Working Definitions of Terms Used in the *Discussion Flood Standards*
(These terms are meant to be specific to the *Discussion Flood Standards)*

> ***Definition as given in hurricane standards**
> ****Definition modified from hurricane standards with modifications shown in track changes**
> *****New definition for flood standards**

Actual Cash Value (ACV):*
Cost of replacing damaged or destroyed property with comparable new property minus depreciation.

Actuary:*
A highly specialized professional with mathematical and statistical sophistication trained in the risk aspects of insurance, whose functions include the calculations involved in determining proper insurance rates, evaluating reserves, and various aspects of insurance research; a member of the Casualty Actuarial Society or Society of Actuaries with requisite experience.

Acyclic Graph:*
A graph containing no cycles.

Additional Living Expense (ALE):*
If a home becomes uninhabitable due to a covered loss, ALE coverage pays for the extra costs of housing, dining expenses, etc. up to the limits for ALE in the policy.

Aggregated Data:*
Summarized data sets or data summarized by using different variables. For example, data summarizing the exposure amounts by line of business by ZIP Code is one set of aggregated data.

Annual Aggregate Loss Distributions:**
For the Commission's purposes, the aggregate losses which are expected to occur for all ~~hurricane~~ flood events in any one year. Another way to state it is the aggregate probable maximum loss. See below for Probable Maximum Loss (PML).

Annual Exceedance Probability:***
Multiplicative inverse of the return time. Probability of an annual loss outcome greater than a specified value.

Annual Occurrence Loss Distribution:**
For the Commission's purposes, the distribution of the largest loss that is expected to occur for all modeled ~~hurricane~~ flood events in each year.

Antecedent Soil Conditions:***

The initial conditions (generally related to moisture content) of a soil preceding a precipitation or flood event, which affect the soil infiltration rate and maximum infiltration volume. The antecedent conditions of soil can have a large impact on rainfall runoff, due to the ability (or inability) of the soil to absorb water. Antecedent moisture conditions of a soil can be affected by groundwater levels or recent rainfall events.

Appurtenant Structures:*

Detached buildings and other structures located on the same property as the principal insured building, e.g., detached garage, fences, swimming pools, patios.

Assertion:*

A logical expression specifying a program state that must exist or a set of conditions that program variables must satisfy at a particular point during program execution. Types include input assertion, loop assertion, output assertion. Assertions may be handled specifically by the programming language (i.e., with an "assert" statement) or through a condition (i.e., "if") statement.

Average:*

Arithmetic average or arithmetic mean.

Average Annual Loss:*

The long term loss expected in any one year.

Base Flood Elevation (BFE):***

The elevation of water surface resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM).

Bathymetry:*

Spatial variation of ocean depth relative to mean sea level.

Business Process Model and Notation (BPMN):*

A graphical representation for specifying business processes in a business process model.

By-Passing Hurricane:*

A hurricane which does not make landfall, but still causes damage in Florida.

Calibration:*

Process of adjusting values of model input parameters in an attempt to fit appropriate target data sets.

Catastrophe:*

A natural or man-made event that causes more than $25 million in insured losses as defined by Property Claims Services.

Characteristics (Output):***

Resulting values or datasets which are generated by the model through a process of analyzing, evaluation, interpreting, or performing calculations on parameters (input).

Code:*

In software engineering, computer instructions and data definitions expressed in a programming language or in a form output by an assembler, compiler, or other translator. *Synonym*: **Program**.

Coding Guidelines:*

Organization, format, and style directives in the development of programs and the associated documentation.

Coinsurance:*

A specific provision used in a property insurance policy in which an insurer assumes liability only for a proportion of a loss.

Component:*

One of the parts that make up a system. A component may be subdivided into other components. The terms "module," "component," and "unit" are often used inter-changeably or defined to be sub-elements of one another in different ways depending on the context. For non-object oriented software, a component is defined as the main program, a subprogram, or a subroutine. For object-oriented software, a component is defined as a class characterized by its attributes and component methods.

Component Tree:*

An acyclic graph depicting the hierarchical decomposition of a software system or model. *See also*: **System Decomposition**.

Conditional Tail Expectation*

Expected value of the loss above a given loss level.

Condominium Owners Policy:*

The coverage provided to the condominium unit owner in a building against damage to the interior of the unit.

Continental Shelf:***

A gently sloping undersea plain between a continent and the deep ocean. The shelf represents the underwater extension of a continent's landmass under the ocean.

Control Flow:*

The sequence in which operations are performed during the execution of a computer program. *Synonym*: **Flow of Control**. *Contrast with*: **Data Flow**.

