

Bear Creek Special Utility District



BEAR CREEK SUD

Rate Study Workshop

Month Day, 2020

T.B.D.

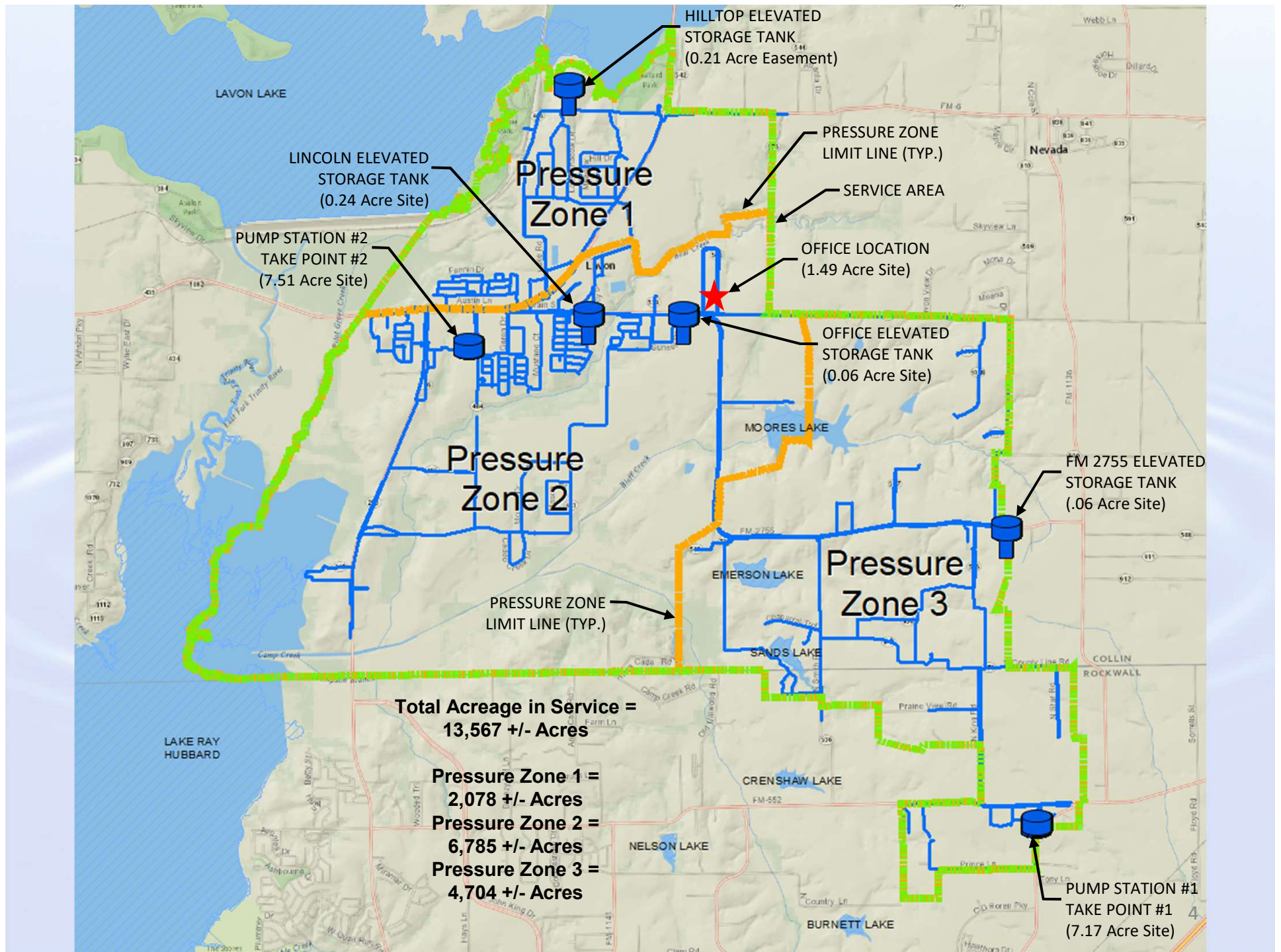
Kimley»»Horn

Expect More. Experience Better.

