

Discovery Report Appendix B

Glossary of Terms

Lake Erie – Headwaters to the Buffalo-Eighteenmile Watershed HUC 04120103

Erie, Genesee, and Wyoming Counties, New York

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FEMA

Federal Emergency Management Agency
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Glossary of Terms

1-Percent-Annual-Chance Flood: The flood having a 1-percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the “100-year flood” or “base flood”. The base flood is the national standard used by the National Flood Insurance Program (NFIP) and all Federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development. Base Flood Elevations (BFEs) are typically shown on Flood Insurance Rate Maps (FIRMs). ([FEMA](#))

0.2-Percent-Annual-Chance Flood: A flood that has a 0.2-percent chance of being equaled or exceeded in any given year (also known as a 500-year flood). ([FEMA](#))

Approximate Study: Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply. An approximate study is represented on a FIRM by a [Zone A](#). ([FEMA](#))

Average Annualized Loss (AAL): AAL is the estimated long-term value of losses to the general building stock averaged on an annual basis for a specific hazard type. Annualized loss considers all future losses for a specific hazard type resulting from possible hazard events with different magnitudes and return periods averaged on a “per year” basis. Like other loss estimates, AAL is an estimate based on available data and models. Therefore, the actual loss in any given year can be substantially higher or lower than the estimated annualized loss. ([FEMA](#))

Base Flood Elevation: The computed elevation to which floodwater is anticipated to rise during the base flood. BFEs are shown on FIRMs and on the flood profiles. The BFE is the regulatory requirement for the elevation or floodproofing of structures. The relationship between the BFE and a structure’s elevation determines the flood insurance premium. ([FEMA](#))

Bathymetry: The underwater equivalent to topography. The data used to make bathymetric maps today typically comes from an echosounder ([sonar](#)) mounted beneath or over the side of a boat, “pinging” a beam of sound downward at the underwater surface, or from remote sensing systems. The bathymetry is combined into a seamless digital elevation model/terrain and is used to determine the offshore component for the overland wave analysis/coastal hazard analysis.

Coordinated Needs Management Strategy (CNMS): A FEMA Geographic Information System (GIS) tool that identifies and tracks the lifecycle of mapping requests and needs for the flood hazard mapping program. ([FEMA](#))

Dam: An artificial barrier that has the ability to impound water, wastewater, or any liquid-borne material, for the purpose of storage or control of water. ([FERC](#))

Declared Disaster: Local and State governments share the responsibility for protecting their citizens and for helping them recover after a disaster strikes. In some cases, disasters are beyond the capabilities of local, State, and tribal government. In 1988, the Stafford Act was enacted to support local, State and tribal governments and their citizens when disasters overwhelm and exhaust their resources. This law, as amended, established the process for requesting and obtaining a Presidential Emergency or Disaster Declaration, defined the type and scope of assistance available from the Federal Government, and set the conditions for obtaining assistance. Steps for a Disaster Declaration include: (1) Local government responds, supplemented by neighboring communities and volunteer agencies. If the local government is overwhelmed the (2) State responds, (3) damage assessments are completed to determine total losses and recovery needs, (4) Disaster Declaration is requested by the governor of the state or by a tribal CEO, based on damage assessments, (5) FEMA evaluates the request, and then the (6) President approves or denies the request. ([FEMA](#))

Detailed Study: A flood hazard mapping study done using hydrologic and hydraulic methods that produce Base Flood Elevations (BFEs), floodways, and other pertinent flood data. Detailed study areas are shown on the FIRM as [Zones AE, AH, AO, AR, A99, A1-A30, and in coastal areas Zones V, VE, and V1-30](#). ([FEMA](#))

FIRM panel: The FIRM may include one or more individual maps. Each map is called a panel. The number of panels depends on the community size and the scale(s) of the panels. The index is used to determine which panel should be utilized to obtain flood hazard information for a specific location. ([FEMA](#))

Flood Insurance Study (FIS): A compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. When a flood study is completed for the NFIP, the information and maps are assembled into an FIS. The FIS report contains detailed flood elevation data in flood profiles and data tables. ([FEMA](#))

