



KITSAP COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

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FREQUENTLY FLOODED AREAS – BAS REVIEW

The attached materials will provide a basis for discussion of Best Available Science relative to Frequently Flooded Areas at the next Technical Review Committee Meeting (2-4 PM, November 12 in the Evergreen Room at Silverdale Community Center).

I. Introduction

The Growth Management Act identifies “frequently flooded areas” (also known as “flood hazard areas”) as one of six types of critical areas that local jurisdictions must protect under their critical area regulations. Kitsap County’s first flood protection ordinance was enacted in 1980, and was subsequently adopted by reference into the Critical Areas Ordinance in 1994.

A recent community assistance review from the Department of Ecology (DOE) and the Federal Emergency Management Agency (FEMA) revealed that the 1980 ordinance needed updating to meet current FEMA flood insurance program requirements. Due to the importance of keeping flood insurance rates reasonable in Kitsap County, revisions to the Flood Ordinance were undertaken in advance of the general Critical Areas Ordinance update currently underway. Using the DOE/FEMA Model Flood Ordinance for guidance, the 1980 ordinance was revised and forwarded to the Planning Commission for review summer 2003. In July 2003, a letter was received from FEMA indicating that the ordinance is now compliant with the minimum standards of the National Flood Insurance Program (Ryan Ike - July 29, 2003). In October 2003, the Board of County Commissioners adopted the revised Flood Ordinance (No. 310-2003). *Note: the Flood Ordinance (Title 15 of the Kitsap County Code) is currently being revised to incorporate the new language, which is not yet reflected on the County’s web site (www.kitsapgov.com).*

II. Functions of Flood Hazard Areas

Kitsap County’s flood hazard areas are generally limited to the lower reaches of larger streams, and low-lying shoreline areas. Due to the lack of large river systems in the County, we don’t tend to have broad reaching floodplains in the classic sense of the word. The general purpose of flood protection regulations in Kitsap County is to *protect the public health, safety and welfare from harm caused by flooding, and to prevent damage and/or loss to both public and private property (KCC 19.500)*. In addition, the

policy goals of the Critical Areas Ordinance, identify *stormwater storage* as a primary reason for regulating development in flood hazard areas. Finally, the FEMA/Department of Ecology Model Ordinance has provisions for protection of “...*natural floodplain functions related to riparian habitat and the natural processes that create and maintain habitat for fish*”.

Since flood hazard areas typically occur in riparian corridors along streams, they are often protected through more restrictive stream and wetland buffer requirements, which currently range from 25-200 feet in width. As a result, development proposals are much more common in low-lying shoreline flood zones than in stream associated flood zones. Still, further review would be appropriate to determine if further revisions are necessary for anadromous fish protection, or whether they are sufficiently protected through other means in the Critical Areas Ordinance.

Shoreline flood zones are typically not threatened by high rainfall events, but rather high tide and windstorm events. Flood review in these areas primarily ensures that structures are placed at an appropriate elevation above mean sea level to avoid damage. In some cases, other regulations in the Critical Areas Ordinance such as shoreline and steep slope buffers serve to prevent development in these areas. More recent research has also focused on the hazard that Tsunamis may pose to low-lying shoreline areas of the Pacific Northwest.

III. Flood Hazard Area Mapping and Inventory in Kitsap County

Flood hazard areas are those areas that are at risk of being inundated by the 100-year flood, that is, the areas subject to a one-percent or greater chance of flooding in any given year. Kitsap County’s flood hazard mapping is based on the 1980 Flood Insurance Rate Maps (FIRMs) provided by FEMA. These base maps have been digitized for use on the County’s Land Information System, along with other critical area inventories. These *Building Limitations* maps are then attached to any application documents received by Kitsap County (see sample map attached). Flood hazard areas are then picked up during the initial application review stage. The FIRM maps are quite general, so review of site plan elevations and site visits also assist in determining proximity to flood hazard areas.

Flood Ordinance standards apply to any development proposed in flood hazard areas. In some cases, a “Flood Elevation Certificate” is required in order to certify the elevation of a proposed structure relative to the 100-year flood zone. Completed by licensed land surveyors, these forms serve as a site-specific inventory to determine whether a proposed structure or activity occurs in a flood hazard area, and if the structure is elevated to an appropriate level above the floodplain.

IV. Best Available Science Literature Review

The following information is attached in order to assist in discussing best available science for frequently flooded areas:

- Flood hazard area – permit processing procedure and sample building limitations map
- Kitsap County's 1980 Flood Control Ordinance and 2003 revisions

- Citations of Recommended Sources of Best Available Science – Washington State Office of Community Development
- King County BAS review - Chapter 3 (Flood Hazard Areas)
- Pierce County BAS review – Pierce County Code 18E.70

NOTES: