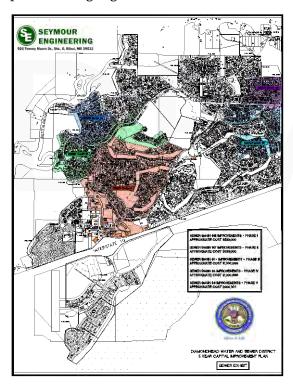
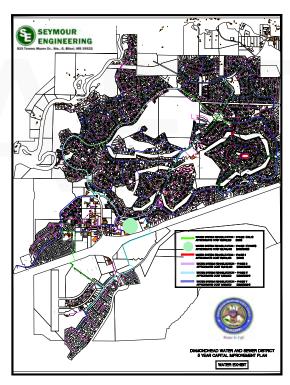
In this post we will share with you our current 5-Year (2021-2026) Capital Improvement Plan. This plan is comprised of 11 <u>large-scale</u> sewer and water rehabilitation projects, (5) Sewer and (6) Water. These critical projects are the underlying foundation of our \$12.5M Bond.

As previously discussed in Blogs #2 & 3, the systematic replacement of the entire 180+ miles of deficient water and sewer piping leftover from the original developer will ultimately have to be accomplished over the next several years. These current projects were deemed, by way of advanced technology hydraulic modeling, robotic camera assessments, and site by site stress analyses, to be the most critical and, thereby, the most prudent focus over the next 5 years.

To help our customers better understand approximately where these projects will take place relative to their own residences, we have included two separate service area maps with the spatial project impact areas highlighted, one for sewer, and one for water.





(ENLARGED IMAGES PAGES 4 & 5)

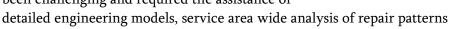
It is unlikely that many of our customers are aware that our sewer main collection system is managed by segmented basins for operations efficiency. A basin is defined by the residences and commercial businesses served by each of the District's 34 separate sewer lift stations. Consequently, we have 34 basins within the overall sewer collection system. This basin structure allows us to more effectively monitor basin flows and patterns to more effectively isolate the location and source of many issues and, quickly respond to and remedy breakdowns when they occur.

The major focus of our sewer systems projects is the removal and

replacement of those increasingly failing 50 year old clay and thin wall pipes that provide the

backbone of our sewage collection arteries. Determining exactly where to place initial priority for rehabilitating this expansive 34 basin network has

been challenging and required the assistance of



and frequencies, and the deployment of the District's high tech, in pipe tractor cam robotic surveilance system.



The collective information drawn from these sources led to the decision to focus \$4M of our \$12.5M Bond on 5 critically deficient basins (1, 3, 4, 16 & 17). Not surprisingly, these project focus areas also constitute over 80% of our current large-scale legacy pipe failures.

Following similar analytical structures, with the addition of detailed hydraulic water modeling of the entire system, we have selected 6 major projects to stabilize and further enhance our water distribution system. 5 of the 6 projects are laser focused on tackling the most troubling lengths of our water distribution artery. Unlike the segmented sewer basins, our water system is engineered as one continuous loop for regulated volume and pressure. Consequently, it is much more difficult, and imprudent to fragment projects around the loop in a patchwork quilt fashion. Instead, whole linear lengths of the infrastructure must be addressed in the same run. In this current capital improvement plan, the priority projects area is concentrated to the southeast quadrant of the system. As with the Sewer projects, this area also comprises over 80% of the major water main breakdowns and associated problems to date.



The 6th project in the water set will entail the addition of a new water tower. As we discussed in Blog #3, our existing water tower is rapidly approaching its maximum capacity and will not continue to sustain certification for fire suppression and project growth. The new tower will provide the additional volume needed to help maintain our "best available" fire insurance ratings and meet the growth projections, both residential and commercial, of the City's 2040 Plan. All together, the estimated cost of these critical water service rehabilitation projects comprise the remaining \$8.5M balance of our Bond.

We certainly anticipate that many of our customers may have more detailed questions regarding these projects than this post is capable of addressing. To help answer these questions, and any others

relative to our operations and position on the upcoming June 8th Referrendum Vote, we have scheduled 4 separate open town hall meetings. The following is the schedule and location.

DWSD Town Hall Meetings

Saturday, May 15th at 9:00 a.m. to 11:00 a.m. – POA Community Center

Tuesday, May 18th at 10:00 a.m. to 12:00 p.m. - Country Club - Emerald Ballroom II & III

Wednesday, May 26that 4:00 p.m. - 6:00 p.m. - City Hall Council Chambers

Thursday, June 3rd at 6:00 p.m. - 8:00 p.m. - City Hall Council Chambers

We sincerely appreciate your interest and support and are hopeful that you will take the opportunity to attend at least one of these events to get answers to any outstanding questions you might have.

Please continue to follow the remaining 3 posts as we wrap this series up over the next month in preparation for the Referendum vote on June 8th.

The Diamondhead Water and Sewer Board

