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**CITY OF CARLISLE COUNCIL – WORK SESSION MINUTES  
TUESDAY, NOVEMBER 8, 2022  
CARLISLE COUNCIL CHAMBERS - CARLISLE, OHIO**

Mayor Winkler called the Carlisle, Ohio City Council Work Session of Tuesday, November 8, 2022, to order at 6:00 p.m. in the Council Chambers at the Carlisle Town Hall building, 760 Central Avenue, Carlisle, Ohio with the following members in attendance:

***Council Attendees:***

Mr. William Bicknell  
Mr. Tim Humphries  
Mr. Jason Faulkner

Mr. Michael Kilpatrick  
Mrs. Debbie Kemper  
Mayor Randy Winkler

Staff members present: City Manager Julie Duffy, City Engineer Shelby Ingle, Service Director Dan Casson, Finance Director Ryan Rushing, and Fire Chief Jeremy Lane.

**Discussion Items:**

**Water System**

Ms. Ingle provided an overview of the city's current public water system. Key points discussed included:

- City's system is provided by the City of Franklin through a 10" main line along SR123/Central Avenue with series of 8" lines servicing parts of the city.
- Current water map was shown. Approximately 10 miles of pipe with 521 different connections. City is still primarily on private wells.
- Carlisle Industrial Park fire protection is provided by a dedicated pump station and pond system. It is not on the public water system.
- Ms. Ingle provided an overview of the city's current usage of the water – average demand, max demand and peak demand. Data from 2015 through 2021 was used for these calculations and for the water study.
- Ms. Ingle explained the water concepts of pressure and flow and how they are used in the analysis of the water system.
- Primary driver for water pressure is related to elevation with the average existing daily pressure being between 50 and 77 psi. The pressure gets lower in the high end of the system – Eagle Ridge and Indian Trace. The lower end of the system sees around 60-70 psi for both average day demand and peak demand. The portion of the town with the highest elevation is around 50 psi on an average. She explained that 35 psi is the lowest allowed by the Ohio Revised Code.
- Fire flow – she stated that 750psi is acceptable for residential fire flow with a preferred figure of 1000psi. Anything below 750psi is considered as junk, per the Fire Chief, for protection. During peak demand of the water system, the higher elevation hydrants near Indian Trace are between 640 – 750 psi with hydrants west of Park Drive reading between 750 – 900psi. She indicated that this would mean that if a fire occurred during the peak hours in these areas, fire departments may not be able to exclusively use hydrants and must also rely on tanked-in water.

Ms. Ingle provided an overview of what the water system would look like as the NW corner gets developed. Key points discussed included:

- An overview of Indian Trace Sections 1 and 2 and Eagle Ridge Section 10 (Montgomery County) were discussed. These planned developments would expand the existing water system with an 8" line.
- As these areas develop, the max peak pressure reduces to 42 – 50 psi. Fire flow reduces to 579 – 750psi during peak times throughout the city – especially the NW corner. Ms. Ingle stated that the Eagle Ridge development would add approximately 132 homes with Indian Trace phases 1 and 2 adding 80+.
- Ms. Ingle stated that these reductions only took into account these known areas of expansion and not any additional developable land. She indicated the future known development will stress the existing system without significant improvements. She stated that any future development outside of the Indian Trace or Eagle Ridge may have marginal pressure and no fire protection.
- She stated the existing water system cannot abandon the fire suppression/pond system in the Carlisle Industrial Park.

Ms. Ingle provided an overview of recommendations to improve the water system:

- She recommended a two-fold improvement to the overall system – 1) new transmission line at Lower Carlisle, and 2) elevated tank. She stated that both can be independent projects but only doing one without plans for the other will not solve the situation.
- She explained the benefits of both systems and each providing some independent improvements. The elevated tank will improve the peak demand pressures when the system is most stressed. It will also improve the flow rates during an emergency but will not increase the average pressure.
- The new transmission connection will loop the overall system and provide redundancy which will improve the day-to-day pressure. However, it will not significantly improve the fire flow rate- especially for emergencies.
- The new Lower Carlisle connection would improve average daily pressure to 67-70 psi in the NW corner of the system and fire flow pressure improves to 1000 – 2000 psi which greatly improves residential fire protection by making this connection.
- The estimated costs for Lower Carlisle connection is approx. \$1,948,000. Connection is around 800LF with costs including expenditures relating to pushing the line under the railroad and installation of a water reducing valve/vault. Discussion was made regarding if the 24" line should or should not be reduced to 16" for future growth.
- She stated that 3,500psi is required for commercial fire protection which means the Lower Carlisle extension would not be enough to meet the needs of the Industrial Park without an elevated tank.
- Ms. Ingle provided estimated figures to replace the existing fire pond suppression system with a similar system (est. \$940,000) and extension of the water line to the park and abandon the pond system (est. \$1,358,000). She also provided costs for 3 different types of water tanks ranging from \$1.5 million to \$3.5 million. She stated that each tank option has their own individual benefits and could be further discussed at a later meeting.

General discussion was made regarding Refresco and their impact to the system and how that would change if they expanded their operations. General discussion was made regarding the current availability of the city to accommodate additional new business in the Carlisle Business Park.

General discussion was made regarding city's regulations requiring properties to tap into our existing system and if they should be amended. General discussion was made regarding the cost for a resident to tap into city's public system versus installation of a private well.

General discussion was made about the current status of the Franklin Water Plant and if there would be a point that it would be beneficial for Carlisle to consider operating its own water facility. Ms. Ingle indicated that the current Franklin Plant is not operating at full capacity or running 24/7. Discussion was made if the city could tap into the Warren County system or if it was too far for consideration.

Ms. Ingle provided final recommendations to the group including:

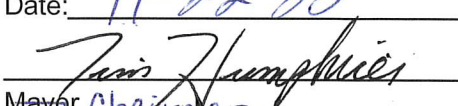
- City cannot provide fire flow to Phase 2 of Indian Trace without a relying on pumper trucks for additional fire protection. General pressures are within acceptable ranges but on the lower end.
- City cannot provide fire flow to portion of Eagle Ridge in the Montgomery County section and has concerns of the homes on the far NW end of the Montgomery County phase being added to the city's current system.
- Moving forward with the Lower Carlisle connection.
- Creation of a Water Master Plan.

**Adjournment:**

With no further business, Council adjourned the meeting by voice vote with all in favor.

Meeting adjourned at 7:00 p.m.

Attest:   
City Manager

Date: 11-22-22  
  
Mayor Chairman