



# ***RATE RESOLUTION***

WASTEWATER RECYCLING

RATES AND OTHER

CHARGES

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# Section 1

## CONNECTION TO COLLECTION SYSTEM

### 1.1 Building Sewers and Connections

a) No unauthorized person shall uncover, make any connections with or opening into, use, alter, or disturb any public or private sewer or appurtenances without first obtaining a written permit from the Authority.

b) All costs and expenses incidental to the installation and connection of the building sewer shall be the responsibility of the owner. Installation and construction of the building sewer shall be in compliance with the UAJA Standard Specifications then in effect.

### 1.2 Tapping and Permit Fees

#### a) The Tapping Fees are as follows:

Capacity Component:	\$6327.00	Per EDU
Collection Component Pine Grove Mills	\$2214.00	Per EDU
Collection Component Rt 26	\$2825.00	Per EDU
Ghaner Pump Station collection	\$301.00	Per EDU
Grinder Pump Escrow	\$2331.00	Per EDU
Borough of State College Tap Fee	\$2575.00	Per EDU
Special Purpose Circleville Inter.Tap Fee	\$509.73	Per EDU
Special Purpose Valley Vista Tap Fee	\$584.90	Per EDU

Tapping fees are charged at the time the permit is issued. The capacity component is applied to all new connections.

Tapping fees are based on EDU's according to Section 2.

If more than two inspection trips are required because the lateral repeatedly fails inspection, a \$50.00 fee shall be charged per inspection trip in excess of two per Rate Resolution 1.2b

#### b) The Permit Fees are as follows:

Residential:	\$150.00
Non-Residential:	\$250.00
Repair/Abandonment:	\$ 25.00
Water Quality:	\$100.00
Water Quality(w/pump station)	\$250.00
Private to Private:	\$ 50.00

# Section 2

## WASTEWATER RATES AND OTHER FEES

### 2.1 General

Wastewater rates and other charges are imposed upon the Owner of each property or entity connected to the wastewater collection system. The rate for wastewater collection & treatment will usually be based upon an **Equivalent Dwelling Unit (EDU)**. Some bulk customers of the Authority, by contract or agreement only, may be charged based upon the **Bulk Treatment Rate** in affect at the time.

### 2.2 EDU Rate

The rate charged per EDU is One Hundred Eight (\$108.00) dollars per quarter. Residents of the Pine Grove Mills service area will be billed One Hundred Eight (\$108.00) per quarter plus an additional twenty-two dollars and forty cents (\$22.40) for debt service.

### 2.3 Bulk Treatment Rate

The rate charged per one million gallons treated is Five Thousand Two Hundred and Eighty Seven (\$5287.00) dollars.

### 2.4 Assignment of Equivalent Dwelling Units

An Equivalent Dwelling Unit (EDU) shall apply to each classification of connection as follows:

#### **(a) Residential**

Apartment units, each	1
Attached business	
w/o separate sanitary facilities	1/2
w/ separate sanitary facilities	1
Condominiums	1
Daycare in home per 17.5 Population	1
Duplex / Multi-Plex (per unit)	1
Manufactured (mobile home park)	
Per lateral provided, unless capped	1
Rooming Units/Efficiency, each	1/2
(A single bed, one room, one bath apartment with no clothes washer)	
Single Family Homes	1
Townhouses, each	1

#### **(b) Commercial**

Automobile Dealer, (bays connected to sewer)	
2 bays or less	2
Each additional bay over 2	1/2
Automobile Dealer/Garage (bays not Connected to sewer)	*

Beauty/Barber shops, per chair	1/2
Bed & Breakfasts	
up to and including 5 rooms	1.5
6 to 10 rooms	2
Bowling Alleys, per 6 lanes	1 and *
Car Wash (bays connected to sewer)	
2 bays or less	2
Each additional bay over 2	1/2
not connected to sewer	*
Commercial Office Building	1 per Business up to 10 employees *
Fitness Centers,	*
with showers	*
with pool, per filter connected	2 and *
Hospitals per bed	1/2 and *
Hospital public dining, per 15 seats	1
Hotel/Motel, per room	1/2
Conference room	1 per 17.5
Restaurant/café seating	1 per 15 seats
Laundromat, per 5 washers	1
Medical Centers,	*
with pools, per filter connected	2
Nursing Homes per bed	1/2 and *
Nursing Home public dining, /15 seats	1
Personal Care/ Assisted living	1/2 per living unit and *
Restaurants, per 15 seats	1 and *
Retail food store	*
Each food preparation station	1
Each Bakery	1
Each Bank	1
Each Deli	1
Each Pharmacy	1
Each Photography center	1
Café seating, per 15 seats	1
Retail Stores	*
2 bays or less (if app.)	2
per 15 seats (if app.)	1
Retirement Homes, per unit	1 and *
Retire. Hm. public dining, /15 seats	1
Retire. Hm. industrial washer	1
Veterinary Facilities	*

Shell Buildings, per 3000 sq. ft. 1  
(for tapping fee & connection fee only)

Billing for Shell building per quarter 1

- \* 1 EDU for up to each 10 employees  
-or-  
1 EDU for up to each 8 employees with showers

Example 1: up to 10 employees (no showers) = 1 EDU.

Example 2: 11 employees (no showers) = 1.5 EDU's.

Example 3: up to 8 employees (w/showers) = 1 EDU.

Example 4: 9 employees (w/showers) = 1.5 EDU's.

**\* Employees that work off site will not be included in EDU count.**

**(c) Industrial and Commercial**

Per 10 employees 1  
[do not include truck drivers]  
Per 8 employees with showers 1  
[do not include truck drivers]  
Cooling Tower with drain to sewer 1  
(unless volume warrants higher charge)

**(d) Public**

Churches 1  
w/daycare per 17.5 student & staff 1  
Daycare per 17.5 population 1  
Fire Hall, Ambulance 1  
Library 1  
Private Clubs/Organizations  
per 15 seats 1  
Recreation Field w/sanitary facilities 1  
Schools per 17.5 population 1  
Swimming Pools  
Per filter connection 2 and  
Average Patrons x10(gpd)/175(gpd)

## **(e) Miscellaneous**

- 1) Charge to drain pool (pool capacity times current bulk treatment rate–Authority must be notified in advance of draining)
- 2) Where more than one use occurs on any improved property, the sum of Equivalent Dwelling Units for each separate use will apply in establishing wastewater rates and charges.
- 3) Additional classifications for wastewater rates and other charges or modifications of the above schedules for wastewater rates and other charges may be established by this Authority from time to time as deemed necessary.
- 4) Nothing contained herein shall be construed as prohibiting special agreements between this Authority and nonresidential improved properties under conditions and circumstances making special agreements advisable and necessary.

## **Section 3**

### **INFORMATION REQUIRED**

#### **3.1 Addresses**

Every owner of an improved property, which is connected to the wastewater collection system, shall provide this Authority with his/her correct mailing address and thereafter shall keep this Authority advised of any address changes. Any changes to the address will only be accepted by the property owner calling the office and speaking to the Account Representative, or sending in written notice of the change. Failure of any property owner to receive bills for wastewater rates and other charges shall not be considered an excuse for nonpayment nor shall such failure result in an extension of the period of time during which the net bill shall be payable or late fees being waived.

Authority rules and regulations specifically require that bills be mailed directly to the owner of record and NOT to a tenant. Any agreement of payment between owner and tenant or bill paying service must be considered a transaction between both parties and in no way concerns this Authority.

