

# Sea Level Rise & Storm Surge Meeting Town of South Bethany

- Response to Sea Level Rise (SLR) Committee  
Presentation

By Jack Whitney

April 24, 2014

# Points of Agreement

- SLR has increased a little over the past 100 years.
- Most damage was done by storm surge.
- SLR and storm surge need to be monitored.
- Residents need to be educated about the dangers.

# Points of Agreement

- Sandy was a 100 year hurricane storm and was different from the 1962 Nor-Easter.
- Isabel in 2003 was less intense than the above storms.

## However

- Newer SB houses in compliance with FEMA 2005 suffered little damage from Sandy.
- There is no valid evidence that SLR is a problem in SB now for homes meeting current Code.

# The Questions for Issues to be Resolved

- The questions are:
  - Does SB need to dictate changes to the Code **above and beyond** current **FEMA**, County, State and Federal requirements?
  - Are the the proposed Code revisions premature?
  - Has the Committee presented sufficient justification?
  - Are they the experts?
  - Have they fully considered all the impacts?

# SLR Documentation and Facts

- There are differing evaluations of actual SLR by reliable organizations (IPCC, NOAA, National Geographic).
- For past years, the differences are not nearly as great as the SLR estimates used as justification for new Codes.
- Committee recommendations are substantially based on the report that SLR in SB has been 0.43 feet in the past 14 years.
- A 5 inch sea level rise in SB canals over the past 14 years is not credible information.

# SLR Documentation and Facts

- Per authoritative sources, past SLR has been 2 to 3.8 millimeters per year (less than 0.15 inches per year) In the Mid-Atlantic between 1950 and 2009.
- Past global SLR has been 0.6 to 1 mm/year over the time.
- In 2012, NOAA reported global SLR has been only 1.1 - 1.3 mm/year (approximately 5 inches per century).
- IPCC stated past SLR has been about 3.1 mm/year but this report has since been refuted by NOAA scientists.

# SLR Documentation and Facts

- The Committee report of SLR of 0.43 feet in the last 14 years (or 9.2 mm/year) is about 300% higher than IPCC and nearly 900% more than NOAA reports for SLR over the same time period.
  - Does it make sense?
- Sea level in SB canals will/must closely be equal sea level in the nearby Ocean.

# Question

Has the Committee demonstrated the need for new Code changes to add freeboard to the FEMA FIRM/BDE levels?

# SLR Committee Recommendations

- That SB Code be changed to require new construction and substantial improvements meet the new FEMA BFE/FIRM building elevation requirements **PLUS 3 feet** (the new SB DFE).
- That housing levels be raised **above** FEMA requirements for DFE.
- That all new or repaired bulkheads be at least 3 ft. above NAVD.
  - 0.5 to 1.5 feet higher than current bulkheads

# Basis of Recommendations

- Committee interpretation of past SLR rates.
- Cherry-picked FEMA recommendations.
- Concern about flood insurance rates.
- Concerns about property values.
  
- Has the Committee fully evaluated all impacts?
- Have Insurance issues been fully and fairly analyzed?
  - Individual choices for deductibles
  - Individual choices for floor protection levels
  - Value of extra 5% to property owners - Is it worth it?

# Results If Adopted Now

- For DFE plus 3 feet : -
  - New construction costs will be higher.
  - Maximum building heights will be higher.
  - Substantial improvement and/or storm event repair costs will be **dramatically** higher.
  - Homeowners will lose their right to make reasonable choices.

**Your house could be severely de-valued  
in the Real Estate market as a result!**

(DE law requires full disclosure when you sell)

# Results If Adopted Now

- New bulkheads would cost at least 25% more.
- Increased heights will cause and/or aggravate flooding.
- You could be held responsible for damages if you impact your neighbor.

# What Should We Do ?

- We should: -
  - Monitor SLR
  - Review/evaluate recommendations by the most reliable sources
  - Evaluate impacts of alternate solutions/recommendations
  - Inform property owners about insurance industry trends
  - Educate community of the possible approaches/solutions for flood protection
  - Modify SB Code only if it is **demonstrated** to be prudent

# What Should We Do ?

- We should
  - Modify SB Code to allow Committee recommendations for freeboard on a **voluntary** basis (not mandated).
  - Consider allowing building height increases based on approved DBE (if in variance to the minimum FEMA requirement).
  - Reject mandatory changes for bulkhead heights all together.

## Notes: -

- Most recent new houses in West SB appear to not be in full compliance with the proposed Committee Code changes.
- Is there a town program to ensure homeowners or counseled or educated in advance?

# Conclusion

- SLR Committee has recommended excessive Code changes that are unsubstantiated at this time.
- Impacts have not been fully evaluated.
- Changes are not justified at this time.
- Changes would severely impact the majority of the SB property owners.
  - They would have a negative impact on property values.
  - They would deny SB property owners of their freedom to make prudent choices within reasonable Codes.
  - They would make SB a less desirable place to live.
- The study by the Committee is applaudable but the mandatory Code changes are premature.