Control Flow Diagram:*

A diagram that depicts the set of all possible sequences in which operations may be performed during the execution of a system or program. Types include box diagram, flowchart, input-process-output chart, state diagram. *Contrast with*: **Data Flow Diagram**.

Conversion Factor:*

Either the ratio of the 1-minute 10-meter wind to a reference wind (e.g., another level, gradient wind, or boundary layer depth-average), or a constant used to convert one unit of measure to another (as in 1 knot = 1.15 mph).

Correctness:*

(1) The degree to which a system or component is free from faults in its specification, design, and implementation; (2) the degree to which software, documentation, or other items comply with specified requirements.

Current State-of-the-Science:*

A technique, methodology, process, or data that clearly advances or improves the science and may or may not be of a proprietary nature. Such advancement or improvement should be agreed upon and acceptable to the Commission. Includes currently accepted scientific literature.

Currently Accepted Scientific Literature:*

Published in a refereed or peer reviewed journal specific to the academic discipline involved and recognized by the academic community as an advancement or significant contribution to the literature which has not been superseded or replaced by more recent literature.

Damage:**

The Commission recognizes that the question, "What is the damage to the house?" may be answered in a number of ways. In constructing their models, the modeling organizations assess "losses" in more than one way, depending on the use to which the information is to be put in the model. A structural engineer might determine that a house is 55% damaged and consider it still structurally sound. A claims adjuster might look at the same house and determine that 55% damage translates into a total loss because the house will be uninhabitable for some time, and further, because of a local ordinance relating to damage exceeding 50%, will have to be completely rebuilt according to updated building requirements. Since the Commission is reviewing flood models for purposes of personal lines residential rate filings in Florida, loss costs must be a function of insurance damage rather than engineering damage.

Damage Ratio:*

Percentage of a property damaged by an event relative to the total cost to rebuild or replace the property of like kind and quality.

Damaging Waves:***

Waves with sufficient energy to cause structural damage to a personal residential structure.

Data Flow:*

The sequence in which data transfer, use, and transformation are performed during the execution of a computer program. *Contrast with*: **Control Flow**.

Data Flow Diagram:*

A diagram that depicts data sources, data sinks, data storage, and processes performed on data as nodes, a flow of data as links between the nodes. *Contrast with*: **Control Flow Diagram**.

Data Validation:*

Techniques to assure the needed accuracy, required consistency, and sufficient completeness of data values used in model development and revision.

Datum, Horizontal & Vertical:***

The reference specifications of a measurement system, usually a system of coordinate positions on a surface (horizontal datum) or heights above or below a surface (vertical datum). A datum provides a base line reference for numerical values associated with location or height. Common datums used in the U.S. include North American Datum, NAD27 and NAD83 (horizontal) and National Geodetic Vertical Datum, NGVD29 and National American Vertical Datum, NAVD88 (vertical).

Demand Surge:**

A sudden and generally temporary increase in the cost of claims due to amplified payments following a flood event or a series of ~~hurricane~~ flood events.

Depreciation:*

The decrease in the value of property over time.

Discharge:***

The volume of water moving through a specifically defined location or two-dimensional area over a quantity of time, usually quantified in cubic feet per second (cfs).

Dry Floodproofing:***

Measures that result in a building being watertight, with walls and exterior surfaces substantially impermeable to the passage of floodwater, and with structural components having the capacity to resist flood loads.

Economic Inflation:*

With regards to insurance, the trended long-term increase in the costs of coverages brought about by the increase in costs for the materials and services.

Envelope of High Water:***

The spatial distribution of the maximum depth of water that occurred at each point over the course of a storm event. Over land, depth is determined with respect to land surface elevation, and over ocean, depth is determined with respect to mean sea level plus predicted tide.

Erosion (Flood Induced):***

The wearing away, collapse, undermining or subsidence of land during a flood, due to waves or currents exceeding their cyclical levels.

Exception:*

A state or condition that either prevents the continuation of program execution or initiates, on its detection, a pre-defined response through the provision of exception-handling capabilities.

Exposure:*

The unit of measure of the amount of risk assumed. Rates and loss costs are expressed as dollars per exposure. Sometimes the number of houses is used in homeowner's insurance as a loose equivalent.

Flag-Triggered Output Statements:*

Statements that cause intermediate results (output) to be produced based on a Boolean-valued flag. This is a common technique for program testing.

Flood:***

A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties, at least one of which is the policyholder's property, from:
1. Overflow of inland or tidal waters;
2. Unusual and rapid accumulation or runoff of surface waters from any source;
3. Mudflow; or
4. Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.

See s. 627.715(1)(a)5.(b), F.S.

