

BSI Canal Committee

6/22/21

One of the major considerations in our move to Punta Gorda (and to BSI) was seawalls maintained by the city. Although I have not confirmed this, it is my understanding that we are one of the few communities (if not the only one) where seawalls are not the direct responsibility of the homeowner. The advantages to this are enormous, in that there is continuity to the canals and a comfort knowing property values will be maintained while enjoying our canals for as long as we are here. All of this of course comes at a cost —re: assessments attached to our city taxes.

First, let me put a “few stakes in the ground”—most of the BSI seawalls were installed in the early 80’s, with an engineered design life of 50 years, based on this alone, we would expect all our seawalls to fail in the early 2030’s (roughly 10 years from now). Secondly, there are premature failures (primarily hurricanes) which need to be replaced on an as need basis. In certain cases, these can be extensive.

Although the above 2 modes cover most of the probably failures, there are other possible cost absorbing maintenance, such as cracking/crumbling concrete, exposed and rusting rebar, Deadman failure, soil washout behind the wall, etc., ad infi----. Then there are costs other than seawall maintenance, -- such as dredging of the canals, trimming of the mangroves (which is underway as this is written)—

So—our seawalls are getting older and although, we are not seeing design life failure to any significant degree, we know we will see failures on an ever-increasing rate in the not-too-distant future. Anticipating significant seawall failure within the next 10 years, the City hired Taylor Engineering to study our seawalls, to better determine probable failure modes and failure rates. Taylor did a good job of reviewing our current seawall construction, techniques, practices and methods; however, at least in my mind did not do a good job projecting failure rates. This after all is probably one of the hardest variables to adequately project. I could give numerous Civil Engineering examples (both positive such as the Brooklyn Bridge and Roman aqueducts to negatives such as the Silver Bridge across the Ohio River, and the more recent Florida International University Pedestrian Bridge), but such things as design safety factors and weather conditions radically affect actual seawall life, hence, their inability to project failure rates beyond initial design standards.

It turns out our Punta Gorda Canal Maintenance Department is doing a good job (and getting better) at recording failure rates and failure modes. Their empirical data, including both BSI and PGI has led them to developing an impressive algorithm model of failures. Their modeling indicates we must, on average, plan to increase our BSI seawall replacement program by 320 lineal feet per year, which they recommend starting next year and then projecting to add an additional 160 lineal feet per year soon thereafter for the following years.

One of the points we all agree on, is that we will not replace seawalls that are still in good condition regardless of their age. Canal Maintenance has developed an inspection protocol defining our seawalls into 5 condition levels. Seawall sections will only be replaced once their condition reaches an advanced stage of deterioration (just prior to failure). This being the wisest use of our money!

Bottom line—if we start now, the cost to cover the additional 320 lineal feet of seawall replacement is an additional assessment of \$100 per year. Then, a few years down the road, increase an additional \$50 per year to cover the 160 lineal feet per year.

If we do not start now, the cost gets significantly higher the farther we ‘kick the can down the road’. Rest assured, we will continue to keep all options open into the future and expect to adjust either up or down as time progresses. But—by starting now, we believe we have the best opportunity to keep assessments to the lowest practical level possible.

A final note; my next-door neighbor, a real estate agent, has told me on several occasions, that our property value is up 20% in less than 2 years. Anybody that follows our real estate market will probably consider this a very conservative estimate. BSI has a lifestyle that I appreciate and enjoy—and keeping a boat in my backyard is a major part of this enjoyment. Yes, we are talking about increase assessments by \$100/year, but I find this to be one of the best bargains out there based on the benefits derived from having these canals.

PS- you can contact me at canal@bsin.net

Rick Daugherty, Chairman, BSI Canal Committee