

**Subject: Flood Risk Assessment Review Notes**

**Date: 10/9/2014**

**Review: Floodplain Management Section Staff - For Floodplain Management Planning Committee**

**General statements:**

1. Need to drill down to more specific Collier County data
2. Need to double check that data is accurate
3. Please cite all references and provide methodologies for obtaining data
4. Please spell out acronyms

**Specific Issues:**

1. 4.1.2 Disaster Declaration History (page 31)
  - a. Table 4.2 FEMA Major Disaster Declarations for Florida, 2002-2014
    - i. The time of reference for Table 4.2 is much shorter than for Table 4.3. Recommend that time periods be similar OR very clearly emphasize there is a difference in the time periods. Currently the tables are so similar that it is easy to think the time periods for the two tables are the same.
  - b. Table 4.3 FEMA Major Disaster Declarations for Collier County 1960-2014 (page 32)
    - i. Need to make sure we've included all hurricanes since 1960, CEMP would be one place to look.
    - ii. See footnote. Since the dollars are the most interesting part, can we get the dollar value for only Collier County? Otherwise, the Table is a bit misleading.
  - c. Table 4.4 is NCDC – shows 67 severe weather reports. Is it possible to use just the NCDC as they have Collier County specific data?
  - d. Table 4.5 is the SHELDUS and the text relays that it averages the dollar losses, deaths, injuries etc by all of the counties that were affected. Since the NCDC Table is so different, perhaps this one is misleading?
  - e. Economic Losses – based off of SHELDUS and averages. Is it possible to use a different source?
2. 4.2.1 Climate Change and Sea Level Rise
  - a. Hazard/Problem Description (Page 36-39)
    - i. For sea level rise, can we identify the range and then identify a number (middle of the road approach) to use for planning purposes. This number could then show the relevancy and aerial extent in the County.
    - ii. Can we use the USACORE a reference and/or the main reference to be consistent with other county studies?
3. 4.2.4 Flood: 100-/500-year
  - a. Flooding and Floodplains (Page 50).
    - i. Please cite source for the following statement “In Collier County, all flooding can be defined as coastal drainage or flash flooding. Most drainage related flooding results from intrusion of tide water into drainage outlets which prevents drainage features from operating as they were designed.” *This statement should be discussed with the committee*

*as a vast amount of the County is an AH flood zone is not coastal related.*

- ii. Please revise Paragraph 3 and remove/change the Fig. 4.9. The information and figure are not relevant for Collier County. We would like to include a paragraph that outlines more of our unique topographical conditions. Perhaps we use text from the FIS and identify that we have no regulated floodway. FIS can be found here, page 3 identifies key features of the county.  
<http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=42123>
- iii. Page 52, paragraph beginning “Regulated” – need to include all of the effective dates of the DFIRM.
- b. Past Occurrences (page 57) Can we have the table match up a bit or broken out into subcategories? Also, some of the events listed in the table overlapping?
  - i. Table 4.10 – NCDC Flooding in Collier County – January 1950 to May 2014
    - 1. Can we include more thorough documentation for storms causing flooding, including information on amount of rainfall for non-surge flooding? This is available through the SFWMD web site. For example, one of the major rainfall events used for model calibration of the FIS was Tropical Storm Jerry in 1995 with rainfall in SE Collier County that was equivalent to the 1% annual chance event. Yet this storm is not listed.
  - ii. Table 4.11 – SHELDUS Flooding in Collier County – 1960 to 2013
    - 1. Can we explain how the property damage numbers are obtained/calculated, in particular the crop damages? Are they averaged similar to the storm events on page 34?
  - iii. Frequency/Likelihood of Future Occurrences (page 58)
    - 1. Can we get a bit more out of this paragraph? I’m not sure there is a connection with the average annual precipitation and the 1% annual chance event. If discussing rainfall, please identify the seasonal nature and volume/intensity conditions. Perhaps discuss what type of flooding is common i.e. the 5 yr 10 yr etc.?
- c. Climate Change and Flood: 100-/500-year (page 59)
  - i. Please cite source for the following: “While average annual rainfall may increase or decrease slightly, the intensity of individual rainfall events is likely to increase which can overwhelm stormwater drainage systems”
- 4. 4.2.6 Hurricane and Tropical Storm (including Storm Surge)
  - a. Hazard/Problem Description (Page 62-65)
    - i. Can we streamline this section and cite to the CEMP Annex E? It has all this information and more local information as well. Here is the link: <http://www.colliergov.net/index.aspx?page=3547>
  - b. Storm Surge (Page bottom of 65-66)
    - i. Can we get more specific about hurricanes in Collier County? Info seems a bit generic.
  - c. Past Occurrences (Page 67)
    - i. Table 4.13 – can we organize this one by date so that it match with 4.14?

- ii. Table 4.14
  - 1. SHELDUS – looks like it is averaging and it can be misleading. For example, Hurricane Andrew in 08/1992 had minimal damage in Collier County, generally in the Everglades City and Marco Island areas, yet the damage to property is identified as exceeding \$10 billion. Most of that was in the Homestead area.
  - 2. 9/1960 – lots injuries but no crop or property damage – was 1960 too early for recording? Also, can we include the named storms?
- iii. Table 4.15 – NCDC Storm Surge Data for Collier County, 1950-2014 (Page 69).
  - 1. Please verify the damage value for our recent storm, Isaac.
  - 2. What does Property Damage include? Claims filed to NFIP or county assistance?
- iv. Figure 4.20 – Historical Hurricane Tracks, Collier County
  - 1. For those not very familiar with hurricane tracks, this graphic is confusing? What direction are the storms moving? What does the color green mean? Did they all have surge (traveling eastward from the Gulf directly onto the coastline or northwestward parallel to the coastline)? Which ones are backdoor storms (crossing the Florida peninsula in an east to west direction) are primarily a rainfall threat.
- v. Frequency/Likelihood of Future Occurrence
  - 1. Hurricane and Tropical Storm (page 71)
    - a. Likely
      - i. Previous tables varied in presenting information from 1950 to present or 1960 to roughly the present, and the NOAA listing of hurricane strikes extends to 1910. Can we be consistent and go back to 1950 or 1960?
      - ii. Please elaborate on the State's methodology for considering Collier as high risk. That would provide credibility to the statement.

