

# North Shore Levee Design

## Community Meetings Summary - Draft

**Meeting Dates:** September 19 and 20, 2016

**Meeting Time:** Both days: 9:00-11:00 AM and 3:00-5:00 PM; Tuesday: 6:30-8:00 PM

**Total Number of Attendees:** Neighborhood-Specific Meetings: 34  
Public Open House: 35

### Presentation

In general, the same presentation was used at both the neighborhood-specific meetings and the public open house. Mark Steepy (Lead Engineer, KPFF) and Mike Stringer (Planner, Maul Foster & Alongi) gave an overview presentation to provide information on the project and context for discussion. The presentation covered:

- **The purpose of the North Shore Levee project**, including its impetus and expected outcomes and work products.
- **Steps to implementation**, from the preliminary design in 2016-2017, to getting the CLOMR, and going through, funding, final design, permitting, construction and certification, ideally by 2020.
- **Causes of flooding**, differentiating between coastal flooding, riverine flooding, and localized flooding that occurs due to stormwater drain surcharge. Also discussed were the economic impacts of the current flood insurance requirement.
- **Considerations for levee design**, which included the ten guiding principles that would drive the preferred design.

In the neighborhood-specific meetings, the attendees then broke into small group discussions by neighborhood to address the issues that were specific to their area of Aberdeen and/or Hoquiam. At the public open house, people from the specific neighborhoods went to one side of the room where the neighborhood area boards were displayed and they could talk with staff about neighborhood-specific issues. Other attendees could view these boards as well as the general information boards on the other side of the room and speak with staff.

### Discussion

#### Overall key themes

- Perception that most flooding is localized; driven primarily by runoff from slopes and backup of storm drain system, high groundwater, and tides
- Overtopping of riverbanks is generally perceived to be uncommon\
- Residents primary concern is localized flooding
- Removal of mandatory flood insurance requirement is considered very important, but many property owners along the rivers carry no mortgages and don't have flood insurance
- Concern about the levee causing flooding in other areas

#### Neighborhood-specific comments

- Neighborhood 1
  - Concern regarding flooding effects on the other side of the river from construction of the levee
  - Concern about erosion near the Edgewater apartments
  - Wants to maintain access for tourists to Kurt Cobain park
- Neighborhood 2
  - Many properties are built to the river's edge, so there are concerns about the feasibility and impacts of constructing a flood wall at the top of the bank

# North Shore Levee Design

## Community Meetings Summary - Draft

- Property owners stated they wanted protection from flooding, but wanted to avoid impacts to views and access to the river
  - Would be interested in exploring options to elevate homes along the river
  - Would be interested in a shorter wall even if it wasn't certified
  - Some property owners expressed concern that if a flood wall was built along Market and Young Streets that it would potentially exacerbate flooding on their properties
- Neighborhood 3 & 4
  - Property owners stated that flooding does not occur in their neighborhood or is just a nuisance
  - One property owner stated that waterfront property owners do not want to subsidize others when their property values are going to drop
  - Some property owners expressed concern about loss of access and view to the river
- Neighborhood 5, 6 & 7
  - Concern about the future capacity of the railroad system (comment from Port of Grays Harbor)
  - Concern that flooding impacts riverside of the levee (comment from Port of Grays Harbor)
- Neighborhood 8
  - There is an existing levee along the riverside, so perception is that building up the levee will not have a major visual or aesthetic impact.
  - Concern about localized flooding appears to be a high groundwater concern
- Neighborhood 9
  - Some property owners expressed concern about impact on existing structures
  - Some property owners expressed concern about blocking views
  - Some property owners expressed concern about aesthetics of flood control structure
  - One property owner expressed concern access to leased aquatic lands
  - Some property owners expressed concern about flooding from catch basin surcharge at high tides in winter time

### Questions

The following questions were commonly asked during both the neighborhood-specific meetings and the public open house.

- Can stop logs be used to provide access to riverward property on private land?
  - That option will be explored and will depend on site specific conditions and the City's ability to quickly dispatch staff to each location to place the stop logs before flooding occurs.
- Will banks still require flood insurance after the levee is built?
  - Federal regulations on banks require flood insurance for properties in the FEMA designated 100-year floodplain. If the map is changed to Zone X (protected by levee), this federal requirement will be removed. Residents in South Aberdeen who live in a Zone X (protected by the Southside Levee) have not been required to purchase flood insurance with their mortgages.
- What will an access path need to look like?
  - Access to the levee for maintenance will need to be clear of structures that would prevent getting equipment to the levee.
- Should we design for the 100-year or 500-year flood?
  - This is a policy decision the City leadership will need to make that balances risk, cost, constructability and longevity. An executive order issued in 2015 directs federal agencies to consider impacts of climate change and sea level rise in flood prone areas, so designing for

# North Shore Levee Design

## Community Meetings Summary - Draft

forecasted sea level rise or the 500 year flood event may be a requirement for eligibility to obtain federal funding.