Joe Helmberger, P.E.
System Engineer

Bear Creek Special Utility District Board Members

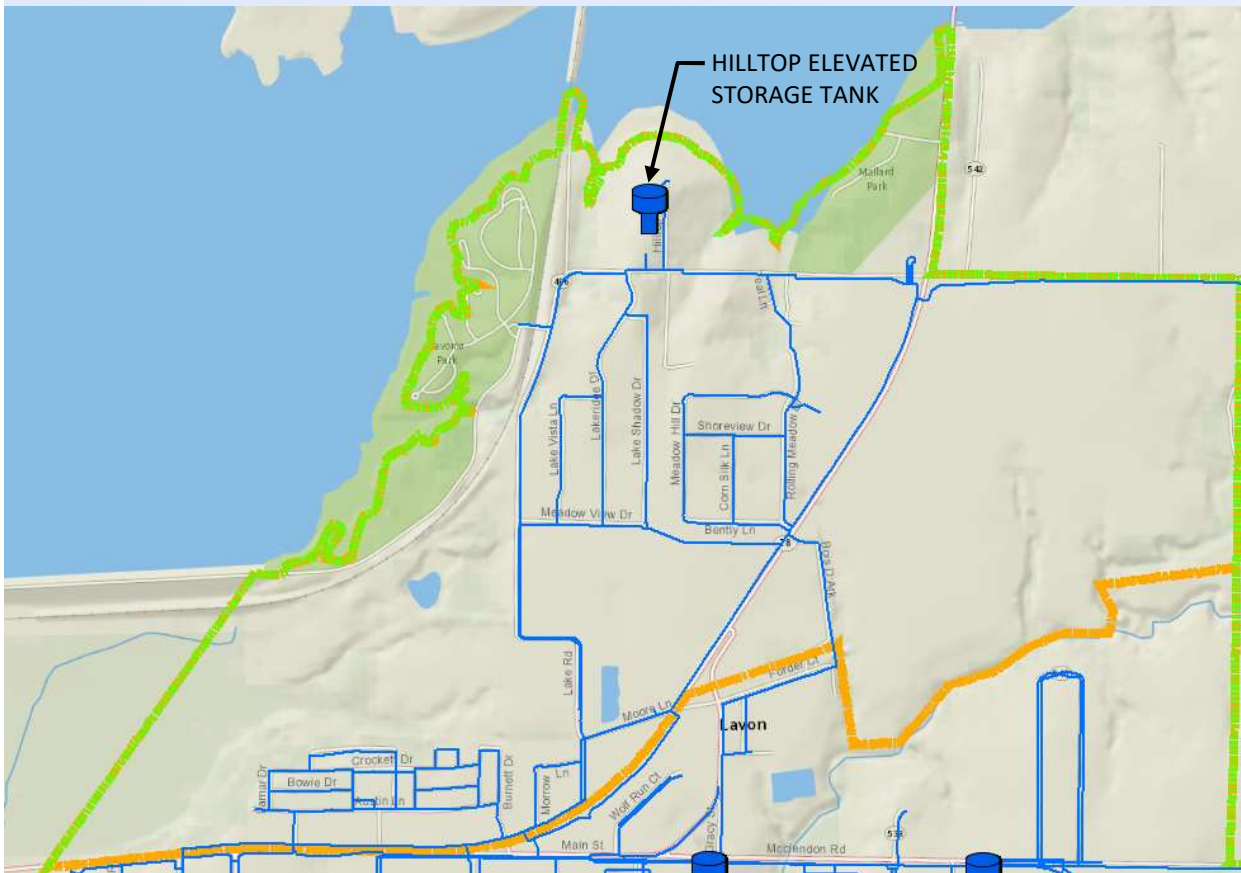
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- Herman Stork President
 - Bryan Block Vice President
 - Leticia Harrison Secretary
 - Robert Haynes Treasurer
 - Chris Elder Director
 - Deborah Fato Director
 - Colby McClendon Director



Pressure Zone 1

2,078 +/- Acres

- 672 Customers/Meters
- 1-400,000 Gallon Elevated Storage Tank
- 250,000 Gallon Ground Storage Tank Capacity in the 500,000 Gallon Tank at Pump Station #2
- 2-625 gpm Pumps
- Provides 9.2 hours of Storage



