John Leszczynski (JL) presentation for Item 6

Photos presented by JL from recent tide events



















Written testimony read by JL for Item 6:

SEA LEVEL RISE AND THE COVE PUMP STATION 12.07.2017

The recent changes by FEMA to incorporate new, higher mean sea levels was a harbinger of events to come. One such event occurred December 3, 2017, during a King Tide. It made a section of Tiburon look like an average sunny day in Miami Beach, Florida.

A section of Greenwood Cove and Tiburon Blvd. experienced "nuisance" flooding. On a future, but not-so-sunny day, during a major, sustained rainfall and a King Tide, access to Tiburon will be cut off, and homes will be flooded along lower Cecilia Way...as happened in 2014.

That 2014 disaster was followed by expensive litigation and monetary claims...borne wholly by Zone 4's budget to the tune of \$ 250,000, plus associated back-charges from the Marin County legal department. Zone 4 cannot be held responsible for such expenses in the future!

Given these events, and what they portend for the next 2 or 3 winter seasons, I believe that the Zone 4 Advisory Board needs to direct the Marin County Flood District to change immediately its priorities regarding the Cove Pump Station and the East/West Creeks.

The Flood District must address the <u>real cause</u> of flooding in the area: <u>inadequate</u> <u>carrying capacity of the two creeks</u>.

I believe the following actions must be taken asap by the Flood District to increase those carrying capacities, all of equal importance and **highest priority:**

- Installing a "Header Pipe" to accept the discharges from the pumps at the Cove, then discharging water directly into the bay via a NEW pipe, "jacked" inside one of the existing two 72" pipes that now run out to the bay.
- Installing 2 Tidal Gates at the Cove, and at the West Creek Pump Stations, to prevent tidal flows from entering the systems. These gates could be automatic with manual overrides.
- Extensive dredging of both creeks, and "stabilizing" their banks as much as
 possible, particularly along the southern portions of the creek runs, by "filling
 in" the low points to reduce the possibility of breaching during extraordinary
 rainfall events. This could be accomplished within "natural" contours of the
 affected areas, without the need of artificial walls erected on the banks...as
 long as dredging, and the first two items, above, are completed.

All of them must be completed before the winter of 2018-19.

IMPACT ON PRESENT COVE PUMP STATION PLANS

If the above <u>highest-priority</u> actions cannot be implemented concurrently with ALL of the planned improvements for the Cove Pump Station, for reasons of either a lack of personnel or monetary resources, then I suggest the following:

1. Postpone the bidding, purchase and installation by ONE YEAR (to the Spring of 2019) for items related directly to the pump station building/pumps/controls/standby generator. These are needed improvements, but have no bearing on increasing the Creeks' carrying capacities.

Since 2014, the dramatic improvement of pump station/wet well maintenance and repair, and personnel attendance at the station during heavy rainfall, as evidenced this past winter, has given me confidence that we can continue to operate without substantial problems this winter...as long as such improvements are continued!

2. Continue the planned improvements to the wet well intake system, trash rack, and water circulation inside the well. They should be completed asap to make sure the existing pumps operate without cavitation due to vortices or garbage fouling the pump intakes.

IMPACT ON THE ZONE 4 BUDGETS FOR 2018/19/20

I don't really know until the costs for the **highest priority items**, as listed earlier, are calculated... as soon as possible, I suggest.

But overall I think that for 2018 we will probably spend less for improvements than is planned now (<u>if we postpone the bulk of improvements already planned</u>, as I mentioned above).

For 2019 we might even have more money available for those postponed items, due to another round of funding from property tax allotments to Zone 4.

Finally, I certainly don't expect any further legal costs being paid out of our budget, as long as the FLOOD DISTRICT follows my recommendations for completing the **highest priority items**. If it doesn't, and money paid to litigants starts to accumulate from flood damage they've incurred, then I don't believe the COUNTY can't say we didn't warn them, so IT should reimburse litigants from the "general county fund"....for which one precedent was found in the past.

WHAT I WOULD LIKE TO KNOW RIGHT NOW

Given the "known" <u>existing</u> carrying capacity of each of the two creeks (as determined from the data developed in each of their respective "studies"), and starting from the moment a King Tide begins to fill the creeks, how much rain, in inches per hour, and for how long, would it take before each of the creeks begins to "breach" at its lowest bank point, and then at successively higher points?

*** End of testimony