#### **3.2 Non-residential yearly reports**

Owners of any nonresidential improved property may be responsible for providing this Authority with a yearly report. This report will be used to compute any changes to the wastewater rate or charges to such nonresidential improved property. This information may also be used to compute a surcharge. The report will be due on a yearly basis with the due date being the 10<sup>th</sup> day of April. If the owner of any nonresidential improved property fails to provide this Authority with complete information required to compute the sewer rate or charge, this Authority may estimate a reasonable applicable wastewater rate or charge for such nonresidential improved property. Such estimated wastewater rate or charge shall be the actual wastewater rate or charge payable until the required information is filed. No rebates will be paid by this Authority if the information filed reveals a lower wastewater rate or charge than that estimated by this Authority. If the resultant rate should be higher than what was estimated, the property owner will be responsible for paying the difference. Industrial users will still be required to send a questionnaire on a quarterly basis.

#### **3.3 Volume surcharges**

This Authority reserves the right to impose a volume surcharge and/or to revise the Equivalent Dwelling Unit classification for any improved property discharging domestic and/or industrial wastewater into the wastewater collection system in excess of a total flow of 175 gallons per day, per EDU. The volume surcharge will be based upon the EDU treatment rate currently in place.

# Section 4

## INVOICING

### 4.1 Invoicing

Invoicing is done in arrears and will be done according to the following table.

Quarter	Bill mail Date	Due Date
Jan. Feb. Mar.	Mid- April	Mid - May
April May June	Mid - July	Mid - August
July August Sept.	Mid - October	Mid - November
Oct. Nov. Dec.	Mid - January	Mid - February

### 4.2 Pro-rating

Owners of improved properties that connect to the sewer in the middle of a quarter will be charged from the date of connection. With permission from the University Area Joint Authority, owners of improved properties that disconnect sewer service by plugging the lateral will stop being billed as of the date that UAJA Personnel inspects the disconnection.

### 4.3 Delinquent payments

If wastewater rates and charges are not paid by provided due date each billing, an additional sum of 10% shall be added to the net bill, which net bill, plus such additional sum, shall constitute the gross bill. Payment made on or mailed and postmarked by the due date will be considered on time. When an account has a delinquent amount of \$150.00 or more, the property owner will be sent a certified letter requesting payment in full within 10 days. All costs associated with certified letters will be charged back to the customer's account. If the property owner fails to pay the balance on the account after receiving the certified letter, and it becomes necessary for this Authority to post the property for water termination, a fee of \$35.00 will be charged to the property owner's account. At the point of posting, the property owner is notified that the full amount due and owing, together with penalties, interest and legal fees must be paid in full within five (5) days of the notice. In the event the full amount due is not paid, the water utility serving this property shall be directed to discontinue water service to the posted property pursuant to: (1) the Act of 1957, July 10, P.L. 622, as amended and the Act of 1978, November 26, No. 299, as amended. In addition, the property owner will be assessed charges from the Water Utility for termination of service.

### 4.4 Payments returned by bank

In the event a payment of wastewater charges or other charges rendered by this Authority are returned by a banking institution for any reason, a charge of \$37.00 for each instance shall be added on the property owner's account. In the event the banking institution levies a charge against the Authority for processing a returned check, said charge will be levied against the account for which service is being rendered. The Authority may also demand payment of the account by cash, certified check, bank draft, cashier's check, bank/postal money order. The account, which was paid by the returned check, shall be considered delinquent until full payment is rendered.

## **Section 5**

### **5.1 Liens for Wastewater Rate and Other Charges:**

Wastewater rates and other charges imposed by this Rate Resolution shall be a lien on the improved property connected to and served by the wastewater collection system. Any wastewater rates and other charges which are delinquent shall be filed as a lien against the improved property connected to and served by the wastewater collection system. Such liens shall be filed and collected in the manner provided by law for the filing and collection of municipal claims.

## **Section 6**

### **INDUSTRIAL PRETREATMENT**

#### **6.1 UAJA Industrial Pretreatment Program**

UAJA is required by the US Environmental Protection Agency to comply with various requirements under the Clean Water Act and Other acts, which impose duties and obligations for controlling industrial users, also known as an Industrial Pretreatment Program. In order to perform the duties required in administering an Industrial Pretreatment Program, UAJA has the legal authority to perform inspections and sampling, issue permits and orders, collect permit fees, require reporting and record keeping, control rates and quantities of discharges, require that certain discharges be held, seek equitable relief, and impose penalties and fees as deemed appropriate.

#### **6.2 Prohibited Wastes**

**(a)** No person shall discharge or cause to be discharged any storm water, surface water, spring water, ground water, roof runoff, subsurface drainage, building foundation drainage, cellar drainage, drainage from roof leader connections, uncontaminated cooling water, HVAC or other uncontaminated condensate drainage, or unpolluted process waters into any Sewer.

**(b)** This Authority reserves the right to refuse permission to connect to the Sewage Collection System, to compel discontinuance of use of the Sewage Collection System or the Sewage Disposal System, or to compel pretreatment of Industrial wastes by any Industrial Establishment, in order to comply with provisions of the Service Agreement and to prevent discharge deemed harmful or to have a deleterious effect upon any Sewer, the Sewage Collection System or the Sewage disposal System.

**(c)** No Sanitary Sewage or Industrial Wastes shall be discharged to the Sewage Collection System:

- 1) Having a temperature higher than 150°F.
- 2) Containing more than 100 ppm of fats, wax, tar, oil and/or grease, whether emulsified or not, or containing substances which may solidify or become viscous at temperature between 32° F and 150°F.
- 3) Containing any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquids, solids or gases.
- 4) Containing any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, cloths, feathers, tar, plastics, wood, paunch manure, whole blood, hair, fleshings, entrails, cotton, wool or other fibers, paper dishes, cups or milk containers, either whole or ground by garbage grinders, or any other solid or viscous substances capable of causing obstructions or other interferences with property operation of the Sewage Collection System or Sewers or the Sewage Disposal System.
- 5) Having a pH lower than 6.0 or higher than 10; being corrosive; or having any other property capable of causing damage or hazards to structures, equipment or operating personnel of the Sewage Collection System, Sewers or the Sewage Disposal System.



- 6) Containing toxic or poisonous solids, liquids or gases in sufficient quantity either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, to constitute hazards to humans or animals or to create any hazard in waters which receive treated effluent from the Sewage Disposal System. Toxic wastes shall include, but not by way of limitation, wastes containing cyanide, chromium, copper, cadmium, nickel, and/or mercury ions.
- 7) Sludge, water, solids or other materials pumped from septic tanks.
- 8) Any waters or wastes containing strong acid iron pickling wastes or concentrated plating solutions, whether neutralized or not.
- 9) Materials which exert or cause:
  - a) unusual concentrations of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate);
  - b) excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions);
  - c) unusual B.O.D., chemical oxygen demand or chlorine requirements in such quantities as to constitute a significant load on the Sewage Disposal System; or
  - d) unusual volume of flow or concentration of wastes constituting slugs.
- 10) Containing radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Authority.
- 11) Notwithstanding the above provisions, any waste containing phenols or any other substance or having other characteristics which are prohibited by the Authority.

**(d)** In addition, no commercial entity shall discharge any waste exceeding the following Default Concentration Limits unless they have been granted an Industrial Wastewater Discharge Permit, a Local Limits Waiver, or a Conditional Waiver within the previous 24 months.

