Water / Sewer Committee Meeting
May 15; 2023 @ 5:00 p.m.

Chairman Randy Wyant opened the meeting at 5:00 p.m.

Roll call was taken by City Clerk, present were Chairman Wyant and Committee members – Aldermen Ray Hankes, Scott Davis, and Doug Parsons, and Mayor Dickey.

Visitors present: Donohue Engineer Will Gray, Supts. Duncan and Martin, Alderman Denis Fisher, and Jean Noellsch reporting for Ford County Chronicle.

Engineer Will Gray gave handouts of a Long-Term Task Order to address CSO (combined sewer overflow events). IEPA allows up to 4 CSO events per year, and Gibson City still averages 12-15 events annually, even after the completion of planned sewer separation projects completed to date.

Engineer Gray explained the task order has key elements of:

- Flow monitoring for analysis
- Coordination of all data collected and planning with IEPA.
- Overseeing required Public Hearings
- New sewer plant design

This task order cost includes 3 modems for collection of flow data and can be recalibrated and used in other city projects in the future.

The end goal is to show IEPA the city is currently working on reducing the CSO events while coordinating the results into the design and planning for a new sewer plant. Cost of the new plant is in the neighborhood of $25 million dollars. Engineer Gray informed council that state and federal grants and loan forgiveness programs can be applied for and the city will have favorable standing by continuing to move forward.

The water used to fight the fire downtown last week flowed through the sewer plant and Supt. Duncan is currently working on repairing the clarifier. Approval of the GIS mapping throughout Gibson is another advantage for GC in applying for govt funding towards a new sewer plant.

Supt. Duncan informed the committee that he is asking for approval to look for an additional vehicle for the sewer department. Mayor Dickey suggested that we try to buy new rather than used, and Supt. Duncan has started looking and hopes to use a dealership who can go through the government discount program.

Clerk Hall suggested when quotes are being requested dept. heads should draw up a 'spec' sheet and have an email trail so that vendors are quoting prices on the exact same equipment or services. Alderman Parsons agreed and also reminded that we have a minimum of two quotes for comparison.

Supt. Martin informed the committee he would like to have approval to be on the council agenda to discuss one specific employee who is being transferred from Streets and Alleys to the Water Treatment plant. All agreed.

Chairman Wyant will recommend Agenda items: 1. Consideration and approval of the Long-Term Task Order prepared by Donohue Engineer Will Gray at a cost not to exceed $72k; 2. Consideration and

approval of a new vehicle for the Sewer Plant operations not to exceed $50k, 3. Recommend Executive Session to discuss specific employee transferring into Water Treatment Plant and his skill set and wages.

Meeting adjourned at 5:40 p.m.

DONOHUE

ENGINEERING SERVICES AGREEMENT

Combined Sewer Overflow (CSO)
2023 Long-Term Control Plan (LTCP) Update (Project)

This Agreement is by and between:

City of Gibson (Owner)
101 East Eighth Street
Gibson City, IL 60936

and

Donohue & Associates, Inc. (Donohue)
1605 South State Street, Suite 1C
Champaign, IL 61820

Who agree as follows:

Owner hereby engages Donohue to perform the Services set forth in Part I for the compensation set forth in Part III. Donohue will be authorized to commence the Services upon execution and receipt of this Agreement from Owner. Owner and Donohue agree that this signature page, together with Parts I through IV attached, constitute the entire agreement for this Project.

APPROVED FOR OWNER

By: _____

Printed Name: _____

Title: _____

Date: _____

APPROVED FOR DONOHUE

By: _____

Printed Name: Eric. P. Cockerill, PE

Title: Vice President

Date: _____

PART I
PROJECT DESCRIPTION/SCOPE OF SERVICES/TIMING

A. PROJECT DESCRIPTION

On October 15, 2009, IEPA approved the City of Gibson's Long-Term Control Plan (LTCP). This plan followed the "Presumption Approach" to CSO control, the presumption being that if a specified level of CSO control is met, water quality standards (WQS) will be presumed to have been met. That level of control was to reduce the frequency of CSO discharges to 4 per year.

The 2009 LTCP evaluated several alternatives, concluding that sewer separation was the most cost-effective means of reducing CSOs. This plan has since been implemented, yet the frequency of overflows often exceeds 4 per year. Wet weather flows continue to find their way into the collection system, exceeding WWTP capacity, and causing CSO discharges to outfall 003.

Special Condition 13 of Gibson's NPDES permit (IL0023281) mandates that Gibson reduce the frequency of CSO discharges to no more than 4 per year. The permit further mandates that Gibson develop a post-construction water quality monitoring program to verify compliance with WQS and protection of designated uses.

