FLOOD RISK MANAGEMENT CYCLE

CATALYST FOR GUIDING AGENCY ALIGNMENT & IMPROVED FLOOD RISK MANAGEMENT

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REALLY?
THE THREE LEGGED STOOL IS BROKEN

RiskMAP is not the answer
• Kenneth Arrow Nobel 1972
• Elinor Ostrum Nobel 2008
• Daniel Kahneman Nobel 2002
HISTORIC SHORELINE
MOTHER NATURE WILL TAKE BACK THE LAND SHE OCCUPIED IN 1930
PLAN BAY AREA
AREA IMPACTED BY SEA LEVEL RISE
PRIORITY DEVELOPMENT AREA
AREA IMPACTED BY SEA LEVEL RISE
PRIORITY DEVELOPMENT AREA
AREA IMPACTED BY SEA LEVEL RISE
PRIORITY DEVELOPMENT AREA
Ross Valley 100-year Flood Zone

FIGURE 5
100yr FLOOD EVENT INUNDATION
EXISTING CONDITIONS
ROSS VALLEY WATERSHED
<table>
<thead>
<tr>
<th>Community</th>
<th>Number of Policies</th>
<th>Insurance in-force</th>
<th>Written Premium</th>
<th>Ave Policy</th>
<th>Cost Per Thousand</th>
<th>Parcels in 100 year floodplain</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAIRFAX, TOWN OF</td>
<td>234</td>
<td>65,150,800</td>
<td>204,396</td>
<td>$873</td>
<td>$</td>
<td>3.14</td>
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<tr>
<td>LARKSPUR, CITY OF</td>
<td>59</td>
<td>14,775,065</td>
<td>53,468</td>
<td>$906</td>
<td>$</td>
<td>3.62</td>
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<tr>
<td>MARIN COUNTY*</td>
<td>136</td>
<td>39,391,331</td>
<td>175,639</td>
<td>$1,291</td>
<td>$</td>
<td>4.46</td>
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<tr>
<td>ROSS, TOWN OF</td>
<td>201</td>
<td>57,242,700</td>
<td>276,324</td>
<td>$1,375</td>
<td>$</td>
<td>4.83</td>
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<tr>
<td>SAN ANSELMO, TOWN OF</td>
<td>646</td>
<td>174,339,700</td>
<td>671,993</td>
<td>$1,040</td>
<td>$</td>
<td>3.85</td>
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<tr>
<td></td>
<td>1,276</td>
<td>$350,899,597</td>
<td>$1,381,820</td>
<td>$1,083</td>
<td>$</td>
<td>3.94</td>
</tr>
</tbody>
</table>
## Ross Valley Estimates

<table>
<thead>
<tr>
<th></th>
<th>Expected Annual Damages</th>
<th>Estimated Pure Premium Cost Per Thousand</th>
<th>Loaded Pure Premium $λ = .73</th>
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</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>$6,858,000</td>
<td>$5.91</td>
<td>$10.23</td>
</tr>
<tr>
<td>With Survey Information</td>
<td>$5,486,700</td>
<td>$4.73</td>
<td>$8.18</td>
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<tr>
<td>With LID</td>
<td>$4,159,200</td>
<td>$3.59</td>
<td>$6.20</td>
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<tr>
<td>With Bridge Replacement</td>
<td>$1,287,800</td>
<td>$1.11</td>
<td>$1.92</td>
</tr>
</tbody>
</table>

Average NFIP Cost $3.94 per thousand
QUESTIONS?

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Parametric Insurance