**DEFAULT CONCETRATION LIMITS FOR INDUSTRIAL USERS**

<b>Pollutant</b>	<b>Default IU Limit</b>	<b>Units</b>
Arsenic	0.032	mg/l
Cadmium	0.0026	mg/l
Copper	0.60	mg/l
Cyanide	0.054	mg/l
Hexavalent Chromium	0.18	mg/l
Lead	0.066	mg/l
Mercury	0.00050	mg/l
Methylene Chloride	0.20	mg/l
Molybdenum	0.054	mg/l
Nickel	0.29	mg/l
Selenium	0.032	mg/l
Silver	0.10	mg/l
Thallium	0.010	mg/l
Zinc	0.60	mg/l

Any user unsure of whether their discharge exceeds these limits shall contact UAJA to obtain an Application for a Local Limits Waiver. This Application will be evaluated to determine whether there is a significant risk of exceeding these parameters based on the types of processes and other possible sources of pollution at that site.

However, knowingly exceeding any of these limits without written permission of the Authority is prohibited.

**(e)** Where necessary all Owners shall install suitable pre-treatment facilities in order to comply with subsections (c) and (d) of this Section. Plans, specifications and any other pertinent information relating to proposed facilities for preliminary treatment and handling of wastes shall be submitted for approval of this Authority and no construction of any such facility shall be commenced until approval thereof first shall have been obtained, in writing, from this Authority, and until approval thereof first

shall have been obtained from any governmental regulatory body having jurisdiction. Whenever facilities for preliminary treatment and handling of wastes shall have been provided by any Owner, such facilities continuously shall be maintained, at the expense of such Owner, in satisfactory operating condition; and this Authority shall have access to such facilities at reasonable times for purposes of inspection and testing.

- (f) No person shall install or operate in any Improved Property connected to the Sewage Collection System any garbage grinder equipped with a motor of  $\frac{3}{4}$  horsepower or greater, without prior written approval of this Authority.
- (g) Nothing contained in this Section 5 shall be construed as prohibiting any special agreement or arrangement between this Authority and any person whereby Industrial Wastes of unusual strength or character may be admitted into the Sewage Collection System owned by this Authority, either before or after preliminary treatment.

### **6.3 Industrial waste permitting**

- a) Industrial users proposing to connect to or discharge to the wastewater collection/treatment facility may be required to obtain a Wastewater Discharge Permit before connecting to the wastewater collection/treatment facility.
- b) The Authority may establish a system of rates and charges for implementation of the Industrial Pretreatment Program, which shall be applicable to industrial users within its service area. Rates and charges for implementation of the IPP may be changed from time to time by resolution, subject to approval by the Board of the UAJA.

### **6.4 Industrial wastewater inspections**

Monitoring by Authority personnel will be composed of both announced and unannounced inspections and sampling. The frequency of monitoring may vary depending on circumstances as determined by the Authority. All industrial users will be inspected and sampled at least once per year. All inspections will be done in accordance with the guidelines set by the industrial pretreatment program in effect. Whenever facilities for preliminary treatment and handling of wastes shall have been provided by any owner, such facilities continuously shall be maintained, at the expense of the owner, in satisfactory operating condition; and this Authority shall have access to such facilities at reasonable times for purposes of inspection and testing.

### **6.5 Enforcement**

The Authority may take such actions as provided for by applicable law to enforce the provisions of the Industrial Pretreatment Program. Such actions include, but are not limited to the imposition of penalties of up to \$25,000.00 per day and seeking injunctive relief under the provisions of the Publicly Owned Treatment Works Penalty Law, 35 P.S. 752.1 *et seq.*

## **SECTION 7**

### **DEFINITIONS**

#### **7.1 Definitions**

Unless the context specifically and clearly indicates otherwise, the meaning of terms and phrases in this Resolution shall be as follows:

- a) Abandonment Permit – required when service is no longer to be provided. This is the only mechanism that will be used to either reduce EDU's or stop the billing process. Inspection is required for confirmation of completion.
- b) Authority - The University Area Joint Authority a Pennsylvania municipal authority, its officers, Board members, employees and agents.
- c) Equivalent Dwelling Unit – a unit of measurement that estimates an average use of wastewater facilities. Roughly the average amount of wastewater generated by a typical family in one day.
- d) Improved Property - a property upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals from which structure domestic and/or industrial wastes shall be or may be discharged.

e) Industrial User - an improved property used, in whole or in part, for manufacturing, processing, cleaning, laundering or assembling any product, commodity or article or from which any process waste, as distinct from domestic waste, shall be discharged.

f) Industrial Pretreatment Program -The enforcement of the provisions of the regulations and controls of Industrial Users to the extent required by the federal pretreatment regulations set forth in 40 C.F.R. Part 403 and including similar provisions in ordinances of the contributing Municipalities authorized to be administer by and enforced by this Authority.

g) Industrial Waste: - Any solid, liquid or gaseous substance, or form of energy, which is produced as a result, whether directly or indirectly, of any industrial, manufacturing, trade or business process or activity, or in the course of developing, recovering, or processing of natural resources and which is discharged into the wastewater collection system; but not non-contact cooling water or sanitary sewage. Any wastewater which contains industrial waste and which is discharged from an industrial, manufacturing, trade or business premises is considered industrial waste for the purpose of this Resolution.

h) Non-contact cooling water - the water from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

i) Non-residential - improved properties consisting of commercial, industrial, schools, professional offices, churches, institutions, etc.

j) Owner - any person vested with ownership, legal or equitable, sole or partial, of any improved property.

k) Private to Private Permit - A private to private permit is required when the connection of a detached or accessory use structure (ie: shed, shop, garage, out-building) to the primary use structure (residential) is desired. The definition of "detached" shall be described as a structure on the recorded building lot, with a separate use, that does not share either a common wall, or roof, or foundation with the primary use structure on that building lot. The private to private lateral shall be constructed following the same requirements for the primary building lateral and shall connect to that lateral at a place and in a manner which will allow future maintenance activity to be properly and efficiently conducted. Inspection prior to backfill is required.

l) Repair Permit - a repair permit is required anytime excavation is made to repair or relocate any existing sewer lateral piping anywhere on the property from the building to the property line. Inspection prior to backfill is required.

m) Wastewater - industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, together with any groundwater, surface water, and stormwater that may be present, whether treated or untreated, which enters the wastewater collection system.

n) Wastewater Collection System - all facilities, as of any particular time, for collecting, pumping, treating and disposing of domestic and/or industrial wastes, acquired, constructed, owned and operated by this Authority.

