Engaging Private Enterprise to Promote Flood Safety

Association of State Floodplain Managers
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Presented by:
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Flooding

- Problem and
- Widespread
- Not changing soon
30 Year Flood Loss Averages = $7.96 Billion in damages/year, 82 fatalities/year - NOAA

- 2014 - $2,861,426,089
- 2013 - $2,210,809,876
- 2012 - $522,119,985
- 2011 - $9,102,294,087
- 2010 - $5,615,860,859
- 2009 - $1,099,446,636
- 2008 - $6,747,571,742
- 2007 - $2,936,200,387
- 2006 - $4,737,440,410
- 2005 - $55,325,587,646
- 2004 - $19,254,554,417
- 2003 - $3,636,203,672
- 2002 - $1,816,823,223
- 2001 - $11,299,869,817
Accommodating Existing Risk

- National Flood Insurance Program
  - Increase Flood Insurance Premiums
  - Remove grandfathering where politically feasible
- Encourage private insurance for more choice
- Federal investment in risk reduction to existing stock
- NFIP investments in risk reductions to existing stock
- Flood insurance required for all Federally backed loans
Encouraging better new building or retrofitting/mitigation

- NFIP steep individual discounts for freeboard
- Community Ratings Service community-wide flood insurance discounts for:
  - Freeboard (built height above the base flood elevation)
  - Buffers from flood sources
  - Limits on building in the special flood hazard area
  - Limits on fill/Compensatory storage in the SFHA
Storm Safety Impact on Value

- Studies have shown that:
  - Properties in the SFHA
    - Have a valued 6-7% less than other zones
    - 15-20% less than other zones reported from Idaho
    - Lack of storms decreases delta between SFHA and not
  - Fortified Home™ construction for wind
    - Adds ~7% value to a structure

- No studies have shown increased valuation due to increased flood safety of a structure
Local Government Efforts to show Flood Safety Value or Insurance Risk

- Assessor adds $15,000 to an elevated house to show the added value of the lift with some sensitivity for lower value structures.
- Assessor lowered community value by 25% after Biggert-Waters triggered loss of grandfathering.
Private Efforts to Reduce Risk

- Fortified Home™ standard developed
- Builders experimenting with:
  - Freeboard in order to
    - Add value to the client through lower costs
    - Distinguish their structures from others
    - Enable more efficient use of scarce property by building an elevated foundation and avoid mitigation
  - Requesting grants to pay for the difference in cost while the market adjusts to reflect the safety value
Private investment in flood safety not supported by current lending

- In many cases there is an upfront cost to the buyer
- Mortgage companies and appraisers show no recognition of the increased cost or value of flood safety.
- Studies show sales prices discounted 6-7% in the floodplain (for the additional risk)
- There is no valuation increase in appraisals for extra safety margins that reduce risk.
Recruit new actors to recognize the value of flood safety including:

- Assessor’s offices
- Appraisers
- Mortgage companies and other lenders
Measuring Flood Safety Benefits

- How to capture these values and encourage builders to innovate and lenders to cooperate?
- Current capture = $0 so safe building discouraged
- Complaint from homebuilders that appraisals not modified to take into account greater value.
Mortgage

- A mortgage is a debt instrument, secured by the collateral of specified real estate property, that the borrower is obliged to pay back with a predetermined set of payments.
- A federally backed mortgage requires flood insurance:
  - If the structure is in the Special Flood Hazard Area, or
  - If the lender believes that the structure is at risk though not technically in the SFHA
Measuring Flood Safety Benefits

- Mortgage
  - Qualifying ratio may allow buyers to buy more valuable house incidentally valuing the flood safety
    - Qualifying ratio is the maximum ratio of debt to income
    - Considers the cost of the mortgage including insurances and other maintenance costs v. the buyers income
    - A structure that has lower insurance will have a higher ratio with the same income
  - Does not increase value that will be loaned if not captured in the appraisal
Freeboard Amenity Valuation

- Insertion point for capturing value of flood safety
- Stable, quantifiable, and relatable to mortgage

Images showing the difference in flood insurance costs between a house with and without freeboard.
Freeboard