Flood Barriers:***

A structural component attached to or constructed around a building or building opening, preceding a flood event, to prevent flood waters from entering a building or area by creating a watertight barrier. Flood barriers can include temporary components, such as

sand bags or removable floodwall panels, or permanent but movable features, such as watertight doors and seals.

Floodborne Debris:***

Objects carried or moved by floodwaters into a personal residential structure and capable of causing damage to that structure.

Flood, Coastal:***

Flood resulting from astronomical tides and/or storm surge.

Flood Control Measure:***

Measure undertaken outside the building footprint and on a large scale, to reduce the presence, depth, or energy flow or waves that affect personal residential structures. Flood control measures may include, but not be limited to, flood barriers, flow diversions, and release of water from behind flood barriers or from water storage areas.

Flood Depth:***

(1) For flood hazard purposes, flood depth equals flood elevation minus ground elevation (ground elevation is measured as the eroded ground, where calculated); (2) For building vulnerability calculations, flood depth equals flood elevation minus lowest floor elevation. For coastal floods, flood depth is measured from the wave crest elevation or from the water surface including wave runup.

Flood Elevation:***

Elevation of the water surface relative to a vertical datum, including coastal wave effects where present. For coastal floods, the flood elevation includes wave setup (weave radiation stress) and is taken at the wave crest elevation or the water surface including wave runup.

Flood Extent:***

The horizontal limits of a given flood event, occurring where the ground elevation equals the flood elevation.

Flood Duration:***

The length of time in which an area or building is inundated by floodwaters.

Flood Frequency:***

The probability, in percentage, that a flood of a specific level will occur or be exceeded in any given year. For example, a flood with a 1% flood frequency (a.k.a., 1% annual chance) is a flood that has a 1% chance of being equaled or exceeded in any year. This same flood frequency can also be written as a decimal (i.e., 0.01 annual exceedance probability) or a return period, which is the inverse of the decimal (i.e., 100-year return period).

Flood Hazard Zone:***

A geographical area shown on a flood insurance rate map (FIRM) that reflects the severity or type of flooding in the area. Flood Hazard Zones shown on the *FIRM* may include A, A1-A30, AE, AO, AH, AR, V, V1-V30, VE, and other zones designed by the NFIP.

Flood, Inland:***

Flood not of coastal origin. Inland floods typically are due to rainfall, runoff, ponding, and include riverine floods, lacustrine floods, and stormwater flooding.

Flood Insurance Rate Map (FIRM):

Official map of a community on which FEMA has delineated the Special Flood Hazard Areas (SFHAs), the base flood elevations (BFEs), and the risk premium zone applicable to the community.

Flood Inundation:***

The rising of a body or source of water and its overflowing onto normally dry land.

Flood Life Cycle:***

The full progression of flooding conditions, beginning with the initial flood inundation; continuing through the rise, peak, and fall of floodwaters; and ending when floodwaters have receded below the threshold set in the definition of flood.

Flood Mitigation Measure:***

Any measure which permanently reduces flood damage to a building by either preventing flood waters from inundating the building (e.g., elevating a building above the estimated flood elevation) or decreasing the damage which flood inundation would cause to a building (e.g., elevating electrical and other flood-susceptible components of the building above the flood elevation, and retrofitting the portions of the building which would be inundated with flood-resistant materials).

Flood Policies, Contracts and Endorsements:***

Various ways flood coverage can be offered; see s. 627.715, F.S.

Floodplain:***

Any land area susceptible to being inundated by floodwaters from any source.

Floodplain Management:***

The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to, emergency preparedness plans, flood control works, and floodplain management regulations.

Floodwater:***

The water that inundates an area during a flood, usually containing debris and possible pollutants.

Flowchart:*
A control flow diagram in which suitably annotated geometrical figures are used to represent operations, data, or equipment, and arrows are used to indicate the sequential flow from one to another.

Flow Diagram:*
See: **Control Flow Diagram** and **Data Flow Diagram**.

Flow Diversions:***
A structural component, such as a culvert or channel, which diverts flow from its normal path or destination to an alternate route, to provide flood-reduction or other water-related benefits. Typical flow diversions would direct excess flows during a flood event to non-developed areas, such as farmland, or around developed areas by means of a bypass channel or culvert, in order to reduce flood damage.

Flow Velocity:***
The velocity of water as it moves within a channel or over land, usually quantified in feet per second (ft/s).

Frequency Distribution:*
Division of a sample of observations into a number of classes together with the number of observations in each class.

Function:*
(1) In programming languages, a subprogram, usually with formal parameters, that produces a data value that it returns to the place of the invocation. A function may also produce other changes through the use of parameters. (2) A specific purpose of an entity, or its characteristic action.