## SECTION 8

### Sewer Tapping Fee Calculations

#### Exhibit 1a - Summary of Capacity Part Calculations

##### CAPACITY PART

##### HISTORICAL TRENDED COSTS

Project Completion	Total		Trend		Trended		Capacity	
Year	Historical Cost	Grants	Net Cost	ENR Index	Factor	Cost	Cost	Cost
1967	\$ 244,931.00	\$ -	\$ 244,931.00	1074	10132	9.43	\$ 2,310,652.60	\$ 2,310,652.60
1968	\$ 1,508,256.00	\$ 251,600.00	\$ 1,256,656.00	1155	10132	8.77	\$ 11,023,756.36	\$ 11,023,756.36
1969	\$ 786,805.00	\$ 257,900.00	\$ 528,905.00	1269	10132	7.98	\$ 4,222,904.22	\$ 4,222,904.22
1970	\$ 6,509,489.21	\$ 886,266.42	\$ 5,623,222.79	1381	10132	7.34	\$ 41,255,969.09	\$ 41,255,969.09
1971	\$ 3,656.00	\$ -	\$ 3,656.00	1581	10132	6.41	\$ 23,429.85	\$ 23,429.85
1972	\$ 1,088.00	\$ -	\$ 1,088.00	1753	10132	5.78	\$ 6,288.43	\$ 6,288.43
1974	\$ 92,170.00	\$ -	\$ 92,170.00	2020	10132	5.02	\$ 462,310.12	\$ 462,310.12
1975	\$ 49,531.00	\$ -	\$ 49,531.00	2212	10132	4.58	\$ 226,875.27	\$ 226,875.27
1976	\$ 108,570.00	\$ -	\$ 108,570.00	2401	10132	4.22	\$ 458,155.45	\$ 458,155.45
1977	\$ 14,975.00	\$ -	\$ 14,975.00	2576	10132	3.93	\$ 58,900.12	\$ 58,900.12
1978	\$ 18,575.00	\$ -	\$ 18,575.00	2776	10132	3.65	\$ 67,796.07	\$ 67,796.07
1979	\$ 183,793.00	\$ -	\$ 183,793.00	3003	10132	3.37	\$ 620,110.12	\$ 620,110.12
1980	\$ 143,207.00	\$ -	\$ 143,207.00	3237	10132	3.13	\$ 448,246.32	\$ 448,246.32
1981	\$ 6,815.00	\$ -	\$ 6,815.00	3535	10132	2.87	\$ 19,533.12	\$ 19,533.12
1982	\$ 99.00	\$ -	\$ 99.00	3825	10132	2.65	\$ 262.24	\$ 262.24
1983	\$ 1,055.00	\$ -	\$ 1,055.00	4066	10132	2.49	\$ 2,628.94	\$ 2,628.94
1984	\$ 4,736.00	\$ -	\$ 4,736.00	4146	10132	2.44	\$ 11,573.84	\$ 11,573.84
1985	\$ 95,971.00	\$ -	\$ 95,971.00	4195	10132	2.42	\$ 231,794.56	\$ 231,794.56

1986	\$	169,656.00	\$	-	\$	169,656.00	4295	10132	2.36	\$	400,222.26	\$	400,222.26
1987	\$	232,802.00	\$	-	\$	232,802.00	4406	10132	2.30	\$	535,349.49	\$	535,349.49
1988	\$	736,093.00	\$	-	\$	736,093.00	4519	10132	2.24	\$	1,650,385.99	\$	1,650,385.99
1989	\$	981,229.00	\$	-	\$	981,229.00	4615	10132	2.20	\$	2,154,238.84	\$	2,154,238.84
1990	\$	8,091,034.00	\$	-	\$	8,091,034.00	4732	10132	2.14	\$	17,324,251.16	\$	17,324,251.16
1991	\$	18,019,993.00	\$	-	\$	18,019,993.00	4835	10132	2.10	\$	37,761,855.03	\$	37,761,855.03
1992	\$	5,933,112.00	\$	-	\$	5,933,112.00	4985	10132	2.03	\$	12,059,035.26	\$	12,059,035.26
1993	\$	1,117,936.00	\$	-	\$	1,117,936.00	5210	10132	1.94	\$	2,174,074.39	\$	2,174,074.39
1994	\$	456,565.00	\$	-	\$	456,565.00	5408	10132	1.87	\$	855,383.98	\$	855,383.98
1995	\$	411,257.00	\$	-	\$	411,257.00	5471	10132	1.85	\$	761,626.01	\$	761,626.01
1996	\$	106,350.00	\$	-	\$	106,350.00	5620	10132	1.80	\$	191,732.78	\$	191,732.78
1997	\$	296,887.00	\$	-	\$	296,887.00	5826	10132	1.74	\$	516,316.35	\$	516,316.35
1998	\$	1,631,664.00	\$	-	\$	1,631,664.00	5920	10132	1.71	\$	2,792,570.89	\$	2,792,570.89
1999	\$	1,714,730.00	\$	260,000.00	\$	1,454,730.00	6059	10132	1.67	\$	2,432,633.17	\$	2,432,633.17
2000	\$	2,752,597.00	\$	-	\$	2,752,597.00	6221	10132	1.63	\$	4,483,091.59	\$	4,483,091.59
2001	\$	3,609,790.00	\$	105,000.00	\$	3,504,790.00	6343	10132	1.60	\$	5,598,381.25	\$	5,598,381.25
2002	\$	12,444,054.00	\$	-	\$	12,444,054.00	6538	10132	1.55	\$	19,284,667.35	\$	19,284,667.35
2003	\$	16,854,836.00	\$	-	\$	16,854,836.00	6694	10132	1.51	\$	25,511,383.08	\$	25,511,383.08
2004	\$	16,266,860.13	\$	-	\$	16,266,860.13	7129	10132	1.42	\$	23,119,066.75	\$	23,119,066.75
2006	\$	62,320.00	\$	-	\$	62,320.00	7751	10132	1.31	\$	81,463.84	\$	81,463.84
2007	\$	1,858,303.00	\$	-	\$	1,858,303.00	7967	10132	1.27	\$	2,363,289.32	\$	2,363,289.32
2008	\$	5,395,900.20	\$	-	\$	5,395,900.20	8310	10132	1.22	\$	6,578,972.42	\$	6,578,972.42
2009	\$	77,500.00	\$	-	\$	77,500.00	8570	10132	1.18	\$	91,625.44	\$	91,625.44
2010	\$	68,140.00	\$	-	\$	68,140.00	8802	10132	1.15	\$	78,436.09	\$	78,436.09
2011	\$	396,061.86	\$	100,000.00	\$	296,061.86	9070	10132	1.12	\$	330,727.54	\$	330,727.54
2012	\$	1,638,099.00	\$	-	\$	1,638,099.00	9308	10132	1.09	\$	1,783,113.35	\$	1,783,113.35
2013	\$	236,875.00	\$	-	\$	236,875.00	9547	10132	1.06	\$	251,389.70	\$	251,389.70
2014	\$	205,871.84	\$	-	\$	205,871.84	9806	10132	1.03	\$	212,716.04	\$	212,716.04
2015	\$	7,528,858.00	\$	25,000.00	\$	7,503,858.00	10034	10132	1.01	\$	7,577,146.63	\$	7,577,146.63

<b>Total Historical &amp; Trended Cost</b>	\$ 119,069,096.24	\$ 1,885,766.42	\$ 117,183,329.82		\$ 240,406,332.70	\$ 240,406,332.70
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Total Capacity Costs (Historical)	\$ 240,406,332.70
<u>Less Outstanding Debt Related to Facilities</u>	<u>\$ 75,436,404.74</u>
<b>Total Trended Adjusted Cost</b>	<b>\$ 164,969,927.96</b>

**CAPACITY PART**

Capacity (Gallons Per Day) - (Equals UAJA max discharge) <sup>1</sup>	7,000,000
Cost per Gallon	\$23.57
Gallons per Residential User Maximum Capacity Part	90 GPD x 2.38=
Maximum Capacity Part	<b>\$5,044.00</b>

1) UAJA's WQM Permit provides for an AAF of 9.0 MGD, however UAJA's NPDES permit for Spring Creek only allows 6.0 MGD to be discharged. The NPDES permit for Beneficial Reuse/Wetland Discharge authorizes an additional discharge of 3.0 MGD however, the installed Beneficial Reuse Facilities are rated for 1.0 MGD. Therefore, the 2.00 MGD balance of capacity in the permit is only available with additional expense which is not included in the numerator of the equation therefore, the 2.00 MGD was not included as capacity in the denominator.

