institutional, and governmental.

*Commercial user* means an establishment listed in the office of management and budget's "Standard Industrial Classification Manual" (SICM), involved in a commercial enterprise, business or service which, based on a determination by BCGTUA, discharges primarily segregated domestic wastes or wastes from sanitary conveniences and which is not a residential user or an industrial user.

*Governmental user* means any federal, state or local governmental user of the POTW.

*Industrial user* means any user of the wastewater system that:

(1) Is identified in the Standard Industrial Classification Manual, 1982, office of management and budget, as amended and supplemented under one of the following divisions:

- a. Division A--Agriculture, forestry, and fishing;
- b. Division B--Mining;
- c. Division D--Manufacturing;
- d. Division E--Transportation; communications; electric, gas, and sanitary services;
- e. Division I--Services; or

(2) Discharges wastewater to the POTW which contains toxic pollutants or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes, to contaminate the sludge of any municipal systems, or to injure or to interfere with any sewage treatment process; or which constitutes a hazard to humans or animals, creates a public nuisance, or creates any hazard in or has an adverse effect on the waters receiving any discharge from the treatment works; or

(3) Discharges wastewater containing pollutants which may interfere with the treatment process, be toxic or incompatible, interfere with the processing or disposal of the sludge, or may have an adverse effect on the receiving stream.

*Institutional user* means an establishment listed in the SICM involved in a social, charitable, religious, or education function which, based on a determination by BCGTUA, discharges primarily segregated domestic wastes or wastes from sanitary conveniences.

*Residential user* means a user of the treatment work whose premises or buildings are used primarily as a domicile for one or more persons, including dwelling units such as detached, semidetached and row houses, mobile homes, apartments, or permanent multifamily dwellings (transit lodging is not included, as it is considered commercial).

*Wastewater* means the liquid and water carried wastes from any structure, dwelling, building, industrial facilities, and institutions, together with any groundwater, surface water, and storm

water that may be present, whether treated or untreated, which is discharged into or permitted to enter the POTW.

### **Sec. 2.2. Conditions To Discharge**

The BCGTUA may, as a condition to permitting a discharge wastewater to the POTW:

- (1) Set unit charges or a schedule of user charges and fees for the wastewater to be discharged to the POTW.
- (2) Limit the average and maximum wastewater constituents and characteristics.
- (3) Limit the average and maximum rate and time of discharge or make requirements to flow regulations and equalization.
- (4) Require the installation and maintenance of inspection and sampling facilities.
- (5) Require pretreatment of wastewater discharges.
- (6) Establish specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedules.
- (7) Establish compliance schedules.
- (8) Require the submission of reports, including technical reports or discharge reports.
- (9) Require the maintaining, retaining and furnishing of plant records relating to wastewater discharge as specified by the manager, and affording the manager access thereto, and copying thereof.
- (10) Require notification to the manager of any new introduction of wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the wastewater treatment system.
- (11) Require notification of slug discharge.
- (12) Require other reasonable and necessary conditions to ensure compliance with this article.
- (13) Require waste treatment facilities, process facilities, waste streams, or other potential waste problems to be placed under the specific supervision and control of persons who have been certified by an appropriate state agency as properly qualified to supervise such facilities.
- (14) Require records and file reports to be maintained on the final disposal of specific liquids, solids, sludges, oils, radioactive materials, solvents, or other wastes.
- (15) Establish any other reasonable and necessary conditions for use of the POTW.

### **Sec 2.3. Inspection and Sampling.**

BCGTUA's manager or representative (hereinafter referred to as "DPW") shall inspect the facilities of any user to ascertain whether the purpose of this Ordinance is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the DPW supervisor or his representative ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, records examination, records copying or performing any of their duties. BCGTUA, state department of natural resources and EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling inspections, compliance monitoring and/or metering operations. Where a user has security measures in force which would require security clearance before entry into their premises, the user shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the BCGTUA, state department of natural resources and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

#### **Sec. 2.4. Pretreatment requirements.**

(a) Industrial users shall provide necessary wastewater treatment and pretreatment as required to comply with this article and shall achieve compliance with all national categorical pretreatment standards within the time limitations as specified by the Federal Pretreatment Regulations and as required by BCGTUA. Any facilities required to pretreat wastewater to a level acceptable to BCGTUA shall be provided, operated, and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to BCGTUA under the provisions of this article. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to BCGTUA prior to the user's initiation of the changes.

(b) All records relating to compliance with pretreatment standards shall be made available to officials of the EPA or state department of natural resources upon request.

#### **Sec. 2.5. Confidential information.**

(a) Information and data on a user, obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections, shall be available to the public or other governmental agency without restriction unless, the user specifically requests and is able to demonstrate to the satisfaction of BCGTUA, that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user and the information or documents are exempt from disclosure under the Michigan freedom of information act.

(b) When requested by the person furnishing a report, the portion of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public if the report is exempt from disclosure under the Michigan freedom of information act, but shall be made available upon written request to governmental agencies for uses related to this article, the national pollutant discharge elimination system (NPDES) permit, or the pretreatment programs; provided, however, that such portions of a report shall be available for use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

#### **Sec. 2.6 Use of Sewers-General Discharge Prohibitions.**

No user shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the POTW. These general prohibitions apply to all such users whether or not the user is subject to the national categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements. BCGTUA shall refuse to accept any wastes which will cause the POTW to violate its NPDES discharge limits. A user may not contribute the following substances to the POTW.

(1) Any liquids, solids, or gases which by reason of their nature and quantity are, or may be, sufficient either along or by interaction with other substances to cause fire or explosion or be injurious in any other way to the POTW or to the operation of the POTW. Prohibited materials include, but are not limited to:

- a. Gasoline;
- b. Kerosene;
- c. Naphtha;
- d. Benzene;
- e. Toluene;
- f. Zylene;
- g. Ethers;
- h. Alcohols;
- i. Ketones;
- j. Aldehydes;
- k. Peroxides;
- l. Chlorates;
- m. Perchlorates;
- n. Bromates;
- o. Carbides;
- p. Hydrides; and
- q. Sulfides.

(2) Solid or viscous substances which may cause obstruction to the flow in a sewer other interference with the operation of the wastewater treatment facilities such as, but not limited to:

- a. Grease;
- b. Garbage with particles greater than one-half inch in any dimension;
- c. Animal guts or tissues;
- d. Paunch manure;
- e. Bones, hair, hides or fleshings;
- f. Entrails;
- g. Whole blood;
- h. Feathers;
- i. Ashes, cinders, sand, spent lime, stone or marble dust;
- j. Metal;
- k. Glass;
- l. Straw;
- m. Shavings;
- n. Grass clippings;
- o. Rags;
- p. Spent grains;
- q. Spent hops;
- r. Wastepaper;
- s. Wood;
- t. Plastics;
- u. Gas;
- v. Tar;

- w. Asphalt residues, residues from refining, or processing of fuel or lubricating oil;
  - x. Mud; or
  - y. Glass grinding or polishing wastes.
- (3) Any wastewater having a pH less than 6.5 or greater than 9.5, or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel of the POTW.
  - (4) Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or exceed the limitation set forth in a categorical pretreatment standard. The prohibition of toxic pollutants will conform to section 307(a) of the clean water acts, as amended.
  - (5) Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.
  - (6) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process or with the spray irrigation and land application process.
  - (7) Any substance which will cause the POTW to violate its NPDES permit or the receiving water quality standards or spray irrigation and land application requirements or standards.
  - (8) Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.
  - (9) Any wastewater having a temperature which will inhibit biological activity in the POTW resulting in interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds 40 degrees Celsius (104 degrees Fahrenheit).
  - (10) Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which will cause interference to the POTW.
  - (11) Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the manager in compliance with applicable state or federal regulations.
  - (12) Any wastewater which causes a hazard to human life.
  - (13) Any unpolluted water including, but not limited to, stormwater, groundwater, roof water, or noncontact cooling water.
  - (14) Any waters or wastes containing suspended solids or any constituent of such character and quantity that unusual attention or expense is required to handle such materials at the POTW.
  - (15) Any waste from individual sewage disposal systems except at the POTW treatment plant as provided in division 7 of this article, except that waste from any individual sewage disposal system may be disposed of directly into a sanitary sewer upon entering into an agreement with BCGTUA, which agreement shall specify the site of disposal, sewage disposal charge and such other conditions as may be required to satisfy the sanitation and health requirements of BCGTUA.  
For the purpose of this subsection, an individual sewage disposal system is defined to include every means of disposing of industrial, commercial, household, domestic or other water-carried sanitary waste or sewage other than a public sanitary sewer.
  - (16) Any sludge, precipitate or congealed substance resulting from an industrial or commercial process, or resulting from the pretreatment of wastewater or air pollutants.