- With sea level rise, how long would the 100-year flood protection be good for?
  - Predictions of sea level rise are based on risk and probability. There are several different forecasts for sea level rise near the Washington Coast. These forecasts are being considered in the design process.
- Will we be exacerbating flooding in other areas?
  - This is an important question that the design team is studying carefully. Computer modeling of flooding indicates that the levee would increase flooding by less than half an inch in a limited area east of the Wishkah River. This result may seem counterintuitive. It is a result of flooding being driven by coastal tides that spread over all of Grays Harbor.
- Are there other options for what the wall looks like?
  - Yes, the design team will review and provide cost estimates for different materials for the wall. Considerations will include cost, space limitations and aesthetics.
- When will interior drainage be addressed?
  - Improvements to stormwater drain pipes and outfall pumps located within the limits if the levee will need to be completed in the same timeframe as the levee for the project to be approved by FEMA. Flooding areas outside the levee limits will be addressed by City staff via other funding sources.
- How will the Cities fund construction of the levee?
  - Options for funding the project are currently being explored. There are federal and state grant and loan programs that can provide support in addition to local funding.
- How will the Cities fund maintenance?
  - Options for funding maintenance are also currently being explored.
- How soon can this project be completed?
  - The schedule will depend greatly on the ability to obtain permits and funding. Ideally, if the levee can be designed to avoid construction below the top of the river bank, and if funding can be obtained, the project could be completed as soon as 2020.
- How will emergency vehicles access the areas riverward of the levee?
  - Emergency vehicle access is a critical issue. The design of the levee will identify locations for emergency vehicle access.

### Survey Results

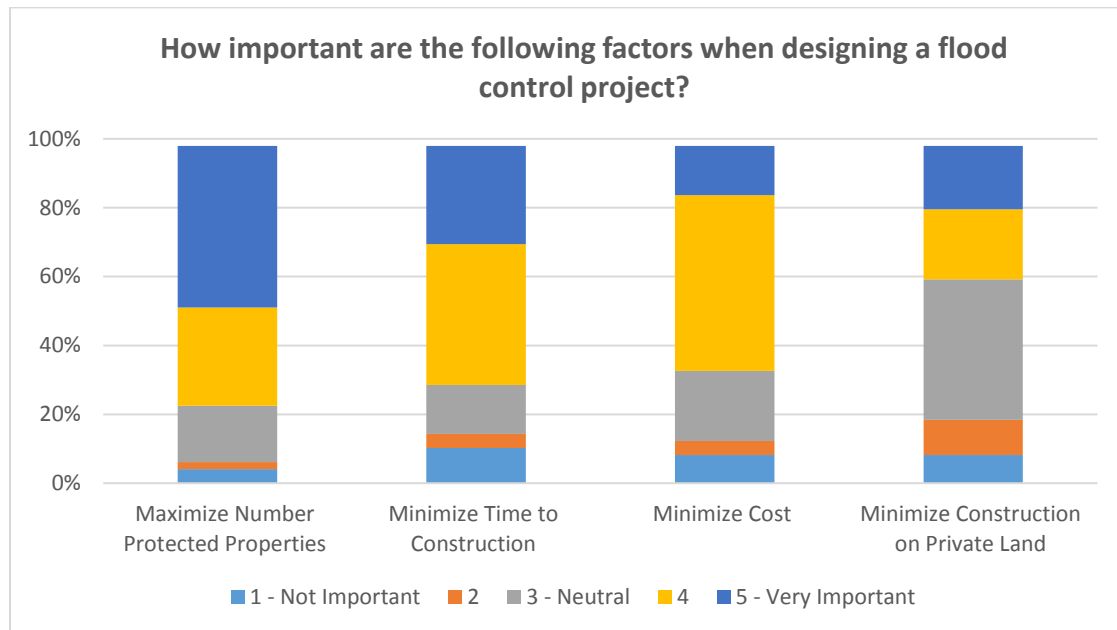
A questionnaire was distributed at each of the neighborhood specific meetings and at the public open house. There were 48 responses filled out, some of which were filled out by household and represented multiple people. Some basic statistics regarding whether people own a business or property, pay flood insurance, and experience flooding is described in the table below.

	Percent of Respondents
Own a Business	35%
Own Property	85%
Rent Property	4%
Have Flood Insurance	44%
Experience Flooding	60%

Summary of other questionnaire responses:

## North Shore Levee Design Community Meetings Summary - Draft

- 67% of respondents are concerned or very concerned about flooding
- 69% of respondents are supportive or very supportive of a levee
- 60% of respondents consider minimizing construction on private land to be a neutral, unimportant, or very unimportant issue
- 57% of respondents are supportive or very supportive of a tax increase to pay for flood protection and insurance relief
- On a scale of 1 to 5, with 5 being the most important, meeting participants rated the following levee design criteria as follows:



- Looking left to right on the above chart, the most people thought that maximizing the number of protected properties was somewhat or very important (a total of 78%). This number tapers off to the right with:
  - 70% rating minimizing time to construction as somewhat or very important
  - 65% rating minimizing cost as somewhat or very important
  - 38% rating minimizing construction on private land as somewhat or very important