This project will evaluate additional alternatives to enable Gibson to meet the permit requirement of no more the 4 CSO discharges per year.

B. SCOPE OF SERVICES

Services to be provided by Donohue for this Project under this Agreement are as follows:

1. Coordination and Preliminary Work

a. Attend a Project Kickoff Meeting with Owner staff in order to discuss project tasks, expectations, schedule, etc. A flow monitoring program including potential equipment and locations will be discussed. During this meeting, Donohue's project manager will complete a site reconnaissance of potential monitoring sites. Donohue will arrange to have the supplier of the flow monitoring equipment on-site to provide orientation and training on equipment set-up and operation.

b. Coordinate and attend an online meeting with IEPA to discuss Gibson's proposed CSO strategy. Request that system performance be based on the "typical rainfall year" and a collection system model rather than measured CSO discharges, which are heavily dependent on unpredictable weather patterns. Conduct preliminary discussion of the expectations of a CSO Pollution Prevention Plan (PPP).

2. CSO Flow Monitoring

a. It is the City's intent that the updated LTCP be submitted to IEPA no later than February 16, 2024. It is anticipated that flow monitoring will be conducted in the 27" and 38" sewers entering the CSO 003 bypass structure and the 15" sanitary sewer serving the southern portion of the city. A 3-6 month flow monitoring period should commence by July 1, 2023. If

sufficient wet weather flow data is collected in 3 months, the meters can be removed and/or relocated. However, the program may need to be extended through December 2023 to adequately characterize the system wet weather response. Donohue will assist in selecting up to 3 monitoring sites.

b. Donohue will purchase flow-monitoring equipment on Owner's behalf. Donohue will review quotes from suppliers and make supplier recommendation. Sufficient dry and wet weather flow will need to be measured to characterize system flows for a range of antecedent moisture conditions, sufficient for hydrologic model calibration. Owner will transfer flow data to Donohue for analysis. Fee stated herein is for evaluating up to 6 months of flow data. If sufficient dry and wet weather flows are captured in less than 6 months, Donohue's fee will be reduced accordingly. All flow monitoring equipment will become the property of and turned over to Owner once removed.

   Owner may install and operate its own rain gauge. Alternatively, there is a weather station accessible from Weather Underground (KILGIBSO17) near the intersection of 4th Street and S Spring St that appears adequate.

3. Flow Analysis

a. Owner will check flow meters for proper operation no less than once per week and prior to major rainfall events. Owner will transfer flow data to Donohue for QA/QC. Donohue will notify Owner of missing and/or suspect data. Donohue will perform a quality review up data for up to 6 months. Donohue will notify Owner if meters require maintenance.

b. Donohue will evaluate dry and wet weather flows, quantifying inflow and infiltration (I/I) using industry standard metrics. Those areas exhibiting the most I/I may be recommended for more targeted flow monitoring to better identify those areas experiencing excessive I/I. While it is outside the scope of this study, those areas exhibiting the most I/I may be selected for further study and I/I reduction.

4. Model Development

a. Donohue will develop a hydrologic / hydraulic collection system model on the Danish Hydraulic Institute's MIKEURBAN platform. The City's sewer service area will be delineated into 3 subcatchments representing the areas tributary to each of the 3 flow meters. Preliminary subcatchment hydrologic parameters will be assigned to replicate dry and wet weather flows. Measured rainfall will be input into the model; output will be compared to measured flows. Model parameters will be adjusted to obtain a reasonably accurate result over the entire flow monitoring period. This is generally assumed to be accomplished when the difference between measured and simulated wet weather volumes and peak flow rates is ±20%.

b. A hydraulic model of the collection system from the CSO 003 diversion structure to the WWTP and to Outfall 003 will be developed. It is assumed that sufficient elevation data exists for this purpose. The WWTP influent pump station and Outfall 003 will be the downstream boundary conditions. Pump curves and/or rated capacities will be required.

5. Development of CSO Abatement Alternatives

a. Perform a statistical analysis of historical rainfall data to identify the "Typical Year". This is 12-months of rainfall that best represents statistical rainfall patterns in terms of total volume,

and magnitude, duration, and frequency of significant events. Alternative analyses will be done to reduce the number of CSO discharges during this typical year to 4 or less.

b. Run the typical year through the calibrated model. Develop a correlation between treatment capacity and flow equalization that will reduce CSOs to 4 per year. The greater the treatment capacity, the less the flow equalization volume. Under a separate agreement, use this relationship to optimize the upgrade of the existing plant or the construction of a new plant. Estimate the degree to which I/I reduction could reduce the treatment / equalization requirements. Review the results with Owner.

