

Preparing a Flood Insurance Assessment for Credit under the Community Rating System of the National Flood Insurance Program



2014

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Preparing a Flood Insurance Assessment

Introduction

A flood insurance assessment (FIA) is an analysis of a community's level of flood insurance coverage that identifies where increased coverage would be beneficial. It is the first step toward developing a flood insurance coverage improvement plan in the community. Both the assessment and the plan are credited under Activity 370 (Flood Insurance Promotion) of the Community Rating System (CRS). The credit criteria for FIA were revised with the issuance of the *CRS Coordinator's Manual* that expires on December 31, 2016.

In most cases, it is to the community's advantage to conduct the flood insurance assessment and to develop the plan as part of a local program for public information (PPI) credited under Activity 330 (Outreach Projects). This guide is applicable for either a stand-alone FIA or one done in conjunction with a PPI. A separate guide, *Developing a Program for Public Information*, is available at www.CRSResources.org/300.

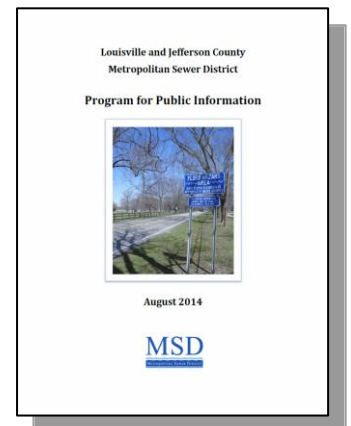
The *Coordinator's Manual* identifies five steps in the FIA assessment process (see the table below). The table also shows the point at which these steps would be conducted during the preparation of a PPI.

| Flood Insurance Assessment (FIA) and Corresponding Program for Public Information (PPI) Steps | |
|---|--|
| FIA Steps | PPI Steps |
| 1. Collect flood insurance information | 2. Assess the community's public information needs |
| 2. Determine the level of flood insurance coverage | 2. Assess the community's public information needs |
| 3. Prepare the document | 2. Assess the community's public information needs or 6. Prepare the PPI document |
| 4. Submit to the governing body | 6. Prepare the PPI document |
| 5. Reassess | 7. Implement, monitor and evaluate the program |

So far, a few communities have submitted flood insurance assessments, either for courtesy review or for CRS credit. The lessons learned from these efforts are included in this guide.

Most of the submittals have been done as part of a PPI. Excerpts from one of these are included at the end of this guide. It was prepared as part of a PPI by the staff of the Louisville and Jefferson County (Kentucky) Metropolitan Sewer District.

Wellington, Florida, also prepared a PPI with a flood insurance assessment. It is discussed on page 9.



FIA Step 1. Collect Flood Insurance Information

Flood insurance policy information can be provided in one of two levels of detail: general and property-specific. Either set of data is acceptable for the FIA. The key characteristics of the two types are summarized in the table below.

| Comparison of General and Property-specific Data | | |
|--|--|--|
| Characteristic | General Data | Property-specific Data |
| Level of detail | Summaries | Data on every policy |
| Format | Four summary tables | Listing with each current policy's address |
| Source | ISO/CRS Specialist State NFIP Coordinator FEMA Regional Office | FEMA Regional Office Annual repetitive loss mailing (to repetitive loss communities only) |
| Sharing restrictions | None | Subject to the Privacy Act (see box, next page) |
| Data | Current when provided | Can be up to one year old |

Both sets of data come from the same Federal Emergency Management Agency (FEMA) data source. Insurance companies take the information for individual insurance policies rated by local insurance agents and provide it to FEMA. It is possible that there are errors or outdated information included in the data. For example, an agent may have used the wrong community number for a property that has been annexed, or an outdated Flood Insurance Rate Map (FIRM) zone may be indicated for a property in an area that has been remapped. Such errors should be reported to FEMA, but the assessment should not be delayed to wait for corrections.

In a multi-jurisdictional effort, the data must be collected for each community that wants FIA or PPI credit.

General Data

The ISO/CRS Specialist, State NFIP Coordinator, or FEMA Regional Office can provide four tables with general data on the policy coverage in a community that are found in the NFIP Community Information System (CIS). The information is current as of the date the companies collected it, usually one or two months earlier. The four CIS tables are

1. Insurance overview,
2. Policies by building occupancy,
3. Policies by FIRM zone, and
4. Pre- and post-FIRM policy summary.