**Sec. 2.7. Specific pollutant limitations; rejection; pretreatment, cost.**

(a) No user, person, customer or entity shall discharge wastewater containing in excess of the following amounts without receiving prior written permission from BCGTUA.

- (1) A BOD of 250 mg/l.
- (2) A COD of 400 mg/l.
- (3) Suspended solids of 250 mg/l.
- (4) Fats, oils, and grease of 50 mg/l.
- (5) Total kjeldahl nitrogen of 40 mg/l.
- (6) Phosphorus of 13 mg/l.

Nor shall any user, person, customer, or entity discharge any pollutant listed in the Michigan Water Resources Commission Critical Materials Register or the U.S. EPA priority pollutant list as issued from time to time.

(b) If any waters are discharged or proposed to be discharged to the public sewers, which wastes contain the substances or possess the characteristics enumerated in subsection (a) of this section, or which in the judgment of the DPW supervisor may have a deleterious effect upon the POTW, processes, equipment, or receiving waters, groundwaters, or which otherwise create a hazard to life or constitute a public nuisance, BCGTUA may:

- (1) Reject the wastes.
  - (2) Require pretreatment to the level defined as "normal domestic sewage."
  - (3) Require control over the quantities and rates of discharge.
  - (4) Require payment to cover the added cost, of handling and treating the wastes, not covered by standard sewer charges.
  - (5) Require new industrial customers or industries with significant changes in strength or flow to submit prior information to BCGTUA concerning the proposed flow.
- (c) If BCGTUA permits the pretreatment or equalization of waste flows, the design and installation of the plant and equipment shall be subject to the review and approval of the DPW supervisor and shall be subject to the requirements of all applicable codes, regulations and laws.

**Sec. 2.8. National categorical pretreatment standards.**

Upon the promulgation of the national categorical pretreatment standards for a particular subcategory, the pretreatment standard, if more stringent than limitations imposed under this article for sources in the subcategory shall be considered part of this article. The manager shall notify all affected users of the applicable reporting requirements.

**Sec. 2.9. State requirements.**

State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those contained in this Ordinance.

### **Sec. 2.10. Right of revisions.**

BCGTUA reserves the right to establish more stringent limitations or requirements on discharges to the wastewater disposal system if deemed necessary.

### **Sec. 2.11. Discharge of stormwater prohibited.**

(a) No user shall discharge or cause to be discharged any stormwater, surface water, groundwater, water from footing drains, or road water to any sanitary sewer or sewer connection. Any premises connected to a storm sewer shall comply with county, state, and federal requirements as well as those of BCGTUA.

(b) Downspouts and roof leaders shall be disconnected from sanitary sewers within six months of the date of the ordinance from which this Ordinance is derived. If this is not done, BCGTUA shall perform this work and bill the user.

(c) Stormwater, groundwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designed as combined sewers or storm sewers. Discharge of cooling water or unpolluted process water to a natural outlet shall be approved only by the state water resources commission.

### **Sec. 2.12. Grease, oil, and sand interceptors.**

Grease, oil, and sand interceptors shall be provided when in the opinion of the DPW supervisor they are necessary for the proper handling of liquid wastes containing grease in excessive amounts or any flammable wastes, sand and other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be located as to be readily and easily accessible for cleaning and inspection. Grease and oil interceptors shall be constructed of impervious material capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight and equipped with easily removable covers, which when bolted in place shall be gastight and watertight. When installed, all grease, oil, and sand interceptors or flow equalizing facilities shall be maintained by the owner at his expense, in continuously efficient operation at all times.

### **Sec. 2.13. Preliminary treatment for certain discharges.**

(a) Before the discharge into the POTW of any waters or wastes containing:

(1) The characteristics described in in Section 2 et. al; or

(2) An average daily flow greater than two percent of the average daily sewage flow of the POTW, or having a rate of flow (gallons per day) greater than ten percent of the average daily flow for a period of one hour or more.

(b) The DPW supervisor may require the user, at his expense, to provide such preliminary treatment as may be necessary to reduce objectionable characteristics of constituents to within the maximum limits provided for in Section 2 et. al, or to control the quantities and rates of discharge of such waters or wastes.

**Sec. 2.14. Additional charges for certain discharges-Surcharges.**

Where the strength of sewage from an industrial, commercial, governmental or institutional establishment exceeds the parameters specified in this Ordinance, and where such wastes are permitted to be discharged to the sewer system by the DPW supervisor, an added charge, as to be determined by the BCGTUA Board by Resolution from time to time, will be made against the user according to the strength of such wastes.

**Sec. 2.15. Control and monitoring manhole.**

When and if required by BCGTUA, the owner of any property serviced by a building sewer carrying industrial or commercial wastes shall install a suitable control manhole, together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling and measurement of the water. Such manhole, when required, shall be accessible and safely located and shall be constructed in accordance with plans approved by the DPW supervisor. The manhole shall be installed by the owner at his expense and shall be maintained by the owner so as to be safe and accessible at all times.

**Sec. 2.16. Measurement standards.**

All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in this article shall be determined in accordance with the most recent edition of "Standard Methods for the Examination of Water and Sewage," and shall be determined at the control manhole provided for, or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected.

**Sec. 2.17. Methods of measuring flow.**

To determine the sewage flow from any establishment, the DPW supervisor may use one of the following methods:

- (1) The amount of water supplied to the premises by BCGTUA or a private water company as shown upon the water meter if the premises are metered.
- (2) If such premises are used for an industrial or commercial purpose of such a nature that the water supplied to the premises cannot be entirely discharged into the sewer system, the estimate of the amount of sewage discharged into the sewer system may be made by the DPW supervisor from the water, gas or electric supply.
- (3) The number of gallons of sewage discharged into the sewer system as determined by measurements and samples taken at a manhole installed by the owner of the property served by the sewer system at his own expense in accordance with the terms and conditions permitted by BCGTUA.
- (4) A figure determined by the DPW supervisor by any combination of the foregoing or by any other equitable method.

### **Sec. 2.18. Excessive discharge.**

No user shall ever increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the national categorical pretreatment standards, or in any other pollutant-specific limitation developed by BCGTUA or state. Dilution may be an acceptable means of complying with certain of the prohibitions set forth Section 2 et. al, upon prior written approval of the DPW supervisor.

### **Sec. 2.19. Accidental discharge.**

(a) Protection from an accidental discharge. When required by BCGTUA, a user shall provide protection from accidental discharge of prohibited materials or other substance regulated by this article.

Facilities to prevent accidental discharge or prohibited materials shall be provided and maintained at the owner's or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the DPW supervisor for review, and shall be approved by the DPW supervisor before construction of the facility. If required by BCGTUA, a user who commences contribution to the POTW, after the effective date of the ordinance from which this article is derived, shall not be permitted to introduce pollutants into the system until accidental discharge procedures have been approved by BCGTUA. Review and approval of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of this article.

(b) Accidental discharge. When an accidental discharge occurs:

(1) Immediate notice to BCGTUA. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone and notify the POTW of the incident. The notification shall include location of discharge, type of waste, concentration and volume, and corrective actions.