Flood Mitigation Assistance (FMA): The FMA program provides funds for projects to reduce or eliminate risk of flood damage to buildings that are insured under the NFIP on an annual basis. There are three types of FMA grants available and include (1) planning grants, (2) project grants, and (3) management cost grants. ([FEMA](#))

Geocode: Geocoding is the process of transforming a description of a location—such as a pair of coordinates, an address, or a name of a place—to a location on the earth’s surface. You can geocode by entering one location description at a time or by providing many of them at once in a table. The resulting locations are output as geographic features with attributes, which can be used for mapping or spatial analysis. ([ArcGIS Resource Center](#))

Multi-Hazard Risk Assessment and Loss Estimation Program (Hazus-MH): Hazus-MH is a nationally applicable standardized methodology that estimates potential losses from earthquakes, hurricane winds and floods. FEMA developed Hazus-MH under contract with the National Institute of Building Sciences (NIBS). Hazus-MH uses state-of-the-art Geographic Information Systems (GIS) software to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure. It also allows users to estimate the impacts of earthquakes, hurricane winds and floods on populations. ([FEMA](#))

Hazard Mitigation Assistance (HMA): FEMA's HMA grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages including the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and Flood Mitigation Assistance (FMA). ([FEMA](#))

Hazard Mitigation Grant Program (HMGP): The HMGP provides grants to States or tribes and local governments (as sub-grantees) to implement long-term hazard mitigation measures after a major disaster declaration. Each State or tribe (if applicable) administers the HMGP in their jurisdiction. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Individual homeowners and businesses may not apply directly to the program; however, an eligible applicant or sub-applicant may apply on their behalf. ([FEMA](#))

HUC (Hydrologic Unit Code): The United States Geological Survey (USGS) divides and sub-divides the area of the United States into successively smaller hydrologic units which are classified into four levels: regions, sub-regions, accounting units, and cataloging units. The hydrologic units are arranged or nested within each other, from the largest geographic area (regions) to the smallest geographic area (cataloging units). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to eight digits based on the four levels of classification in the hydrologic unit system. ([USGS](#))

Hydraulics: The branch of science and technology concerned with the conveyance or control of liquid flow through pipes and channels, especially as a source of mechanical force.

Hydrology: The science that encompasses the occurrence, distribution, movement, and properties of the waters of the earth and their relationship to the environment within each phase of the hydrologic cycle. The [water cycle](#), or hydrologic cycle, is a continuous process by which water is purified by evaporation and transported from the earth's surface (including the oceans) to the atmosphere and back to the land and oceans. ([USGS](#))

Light Detection and Ranging (LiDAR): LiDAR is an active remote sensing technique similar to radar, but uses light pulses instead of radio waves. LiDAR is typically “flown” or collected from planes and produces a rapid collection of points (more than 70,000 per second) over a large collection area. Collection of elevation data using LiDAR has several advantages over most other techniques. Chief among them are higher resolutions, centimeter accuracies, and penetration in forested terrain. ([NOAA](#))

Letter of Map Amendment (LOMA): A LOMA is an official amendment, by letter, to an effective National Flood Insurance Program (NFIP) map. A LOMA establishes a property’s location in relation to the Special Flood Hazard Area (SFHA). LOMAs are usually issued because a property has been inadvertently identified as being in the floodplain, but is actually on natural high ground above the Base Flood Elevation (BFE) or out as shown on the FIRM. Because a LOMA officially amends the effective National Flood Insurance Program (NFIP) map, it is a public record that the community must maintain. Any LOMA should be noted on the community’s master flood map and filed by panel number in an accessible location. ([FEMA](#))

Letter of Map Change (LOMC): LOMC is a general term used to refer to the several types of revisions and amendments to FEMA maps that can be accomplished by letter. They include Letter of Map Amendment (LOMA), Letter of Map Revision (LOMR), and Letter of Map Revision based on Fill (LOMR-F). ([FEMA](#))

Letter of Map Revision (LOMR): is FEMA's modification to an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The LOMR officially revises the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM), and sometimes the Flood Insurance Study (FIS) report, and when appropriate, includes a description of the modifications. The LOMR is generally accompanied by an annotated copy of the affected portions of the FIRM, FBFM, or FIS report. ([FEMA](#))