These tables are provided in Adobe pdf format. An example of a general data table appears on the next page.


| | Policies in Force | Premium | Insurance in Force | Number of Closed Paid Losses | \$ of Closed Paid Losses | Adjustment Expense |
|------------------------------|-------------------|-------------|--------------------|------------------------------|--------------------------|--------------------|
| A01-30 & AE Zones | 836 | \$1,060,830 | \$119,438,300 | 71 | \$471,527.46 | \$35,610.76 |
| A Zones | 30 | \$41,268 | \$4,306,200 | 8 | \$47,489.09 | \$3,075.00 |
| AO Zones | 0 | \$0 | \$0 | 0 | \$0.00 | \$0.00 |
| AH Zones | 24 | \$20,854 | \$3,068,000 | 1 | \$3,496.36 | \$650.00 |
| AR Zones | 0 | \$0 | \$0 | 0 | \$0.00 | \$0.00 |
| A99 Zones | 0 | \$0 | \$0 | 0 | \$0.00 | \$0.00 |
| V01-30 & VE Zones | 0 | \$0 | \$0 | 0 | \$0.00 | \$0.00 |
| V Zones | 0 | \$0 | \$0 | 0 | \$0.00 | \$0.00 |
| D Zones | 0 | \$0 | \$0 | 0 | \$0.00 | \$0.00 |
| B, C & X Zone | | | | | | |
| Standard | 6 | \$6,507 | \$771,800 | 5 | \$68,403.74 | \$2,975.00 |
| Preferred | 37 | \$16,372 | \$10,065,000 | 1 | \$3,289.38 | \$500.00 |
| Total | 933 | \$1,145,831 | \$137,649,300 | 86 | \$594,204.00 | \$42,810.00 |

An example of a table of general policy data, showing data by FIRM zone

Property-specific Data

CRS Category C repetitive loss communities may be provided with flood insurance policy data on all properties in their communities when they receive their repetitive loss property data. The community’s staff also can ask FEMA for a list of the addresses of every policy in the community.

Note that NFIP property-specific information (flood insurance policies and repetitive loss addresses) is subject to the federal Privacy Act and therefore must not be released to the public (including members of a planning committee or a PPI committee). See the box on Privacy Act Restrictions below.



The image shows a yellow FEMA Privacy Data Cover Sheet. It features the FEMA logo at the top. The text on the sheet includes: 'To be used on all documents containing Personal Information', 'DOCUMENT(S) ENCLOSED MAY BE SUBJECT TO THE PRIVACY ACT OF 1974', 'Contents shall not be disclosed, discussed, or shared with individuals unless they have a direct need-to-know in the performance of their official duties. Deliver this/these document(s) directly to the intended recipient. DO NOT drop off with a third-party.', and 'The enclosed document(s) may contain personal or privileged information and should be treated as "For Official Use Only". Unauthorized disclosure of this information may result in PERSONAL LIABILITY with CIVIL and CRIMINAL penalties. If you are not the intended recipient or believe that you have received this document(s) in error, do not copy, disseminate or otherwise use the information and contact the owner/creator or your Privacy Officer regarding the document(s)'. The sheet is titled 'Privacy Data Cover Sheet' and 'FEMA Form 9109.1, JUL 2007'.

Privacy Act Restrictions

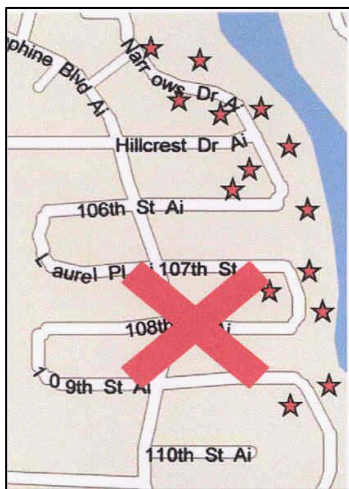
Property-specific policy information that includes POLICY HOLDER ADDRESSES is protected under the Privacy Act of 1974 and CANNOT BE SHARED WITH THE PUBLIC. This means that detailed policy data can only be seen by local government mitigation or public information planning staff and their designated consultants.

Flood insurance policy information that includes individual names or addresses CANNOT BE SEEN by the public, including members of a PPI committee or a mitigation planning committee.

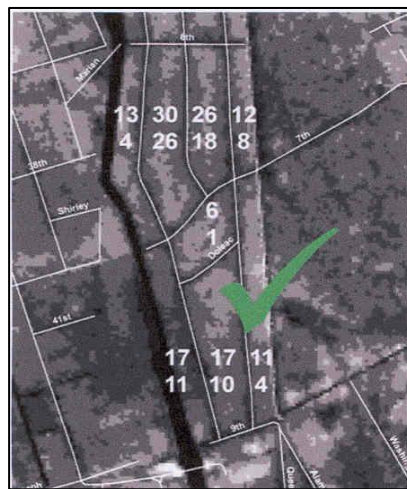
Community staff and their consultants may work with the property-specific data that incorporate individual addresses. However, before others can see it, the information must be modified into a generalized or aggregated form. Two examples of acceptable formats are shown below.