(2) Written notice. Within five days following an accidental discharge, the user shall submit to the manager a detailed written report describing the nature of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property: nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this division or other applicable law.

(3) Notice to employees. A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees of the user to call in the event of a dangerous discharge.

Employers shall ensure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure.

### **Sec. 2.20. Separate agreement to discharge.**

No statement contained in this article shall be construed as preventing any special agreement or arrangement between BCGTUA and any user whereby waste of unusual strength or character

may be accepted by BCGTUA, subject to payment therefor by the user, provided such waste will not damage the POTW, or the receiving waters. No special agreement shall be entered into which is in conflict with state or federal law or regulation.

### **SECTION 3. SEWER RATES.**

#### **Sec. 3.1. Sewer User Charge System.**

(a) *Establishment of Cost of Service.* The BCGTUA Board has determined that the purpose of sewer rates (which term includes “charges” and “fees”, all of which are treated interchangeably in this Ordinance) is to produce sufficient revenues each year to pay the costs of service. The BCGTUA Board has determined, based upon advice from C2AE engineering, engineers of Gaylord, Michigan, independent consulting engineers (the “Engineers”) to the BCGTUA and H.J. Umbaugh & Associates, Municipal Finance Consultants, of Okemos, Michigan (the “Financial Consultant”), that annual expenditures (OM&R) for the System can fluctuate up to 10% based on using standard good utility management practices from year to year, and revenues can fluctuate as much as 5 to 10% from year to year. Based on the recommendations of its Engineers, and Financial Consultant, the BCGTUA Board has determined that, in order to provide adequate, but not excessive, annual adjustments in revenue levels in a timely manner, the BCGTUA shall develop the costs of service based on 2-year projections of cash needs, adjusted for inflation, and shall base rates each year on the estimated needs for those 2-year periods, adjusted annually.

The costs of service to be paid from revenues shall include all of the following: (1) operation and maintenance expenses, (2) debt service expenses, and (3) capital expenses not funded from bonded indebtedness.

#### **Sec. 3.2. Proportionality of Classifications of Users According to Residential Equivalent Units (REUs) Based on Historic Consumption**

The BCGTUA has investigated several methods of apportioning the cost of the System among users of the System in the BCGTUA and surrounding communities. As part of that investigation, the BCGTUA has consulted with the Engineers and the Financial Consultant regarding studies of water use and sewage flows of a variety of establishments to generate a unit factor that most closely approximates the actual use by each user of the System. Based on the BCGTUA’s consultations with the Engineers and the Financial Consultant regarding methods of apportioning costs among classes of users, the BCGTUA has concluded that the use of Residential Equivalent Units (REUs) to apportion the direct and indirect costs of providing wastewater collection and treatment in the amounts and at the peak rate of flows required from time to time by all users is reasonable.

Based upon the advice of the Engineers and the Financial Consultant, the BCGTUA hereby finds that the fairest method of charging its users proportionately for payment of the costs of acquiring, constructing, operating, and maintaining the System in the absence of meters that measure flow of water to a premises is to impose a flat charge, based on REUs, calculated annually on the basis of amount of use in the previous year, to classes of users divided according to annual quantity of use.

Based on its investigation and on the advice of its Engineers and Financial Consultant, the BCGTUA Council hereby finds that to ensure the stability and viability of the System for the benefit of its users, the fairest and most accurate way to apportion the costs of operation, maintenance, replacement and improvement of the System is to charge each user: (i) a Connection Fee to be paid by persons connecting to the System or changing their use classifications in order to defray certain capital costs incurred to provide sufficient capacity to all users; (ii) a Debt Service Charge to be paid by all users of the System to be used to pay principal, interest and administrative costs of retiring the debt incurred for construction of the System; and (iii) a Monthly Commodity Charge to cover the System-wide costs of operating and maintaining the System.

### **Sec. 3.3. Specific Rates and Charges.**

(a) *Connection Charge.* The BCGTUA Board by resolution shall establish a Connection Fee to defray and recover the cost of the System. Every person seeking to connect to the System, to modify an existing connection to the System, to change the use of the property or structure, or to reconnect previously connected property to the System will be required to pay a Connection Fee. A Connection Fee shall be established and managed as provided in this Section.

(i) *Calculation of Estimated Demand on Capacity.* The estimated demand on capacity of a new connection to the System, modification of an existing connection to the System, or reconnection of previously connected property to the System shall be based on the REUs equivalency table set forth in Exhibit A attached hereto and made part hereof.

(ii) *Calculation of Capital Cost Requirements.* The capital costs to be defrayed or recovered through the imposition of the Capital Connection Fee shall be determined annually by the BCGTUA and shall be based on the costs incurred by the BCGTUA in designing, acquiring and constructing the System, along with the estimated cost of capital improvements incurred or to be incurred for the primary purpose of providing adequate capacity within the System to meet reasonably necessary service demands.

(iii) *Credits for Previously Paid Capital Connection Fees.* If the Connection Fee relates to an increase in demand on capacity, the BCGTUA shall credit against the specific amount of the Connection Fee the amount of any Connection Fee previously paid for connection of that property to the System.

(b) *Debt Service Charge.* The BCGTUA Board by resolution shall establish a Debt Service Charge to pay principal, interest and administrative costs of retiring the debt incurred for construction of the System. The debt service charge shall be based on the REUs equivalency table set forth in Exhibit A and shall be in addition to other user fees and charges provided for herein.

(c) *Monthly Commodity Charge.* The BCGTUA Board by resolution shall establish a Monthly Commodity Charge to cover the System-wide costs of operating and maintaining the System. The Monthly Commodity Charge shall be based on the REUs equivalency table set forth in Exhibit A.

(d) *Industrial pretreatment inspection charge.* The BCGTUA Board by resolution may adopt an industrial pretreatment inspection charge. The fee would be an annual charge for existing industrial pretreatment program permits. The purpose of the fee is to cover a portion or all of the expenses associated with administering the industrial pretreatment program.

(e) In the event that there expansion of the System for new user, the rates and fees will be determined by the BCGTUA Board from time to time by Resolution.

(f) Surcharges. See Section 2 et. al.

#### **Sec. 3.4. Annual Audit and Revision of Rates and Charges.**

The rates and charges established pursuant to this Ordinance shall be as estimated to sufficiently provide for the expenses of operation, maintenance, and replacement of the System so as to preserve it in good repair and working order. An annual audit shall be prepared to assist the BCGTUA Board in determining whether, and to what extent, to revise, by resolution, the rates from time to time in order to meet System expenses and to ensure that all user classes pay their proportionate share of operation and maintenance and equipment replacement costs; however, an audit shall not be a prerequisite to a revision.

#### **Sec. 3.5. No Free Service.**

No free service shall be allowed for any user of the System. The System shall not furnish free service to the BCGTUA or to any individual, firm or corporation, public or private, or to any agency or instrumentality.

#### **Sec. 3.6. Billing; Payment; Delinquencies.**

Charges for sanitary sewer service (other than the Connection Charge) shall be billed not later than the 15th day of each month for the preceding month. Payment is due on the first business day of the following month. If payment is not received by the 15th business day of the following month, then a 2% percent delinquent penalty or such other penalty as the BCGTUA made determined from time to time by Resolution will be added to the bill.

Payment for any new Connection Charge shall be made by BCGTUA as determined from time to time by Resolution of BCGTUA Board.

#### **Sec. 3.7. Collection.**

(a) *Security deposits.* The BCGTUA Council shall adopt a security deposit as set by resolution of the BCGTUA Board from time to time for residential and commercial customers establishing new accounts for sewer service. The security deposit will be held in reserve by the BCGTUA until the customer has made payments, without any delinquencies, for a period of one year. At that point, the security deposit will be refunded, without interest.

