

Actuarial Rates in the Context of National Flood Insurance Program (NFIP) Hazard-Mapping

**NCOIL Summer Meeting
Property-Casualty Insurance Committee**

July 17, 2011

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Legislative Update on NFIP

- H.R. 1309—sponsored by Rep. Judy Biggert (R-IL); awaiting vote by full House
 - Reauthorizes NFIP for five years
 - Moves toward adequate rates
 - Introduces business-interruption and living-expense coverage, if properly priced
 - Does not address outstanding debt



Legislative Update on NFIP (H.R. 1309 cont'd)

- Creates a Technical Mapping Advisory Council
 - To include (among others):
 - an expert in real estate
 - an expert in insurance
 - a member of a recognized regional flood and storm water management organization
 - a representative of a state emergency management agency or association or organization for such agencies
 - a representative of state national flood insurance coordination offices
 - representatives of two local governments, at least one of whom is a local levee flood manager or executive, designated by the Federal Emergency Management Agency as Cooperating Technical Partners
 - representatives of two state governments designated by the Federal Emergency Management Agency as Cooperating Technical States
 - Purpose: to determine new mapping standards
 - First goal to “ensure that the flood insurance rate maps reflect true risk”



Legislative Update on NFIP

- S. 1091
 - Sponsored by Sen. Roger Wicker (R – MS)
 - Introduced on May 26, 2011; referred to Senate Banking Committee.
 - Includes reauthorization of NFIP for five years; reauthorization provisions based on S. 2284, which passed the Senate in 2008
 - Only mapping provision removes limitation on state contribution for updating flood maps (currently 50 percent of the requested revision or update)
 - New section introduces a system for adjusting “indeterminate” insurance claims
 - For those claims with no physical structure remaining (i.e., “slab claims”)
 - Would use scientific and technical data to model the event and arrive at an allocation between wind and water portions of the claim



Actuarial Rates Generally

- Basic principle—an actuarial rate should reflect the hazard of the insured risk
- Casualty Actuarial Society (CAS) Statement of Principles Regarding Property and Casualty Insurance Ratemaking
- Actuarial Standard of Practice No. 12, *Risk Classification*



CAS Statement of Principles Regarding Property and Casualty Insurance Ratemaking

- Principle 1: A rate is an estimate of the expected value of future costs
- Principle 2: A rate provides for all costs associated with the transfer of risk
- Principle 3: A rate provides for the costs associated with an individual risk transfer
- Principle 4: A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer



ASOP No. 12—*Risk Classification*

- “A relationship between a risk characteristic and an expected outcome, such as cost, is demonstrated if it can be shown that the variation in actual or reasonably anticipated experience correlates to the risk characteristic.”



NFIP's Risk Mapping, Assessment and Planning (MAP) Program

- Remapping of flood zones
 - New information on likelihood of flooding
 - Old flood control infrastructure (dams, levees, etc.) no longer may be adequate
 - Some flood plains more prone to flooding due to development
 - New levees or dams need proper reflection
 - One common result
 - Properties move from moderate- to low-risk flood zone to high-risk flood zone, resulting in substantially higher rate
 - Also subject to mandatory purchase requirements
 - Some properties will show lower hazard



NFIP's Risk Mapping, Assessment and Planning (MAP) Program

- NFIP premium class structure
 - Full-risk rates—about 80 percent of in-force policies
 - Full-risk rates are much lower than private sector rates due to lack of charge for use of capital
 - Full-risk policies constitute approximately 80 percent of the in-force policies
 - Preferred risk policies (PRPs) constitute approximately 30 percent of that group (three-eighths of the total)
 - Subsidized rates—about 20 percent of in-force policies
 - Rates are significantly lower than full-risk rates
 - Most were built before the determination of flood insurance rate maps (FIRMs)—circa 1974



NFIP's Risk Mapping, Assessment and Planning (MAP) Program

- Actuarial soundness
 - NFIP is required by law to promulgate rates that have “actuarial soundness”
 - Actuarial soundness has no universally accepted definition
 - NFIP actuaries develop rates that fairly discriminate among policyholders, within the constraints that Congress has placed on them
 - Among these constraints are grandfather provisions and the PRP Eligibility Extension
 - In the next two slides, actuarial soundness is used in this context



NFIP's Risk Mapping, Assessment and Planning (MAP) Program

- However ...
 - Preferred Risk Policy (PRP) Eligibility Extension
 - For those properties moved from moderate-low to high-risk
 - Two-year extension at the lower rates
 - FEMA maintains the actuarial soundness of PRP by raising slightly all PRP premium rates, effective Jan. 1, 2011, to compensate for the extension properties
 - Other grandfathering provisions also could result in lower rates than the hazard indicates for some policyholders
 - FEMA attempts to keep overall premium actuarially sound
 - Without grandfathering, some policyholders would see decreases, some increases



Conclusion

- An actuarial rate should reflect the hazard of the insured risk
- These new maps are more reflective of current flood potential
- These new maps, therefore, should result in more actuarially sound rates
- PRP extension postpones impact for two years
- PRP extension contributes to mismatch between the premium taken in and the potential losses paid out
- FEMA compensates the premium mismatch of the extended policyholders by a small overall premium increase for PRP as a whole





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