Pressure Zone 1 Assets

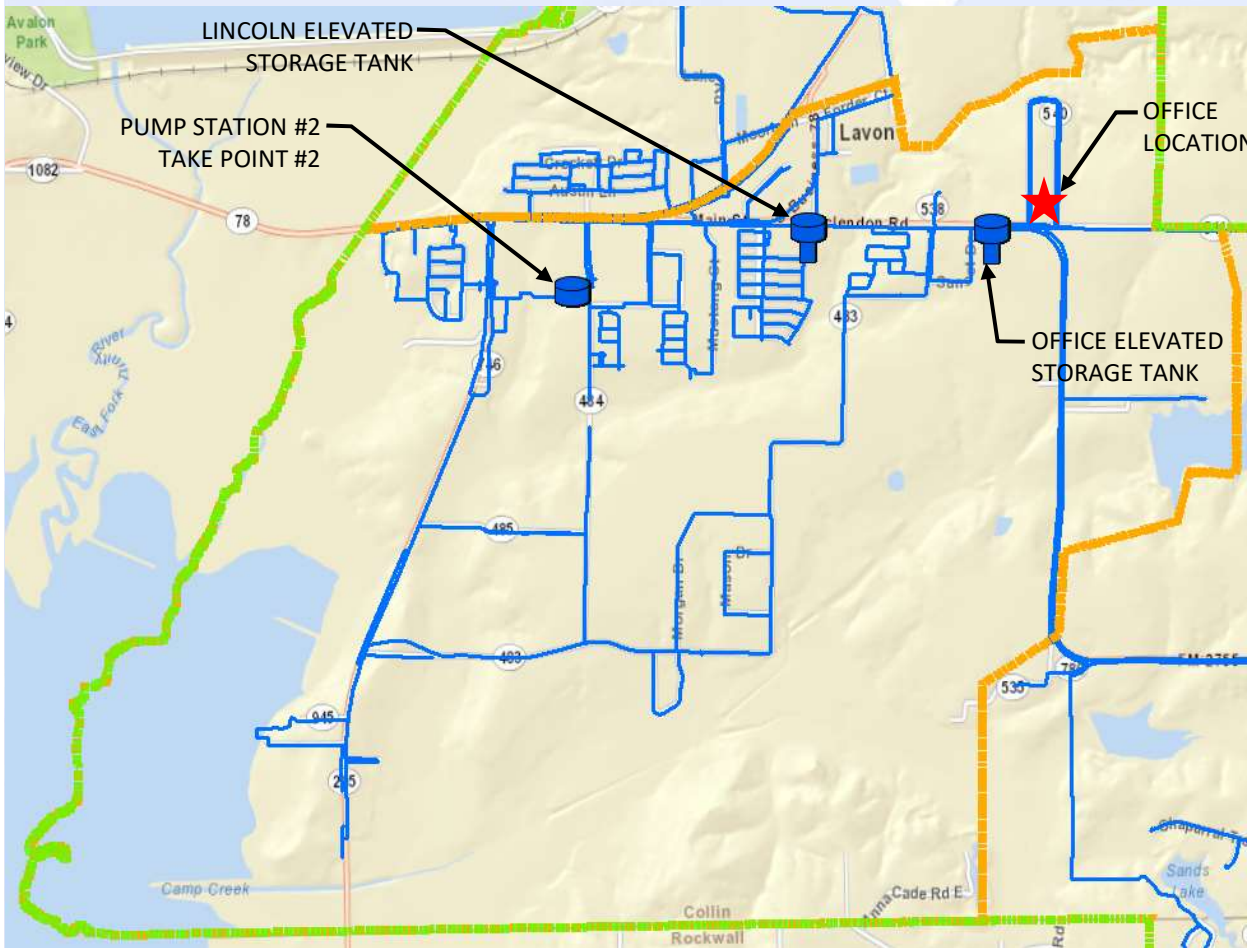


Hilltop Elevated Storage Tank

Pressure Zone 2

6,785 +/- Acres

- 1,248 Customers/Meters
- 1-300,000 Gallon Elevated Storage Tank
- 1-200,000 Gallon Elevated Storage Tank
- 250,000 Gallon Ground Storage Tank Capacity in the 500,000 Gallon Tank at Pump Station #2
- 2-1,000 gpm Pumps
- Provides 5.3 hours of storage