## Exhibit 1b - Summary of Collection Part Calculations

### COLLECTION PART

#### HISTORICAL TRENDED COSTS

<u>Project Completion Year</u>	<u>Total Historical Cost</u>	<u>Grants</u>	<u>Net Cost</u>	<u>ENR Index</u>	<u>Trend Factor</u>	<u>Trended Cost</u>	<u>Collection Cost</u>	
1970	\$ 6,151,546.89	\$ 807,531.05	\$ 5,344,015.84	1381	10132	7.34	\$ 39,207,507.97	\$ 39,207,507.97
1999	\$ 110,782.00	\$ -	\$ 110,782.00	6060	10132	1.67	\$ 185,221.65	\$ 185,221.65
2003	\$ 152,455.00	\$ -	\$ 152,455.00	6695	10132	1.51	\$ 230,720.55	\$ 230,720.55
2005	\$ 1,314,124.00	\$ 1,314,124.00	\$ -	7446	10132	1.36	\$ -	\$ -
2006	\$ 1,402,896.00	\$ 1,402,896.00	\$ -	7751	10132	1.31	\$ -	\$ -
2007	\$ 785,055.00	\$ 785,055.00	\$ -	7967	10132	1.27	\$ -	\$ -
2008	\$ 522,182.45	\$ 504,192.45	\$ 17,990.00	8310	10132	1.22	\$ 21,934.38	\$ 21,934.38
2009	\$ 1,157,316.39	\$ 1,157,316.39	\$ -	8570	10132	1.18	\$ -	\$ -
2010	\$ 990,316.00	\$ 990,316.00	\$ -	8802	10132	1.15	\$ -	\$ -
2011	\$ 108,562.44	\$ 108,562.44	\$ -	9070	10132	1.12	\$ -	\$ -
2012	\$ 676,520.00	\$ 676,520.00	\$ -	9308	10132	1.09	\$ -	\$ -
2013	\$ 2,640,435.00	\$ 2,640,435.00	\$ -	9547	10132	1.06	\$ -	\$ -
2014	\$ 1,124,344.68	\$ 1,124,344.68	\$ -	9806	10132	1.03	\$ -	\$ -
2015	\$ 62,741.00	\$ -	\$ 62,741.00	10034	10132	1.01	\$ 63,353.78	\$ 63,353.78
<i>Total Historical &amp; Trended Cost</i>	\$ 17,136,535.85	\$ 11,511,293.01	\$ 5,625,242.84				\$ 39,645,384.54	\$ 39,645,384.54

#### REPLACEMENT COSTS

<u>Description</u>	<u>Total Replacement Cost *</u>	<u>Grants</u>	<u>Net Cost</u>	<u>ENR Index</u>	<u>Trend Factor</u>	<u>Trended Cost</u>	<u>Collection Cost</u>	
Sewer Collection Syste	\$ 120,830,416.98	\$ 113,851,579.53	\$ 6,978,837.45	NA	NA	NA	\$ 6,978,837.45	\$ 6,978,837.45
<i>Total Replacement Cos</i>	\$ 120,830,416.98	\$ 113,851,579.53	\$ 6,978,837.45				\$ 6,978,837.45	\$ 6,978,837.45

Total Collection Costs (Historical and Replacement)	\$ 46,624,221.99
<u>Less Outstanding Debt Related to Facilities</u>	<u>\$ 2,671,296.60</u>
<b>Total Trended Adjusted Cost</b>	<b>\$ 43,952,925.39</b>

#### **COLLECTION PART**

Capacity (Gallons Per Day) - (Equals UAJA max discharge) <sup>1</sup>	7,000,000
Cost per Gallon	\$6.28
Gallons per Residential User Maximum Capacity Part	90 GPD x 2.38=
Maximum Collection Part	<b>\$1,344.00</b>

**TOTAL MAXIMUM TAPPING FEE - CAPACITY AND COLLECTION PARTS, HYDRAULIC CAPACITY (PER HOUSEHOLD) **\$6,388.00****

*\* Replacement cost is based on engineer's estimate and comprehensive report by Industrial Appraisal Company dated May 1, 2015; historical is not ascertainable*

1) UAJA's WQM Permit provides for an AAF of 9.0 MGD, however UAJA's NPDES permit for Spring Creek only allows 6.0 MGD to be discharged. The NPDES permit for Beneficial Reuse/Wetland Discharge authorizes an additional discharge of 3.0 MGD however, the installed Beneficial Reuse Facilities are rated for 1.0 MGD. Therefore, the 2.00 MGD balance of capacity in the permit is only available with additional expense which is not included in the numerator of the equation therefore, the 2.00 MGD was not included as capacity in the denominator.

