Subject: SIDS Commons Appeal

From: Moira Sullivan
Sent: Sunday, February 02, 2020 11:00 PM
To: davekingpcc@gmail.com; -- City Clerk <CityClerk@cityofpetaluma.org>; King, Dave <dking@cityofpetaluma.org>; Barrett, Teresa <tbarrett@cityofpetaluma.org>; Fischer, D'Lynda <dfischer@cityofpetaluma.org>; Healy, Mike <mhealy@cityofpetaluma.org>; Kearney, Gabe <gkearney@cityofpetaluma.org>; McDonnell, Kevin <kmcdonnell@cityofpetaluma.org>; Miller, Kathy <kmiller@cityofpetaluma.org>

Subject: RE: SIDS Commons Appeal

Dear City Council members,

I am a citizen of Petaluma and a scientist with the State of CA. I am 100% opposed to any development on the parcels owned by the Johnson brothers at the end of Graylawn Street, and most especially parcel (09) which has been protected now for 38 years in a Planned Urban development (PUD) agreement. As you are all well aware, this is a flood-hazard zone that has been inundated by flood waters numerous times. Historically, the town's ranchers didn't even build a barn in this area because they knew it flooded. Now with climate change, we are in a world of hurt, and particularly where we have a tidal slough running through our town. I am including a link to the December 2019 scientific paper published jointly by Scripps Institute of Oceanography and the US Army Core of Engineers (USACE). It shows that of 11 western states and a total of 414 counties, Sonoma County is #1 for flood losses over a 40-year period, to the tune of $5 billion dollars. This is because we have vulnerable assets located near rivers/coastlines that are prone to significant flooding. The study concludes that modest increases in storm intensity lead to significant increases in damages. This is something the Petaluma taxpayers should not be expected to shoulder.

Why is California in general and Sonoma County in particular especially susceptible to the impacts of climate change? For two reasons. Firstly, because (as the 2018 State of California Sea-Level Guidance Manual shows, link below) sea-level rise in CA will be higher than the global average. This is due to ice melt from the Antarctic. Second, "Sonoma County is located at the peak of atmospheric river land-falling activity along the West Coast" (Scripps/USACE, 2019). Bummer for us on both counts. As the State document says, storm surges, El Nino events, and king tides can produce significantly higher water levels than sea-level rise alone, and will likely be the drivers of the strongest impacts to infrastructure. In a warming climate, extreme weather events will become more intense as they become wetter, longer, and wider.

The State of CA recommends that, in addition to hardening flood control infrastructure (like the flood wall and culverts built by USACE in the Payran area), there is a call for the federal government to buy back high-risk properties, rather than encourage building in flood hazard areas through the provision of subsidized flood insurance. USACE said that any building upstream of the flood wall would "degrade flood projections". And indeed, as the town contemplates developments like SIDS Commons and the Cinnabar parcels, homeowners in the Payran area are again starting to receive notice that they need to purchase expensive flood insurance. Terracing (channeling) river banks, as the SIDS development proposes to do, is designed to move water faster off the land, leading to greater flooding downstream, and destroying rare and vital riparian habitat. This is something our town cannot afford to have happen. The Guidance document says, "there is a growing recognition that in addition to conventional large-scale flood control infrastructure, policy makers must also
consider non-structural flood damage mitigation approaches, including the restoration of natural flood plains, and the strategic placement of green infrastructure" (which entails land conservation and ensuring surfaces remain permeable, and not paved over, or built on). SB379 requires local governments to incorporate climate adaptation and resiliency strategies into their General Plans. And SB246 established a new state program to coordinate local and state climate adaptation strategies. Building in flood-hazard zones isn't one of the sanctioned adaptation strategies.

New scientific evidence (elucidated in the State Guidance document) has highlighted the potential for extreme sea-level rise and, "the importance of having such probabilities inform decisions". As the State document says, "it's no longer appropriate to assume a static environment". We know FEMA maps are woefully out of date (they take years to produce) and are not prospective. Heidi Bauer, a geologist and member of our Planning Commission, did not approve removal of the PUD on Parcel (09). This is because there have been, "no boots on the ground since 2008" and wetlands have to be re-assessed every 5 years. Moreover, 2008 was during a historic drought. Current NOAA maps show that much of Petaluma will flood with more severe storms and sea-level rise. Prior EIRs have been grossly flawed (e.g., outlet mall, auto mall, Payran homes), and those failed projections have cost we taxpayers tens of millions of dollars in losses. Money that could instead have been used to repair roads, hire more police, build parks, and deal with issues related to the homeless. According to Olivia Ervin at the November 2019 planning commission meeting, the City both hired and managed the SIDS Commons EIR, so we have the liability; it has a number of significant flaws.

We need real leadership on the climate crisis issue, and to ensure our town's resiliency from flood damage by listening to the scientific experts, and not build in flood-hazard areas. You cannot compel Petaluma taxpayers to again be on the hook for poor decisions made on behalf of our elected officials, developers, and the M Group consultants, whose knowledge and understanding does not trump that of the experts: USACE, USFWS, numerous USACE hydrology consultants, State of CA, geologists, floodplain mgrs, etc. Take this land out of the path of risk. And don't be unduly influenced by the ludicrous claims made by the Johnson brothers about carbon neutrality. Wetlands remove 1.34 tons carbon/acre-yr and there are 15 acres. That's 20.6 tons of carbon sequestered/year. Moreover, there will be 1,650-1,800 car trips/day or 600,000 car trips annually from this development alone. Solar panels on the building's roofs will do nothing to offset that lost capacity and massive uptick in gas-fueled car trips. I urge you to listen to the enormous weight of evidence from the scientific experts - and to not allow this ill-conceived development to proceed. Sincerely, Moira Sullivan, M.S.

https://advances.sciencemag.org/content/5/12/eaax4631

Atmospheric rivers drive flood damages in the western United States

Atmospheric rivers (ARs) are extratropical storms that produce extreme precipitation on the west coasts of the world’s major landmasses. In the United States, ARs cause significant flooding, yet their economic impacts have not been quantified. Here, using 40 years of data from the National Flood Insurance Program, we show that ARs are the primary drivers of flood damages in the western United States. Using a recently developed AR scale, which varies from category 1 to 5, we find that flood damages increase exponentially with AR intensity and duration: Each increase in category corresponds to a roughly 10-fold increase in damages. Category 4 and 5
ARs cause median damages in the tens and hundreds of millions of dollars, respectively. Rising population, increased development, and climate change are expected to worsen the risk of AR-driven flood damage in future decades.