

Status of Improved Regulatory Standards

French & Associates February 7, 2017

In February 2016, French & Associates reviewed all 12 Basin communities' floodplain management ordinances to identify which had recommended higher standards. Each community was given a report that identified which of the ten recommended standards had been adopted.

In August 2016, all Grays Harbor County communities were notified by FEMA that they had until February 3, 2017 to adopt the new county-wide Flood Insurance Rate Map (FIRM). This was seen as an opportunity to incorporate improved standards in their regulations during the amendment process.

Earlier in 2016, the Chehalis River Basin Flood Authority had developed a list of improved floodplain management standards. That list was refined and the following eleven standards were recommended for inclusion in the ordinances that had to be amended.

1. Flood of record: The highest flood of record is used to determine the extent of the regulatory floodplain and the regulatory flood elevation where there is no base flood elevation (BFE) shown on the FIRM or where the flood of record is higher than the BFE.
2. Best available data: Where the FIRM does not provide a base flood elevation, the BFEs developed by Watershed Science & Engineering for the Flood Authority are used.
3. No available flood data: Where the FIRM does not provide a base flood elevation and there is no available flood study, the BFE must be calculated by either the permit applicant or the community before a permit is issued for a new building or substantial improvement.
4. No adverse impact: In riverine areas where the FIRM does not have a floodway, any increase in flood heights caused by the development must be acceptable to affected property owners.
5. Filling restrictions: In order to maintain the floodplain's capacity to store flood waters in riverine areas, any filling must be compensated by removal of an equal amount of fill.
6. Critical facilities: To the extent possible, new critical facilities shall be located outside the limits of the base floodplain. If they are in the base floodplain, they will be protected from damage and loss of access to the 500-year flood level or the base flood elevation plus three feet, whichever is higher.
7. Hazardous materials: Hazardous materials are prohibited from the regulatory floodplain. This does not apply to small quantities of these materials kept for normal household use or to the continued operations of existing facilities.
8. Subdivision set asides: New subdivisions and other large developments that are both in and outside the floodplain are required to have all parcels with buildable sites on the higher ground outside the floodplain.
9. Freeboard: New buildings and substantial improvements of existing buildings will be protected to three feet above the base flood elevation.
10. Non-conversion agreements: An applicant for a permit for a building elevated on walls must sign an agreement that the area below the flood protection elevation will not be converted to a use or

dimension contrary to the building’s originally approved design. The agreement authorizes the Floodplain Administrator to periodically inspect the area.

11. Substantial improvement tracking: Improvements and repairs to existing buildings are tracked for five years or more. If during that time the total improvements exceed 50% of the value of the building, the building must be brought up to the flood protection standards for a new building.

The Flood Authority offered to help the communities in the Basin with the ordinance amendment process. Six cities opted for the assistance: Aberdeen, Cosmopolis, Elma, Hoquiam, Montesano, and Oakville. Grays Harbor County declined the offer due to a staff shortage. The County did adopt the new FIRM on time, but did not spend time reviewing other changes to its ordinance.

Flood Authority representatives met with the staff of these communities, walked through the recommended standards, and drafted appropriate ordinance language. They also met with council members and city attorneys and made presentations to one planning commission and three city councils.

The work included a four page handout on the minimum federal and state requirements. The handout explained why the minimums do not provide sufficient flood protection in the area and summarized the relevant recommended standards. It included section references so Councils could modify or even delete the recommendations.

The handout used the table to the right to show how the flood data and freeboard standards greatly reduced the cost of flood insurance for a new building. This is because 40 years of insurance claims experience has proven that buildings built to these standards suffer much less flood damage.

Flood Insurance Premium Comparison		
Zone	Height	Premium
A	2 - 4 feet > grade	\$1,192
A	1 foot > grade	\$2,277
A w/BFE	2 or more feet > BFE	\$447
A w/BFE	0 - 1 foot > BFE	\$1,583
AE	3 feet > BFE	\$343
AE	2 feet > BFE	\$451
AE	1 feet > BFE	\$748
AE	At BFE	\$1,578
<small>Premiums are for a new single family house, one floor, slab on grade foundation, \$100,000 in building coverage, \$1,000 deductible, no CRS discount</small>		

All six communities adopted the new FIRM by the end of January. All six adopted nine of the ten recommended standards. Four of the six adopted the recommended three feet of freeboard. Aberdeen adopted two feet, although slab on grade nonresidential structures have a one foot freeboard. Aberdeen also adopted a requirement that all buildings throughout the City must be 1.5 feet above the street. Elma opted to have no freeboard requirement.

On the next page is the current status of the adoption of the Flood Authority’s recommended floodplain management standards.

The work to improve local regulatory standards is not finished. Two more steps are needed;

1. A workshop should be held for community permit staffs to review the procedures and records needed to implement their newly adopted standards.
2. An in-depth review should be conducted of other local regulations that impact floodplain development, especially critical areas regulations, zoning, and shoreline management plans. While the floodplain regulations essentially cover how to build in a floodplain, these other programs identify the best use of floodplain lands.

Status of Adoption of Improved Regulatory Standards – January 31, 2017

Recommended Standard		Grays Harbor County	Aberdeen	Cosmopolis	Elma	Hoquiam	Montesano	Oakville	Lewis County	Centralia	Chehalis	Napavine	Pe Ell	Thurston County	Bucoda
1	Flood of record		A	A	A	A	A	A			A			A	
2	Best available data		NR	NR	A	NR	A	A		NR	NR	NR	NR		A
3	No available data		A	A	NR	A	NR	NR		NR	NR	NR	NR		NR
4	No adverse impact		A	A	A	A	A	A		NR		NR	NR		NR
5	Filling restrictions		A	A	A	A	A	A		P				A	A
6	Critical facilities		A	A	A	A	A	A	P	P	P	P	P	A	P
7	Hazardous materials		A	A	A	A	A	A							
8	Subdivision set asides		A	A	A	A	A	A	A	P	P			P	
9	Freeboard (3 feet)	P	P	A		A	A	A	P	P	P	P	P	P	P
10	Non-conversion agreements		A	A	A	A	A	A							
11	Substantial imprv't tracking		A	A	A	A	A	A	A	A				P	
	A = Adopted		9	10	9	10	10	10	3	1	1			3	2
	P = Partial adoption	1	1						1	4	3	2	2	3	2
	NR = Not relevant		1	1	1	1	1	1		3	2	3	3		2