



MAPPING TODAY'S FLOOD RISK UNDERSTANDING VERTICAL DATUMS

The remapping of Sarasota County is a comprehensive effort to remap the area's flood risks using the latest flood modeling and digital mapping technologies. This project is part of a nationwide flood hazard map update effort spearheaded by the Federal Emergency Agency (FEMA), which also oversees the National Flood Insurance Program (NFIP). Southwest Florida Water Management District (SWFWMD), Sarasota County and its surrounding municipalities have assisted with this remapping effort.

The new maps, known officially as Flood Insurance Rate Maps (FIRMs), will provide detailed, property-specific flood risk data to guide construction and flood insurance decisions. With the planned adoption of these maps in November 2016, FEMA will provide Sarasota County residents, business owners, lenders and property owners with more up-to-date, reliable, Internet-accessible information about Sarasota County's flood risk on a property-by-property basis.

Additional updates are currently underway by FEMA as part of their Risk Mapping, Assessment, and Planning (Risk MAP) Program and also by Sarasota County as part of the watershed program. See more scheduled updates including the Risk MAP coastal study at <https://scginternet.scgov.net/FloodMaps/>.

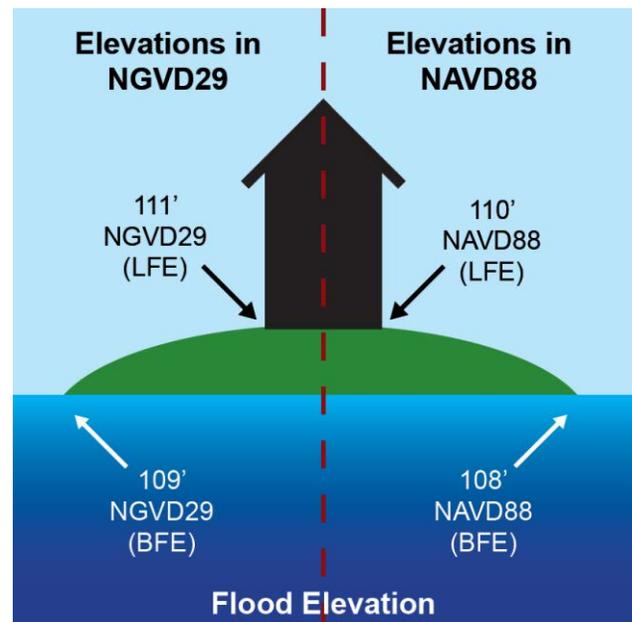
As part of the update, a new standard for measuring vertical elevation is being applied. The method of measurement for determining elevation above water is known as vertical datum. Previous flood hazard maps were created using the national standard known as the National Geodetic Vertical Datum of 1929 (NGVD 29). The new national standard adopted by the Federal Government is the North American Vertical Datum of 1988 (NAVD 88). NAVD88 is more compatible with modern surveying technology and is more accurate than NGVD 29, which is no longer supported by the Federal Government.

HOW WOULD SOMEONE CONVERT OLD VERTICAL DATUMS?

The difference between the two datums varies from location to location. FEMA provides guidelines regarding the process for converting unrevised elevation data from old flood studies and guidelines on how the offset (conversion factor) may be applied. The exact conversion factors used by SWFWMD and FEMA will be listed in the Flood Insurance Study (FIS) accompanying the new maps for Sarasota County. Conversion factors will also be shown on map panels.

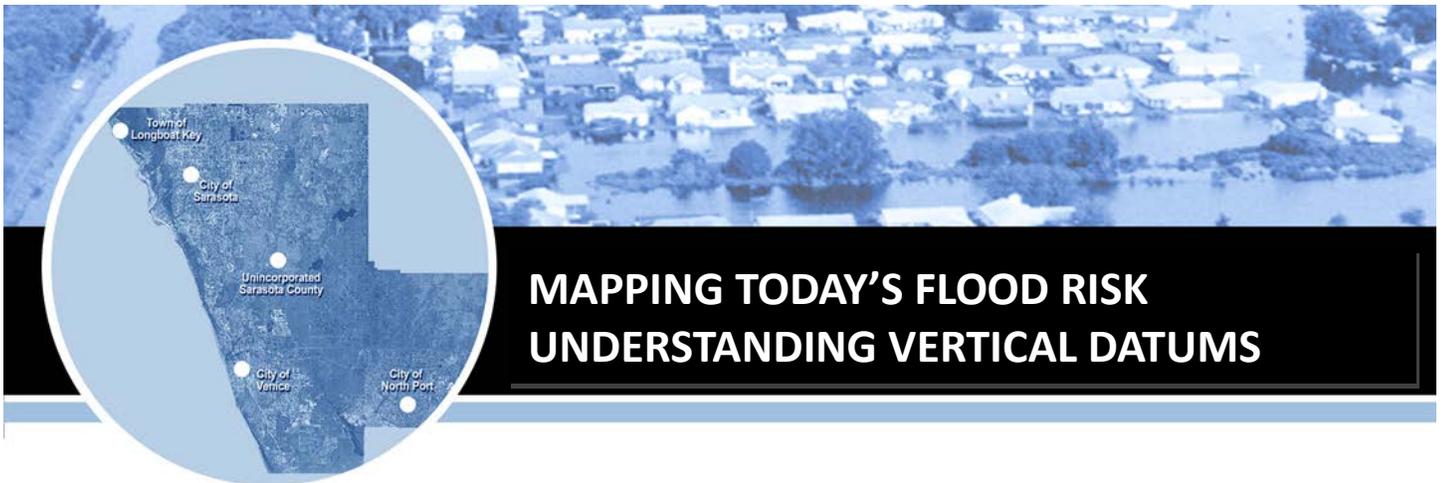
WHAT IS THE EFFECT OF THE DATUM CHANGE ON FLOOD HAZARD INFORMATION?

