

Quincy City Council Update on FEMA Flood Insurance Rates & Maps



April 7, 2014 at 7:30 PM
City Council Chambers

Agenda

- Brief History & Key Terms
- The two “separate but connected” issues
 - Biggert Waters Act & Amendment
 - FEMA Map Revisions proposed for June 9, 2014
- The City’s Appeal Process
 - The Map Appeal Process & Steps
 - Sample of Findings to date
- Information & Options for Individual Property Owners
- Resources for Support
- Questions from the Council

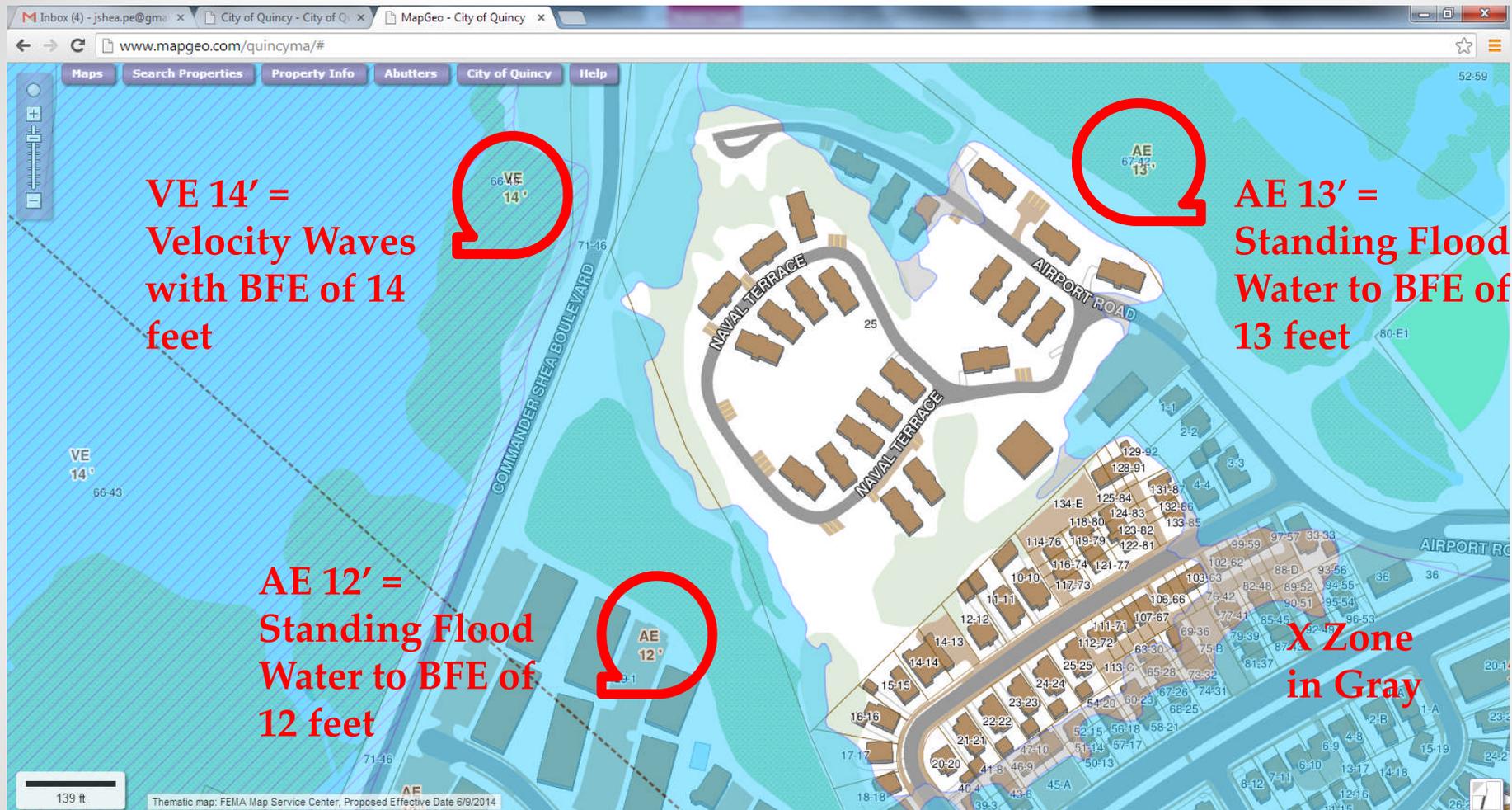
National Flood Insurance Program

- Established by Congress in 1968
- Created Flood Insurance Rate Maps (FIRMs)
- Provides federally backed flood insurance
- **Quincy adopted the NFIP on December 31, 1974**
- Program is \$24 billion in debt due in part to Hurricane Katrina and Hurricane Sandy
- Congress passed Biggert-Waters Act on July 6, 2012 to make the program financially stable.
- FEMA initiated new Flood Insurance Study and FIRM Update that are coming to a conclusion

