



AGENDA MEMORANDUM

CONTACT: CLIF CUSTER

SUBJECT: ENGINEERING REPORT (ELEVATED STORAGE)

SUMMARY:

Strand Associates has provided Richwood with a capacity check for the Water System based on TCEQ's PWS compliance requirements. The five compliance criteria for Public Water Systems are distribution pressure, well capacity, pumping capacity, total storage, & elevated storage. Based on staff's estimates, Richwood will be at the 85th percentile of capacity to serve its customers with regards to elevated storage when Oakwood Shores and Marquis of Magnolia are fully developed. The 85th percentile of capacity to serve is the maximum a PWS can grow before planning for increased water infrastructure must begin to maintain compliance with TCEQ's standards.

City Improvements - TCEQ Requirements							
Description	TCEQ Requirement	TCEQ Minimum Capacity Requirement	Current Capacity	Current Connections	Allowable Connections with Current Capacity	85% TCEQ Allowable Connections with Current Capacity	Projection Year for 85% Connections ²
Well + BWA Capacity	0.6 gpm/conn	1,488 gpm	2,053 gpm	2,480	3,422	2,908	2027
Total Storage Capacity	200 gal/conn	486,000 gal	1,005,000 gal	2,480	3,025	4,271	2043
Service Pumping Capacity	0.5 gpm/conn (PHD) ¹	1,240 gpm	1,900 gpm	2,480	3,800	3,230	2030
Elevated Storage Capacity	100 gal/conn	248,000 gal	325,000 gal	2,480	3,250	2,763	2022
Emergency Power	0.35 gpm/conn	No emergency power requirement when Elevated Storage requirement is satisfied					

1 Calculated Peak Hour Demand (PHD), or 2.0 gpm/conn, whichever is less

2 Based on an average increase of 30 homes per year

BACKGROUND INFORMATION:

Once staff could anticipate that additional elevated storage for Richwood was going to be a requirement, it forced staff to investigate further benefits that could be gained with the addition of future elevated storage.

All aspects of future elevated storage needed to be considered and studied to ensure the best possible outcome for future water service to Richwood's customers. Council allowed Strand Associates to conduct a study to determine best geographical location and overall elevation of future elevated storage.

ISSUE:

FISCAL IMPACT:

RECOMMENDATION:

No action required