Functionality:*
The degree to which the intended function of an entity is realized. *See also*: **Function**.

Fundamental Engineering Principles:*
The basic engineering tools, physical laws, rules, or assumptions from which other engineering tools can be derived.

Geocoding:*
Assignment of a location to geographic coordinates.

Geographic Grid:***
An array of equally sized square cells arranged in rows and columns, used to define geographic space. Each cell stores a numeric value that represents a geographic attribute (e.g., elevation) for that unit of space. Data from the grid cells can be compiled into a set of contours or used to create a three-dimensional surface. When the grid is drawn as a

map, cells are often assigned colors according to their numeric value. Each grid cell is referenced by its *x,y* coordinate location.

Geographic Information System (GIS):***

An integrated collection of computer software and data used to review and manage information about geographic places, analyze spatial relationships, and model spatial processes. A GIS provides a framework for gathering and organizing spatial data and related information so that it can be displayed and analyzed.

Geographic Location Data:*

Information related to the geocoding process within the model software.

Ground Up Loss: *

Loss to a structure or location prior to the application of a deductible, policy limit, coinsurance penalty, depreciation, exclusion or other policy provision.

Guaranteed Replacement Cost:*

A policy provision in which the insurer agrees to pay losses on a replacement cost basis even if in excess of the policy limit.

Homeowner's Policy:*

A package policy for the homeowner that typically combines protection on the structure and contents, additional living expense protection, and personal liability insurance. Homeowner's policies were first developed in the 1950's. Prior to that time, homeowners wishing coverage for fire, theft, and liability had to purchase three separate policies. Homeowner's policies do not cover earthquake or flood. These are sold separately.

Human Factors:*

Study of the interrelationships between humans, the tools they use, and the environment in which they live and work. *See also*: **User Interface**.

Hurricane:*

A tropical cyclone in which the maximum one-minute average windspeed at 10-meters height is 74 miles per hour or greater.

Implementation:*

The process of transforming a design specification into a system realization with components in hardware, software and "humanware." *See also*: **Code**.

Incremental Build:*

A system development strategy that begins with a subset of required capabilities and progressively adds functionality through a cyclical build and test approach.

Independent:*

An independent characteristic or event is one which is unaffected by the existence of another characteristic or by whether or not another event occurs.

Infiltration:***

The downward entry of water into the soil or rock surface.

Inflow Angle:***

The angle that near-surface hurricane wind vectors make with respect to the azimuthal direction about the storm center. The angle is measured inward toward the storm center. It is a parameter used to transform assumed circular hurricane winds appropriate for the free troposphere to inward directed winds appropriate for the near-surface.

Insurance Policy:*

A contractual document which defines the amount and scope of insurance provided by the insurer resulting in a transfer of risk.

Insurance to Value:*

The relationship of the amount of insurance to replacement cost. 100% insurance to value means that the amount of insurance equals the replacement cost.

Insured Loss:*

The cost to repair/restore property after an insured event, including ALE, payable by the insurance company after the application of policy terms and limits.

Insured Primary Damage:***

Damage that is not excess of or secondary to another policy, contract, or endorsement.

Interface Specification:*

An unambiguous and complete description of the meaning, type, and format of data exchanges among system components (software, hardware, and "humanware"). *See also*: **User Interface**.

Invariant:*

A logical expression that remains true within the context of a code segment.

Lacustrine Flood***

A type of inland flooding usually associated with a generally non-moving water source (e.g., lake, pond) caused by water levels rising and inundating adjacent areas with standing water.

Landfall:**

A landfall has occurred when the center of tropical cyclone~~hurricane~~ circulation crosses the coastline from sea to land.

Loss Costs:*

The portion of the insurance premium applicable to the payment of insured losses only, exclusive of insurance company expenses and profits, per unit of insured exposure. Loss costs are generally stated per thousand dollars.

Loss Exceedance Estimate:*

The loss amount which would be exceeded at a given level of probability based on a specific exposure data set.

Lowest Floor:***

The lowest floor of the lowest enclosed area, including basement, but excluding any unfinished or flood-resistant enclosure, usable solely for vehicle parking, building access, or limited storage, provided that such enclosure is not built so as to render the structure in violation of building code and floodplain management requirements.

Manning n:***

An empirically-determined coefficient, also known as the Manning's Roughness Coefficient, describing the roughness of a ground and ground-cover combination. This value is used in the Manning's Equation,

$$V = \frac{k}{n} R_h^{2/3} S^{1/2},$$

to estimate the average velocity of water flowing in an open channel or other conduit. The "rougher" the ground or denser the ground cover, the higher the value of n. As the equation depicts, the higher the value of n, the slower the velocity and, all other things being constant, the higher the water elevation. For example, water will move more slowly down a slope that is covered in high grass, dense bushes, and thick trees compared to the same slope covered in only short grass.