(b) *Authorization for enforcement.*

(i) The BCGTUA Treasurer is hereby authorized to enforce the payment of charges for sewer service. The BCGTUA may discontinue water service or sewer service should the account become delinquent in excess of the security deposit amount and provided the following shutoff procedures are followed:

a. Customer is provided seven days' notice, via first class mail, that water service or sewer service will be discontinued if payment in full is not received by the specified date. The notice will indicate the amount that is delinquent, the scheduled date for shutoff and the cost associated with the shutoff and turn-on service, and

b. Notice is placed at the customer residence or place of business in a conspicuous location the day preceding the scheduled shutoff notifying the customer that the service will be discontinued if payment in full is not received. The notice will indicate the amount that is delinquent, the scheduled time for shutoff and the cost associated with the shutoff and turn-on of service.

(ii) Where service has been discontinued, the BCGTUA shall, at its sole discretion, apply the customer's security deposit toward payment of the delinquent account. If the security deposit is not sufficient to cover the delinquent account, an action for payment may be instituted by the BCGTUA Treasurer against the delinquent customer.

(c) *Delinquent charges become liens; placement of delinquent accounts on tax roll.* By section 21 of Act 94, Public Acts of Michigan, 1933, as amended, and by the terms of this Ordinance the rates and charges for services furnished by the System to a residential or business premises located in the BCGTUA shall be a lien on the property served. The BCGTUA shall certify those rates and charges delinquent for six (6) months or more to the BCGTUA tax assessing officer who shall enter the amount of the delinquent rates and charges on the tax roll against the premises to which the service was rendered and shall collect the rates and charges and enforce the lien in the same manner as provided for the collection of ad valorem property taxes assessed upon the same roll.

In all cases where a tenant is responsible for the payment of rates and charges the landlord shall furnish to the BCGTUA a true copy of the lease or other contract evidencing the tenant's obligation to pay rates and charges for sewer service. If the tenant fails to pay rates and charges for the use of the System, the delinquent rates and charges shall not become a lien against the premises. The BCGTUA shall, however, cease to provide water service or sewer service to the tenant's premises until the tenant pays the delinquent charges in full and pays an additional cash deposit of not less than three (3) months' service as security for payment of future rates and charges.

**Sec. 3.8 Mandatory Participation.** Pursuant to this Ordinance, to the extent permitted by law, a customer within the Special Assessment District must connect to the System to the extent that MCL 333.12751(c) requirements are met.

a. To the extent permitted by law, a customer receiving Sewer services must also take water service.

b. Further, to extent allow by law, any unbuilt parcel of property within the Special Assessment District for which a building is being built must connect to water and sewer regardless of the distance that the proposed building or structure is from the nearest point from a structure in which in which sanitary sewage originates.

**SECTION 4. Supplemental Documentation.** The BCGTUA shall provide, and approve by resolution, such supplemental documentation as needed to implement and administer this Ordinance and the Sewer Use Ordinance, such as applications for connection, installment payment agreements, etc.

**SECTION 5 Sewage Disposal System.** The BCGTUA hereby establishes a sewage disposal system pursuant to Act 94, Public Acts of Michigan, 1933, as amended, comprised of the POTW and any additions, extensions or improvements thereto.

**SECTION 6. Action by Authority or other Public Body.** Any action authorized to be undertaken by the BCGTUA Board, as provided for herein, may also be undertaken by an Authority established pursuant to MCL 124.281, et seq, or other public body or agency with proper statutory authority, if such action is hereafter authorized by resolution of the BCGTUA Board.

**SECTION 7. Civil Penalties:** Any user who willfully or negligently, failed to comply with any provisions of this Ordinance, shall be responsible for a municipal civil infraction and fined a sum not less than \$100 or more than \$5,000 per day per violation. In addition to this fine, BCGTUA may recover all actual attorneys' fees, court costs, court reporters' fees and other expenses of litigation.

**SECTION 8. Falsifying Information.** Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this Ordinance or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this Ordinance, shall, upon conviction, be punished by a fine of not more than \$500 or by imprisonment for not more than ninety (90) days, or by both.

**SECTION 9. Criminal Penalty.** Any person who violates, disobeys, omits, neglects or refuses to comply with any provision of this Ordinance after such determination shall, upon conviction, be punished for each offense by a fine of not more than \$500.00 and costs of prosecution, or by imprisonment for not more than ninety (90) days, or by both fine and imprisonment. Each day that a violation continues shall constitute a separate offense.

**SECTION 10. Additional Provisions.** BCGTUA shall not be responsible for interruptions of service because of natural calamities, act of god, act of terrorism, equipment failures, or actions of the System users. It shall be the responsibility of the consumer that all connected equipment remain in good working order. No claim or cause of action may be asserted against BCGTUA by reason of the breaking away of any pipe, service cock, or for any other interruption of the sewer system.

a. Compliance with State and Federal Standards and Regulations. Standards and regulations established in this Ordinance or pursuant hereto are deemed to be the minimum standards consistent with the preservation of the public health, safety and welfare and are necessary to fulfill the obligations of BCGTUA concerning State and Federal Law and the rules and regulations adopted pursuant thereto.

b. BCGTUA has the exclusive right to establish, maintain, and collect rates and charges for sewer supply service from the water system. BCGTUA may make such rules, orders or regulations as it deems advisable and necessary to assure the efficient management and operation of the System. BCGTUA may employ such person or persons in such capacity or capacities as it deems advisable to carry out the efficient management and operation of the System.

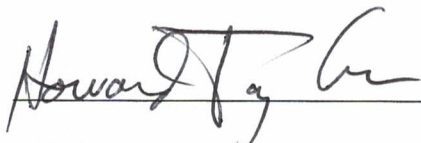
**SECTION 11. Conflict and Severability.** All ordinances, resolutions and orders or parts thereof in conflict with the provisions of this ordinance is to the extent of such conflict hereby repealed, and each section of this ordinance and each subdivision of any section hereof is hereby declared to be independent, and the finding or holding of any section or subdivision thereof to be invalid or void shall not be deemed or held to affect the validity of any other section or subdivision of this Ordinance.

**SECTION 12. Paragraph Headings.** The paragraph headings in this ordinance are furnished for convenience of reference only and shall not be considered to be a part of this Ordinance.

**SECTION 13. Publication and Recordation.** This Ordinance shall be published in full in the Crawford County Avalanche, a newspaper of general circulation in the BCGTUA, qualified under State law to publish legal notices, promptly after its adoption, and the same shall be recorded in the Ordinance Book of the BCGTUA and such recording authenticated by the signatures of the BCGTUA President and the BCGTUA Clerk.

**SECTION 14. Effective Date.** This Ordinance shall take effect upon publication or twenty (20) days after its adoption, whichever occurs last.

ORDINANCE ADOPTED AND SIGNED September 27, 2017.

  
\_\_\_\_\_  
BCGTUA President

  
\_\_\_\_\_  
BCGTUA Secretary

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of an Ordinance duly adopted by the BCGTUA Board on behalf of BCGTUA, at a meeting held on September 27, 2017.

DATED: September 27, 2017

  
\_\_\_\_\_  
Joe Wakeley BCGTUA Secretary

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of an Ordinance duly adopted by the BCGTUA Board, at a meeting held on September 27, 2017, the original of which is on file in my office and available to the public. Public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, Act 267 of the Michigan Public Acts of 1976, including in the case of a special or rescheduled meeting, notice by posting at least 18 hours prior to the time set for said meeting.

I hereby certify that the following Board members were present at said meeting:

- Joe Wakeley
- Marc ~~Dedenbach~~ *Dedenbach*
- Lacey ~~Stephan~~ *Stephan*
- Howard Taylor

I hereby certify that Member ~~Lacey~~ *Lacey* moved for adoption of this Ordinance, and that said motion was supported by Member Wakeley.

I further certify that the vote for adoption of said Ordinance was as follows:

YEAS: Joe Wakeley, Marc ~~Dedenbach~~ *Dedenbach*, Lacey Stephen, and Howard Taylor

NAYS: None.

