

Ordinance No. 02-2010

An ordinance establishing a user charge system in Public Water Supply District #13 of Jefferson County, Missouri, to provide funds needed to pay for all expenses associated with the District's wastewater treatment works.

Whereas, PWSD #13 has constructed wastewater treatment works; and

Whereas, PWSD #13 must pay all expenses associated with said treatment works and charge the users of said treatment works accordingly;

NOW, THEREFORE, BE IT ORDAINED BY THE Board of Directors of PWSD #13 that the following user charge system be established:

Article I

It is determined and declared to be necessary and conducive to the protection of the public health, safety, welfare, and convenience of PWSD #13 to collect charges from all users who contribute wastewater to PWSD #13's treatment works. The proceeds of such charges so derived will be used for the purpose of operating, maintaining, and retiring the debt for such public wastewater treatment works.

Article II

Unless the context specifically indicates otherwise, the meaning of terms used in this ordinance shall be as follows:

Section 1: "Applicant" shall mean any individual, firm, partnership, corporation, or other agency owning land within the boundaries of PWSD #13 applying for sewer service.

Section 2: "Board" shall mean the Board of Directors of PWSD #13 of Jefferson County, Missouri.

Section 3: "BOD" (denoting Biochemical Oxygen-Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at 20° C, expressed in milligrams per liter.

Section 4: "Building Drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building wall.

Section 5: "Building Sewer" shall mean the extension from the building drain to the public sewer or other place of disposal.

Section 6: "Combined Sewer" shall mean a sewer receiving both surface runoff and sewage.

Section 7: "Collector Sewer" shall mean a pipeline that is owned and maintained by the District, located on public property or on private easements, and used to transport sewage wastes to a central point for treatment and disposal.

Section 8: "Customer" shall mean any person, firm, corporation, partner, or governmental body who has contracted with the District for service or is receiving sewer service from the District, or whose facilities are connected for utilizing such service.

Section 9: "Customers Service Lateral" shall mean a pipe with appurtenances installed, owned, and maintained by the customer, used to convey sewage from the customer's residence to the collector sewer.

Section 10: "District" shall mean PWS #13 of Jefferson County, Missouri.

Section 11: "Garbage" shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage and sale of produce.

Section 12: "Industrial Wastes" shall mean the liquid wastes from industrial manufacturing processes, trade or business as distinct from sanitary sewage.

Section 13: "Inspector" shall mean the person or persons duly authorized by the Board of Directors of PWS #13 to inspect and approve the installation of service lines and their connection to the public sewer system.

Section 14: "Multiple Unit Residential Structures" shall mean any apartment, condominium, duplex, or other structure that is built to accommodate more than one family in separate facilities or is occupied by more than one family in separate facilities.

Section 15: "Natural Outlet" shall mean any outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.

Section 16: "Normal Domestic Wastewater" shall mean wastewater that has a BOD concentration of not more than 250 mg/l and a suspended solids concentration of not more than 300 mg/l.

Section 17: "Operation and Maintenance" shall mean all expenditures during the useful life of the treatment works for materials, labor, utilities, and other items which are necessary for managing and maintaining the sewage works to achieve the capacity and performance for which such works were designed and constructed.

Section 18: "Person" shall mean any individual, firm, company, association, society, corporation, or group.

Section 19: "pH" shall mean the measure of acidity or alkalinity in which the pH of pure water is 7, with lower numbers indicating acidity and higher numbers indicating alkalinity.

Section 20: "Properly Shredded Garbage" shall mean the wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (1/2) inch (1.27 centimeters) in any dimension.

Section 21: "Public Sewer" shall mean a sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.

Section 22: "PWSD #13" shall mean Public Water Supply District #13 of Jefferson County, Missouri.

Section 23: "Replacement" shall mean expenditures for obtaining and installing equipment, accessories, or appurtenances which are necessary during the useful life of the treatment works to maintain the capacity and performance for which such works were designed and constructed. The term "operation and maintenance" includes replacement.

Section 24: "Residences" shall mean a house, trailer, mobile home, or other structure that is occupied as a residence by a single family

Section 25: "Residential Contributor" shall mean any contributor to PWSD #13's treatment works whose lot, parcel of real estate, or building is used for domestic dwelling purposes only.