Manufactured Homes:*

Type of *Mobile Home*, fabricated in a plant on or after June 15, 1976, in compliance with the federal Manufactured Home Construction and Safety Standard Act, and according to standards promulgated by the U.S. Department of Housing and Urban Development (HUD). Manufactured homes are transportable in one or more sections, eight feet or more in width and built on an integral chassis. They are designed to be used as a dwelling when set in place and connected to the required utilities and includes the plumbing, heating air-conditioning, and electrical systems contained therein. Persons licensed by the Florida Department of Highway Safety and Motor Vehicles must perform installation. The structures are typically covered by mobile/manufactured home insurance policies (MH).

MEOW:*

Acronym for Maximum Envelope of Water. MEOW can be calculated using the SLOSH model (defined below) to define the expected maximum storm surge at a given location for a given storm. The Maximum of MEOW (MOM) is used to define evacuation zones in Florida.

Mitigation Measure:**

A factor or function that improves a structure's wind resistance or intended to eliminate or reduce flood damage.

Mobile Homes:*

Common term used to describe ***Manufactured Homes*** (see above). Technically, mobile homes were fabricated prior to June 15, 1976. These structures are covered by mobile/manufactured home insurance policies (MH).

Model:*

A comprehensive set of formal structures, data, and components used to capture processes associated with the effects of hurricanes and/or floods and their impacts on personal residential and commercial properties leading to insured losses. These processes include the following: (1) scientific and engineering representations such as equations, pseudo-codes, flowcharts, and source code, (2) all data necessary for producing such losses, and (3) system representations, involving human collaboration and communication, relating to (1) and (2).

Model Architecture:*

The structure of components in a program/system, their interrelationships, and the principles and guidelines governing their design and evolution over time.

Model Component Custodian:*

The individual who can explain the functional behavior of the component and is responsible for changes (revisions in code, documentation, or data) to that component.

Model Management:*

The processes associated with the model lifecycle, including design, creation, implementation, verification, validation, maintenance, and documentation of the model.

Modeling Organization:**

The entity(s) encompassing the requisite qualifications and experience (as found in Standard GF-2, Qualifications of Modeling Organization Personnel and Consultants Engaged in Development of the Flood Model) that organize resources to develop and maintain any models that have the potential for improving the accuracy or reliability of the hurricane loss projections used in residential rate filings and/or flood loss projections used in personal residential rate filings.

Model Revision:*

The process of changing a model to correct discovered faults, add functional capability, respond to technology advances, or prevent invalid results or unwarranted uses. *See also*: **Regression Testing**.

Model Validation:*

A comparison between model behavior and empirical (i.e., physical) behavior.

Model Verification:*

Assuring that the series of transformations, initiating with requirements and concluding with an implementation, follow the prescribed software development process.

Modular Homes:*

Dwelling, manufactured off-site and erected/assembled on-site in accordance with Florida Building Code requirements. All site related work (erection, assembly, and other construction at the site, including all foundation work, utility connection, etc.) is subject to local permitting and inspections. Modular homes are typically covered by homeowner insurance policies (i.e., HO-3).

National Flood Insurance Program (NFIP):***

The program of flood insurance coverage and floodplain management administered under the National Flood Insurance Act of 1968 (and any amendments to it), and applicable Federal regulations promulgated in Title 44 of the Code of Federal Regulations, Subchapter B.

National Geodetic Vertical Datum of 1929 (NGVD29):***

A vertical datum, established in 1929 and renamed in 1973, derived from observed mean sea level at 26 tide gauges in the United States and Canada, and a series of benchmarks established across the United States from those tide gauges.

Network Diagram:*

See: **Flow Diagram**.

NOAA:*

Acronym for the National Oceanic and Atmospheric Administration.

Non-Tropical Storm:***

A storm that has none or only some of the meteorological characteristics of a tropical cyclone. It may be cyclonic, but it is driven in part or full by energy sources other than the heat content of seawater. Such storms include but are not limited to extra-tropical cyclones, sub-tropical cyclones, post-tropical cyclones, and remnant lows that may have had tropical origin, as well as mid-latitude cyclones and frontal systems that did not have tropical origins.

North American Vertical Datum of 1988 (NAVD88):***

A vertical datum, established in 1991, derived from measurements taken in the United States, Canada, and Mexico to address changes in land surface and the resulting elevation distortions due to the motion of the earth's crust, postglacial rebound, and ground subsidence.