**Subject: Vulnerability Study Review Notes**  
**Date: 10/15/2014**  
**Review: Floodplain Management Staff – For Floodplain Management Planning Committee**

**General statements:**

- 5. Need to drill down to more specific Collier County data
- 6. Need to double check that data is accurate
- 7. Please cite all references and provide methodologies for obtaining data
- 8. Please spell out acronyms

**Specific Issues:**

- 1. 4.3 Vulnerability Assessment
  - a. Properties at Risk (pages 77-81)
    - i. Tables 4.17-4.19

1. Please use data provided by Collier County.
  2. Please explain how the numbers of properties are calculated and how the dollar amounts are generated. Table labels may need to be updated to reflect methodology. Please cite where the categories within occupancy type come from.
2. 4.3.2 Climate Change and Sea Level Rise Vulnerability Assessment
    - a. Sea Level Rise (page 89)
      - i. Can we be consistent with the sources used in the Flood Risk Assessment? (Page 92) Is Climate Central a good source? Is there a USACORE source we could use instead?
  3. 4.3.3 Coastal Erosion (page 93)
    - a. Coastal Erosion - Coastal Zone Management to review this section.
  4. 4.3.4 Flood: 100-/500-year Vulnerability Assessment
    - a. Values at Risk (pages 96-100)
      - i. Paragraph 2 identifies that FEMA considers ratios greater than 10% to be significant and an indicator a community may have more difficulties recovering from a flood. Looking at our tables, what is the overall community ratio? Please describe where the building count comes from and the total values building & content comes from.
    - b. Population at Risk (page 101)
      - i. Table 4.33: Question - Because of seasonal nature of our flooding, is the risk reduced during the summer months because there are fewer people living in SFHA (i.e. coastal VE/AE zones?)
    - c. Critical Facilities (pages 102-108)
      - i. Table 4.34 (pages 105-108): Critical Facilities need to match Rick Zyvoloski's feature class layer and County Staff is working to verify Collier County critical facilities.
    - d. Flood Insurance Analysis (page 113- 117)
      - i. Please describe why older Flood Zones are included in the table, perhaps it is when the policy was issued or a claim was filed?
  5. 4.3.6 Hurricane and Tropical Storm Vulnerability Assessment
    - a. Properties at Risk – Table 4.49 Assets at Risk to a Tropical Storm – can you please describe how the total building count numbers and the values were obtained. Can we round the dollar number to the thousands?
    - b. Population at Risk – Table 4.59. (page 147) Same as Populations at Risk Table inquiry on seasonal residents? (see comment for pg 101).

**From:** [schrzanowski2@comcast.net](mailto:schrzanowski2@comcast.net) [<mailto:schrzanowski2@comcast.net>]  
**Sent:** Thursday, October 23, 2014 7:11 PM  
**To:** CilekCaroline  
**Subject:** Question about today's FMPC meeting

Hi, Caroline:

This is to verify what I understand to be the answer to a question I asked at the FMPC meeting of Thursday 23 Oct 2014. I wanted to make sure that I was told

correctly that the FIRMs (other than the two restudied basins) on the County's website have never been corrected based on the 2007 LiDAR.

I was told today that the consulting work to correct the maps was done, but that they are sitting on a desk somewhere in Limbo awaiting review and approval. They've been there apparently for a while awaiting funding of the review and no one knows how much longer they'll be there. Is that about right?

There are two Physical Map Revisions (PMRs) in progress. The first PMR (which includes Coco C, Coco B, District 6, Henderson basins) has moved through FEMA's clearing house and is currently waiting to be reviewed by FEMA Region 4. When FEMA Region 4 begins their review, they will provide us a timeframe. The second PMR (which includes Ave Maria, Fakahatchee Union-Strand, Fakahatchee Union-Miller, and Southern Coastal basins) is currently under staff review.

It concerns me because there is a huge cost difference to the homeowners affected between paying X-Zone insurance and A-Zone insurance and that money is paid yearly, and there may be thousands of people and millions of dollars a year involved coming out of the pockets of Collier County residents and going to bureaucrats in Washington DC instead of into the local economy.

During our Community Assistance Visit earlier this year, the State Floodplain Office provided us information from the FEMA/NFIP database Community Information System (CIS) for unincorporated Collier County. The CIS report in February identifies there were:

- 72,640 flood insurance policies in force;
- \$33,782,829 in total premiums;
- \$17,059,105,200.00 insurance in force;
- 662 paid losses - totaling \$8,545,348.57; and
- 38 substantial damage claims since 1978

I don't see FEMA's incentive to hurry the review. I assume that if this were County tax money, there would be some sense of urgency to push the issue. I think the County should rethink how important this is.

Thanks,

Stan C.

P.S. Feel free to forward this to anyone you want to insure an accurate answer, but please forward it to the FMPC members.