Section 26: "Sanitary Sewer" shall mean a sewer which carries sewage and to which storm, surface, and ground waters are not intentionally admitted.

Section 27: "Septic Tank" shall mean a watertight pretreatment receptacle receiving the discharge of sewage from a service line or sewers, designed and constructed to permit separation of settleable and floating solids from the liquid, provide adequate detention and anaerobic digestion of the organic matter, prior to discharge of the liquid.

Section 28: "Service Connection" shall mean the point at which the customer's service lateral is connected to the District's collector sewer.

Section 29: "Service Line" shall mean the extension from the building drain to the public sewer or other place of disposal.

Section 30: "Sewage" shall mean a combination of the water-carried wastes from residences, business buildings, institutions, and industrial establishments, together with such ground, surface, and storm waters as may be present.

Section 31: "Sewage Treatment Plant" shall mean any arrangement of devices and structures used for treating sewage.

Section 32: "Sewage Works" shall mean all facilities for collection, pumping, treating and disposing of sewage.

Section 33: "Sewer Line" or "sewer" shall mean a pipe or conduit for carrying sewage.

Section 34: "Shall" is mandatory; "May" is permissive

Section 35: "Slug" shall mean any discharge of water, sewage, or industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15)

minutes more than five (5) times the average twenty-four (24) hour concentration or flows during normal operation.

Section 36: "STEP System" (Septic Tank Effluent Pump) is a type of sewer system where partially treated effluent from a septic tank must be pumped to the final treatment rather than conventional gravity flow.

Section 37: "Storm Drain" (sometimes termed "storm sewer") shall mean a sewer which carries storm and surface waters and drainage, and unpolluted cooling water, but excludes sewage and industrial wastes.

Section 38: "Superintendent" shall mean the Superintendent of the sewer works of PWSD #13 of Jefferson County, Missouri, or his authorized deputy, agent or representative.

Section 39: "Suspended Solids: shall mean solids that either float on the surface of, or are in suspension in water, sewage, or other liquids, and which are removable by laboratory filtering.

Section 40: "Treatment Works" shall mean any devices and systems for the storage, treatment, recycling, and reclamation of municipal sewage, domestic sewage, or liquid industrial wastes. These include interceptor sewers, outfall sewers, sewage collection systems, individual systems, pumping, power, and other equipment and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment; or any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste or industrial waste, including waste in combined storm water and sanitary sewer systems.

Section 41: "Useful Life" shall mean the estimated period during which the treatment works will be operated.

Section 42: "User Charge" shall mean that portion of the total wastewater service charge which is levied in a proportional and adequate manner for the cost of operation, maintenance, and replacement of the wastewater treatment works.

Section 43: "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.

Article III

Section 1: The user charge system shall generate adequate annual revenues to pay the costs of annual operation and maintenance including replacement and cost associated with debt retirement of bonded capital associated with financing the treatment works which PWSD #13 may by ordinance designate to be paid by the user charge system. That portion of the total user charge which is designated for operation and maintenance including replacement of the treatment works shall be established by this ordinance.

Section 2: That portion of the total user charge collected which is designated for the operation and

maintenance including replacement purposes as established in Article IV, shall be deposited in a separate non-lapsing fund known as the Operation, Maintenance, and Replacement Fund and will be kept in two primary accounts as follows:

- a. The Operation and Maintenance Account shall be an account designated for the specific purpose of defraying operation and maintenance costs excluding replacement of the treatment works. Deposits in the Operation and Maintenance Account shall be made annually from the operation and maintenance revenue in the amount of \$ 52,032 annually.
- b. The Replacement Account shall be an account designated for the purpose of ensuring replacement needs over the useful life of the treatment works. Deposits in the Replacement Account shall be made annually from the replacement revenue in the amount of \$ 16,560 annually.

