



## Statement of Understanding

Treated water is provided to the City by Avon Lake, and wastewater is treated by the French Creek Water Pollution Control Center, and also by Avon Lake. Those two entities bill Avon based on master meter readings, and the City in turn adds their distribution and collection system costs, and then bill the Avon customers based on usage. New customers are charged a tap fee.

The City is in the first year of a nine year capital improvement plan (CIP). Projects for this year include a new 3MG elevated storage tank, a water line and a meter change out program. This rate study will incorporate the projects identified and scheduled in the CIP, prepared by the City, into the rate structure.

Although the rates have been increased over the years, a rate study has not been completed since 2002. Furthermore, the method of charging customers for taps was established a number of years ago and does not vary greatly with meter size. With the need for additional funds for the new infrastructure projects identified in the CIP, the timing is right to conduct a rate study, including a review of the ordinances impacting the provision of water and sewer service to the customers of Avon.

Our approach would be to conduct an in-depth review or analysis of recent expenses of each department and project them for the five-year term of the rate study. Expenses include, but are not limited to: operation and maintenance of the systems; capital improvements funded from rates; debt service for other capital projects; equipment replacement; billing costs; and general administration. This may vary once we see details of your system, and will be completed after discussions with City officials. Inflation has impacted the cost of existing expenses, and new capital programs will also require that user charges be increased. Costs incurred by the two departments will be allocated to usage and connection fees accordingly.

Our understanding and approach for the Alternate Rate Structure is discussed in a later section.

## Scope of Services

### Task I – Ordinance Changes

Rate studies are undertaken to provide a logical basis, supported by calculations using actual data, for the equitable distribution of water and sewer costs to current and future customers based on their relative use of the system components. Ordinances are the legal vehicles by which local governments implement the findings of the rate studies and generate revenue to operate the systems.

Legislation that sets the user charges, governs the operation of utilities and the use of the sewer and water systems should not be in conflict with one another. Jones & Henry will review the appropriate ordinances and submit suggestions for changes to current ordinances involving tap-in fees and rates for the City's consideration. Our recommendations will be based on sound financial and engineering evaluations, but should be reviewed by the City's legal counsel. North Ridgeville's sewer rate ordinance (including French Creek) and Avon Lake's sewer and water ordinances will receive a general review to identify possible conflicts or inconsistencies with Avon's existing and proposed ordinances.

### Task II – Budgetary Review

Using historic and currently budgeted operation and maintenance expenses, equipment replacement-fund requirements, capital projects (paid from rates) and debt service, we will develop a "base year" of expenses and then project them based upon reasonable inflation or accelerated growth factors, plus any special costs, identified by the City, for the rate study period, for the current customer base. This exercise will yield the revenue



requirements to be recovered from the user charges and tap fees. At this point, reserve requirements for covering future expenditures can be considered. We will review with City staff current sanitary and water capital projects (9 year CIP), along with future maintenance issues, and recommend funding mechanisms to budget for these.

### **Task III – Current Projects – Capital Improvements Plan Cost Review**

The City has developed a Capital Improvements Plan (CIP) for the sanitary and water systems covering the next nine years. Jones & Henry will review the current CIP for sanitary and water projects and recommend sources of financing for the projects.

The City is embarking on a Capital Improvement Program (CIP), which is scheduled for the next nine years. The CIP will consist of 28 water and wastewater projects. In developing future rates, the estimated costs of the improvements will be used. It is proposed: to review each project's current cost estimate; update the estimate, if required; and project the costs to the time of bidding. To perform this task, will require the current scope of each project (length, size, etc.), and in discussions with the City, identify special factors which will impact cost (soil information, environmental issues, surface restoration, traffic control, etc.). Each project will be located on an aerial photograph to assist with the analysis. Each project area will be visited by an engineer. Then, using previous bids and other cost data, an estimate will be made for each project. Typical costs for engineering, administration, etc., will be factored into the total cost.

### **Task IV – Rate Structure Recommendations**

#### **Project Initiation and Preliminary Data Requests**

In order to complete the rate study according to the schedule, we will need the information listed in another section of this proposal in electronic format (Excel, Word, etc.). We suggest that you gather the information and send it to us. We will review the information and then schedule a kickoff meeting with you to clarify any questions we may have, confirm deliverables, and discuss objectives and issues. In preparing the report, we anticipate two review meetings in addition to the kick off meeting, and once the study is completed, a final presentation to the City.

#### **Existing Customer Base**

The existing customer base for both water and sewer will be reviewed to determine billable quantities and the distribution of those billable quantities between various user classes and/or usage categories. We plan to look at the most recent full-year water usage figures by usage bracket (provided by the City). We will also review the last five years of water usage to determine trends. Projections for the customer base (number and usage) for the next five years will be made after discussions with City staff and review of historical trends.