Key Terms

- NFIP = National Flood Insurance Program
 - FIRMs = Flood Insurance Rate Maps
 - FIS = Flood insurance Study
 - Special Flood Hazard Area (SFHA)
 - = 100 year flood zone
 - = 1% change of being inundated annually
 - = Base Flood area
 - Quincy's most common SFHAs
 - V Zone = Subject to Wave Velocity
 - A Zone = Standing Flood Water
 - X Zone = 500 Year flood Zone
 - BFE = Based Flood Elevation
- + E means Elevation established

Key Term Examples



Blue Area = Special Flood Hazard Area (A & V Zones in Quincy)
Gray Area = 500 Year Flood Area (X Zone)

Key Homeowner Information

- PreFIRM Structure = Building constructed BEFORE Quincy Adopted the NFIP on December 31, 1974.
- Post-FIRM Structure = Building constructed AFTER December 31, 1974.
- Grandfathering = Property continue to be rated for risk using zone and elevation on current policy rather than new FIRM with new zones and elevations
- Risk=(Probability of Disaster) x (Cost to Correct / Repair)



The “Separate but Connected” Issues

Biggert-Waters Act

- Moved to Actuarial approach
- Removes subsidies
- Affordability Study

March 21, 2014
Homeowner Flood Insurance Affordability Act
Signed into Law

2014 FEMA Map Update

- Redefines properties that are required to have flood insurance
- Portrays expanded SFHA & Zones
- Reforecasts Elevation of Flooding (BFEs)
- Inputs include topography, hydraulic modeling, and hydrologic modeling.
- Quincy Maps proposed to be effective on June 9, 2014

Homeowner Flood Insurance Affordability Act

Passed by House of Representatives 306 to 91

Passed by the Senate 72 to 22

Signed into Law by President Obama on March 21, 2014

In General:

- Act eliminates, delays, and/or slows down many provisions of Biggert-Waters
- FEMA is reviewing the Act to interpret provisions and create implementation plan.
- Not all timelines have been established



Homeowner Flood Insurance Affordability Act

Some Specifics:

- Requires an Affordability Study be completed in 2 years
- Restores Grandfathering at current risk level (Post-FIRM)
- Caps increases at 15 - 18% per year for most properties
- Removes “triggers” that would increase rates
 - For example lapsed policies or home sale
 - Properties within the SFHA uninsured when Biggert Waters 2012 passed
- Grants rebates for successful appeals
- Allows for Monthly Payment of Flood Insurance
- Establishes Map Review Process with Municipality



Quincy's FIRMs

- Map that is in effect today is dated July 17, 2012
 - Located on FEMA web site
 - Approved by City Council on June 25, 2012
 - Generally depicts those areas that the City's history of flooding & DPW flood response feel generally accurate
- FEMA issued NEW Maps to be effective June 9, 2014
 - New maps have significantly changed in some coastal neighborhoods
 - Impacts 4,600 parcels

Quincy By The Numbers

- Current July 17, 2012 FIRMs - Total Policies: **3,200**
- Proposed June 9, 2014 FIRMs – Total Policies: **4,600**
- Changes by Typical Category:
 - Policies with no change in designation: 500
 - Policies with Increased Flood Designations: 2,700
 - Projected NEW First Time Policy Holders: 1,400
 - Impacted parcels: 4,600**

Flood Risk vs. Cost



- If your Property is the SHFA, FEMA to calculate your actuarial risk of flooding using three risk levels:
 - A. Finished Floor Elevation (FFE) below Base Flood Elevation (BFE)
 - B. Finished Floor Elevation at Base Flood Elevation
 - C. Occupied Structure / Adjacent Grade above Base Flood Elevation

