City of Richwood
TEXAS

AGENDA MEMORANDUM

CONTACT: CLIF CUSTER

SUBJECT: ELEVATED STORAGE DISCUSSION

SUMMARY:

Strand Associates utilized hydraulic modeling to discover if a positive effect of Richwood's water distribution pressure could be more evenly distributed with the construction of two elevated water towers located at opposite ends of town, instead of one tower constructed in the northern portion of the city.

BACKGROUND INFORMATION:

In early 2022 Strand Associates was tasked with providing Richwood Council with information regarding necessary future compliance with TCEQ's compliance standard for elevated water storage capacity. As a result of data compiled utilizing hydraulic modeling, Strand presented their findings to Council in May of 2022. The report presented by Strand illustrated the distribution of water pressure and fire flows covered by several possible scenarios involving elevated tower location and overflow elevation.

To Staffs disappointment no scenario showed significant water pressure increases in areas of town that historically experience low water pressure, specifically at higher elevations. Based on these findings, Staff requested that Strand take a second look utilizing hydraulic modeling to see if positive pressure influence could be further distributed to areas of town historically experiencing low water pressure, with a tower constructed further south than previous location recommendations.

ISSUE:

At Richwood's current elevated tower overflow elevation, it is difficult to supply good, consistent water pressure to any building having more than 2 stories. Unless Council wishes to pursue future elevated storage towers with significantly higher overflow elevations, Richwood will need to recommend booster pumps or pressure tanks to any development in the future constructing higher than 2 stories.

FISCAL IMPACT:

No Immediate fiscal impact exists.

RECOMMENDATION:

Based on Richwood's current rate of development and future anticipated pace of development, I would recommend that Council be prepared to begin the engineering and construction process of future elevated tower/towers no later than FY 26.