

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF CARROLL COUNTY )  
WATER DISTRICT FOR A CERTIFICATE )  
OF PUBLIC CONVENIENCE AND )  
NECESSITY: (1) APPROVING THE )  
CONSTRUCTION OF MAJOR ADDITIONS, )  
EXTENSIONS AND IMPROVEMENTS; (2) ) CASE NO. 8960  
SEEKING APPROVAL OF THE ISSUANCE )  
OF CERTAIN SECURITIES; AND (3) )  
FOR AN ORDER AUTHORIZING )  
ADJUSTMENT OF WATER SERVICE )  
RATES AND CHARGES )

O R D E R

The Carroll County Water District No. 1 ("Carroll County") by initial application filed December 27, 1983, and its amended application filed July 27, 1984, is seeking approval of its proposed water service rates, authorization to construct a \$1,434,800<sup>1</sup> waterworks improvements project, and approval of its financing for this project. Carroll County's financing includes contributions of \$49,300<sup>2</sup> from applicants for service in the project area, \$35,000<sup>3</sup> from the Stetter Construction Company, \$50,000 from the Corps of Engineers, \$10,000 from the Gallatin County Fiscal Court, a grant of \$93,500 from the Farmers Home Administration ("FmHA") and FmHA loans of \$982,000 and \$215,000<sup>3</sup>

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<sup>1</sup> The initial application amount was \$1,171,500.

<sup>2</sup> The initial application amount was \$36,000.

<sup>3</sup> These amounts were not included in the initial application.

at respective annual interest rates of 9-1/8 and 10-1/2 percent. Carroll County will issue waterworks revenue bonds as security for the FmHA loans. The repayment period of said bonds will be 40 years. The proposed improvements will provide water service to a total of about 236<sup>4</sup> additional customers in Carroll and Gallatin counties. Carroll County's amended application of July 27, 1984, was filed because of bid overruns. Additional financing as noted and service to 52 additional customers were included in the amended application.

Plans and specifications for the proposed improvements as prepared by GRW Engineers, Inc., ("Engineer") have been approved by the Division of Water of the Natural Resources and Environmental Protection Cabinet.

Carroll County requested higher rates and charges based on additional customers from the construction project, a restructuring of its rate design and a modification of its billing procedures for multi-family users. This would produce annual revenues from water sales of \$294,017. This results in an increase of \$117,124 over normalized revenue without recognizing the change in the billing procedure for multi-family users. In this Order the Commission has granted rates and charges which will produce revenues from water sales of \$293,760, an increase of \$116,867. It should be noted that of the increase granted, some \$44,000 results from the change in billing procedure for multi-family users at the approved rates.

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<sup>4</sup> The customer count was 184 in the initial application.

A hearing was held in the offices of the Public Service Commission at Frankfort, Kentucky, on April 23, 1984. There were no intervenors, and no protests were entered.

COMMENTARY

Upon re-examining Carroll County's record in this matter, the Commission has noted several areas that have caused delays in the processing of this case. Although some of these delays may have been unavoidable, the Commission is of the opinion that the extent of such delays is extraordinary and totally unnecessary. The Commission has found the most prevalent causes for the undue delay were inadequate case preparation by the applicant and its failure to fully respond to information requests. A summary of problems encountered is as follows:

- Pro forma adjustments related to the proposed construction project, although requested by the Commission in several staff requests, were not filed until May 7, 1984, and then only after an oral request at the April 23, 1984, hearing.
- Construction bids were not opened until May 5, 1984. It was then discovered that construction overruns of some \$263,000 would require re-evaluation of the proposed construction project and/or additional financing.
- Adequate information for an appropriate billing analysis for the test period was not received by the Commission until September 7, 1984, and then only after numerous requests for documentation and clarification.

Furthermore, after that information was received, the Commission found it necessary to do a field audit of master meter customers to provide adequate information for it to make a reasonable decision on appropriate rate design.

The above issues exemplify the Commission staff's efforts to determine the reasonableness of Carroll County's application which resulted in five information requests prior to the hearing, additional requests at the hearing, and three subsequent requests after the hearing.