Quincy's Actions to Appeal

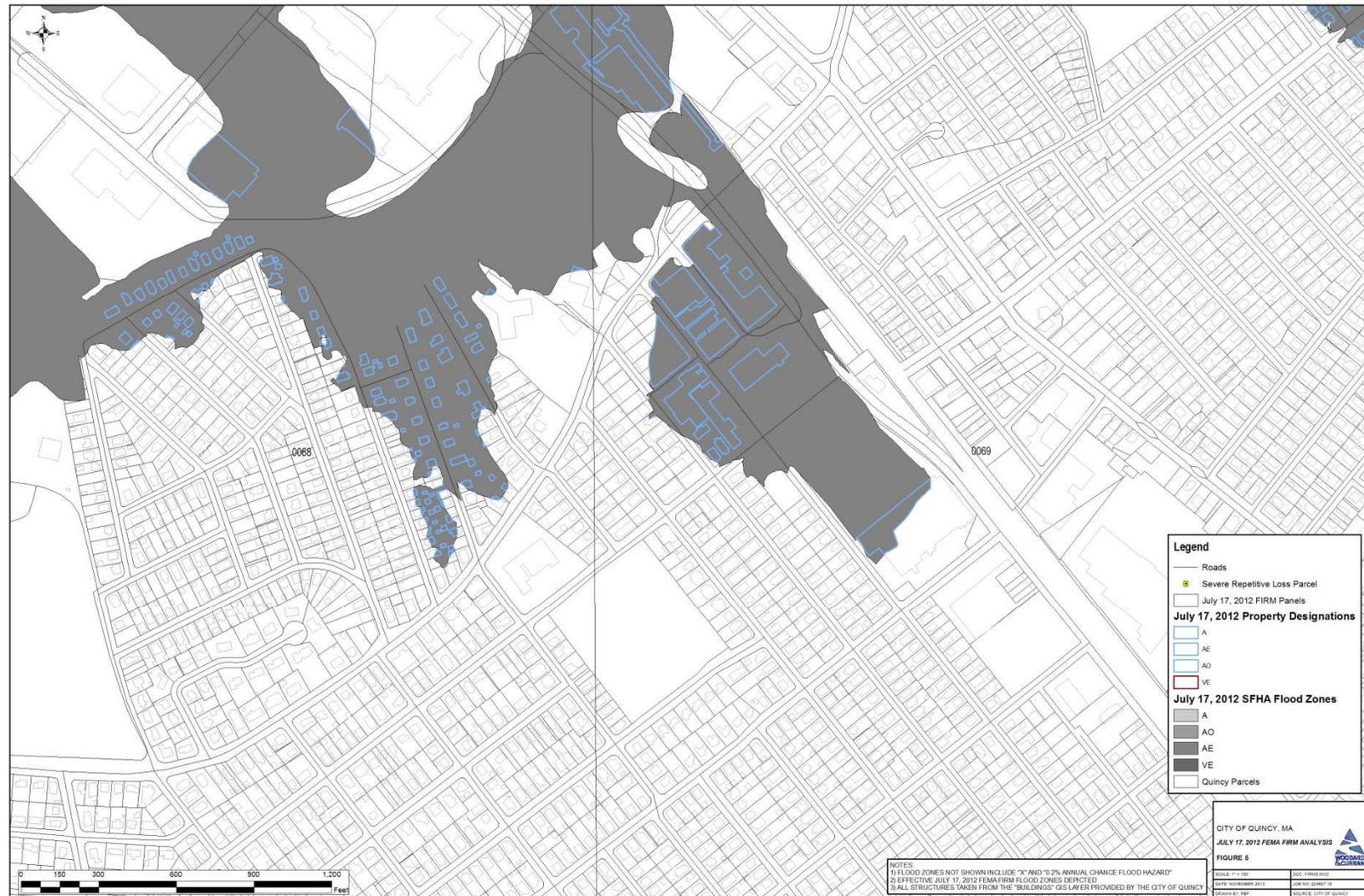
Preparing City-wide Letter of Map Revision (LOMR)

- Reviewing maps for each neighborhood
- Modeling select neighborhoods with a different model to confirm the proposed BFEs
- Performing Instrument Survey in hundred of locations
 - Evidence of incorrect elevations
 - For use by Homeowner's if a LOMAA, is necessary
- Submit Drainage Infrastructure Operations Protocol for review with FEMA (i.e. Blacks Creek Tide Gates)
- Submit "new" Infrastructure from City's CIP for Credit
- Highlight Contour Errors & Edge Matching Errors