If the community finds errors in the data, such as policies that are actually located outside its corporate limits, it must report the corrections and provide updated information to its ISO/CRS Specialist. It must be remembered that the information is based on insurance policy data. For example, due to grandfathering, a policy on a property in the X Zone is recorded as rated in the X Zone even if a new map shows the property in an A Zone. In these cases, it is more accurate for the community to consider the property as in the A Zone. This does not need to be reported as a correction, because the grandfathered insurance policy is rated correctly.

Displaying Aggregated Data for Public View



Maps that allow people to identify (or guess) the addresses of those properties that have flood insurance policies cannot be shown to the public or to committee members.



This is an acceptable display on a map. For each block, the total number of buildings and the number with an insurance policy are displayed. This does not work if there is only one building on a block.

Table 1. Insurance Coverage by Watershed

| Watershed | # of Buildings in SFHA | # of Buildings w/ Building Coverage | % of Buildings Covered |
|-----------------------------|------------------------|-------------------------------------|------------------------|
| Cedar Creek | 34 | 9 | 26.5% |
| City/Ohio River | 671 | 220 | 32.8% |
| Floyds Fork | 196 | 46 | 23.5% |
| Goose Creek | 103 | 45 | 43.7% |
| Harrods Creek | 115 | 55 | 47.8% |
| Middle Fork Beargrass Creek | 190 | 75 | 39.5% |
| Mill Creek | 1,616 | 676 | 41.8% |

This is an acceptable display in a table. The areas with the lowest levels of policy coverage are identified, without revealing information about the individual properties or policyholders. (From the Louisville and Jefferson County PPI. See page 10.)

Which data set to use?

Although property-specific policy data will provide a more accurate picture of a community's insurance coverage, the Privacy Act restrictions limit the user's ability to share the information with the public. It will also take longer for FEMA to provide a property-specific report. Therefore, it may be easier and faster to use the general data sources. Equal credit is provided for either approach.

Using detailed policy data up to a year old is adequate for credit for a flood insurance assessment. Older data can be supplemented with current data from the four CIS tables. The ISO/CRS Specialist, State NFIP Coordinator, or FEMA Regional Office can provide the four tables from the CIS relatively quickly when requested.

FIA Step 2. Determine Level of Flood Insurance coverage

The level of coverage is measured in two ways: the number of buildings with flood insurance coverage and the amount of coverage. These levels of coverage may be reviewed for different areas of the community and for different types of buildings.

Number of Buildings with Coverage

This measure compares the number of policies with the number of buildings in the category reviewed. What categories are addressed depends on the data available and the community's concerns. For example, the number of insured buildings in the entire community may not be as important as how many buildings in the Special Flood Hazard Area (SFHA) have insurance policies.

At a minimum, two categories should be reviewed:

- The number of residential and nonresidential structures that are insured and
- The number of buildings in different FIRM zones that are insured.

Although numbers of policies are provided in the insurance data, the number of buildings in each category needs to be determined by the community. Some data may already be available, such as the number of buildings in the SFHA, which is needed for the CRS Program Data Table (see Section 213.a in the *Coordinator's Manual*). The number of post-FIRM buildings is needed for credit for post-FIRM Elevation Certificates (ECPO) under Activity 310 (Elevation Certificates). The number of pre-FIRM buildings is the number of buildings in the SFHA minus the number of post-FIRM buildings.

EXAMPLE: Floodville reviewed the summary data table for building occupancy, which provides the number of policies, the premium paid, and the amount of insurance coverage for four categories of buildings. An excerpt from the data table is shown to the right. Note that this table can be included in a report that will be seen by the public.

| Occupancy | Policies in Force | Total Premiums | Insurance in Force |
|-----------------------|-------------------|----------------|--------------------|
| Single Family | 4,468 | \$3,756,579 | \$1,038,582,700 |
| 2-4 Family | 30 | \$13,592 | \$3,195,800 |
| All Other Residential | 16 | \$5,739 | \$1,715,400 |
| Non Residential | 71 | \$149,519 | \$25,008,300 |
| Total | 4,585 | \$3,925,429 | \$1,070,948,600 |

There are 27,450 buildings in Floodville, of which 6,320 are in the SFHA. The City's geographic information system (GIS) cannot differentiate between single-family and multi-family residences, but it can identify nonresidential properties. The staff calculates that there are 26,100 residences and 1,350 nonresidential properties. A check of the billing done by the water department confirms that these numbers are fairly accurate. Note that these numbers are for the whole community, not just the SFHA.