In attempting to establish a complete public record, the Commission has spent an enormous amount of time and resources to make up for Carroll County's untimely and inadequate filing. KRS 278.190(3) makes it very clear that it is not the responsibility of this Commission to make a case for Carroll County or any utility, but that the burden of proof for specific adjustments and the responsibility of accurately responding to information requests lies solely with the utility.

Further, it has come to the Commission's attention that the construction of the waterworks project proposed herein was started prior to the Commission's granting of a certificate of public convenience and necessity. Thus, the Commission puts all utilities on notice herein that in future filings before this Commission such actions will not be tolerated. The Commission recognizes that smaller utilities such as Carroll County may experience difficulties in understanding and supporting their filings before the Commission. The Commission, therefore, advises

any utility, and in this instance, Carroll County, experiencing such problems to request an informal conference with Commission staff to clarify such matters to avoid problems arising from lack of knowledge.

#### TEST PERIOD

Carroll County proposed and the Commission has accepted the 12-month period ended December 31, 1983, as the test period in this case.

#### REVENUES AND EXPENSES

Carroll County had net operating income of \$21,008 for the test period. In its Order of February 1, 1984, the Commission requested that Carroll County file a schedule of changes in test period revenues and expenses in an attempt to more accurately reflect expected operating conditions subsequent to the completion of the proposed construction. In that Order Carroll County was advised that only "known and measurable" adjustments would be allowed by the Commission. As of the hearing date, April 23, 1984, no pro forma adjustments had been filed in this proceeding. During the course of the hearing, it was discovered that Carroll County did indeed wish to propose adjustments to its test period financial information. In its filing of May 7, 1984, Carroll County proposed numerous adjustments to test period expenses. These adjustments were based on assumed inflation with no documentation, unsubstantiated estimates, and averages of various expense accounts for 1983. Moreover, due to the untimely filing of these adjustments, Carroll County's pro forma expenses were not available for cross-examination at the time of the hearing. In

adhering to its policy of allowing only known and measurable increases to test period expenses, the Commission has no alternative other than to reject the majority of the proposed adjustments. Thus, the Commission has rejected the adjustments proposed by Carroll County which were based on inflation and other unsubstantiated estimates. Carroll County's proposed adjustments which the Commission finds improper are as follows:

- fuel for pumping	\$ 1,577
- operation supplies	\$ 617
- accounting and collecting	\$ 1,780
- uncollectibles	\$ 405
- office supplies and other expense	\$ 607
- outside services	\$ 1,780
- transportation expense	\$ 1,476

Furthermore, Carroll County's pro forma maintenance expense adjustment of \$2,794 has been rejected due to its position that maintenance will remain constant due to the installation of new equipment as stated in its May 7, 1984, filing. However, had proper documentation and support been provided, it is the Commission's opinion that a reasonable adjustment may have been acceptable.

The Commission has made the following additional adjustments to Carroll County's test period operations:

Operating Revenue

Carroll County had operating revenue from water sales during the test period of \$145,237. Recognizing the customers to be added through the proposed construction project, revenues

should be increased \$31,656 under present rates. Thus, adjusted revenue from water sales is \$176,893.

Miscellaneous Nonoperating Income

In reviewing Carroll County's application the Commission requested information concerning a maintenance service contract between Carroll County and West Carroll County Water District ("West Carroll"). Investigation revealed that the operating expenses incurred by Carroll County pursuant to this contract were reflected in normal operation and maintenance expenses. The Uniform System of Accounts for Class C Water Utilities states that the account "Miscellaneous Nonoperating Income" "shall include all revenue and expense items, except taxes, properly includible in the income account and not provided for elsewhere." (p. 86) With revenue reflected "below-the-line" and expenses reflected "above-the-line," a rate-making mismatch results in which Carroll County's customers are asked to bear the expenses of this contract but do not benefit from the contract revenues. The Commission is of the opinion that this subsidy is unfair, unjust, and unreasonable. In addressing this problem, the Commission has two alternatives: the first is to adjust Carroll County's test period expenses by the level of expenses associated with the contract. When Carroll County was asked to determine that level of expense, it responded that doing so would be unduly burdensome. Therefore, the Commission was left only with the second alternative which is to adjust operating revenue by \$8,244, the amount of contract revenue, to offset the contract expenses and eliminate the subsidy potential. Further, review of the maintenance contractual

agreement indicates that Carroll County is required to maintain adequate records regarding cost of service. The Commission hereby directs Carroll County to comply with the Uniform System of Accounts for Class C Water Utilities in accounting for this agreement.