July 17 2012 FIRM

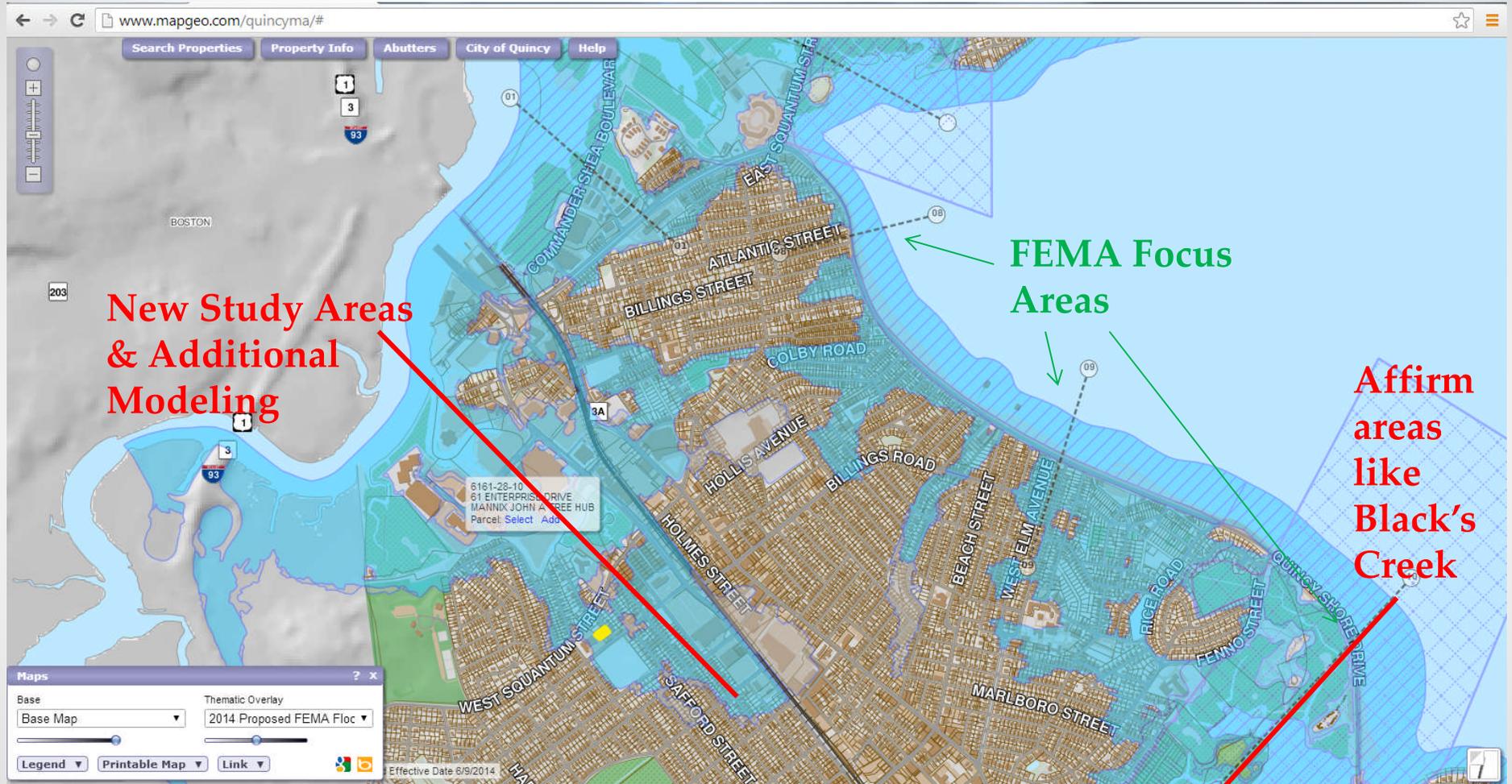
Fayette St. & Farrington St. Area



Proposed June 9, 2014 FIRM Fayette St. & Farrington St. Area

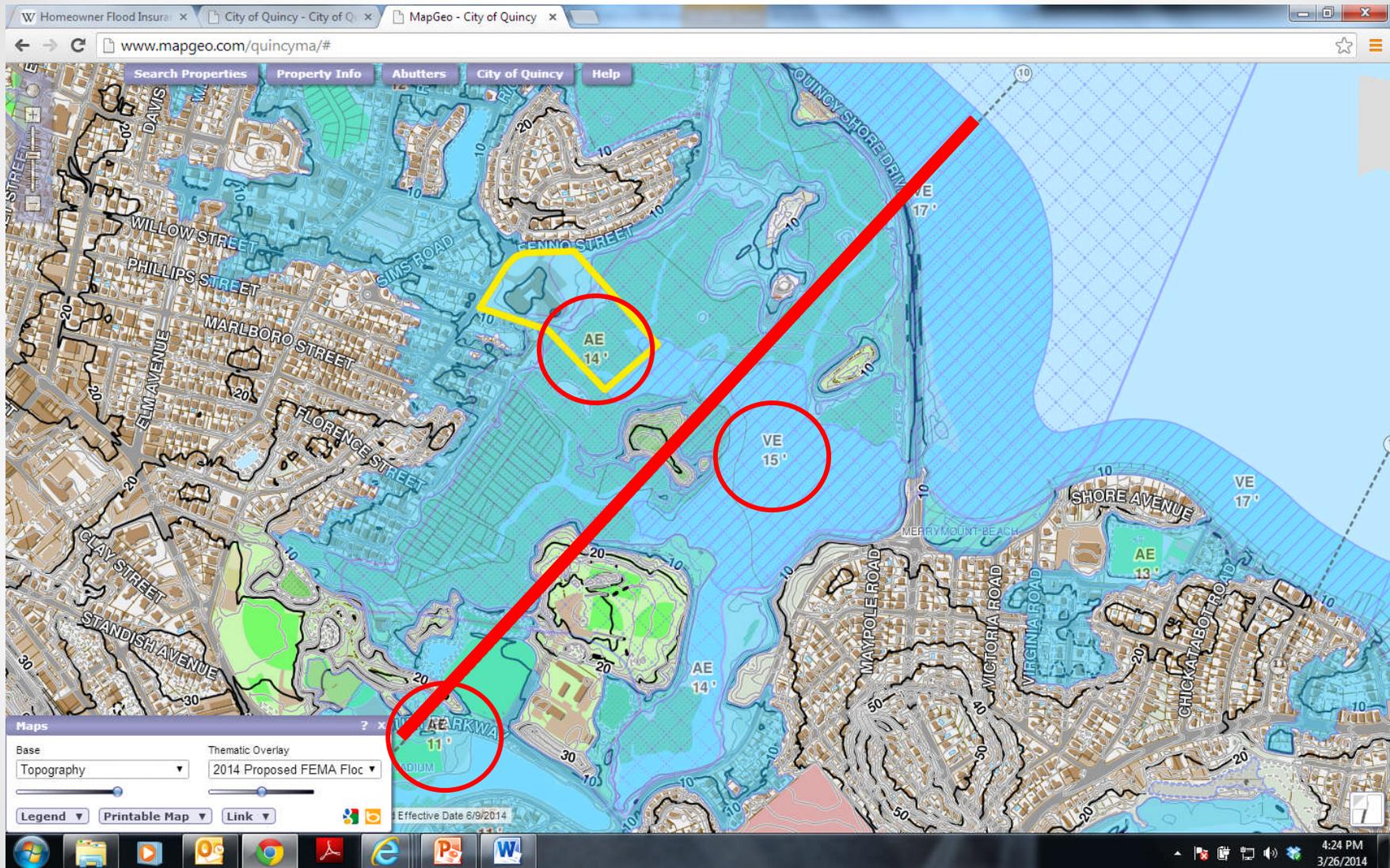


Additional Hydraulic Modeling



Provide alternative and additional information in LOMR