I further certify that this Ordinance has been recorded in the Ordinance book and that such recording has been authenticated by the signatures of the BCGTUA President and BCGTUA Secretary.

September 27, 2017

  
\_\_\_\_\_  
Joe Wakeley, BCGTUA Secretary

I further certify that this Ordinance was published in full in the Crawford County Avalanche on Thursday, October 5, 2017.

DATED: October 5, 2017, 2017

  
\_\_\_\_\_  
Joe Wakeley, BCGTUA Secretary

**EXHIBIT A**

**Beaver Creek - Grayling Township Utility Authority**  
**Estimated Operating Budget and Revenue Support**  
**Sewer**

	<u>First</u> <u>Year [1]</u>	<u>Second</u> <u>Year</u>
<u>Revenue</u>		
Commodity Charge (per 1,000 gal)	\$20.50	\$20.50
Annual Billable Flow (1,000 gal)	6,433	8,578
Rate Revenue	\$131,879	\$175,839
Connection Charge [2]	\$45,000	0
Total Revenue	\$176,879	\$175,839
<u>Expense</u>		
Utilities	\$29,000	\$29,000
Insurance	2,500	2,500
Contract - Administration	9,000	9,000
Contract - Operation	78,400	78,400
Office Rent	1,200	1,200
Admin/Office	4,000	4,000
Per Diem	1,500	1,500
Supplies / Chemicals	3,000	3,000
Equipment / Controls / Tanks	6,000	6,000
Professional Services	<u>1,500</u>	<u>1,500</u>
Operating Expense	\$136,100	\$136,100
Repair, Replacement, Improvement [3]	37,000	37,000
Total Expense	\$173,100	\$173,100
Net Cash Flow	\$3,779	\$2,739
Cash Balance [4]	\$3,779	\$6,518

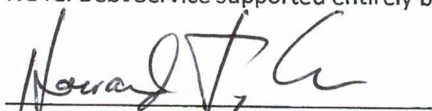
[1] Assumes 9 months revenue related to 12 months of OM&RRI.

[2] A Connection Charge to be paid based on 3 months of OM&RRI.

[3] Unspent money accumulates in RRI Reserve Fund.

[4] Operating Fund cash balance.

NOTE: Debt Service supported entirely by special assessment.

  
 \_\_\_\_\_  
 Authorized Representative

\_\_\_\_\_  
 Clerk / Witness

Beaver Creek - Grayling Townships  
 Estimated Special Assessment Cash Flow  
 over

Installments Due 12/1	Special Assessment Roll [1]				Bond Issue [3]					Annual Surplus (Deficit)	Cumulative Surplus (Deficit)
	Beginning Balance	Annual Roll	Annual Interest [2]	Annual Collection	Calendar Year	Interest February 1	Principal February 1	Interest August 1	Debt Service		
2018	\$2,359,000	\$58,975	57,501	\$116,476	2019	\$26,539	\$39,000	\$26,100	\$91,639	\$24,837	\$24,837
2019	2,300,025	58,975	74,751	133,726	2020	26,100	55,000	25,481	106,581	\$27,145	51,981
2020	2,241,050	58,975	72,834	131,809	2021	25,481	55,000	24,863	105,344	\$26,465	78,447
2021	2,182,075	58,975	70,917	129,892	2022	24,863	55,000	24,244	104,106	\$25,786	104,233
2022	2,123,100	58,975	69,001	127,976	2023	24,244	55,000	23,625	102,869	\$25,107	129,340
2023	2,064,125	58,975	67,084	126,059	2024	23,625	60,000	22,950	106,575	\$19,484	148,824
2024	2,005,150	58,975	65,167	124,142	2025	22,950	60,000	22,275	105,225	\$18,917	167,741
2025	1,946,175	58,975	63,251	122,226	2026	22,275	60,000	21,600	103,875	\$18,351	186,092
2026	1,887,200	58,975	61,334	120,309	2027	21,600	60,000	20,925	102,525	\$17,784	203,876
2027	1,828,225	58,975	59,417	118,392	2028	20,925	60,000	20,250	101,175	\$17,217	221,093
2028	1,769,250	58,975	57,501	116,476	2029	20,250	60,000	19,575	99,825	\$16,651	237,744
2029	1,710,275	58,975	55,584	114,559	2030	19,575	60,000	18,900	98,475	\$16,084	253,828
2030	1,651,300	58,975	53,667	112,642	2031	18,900	60,000	18,225	97,125	\$15,517	269,345
2031	1,592,325	58,975	51,751	110,726	2032	18,225	60,000	17,550	95,775	\$14,951	284,296
2032	1,533,350	58,975	49,834	108,809	2033	17,550	60,000	16,875	94,425	\$14,384	298,680
2033	1,474,375	58,975	47,917	106,892	2034	16,875	60,000	16,200	93,075	\$13,817	312,497
2034	1,415,400	58,975	46,001	104,976	2035	16,200	60,000	15,525	91,725	\$13,251	325,747
2035	1,356,425	58,975	44,084	103,059	2036	15,525	60,000	14,850	90,375	\$12,684	338,431
2036	1,297,450	58,975	42,167	101,142	2037	14,850	60,000	14,175	89,025	\$12,117	350,548
2037	1,238,475	58,975	40,250	99,225	2038	14,175	60,000	13,500	87,675	\$11,550	362,099
2038	1,179,500	58,975	38,334	97,309	2039	13,500	60,000	12,825	86,325	\$10,984	373,083
2039	1,120,525	58,975	36,417	95,392	2040	12,825	60,000	12,150	84,975	\$10,417	383,500
2040	1,061,550	58,975	34,500	93,475	2041	12,150	60,000	11,475	83,625	\$9,850	393,350
2041	1,002,575	58,975	32,584	91,559	2042	11,475	60,000	10,800	82,275	\$9,284	402,634
2042	943,600	58,975	30,667	89,642	2043	10,800	60,000	10,125	80,925	\$8,717	411,351
2043	884,625	58,975	28,750	87,725	2044	10,125	60,000	9,450	79,575	\$8,150	419,501
2044	825,650	58,975	26,834	85,809	2045	9,450	60,000	8,775	78,225	\$7,584	427,085
2045	766,675	58,975	24,917	83,892	2046	8,775	60,000	8,100	76,875	\$7,017	434,102
2046	707,700	58,975	23,000	81,975	2047	8,100	60,000	7,425	75,525	\$6,450	440,552
2047	648,725	58,975	21,084	80,059	2048	7,425	60,000	6,750	74,175	\$5,884	446,435
2048	589,750	58,975	19,167	78,142	2049	6,750	60,000	6,075	72,825	\$5,317	451,752
2049	530,775	58,975	17,250	76,225	2050	6,075	60,000	5,400	71,475	\$4,750	456,502
2050	471,800	58,975	15,334	74,309	2051	5,400	60,000	4,725	70,125	\$4,184	460,686
2051	412,825	58,975	13,417	72,392	2052	4,725	60,000	4,050	68,775	\$3,617	464,303
2052	353,850	58,975	11,500	70,475	2053	4,050	60,000	3,375	67,425	\$3,050	467,353
2053	294,875	58,975	9,583	68,558	2054	3,375	60,000	2,700	66,075	\$2,483	469,836
2054	235,900	58,975	7,667	66,642	2055	2,700	60,000	2,025	64,725	\$1,917	471,753
2055	176,925	58,975	5,750	64,725	2056	2,025	60,000	1,350	63,375	\$1,350	473,103
2056	117,950	58,975	3,833	62,808	2057	1,350	60,000	675	62,025	\$783	473,886
2057	58,975	58,975	1,917	60,892	2058	675	60,000	0	60,675	\$217	474,103
	<u>\$2,359,000</u>	<u>\$1,552,517</u>	<u>\$3,911,517</u>			<u>\$552,476</u>	<u>\$2,359,000</u>	<u>\$525,938</u>	<u>\$3,437,414</u>	<u>\$474,103</u>	

[1] Special Assessment Roll = \$2,359,000

[2] Interest on the S.A. Roll outstanding is ..... 3.25% (1.00% percent over bond rate)  
 Interest commences first of month in which the loan closes, assumed to be February 1, 2018.