Depreciation Expense

Carroll County proposed to increase test period depreciation expense of \$13,065 by \$16,514 to allow for depreciation on the proposed construction. It is the Commission's policy that depreciation expense be computed on the basis of original cost of the plant in service less contributions in aid of construction, as a utility should not be allowed recovery of that portion of the plant which has been provided at zero cost.

Carroll County's composite depreciation rate for plant in service is 1.97 percent.<sup>5</sup> The Commission has reduced Carroll County's test period depreciation expense to \$10,700, a reduction of \$2,365<sup>6</sup> to exclude depreciation on contributed property.

Carroll County proposed a 1.5 percent composite depreciation rate for its newly constructed plant. The allowable

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5	<u>Test period depreciation (\$13,065)</u>	=	
	Gross Plant less Land (\$663,503)		1.97 percent

6	Gross Plant		\$668,577
	Less: Contributions in Aid of Construction		125,450
	Non-contributed Plant		\$543,127
	X Composite depreciation rate		1.97%
	Allowable depreciation		\$ 10,700
	Test Period Depreciation		\$ 13,065
	Less: Allowable Depreciation		10,700
	Depreciation Adjustment - Existing Plant		\$ 2,365

depreciation for rate-making purposes is \$17,955 or an increase of \$1,441<sup>7</sup> to Carroll County's proposed adjustment for depreciation expense. Therefore, the net adjustment to Carroll County's depreciation expense is \$924 which results in an adjusted depreciation expense of \$28,655 for rate-making purposes.<sup>8</sup>

Maintenance Expense

In the Commission's Order of February 1, 1984, Carroll County was asked to supply copies of invoices for maintenance expense. Review of the invoices indicated that the overhaul of a pump motor which amounted to \$1,297 had been expensed during the test period. The Commission is of the opinion that this item is a capital expenditure and, therefore, has incorporated Carroll County's estimated useful life of 4 years in amortizing this cost. Thus, the net adjustment to test period maintenance expense is \$973.<sup>9</sup>

Therefore, Carroll County's test period operations have been adjusted as follows:

7	Proposed Project Cost	\$1,434,800
	Less: Contributions in Aid of Construction	237,800
	Non-contributed Plant	<u>\$1,197,000</u>
	X Composite Depreciation Rate	1.5%
	Allowable Depreciation	\$ 17,955
	Less: Proposed Depreciation Adjustment	16,514
	Depreciation Adjustment - Proposed Plant	<u>\$ 1,441</u>
8	Test Period Depreciation	\$13,065
	Less: Depreciation Adjustment - Existing Plant	2,365
	Allowable Depreciation - Existing Plant	<u>\$10,700</u>
	Allowable Depreciation - Proposed Plant	17,955
	Adjusted Depreciation Expense	<u>\$28,655</u>
9	Cost of Overhaul	\$1,297
	Less: Test Period Amortization	324
	Maintenance Expense Adjustment	<u>\$ 973</u>

	<u>Per Books</u>	<u>Adjustments</u>	<u>Adjusted</u>
Operating Revenues	\$ 147,194	\$ 39,900	\$187,094
Operating Expenses	<u>126,186</u>	<u>17,537</u>	<u>143,723</u>
Net Operating Income	<u>\$ 21,008</u>	<u>\$ 22,363</u>	<u>\$ 43,371</u>

REVENUE REQUIREMENTS

Carroll County's annual debt service based on debt outstanding during the test period and debt proposed in this proceeding is \$141,880.<sup>10</sup> Carroll County's adjusted net operating income of \$43,371, plus interest income from water operations of \$10,018, provides a debt service coverage ("DSC") of .38X.<sup>11</sup> The Commission is of the opinion that this coverage is unfair, unjust, and unreasonable. Furthermore, the Commission is of the opinion that a DSC of 1.2X is the fair, just, and reasonable coverage necessary for Carroll County to pay its operating expenses and to meet the requirements of its bondholders. Accordingly, the Commission has determined that additional revenue of \$116,867<sup>12</sup> is