Remodel Some Areas



Inconsistent increase of 3 to 4 feet in Blacks Creek

SWAN Modeling

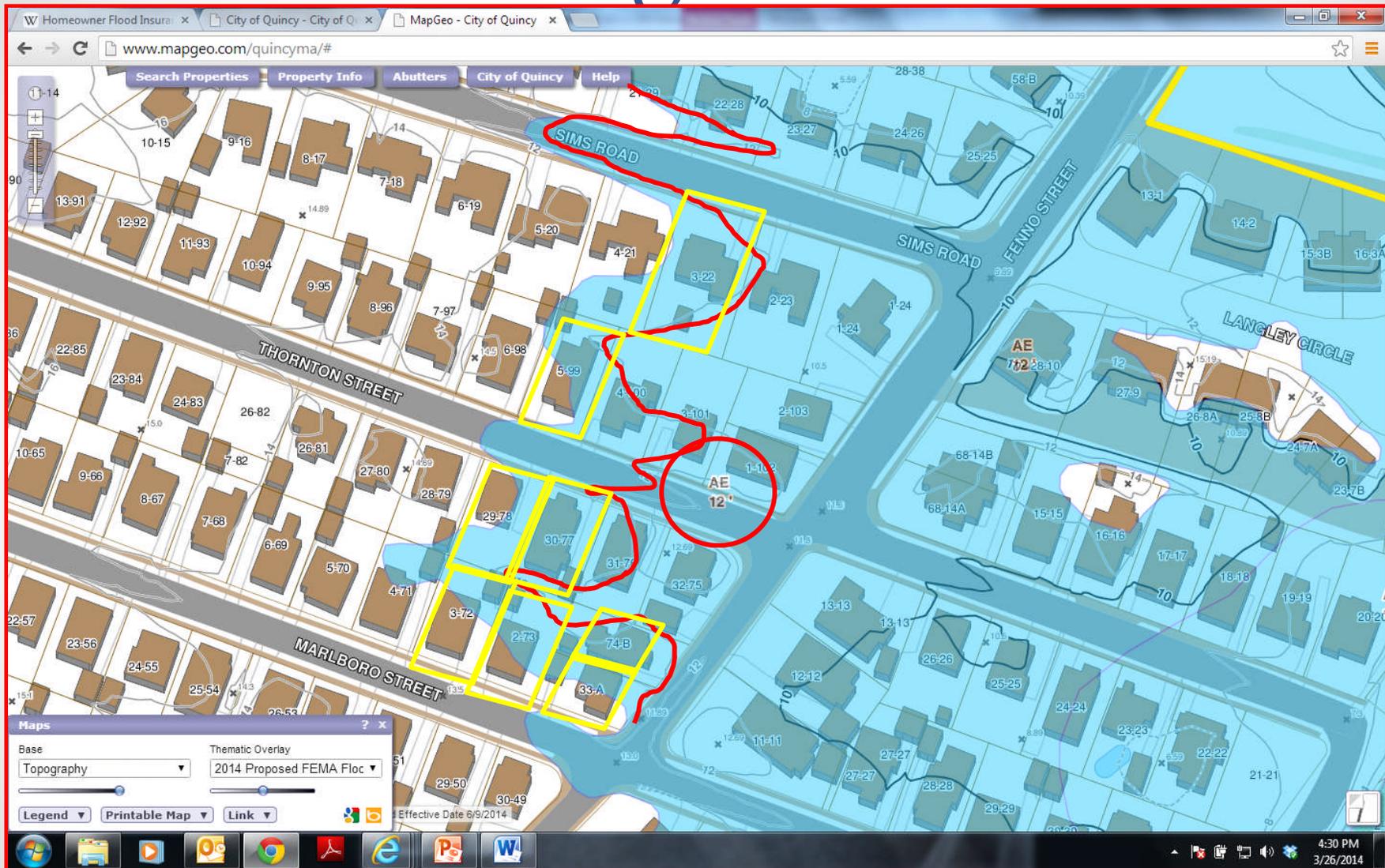
FEMA's Direct Integration Method (DIM) Model

- Developed for calculating static and dynamic (infragravity) components of wave setup accounting for as much of the physics as possible.
- A **one-dimensional method** accounts for the **spectral shape**, the **detailed bathymetry**, and is based on integration of the governing equations from deep to shallow water.
- Can be applied by a **simple set of empirical equations** and by full implementation of the numerical model.

