

City of Alexandria
Potomac River Waterfront Flood Mitigation Study
Advisory Group Meeting Minutes
Nannie Lee Recreation Center, Alexandria, VA
October 4, 2006 at 7:30 pm

1. Introduction and Welcome

Emily Baker, City Engineer, opened the meeting by thanking everyone for participating and explained that the purpose of these meetings was to provide information on the Potomac River Waterfront Flood Mitigation Study, to obtain feedback on flooding issues that affect the community, and to get input on potential solutions.

Also present from the City were Craig Perl, Project Engineer, and Maurice Daly, Engineering Division Chief. Attending from URS Corporation were Mary Roman, Project Manager; Lynn Mayo, Project Engineer; and JoAnna Wagschal, Facilitator and Public Outreach Specialist.

2. Overview of Project Presentation

Mary Roman provided an overview of the project and explained that the purpose of the study was to identify and evaluate flood reduction solutions along the Potomac River. She asked participants to introduce themselves and to list any issues or experiences they had to share regarding flooding. This input included the following issues:

- The perception of flooding vs. actual flooding.
- The amount of pre-flood notice and access to sandbags.
- The effect of extreme (e.g. Isabel) vs. more routine types of flooding.
- The desire for the forthcoming waterfront plan to also address flooding.
- The impact of monthly tidal cycles on flooding.
- The impact of flooding on parks.
- How to best educate everyone on responding to flood related problems.
- The impacts of flooding on the marina and leaseholders.
- Concerns about the flooding of parking garages.

Mary then made a presentation which showed the study area, explained the composition and role of this Advisory Group, outlined the five-step project process, reviewed project activities to date, listed common causes of flooding, provided an overview of flooding in the waterfront area, explained the basis for the flood levels to be studied, and provided highlights of business and community interviews regarding flooding in the study area. The five-step process consists of identifying the problems, determining the cause of the problems, identifying solutions, analyzing solutions, and recommending the best solutions.

Lynn Mayo then spoke with the group about the different categories of potential solutions that could be used to alleviate flooding. The purpose this part of the process was to allow those affected by flooding to voice their concerns and to solicit any additional solutions to consider during this study. Lynn concluded by providing the project timeline and asking for questions.

Please note that a copy of the slides from this presentation were handed out to participants and are attached to these minutes.

3. Questions and Open Discussion on Issues

A number of questions were asked during the presentation. Questions and answers are summarized below:

- *What is the adjacent elevation?*

It is the elevation that is the first point at which a building will be touched by water from a potential flood. This does not mean the building is flooded or that water has entered the building, this is a conservative estimate that is used to highlight when a building might start to be affected. As we get more information through this study we will refine how we determine whether or not a building will be affected by a certain elevation of water.

- *What is the tidal elevation?*

Astronomical high tide in this area is slightly over 3 feet (NAVD88). The actual water-surface elevation is also affected by storm surge and rainfall-runoff. The U.S. Geological Survey provides near-real-time water level measurements at:
http://waterdata.usgs.gov/va/nwis/uv/?site_no=0165258890&PARAMeter_cd=00065,00060,62620,00062

- *What is freeboard?*

Freeboard is the difference between the top elevation of a flood control structure (such as a levee or floodwall), and the design water-surface elevation. For example, if the design elevation is 10 feet, and the top of levee is 13 feet, the freeboard is 3 feet. Freeboard is meant to account for the uncertainties in engineering analyses.

Questions asked after the presentation included:

- *What is the definition of a nuisance flood?*

A nuisance flood is a flood that happens on a regular basis and affects area businesses and travel in a minor way.

- *Does nuisance flooding have more impact on historic buildings?*
The effect on historic buildings will be reviewed as part of this study. In addition, any flood mitigation measures will be evaluated for their effect on historic buildings.
- *Do we know a flood event will happen before it happens?*
Since the flooding along the Potomac River is either from coastal flooding (typically a hurricane) or heavy rainfall in a large part of the watershed that makes its way down the Potomac River to Alexandria, typically there is some warning that a large flood will occur. However, since the flooding in Alexandria is also very dependent on the tides, it is very difficult to predict how severe the flooding will be. If the peak from the coastal or river flooding occurs during low tide, it will have less impact than if it occurs during high tide.
- *Are you looking at structural solutions such as elevating the street that was done at Prince and Union?*
Yes, we are looking at all potential solutions at this point.
- *What were the conditions at Prince and Union before this?*
Flooding of this area occurred more frequently before the street level was raised.
- *Does the City clean the storm sewers right before heavy rains are expected?*
The City explained that they pro-actively clean the storm sewers to prevent problems.
- *Could you dredge the Potomac so there was more capacity to handle flood waters?*
Dredging doesn't help tidal bodies of water in mitigating flooding which is why it wouldn't work on the Potomac.

Other issues raised about flooding included:

- The effect of wind on flooding.
- The need to talk to those most affected by nuisance flooding about their perspective on it.
- Consider residential costs and impacts as well as business impacts.
- Lack of FEMA assistance for businesses.
- Gas/Electric Company shutdown power to area.

- The group also discussed the high tide conditions that were experienced Thursday and Friday before Labor Day. Based on USGS gage data, the elevation of this tide was approximately 5.6 feet.

Potential solutions identified by the advisory group:

- Consider notifying property owners and residents in the flood areas.
- Consider providing identification cards to business owners which would allow them to cross police lines and get back in the area quickly after a flood.
- Work with the media to mitigate negative press.
- Develop a public awareness campaign.
- Provide timely updates to affected businesses and residents, including when they are allowed to return to the area.
- Develop an email and phone tree flood warning system.
- Consider moving parked vehicles prior to a flood to speed cleanup and lessen damage

4. Action Items/Next Steps

Participants were asked to notify their constituents about this process and to provide any additional issues, questions or solutions to Craig Perl. If they thought of other people to be interviewed or to invite to this advisory group, they could also send that information to Craig. URS will provide a copy of the presentation to the City to upload on the city web site. Everyone was thanked for their time and told that minutes of the meeting would be forthcoming to all participants.

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Advisory Group Attendees
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