



Land Use & Environment Committee
Briefing on Proposed Development Code
Updates to Address Sea-Level Rise in
Downtown

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Title

Briefing on Proposed Development Code Updates to Address Sea-Level Rise in Downtown

Recommended Action

Committee Recommendation:

Not referred to committee.

City Manager Recommendation:

Receive the briefing and provide guidance for next steps

Report

Issue:

Whether to establish a standard requirement for floodproofing within the downtown. The proposal is to require floodproofing 2' above the lowest "base flood elevation" - up to 16' elevation

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Background and Analysis:

SEA LEVEL RISE IN DOWNTOWN OLYMPIA:

Downtown Olympia has a long history of flooding. It is built on low lying fill and subject to tidal events.

Of concern over the long-term is sea level rise and its potential to increase flooding in downtown Olympia.

Olympia is most vulnerable to flooding only during relatively short-term, hour- or two-hour long tidal events. Fortunately, these events are predictable allowing us to prepare for them. City staff and regional emergency management personnel monitor weather patterns with preparedness in mind.

While it remains difficult to predict the level or timing for sea level rise, the City continues to increase its understanding of Olympia-specific implications, and the City Council received a briefing about this on February 9, 2016 (see presentation - **attachment 4.**)

LONG-TERM APPROACH (SEA LEVEL RISE MANAGEMENT PLAN):

The City's Comprehensive Plan specifies that we will use best available information to implement a sea level rise management plan to protect downtown (see goal/policies - **attachment 3.**) This planning effort will include accessing risk, developing a progression of adaptation and response actions, a capital facilities plan, partnerships and funding structure. The City plans to kick off this process in 2017.

CURRENT APPROACH TO FLOOD RISK

As part of the National Flood Insurance Program (NFIP), floodproofing is required for developments within "flood hazard areas" that are identified by the Federal Emergency Management Association (FEMA). The City of Olympia adopts and administers these rules via the flood prevention ordinance in OMC 16.70.

While FEMA is a first step toward setting an appropriate standard for floodproofing, further study by the City and consultants concludes these base requirements may not provide an adequate level of protection during flood events associated with sea level rise (**attachment 4.**) Accordingly, the City is exploring whether to establish a standard elevation in downtown at which to require floodproofing, in addition to what is already required under FEMA.

Currently, the City does not have standing floodproofing requirements; however, on several occasions the City has used its State Environmental Policy Act (SEPA) authority to require floodproofing on developments within downtown. Development permits that meet certain thresholds are required to go through a SEPA review by the City's SEPA official. If adverse environmental impacts are identified that are not adequately addressed by existing laws, the City can use its SEPA authority to require changes to the proposal to reduce likely impacts, condition or deny a permit.

IMMEDIATE EFFORT AS PART OF THE DOWNTOWN STRATEGY (DTS):

Among other elements, the City-Council approved scope for the DTS includes:

- Encourage private investment;
- Reduce uncertainty; and
- Consider whether to establish (SEPA) urban infill and/or minor construction project exemptions;

The SEPA statute has provisions that give local government flexibility to determine the thresholds for requiring SEPA review in urban infill areas. These tools are intended to assist cities and counties in meeting objectives to encourage more intense development in existing urban areas. Exempting certain areas or types of projects in downtown from SEPA could encourage private investment by reducing permit costs, timelines and uncertainty about what will be required.

The DTS scope calls for the City to explore SEPA exemptions for downtown. As a first step, staff completed a GAP analysis to determine how the City has used SEPA for downtown projects in the past. Staff found SEPA has often been used to require measures to address flood risk associated with sea level rise.

Using SEPA to address flood risk has not resulted in a consistent standard requirement, nor does it offer a way to require floodproofing measures for projects that are not subject to SEPA (*if outside the FEMA flood hazard area.*) Instead, if we update the City's development Code to establish a standard floodproofing requirement for downtown, this would:

- Create a consistent standard for downtown;
- Provide more up-front certainty about what will be required; and
- Ensure the City is able to require floodproofing in the case of SEPA exemptions.

PROPOSED STANDARD FOR DOWNTOWN:

The proposal is to require floodproofing in downtown 2' above the lowest "base flood elevation" - up to 16' elevation. The attached Map of Effected Areas (**attachment 1**) shows the area that would ultimately be affected by the proposed regulation.

The red and orange areas on the map have been identified by the Federal Emergency Management Agency (FEMA) as "flood hazard areas." The numbers (e.g., 14, 15, 16, 17, 18) are the "base flood elevation" for that area as identified by FEMA. The lowest "base flood elevation" in downtown is 14'. The letters indicate:

A-Zone: Areas with a 1% annual chance of flooding.

AE-Zone: Areas that have a 1% probability of flooding every year (also known as the "100-year floodplain"), **and** where predicted flood water elevations above *mean* sea level have been established. Properties in Zone AE are considered to be at **high risk** of flooding under the National Flood Insurance Program (NFIP).