Simulating Waves Nearshore (SWAN) Model Alternative

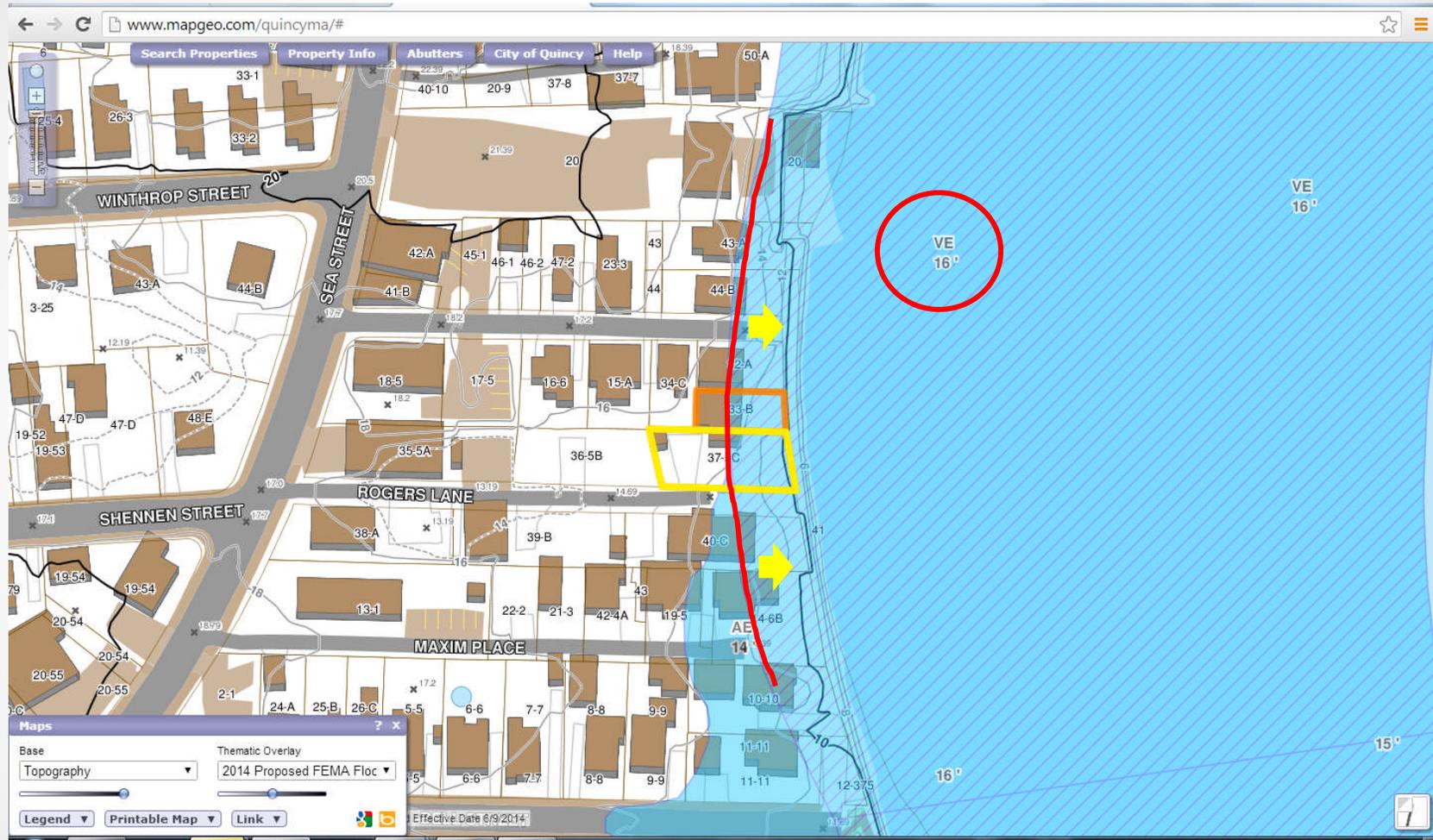
- Based on the **wave action balance equations**.
- Incorporates **wave generation, dissipation** and **wave interactions**
- **Keys for East Coast**
 - Wave shifting due to currents and non-stationary depth.
 - Three- and four-wave interactions.
 - Bottom friction and depth-induced breaking.
 - Dissipation due to vegetation.
 - Transmission through and reflection (specular and diffuse) against obstacles.

Contouring Corrections



Confirm with detailed survey information

Edgematching Corrections



Confirm with Seawall heights and survey

LOMR Appeal Process

LOMR Meet with FEMA to review

- File a MT-1 & LOMR Form with Engineering Report Back-up highlighting additional information and corrections.
 - Outline streets, parcels and lots to be corrected.
- Meet with FEMA and Map Partners to review:
 - Basis for LOMR
 - SWAN Modeling Outcome
 - Detailed Survey Results
 - Stormwater System Operational Protocol
 - City's Improvements to Drainage & Sea Walls

LOMR Appeal Schedule

Target Schedule Moving Forward

- April – Continue Map Analysis, Modeling, & Survey
- Early May – Compile Information & Refine Strategy
- Late May – City Council & Planning Board approvals with Condition that LOMR is submitted on June 10th
- June 9, 2014 Map effective date
- June 10, 2014 – Submit LOMR to FEMA
- Late June – Meet with FEMA
- Seek LOMR Approval within 60 - 90 days of submission

4,600 Properties Impacted

Changes by Typical Category:

- Policies with no change in designation: 500
- Policies with Increased Flood Designations: 2,700
- Projected NEW First Time Policy Holders: 1,400