10	<u>Bond</u>	<u>Amount</u>	<u>Amortization Factor</u>	<u>Debt Service</u>
	1965	\$454,000	.05828	\$ 26,459
	1984 (A)	\$982,000	.094115	92,421
	1984 (B)	\$215,000	.10698	23,000
	Total Debt Service			<u>\$ 141,880</u>

11  $\$43,371 + \$10,018 = \$53,389 + \$141,880 = .38$

12	Adjusted Operating Expenses	\$ 143,723
	1.2X Debt Service (\$141,880)	170,256
	Revenue Requirement	<u>\$ 313,979</u>
	Less: Adjusted Operating Revenue and Interest Income	197,112
	<u>Increase Allowed</u>	<u>\$ 116,867</u>

necessary to provide the 1.2X DSC which will ensure the future financial stability of Carroll County.

#### RATE STRUCTURE

Carroll County's present rate structure consists of eight rate blocks ranging from a 1,000 gallon minimum usage level to an over 100,000 gallon usage level. Ninety-five percent of the customers fall within the first three blocks and the remaining five percent fall within the remaining five blocks. Carroll County proposed to change its rate structure by deleting four blocks and adjusting the usage level in the last rate block to more accurately reflect the actual usage levels of its customers. The Commission is of the opinion that the proposed usage levels are fair, just, and reasonable, and should therefore be approved.

Carroll County requested a rate of 85 cents per 1,000 gallons for all usage over 20,000 gallons. The Commission has determined that the rate of 85 cents per 1,000 gallons does not adequately cover the cost of water and has increased this rate to \$1.00 per 1,000 gallons.

#### RATE DESIGN

Carroll County's income statement for the year ended December 31, 1983, shows operating revenues from water sales to be \$145,237. The billing analysis provided by Carroll County for the same period of time produces revenues in the amount of \$136,543. The Commission adjusted this amount to include \$2,465 received from bulk sales and \$1,050 received from fire protection, to obtain a total income from water sales in the amount of \$140,058.

Carroll County responded to numerous information requests concerning the difference in the billing analysis and the income statement and each time attributed the difference to "offage." The Commission realizes that a billing analysis is not an exact tool, but an unreconcilable difference representing some 3.7 percent is material.

Therefore the Commission has adjusted the billing analysis by an adjustment factor of 1.037 to reconcile the billing analysis and the income statement. This factor amounts to an adjustment due to offage in the amount of \$5,182 of present revenue and \$10,499 on the revenue granted by the Commission.

#### MASTER METER CUSTOMERS

Carroll County presently serves 11 customers through master meters and bills each meter for water consumption as if it were a commercial customer.

Carroll County has proposed to apply a multi-family user rate to those users served through a master meter. Using the proposed method of billing Carroll County would use total gallons divided by the number of individual connections to determine an average usage and charge each connection a minimum plus the average usage.

After reviewing Carroll County's proposal it was determined that Commission staff needed to conduct an on-site investigation concerning the master meter customers. On September 20, 1984, the staff visited three major water consumers served by master meters, Happy Hollow, Eagle Creek Resort, and Eagle Valley Recreation.

The superintendent of Carroll County estimated that Happy Hollow serves 102 individual connections, Eagle Creek Resort serves 150 connections, and Eagle Valley Recreation serves 75 individual connections.

The Commission staff determined that Eagle Valley serves five individual connections. An officer of the Happy Hollow neighborhood association stated that there are approximately 40 permanent residents and 60 part-time residents who own lots in Happy Hollow. An officer of the Eagle Creek Resort neighborhood association stated that there are approximately 35 permanent residents and 115 part-time residents who own lots in Eagle Creek Resort.

Carroll County estimated that there are 490 individual connections on its master meters. The Commission has determined that there are approximately 233 full-time and 175 part-time connections served by the master meters.