Pressure Zone 2 Assets



Pump Station #2



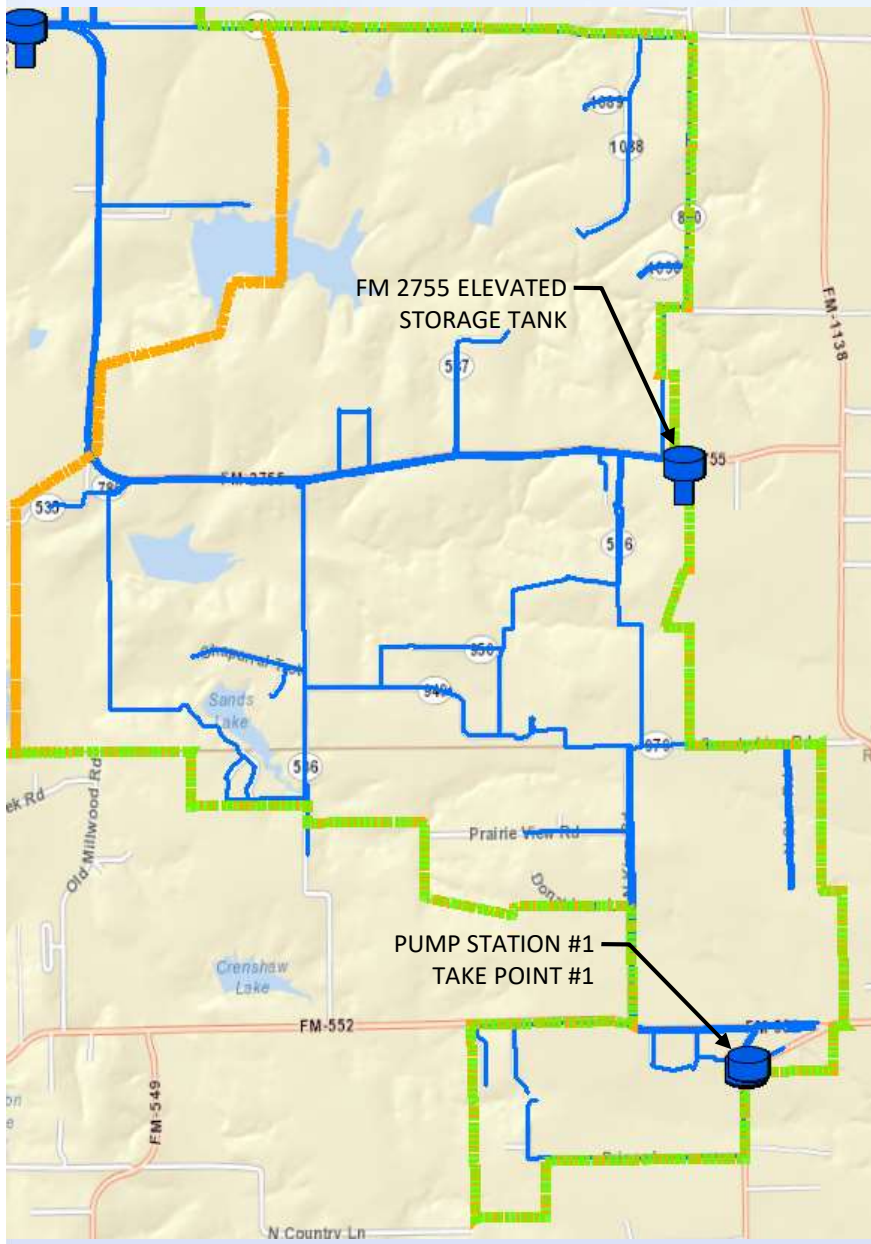
Office Elevated Storage Tank



BCSUD Office



Lincoln Elevated Storage Tank



Pressure Zone 3

4,704 +/- Acres

- 438 Customers/Meters
- 1-200,000 Gallon Elevated Storage Tank
- 1-17,000 Gallon Ground Storage Tank (To Be Removed)
- 1-20,000 Gallon Ground Storage Tank (To Remain)
- 1-32,000 Gallon Ground Storage Tank (To Be Removed)
- 1-300,000 Gallon Ground Storage Tank (Under Construction – Anticipated to be Online 6/15/2020)
- 2-700 gpm Pumps
- 5.2 hours Storage without New Tank
- 24 hours Storage with New Tank

Pressure Zone 3 Assets



Pump Station #1



FM 2755 Elevated Storage Tank

§291.93. Adequacy of Water Utility Service

(3) A retail public utility that possesses a certificate of public convenience and necessity that has reached 85% of its capacity as compared to the most restrictive criteria of the commission's minimum capacity requirements in Chapter 290 of this title shall submit to the executive director a planning report that clearly explains how the retail public utility will provide the expected service demands to the remaining areas within the boundaries of its certificated area. A report is not required if the source of supply available to the utility service provider is reduced to below the 85% level due to a court or agency conservation order*

*Should the water system ever reach 85% of its capacity, BCSUD is required to submit a report to TCEQ outlining the plan to upgrade system capacity before it is maxed out. This is to prevent a system ever reaching 100% capacity, there must be upgrade plans in place to keep the system below 85% capacity.

Water Master Plan

- Started February 2017
- Includes
 - Analysis of Existing System
 - Analysis of Future Water Needs
 - Analysis of Infrastructure Needed to Serve Future Water Demands & Costs Associated
- Finalized June 2017
- Updated in October 2018