Parameters (Input):***

Values entered into the model which are used, singularly or in combination, to calculate a characteristic (output).

Parametric:***

A mathematical formulation of the spatial or temporal variation of a physical quantity that has one or more coefficients whose values may be estimated empirically or by physical reasoning.

Percolation:***

The slow movement of water through the pores in soil or permeable rock, usually occurring under mostly saturated conditions.

Personal Residential Property Insurance:*

The type of coverage provided by homeowner's, manufactured home owner's, dwelling, tenant's, condominium unit owner's, cooperative unit owner's, and similar policies; see s. 627.4025, F.S.

Planetary Boundary Layer (PBL) Models:***

Mathematical and statistical representations of the planetary boundary layer (PBL). The PBL is the bottom layer of the atmosphere that is in contact with the surface of the earth, and its properties are highly influenced by frictional contact with the surface. The PBL is often turbulent and ranges in depth from tens of meters to several kilometers depending on time of day and surface geography.

Premium:*

The consideration paid or to be paid to an insurer for the issuance and delivery of any binder or policy of insurance; see s. 626.014(2), F.S. Premium is the amount charged to the policyholder and includes all taxes and commissions.

Pressure Field:***

The spatial distribution of sea level pressure associated with a storm. Typically, the sea level pressure increases radially from a minimum at the storm center until it is indistinguishable from the environmental background pressure.

Probable Maximum Loss (PML):*

Given an annual probability, the aggregate loss that is likely to be exceeded on a particular portfolio of personal residential exposures in Florida. The PML can also be determined on an annual occurrence basis.

Program:*

See: **Code**.

Projection, Horizontal & Vertical:***

A method by which the curved surface of the earth is portrayed on a flat surface. This generally requires a mathematical transformation of the earth's latitude and longitude, and projections vary by the portion of the earth being depicted. All projections distort distance, area, shape, direction, or some combination thereof. A common horizontal projection system used in Florida is State Plane Coordinates, divided into three zones:

north, east, and west. Vertical components are added to a horizontal projection (x,y coordinates) to create a projected coordinate system (x,y,z coordinates).

Property Insurance:*

Insurance on real or personal property of every kind, whether the property is located on land, on water, or in the air, against loss or damage from any and all perils (hazards or causes); see s. 624.604, F.S.

Quality Assurance:*

The responsibility and consequent procedures for achieving the targeted levels of quality in the model and the continual improvement of the model development process.

Rate:*

The amount by which the exposure is multiplied to determine the premium; see s. 627.041(1), F.S. Rate times exposure equals premium.

Regression Test:*

A procedure that attempts to identify new faults that might be introduced in the changes to remove existing deficiencies (correct faults, add functionality, or prevent user errors). A regression test is a test applied to a new version or release to verify that it performs the intended functions without introducing new faults or deficiencies. This procedure is not to be confused with ordinary least squares as used in statistics. *See also*: **Model Revision**.

Repetitive Damage:***

A National Flood Insurance Program (NFIP)-insured structure that has had a least two paid flood losses of more than $1,000 each in any 10-year period since 1978. Repetitive damage can be a trigger for Increased Cost of Compliance (ICC) coverage. Delete definition if ICC coverage is removed from Standard AF-3.

Replacement Cost:*

The cost to replace damaged property with a new item of like kind and quality.

Residential Property Insurance:*

See s. 627.4025, F.S. *See also:* **Personal Residential Property Insurance**.

Requirements Specification:*

A document that specifies the requirements for a system or component. Typically included are functional requirements, performance requirements, interface requirements, design requirements, quality requirements, and development standards.

Return Period:*

The reciprocal of an annual exceedance probability of a given loss or set of events.

Riverine Flood:***

A type of inland flooding usually associated with a watercourse (e.g., river, stream) which results in water overflowing the banks of the watercourse and inundating adjacent areas with moving water. The velocity of the floodwater can be a major factor in the resulting damage and injuries associated with the flood.

Roughness:*

Surface characteristics capable of disrupting airflow. Roughness elements may be natural (e.g., mountains, trees, grasslands) or man-made (e.g., buildings, bridges).

Salinity:***

The dissolved salt content of water, often expressed as a mass fraction. Typical salinity of seawater is 35 parts per thousand, but values vary due to river input, precipitation, evaporation, precipitation, sea ice, and other factors.

Schema:*

(1) A complete description of the structure of a database pertaining to a specific level of consideration; (2) The set of statements, expressed in a data definition language, that completely describes the structure of a database.

Sea Surface Drag Coefficient:***

The ratio of the wind stress on the sea surface to the 10-meter wind kinetic energy. It is used to relate the near-surface windspeed to the sea surface wind stress required for storm surge modeling. The coefficient is estimated semi-empirically and is observed to be a function of windspeed.