[3] The Net Interest Rate on the bond issue is .... 2.25% (assumes LOC rate)  
 Bonds dated as of date of close, assumed to be on or about February 1, 2018.  
 First interest payment due August 1, 2018 is capitalized.

**BEAVER CREEK-GRAYLING TOWNSHIPS UTILITIES  
AUTHORITY**

**ORDINANCE NO. 2**

AN ORDINANCE TO ESTABLISH THE WATER SUPPLY SYSTEM OF THE BEAVER CREEK-GRAYLING TOWNSHIPS UTILITIES AUTHORITY PURSUANT TO ACT 94, PUBLIC ACTS OF MICHIGAN, 1933, AS AMENDED, AND ACT 3, PUBLIC ACTS OF MICHIGAN, 1895, AS AMENDED, AND TO ESTABLISH THE RULES AND STANDARDS RELATED TO RATES AND CHARGES TO USERS OF THE SYSTEM TO PROVIDE FOR THE COLLECTION OF REVENUES FROM THE SYSTEM SUFFICIENT FOR THE PURPOSE OF PAYING THE COSTS OF OPERATION, MAINTENANCE AND ADMINISTRATION OF THE SYSTEM AND TO PAY THE PRINCIPAL OF AND INTEREST ON THE REVENUE BONDS OF THE SYSTEM; AND TO PROVIDE FOR THE SEGREGATION AND DISTRIBUTION OF THE REVENUES.

**THE BEAVER CREEK-GRAYLING TOWNSHIP UTILITIES AUTHORITY  
ORDAINS:**

**SECTION 1. PREAMBLE/TITLE.**

The objective of this Ordinance is to provide for equitable distribution of the cost of the Publicly Owned Water Supply System as defined in the Water Supply Use Ordinance definitions (the "POWS"). The POWS is intended to service residential and business premises within the established Beaver Creek-Grayling Townships Utilities Authority ("BCGTUA") Special Assessment District and is constituted a water supply system (the "System") in Section 3 of this Ordinance. This Ordinance shall be known and may be cited as the "Beaver Creek-Grayling Townships Utilities Authority Water Supply Rates and Charges Ordinance of 2017."

**SECTION 2. WATER RATES.**

**Sec. 2.1. Preamble.**

The BCGTUA has determined that it is in the best interest of the persons, the businesses and institutions located in the BCGTUA to provide a water supply to and from all developed properties located in the Special Assessment District and to pay for the costs of providing that service of transport in part from user fees and charges and in part from special assessments of properties specially benefited by that service.

The BCGTUA Board has determined that in order to assure safe transportation of water into and out of the System, the System must receive sufficient total annual revenue to ensure the proper operation and maintenance of the System, the development and perpetuation of the System, and the preservation of the financial integrity of the System. The BCGTUA Board has also determined that the System shall be self-sustaining and shall be supported solely by those within the Special Assessment District.

## **Sec. 2.2. Water Supply User Charge System.**

(a) *Establishment of Cost of Service.* The BCGTUA Board has determined that the purpose of water rates (which term includes “charges” and “fees”, all of which are treated interchangeably in this Ordinance) is to produce sufficient revenues each year to pay the costs of service. The BCGTUA Board has determined, based upon advice from C2AE engineering, engineers of Gaylord, Michigan, independent consulting engineers (the “Engineers”) to the BCGTUA and H.J. Umbaugh & Associates, Municipal Finance Consultants, of Okemos, Michigan (the “Financial Consultant”), that annual expenditures (OM&R) for the System can fluctuate up to 10% based on using standard good utility management practices from year to year, and revenues can fluctuate as much as 5 to 10% from year to year. Based on the recommendations of its Engineers, and Financial Consultant, the BCGTUA Board has determined that, in order to provide adequate, but not excessive, annual adjustments in revenue levels in a timely manner, the BCGTUA shall develop the costs of service based on 2-year projections of cash needs, adjusted for inflation, and shall base rates each year on the estimated needs for those 2-year periods, adjusted annually.

The costs of service to be paid from revenues shall include all of the following: (1) operation and maintenance expenses, (2) debt service expenses, and (3) capital expenses not funded from bonded indebtedness.

## **Sec. 2.3. Proportionality of Classifications of Users According to Residential Equivalent Units (REUs) Based on Historic Consumption**

The BCGTUA has investigated several methods of apportioning the cost of the System among users of the System in the BCGTUA and surrounding communities. As part of that investigation, the BCGTUA has consulted with the Engineers and the Financial Consultant regarding studies of water use and sewage flows of a variety of establishments to generate a unit factor that most closely approximates the actual use by each user of the System. Based on the BCGTUA’s consultations with the Engineers and the Financial Consultant regarding methods of apportioning costs among classes of users, the BCGTUA has concluded that the use of Residential Equivalent Units (REUs) to apportion the direct and indirect costs of providing wastewater collection and treatment in the amounts and at the peak rate of flows required from time to time by all users is reasonable.

Based upon the advice of the Engineers and the Financial Consultant, the BCGTUA hereby finds that the fairest method of charging its users proportionately for payment of the costs of acquiring, constructing, operating, and maintaining the System in the absence of meters that measure flow of water to a premises is to impose a flat charge, based on REUs, calculated annually on the basis of amount of use in the previous year, to classes of users divided according to annual quantity of use.

Based on its investigation and on the advice of its Engineers and Financial Consultant, the BCGTUA Council hereby finds that to ensure the stability and viability of the System for the benefit of its users, the fairest and most accurate way to apportion the costs of operation, maintenance, replacement and improvement of the System is to charge each user: (i) a Connection Fee to be paid by persons connecting to the System or changing their use

classifications in order to defray certain capital costs incurred to provide sufficient capacity to all users; (ii) a Debt Service Charge to be paid by all users of the System to be used to pay principal, interest and administrative costs of retiring the debt incurred for construction of the System; and (iii) a Monthly Commodity Charge to cover the System-wide costs of operating and maintaining the System.

#### **Sec. 2.4. Specific Rates and Charges.**

(a) *Connection Charge.* The BCGTUA Board by resolution shall establish a Connection Fee to defray and recover the cost of the System. Every person seeking to connect to the System, to modify an existing connection to the System, to change the use of the property or structure, or to reconnect previously connected property to the System will be required to pay a Connection Fee. A Connection Fee shall be established and managed as provided in this Section.

(i) *Calculation of Estimated Demand on Capacity.* The estimated demand on capacity of a new connection to the System, modification of an existing connection to the System, or reconnection of previously connected property to the System shall be based on the REUs equivalency table set forth in Exhibit A attached hereto and made part hereof. If a particular use does not appear at Exhibit A (or is labeled with "TBD"), the applicable REU (or fraction thereof) shall be determined by the estimated water usage to be generated from the building such that 1,000 gallons annually shall be equivalent to one REU. Metering devices may be required.

(ii) *Calculation of Capital Cost Requirements.* The capital costs to be defrayed or recovered through the imposition of the Capital Connection Fee shall be determined annually by the BCGTUA and shall be based on the costs incurred by the BCGTUA in designing, acquiring and constructing the System, along with the estimated cost of capital improvements incurred or to be incurred for the primary purpose of providing adequate capacity within the System to meet reasonably necessary service demands.

(iii) *Credits for Previously Paid Capital Connection Fees.* If the Connection Fee relates to an increase in demand on capacity, the BCGTUA shall credit against the specific amount of the Connection Fee the amount of any Connection Fee previously paid for connection of that property to the System.