Section 3: Fiscal year-end balances in the Operation and Maintenance Account and the Replacement Account shall be carried over to the same accounts in each subsequent fiscal year, and shall be used for no other purposes than those designated for these accounts. Monies which have been transferred from other sources to meet temporary shortages in the Operation, Maintenance, and Replacement Fund shall be returned to their respective accounts upon appropriate adjustment of the user charge rates for operation, maintenance, and replacement. The user charge rate(s) shall be adjusted such that the transferred monies will be returned to their respective accounts within the fiscal year following the fiscal year in which the monies were borrowed.

Article IV
Flat Rate Structure

Section 1: User charge calculation is detailed in Appendix A of this ordinance.

The following classes of users and charges to those users are hereby established:

Class I: Residential Users: Single Family Contributors

\$ 24 /month for operation & maintenance, including replacement
\$ 48 /month for debt service

\$ 72 / month total charge

Class NE: Residence with installed STEP tank, pump, and control box but not connected yet due to inadequate electrical circuit or other condition preventing connection caused by the customer.

\$ 22 /month for operation & maintenance, including replacement
\$ 48 /month for debt service

\$ 70 / month total charge

Classes II – V do not apply to PWSD#13 at this time.

Class II: Light Commercial/Institutional Users: Non-residential users which contribute between ___gpd and ___gpd of less than or equal to normal domestic strength wastewater.

\$ ___/month for operation & maintenance, including replacement

\$ ___/month for debt service

Class III: Heavy Commercial Users: Non-residential users which contribute more than ___gpd of less than or equal to normal domestic strength wastewater.

\$ ___/month for operation & maintenance, including replacement

\$ ___/month for debt service

Class IV: Heavy Institutional Users: (Schools)

\$ ___/month for operation & maintenance, including replacement

\$ ___/month for debt service

Class V: Extra Strength Users:

The charge to users which contribute greater than normal domestic strength wastewater will be:

\$ ___/1000 gallons

\$ ___/pound BOD

\$ ___/pound Suspended Solids

\$ ___/pound Other Pollutant(s)

Section 2: Any user which discharges any toxic pollutants which cause an increase in the cost of managing the effluent or the sludge from PWSD #13's treatment works, or any user which discharges any substance which singly or by interaction with other substances causes identifiable increases in the cost of operation, maintenance, or replacement of the treatment works, shall pay for such increased costs. The charge to each such user shall be as determined by the responsible plant operating personnel and approved by PWSD #13's Board of Directors.

Section 3: The user charge rates established in this article apply to all users of PWSD #13's treatment works, regardless of the user's location.

Article V

Section 1: All users shall be billed monthly. Billings for each month shall be made within thirty days after the end of that month. Payments are due when billings are made. Any payment not received within thirty days after the billing is made shall be delinquent.

Section 2: A late payment penalty of 10 percent of the user charge bill will be added to each delinquent bill for each thirty days of delinquency. The delinquent user shall pay all costs of collection, including a reasonable attorney's fee. When any bill is thirty days in default, rendition of sewer service to such premises shall be discontinued until such bill is paid following due notice and opportunity for hearing.

Article VI

Section 1: PWSD #13 shall review the user charge system annually and revise user charge rates as necessary to ensure that the system generates adequate revenues to pay the costs of operation and maintenance including replacement and that the system continues to provide for the proportional distribution of operation and maintenance including replacement costs among users and user classes.

Section 2: PWSD #13 will notify each user at least annually, in conjunction with a regular bill, of the rate being charged for operation and maintenance including replacement of the treatment works.

Article VII

This ordinance shall be in full force and effect from and after its passage and approval.

Passed and adopted by the Board of Directors of PWSD #13 of Jefferson County, Missouri on the 10th day of March, 2010, by the following vote:

Ayes 5 namely KEN JOST, Rick Lippitt, Rich HIRSCH, MARILYN MEYER, JOHN HINDRICHS,

Nays 0 namely —,

Approved this 14 day of April 2010,

Marilyn Meyer (Chairman)
Signature
Marilyn Meyer, President

Attest: Richard Hirsch (Secretary)
Signature
Richard Hirsch, Secretary

APPENDIX A TO USER CHARGE ORDINANCE
User Charge Calculation

This appendix presents the methodology to be used in calculating user charge rates and surcharges, and illustrates the calculations followed in arriving at the first year's user charges. The charges established in this appendix are based on estimates of expenses and loadings. The actual expenses and loadings that occur may differ from these estimates and certainly they will change as time passes. Therefore, the user charges must be reestablished whenever necessary to reflect actual expenses and loadings. Once the system is in use, the expenses and loadings can be determined from operating records and the user charges can be adjusted based on these figures.