Carroll County proposed to bill the customers based on an average usage of 3,618 gallons times 12 months times a 65 percent occupancy rate. The Commission has determined that this method is inaccurate since gallons sold is included in the 65 percent occupancy rate. The gallons sold are actual and no deduction should be made to these gallons.

Carroll County estimated that \$40,884 would be generated under its proposed plan of billing. This is incorrect for the above-stated reasons as well as because Carroll County used the same average gallons for each master meter and did not break the

gallons down by individual master meters. This resulted in no individual connection being billed over the average usage of 3,618 gallons.

After careful consideration the Commission has determined that each connection served through a master meter shall be charged a minimum bill, and allowed 1,000 gallons, with all remaining usage billed through the rate schedule in Appendix A. It is the responsibility of Carroll County to determine the actual number of connections served each month through each master meter.

The Commission has determined that Lacefield Trailer Park will receive an increase of 54.13 percent, Arthur Tolar 84.40 percent, Dr. L.E. Oliver 89.95 percent, Landmark Enterprises 87.48 percent, Camelia Courts 364.81 percent, Craig's Inc., 176.26 percent, Bryant Roberts Trailer Court 185.16 percent, Ellis Trailer Court 106.47 percent, Happy Hollow 322.22 percent, Eagle Creek Resort 335.07 percent, and Eagle Valley Recreation 106.03 percent.

While the Commission is concerned about these large percentages it should be noted that the metered customers served by Carroll County have been partially subsidizing the customers served by master meters. The majority of the water sold through the master meters was sold in the range of 50 cents to 75 cents per 1,000 gallons.

The Commission is of the opinion that while the past method of billing has been inequitable, the method proposed by Carroll County is also inequitable. The Commission is aware that its method of billing may not be equitable for all customers served

through master meters. The Commission strongly urges Carroll County to install meters to all customers presently served through master meters in order that a correct allocation of water usage per customer can be determined.

#### FINDINGS AND ORDERS

1. The public convenience and necessity require that the construction proposed in the application and record be performed and that a certificate of public convenience and necessity be granted.

2. The proposed work includes about 41 miles of water main construction, a 200,000-gallon water storage tank, a booster pumping station and miscellaneous appurtenances thereto. It will provide metered service connections to about 236 applicants for water service. It will require \$1,219,000 for construction and a total project scope of about \$1,434,800 after allowances are made for construction costs, contingency, fees and other indirect costs.

3. Any deviations from the construction herein approved which could adversely affect service to any customer should be subject to the prior approval of this Commission.

4. A pressure reducing valve ("PRV") is to be located on the water main that will serve the 52 applicants for service added by the July 27, 1984, amended application. This valve could have an adverse effect on the service pressures at these applicants' meters. Carroll County should, therefore, monitor this service pressure and make appropriate PRV charges for maintenance of this service pressure at or above the 30 psig minimum required by Section 6 of 807 KAR 5:066.

5. The proposed borrowing of \$1,197,000 is for lawful objects within the corporate purposes of Carroll County, is necessary and appropriate for and consistent with the proper performance of services to the public by Carroll County, will not impair its ability to perform these services and is reasonably necessary and appropriate for such purposes.

6. The financing secured by Carroll County for this project will be needed to pay for the work herein approved. Carroll County's plan should, therefore, be approved.

7. The rates proposed by Carroll County will produce revenues in excess of the revenues found reasonable herein and should be denied upon application of KRS 278.030.

8. The proposed change in rate structure is fair, just and reasonable and should be approved.

9. The rates and charges in Appendix A are the fair, just and reasonable rates to be charged by Carroll County in that they should produce the revenues required by Carroll County.

10. Carroll County should file with the Commission duly verified documentation which shows the total costs of construction herein certificated including all capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date that construction is substantially completed. These construction costs should be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for Water Utilities prescribed by this Commission.

11. Carroll County's contract with the Engineer should require the provision of construction inspection under the general

supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering. The supervision and inspection should insure that the construction work is done in accordance with the contract plans and specifications and in conformance with the best practices of the construction trades involved in the project.

12. Carroll County's contract with the Engineer should require the furnishing of a copy of the record plans and a signed statement by the Engineer that the construction has been satisfactorily completed in accordance with the contract plans and specifications within 60 days of the date of substantial completion of this construction.