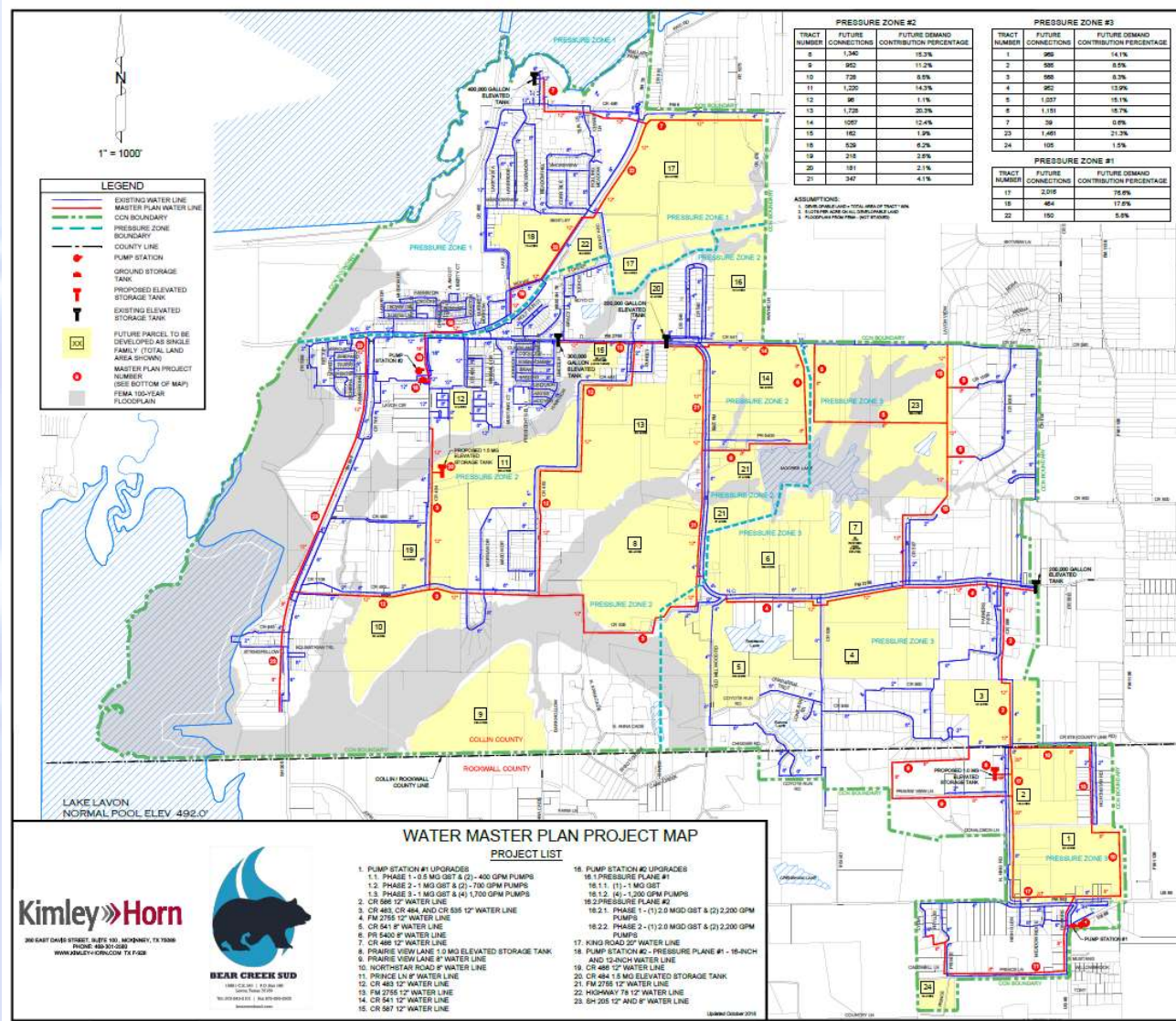
Projects that Cannot be Planned For

- Roadway Widening Projects
 - S.H. 205
 - S.H. 66
 - F.M. 552
- Unfunded Mandates
 - TCEQ audits
 - Systemwide locates for franchise utility installation
 - TxDOT project widening locates
 - EPA required sampling
- Rate Appeal Cases

Water Master Plan

- New development density of 5 lots per acre on 80% of each available tract was used to determine the future number of connections in each of BCSUD's three existing pressure planes.