6. **Prepare Long Term Control Plan (LTCP) Report and Public Participation**

a. Prepare a draft LTCP Update report, which documents the LTCP development process and summarizes the additional recommendations and implementation strategy.

b. As required by NPDES Permit Special Condition 13.G.1.c, develop a CSO Post-Construction Water Quality Monitoring Program to verify compliance with WQS and designated uses. Include the plan as an appendix to the LTCP Update Report.

c. Attend a meeting with full City Council to review the draft LTCP Update Report and revise as required.

d. Federal CSO Control Policy requires public participation as a component of any LTCP. Donohue's project manager will organize the public participation effort, by coordinating with Owner officials to hold a public meeting on the project, prior to submitting the LTCP report to IEPA. Donohue will assist the City in advertising for the public meeting and will incorporate the public comments into the final report.

e. Transmit an electronic version and 12 hard copies of the Final LTCP Update Report to Owner. In addition, Donohue will transmit two final copies of the LTCP to IEPA upon authorization from Owner.

C. PROJECT TIMING

Donohue shall be authorized to commence the Services set forth herein upon execution of this Agreement. The final LTCP Update Report is anticipated to be delivered to the City and to IEPA no later than **February 28, 2024**. This is based on the assumption that flow monitoring through December 2023 is required.

PART II
OWNER RESPONSIBILITIES

A. In addition to other responsibilities of Owner set forth in this Agreement, Owner shall:

1. Identify a person authorized to act as the Owner's representative to respond to questions and make decisions on behalf of Owner, accept completed documents, approve payments to Donohue, and serve as liaison with Donohue as necessary for Donohue to complete its Services.

2. Furnish to Donohue copies of existing documents and data pertinent to Donohue's Scope of Services, including but not limited to and where applicable: design and record drawings for existing facilities; property descriptions, land use restrictions, surveys, geotechnical and environmental studies, or assessments.

3. Owner shall be responsible for all requirements and instructions that it furnishes to Donohue pursuant to this Agreement, and for the accuracy and completeness of all reports, data, programs, and other information furnished by Owner to Donohue pursuant to this Agreement. Donohue may use and rely upon such requirements, instructions, reports, data, programs, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations provided by Owner applicable to the furnished items.

4. Provide to Donohue existing information regarding the existence and locations of utilities and underground facilities.

5. Provide Donohue safe access to premises necessary for Donohue to provide the Services.

6. Inform Donohue whenever Owner observes or becomes aware of a Hazardous Environmental Conditions, as defined in Part IV.3. of this Agreement, that may affect Donohue's Scope of Services or time for performance.

7. Provide online access to flow data or download and email flow data on a weekly basis.

PART III
COMPENSATION, BILLING AND PAYMENT

A. Compensation for the work as defined in the Scope of Services (Part I) of this Agreement shall be in accordance with Donohue's standard chargeout rates in effect at the time the Services are performed. Routine expenses will be billed at cost and subconsultant costs will include a 10% markup. The total cost for these Services and expenses will not exceed **$72,000** (EXHIBIT A).

B. Donohue will bill Owner monthly, with net payment due in 30 days.

C. Donohue will notify Owner if Project scope changes require modifications to the above-stated contract value. Services relative to scope changes will not be initiated without written authorization from Owner.

EXHIBIT A

City of Gibson

Combined Sewer Overflow 2023 Long-Term Co

Fee Estimate Summary

Donohue & Associates, Inc.

# Task	Eng. VIII $ 250	Eng. V $ 195	Eng. III $ 165	Eng. I $ 130	Admin II $ 90	Tot Hou
Project Administration	20					
1 Coordination & Prelim. Work	**6**	**4**	**6**	**-**		
1a Kick-Off Meeting	4	2	4			
1b IEPA Meeting	2	2	2			
2 Flow Monitoring	**-**	**16**	**12**	**-**	**-**	
2a Planning		8	8			
2b Equipment Purchase			4			
2c Meter Installation		8				
3 Flow Analysis	**-**	**16**	**8**	**48**		
3a Weekly Data Review (26 Weeks)		8		32		
3b I/I Analysis		8	8	16		
4 Model Development	**-**	**40**	**-**	**-**		
4a Hydrologic Model Calibration		35				
4b Hydraulic Model Development		5				
5 CSO Abatement Alternative Analysis	**2**	**41**	**8**	**-**	**-**	