Letter of Map Revision Based on Fill (LOMR-F): A LOMR-F is FEMA’s modification of the Special Flood Hazard Area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway. ([FEMA](#))

Levee/Floodwall: A man-made structure designed to contain or control the flow of water. Levees and floodwalls are constructed from earth, compacted soil, or artificial materials, such as concrete or steel. To protect against erosion and scouring, earthen levees can be covered with grass and gravel or hard surfaces like stone, asphalt, or concrete. ([FEMA](#))

Limit of Moderate Wave Action (LiMWA): The inland limit of the area expected to receive 1.5- to less than 3 foot breaking waves during the 1-percent-annual-chance flood event. The area between this inland limit and the V zone boundary is known as the Coastal A zone. ([FEMA](#))

Map Modernization: A multi-year Presidential initiative funded by Congress from fiscal year (FY) 2003 to FY2008, improved and updated the nation's flood maps and provided 92 percent of the nation's population with digital Flood Insurance Rate Maps. ([FEMA](#))

Mitigation: Any cost-effective action taken to eliminate or reduce the long-term risk to life and property from natural and technological hazards, including, but not limited to, flooding. Acceptable flood mitigation measures include: elevation, floodproofing, relocation, demolition, or any combination thereof. ([FEMA](#))

Pre-Disaster Mitigation (PDM): The PDM grant program provides funds for hazard mitigation planning and projects on an annual basis. The PDM program was put in place to reduce overall risk to people and structures, while at the same time reducing reliance on Federal funding if an actual disaster were to occur. ([FEMA](#))

Repetitive Loss (RL) property: A RL property is any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling 10-year period since 1978. A RL property may or may not be currently insured by the NFIP. ([FEMA](#))

Risk Mapping, Assessment, and Planning (Risk MAP) program: The FEMA program that provides communities with flood risk information and tools to support mitigation planning and risk reduction actions. ([FEMA](#))

Severe Repetitive Loss (SRL) grant program: The Severe Repetitive Loss (SRL) grant program was authorized by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, which amended the National Flood Insurance Act of 1968, to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss structures insured under the National Flood Insurance Program. ([FEMA](#))

Severe Repetitive Loss (SRL) property: A SRL property is a single family property (consisting of 1 to 4 residences) covered by flood insurance underwritten by the NFIP and has incurred flood-related damage for which four or more separate claim payments have been paid with the amount of each claim payment exceeding \$5,000 and with cumulative amount of such claim payments exceeding \$20,000; or for which at least two separate claim payments have been made with the cumulative amount of such claims exceeding the market value of the property. ([FEMA](#))

Special Flood Hazard Area (SFHA): SFHAs are high-risk areas subject to inundation by the base (1-percent-annual-chance) flood; they are also referred to as 1-percent-annual-chance floodplains, base floodplains, or 100-year floodplains. ([FEMA](#))

Stakeholder: An individual or group that has an interest in a decision or proposed action. A stakeholder may have none, one, or more of the following roles: has authority or decision-making power over some aspect of the project, is affected by the outcome of the project, will be a part of implementing the project, and/or can stop or delay the project (through litigation or other means). A project may have multiple stakeholders, and these stakeholders often have conflicting interests and want competing outcomes. ([FEMA](#))

Vertical Datum: A vertical datum is a base measurement point (or set of points) from which all elevations of points on the Earth's surface are determined. Without a common datum, surveyors would calculate different elevation values for the same location. Vertical datums are either tidal, that is, based on [sea levels](#), or geodetic, based on the same ellipsoid models of the earth used for computing horizontal datums. Common vertical datums used on Flood Insurance Rate Maps (FIRMs) are NGVD29 (tidal) and NAVD88 (geodetic). ([FEMA](#)).

Watershed: A watershed is a basin-like landform defined by highpoints and ridgelines that descend into lower elevations and stream valleys. A watershed carries water from the land after rain falls and snow melts. Drop by drop, water is channeled into soils, aquifers, creeks, and streams, making its way to larger rivers and eventually the sea. ([Watershed Atlas](#))

Water Year: The 12-month period beginning on October 1 for any given year and ending on September 30 of the following year. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2013, is called the "2013" water year. ([USGS](#))