The datum change does not change the relationship of ground heights to water surface. It does change the value assigned to those heights that are printed on the maps and other supporting documents and data.



For example, the figure above shows a hypothetical building and nearby water surface. The Lowest Floor Elevation (LFE) of the structure is recorded as 111 feet when referencing NGVD 29, but 110 feet using NAVD 88.





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Similarly, the BFE is 109 feet NGVD 29, but 108 feet NAVD 88. The vertical elevation difference between the lowest floor elevation and the water surface elevation is the same with both datums: two feet. This figure also illustrates two other points raised previously:

1. The main effect of the datum change is a different value assigned to an elevation. For example, in the figure, the lowest floor of the same structure is assigned one value when referenced using NAVD88 and a different value for NGVD29. Elevations in a local area all adjust by the same amount, so the relative relationships are not changed. In this example, a *conversion factor* of one foot would be used when converting the old NGVD 29 datum elevation to the new NAVD 88 datum (i.e. 111' NGVD 29 = 110' NAVD 88 for this example).
2. When comparing two values, they must be from the same datum. For example, do not compare the LFE of the structure measured using NAVD 29 (111 feet) with a BFE measured using NGVD 88 (108 feet). Using this example, the error would be as much as three feet. **Consequently, the mixing of the datums by insurance agents, surveyors, and building officials (without making any corrections) can result in significantly incorrect premium ratings or building elevation errors.**

PROPERTY OWNERS SHOULD NOT BE AFFECTED BY DATUM CHANGE

Property owners should not be affected by a vertical datum change. Insurance rates (where elevation data are required and rates aren't grandfathered) and building codes will be based on the Base Flood Elevations (BFEs) shown on new flood maps once they become effective. However, users of elevation data from multiple sources (e.g., a FIRM and Elevation Certificate) must take care that the elevation values are based on the same vertical datum. If they are not, the values must be converted to the same datum before they are used. Failure to do so can result in improper design (e.g., building at the wrong elevation) or misrating insurance premiums.

STAY INFORMED

Knowing when and where map changes are occurring prepares you to make important decisions. Contact your local insurance agent to learn more about flood insurance and your options, or visit www.FloodSmart.gov.

WHERE TO VIEW THE MAPS

View preliminary and current effective FIRMS and Flood Insurance Study (FIS) reports online on the FEMA Map Service Center web site <http://msc.fema.gov/>.

See Sarasota County's FEMA Flood Zone Locator at <https://ags2.scgov.net/sarcoflood/> to identify your flood risk on the upcoming FIRM.

MAPPING MILESTONES

December 2014 – Preliminary Map Modernization digital flood maps released.

May 4, 2016 - Letter of Final Determination (LFD) from FEMA to community initiates a mandatory six (6) month compliance and adoption period.

November 4, 2016 - Six month compliance and adoption period ends and FEMA Digital Flood Maps are effective.

Late 2018* - Preliminary maps planned for FEMA Risk MAP coastal study

2016* - County studies for Phillippi Creek and Little Sarasota Bay Watersheds to be submitted to FEMA

2017* - County studies for Dona Bay and Lemon Bay Watersheds to be submitted to FEMA

* *Date subject to change.*

FOR MORE INFORMATION:

Visit www.scgov.net/floodmapupdates to learn more about the mapping process and public meetings.

For general information, call the Sarasota County Contact Center at 941-861-5000, Monday through Friday (except holidays) from 8 am. to 5 p.m.