1. Expenses: The total annual expenses associated with the treatment works, as defined in Article II, Section 9 are estimated as follows:

<u>Item</u>	<u>Annual Expense</u>
audit	6,800
Billing	4,800
Treatment plant operator	15,000
Utilities - electric	6,000
Insurance	4,800
Maintenance/replacement	3,600
MO DNR annual permit	3,000
legal	1,800
engineering	3,000
postage	1,792
office	240
misc	1,200
Debt service ¹	124,440
Debt service reserve	12,600
short lived asset reserve	16,560
 Total	 <u>\$ 205,632</u>

2. Loadings:

The initial hydraulic loading is estimated to be 24,511,575 gal/year. Loading calculated in Section 335000, RSF Design Summary, of PWSD#13 Contract Documents and Technical Specifications, June 28, 2009.

3. Unit Cost:

$$\$/\text{gallon} = \frac{\text{total annual budget}}{\text{Total annual flow}} = \frac{\$ 205,636}{24,511,575} = 0.008389$$

4. Establishment of User Classes:

User	Number of Users	Average Monthly Hydraulic Loading per User	Total Annual Hydraulic Loading	Cumulative Usage per Class
Residential Class: Residential	238	8582	24,511,575	24,511,575
Light Commercial/ Institutional: Filling Station Bank Church Laundromat	0			
Heavy Commercial: Car Wash Restaurant	0			
Heavy Institutional: School	0			
TOTAL	238			24,511,575

5. Calculation of charges to users in each user class:

$$\text{Monthly charge per user per user class} = \frac{(\text{cumulative class usage})(\text{unit cost})}{(12)(\text{number of users per class})}$$

where: Monthly charge per user is in dollars

Cumulative class usage is in gallons from paragraph 4

Unit cost is in \$/gallons from paragraph 3

Number of users in class is from paragraph 4, and

12 is a conversion factor

Actual user charges for each user class are to be inserted in Article IV, Section I, of the ordinance.

Actual calculations for each user class follow:

Residential user charge =

$$\frac{(24,511,575) * (\$ 0.008389)}{12 * 238} = \$72.00/\text{month}$$

**APPENDIX B TO USER CHARGE ORDINANCE
Replacement Account Calculation**

This appendix contains a replacement schedule that was developed to determine the amount of revenue needed to fund the Replacement Account. The replacement schedule lists the equipment in the treatment works, the estimated dates when the equipment will have to be replaced, and the estimated cost of replacement (including an allowance for inflation) over the useful life of the treatment works. The replacement dates and costs shown are estimates; the actual replacement dates and costs could be significantly different from those shown. If the actual replacement expenses differ significantly from those listed in the replacement schedule, the funding of the Replacement Account shall be adjusted accordingly.

SHORT LIVED ASSETS RESERVE RECIRCULATING SAND FILTER & PRESSURE SEWER COLLECTION SYSTEM PUBLIC WATER SUPPLY DISTRICT #13 OF JEFFERSON COUNTY FEBRUARY 2010			
	Item	Value	Monthly Contribution To Fund
1	Replace Recirculation Pumps Every 10 Years \$800.00 * 16 Pumps	\$12,800.00	\$106.67
2	Replace STEP System Pumps Every 15 Years \$500 * 238 Pumps	\$119,000.00	\$661.11
3	Pump STEP System Septic Tanks Every 5 Years \$150.00*238	\$35,700.00	\$595.00
4	Ultraviolet Unit Bulb Replacement Replace Bulbs every 2.5 years \$500.00 Per Change Out	\$500.00	\$16.67
Total Monthly Contribution to Replacement Account			\$1,379.44
Total Yearly Contribution to Replacement Account			\$16,553.33

Inflation 0% ²

¹ Interest = 4.125%, USDA-RD interest rate on loan to PWSD#13.

² US Bureau of Labor Statistics: As of October 2009, change in CPI: -0.2 for previous 12-month period.