## Exhibit 2a - Detailed Historical Cost Breakdown - Capacity

### HISTORICAL TRENDED COSTS

Project Completion Year	Total Historical Cost	Grants	Net Cost	ENR Index	Trend Factor	Trended Cost	Capacity Cost
<b>CAPACITY</b>							
1967	\$ 244,931.00	\$ -	\$ 244,931.00	1074	10132	\$ 2,310,652.60	\$ 2,310,652.60
1968	\$ 1,508,256.00	\$ 251,600.00	\$ 1,256,656.00	1155	10132	\$ 11,023,756.36	\$ 11,023,756.36
1969	\$ 786,805.00	\$ 257,900.00	\$ 528,905.00	1269	10132	\$ 4,222,904.22	\$ 4,222,904.22
1970	\$ 6,509,489.21	\$ 886,266.42	\$ 5,623,222.79	1381	10132	\$ 41,255,969.09	\$ 41,255,969.09
1971	\$ 3,656.00	\$ -	\$ 3,656.00	1581	10132	\$ 23,429.85	\$ 23,429.85
1972	\$ 1,088.00	\$ -	\$ 1,088.00	1753	10132	\$ 6,288.43	\$ 6,288.43
1974	\$ 92,170.00	\$ -	\$ 92,170.00	2020	10132	\$ 462,310.12	\$ 462,310.12
1975	\$ 49,531.00	\$ -	\$ 49,531.00	2212	10132	\$ 226,875.27	\$ 226,875.27
1976	\$ 108,570.00	\$ -	\$ 108,570.00	2401	10132	\$ 458,155.45	\$ 458,155.45
1977	\$ 14,975.00	\$ -	\$ 14,975.00	2576	10132	\$ 58,900.12	\$ 58,900.12
1978	\$ 18,575.00	\$ -	\$ 18,575.00	2776	10132	\$ 67,796.07	\$ 67,796.07
1979	\$ 183,793.00	\$ -	\$ 183,793.00	3003	10132	\$ 620,110.12	\$ 620,110.12
1980	\$ 143,207.00	\$ -	\$ 143,207.00	3237	10132	\$ 448,246.32	\$ 448,246.32
1981	\$ 6,815.00	\$ -	\$ 6,815.00	3535	10132	\$ 19,533.12	\$ 19,533.12
1982	\$ 99.00	\$ -	\$ 99.00	3825	10132	\$ 262.24	\$ 262.24
1983	\$ 1,055.00	\$ -	\$ 1,055.00	4066	10132	\$ 2,628.94	\$ 2,628.94
1984	\$ 4,736.00	\$ -	\$ 4,736.00	4146	10132	\$ 11,573.84	\$ 11,573.84
1985	\$ 95,971.00	\$ -	\$ 95,971.00	4195	10132	\$ 231,794.56	\$ 231,794.56
1986	\$ 169,656.00	\$ -	\$ 169,656.00	4295	10132	\$ 400,222.26	\$ 400,222.26
1987	\$ 232,802.00	\$ -	\$ 232,802.00	4406	10132	\$ 535,349.49	\$ 535,349.49
1988	\$ 736,093.00	\$ -	\$ 736,093.00	4519	10132	\$ 1,650,385.99	\$ 1,650,385.99
1989	\$ 981,229.00	\$ -	\$ 981,229.00	4615	10132	\$ 2,154,238.84	\$ 2,154,238.84
1990	\$ 8,091,034.00	\$ -	\$ 8,091,034.00	4732	10132	\$ 17,324,251.16	\$ 17,324,251.16
1991	\$ 18,019,993.00	\$ -	\$ 18,019,993.00	4835	10132	\$ 37,761,855.03	\$ 37,761,855.03
1992	\$ 5,933,112.00	\$ -	\$ 5,933,112.00	4985	10132	\$ 12,059,035.26	\$ 12,059,035.26
1993	\$ 1,117,936.00	\$ -	\$ 1,117,936.00	5210	10132	\$ 2,174,074.39	\$ 2,174,074.39
1994	\$ 456,565.00	\$ -	\$ 456,565.00	5408	10132	\$ 855,383.98	\$ 855,383.98
1995	\$ 411,257.00	\$ -	\$ 411,257.00	5471	10132	\$ 761,626.01	\$ 761,626.01
1996	\$ 106,350.00	\$ -	\$ 106,350.00	5620	10132	\$ 191,732.78	\$ 191,732.78
1997	\$ 296,887.00	\$ -	\$ 296,887.00	5826	10132	\$ 516,316.35	\$ 516,316.35
1998	\$ 1,631,664.00	\$ -	\$ 1,631,664.00	5920	10132	\$ 2,792,570.89	\$ 2,792,570.89
1999	\$ 1,714,730.00	\$ 260,000.00	\$ 1,454,730.00	6059	10132	\$ 2,432,633.17	\$ 2,432,633.17
2000	\$ 2,752,597.00	\$ -	\$ 2,752,597.00	6221	10132	\$ 4,483,091.59	\$ 4,483,091.59
2001	\$ 3,609,790.00	\$ 105,000.00	\$ 3,504,790.00	6343	10132	\$ 5,598,381.25	\$ 5,598,381.25
2002	\$ 12,444,054.00	\$ -	\$ 12,444,054.00	6538	10132	\$ 19,284,667.35	\$ 19,284,667.35
2003	\$ 16,854,836.00	\$ -	\$ 16,854,836.00	6694	10132	\$ 25,511,383.08	\$ 25,511,383.08
2004	\$ 16,266,860.13	\$ -	\$ 16,266,860.13	7129	10132	\$ 23,119,066.75	\$ 23,119,066.75
2006	\$ 62,320.00	\$ -	\$ 62,320.00	7751	10132	\$ 81,463.84	\$ 81,463.84
2007	\$ 1,858,303.00	\$ -	\$ 1,858,303.00	7967	10132	\$ 2,363,289.32	\$ 2,363,289.32
2008	\$ 5,395,900.20	\$ -	\$ 5,395,900.20	8310	10132	\$ 6,578,972.42	\$ 6,578,972.42
2009	\$ 77,500.00	\$ -	\$ 77,500.00	8570	10132	\$ 91,625.44	\$ 91,625.44
2010	\$ 68,140.00	\$ -	\$ 68,140.00	8802	10132	\$ 78,436.09	\$ 78,436.09
2011	\$ 396,061.86	\$ 100,000.00	\$ 296,061.86	9070	10132	\$ 330,727.54	\$ 330,727.54
2012	\$ 1,638,099.00	\$ -	\$ 1,638,099.00	9308	10132	\$ 1,783,113.35	\$ 1,783,113.35
2013	\$ 236,875.00	\$ -	\$ 236,875.00	9547	10132	\$ 251,389.70	\$ 251,389.70
2014	\$ 205,871.84	\$ -	\$ 205,871.84	9806	10132	\$ 212,716.04	\$ 212,716.04
2015	\$ 7,528,858.00	\$ 25,000.00	\$ 7,503,858.00	10034	10132	\$ 7,577,146.63	\$ 7,577,146.63
<i>Total Historical &amp; Trended Cost</i>	\$ 119,069,096.24	\$ 1,885,766.42	\$ 117,183,329.82			\$ 240,406,332.70	\$ 240,406,332.70

Exhibit 2b - Detailed Historical/Replacement Cost Breakdown - Collection

**HISTORICAL TRENDED COSTS**

Project Completion Year	Total Historical Cost	Grants	Net Cost	ENR Index	Trend Factor	Trended Cost	Collection Cost
<b>COLLECTION</b>							
1970	\$ 6,151,546.89	\$ 807,531.05	\$ 5,344,015.84	1381	10132	\$ 39,207,507.97	\$ 39,207,507.97
1999	\$ 110,782.00	\$ -	\$ 110,782.00	6060	10132	\$ 185,221.65	\$ 185,221.65
2003	\$ 152,455.00	\$ -	\$ 152,455.00	6695	10132	\$ 230,720.55	\$ 230,720.55
2005	\$ 1,314,124.00	\$ 1,314,124.00	\$ -	7446	10132	\$ -	\$ -
2006	\$ 1,402,896.00	\$ 1,402,896.00	\$ -	7751	10132	\$ -	\$ -
2007 <sup>1</sup>	\$ 785,055.00	\$ 785,055.00	\$ -	7967	10132	\$ -	\$ -
2008 <sup>1</sup>	\$ 522,182.45	\$ 504,192.45	\$ 17,990.00	8310	10132	\$ 21,934.38	\$ 21,934.38
2009	\$ 1,157,316.39	\$ 1,157,316.39	\$ -	8570	10132	\$ -	\$ -
2010	\$ 990,316.00	\$ 990,316.00	\$ -	8802	10132	\$ -	\$ -
2011	\$ 108,562.44	\$ 108,562.44	\$ -	9070	10132	\$ -	\$ -
2012	\$ 676,520.00	\$ 676,520.00	\$ -	9308	10132	\$ -	\$ -
2013 <sup>1</sup>	\$ 2,640,435.00	\$ 2,640,435.00	\$ -	9547	10132	\$ -	\$ -
2014 <sup>1</sup>	\$ 1,124,344.68	\$ 1,124,344.68	\$ -	9806	10132	\$ -	\$ -
2015	\$ 62,741.00	\$ -	\$ 62,741.00	10034	10132	\$ 63,353.78	\$ 63,353.78
<i>Total Historical &amp; Trended Cost</i>	\$ 17,199,276.85	\$ 11,511,293.01	\$ 5,687,983.84			\$ 39,708,738.32	\$ 39,708,738.32