- Can save policy holders up to 62% on flood insurance
- Savings can be projected over life of mortgage
  - Insurance is unlikely to go down
  - Simple calculations are available to find actual value
  - Materials are available to show the savings and educate
  - Value will transfer from buyer to buyer
  - Standardization lends itself to consistent value and reliability
Example of Savings on NFIP Premiums* with Freeboard

<table>
<thead>
<tr>
<th></th>
<th>V Zone</th>
<th>A Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual savings</td>
<td>30-year savings</td>
</tr>
<tr>
<td>1' freeboard</td>
<td>$1,360 (25%)</td>
<td>$40,800</td>
</tr>
<tr>
<td>2' freeboard</td>
<td>$2,730 (50%)</td>
<td>$81,900</td>
</tr>
<tr>
<td>3' freeboard</td>
<td>$3,415 (62%)</td>
<td>$102,450</td>
</tr>
</tbody>
</table>

*NFIP premiums based on May 2007 rates for a one-floor residential structure with no basement built after a FIRM was issued for the community (post-FIRM rates differ from pre-FIRM rates). $500 deductible/ $250,000 coverage for the building/$100,000 for contents.
Costs associated with freeboard

- Incorporating freeboard into new structures generally adds about 0.25% to 1.5% to the cost of construction for each foot of added height.
- The minor resulting increase in monthly mortgage payments is generally more than offset by saving on NFIP premiums.
- Freeboard typically saves homeowners money even with the added construction cost.

<table>
<thead>
<tr>
<th>Home at minimum legal height</th>
<th>Home with 3’ of freeboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly mortgage payments</td>
<td>Monthly mortgage payments</td>
</tr>
<tr>
<td>$1,580.17</td>
<td>$1,599.13 (+$18.96)</td>
</tr>
<tr>
<td>Monthly flood insurance</td>
<td>Monthly flood insurance</td>
</tr>
<tr>
<td>$458.25</td>
<td>$173.67 (-$284.58)</td>
</tr>
<tr>
<td>Total monthly cost</td>
<td>Total monthly cost</td>
</tr>
<tr>
<td>$2,038.42</td>
<td>$1,772.80 (-$265.62)</td>
</tr>
</tbody>
</table>
The Intended Use of an Appraisal

- To facilitate the transfer of ownership of real property
- To help prospective sellers determine acceptable selling prices or prospective buyers decide on offering prices
- To assist the underwriter in establishing a value of security for a mortgage loan
- To provide an investor with a sound basis for the purchase of real estate mortgages, bonds or other types of securities
Appraisal

- An appraisal answers one or more specific questions about a real estate parcel’s value, marketability, usefulness or suitability.
- As defined in USPAP, an appraisal is the act or process of developing an opinion of value.
- The valuation process is a systematic procedure the appraiser follows to answer a client’s question about real property value.
Appraisal

- **Direct Sales Comparison Approach**
  - Formerly known as the market data approach
  - Property being appraised is compared to sales of similar properties in order to arrive at a value
  - Identifies the comparable properties as being similar in age and somewhat similar in size, quality, use, and amenities, among other considerations
  - Adjustments to the sales price of the comps, based on how they differ from the specific property.
Market Interest in Flood Safety

- **Appraisal**
  - Accuracy of lifetime costs of properties being compared

- **Mortgage**
  - Value of the structure as collateral
  - Lower longterm costs provide stronger borrower ability to repay
  - Additional liquidity may result in better upkeep or reinvestment in additions/second mortgages
Capture Flood Safety Benefits

- **Appraisal**
  - Additional Amenity
    - More efficient due to durability
    - Less costly for lifetime maintenance
  - Calculate by
    - Adding up the projected flood insurance savings
    - Adding up any other benefits that can be quantified reliably
    - Multiply by conversion factor or capital rate to reflects value
Actions Necessary by Actor

- **Mortgage**
  - Current federal lending regulations* require the lender to “initiate” the appraisal
  - Provide appraisers with policy training to increase use
  - Accept lesser qualifying ratio if caused by additional flood safety
  - Accept that structure will retain value and marketability due to the innate and immutable condition of relative flood safety.
  - Develop Cap Rate
Actions Necessary by Actor