V-Zone: Velocity (wave action) zones with an elevation number designation 14', 15', 16', 17' and beyond. This means building 1 foot above the map designation for compliance with the NFIP.

The purple area on the map identifies sites that are at 16' elevation or lower. The yellow shapes indicate existing buildings.

Under the proposal, developments on sites within the red, orange and purple areas (sites with 16' elevation or lower) would be required to provide floodproofing.

EXPLANATION

Essentially an insurance program, FEMA requires properties within “flood hazard areas” to carry flood insurance and be subject to requirements of a flood ordinance adopted and administered by local jurisdictions; Properties within “flood hazard areas” are currently required to provide floodproofing 1’ above base flood elevation.

The proposal under consideration by the City would go beyond FEMA by requiring floodproofing for development throughout the downtown on sites that are 16’ or lower in elevation. This would include sites that are in FEMA “flood hazard areas” which may be required to provide additional floodproofing beyond what FEMA requires. Site-specific requirements will vary from 2” to 2’ of required floodproofing based on the site’s specific elevation.

For example, developments on a site with a base elevation of:

- 14’ would be required to provide 2’ of floodproofing - up to 16’
- 15’ would be required to provide 1’ of floodproofing - up to 16’
- 15.5’ would be required to provide .5’ of floodproofing - up to 16’

The requirement would apply to new development, as well as renovations that exceed 50% increase in valuation. The Map of Building Elevations (**attachment 2**) shows how high above the adjacent grade are existing buildings within the subject area, and it is color-coded to indicate the level of floodproofing that would be required up to 16’ in the event of a permit for a 50% renovation.

Sites higher than 16’ in elevation would not be required to provide floodproofing. Also, historic structures that are listed on a local, state or national register are exempt from floodproofing requirements under FEMA; and the City will likely consider offering the same exemption.

Why 16’?

It is important to note the 16’ requirement is not tied to a potential scenario for sea level rise. There is currently no agreed upon level or timing for sea level rise, thus it is impossible to say exactly how long the proposed 16’ would continue to provide adequate flood protection. The main benefit of the proposal is establishing a clear and consistent standard for downtown that we believe will provide for feasible development opportunities and be adequate for the foreseeable future. However, a more comprehensive sea level rise management plan planned to begin in 2017 is the necessary avenue for determining a long-term response. 16’ is a first step, and the City may adjust this in the future.

FLOODPROOFING OPTIONS

There are many options for how to provide floodproofing. One way is to raise required finished flood elevations. There are also other floodproofing methods, such as automatic raised walls, which are allowed under FEMA and may be less impactful from a development perspective. Floodproofing options are more limited in the FEMA “flood hazard areas.” In the remaining subject areas (purple on the map), we can offer more flexibility. Staff will review these options and what they look like during the presentation.

OTHER IMPLICATIONS BEING EVALUATED

The proposal has other impacts that need to be further evaluated in conjunction with other elements

of the Downtown Strategy. Staff will continue to assess the impact of the proposal in regard to:

- Construction costs
- Flood Insurance
 - *One thing we do know is that the proposed floodproofing requirement will be located in a section of the Code separate from the “flood ordinance.” FEMA has told us if we couple it with the “flood ordinance” it could result in unnecessary flood insurance compliance issues. We can avoid those issues by placing the proposed regulation in a separate location in the Code.*
- Design (i.e., ADA ramps, pedestrian-oriented streetscape)
- Height
 - *Based on the way we currently measure building height (from grade to mid-point of the roof*) the option of raising finished floor elevation would essentially reduce allowed building height. We will explore implications and possible alternatives, and this will also need to be done in conjunction with recommendations for view protection) (*height is measured differently in the Shoreline - from grade to top of roof.)*
- Historic Preservation
- Potential SEPA exemption areas
- Overall alignment of City development standards and incentives with the guiding framework for the Downtown Strategy
 - *We will take a holistic look at how the City’s standards and incentives facilitate feasible opportunities for private investment in line with community goals*

TIMELINE

Staff will continue to evaluate the proposal between now and September. We anticipate taking a proposed ordinance to the Planning Commission for review and public hearing in the fall.

Neighborhood/Community Interests (if known):

Various community groups and other agencies are engaged in climate change and sea level rise issues. As part of the process to form the Downtown Strategy, the public has expressed significant interest in the City addressing risks to downtown associated with sea level rise. We are also hearing from the development community that clarity and consistency regarding how the City will address flood risk associated with sea level rise is needed.

Options:

Briefing only. Staff will provide a presentation summarizing the proposal, its purpose, implications, and examples of various floodproofing options; followed by discussion.

Financial Impact:

Code update process included in base department budgets.

Attachments:

- Map of affected area
- Map of building elevations

- Policies for Sea Level Rise
- 2/9/16 Presentation