(b) *Debt Service Charge.* The BCGTUA Board by resolution shall establish a Debt Service Charge to pay principal, interest and administrative costs of retiring the debt incurred for construction of the System. The debt service charge shall be based on the REUs equivalency table set forth in Exhibit A and shall be in addition to other user fees and charges provided for herein.

(c) *Monthly Commodity Charge.* The BCGTUA Board by resolution shall establish a Monthly Commodity Charge to cover the System-wide costs of operating and maintaining the System. The Monthly Commodity Charge shall be based on the REUs equivalency table set forth in Exhibit A.

**Sec. 2.5. Annual Audit and Revision of Rates and Charges.**

The rates and charges established pursuant to this Ordinance shall be as estimated to sufficiently provide for the expenses of operation, maintenance, and replacement of the System so as to preserve it in good repair and working order. An annual audit shall be prepared to assist the BCGTUA Board in determining whether, and to what extent, to revise, by resolution, the rates from time to time in order to meet System expenses and to ensure that all user classes pay their proportionate share of operation and maintenance and equipment replacement costs; however, an audit shall not be a prerequisite to a revision.

**Sec. 2.6. No Free Service.**

No free service shall be allowed for any user of the System. The System shall not furnish free service to the BCGTUA or to any individual, firm or corporation, public or private, or to any agency or instrumentality.

**Sec. 2.7. Billing; Payment; Delinquencies.**

Charges for water service (other than the Connection Charge) shall be billed not later than the 15th day of each month for the preceding month. Payment is due on the first business day of the following month. If payment is not received by the 15th business day of the following month, then a 2% percent delinquent penalty will be added to the bill.

Payment for the Connection Charge shall be made as to be determined by BCGTUA, upon which such payment shall be in full if the parcel has not been assessed for the benefit. If assessed, payment may, at the owner's option, be made at the time of application or the payment may be made pursuant to the following installment schedule, if the Owner commits to same in writing no later than \_\_\_\_\_, 2019:

Annual payments spread equally over 15 years, including interest at 2.625 percent per annum; provided, however, that the entire amount shall be due, if not sooner paid, by \_\_\_\_\_, 2\_\_\_\_\_.

**Sec. 2.8. Collection.**

(a) *Security deposits.* The BCGTUA Council shall adopt a security deposit as set by resolution of the BCGTUA Board from time to time for residential and commercial customers establishing new accounts for water service. The security deposit will be held in reserve by the BCGTUA until the customer has made payments, without any delinquencies, for a period of one year. At that point, the security deposit will be refunded, without interest.



parcel of property within the Special Assessment District for which a building is being built must connect to water and sewer regardless of the distance that the proposed building is from **BCGTUA** \_\_\_\_\_.

**SECTION 3. Supplemental Documentation.** The BCGTUA shall provide, and approve by resolution, such supplemental documentation as needed to implement and administer this Ordinance and the Water Use Ordinance, such as applications for connection, installment payment agreements, etc.

**SECTION 4. Water Supply System.** The BCGTUA hereby establishes a sewage disposal system pursuant to Act 94, Public Acts of Michigan, 1933, as amended, comprised of the POTW and any additions, extensions or improvements thereto.

**SECTION 5. Action by Authority or other Public Body.** Any action authorized to be undertaken by the BCGTUA Board, as provided for herein, may also be undertaken by an Authority established pursuant to MCL 124.281, et seq, or other public body or agency with proper statutory authority, if such action is hereafter authorized by resolution of the BCGTUA Board.

**SECTION 6. Civil Penalties:** Any User who who willfully or negligently, failed to comply with any provisions of this Ordinance, shall be responsible for a municipal civil infraction and fined a sum not less than \$100 or more than \$5,000 per day per violation. In addition to this fine, BCGTUA may recover reasonable attorneys' fees, court costs, court reporters' fees and other expenses of litigation of not less than \$500.00 and nor more than \$2000.

**SECTION 7. Falsifying Information.** Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this Ordinance or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this ordinance, shall, upon conviction, be punished by a fine of not more than \$500 or by imprisonment for not more than ninety (90) days, or by both.

**SECTION 8. Criminal Penalty.** Any person who violates, disobeys, omits, neglects or refuses to comply with any provision of this Ordinance after such determination shall, upon conviction, be punished for each offense by a fine of not more than \$500.00 and costs of prosecution, or by imprisonment for not more than ninety (90) days, or by both fine and imprisonment. Each day that a violation continues shall constitute a separate offense.

**SECTION 9. Additional Regulations.** BCGTUA may regulate, limit or prohibit the use by a consumer of the BCGTUA's supplied water to the extent deemed necessary to assure an adequate supply for essential needs and for fire fighting.

a. BCGTUA shall not be responsible for interruptions of service because of natural calamities, equipment failures, or actions of the system users. It shall be the responsibility of the consumer that all connected equipment remain in good working order. No claim or cause of action may be asserted against BCGTUA by reason of the breaking away of any pipe, service cock, or for any other interruption of the water supply.

b. Compliance with State and Federal Standards and Regulations. Standards and regulations established in this Ordinance or pursuant hereto are deemed to be the minimum standards consistent with the preservation of the public health, safety and welfare and are necessary to fulfill the obligations of BCGTUA concerning State and Federal Law and the rules and regulations adopted pursuant thereto.

c. BCGTUA has the exclusive right to establish, maintain, and collect rates and charges for water supply service from the water system. BCGTUA may make such rules, orders or regulations as it deems advisable and necessary to assure the efficient management and operation of the System. BCGTUA may employ such person or persons in such capacity or capacities as it deems advisable to carry out the efficient management and operation of the System.

**SECTION 10. Conflict and Severability.** All ordinances, resolutions and orders or parts thereof in conflict with the provisions of this ordinance is to the extent of such conflict hereby repealed, and each section of this ordinance and each subdivision of any section hereof is hereby declared to be independent, and the finding or holding of any section or subdivision thereof to be invalid or void shall not be deemed or held to affect the validity of any other section or subdivision of this Ordinance.

**SECTION 11. Paragraph Headings.** The paragraph headings in this ordinance are furnished for convenience of reference only and shall not be considered to be a part of this Ordinance.

**SECTION 12. Publication and Recordation.** This Ordinance shall be published in full in the \_\_\_\_\_, a newspaper of general circulation in the BCGTUA, qualified under State law to publish legal notices, promptly after its adoption, and the same shall be recorded in the Ordinance Book of the BCGTUA and such recording authenticated by the signatures of the BCGTUA President and the BCGTUA Clerk.

**SECTION 13. Effective Date.** This Ordinance shall take effect upon publication or twenty (20) days after its adoption, whichever occurs last.

ORDINANCE ADOPTED AND SIGNED September 26, 2017.

\_\_\_\_\_  
BCGTUA President

\_\_\_\_\_  
BCGTUA Clerk

**CERTIFICATION**

I hereby certify that the foregoing is a true and complete copy of an Ordinance duly adopted by the BCGTUA Board on behalf of BCGTUA, at a meeting held on September 27, 2017.

DATED: September 27, 2017

\_\_\_\_\_  
BCGTUA Clerk

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of an Ordinance duly adopted by the BCGTUA Board, at a meeting held on September 27, 2017, the original of which is on file in my office and available to the public. Public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, Act 267 of the Michigan Public Acts of 1976, including in the case of a special or rescheduled meeting, notice by posting at least 18 hours prior to the time set for said meeting.

I hereby certify that the following Board members were present at said meeting:

\_\_\_\_\_.

I hereby certify that Member \_\_\_\_\_ moved for adoption of this Ordinance, and that said motion was supported by Member \_\_\_\_\_.

I further certify that the vote for adoption of said Ordinance was as follows:

YEAS:

NAYS:

I further certify that this Ordinance has been recorded in the Ordinance book and that such recording has been authenticated by the signatures of the BCGTUA President and BCGTUA Clerk.

September 27, 2017

\_\_\_\_\_  
\_\_\_\_\_, BCGTUA Clerk

I further certify that this Ordinance was published in full in the \_\_\_\_\_ on \_\_\_\_\_, 2017.