- Appraiser
  - Request information on flood safety
    - Elevation Certificate
    - Current flood insurance premiums
  - Include valuation like other comp amenities
  - Suggest this added value to lending institution with rationale for the additional value
  - Lobby lending institution to provide additional funds
Actions Necessary by Actor

- Floodplain management community
  - provide information on flood safety
  - Create multimedia educational materials for
    - Appraisers
    - Mortgage/lending industry
    - Homebuilder associations
    - Chambers of commerce
    - Elected officials
    - The general public
  - Enter into Memorandums of Understanding with local or other willing lending institutions
Questions?
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Community Rating System

- Can earn points in the for community-wide benefits
- 100 points for freeboard if coupled with no fill
- Discounts on flood insurance available from 5%-45% for policies in the participating community
• Develop a Capital rate by
  • Debt coverage ratio
  • Rate of Return

• Calculate by
  • Adding up the projected flood insurance savings
  • Adding up any other benefits that can be quantified reliably
  • Multiply by conversion factor or capital rate to reflects value
Local Government Efforts to Influence Behavior and Lower Risk

- Appeals and participation in mapping efforts
- Education about flood risk and freeboard
- Savings from CRS
- StormReady Community Participation
- Seek federal mitigation funds
- Change perception of elevated homes
Federal Government Efforts to Influence Behavior and Lower Risk

- New mapping efforts
- Education about freeboard or higher standards
- Increased focus on Community Ratings system
- StormReady Communities
- Federally funded mitigation activities
- National Flood Insurance Program (NFIP)
  - Mitigation programs
  - Premium increases or loss of subsidies
Is a larger downpayment important?

1. Reduced Mortgage Payments

The more you put down on your home upfront, the smaller the monthly mortgage payments will be. That will help out with your monthly budget but, more importantly, you will save thousands of dollars of interest over the life of the mortgage. For example, on a 30-year mortgage at 5% interest, putting an extra $10,000 into the down payment will save you a total of $9,325 in interest payments. (Exotic mortgages allow you to decide how much to pay. For more see, Choose Your Monthly Mortgage Payments.)

2. Lower Interest Rate

Banks and other mortgage lenders often offer better interest rates when your loan-to-value ratio is lower. An increase in your down payment lowers the ratio and also lowers the risk to the lender. Lower interest rates can also save you significant amounts of money over the life of the mortgage. The interest savings from going from 6.0% to 4.5% on a $200,000 mortgage over five years is $66,863.

3. No Mortgage Insurance Fees

A conventional mortgage usually requires a down payment of 20% of the purchase price of the house. If you want to contribute a smaller down payment, most lenders require that you take out mortgage insurance. This insurance protects the lender in case you become unable to pay your mortgage. There are federal insurance programs available to qualified purchasers and there are also private insurance options. Mortgage insurance can be expensive, ranging from 0.5 to 1% of the house value annually to several thousand dollars per year. The insurance premiums are an extra cost of the mortgage and are not applied to the mortgage balance. (For more, see 6 Reasons To Void Private Mortgage Insurance.)

4. Less Risk When Selling

The real estate market can move up or down after you purchase your house. If the market is in a downswing and you have to sell your house, you may find that your mortgage balance is higher than the value of your home (known as being "upside down" on your mortgage). This situation gives you less flexibility in accepting offers and may make it difficult to sell your home and pay out your mortgage. If you made a substantial down payment when you bought your house, you are less likely to be upside down on the mortgage.

5. Ability to Ride out Financial Crises

No one can ever predict with certainty what can happen in the future. You may encounter a personal financial crisis such as job loss or illness that can impair your ability to pay your bills, including your mortgage. If you have equity in your home due to making a large down payment, you can better weather a financial storm. The mortgage payment will be smaller and you may be able to borrow against the equity if you need to. If you borrowed the maximum possible based on two incomes, you leave yourself open for financial stress and perhaps even foreclosure. (For more, see Too Much Debt For A Mortgage?)