The level of residential coverage is $(4,468 + 30 + 16)$ divided by $26,100 = 17.3\%$

The level of nonresidential coverage is 71 divided by $1,350 = 5.3\%$

Floodville's staff knows that a good number of the city's businesses are in waterfront areas, in the SFHA. There should be a higher ratio of coverage for nonresidential properties than for residential. This fact is noted in the staff's report on the level of coverage.

Amount of Coverage

The amount of coverage (“insurance in force”) should be reviewed by category and compared to the amount of expected flood damage from a base flood. It may be that residents who have not been flooded so far think that they do not need flood insurance. As a result, most people have a policy only because of a loan requirement. In such a case, it is possible that people purchased coverage equal to the outstanding balance of the loan, which probably is not enough to cover the damage that can be expected.

Hazus-MH is a tool that can help estimate likely flood damage. For more information, see www.fema.gov/hazus.

EXAMPLE: Using the summary data table for building occupancy, Floodville’s staff divided the amount of coverage (insurance in force) by the number of policies in force to determine the average amount of coverage by category. The resulting table is shown below with the new, locally determined “average coverage” column added. This type of table can be included in a report seen by the public.

One thing that stands out is that the average coverage for multi-family residences is much lower than for single-family or nonresidential properties. The staff confirmed that most such buildings are rentals and it is likely that the tenants do not have contents coverage. Given property values in Floodville, the staff also is sure that the structures are not adequately insured.

Whatever the cause, the staff agreed that a special effort should be devoted to multi-family housing. If this work is done as part of a PPI, the owners and residents of multi-family housing could be designated as target audiences.

| | Policies in Force | Premium | Insurance in Force | Average coverage |
|-----------------------|-------------------|-------------|--------------------|------------------|
| Single Family | 4,468 | \$3,756,579 | \$1,038,582,700 | \$232,449 |
| 2-4 Family | 30 | \$13,592 | \$3,195,800 | \$106,527 |
| All Other Residential | 16 | \$5,739 | \$1,715,400 | \$107,213 |
| Non Residential | 71 | \$149,519 | \$25,008,300 | \$352,230 |
| Total | 4,585 | \$3,925,429 | \$1,070,948,600 | \$233,577 |

If the FIA or PPI covers multiple jurisdictions, each participating community that wants CRS credit for FIA must determine its own level of coverage (i.e., must conduct Step 2).

FIA Step 3. Prepare the Document

Step 3 is dependent on whether the FIA is prepared as a stand-alone document or as part of a PPI. If the community is only pursuing credit under Activity 370, a stand-alone document should be prepared that includes the following three items:

1. An explanation of the process that was followed to assess the community’s level of flood insurance coverage;
2. Summary data, such as the map or tables shown on the previous pages. If the community uses policy-specific data, summary data by target area would be useful; and
3. A narrative summary of the current coverage, with conclusions on where flood insurance coverage is lowest and recommendations about where improvements would help increase coverage.

A multi-jurisdictional assessment must include a narrative summary for each participating community that wants FIA credit.

The Louisville and Jefferson County FIA is part of a PPI. All three items appear in the pages at the end of this guide.

If the assessment is conducted as part of a PPI, the committee could be provided with

- A report like the stand-alone document;
- A report with items 1 and 2, above, allowing the PPI committee to draw conclusions and make recommendations that are coordinated with other public information efforts addressed in the PPI; or
- A presentation about the FIA process, summary data, etc.

If there is no separate stand-alone document, the final PPI document would need to include items 1, 2, and 3, listed above.

Some examples of statements of findings are included in the Wellington example page 9. Some examples of conclusions and recommendations based on the two Floodville examples on pages 5 and 6 are given below.

EXAMPLE

--Conclusion: nonresidential buildings in Floodville are insured at roughly half the level of residential buildings.

- Recommendation: An effort should be made to inform nonresidential property owners about the advantages of having a flood insurance policy. If this is part of a PPI, the recommendation could identify one or more stakeholders, such as the chamber of commerce, that could support this effort.

--Conclusion: multi-family housing units in Floodville have lower levels of coverage and may not be adequately insured.

- Recommendation 1: Inform property owners about the flood hazard and the need to purchase and maintain replacement-cost structural coverage.
- Recommendation 2: Inform all residents in multi-family residential properties about the flood hazard and the need to purchase and maintain contents coverage.

The Privacy Act prohibits giving lists of properties that have or do not have flood insurance policies to insurance agents or other members of the public.