DATED: \_\_\_\_\_, 2017

\_\_\_\_\_  
\_\_\_\_\_, BCGTUA Clerk

**EXHIBIT A**

**Beaver Creek - Grayling Township Utility Authority**  
**Estimated Operating Budget and Revenue Support**  
**Water**

	<u>First</u> <u>Year [1]</u>	<u>Second</u> <u>Year</u>
<u>Revenue</u>		
Commodity Charge (per 1,000 gal)	\$9.50	\$9.50
Annual Billable Flow (1,000 gal)	6,433	8,578
Rate Revenue	\$61,115	\$81,486
Connection Charge [2]	\$20,000	0
Total Revenue	\$81,115	\$81,486
<u>Expense</u>		
Utilities	\$6,000	\$6,000
Insurance	2,500	2,500
Contract - Administration	9,000	9,000
Contract - Operation	33,200	33,200
Office Rent	1,200	1,200
Admin/Office	4,000	4,000
Per Diem	1,500	1,500
Supplies / Chemicals	2,000	2,000
Equipment / Controls / Tanks	4,000	4,000
Professional Services	<u>1,500</u>	<u>1,500</u>
Operating Expense	\$64,900	\$64,900
Repair, Replacement, Improvement [3]	14,000	14,000
Total Expense	\$78,900	\$78,900
Net Cash Flow	\$2,215	\$2,586
Cash Balance [4]	\$2,215	\$4,801

[1] Assumes 9 months revenue related to 12 months of OM&RRI.

[2] A Connection Charge to be paid based on 3 months of OM&RRI.

[3] Unspent money accumulates in RRI Reserve Fund.

[4] Operating Fund cash balance.

NOTE: Debt Service supported entirely by special assessment.

\_\_\_\_\_  
 Authorized Representative

\_\_\_\_\_  
 Clerk / Witness

**Beaver Creek - Grayling Townships**  
**Estimated Special Assessment Cash Flow**  
**Water**

Special Assessment Roll [1]					Bond Issue [3]					Annual Surplus (Deficit)	Cumulative Surplus (Deficit)
Installments Due 12/1	Beginning Balance	Annual Roll	Annual Interest [2]	Annual Collection	Calendar Year	Interest February 1	Principal February 1	Interest August 1	Debt Service		
2018	\$1,741,000	\$43,525	42,437	\$85,962	2019	\$19,586	\$36,000	\$19,181	\$74,768	\$11,194	\$11,194
2019	1,697,475	43,525	55,168	98,693	2020	19,181	40,000	18,731	77,913	\$20,780	31,975
2020	1,653,950	43,525	53,753	97,278	2021	18,731	40,000	18,281	77,013	\$20,266	52,241
2021	1,610,425	43,525	52,339	95,864	2022	18,281	40,000	17,831	76,113	\$19,751	71,992
2022	1,566,900	43,525	50,924	94,449	2023	17,831	40,000	17,381	75,213	\$19,237	91,229
2023	1,523,375	43,525	49,510	93,035	2024	17,381	40,000	16,931	74,313	\$18,722	109,951
2024	1,479,850	43,525	48,095	91,620	2025	16,931	40,000	16,481	73,413	\$18,208	128,159
2025	1,436,325	43,525	46,681	90,206	2026	16,481	40,000	16,031	72,513	\$17,693	145,852
2026	1,392,800	43,525	45,266	88,791	2027	16,031	40,000	15,581	71,613	\$17,179	163,030
2027	1,349,275	43,525	43,851	87,376	2028	15,581	40,000	15,131	70,713	\$16,664	179,694
2028	1,305,750	43,525	42,437	85,962	2029	15,131	40,000	14,681	69,813	\$16,149	195,843
2029	1,262,225	43,525	41,022	84,547	2030	14,681	45,000	14,175	73,856	\$10,691	206,535
2030	1,218,700	43,525	39,608	83,133	2031	14,175	45,000	13,669	72,844	\$10,289	216,824
2031	1,175,175	43,525	38,193	81,718	2032	13,669	45,000	13,163	71,831	\$9,887	226,710
2032	1,131,650	43,525	36,779	80,304	2033	13,163	45,000	12,656	70,819	\$9,485	236,195
2033	1,088,125	43,525	35,364	78,889	2034	12,656	45,000	12,150	69,806	\$9,083	245,278
2034	1,044,600	43,525	33,950	77,475	2035	12,150	45,000	11,644	68,794	\$8,681	253,959
2035	1,001,075	43,525	32,535	76,060	2036	11,644	45,000	11,138	67,781	\$8,279	262,238
2036	957,550	43,525	31,120	74,645	2037	11,138	45,000	10,631	66,769	\$7,877	270,114
2037	914,025	43,525	29,706	73,231	2038	10,631	45,000	10,125	65,756	\$7,475	277,589
2038	870,500	43,525	28,291	71,816	2039	10,125	45,000	9,619	64,744	\$7,073	284,661
2039	826,975	43,525	26,877	70,402	2040	9,619	45,000	9,113	63,731	\$6,670	291,332
2040	783,450	43,525	25,462	68,987	2041	9,113	45,000	8,606	62,719	\$6,268	297,600
2041	739,925	43,525	24,048	67,573	2042	8,606	45,000	8,100	61,706	\$5,866	303,466
2042	696,400	43,525	22,633	66,158	2043	8,100	45,000	7,594	60,694	\$5,464	308,931
2043	652,875	43,525	21,218	64,743	2044	7,594	45,000	7,088	59,681	\$5,062	313,993
2044	609,350	43,525	19,804	63,329	2045	7,088	45,000	6,581	58,669	\$4,660	318,653
2045	565,825	43,525	18,389	61,914	2046	6,581	45,000	6,075	57,656	\$4,258	322,911
2046	522,300	43,525	16,975	60,500	2047	6,075	45,000	5,569	56,644	\$3,856	326,767
2047	478,775	43,525	15,560	59,085	2048	5,569	45,000	5,063	55,631	\$3,454	330,221
2048	435,250	43,525	14,146	57,671	2049	5,063	45,000	4,556	54,619	\$3,052	333,273
2049	391,725	43,525	12,731	56,256	2050	4,556	45,000	4,050	53,606	\$2,650	335,923
2050	348,200	43,525	11,317	54,842	2051	4,050	45,000	3,544	52,594	\$2,248	338,170
2051	304,675	43,525	9,902	53,427	2052	3,544	45,000	3,038	51,581	\$1,846	340,016
2052	261,150	43,525	8,487	52,012	2053	3,038	45,000	2,531	50,569	\$1,444	341,460
2053	217,625	43,525	7,073	50,598	2054	2,531	45,000	2,025	49,556	\$1,042	342,501
2054	174,100	43,525	5,658	49,183	2055	2,025	45,000	1,519	48,544	\$640	343,141
2055	130,575	43,525	4,244	47,769	2056	1,519	45,000	1,013	47,531	\$237	343,378
2056	87,050	43,525	2,829	46,354	2057	1,013	45,000	506	46,519	(\$165)	343,214
2057	43,525	43,525	1,415	44,940	2058	506	45,000	0	45,506	(\$567)	342,647
	<u>\$1,741,000</u>	<u>\$1,145,796</u>	<u>\$2,886,796</u>			<u>\$411,368</u>	<u>\$1,741,000</u>	<u>\$391,781</u>	<u>\$2,544,149</u>	<u>\$342,647</u>	

[1] Special Assessment Roll = \$1,741,000

[2] Interest on the S.A. Roll outstanding is ..... 3.25% (1.00% percent over bond rate)  
Interest commences first of month in which the loan closes, assumed to be February 1, 2018.

[3] The Net Interest Rate on the bond issue is .... 2.25% (assumes LOC rate)  
Bonds dated as of date of close, assumed to be on or about February 1, 2018.  
First interest payment due August 1, 2018 is capitalized.