



## Agenda Memo

Crest Hill, IL

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<b>Meeting Date:</b>	2/6/23
<b>Submitter:</b>	Mark Siefert, Director of Public Works
<b>Department:</b>	Public Works
<b>Agenda Item:</b>	Recommendation to approve a contract with Strand and Associates for Water Model Updates and Calibration of the current model.

### Summary:

In 2015, the City of Crest Hill underwent the process of creating a computer based hydraulic model of the City's water system. This model is able to run scenario's such as: new development, new water mains, maintenance projects, and various Lake Michigan scenario's.

The water model is an invaluable tool for city staff especially when it comes to new developments. Staff is able put a draw on the system for a new development based on the developers projected water use and determine if the system can handle the draw of if additional mains will need to be brought into that development from another area.

In terms of new water mains and maintenance projects staff uses the model to see what will happen when valves are shut or towers are taken out of service. Some of the information given to staff from the model is the water age(how old is the water), PSI, and fire flows. All of this information is needed when making decisions on how to implement maintenance projects.

When the City decided to go to Lake Michigan as it's future water supply, staff spoke about going from a decentralized system to a centralized water distribution system. Using the model staff was able to show where deficiencies are due to the new water supply drop of points and make recommendations of construction projects.

Now that the model is 7 years old, and new pipes have gone in, old pipes are getting older, staff recommends that we update are recalibrate the model especially with the amount of new water projects underway and the potential for development along the TIF districts.

### Recommended Council Action:

To enter into an agreement with Strand and Associates for a NTE contract of \$32,100 to update and calibrate the water model.

**Financial Impact:**

**Funding Source:** Water

**Budgeted Amount:** \$380,000 (\$273,169.51 YTD)

**Cost:** \$32,100\*\* Cost will be spread over FY 23 and FY 24

**Attachments:**

Strand Agreement