Water Master Plan

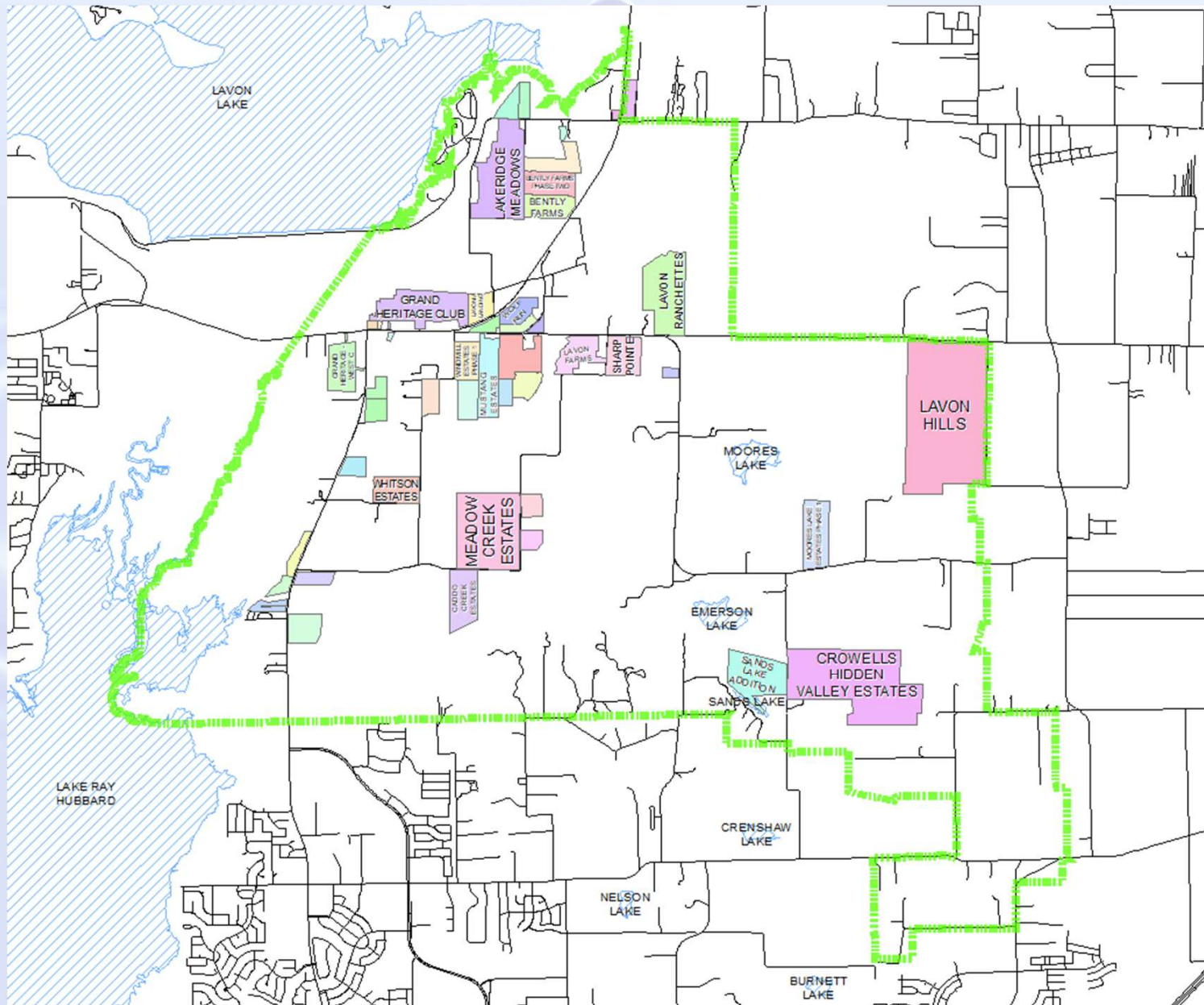


Water Master Plan

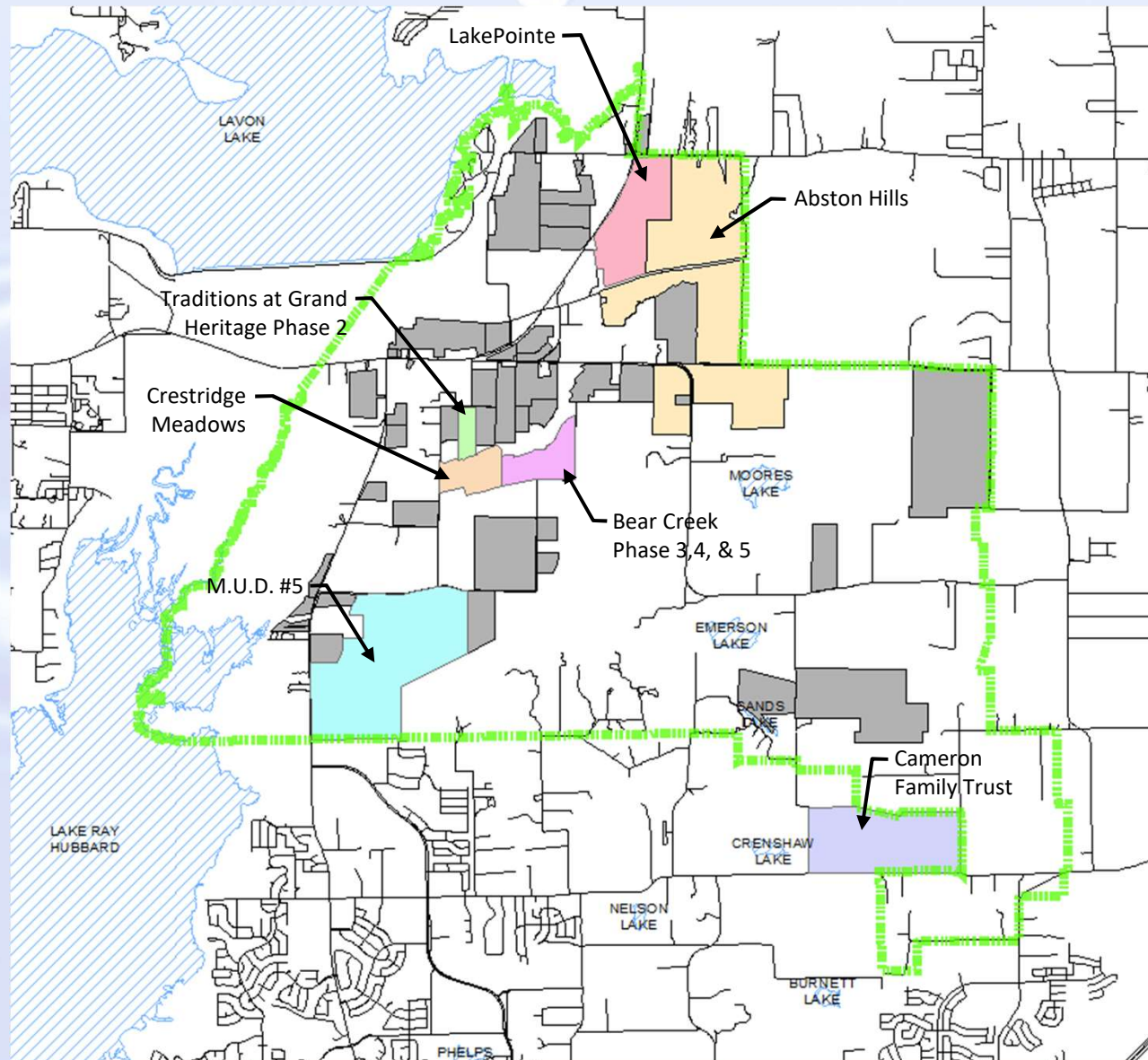
Additional Facilities Required to Serve all Customers at System Buildout

- Pressure Plane 1 Needs
 - 4-1,200 gpm pumps
 - 1-1.0 Million Gallon Ground Storage Tank
 - No Additional Elevated Storage
- Pressure Plane 2 Needs
 - 4-2,000 gpm pumps
 - 2-2.0 Million Gallon Ground Storage Tanks
 - 1-1.5 Million Gallon Elevated Storage Tank
- Pressure Plane 3 Needs
 - 4-1,700 gpm pumps
 - 2-1.0 Million Gallon & 1-500,000 Gallon Ground Storage Tanks
 - 1-1.0 Million Gallon Elevated Storage Tank

Existing Subdivision Map



Proposed Subdivisions Map (Under Design or Construction)



Proposed Subdivision Lot Count

Subdivision Name	Lot Count
LakePointe	630 SF, 150 MF
Abston Hills	3,300
Traditions at Grand Heritage Phase 2	111
Crestridge Meadows	274
Bear Creek	454
M.U.D. #5	896
Cameron Family Trust	145
Total Single-Family Lot Count:	5,810

Summary

- Improvements proposed to Pump Station #2 and System Piping:
 - Provide Redundancy in the System*
 - Provide Ability to Maintain Assets*
 - Provide Fire Protection for Pressure Plane 1*
 - Provide Capacity for Future Development