TOTAL HISTORICAL COSTS (ROUNDED) \$ **39,708,738.32**

**REPLACEMENT COSTS**

Project Completion Year	Project Description	Units	Cost/Unit	Total Replacement Cost	Grants/Contributed Facilities/Assessments	Collection Replacement Cost
<b>COLLECTION</b>						
1970	North Meter Pit	Building and Structures	1	\$ 35,600.84	\$ 35,600.84	\$ -
1970	South Meter Pit	Building and Structures	1	\$ 35,600.84	\$ 35,600.84	\$ -
1970	Land <sup>2</sup>	Land - Maylie	1	\$ 491,291.64	\$ 491,291.64	\$ 122,822.91
1972	Land <sup>2</sup>	Land - ROW	1	\$ 186,277.85	\$ 186,277.85	\$ 46,569.46
1974	Harris Drive	Pumps and Controls	180 gpm	\$ 206,484.89	\$ 206,484.89	\$ -
1974	Harris Drive	Wetwell and Structures	1	\$ 299,047.08	\$ 299,047.08	\$ -
1974	Outer Drive	Pumps and Controls	180 gpm	\$ 206,484.89	\$ 206,484.89	\$ -
1974	Outer Drive	Wetwell and Structures	1	\$ 299,047.08	\$ 299,047.08	\$ -
1974	Kaywood	Pumps and Controls	180 gpm	\$ 206,484.89	\$ 206,484.89	\$ -
1974	Kaywood	Wetwell and Structures	1	\$ 299,047.08	\$ 299,047.08	\$ -
1979	Whitehall Road	Pumps and Controls	60 gpm	\$ 149,523.54	\$ 149,523.54	\$ -
1979	Whitehall Road	Wetwell and Structures	1	\$ 242,085.73	\$ 242,085.73	\$ -
1980	Gravity Sewer	Four Foot Diameter Brick or Concrete	5386	\$ 4,200.00	\$ 22,621,200.00	\$ 21,782,577.57
1980	Gravity Sewer	Five Foot Diameter Concrete	50	\$ 5,000.00	\$ 250,000.00	\$ 187,500.00
1980	Gravity Sewer	Air Release Manholes	45	\$ 4,000.00	\$ 180,000.00	\$ 135,000.00
1980	Gravity Sewer	8" Diameter Gravity Sewer	780344	\$ 100.00	\$ 78,034,400.00	\$ 78,034,400.00
1980	Gravity Sewer	10" Diameter Gravity Sewer	17002	\$ 105.00	\$ 1,785,210.00	\$ -
1980	Gravity Sewer	12" Diameter Gravity Sewer	13041	\$ 110.00	\$ 1,434,510.00	\$ -
1980	Forcemain	1.5" Diameter Forcemain <sup>1</sup>	375	\$ 39.00	\$ 14,625.00	\$ 10,968.75
1980	Forcemain	2" Diameter Forcemain <sup>1</sup>	414	\$ 39.00	\$ 16,146.00	\$ 12,109.50
1980	Forcemain	3" Diameter Forcemain <sup>1</sup>	4120	\$ 42.00	\$ 173,040.00	\$ 129,780.00
1980	Land <sup>2</sup>	Pump Station/Meter Pit Sites	1	\$ 1,246,029.52	\$ 1,246,029.52	\$ 934,522.14
1980	Land <sup>2</sup>	Forcemain and Gravity Sewer Easements	1	\$ 6,764,160.22	\$ 6,764,160.22	\$ 5,073,120.17
1986	North Meter Pit	Metering Equipment	1	\$ 242,085.73	\$ 242,085.73	\$ -
1986	South Meter Pit	Metering Equipment	1	\$ 242,085.73	\$ 242,085.73	\$ -
1986	Haymarket	Pumps and Controls	83 gpm	\$ 156,643.71	\$ 156,643.71	\$ -
1986	Haymarket	Wetwell and Structures	1	\$ 256,326.07	\$ 256,326.07	\$ -
1988	Persia	Pumps and Controls	69 gpm	\$ 156,643.71	\$ 156,643.71	\$ -
1988	Persia	Wetwell and Structures	1	\$ 256,326.07	\$ 256,326.07	\$ -
1988	Scenery Park	Pumps and Controls	68 gpm	\$ 156,643.71	\$ 156,643.71	\$ -
1988	Scenery Park	Wetwell and Structures	1	\$ 256,326.07	\$ 256,326.07	\$ -
1990	Piney Ridge	Pumps and Controls	174 gpm	\$ 206,484.89	\$ 206,484.89	\$ -
1990	Piney Ridge	Wetwell and Structures	1	\$ 299,047.08	\$ 299,047.08	\$ -
1990	Piney Ridge	Generator	1	\$ 42,721.01	\$ 42,721.01	\$ -
1991	Aspen Heights	Pumps and Controls	111 gpm	\$ 170,884.05	\$ 170,884.05	\$ -
1991	Aspen Heights	Wetwell and Structures	1	\$ 249,205.90	\$ 249,205.90	\$ -
1992	St. Ives Place	Pumps and Controls	90 gpm	\$ 163,763.88	\$ 163,763.88	\$ -
1992	St. Ives Place	Wetwell and Structures	1	\$ 270,566.41	\$ 270,566.41	\$ -
1994	Land <sup>2</sup>	Land - ROW	1	\$ 30,349.01	\$ 30,349.01	\$ 22,761.76
1995	Graysdale 2A	Pumps and Controls	76 gpm	\$ 156,643.71	\$ 156,643.71	\$ -
1995	Graysdale 2A	Wetwell and Structures	1	\$ 256,326.07	\$ 256,326.07	\$ -
1999	Graysdale 2B	Pumps and Controls	76 gpm	\$ 156,643.71	\$ 156,643.71	\$ -
1999	Graysdale 2B	Wetwell and Structures	1	\$ 256,326.07	\$ 256,326.07	\$ -
1999	Graysdale 2B	Generator	1	\$ 35,600.84	\$ 35,600.84	\$ -
1999	Fox Hill Road	Pumps and Controls	167 gpm	\$ 199,364.72	\$ 199,364.72	\$ -
1999	Fox Hill Road	Wetwell and Structures	1	\$ 284,806.75	\$ 284,806.75	\$ -
1999	Fox Hill Road	Generator	1	\$ 49,841.18	\$ 49,841.18	\$ -
2003	Cluster's Meter Pit	Building and Structures	1	\$ 58,385.38	\$ 58,385.38	\$ 58,385.38
2004	Marywood	Pumps and Controls (146 gpm)	1	\$ 185,124.39	\$ 185,124.39	\$ -
2004	Marywood	Wetwell and Structures	1	\$ 270,566.41	\$ 270,566.41	\$ -
2004	Marywood	Generator	1	\$ 42,721.01	\$ 42,721.01	\$ -
2013	Land <sup>2</sup>	Land - Top of Hill	1	\$ 28,715.64	\$ 28,715.64	\$ 21,536.73
<i>Total Replacement Cost</i>				\$ 120,313,466.05	\$ 113,851,579.53	\$ 6,461,886.53

SUBTOTAL REPLACEMENT COSTS (ROUNDED) \$ **6,461,886.53**

Engineering, Permitting, Bidding, & Construction Administration (6%) \$ 387,713.19

Legal and Financing Costs (2.0%) \$ 129,237.73

TOTAL REPLACEMENT COSTS \$ **6,978,837.45**

TOTAL COSTS (HISTORICAL + REPLACEMENT) \$ **46,687,575.77**

1) Total value of projects completed has been reduced to account for projects assessed via a Special Purpose Fee.

2) Land values obtained from comprehensive report by Industrial Appraisal Company dated May 1, 2015 and has been adjusted by the same formula used for other components. HRG does not certify land values.

