

2(a)
6-25-11

A statement by Bert Ely to the Alexandria City Council
June 25, 2010

**Comments on flood-mitigation challenges
in the City's waterfront planning**

Mr. Mayor and members of Council, I am Bert Ely, an Old Town resident since 1981. While active with the Citizens for an Alternative Alexandria Waterfront Plan, I am speaking only for myself.

First, I commend Council for deferring action on waterfront planning and for holding another public hearing on this issue in September. However, much work must be done before the fall, with a strong focus on flood mitigation.

A key rationale for the waterfront plan is reducing "nuisance" flooding along the waterfront. However, despite pretty pictures staff has presented about flood mitigation, such as the attached, there is precious little detail about specific flood-mitigation measures.

Flood mitigation is not just a technical challenge, it also raises significant land-use, aesthetic, and historic preservation issues, including: where will the flood-mitigation measures be built, what will they look like, and will they work? More specifically, how will the three sources of flood waters be mitigated -- (1) river water coming over the top of the river bank; (2) river water backing up through storm sewers; and (3) rain water flooding down streets and alleys?

While floodwalls and berms can hold back river water, up to the height of the wall or berm, where will those structures be placed, what will they look like, and to what extent will they create visual and physical barriers between people on land and the Potomac? Due to recent changes in the proposed waterfront plan, the floodwall shown in the attached diagram bears no relationship to what is likely to be built between King and Prince, where some of the worst flooding occurs.

With regard to water backing up through storm sewers, it is my understanding that backflow preventers do not work well because they get clogged with debris. Therefore, sewer backups will have to be pumped over the floodwall, as well as the rain water flooding down King and nearby streets. Big question: How big must the pumps be and where will they be placed?

Ironically, floodwalls create a bathtub effect -- if the river overtops the floodwall, a lake will form on the landward side of the floodwall. Therefore, sufficient pumping capacity is needed to get that water back into the river once the river level drops below the floodwall.

As the attached diagram shows, staff has proposed elevating Union on either side of King, King east of Union, and Strand between King and Prince as a way to reduce street flooding, but raising streets raises a whole host of questions, including access from the elevated streets to adjacent buildings, Wales Alley, the Boat Club parking lot, and King Street Park. Also, elevating the streets may increase flooding in adjacent buildings. In sum, elevating these streets is an especially dicey proposition.

In closing, the toughest challenges in any planning exercise must be tackled first. Flood mitigation is among the toughest challenges in Alexandria waterfront planning. I strongly urge Council to direct City staff this summer to develop and cost out a detailed, three-dimensional flood-mitigation engineering plan – much more than pretty pictures – showing precisely what will be built, where it will be built, how it will be integrated into the streets and landscape, what it will cost, and what economic benefits flood mitigation will provide. Flood-mitigation design must be completed before many other aspects of a Waterfront Small Area Plan can be finalized.

I am highly skeptical that a feasible flood mitigation plan can be developed. If a feasible plan can't be developed, then the core of the Waterfront Small Area Plan will have to be fundamentally rethought. It will be back to the drawing board.

Thank you for your time. I welcome your questions.

Flood Mitigation:

