



# Department of PUBLIC WORKS

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Commissioners

Dan Decker Mike Sutherland

**TO:** The Honorable Mayor and the City Council

**THRU:** Michael Sutherland, Commissioner of Public Property

**FROM:** Cord Crisler, Water and Wastewater Superintendent

**DATE:** March 23, 2022

**SUBJECT:** Valley View Knolls Corrosion Study

## **DISCUSSION:**

This resolution is regarding the preparation of a Desktop Study to evaluate the corrosion control treatment (CCT) implications within the Valley View Subdivision (IL1797010) regarding the planned switch from the current Valley View wells to groundwater supplied by City of East Peoria (IL1970200). This study is required by the IEPA and necessary to supply our water to the Valley View Knolls Subdivision.

## **RECOMMENDATION:**

**Approve proposal from Cornwell Engineering Group for a lump sum of \$15,000 to conduct a benchtop corrosion control study.**

**RESOLUTION NO. 2122-128**

**East Peoria, Illinois**

\_\_\_\_\_, 2022

**RESOLUTION BY COMMISSIONER \_\_\_\_\_**

**WHEREAS**, pursuant to the Transition Agreement between the City and the Valley View Knolls Water Company for the transition of water service for the Valley View Knolls residential area to City water service, the City seeks to provide water from the City's water system to the property owners and customers in the Valley View Knolls residential area using the water main and related facilities and infrastructure maintained by the Valley View Knolls Water Company; and

**WHEREAS**, the City and the Valley View Knolls Water Company are in the process of transferring ownership of the Valley View Knolls Water Company water system to the City; and

**WHEREAS**, in order for the City to run water from the City's water system into the Valley View Knolls Water Company water system infrastructure, the Illinois Environmental Protection Agency ("IEPA") requires a Desktop Study to evaluate the corrosion control treatment ("CCT") within the Valley View Knolls Water Company water system prior to the switch of water service from the Valley View Knolls wells to the City's water system for providing water to Valley View Knolls residents; and

**WHEREAS**, it is in the best interest of the City to complete a Desktop Study to evaluate the CCT within the Valley View Knolls Water Company water system (the "Desktop CCT Study") in order to facilitate the switch to the City's water system; and

**WHEREAS**, Cornwell Engineering Group ("Cornwell") has offered to complete the Desktop CCT Study in the amount of \$15,000.00 under the terms and conditions set forth in the proposal attached hereto as "Exhibit A" and incorporated herein by reference (the "Proposal"); and

**WHEREAS**, the City hereby finds that it is in the best interest of the City to accept and approve the Proposal from Cornwell for the Desktop CCT Study as required by the IEPA to undertake the switch of water service for the Valley View Knolls residents to the City's water system;

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF EAST PEORIA, TAZEWELL COUNTY, ILLINOIS, THAT** the City hereby approves the Proposal from Cornwell for the Desktop CCT Study, and the Mayor or his designee is hereby authorized and directed to execute the Proposal for the Desktop CCT Study under such terms and conditions as the Mayor in his discretion may approve at a total cost not to exceed \$15,000.00; provided, however that the City shall have no obligation under the terms of this Resolution until an executed original of such Proposal has been delivered to Cornwell.

**APPROVED:**

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Mayor

**ATTEST:**

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City Clerk

**EXHIBIT A**

**Proposal from Cornwell: Desktop CCT Study**

## **CCT STUDY FOR THE CITY OF EAST PEORIA (IL): VALLEY VIEW SUBDIVISION**

**Cornwell Engineering Group, Inc. (Cornwell)**

**March 21, 2022**

### **SERVICES DESCRIPTION**

Prepare a Desktop Study evaluating the corrosion control treatment (CCT) implications within the Valley View Subdivision (IL1797010) regarding the planned switch from the current Valley View wells to groundwater supplied by City of East Peoria (IL1790200).

### **PROJECT ADMINISTRATION AND FACILITATION**

A Project Kickoff Meeting will be conducted by Cornwell and East Peoria staff to discuss the history of the issues surrounding the source water switch, confirm project objectives, and discuss information requested. Additional meetings during the Desktop Study (see below) will be conducted as needed.

Prior to the kickoff meeting Cornwell will provide a list of items to provide, then discuss the list during the kickoff meeting to identify any information that is already available. Some of the requested information may not be easily available and so Cornwell will work with East Peoria to continue the evaluation without the information whenever possible. However, some information

is essential and so Cornwell will work with East Peoria staff to obtain any missing information from other sources (e.g., Drinking Water Watch (DWW)), but this may involve collection and analysis of one or more samples by East Peoria staff, as needed. For example, Cornwell has worked with other systems in Illinois and other states that do not collect “headspace-free pH” samples (pH samples that have not



been exposed to the atmosphere). If no data are currently available, at least one set of headspace-free pH data is requested from each entry point. We can potentially arrange loan of an existing device to measure headspace-free pH from a nearby water system, or East Peoria staff can fabricate an appropriate device since they are fairly straightforward to assemble. The attached photo shows the device produced by the City of Joliet (IL).

## **PHASE 1 – DESKTOP SYSTEM STUDY**

Following the Project Kickoff Meeting, we will prepare a **Desktop Study Report**. The purpose of this phase is to compile and evaluate water quality and treatment information to compare water quality and corrosion control conditions in the two systems. This is accomplished by analyzing existing treatment and water quality data at the entry points as well as each distribution system. An outline of the work tasks in this phase are as follows:

1. Review historic LCR and water quality data, service line inventory, house age and water age, and residential plumbing material inventory data provided for each system
2. Identify additional water quality data needed to prepare the CCT desktop study and include in the RFI to city
3. Analyze existing data for spatial/temporal patterns/GIS as possible for WQ sample points, TCR locations, lead sampling locations
4. Analyze existing water quality variations in distribution system
5. Calculate WQ indices
6. Use modeling software to evaluate corrosion characteristics of water
7. Use flow charts from USEPA/IEPA guidance documents
8. Evaluate lead and copper CCT conditions
9. Review meeting with no. 1 East Peoria staff (provide PowerPoint presentation)
  - 9.1. Summarize findings
  - 9.2. Outline next steps (if needed), including scope, schedule, and budget
  - 9.3. We have done source water changes that IEPA has approved with just a desktop study, but most of the time the state requires a demonstration (solubility) study, typically a study using harvested pipes (in this case from Valley View).
10. Participate in conference call with the East Peoria and IEPA, to discuss analysis and treatment options identified (provide PowerPoint presentation)

## **COMPENSATION**

For Tasks outlined above, the City of East Peoria will compensate Cornwell for Services related to the CCT Desktop Study under this Task Order on a lump sum basis of \$15,000 to be invoiced monthly based on estimated percent completion.

## **SCHEDULE**

Services related to the CCT Desktop Study will begin upon execution of this Task Order, which is anticipated the week of March 28, 2022. Services described are scheduled for completion on June 30, 2022.