Exhibit 3 - Summary of Outstanding Debt Related to Facilities

Due Date	10A Principle	10A Interest	2011A Principle	2011A Interest	2012 Principle	2012 Interest	2014 Principle	2014 Interest	2015 Principle	2015 Interest	Emmaus Prin.	Emmaus Int.	Total Debt Service Due
Mar-16	\$2,500	\$114,265	\$170,000	\$82,299	\$1,317,500	\$232,200	\$795,000	\$662,060		\$153,660	\$75,000	\$18,977	\$3,623,460
Sep-16	\$2,500	\$114,265	\$170,000	\$82,299	\$1,317,500	\$232,200	\$795,000	\$662,060		\$153,660			\$3,529,483
Mar-17	\$2,500	\$114,213	\$187,500	\$78,899	\$1,387,500	\$179,500	\$807,500	\$623,979		\$153,660	\$80,000	\$15,515	\$3,630,765
Sep-17	\$2,500	\$114,213	\$187,500	\$78,899	\$1,387,500	\$179,500	\$807,500	\$623,979		\$153,660			\$3,535,250
Mar-18	\$2,500	\$114,154	\$200,000	\$75,149	\$1,422,500	\$151,750	\$827,500	\$584,815		\$153,660	\$80,000	\$12,035	\$3,624,063
Sep-18	\$2,500	\$114,154	\$200,000	\$75,149	\$1,422,500	\$151,750	\$827,500	\$584,815		\$153,660			\$3,532,028
Mar-19	\$15,000	\$114,089	\$215,000	\$70,449	\$1,512,500	\$80,625	\$827,500	\$544,268		\$153,660	\$85,000	\$8,356	\$3,626,446
Sep-19	\$15,000	\$114,089	\$215,000	\$70,449	\$1,512,500	\$80,625	\$827,500	\$544,268		\$153,660			\$3,533,090
Mar-20	\$20,000	\$113,661	\$227,500	\$64,806	\$250,000	\$5,000	\$1,225,000	\$503,720		\$153,660	\$90,000	\$4,459	\$2,657,805
Sep-20	\$20,000	\$113,661	\$227,500	\$64,806	\$250,000	\$5,000	\$1,225,000	\$503,720		\$153,660			\$2,563,346
Mar-21	\$172,500	\$113,061	\$245,000	\$58,322			\$1,285,000	\$443,695	\$205,000	\$153,660	\$95,000	\$344	\$2,771,582
Sep-21	\$172,500	\$113,061	\$245,000	\$58,322			\$1,285,000	\$443,695	\$205,000	\$153,660			\$2,676,238
Mar-22	\$215,000	\$107,541	\$260,000	\$50,972			\$1,350,000	\$380,730	\$302,500	\$144,947			\$2,811,690
Sep-22	\$215,000	\$107,541	\$260,000	\$50,972			\$1,350,000	\$380,730	\$302,500	\$144,947			\$2,811,690
Mar-23	\$212,500	\$100,339	\$280,000	\$42,847			\$1,415,000	\$314,580	\$312,500	\$132,847			\$2,810,613
Sep-23	\$212,500	\$100,339	\$280,000	\$42,847			\$1,415,000	\$314,580	\$312,500	\$132,847			\$2,810,613
Mar-24	\$207,500	\$93,008	\$297,500	\$33,747			\$1,490,000	\$245,245	\$325,000	\$120,347			\$2,812,346
Sep-24	\$207,500	\$93,008	\$297,500	\$33,747			\$1,490,000	\$245,245	\$325,000	\$120,347			\$2,812,346
Mar-25	\$207,500	\$85,641	\$320,000	\$23,706			\$1,557,500	\$172,235	\$332,500	\$112,628			\$2,811,711
Sep-25	\$207,500	\$85,641	\$320,000	\$23,706			\$1,557,500	\$172,235	\$332,500	\$112,628			\$2,811,711
Mar-26	\$200,000	\$78,171	\$345,000	\$12,506			\$1,635,000	\$95,918	\$342,500	\$104,316			\$2,813,411
Sep-26	\$200,000	\$78,171	\$345,000	\$12,506			\$1,635,000	\$95,918	\$342,500	\$104,316			\$2,813,411
Mar-27	\$907,500	\$70,771					\$157,500	\$15,803	\$1,565,000	\$95,325			\$2,811,899
Sep-27	\$907,500	\$70,771					\$157,500	\$15,803	\$1,565,000	\$95,325			\$2,811,899
Mar-28	\$942,500	\$36,286					\$165,000	\$8,085	\$1,612,500	\$48,375			\$2,812,746
Sep-28	\$942,500	\$36,286					\$165,000	\$8,085	\$1,612,500	\$48,375			\$2,812,746
<b>TOTAL</b>	<b>\$6,215,000</b>	<b>\$2,510,400</b>	<b>\$5,495,000</b>	<b>\$1,187,406</b>	<b>\$11,780,000</b>	<b>\$1,298,150</b>	<b>\$27,075,000</b>	<b>\$9,190,262</b>	<b>\$9,995,000</b>	<b>\$3,361,483</b>	<b>\$505,000</b>	<b>\$59,686</b>	<b>\$78,672,387</b>
Percent Capacity	100%	100%	100%	100%	100%	100%	100%	100%	80%	80%	0%	0%	
Total Capacity	\$6,215,000	\$2,510,400	\$5,495,000	\$1,187,406	\$11,780,000	\$1,298,150	\$27,075,000	\$9,190,262	\$7,996,000	\$2,689,186	\$0	\$0	<b>\$75,436,405</b>
Percent Collection	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	0%	0%	
Total Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,999,000	\$672,297	\$0	\$0	<b>\$2,671,297</b>
Percent Special Purpose	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	
Total Special Purpose	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$505,000	\$59,686	<b>\$564,686.00</b>



## Exhibit 4 - Derivation of Organic Based Tapping Fee Charge

### A. Determination of Conversion Factor Based Upon Historic UAJA Loadings

<b>Avg. Historic BOD Loading (Years 2010 - 2014)</b> (Per Chapter 94 Report)	<b>0.38 lb/day/EDU</b>
	<b>2.63 EDUs/1 lb BOD</b>

### B. Verification of Above Conversion Factor Based Upon Industry Standards

BOD = 0.17 lb/day/capita	(Per DEP Domestic Wastewater Facilities Manual)
Capita per Household = 2.38	(Census Data - Centre County)

<b>Lbs/day/EDU = 0.17 lb/day/cap * 2.38 people per household =</b>	<b>0.40 lb/day/EDU</b>
	<b>2.47 EDUs/1 lb BOD</b>

*(UAJA historic loading data appears appropriate when compared to standard industry approximations. With the consideration given to water saving appliances, UAJA's wastewater stream has a slightly higher concentration than predicted by the standard model.)*

### C. Verification Based Upon Capacity of AWTF

UAJA Influent BOD Loading Capacity Per Day =	38,801 lb.
UAJA Permitted Capacity =	9,000,000 gpd
Gallons/ lb. BOD =	231.95
Gallons per Residential User (EDU) 90 * 2.38 =	214
No. of EDUs in 1lb. BOD =	<b>1.08 EDUs/1 lb BOD</b>
No. of lb. BOD/ EDU =	<b>0.92 lb/day/EDU</b>

*Facilities have been installed and permitted to handle historic BOD loadings shown above.*

### Determination of Organic Tapping Fee Charge

Organic Loading per EDU = 2.63 EDUs/1 lb BOD

<b>Max Tapping Fee/EDU - Capacity Part =</b>	<b>\$5,044.00 *2.63 EDUs/lb.</b>
<b>Capacity Part : Cost per Pound BOD<sub>5</sub> (non-residential) =</b>	<b>\$ 13,273.68 /lb</b>
<b>Max Tapping Fee/EDU - Collection Part =</b>	<b>\$1,344.00 *2.63 EDUs/lb.</b>
<b>Collection Part : Cost per Pound BOD<sub>5</sub> (non-residential) =</b>	<b>\$ 3,536.84 /lb</b>
<b>Total Residential Tapping Fee =</b>	<b>\$ 16,810.53 /lb</b>