13. A 5/8-inch x 3/4-inch meter should be the standard customer service meter for all new customers and should be installed at all points of service unless the customer provides sufficient justification for the installation of a larger meter.

14. Carroll County should file with the Commission a copy of all contractual agreements for the provision of services or the purchase of services which are subject to the approval of this Commission.

IT IS THEREFORE ORDERED that Carroll County be and it hereby is granted a certificate of public convenience and necessity to proceed with the waterworks improvements project set forth in the plans and specifications of record herein reviewed and approved.

IT IS FURTHER ORDERED that any deviations from the approved construction which could adversely affect service to any customer shall be subject to the prior approval of this Commission.

IT IS FURTHER ORDERED that Carroll County's plan for financing its construction work in the amount of \$1,171,500, including 40-year loans of \$982,000 at 9 1/8 percent annual interest and \$215,000 at 10 1/2 percent annual interest from FmHA, be and it hereby is approved.

IT IS FURTHER ORDERED that the rates proposed by Carroll County be and they hereby are denied.

IT IS FURTHER ORDERED that the proposed change in rate structure be and it hereby is approved.

IT IS FURTHER ORDERED that the rates and charges in Appendix A be and they hereby are approved as the fair, just and reasonable rates and charges to be charged by Carroll County for service rendered on and after the date of this Order.

IT IS FURTHER ORDERED that Carroll County shall file with the Commission within 30 days of the date of this Order its revised tariff sheets setting forth the rates and charges approved herein.

IT IS FURTHER ORDERED that Carroll County shall file with the Commission duly verified documentation which shows the total costs of construction herein certificated including all capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date that construction is substantially completed. Further, these construction costs shall be classified

in accordance with the Uniform System of Accounts for Water Utilities prescribed by this Commission.

IT IS FURTHER ORDERED that Carroll County's contract with the Engineer shall require the provision of construction inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering. This supervision and inspection shall insure that the construction work is done in accordance with the contract plans and specifications in conformance with the best practices of the construction trades involved in the project.

IT IS FURTHER ORDERED that Carroll County's contract with the Engineer shall require the furnishing of a copy of the record plans and a signed statement that the construction has been satisfactorily completed and done in accordance with the contract plans and specifications to the Commission within 60 days of the date of substantial completion of the proposed construction.

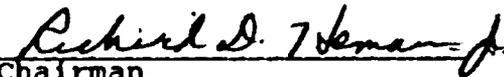
IT IS FURTHER ORDERED that a 5/8-inch x 3/4-inch meter shall be the standard customer service meter for all new customers and shall be installed at all points of service unless the customer provides sufficient justification for the installation of a larger meter.

IT IS FURTHER ORDERED that Carroll County shall file with the Commission a copy of all contractual agreements for the provision of services or the purchase of services which are subject to the approval of this Commission.

Nothing contained herein shall be deemed a warranty of the Commonwealth of Kentucky, or any agency thereof, of the financing herein authorized.

Done at Frankfort, Kentucky, this 19th day of October, 1984.

PUBLIC SERVICE COMMISSION

  
Chairman

  
Vice Chairman

  
Commissioner

ATTEST:

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Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE PUBLIC SERVICE  
COMMISSION IN CASE NO. 8960 DATED October 19, 1984.

The following rates and charges are prescribed for the customers in the area served by Carroll County Water District. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of the Commission prior to the effective date of this Order.

**RATES: Monthly**

First	1,000 gallons	\$8.00 Minimum Bill
Next	9,000 gallons	2.35 per 1,000 gallons
Next	10,000 gallons	1.70 per 1,000 gallons
Over	20,000 gallons	1.00 per 1,000 gallons

**MASTER METER CUSTOMERS**

All master metered customers shall be billed through the above rate schedule. Each connection shall be charged a minimum bill, and allowed 1,000 gallons as set out in the above rate schedule, for each connection served during the billing period. It is the responsibility of Carroll County to determine the actual number of connections served each month through each master meter.

<b>BULK SALES</b>	<b>\$ 2.00 per 1,000 gallons</b>
<b>FIRE HYDRANT RENTAL</b>	<b>50.00 per year</b>