*Improvements to System for the Benefit of Existing Customers

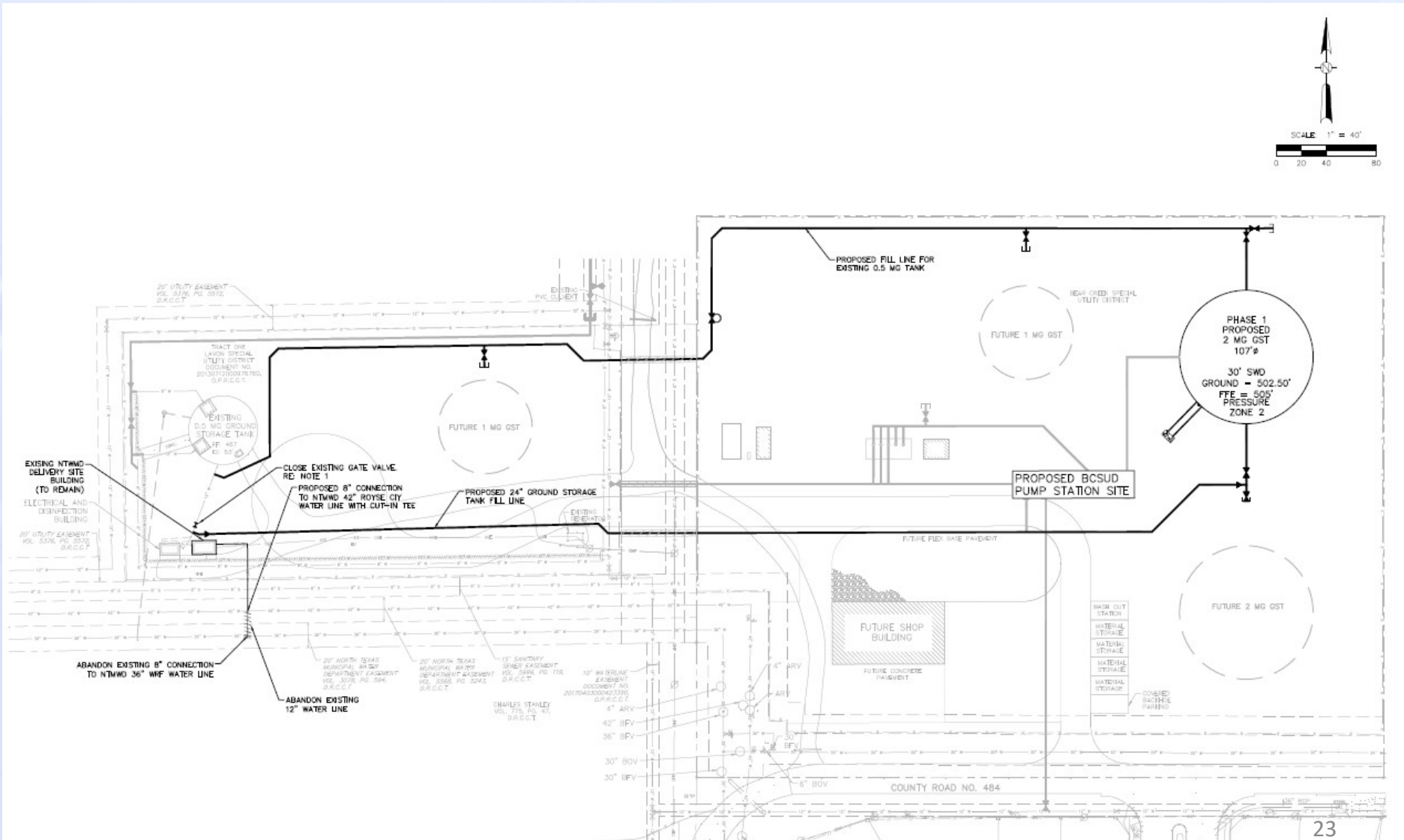
Summary

- Texas Water Development Board Loan
 - \$7,490,000
 - Interest Rate = 2.41%
 - Estimated Savings of approximately \$1,802,000 over the life of the loan by using the Drinking Water State Revolving Fund

Pump Station #2 Improvements (1st Phase)

- 1 – 2.0 Million Gallon Ground Storage Tank
- 3 – 2,000 gpm Pumps
- Site Improvements (Grading, Paving, Drainage, Yard Piping/Valving, etc.)
- 6,975 Linear Feet 12-inch Water Line
- 1,537 Linear Feet of 16-inch Water Line
- Will Provide 13.5 Hours of Storage for Pressure Plane 1 after Construction
- Will provide 38.4 Hours of Storage for Pressure Plane 2 after Construction

Pump Station #2 Improvements (1st Phase)



Buildout Site Improvements



Water Provider

- North Texas Municipal Water District
- Minimum Contract Amount (Take or Pay)*
243,364,000 Gallons
- Minimum Annual Charge
\$739,826.56

*Take or Pay contract requires BCSUD to pay for an agreed upon quantity regardless of if they take/use that quantity.

City of Lavon Insurance Services Office (ISO) Rating

- Public Protection Class **04/4X** out of 10
 - (1 = Exemplary & 10 = Minimum Criteria is Not Met)
- BCSUD accounts for 40% of the total classification
 - BCSUD was rated 33.94 out of 40
- City of Lavon accounts for 60% of the total classification
 - City of Lavon was rated 36.74 out of 60
- Having locks on fire hydrants to prevent water being stolen has no effect on rating