A. Finished Floor Elevation (FFE) below Base Flood Elevation (BFE)

B. Finished Floor Elevation at Base Flood Elevation

C. Occupied Structure / Adjacent Grade above Base Flood Elevation

500 Policies with no change in designation:

- Mostly in West Quincy, South Quincy, ½ mile Inland from Coast
- Recommendations:
 - Confirm there are no changes using City WebGIS at www.quincyma.gov
 - Confirm with Insurance Company that there are no changes in your Risk status
 - Ensure that your Insurance Company has your “Year Built” on File
 - Do so with sufficient time for any updates before June 9, 2014

2,700 Policies with Increased Flood Designation:

- Recommendations:
 - Understand the change by using City WebGIS at www.quincyma.gov
 - Did you go from an AE to a VE?
 - Did the BFE increase? If Yes, call City Engineer's Office for Elevation Survey
 - Select "Property Record Card" for Year Built
 - Contact your Insurance Company:
 - If Built before Dec 31, 1974 ask for the best Pre-FIRM rate or a Preferred Risk Policy.
 - If Built After Dec 31, 1974 ask to be Grandfathered at the Risk Level for the year you were built with the best Post-FIRM rate or a Preferred Risk Policy.
 - Do so by May 9th to account for 30 day waiting period before June 9, 2014

1,400 Projected NEW First Time Policy Holders:

- Recommendations:
 - Understand your Zone and BFE by using City WebGIS at www.quincyma.gov
 - Does the SFHA touch the “Occupied Structure” (The House)? If No, Tell your Insurance Company
 - Select “Property Record Card” for Year Built
 - Contact City Engineer’s Office for an Elevation Survey
 - Contact your Insurance Company:
 - If Built before Dec 31, 1974 ask for the best Pre-FIRM rate or a Preferred Risk Policy
 - If Built After Dec 31, 1974 ask to be Grandfathered at the Risk Level for the year you were built with the best Post-FIRM rate or a Preferred Risk Policy.
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Contacting the City Engineering Office 617-376-1937

- The SWAN Modeling and Error Corrections requires hundreds of surveying points for LOMR.
- Using information that can assist with individual property Letters of Map Ammendment (LOMA) builds more value for City and individual property owners.
- Homeowners will be provided with the survey information and a recommendation on how to best use it, for example:
 - Wait for City's LOMR to change the whole neighborhood.
 - Submit an Individual LOMA (City's Surveyor will complete the Elevation Certificate Form).
 - Share information with your Insurance Company to get accurate actuarial risk for your policy

Individual Parcels: Letter of Map Amendment

- Appeal to change the flood designation for a single property filed by property owner
- Granted by FEMA if property is improperly mapped because topography on FIRM was not detailed enough to identify higher elevations adjacent to the structure
- Elevation Certificate is required for appeal
 - Official FEMA form completed by licensed surveyor
 - Used to calculate difference between Lowest Finished Floor Elevation and Base Flood Elevation
 - Copy to be filed with the City Engineering Dept

Option for Individual Parcels: Preferred Risk Policy (PRP)

- Option for properties that are newly mapped into a Special Flood Hazard Area
- Property is locked into a lower rate
- Policy can carry over if property is sold
- Will be subject to annual rate increase cap
- **Talk to your Insurance Agent about this option with sufficient time (30 days) to make changes before June 9th, if necessary.**

Resources for Property Owners

Quincy Guide to
FEMA's Flood
Insurance Changes

City of Quincy



Property Owners'
Guide to FEMA's
Flood Insurance
Changes
January 2014



FEMA "Need to
Know" Pamphlet



IF YOUR HOME OR BUSINESS
HAS BEEN FLOODED

Build Back
Safer and Stronger

What You Need to Know



Quincy City
Engineering
Department

55 Sea Street
617-376-1937

Resources

- Massachusetts Coastal Coalition (MCC)
- Coalition for Sustainable Flood Insurance (CSFI)
- Floodsmart.Gov
- MSC.FEMA.Gov
- FEMA website
- City of Quincy Engineering Department
- Your local insurance agent

Other Quincy Actions

Participation in FEMA's Community Rating System (CRS)

- Voluntary incentive program that encourages communities to implement floodplain management initiatives that exceed the minimum requirements established by the NFIP
- The floodplain management initiatives enacted by the City leads to higher discounts for policyholders
- City of Quincy currently has a rating of 8 out of 10
 - Gives policyholders a **10% discount on flood insurance**
 - Best rating among participating communities in Massachusetts (5 others have a rating of "8")

City Pushing to get to a Rank of 7 = 15% discount

City Council Questions