Sensitivity:*

The effect that a change in the value of an input variable will have on the output of the model.

Sensitivity Analysis:*

Determination of the magnitude of the change in response of a model to changes in model inputs and specifications.

Site-Built Homes:*

Dwellings that are constructed on the building site in accordance with the Florida Building Code. All site related work (foundation, building, and other construction at the site, utility connection, etc.) is subject to local permitting and inspections. Site-built homes are typically covered by homeowner insurance policies (i.e., HO-3).

SLOSH:*

Acronym for Sea, Lake and Overland Surges from Hurricanes. SLOSH is a National Weather Service (NWS) computer model developed to estimate storm surge heights resulting from historical, hypothetical, or predicted hurricanes by taking into account the

atmospheric pressure (difference between central pressure and ambient pressure far from the storm), radius of maximum winds, and track data (forward speed and direction).

Software Engineering:*

The application of a systematic, disciplined, and quantifiable approach to the design, development, operation, and maintenance of software; that is, the application of engineering to software.

Soil Infiltration Rate:***

The rate at which a soil under specified conditions absorbs falling rain, melting snow, or surface water, expressed in depth of water per unit of time (e.g., inches/hour). Infiltration rate usually has a rapid decline with time from the beginning of infiltration and reaches a steady state as the soil eventually becomes saturated. At this stage, the infiltration rate would be approximately equal to the percolation rate.

Soil Saturation:***

The condition of soil when all pores or voids within the soil are filled with water, and infiltration stops or is reduced to a minimum value. Saturation rates for soils vary and are often depicted in hydrologic analyses as a relationship to the maximum capacity for the storage of water within a certain soil type.

Special Loss Settlement:***

Loss provision used by National Flood Insurance Program (NFIP) for manufactured homes equal to the minimum of the following three quantities: replacement cost, 1.5 times actual cash value, and policy limit.

Standard Flood Insurance:***

Insurance that must cover only losses from the peril of flood equivalent to that provided under a standard flood insurance policy under the National Flood Insurance Program (NFIP). Standard flood insurance issued in Florida must provide the same coverage, including deductible and adjustment of losses, as that provided under a standard flood insurance policy under the NFIP; see s. 627.715, F.S.

Statistical Terms:*

Definitions of statistical terms are available in: <u>A Dictionary of Statistical Terms, Fifth Edition, F.H.C. Marriott, John Wiley & Sons, 1990</u>.

Stillwater Elevation:***

The elevation of the water surface (relative to a vertical datum) resulting from freshwater inputs, and where present, astronomical tides and storm surge. For coastal floods, the stillwater elevation may include wave setup (wave radiation stress) but excludes coastal wave forms (wave height, wave runup) that fluctuate above and below the stillwater elevation.

Storm Surge:*

An abnormal rise in sea level accompanying a storm, and whose height is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the storm. Storm surge is usually estimated by subtracting the normal or astronomical tide from the observed storm tide.

Storm Track:*

The path along that a tropical cyclone has already moved.

Stormwater:***

Water from precipitation events which runs off impervious (e.g., paved) areas and is then conveyed via roadways and other impervious areas into systems of swales, ditches, pipes, channels, and ponds. Stormwater usually contains contaminants from impervious areas (e.g., oil, chemicals) and can accumulate to cause flooding during larger precipitation events.

Sub-Component:*

A component that is encapsulated within another component. *See also*: **Component Tree.**

Substantial Damage:***

Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement:***

Any repair, reconstruction, rehabilitation, alteration, addition or other improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvements or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include either: 1) any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that is the minimum necessary to assure safe living conditions, and 2) any alteration of a historical structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

Surface Water Flood:***

Flooding caused by the accumulation of above-ground water which is not associated with a specific watercourse or water body. Surface water flooding excludes water from increased ground water levels.

System Decomposition:*

The hierarchical division of a system into components. *See also*: **Component Tree**.

Systems Modeling Language (SysML):*

A general-purpose modeling language for systems engineering applications that supports the specification, analysis, design, verification, and validation of a broad range of systems and systems-of-systems.

Temporary Flood Protection Measures:***

Any measure temporarily installed preceding a flood event to protect a building or area from inundation by floodwaters, which is then removed after the flood event.

Terrain:*

Terrain or terrain roughness for structures or a site is determined by the surface area surrounding the site including other structures (height and density) and topographic features such as ground elevation, vegetation or trees, and bodies of water.

Test:*

A phase in the software (model) development process that focuses on the examination and dynamic analysis of execution behavior. Test plans, test specifications, test procedures, and test results are the artifacts typically produced in completing this phase.