The community cannot conduct a mailing campaign sent only to uninsured properties. A mailer sent to all properties can be used instead, and it has the added benefit of also reminding already-insured people to keep their policies in force.

FIA Step 4. Submit to the Governing Body

The assessment document (containing only general or aggregated data or maps) must be submitted to the community's governing body. In the case of a multi-jurisdictional assessment, each community seeking FIA credit must submit the document to its own governing body.

No action is needed by the governing body for a stand-alone FIA report. The objective is to inform the elected leaders about flood insurance coverage. They may opt to take the next step, which is to prepare a plan to improve coverage.

If the report is part of a PPI or a separate coverage improvement plan (CP, the next step in credit under Activity 370), then the PPI document or the improvement plan does need action by the governing body, as described in Sections 332.c (PPI Step 6) and 372.b (CP credit criteria (5)).

FIA Step 5. Reassess

For continued CRS credit, the community must reassess its flood insurance coverage for every verification cycle visit. This means that the flood insurance information used in the assessment is updated with data from the year of the cycle visit. The new information is used to update the level of coverage and the conclusions and recommendations.

A stand-alone document is revised accordingly and submitted to the community's governing body before the cycle visit. If the community has a PPI or CP coverage improvement plan, those documents need to be updated with the new findings and submitted to the community's governing body for approval before the cycle visit.

At any time, a community may request that its ISO/CRS Specialist, State NFIP Coordinator, or FEMA Regional Office obtain that updated general CIS NFIP data so that it can analyze changes or trends in the community's flood insurance coverage.

Documentation provided by the Community

At each verification visit, the community needs to provide the ISO/CRS Specialist with

- An updated flood insurance coverage assessment document (either a stand-alone document or updated information in the updated PPI document), and
- Documentation that the document (or updated document) was submitted to the community's governing body (e.g., a cover memo or a note in the governing body's minutes).

What next?

After the FIA is completed, the community should consider public information activities that would work to improve coverage where the FIA says coverage is low. Credit for a plan to improve coverage is provided in the next element under Activity 370 (Flood Insurance Promotion), the coverage improvement plan (CP).

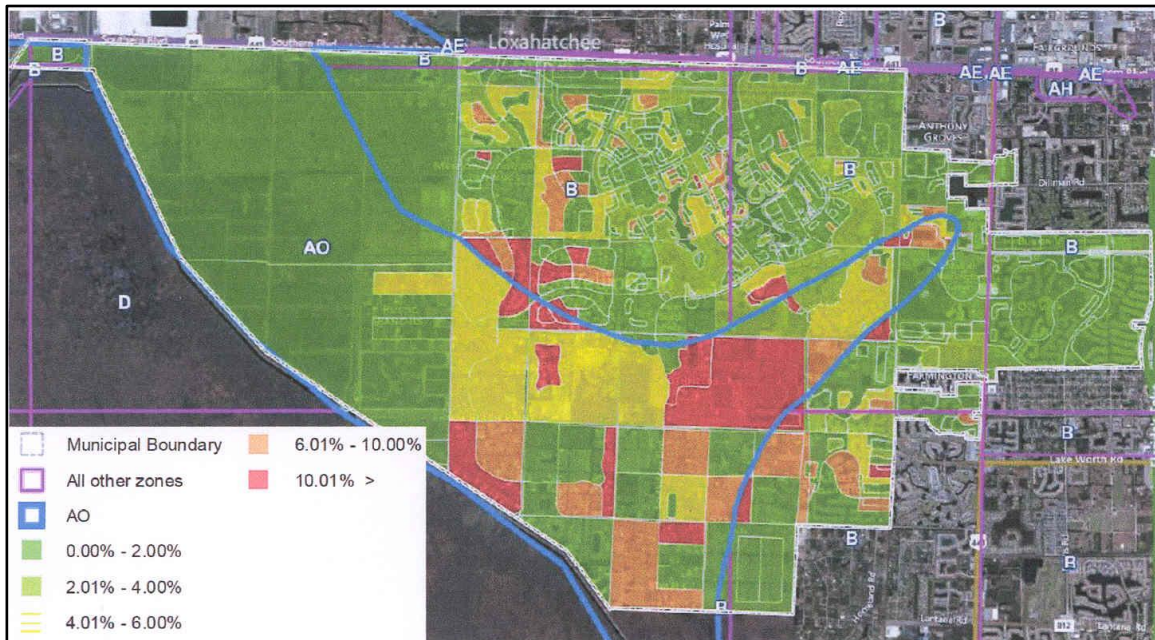
As noted earlier, most submittals for CRS credit incorporate this work into the PPI. More information on preparing a PPI and a CP can be found under Activity 330 and Activity 370 in the *Coordinator's Manual* and in the separate publication, *Developing a Program for Public Information*.

