Completing a successful review and appeal of FEMA maps requires a detailed understanding of FEMA guidelines and methodologies. GZA is well-versed in FEMA’s guidelines for the evaluation of flood impacts and the delineation of flood zones. GZA has been assisting private property owners, businesses and communities with the identification, confirmation and evaluation of flood map modifications.

The Federal Emergency Management Agency (FEMA), through the Map Modernization program, is responding to National Flood Insurance Program (NFIP) requirements for updating the Flood Insurance Rate Maps (FIRMS) and is utilizing improved technologies for identifying flood hazards. In many areas, the new data and methodologies have significantly increased the Base Flood Elevations (BFEs) associated with areas that have a 1 percent or greater chance of flooding in any given year. These 100-year floodplains and flood zone delineations are allowed a 90 day appeal process as the Preliminary FIRMs.

As these Preliminary FIRMs become adopted into law, the map modifications can have significant economic implications for both private and public property owners deemed by FEMA to be exposed to flood risk. Residents and businesses with federally-backed mortgages will be required to purchase flood insurance. Premiums for flood insurance are increasing significantly due to reforms in the Biggert-Waters Flood Insurance Reform Act of 2012 and the Homeowner Flood Insurance Affordability Act (H.R. 3370) of 2014, which will phase in actuarial risk-based rates for national flood insurance policies over several years and promote affordability measures that are not yet defined.
Services

GZA provides experience with the following services:

- Technical review of FEMA flood insurance study coastal analysis input data for conformance with FEMA Guidelines and Specifications for Flood Hazard Mapping Partners;
- Performance of wave height, setup and runup calculations and flood zone delineations;
- Review of FEMA storm surge model results, wave height analyses and erosion assessment including the Technical Support Data Support Notebooks;
- Coastal Systems Modeling and Dynamic Coastal Flood Modeling of New England Shorelines;
- Use of FEMA models used to evaluate beach and dune erosion due to severe storms;
- Preparation of appeals of preliminary FIRMs and community wide LOMR with supporting documentation;
- FEMA Accreditation Evaluation and Certification of dams and levees for owners of flood control works including: geotechnical investigations and testing, slope stability assessment, survey, GIS mapping, and remedial design;
- Review of Existing FEMA Flood Insurance Studies (FISs) and Preparation Letter of Map Revisions (LOMRs); and
- Hydrographic surveys of river bottom cross sections, bathymetric surveys and analysis of digital elevation model (DEM) data based on the referenced LiDAR (Light Detection and Ranging) surveys.

Representative Projects:

Review of Existing FEMA Flood Insurance Rate Maps/Study, and Preparation Letter of Map Revision
TOWN OF HINGHAM, MA

Coastal Engineering Analyses for the Preparation of Letter of Map Revision (LOMR) for Pier One to FEMA
EAST BOSTON, MA

Flood Map and Flood Insurance Study Update Review
TOWN OF SALISBURY, MA

Review of Preliminary FIRM and Flood Insurance Study (FIS) and Letter of Map Revision (LOMR), Mill Brook TOWN OF WESTWOOD, MA

FEMA Accreditation Evaluation and Certification of Chicopee River Flood Works – City of Chicopee
CHICOPEE, MASSACHUSETTS

FEMA Flood Insurance Rate Map (FIRM) Letter of Map Revision for Site on Chicopee River – CONFIDENTIAL CLIENT
CHICOPEE, MASSACHUSETTS

GZA Mapping of Interior Flood Areas inside the Levee System

Chicopee Flood Control

LOMR for Pier One, East Boston, MA

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