Testing:*

Software testing involves executing an implementation of the software with test data and examining the outputs of the software and its operational behavior to check that it is performing as required. Testing is a dynamic technique of verification and validation because it works with an executable representation of the system. Typical testing approaches include (1) unit, (2) aggregation, (3) regression, and (4) functional testing.

Time Element Coverage:*

Insurance for a covered incident resulting in loss of use of property for a period of time. The loss is considered to be time lost, not actual property damage. Examples of time element coverage include business interruption, extra expense, rents and rental value, additional living expenses, and leasehold interest coverage.

Topography:***

A detailed graphic description or representation of the natural and artificial surface features of an area of land, in a way to show relative positions and elevations, and usually not including portions of land which are always or normally submerged. *See also:* **Bathymetry**.

Tropical Cyclone:*

A generic term for a non-frontal synoptic-scale cyclone originating over tropical or subtropical waters with organized convection and definite cyclonic surface wind circulation.

Tropical Storm:*

A tropical cyclone in which the maximum one-minute average windspeed at 10-meters height ranges from 39 to 73 miles per hour inclusive.

Uncertainty Analysis:*

Determination of the variation or imprecision in model output resulting from the collective variation in the model inputs.

Underwriting:*

The process of identifying and classifying the potential degree of risk represented by a proposed exposure unit. Potential insureds that satisfy an insurer's underwriting standards are offered insurance or are offered a renewal while others are declined or non-renewed.

Unified Modeling Language (UML):*

A standardized modeling language in software engineering using graphic notation to create visual models of software systems. This language is designed to enable software developers to specify, visualize, construct, and document artifacts in object-oriented software development.

Unit:*

Synonym: **Component**.

Unit Test:*

Each component is tested on its own, isolated from the other components in the system.

User:*

A person who uses a computer to execute code, to provide the code with input through a user interface, or to obtain textual or visual output.

User Documentation:*

Documentation describing a way in which a system or component is to be used to obtain desired results. *See also*: **User Manual**.

User Interface:*

An interface that enables information to be passed between a human user and hardware or software components of a computer system. *See also*: **Interface Specification**.

User Manual:*

A document that presents the information necessary to employ a system or component to obtain desired results. Typically described are system or component capabilities, limitations, options, permitted inputs, expected outputs, possible error messages, and special instructions.

Validation:*

The process of determining the degree to which a model or simulation is an accurate representation of the real-world from the perspective of the intended uses of the model or simulation.

Verification:*

The process of determining that a model representation accurately represents the developer's conceptual description, specification, and requirements. Verification also evaluates the extent to which the model development process is based on sound and established software engineering techniques. Testing, inspections, reviews, calculation crosschecks and walkthroughs, applied to design and code, are examples of verification techniques. *See also*: **Walkthrough.**

Version:*

(1) An initial release or re-release of a computer software configuration item, associated with a complete compilation or recompilation of the computer software configuration item; (2) An initial release or complete re-release of a document, as opposed to a revision resulting from issuing change pages to a previous release; (3) An initial release or re-release of a database or file.

Vulnerability Functions:**

The curve that represents the damage ratios expected at various flood depths~~windspeeds~~ for a given structural type.

Walkthrough:*

A static analysis technique in which a designer or programmer leads members of the development team and other interested parties through a segment of the documentation or code, and the participants ask questions and make comments about possible errors, violation of development standards, and other problems.

Water Intrusion:***

Penetration of water from outside the structure into the structure, by means not included in the definition of flood.

Wave Crest Elevation:***

Elevation (relative to vertical datum) of the top (crest) of a coastal wave. The wave crest elevation must be above the stillwater elevation.

Wave Height:***

The vertical distance between the crest and the preceding trough of a wave.

Wave Period:***

The time for two successive wave crests to pass a fixed point (the time for a wave crest to traverse a distance equal to one wavelength).

Wave Runup:***

The rush of water up a slope or structure face. Wave runup occurs as waves break and run up above the stillwater elevation.

Wave Runup Elevation:***

Elevation (relative to vertical datum) that a wave runs up a slope or structure face. The wave runup elevation must be above the stillwater elevation.

Wave Setup (Wave Radiation Stress):***

Superelevation of the water surface over normal storm surge elevation due to onshore mass transport of water by wave action alone.

Wet Floodproofing:***

Measures that allow floodwaters to enter a building while preventing or providing resistance to flood damage to the building and its contents.

Windfield:*

The area of winds associated with a tropical cyclone. Winds are typically asymmetric in a moving tropical cyclone with winds in the right front quadrant, relative to motion, being strongest.