NOTE: A community should not hesitate to ask its ISO/CRS Specialist any questions about preparing a flood insurance assessment. It is also recommended that a community submit its draft assessment (or draft PPI) to its ISO/CRS Specialist for a courtesy review.

Wellington's Assessment

To comply with the Privacy Act, the Village of Wellington, Florida, concluded that census blocks would be a good unit to evaluate flood insurance coverage. The Village's 2014 Program for Public Information notes that census blocks "are typically drawn to cover relatively homogenous populations, which is beneficial in determination of strategies to increase flood insurance coverage. Finally, the size and number of such units are manageable for a community the size of the Village of Wellington."

The map below is the product of this effort.



The Village's approach facilitated some detailed assessments. Here are some of the findings:

- "The percentage of property owners that carry flood insurance within the flood zones is greater than the community as a whole. A total of 190 buildings in the floodplains, (or 6.6%) are covered by flood insurance...."
- "Typically the number of properties with building coverage is comparable to the number of properties carrying contents coverage."
- "Because Wellington is a community whose members are typically of a higher socioeconomic status, it was proposed that one reason for the relatively low insurance coverage was the fact that many homeowners within the flood zones do not have mortgages and are thus not required by lending institutions to purchase flood insurance."
- "Another reason for the relatively low flood insurance coverage is the fact that this community has been built to withstand flooding. Floodplain Manager Matt Mills pointed out that the early developers claim to have raised typical properties with four feet of fill to protect the buildings from flooding."

—Village of Wellington, Florida, *Program for Public Information (PPI)*,
April 2014, pages 7–8

An Example from Louisville, Kentucky

The staff of the Louisville and Jefferson County Metropolitan Sewer District prepared a 38-page Program for Public Information in 2014. The work was monitored by a PPI committee of 11 members, which included the executive vice president of a local insurance agency and a mortgage loan officer of a local bank.

The District decided to include the flood insurance assessment and coverage improvement plan credited under Activity 370 in the PPI. Pages 11–14 of the PPI cover the assessment and are included on the following pages. The District used detailed, property-specific data, but aggregated the findings in summary tables. An additional table was prepared for one of the PPI's target areas, the repetitive loss areas in Jefferson County.

Of particular note is the two-paragraph summary on page 14 of the PPI (the last page of this paper). An interesting finding is that some of the lowest coverage levels are in areas protected by levees.

The complete *Program for Public Information for Louisville and Jefferson County* can be found at www.CRSresources.org/300.

2.2 Flood Insurance Coverage Assessment

In order to determine the level of flood insurance coverage in Louisville/Jefferson County, the most recent flood insurance policy data provided by FEMA was used, along with local GIS information. Using the data, current flood insurance policies were plotted on a map of the county. Based on this data, approximately 39% of the buildings located in the FEMA floodplain have flood insurance coverage for the buildings. Approximately 10% of properties in the FEMA floodplain have contents coverage. Flood insurance coverage of properties in the floodplain by each watershed can be found in Table 1.

2.2.1 Flood Insurance Coverage by Watershed

Table 1. Insurance Coverage by Watershed

| Watershed | # of Buildings in SFHA | # of Buildings in SFHA w/ Building Coverage | % of Buildings Covered | # of Buildings in SFHA w/ Contents Coverage | % of Buildings in SFHA w/ Contents Coverage | Building Value | Building Coverage | % of Building Value Covered |
|-----------------------------|------------------------|---|------------------------|---|---|-----------------|-------------------|-----------------------------|
| Cedar Creek | 34 | 9 | 26.5% | 2 | 5.9% | \$33,305,050 | \$1,551,300 | 4.7% |
| City/Ohio River | 671 | 220 | 32.8% | 106 | 15.8% | \$393,902,680 | \$41,583,800 | 10.6% |
| Floyds Fork | 196 | 46 | 23.5% | 22 | 11.2% | \$38,739,870 | \$7,980,100 | 20.6% |
| Goose Creek | 103 | 45 | 43.7% | 14 | 13.6% | \$42,578,650 | \$7,824,300 | 18.4% |
| Harrods Creek | 115 | 55 | 47.8% | 22 | 19.1% | \$36,034,040 | \$17,471,200 | 48.5% |
| Middle Fork Beargrass Creek | 190 | 75 | 39.5% | 28 | 14.7% | \$275,809,100 | \$16,130,600 | 5.8% |
| Mill Creek | 1,616 | 676 | 41.8% | 119 | 7.4% | \$218,006,390 | \$69,026,700 | 31.7% |
| Muddy Fork Beargrass Creek | 156 | 61 | 39.1% | 19 | 12.2% | \$41,353,950 | \$13,410,600 | 32.4% |
| Pennsylvania Run | 48 | 21 | 43.8% | 7 | 14.6% | \$4,253,240 | \$2,409,800 | 56.7% |
| Pond Creek | 4,105 | 1,558 | 38.0% | 354 | 8.6% | \$2,435,166,108 | \$187,077,200 | 7.7% |
| South Fork Beargrass Creek | 1,435 | 603 | 42.0% | 141 | 9.8% | \$524,628,040 | \$88,448,600 | 16.9% |
| Total | 8,669 | 3,369 | 38.9% | 834 | 9.6% | \$4,043,777,118 | \$452,914,200 | 11.2% |