#### **Quality Assurance/Quality Control**

Using the customer base established in the prior section, we will apply the existing rates to calculate the expected revenue. We will then compare this to the actual revenue collected. This exercise provides a check of the customer base and billings before any other calculations are undertaken.

#### **Determination of Required Rate Adjustments**

Using the current rates and customer base, revenues will be projected for the next five years to determine the extent of the deficit when compared to projected expenses. The revenue deficit can now be calculated. We anticipate a review meeting with you at this point to discuss our analysis, assumptions and calculations to-date, and finalize our approach for developing the new rates.



**Tap Fee Review**

We will review the costs to provide a connection to the City’s sewer or water system and make recommendations on future fees. Recommendations will be based on actual costs for providing the service including equipment costs, labor, administration, and other costs deemed applicable. Actual costs for these items will be provided to Jones & Henry by the City.

**Development of Preliminary Rate Recommendations**

After profiling the anticipated customer base, we will allocate costs to various customer classes and/or usage categories. Tap fees will be recommended based on anticipated cost to construct a tap.

Rates will be projected for five years that will generate revenues to cover the anticipated annual expenses over that period. Balance statements will be prepared to show the adequacy of the revenue, expenses, and fund balances. This serves as a check of rates (current and future). If fund balances are inadequate, rates will be adjusted. Preliminary rates will be reviewed with the City staff, and any adjustments can be discussed and incorporated, if necessary.

Any special bond requirements will be taken into consideration. We will develop tables of typical bills and anticipated revenues for each user type and will also prepare a comparison of charges to other communities in Ohio.

**Presentation of Final Rates**

We will prepare a final report that includes a discussion of the customer base and projected costs for the study period, and all the assumptions used (including recommendations by the City staff) in making any adjustments. We will make recommendations on new water and sanitary rates, tap-in fees and possible ordinance conflicts or inconsistencies. We will develop tables of typical bills and anticipated revenues for each user type and will also prepare a comparison of charges to other communities in Ohio. We will provide one final hard-copy of the report to the City, and a CD with a .pdf version to allow additional copies to be printed. We anticipate a final meeting to present our report to the City.

**Clarifications and Exceptions**

**Typical Hourly fee, including overhead - 2013**

**Schedule of Charges**

Classification	Hourly Rate
Principal .....	\$135-\$150
Project Manager .....	\$100-\$130
Senior Engineer .....	\$95-\$120
Project Engineer .....	\$80-\$105
Engineer.....	\$65-\$80
O&M Specialists .....	\$80-\$100
Senior Construction Services Specialist.....	\$80-\$100
Construction Services Specialist .....	\$65-\$85
Information Systems Specialist.....	\$70-\$100
Senior I&C Specialist.....	\$95-\$105
Designer, Senior Technician.....	\$80-\$100
Technician.....	\$55-\$75
CAD Operator .....	\$40-\$55
Word Processor .....	\$40-\$55



For expenses incurred in the work for travel, subsistence, toll telephone calls, fax, printing, copying, etc., the actual cost plus ten percent (10%) thereof.

Computer CAD charges are based on \$10.00 per hour of use.

For services and supplies furnished by others at the expense of the Engineers beyond typical services, the actual cost plus thirty percent (30%) thereof.

The time and expense fees shall be payable monthly, each payment being equal to the amount earned during the preceding month.

Engineering services will be performed by or under the direct supervision of a professional engineer. The standard of care for all professional engineering performed by Jones & Henry Engineers, Ltd. will be the care and skill ordinarily used by members of the profession practicing under similar circumstances at the same time and in the same locality. Jones & Henry makes no warranties, express, or implied, in connection with the services described in our agreement.

### Project Schedule

Award Contract for Rate Study	August 5, 2013
City assembles Requested Information and then sends it to Jones & Henry	August 7, 2013
Kick-off meeting to review the information (including CIP) received	August 28, 2013
J&H reviews tap-in fee ordinances and provides comments	September 18, 2013
J&H reviews O&M expenses, develops base year, and projects for ___ years	September 18, 2013
J&H reviews CIP and makes recommendations for funding	September 18, 2013
City reviews and provides comments to J&H on O&M and other expense projections, CIP funding suggestions, costs and scheduling	October 4, 2013
J&H develops preliminary rates for City's review	October 18, 2013
City reviews preliminary rates and provides comments	November 1, 2013
J&H finalizes report and submits to City	December 6, 2013
J&H makes final presentation of rate ordinance to City	December 20, 2013

### Cost Proposal

Original Lump Sum Project Cost:	\$ 25,000
Capital Improvement Plan Cost Review:	\$ 9,900
Alternate Rate Structure:	\$ 9,000
Total	\$ 43,900

### Authorization

Date to Proceed (must have received all required information and data): August 28, 2013

Completion Date: December 6, 2013

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Authorized Representative

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Mayor, City of Avon

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Jones & Henry Engineers, Ltd.