Based on the information in Table 1, flood insurance coverage ranges from about 23%-48% across the watersheds. For building coverage, the lowest percent covered is 23.5% in the Floyds Fork watershed and the highest is 47.8% in the Harrods Creek watershed. For contents coverage, the lowest percent covered is also in Cedar Creek at 5.9% and the highest is 19.1% in Harrods Creek. The percent of building value covered ranges from 4.7% in the Cedar Creek watershed up to 48.5% in the Harrods Creek watershed.

2.2.2 Flood Insurance Coverage by Flood Zone

Another way to look at flood insurance coverage is by flood zone. In Louisville, there are A, AE, and X zones. X zones are further broken down to include areas of 0.2% annual chance flood, areas protected by the levee and the 1% annual chance future conditions flood. Using those categories as shown on Louisville’s Flood Insurance Rate Maps, Table 2 was created showing flood insurance coverage by flood zone.

Table 2. Insurance Coverage by Flood Zone

| Flood Zone | # of Buildings | # of Buildings w/ Building Coverage | % of Buildings Covered | # of Buildings w/ Contents Coverage | % of Buildings w/Contents Coverage | Building Value | Building Coverage | % of Building Value Covered |
|---------------------------------|----------------|-------------------------------------|------------------------|-------------------------------------|------------------------------------|------------------|-------------------|-----------------------------|
| Zone AE | 7,739 | 3,133 | 40.5% | 780 | 10.1% | \$3,302,851,868 | \$413,083,900 | 12.5% |
| Zone A | 930 | 236 | 25.4% | 54 | 5.8% | \$740,925,250 | \$39,830,300 | 5.4% |
| 1% Future Conditions | 353 | 39 | 11.0% | 9 | 2.5% | \$92,710,750 | \$4,280,000 | 4.6% |
| 0.2% Annual Chance Flood Hazard | 207 | 11 | 5.3% | 7 | 3.4% | \$103,720,680 | \$2,763,700 | 2.7% |
| X Protected by Levee | 28,679 | 222 | 0.8% | 201 | 0.7% | \$5,101,022,440 | \$17,939,900 | 0.4% |
| Zone X | 223,910 | 1,245 | 0.6% | 889 | 0.4% | \$63,101,648,564 | \$151,964,000 | 0.2% |
| Total | 261,818 | 4,886 | 1.9% | 1,940 | 0.7% | \$72,442,879,552 | \$629,861,800 | 0.9% |

The coverage rate for insurance is highest in Zone AE, where flood insurance requirements are mandatory with a federally backed mortgage, at 40.5%. Surprisingly, even though mandatory coverage is also required in Zone A, the coverage rate is only 25.4%. This could be due to the fact that Zone A areas are generally older, established neighborhoods, and therefore are more likely to have homes that no longer carry a mortgage. Zone A mapping is also based on an approximate study, rather than a detailed study, so people may feel like they are less reliable in predicting actual risk, and therefore people are less likely to purchase flood insurance. Percentage of building value covered is also highest in Zone AE and A, with 12.5% covered in Zone AE and 5.4% in Zone A.

As expected, in areas where flood insurance is not required, coverage rates are much lower. The areas designated as 1% annual chance future conditions have the highest rate among the Zone X areas, with

11.0% coverage and the 0.2% annual chance flood is next highest with 5.3% coverage. The area protected by the levee and the remaining portion of zone X are the lowest percentages covered, with 0.8% and 0.6%, respectively. Percentage of building value coverage is also lower in these areas, ranging from 0.2% to 4.6%.

Contents coverage generally follows the same pattern. Zone AE and A are the highest coverage rate at 10.1% and 5.8%, respectively. The percentage of building value covered is also the highest at 12.5% for Zone AE and 5.4% for Zone A. This is likely due to the fact that these areas are more likely to have experienced flooding. The mandatory insurance coverage for the structure likely also encourages residents to also purchase contents coverage.