\_\_\_\_\_  
City of Avon, Ohio

\_\_\_\_\_  
Company

\_\_\_\_\_  
Company

\_\_\_\_\_  
July 26, 2013

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



## Project Personnel

Two people have been assigned to complete this project, and both have worked on similar rate studies. Steve Wordelman, P.E., is the President of Jones & Henry, and will be the Project Manager. He will be responsible for project management and quality control. Homer Wilson will also work on this project and will be your day-to-day contact. He has worked on a number of rate studies with Steve, including Battle Creek, Gaines Township, Luna Pier, Sandusky, St. Marys, and Tiffin. Homer has attended the Financial Management: Cost of Services Ratemaking seminar conducted by AWWA and has a MBA.

### Steven L. Wordelman, P.E.

<b>Title:</b>	President
<b>Specialty:</b>	Wastewater Treatment, Pilot Studies, Storm Water Control, Rate Studies, Construction Project Administration, Asset Management Studies
<b>Experience:</b>	Time With Firm - 38 Years      Total Experience - 38 Years As Principal of Firm - 32 Years
<b>Education:</b>	University of Michigan, BSE - 1974 University of Michigan, MSE - 1975
<b>Registration:</b>	Ohio; Michigan

### Homer B. Wilson

<b>Title:</b>	Director of Government Affairs
<b>Specialty:</b>	Financial Analysis; Economic Development; Community/Environmental Planning; Rate Studies; Business Development
<b>Experience:</b>	Time With Firm - 36 Years      Total Experience - 37 Years
<b>Education:</b>	St. Lawrence University, BS - 1973 University of Toledo, MA - 1976 University of Toledo, MBA - 1983

## Required Information for Rate Studies

### Customer Base (water and sewer)

- Number of customers and known projections (number and flow)
- Customer service agreements, if any
- Number of customers by meter size
- Billable water by rate bracket (last five years of data)
- Billable water by meter size
- Contract customers, if any (last five years of data)
- Total metered (billed) flow (most recent five years)

### Financial (water and sewer)

- Current water & sewer rate and tap charge ordinances to be reviewed
- Other ordinances to be reviewed
- Revenue by usage bracket (last five years)
- Revenue by meter size
- Current fees for all services (last five years)
- System development fees and revenues, if any (last five years)
- Detailed year-end financials/expenses & revenues (last five years)
- Annual equipment replacement costs (last five years)
- Debt service paid by rates (last five years & future)



- Capital projects amounts and timing paid from rates (last five years & future based on CIP)
- Audit reports (last five years)
- Current fiscal year budget
- Current reserves or balances, and future requirements (five years covered by new rates)
- Additional annual O&M costs because of anticipated new projects
- Expenses paid by sources other than rates (five years covered by new rates)
- Anticipated new charges or expenses (five years covered by new rates)
- Cost to provide a tap (including labor, administrative, parts, and other)

#### **Other (water and sewer)**

- Bond schedule and requirements
- Current and future capital projects, including costs, priority, and scheduling
- Expenses associated with fees
- City guidelines for funding, if any (debt vs. cash)

### **Alternative Rate Structures**

Some communities have a flat commodity rate for all usage levels, and others have different rates for multiple usage brackets, as Avon does. Service areas usually contain water meters of different sizes. Customers with larger meters, and therefore greater capacity demands, have the potential to put a greater demand on the water system and should be required to pay a higher user charge than the smaller meters, regardless of actual usage.

Jones & Henry will separate projected expenses between demand costs, commodity costs, and any special costs, allocating these costs to the various customer classes or usage categories, including meter sizes. For the water rates, we can look at developing a minimum (or base) charge based on meter size and without minimum usage. We can look at a commodity (usage) charge that includes step (or brackets) or one uniform charge. For the sewer rates, we can look at a minimum charge that varies by meter size with and without minimum usage. Your current rate structure has one uniform rate for usage, and we would continue with that. After discussions with the City about the minimum and commodity charges, we would develop a new alternative rate structure for both water and sewer that will allow the City to meet its revenue requirements.

Once rates have been developed for both the current rate structure and the alternate rate structure, a table of typical bills will be prepared for various usages and meter sizes. Additionally, we will compile a list of other typical bills for other communities, either neighboring or similar in size. Our cost for this work is \$9,000.