In the zone X areas, the percentage of homes with contents coverage is lower. The 1% annual chance future conditions contents coverage is 2.5% and the 0.2% annual chance flood is 3.4%. Zone X protected by the levee contents coverage is 0.7% and the remaining Zone X area contents coverage is 0.4%.

Percentage of building value covered is also much lower in Zone X areas. The 1% annual chance future conditions percentage is the highest at 4.6% and the lowest percentage is 0.2% in Zone X.

2.2.3 Flood Insurance Coverage for Repetitive Loss Properties

Because one of the target areas was determined to be the repetitive loss properties, flood insurance coverage for these properties was also examined. Based on the flood insurance data, the same information listed in Tables 1 and 2 above was determined for repetitive loss properties to create Table 3. Since repetitive loss properties are most similar to the AE Zone properties, the information for AE Zone is also listed in Table 3 for comparison.

Table 3. Insurance Coverage for Repetitive Loss Properties vs. Zone AE

| Flood Zone | # of Buildings | # of Buildings w/ Building Coverage | % of Buildings Covered | # of Buildings w/ Contents Coverage | % of Buildings w/Contents Coverage | Building Value | Building Coverage | % of Building Value Covered |
|----------------------------|----------------|-------------------------------------|------------------------|-------------------------------------|------------------------------------|-----------------|-------------------|-----------------------------|
| Repetitive Loss Properties | 280 | 168 | 60.0% | 90 | 32.1% | \$147,597,310 | \$31,024,700 | 21.0% |
| Zone AE | 7,739 | 3,133 | 40.5% | 780 | 10.1% | \$3,302,851,868 | \$413,083,900 | 12.5% |

Based on the data in Table 3, repetitive loss properties have the highest percent of flood insurance coverage for both building and contents, with 60.0% for building coverage and 32.1% for contents coverage. This was expected since by definition, repetitive loss properties would have experienced flooding and made previous flood insurance claims. It is surprising that the coverage rates are not higher than what was determined. Residents do not always purchase flood insurance.

This additional review of repetitive loss areas is not required for CRS credit, but was done because the target area had been mapped and the District's GIS could easily plot policies and assess the level of coverage.

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2.2.4 Summary

Based on the information above, it is clear that the majority of residents in the Louisville/Jefferson County area do not carry flood insurance on their buildings and contents coverage is even lower. Residents are much more likely to purchase insurance if they are in Zone AE or A, where purchase is mandatory with a federally backed mortgage, but even in these areas, less than half of the properties are covered. Residents are most likely to carry flood insurance if they are repetitive loss properties, but even then, only 60% of properties currently carry flood insurance. In the Zone X areas, there is more flood insurance coverage in areas that are in the 1% annual chance future conditions and the 0.2% annual chance flood, but coverage for areas protected by the levee and the remaining portions of Zone X are very low, with percentages under 1%.

Because overall flood insurance coverage is generally low, the PPI committee decided to target a variety of audiences to increase flood insurance coverage for buildings and contents. The target audiences are listed in Section 2.3. MSD will continue to provide outreach to the various target audiences through methods such as mailings, ads, flyers, and the MSD website to encourage residents to purchase flood insurance coverage. MSD will also attend more public meetings and public events to provide additional information about flood insurance and other flood related topics. This outreach should increase flood insurance coverage in the Louisville/Jefferson County area.

2.3 Target Audiences

Based on the insurance coverage summary above, the majority of residents in Louisville/Jefferson County do not carry flood insurance. As a first step in this new Program for Public Information, the PPI committee determined that the target audiences that will be focused on initially are the general public, residents in the floodplain, repetitive loss properties, builders and remodelers, real estate companies, lending companies, and insurance companies.

2.3.1 General Public

There are approximately 750,000 residents in Jefferson County. While only a portion of homes and businesses are located in the floodplain, it was determined that all residents should be aware of the flood hazard, ways to protect themselves and their property, and the availability of flood insurance. In order to reach the general public, it was suggested that we reach out to neighborhood groups, faith-based groups, Jefferson County League of Cities, school age kids, and the Red Cross. The groups have newsletters or websites that could potentially be used to share information. Radio and Metro TV are also potential ways to reach out to the general public.

2.3.2 Residents in the Floodplain

There are over 8,600 structures in the FEMA floodplain and over 4,300 additional structures outside the FEMA floodplain, but within the local regulatory floodplain. The community

Other target audiences include repetitive loss areas; builders and remodelers; and real estate, lending, and insurance companies.