



STATE OF FLORIDA  
**DIVISION OF EMERGENCY MANAGEMENT**

RICK SCOTT  
Governor

BRYAN W. KOON  
Director

**MEMORANDUM**

TO: Florida Floodplain Administrators

FROM: Steve Martin, CFM, State Floodplain Manager  
Bureau of Mitigation

DATE: October 24, 2014

RE: Sinkhole Damage in Special Flood Hazard Areas

FEMA's Building Science Helpline recently replied to an inquiry regarding inclusion of certain costs related to repair of sinkhole damage sustained by buildings in special flood hazard areas. Please see the attached reply.

The Florida State Floodplain Management Office is also available to provide guidance on floodplain management requirements. Please do not hesitate to contact us at [floods@em.myflorida.com](mailto:floods@em.myflorida.com) and (850) 413-9960.

SM/

Attachment

**From:** FEMA-BuildingScienceHelp [mailto:FEMA-BuildingScienceHelp@fema.dhs.gov]

**Sent:** Friday, October 10, 2014 11:20 AM

**Cc:** [steve.martin@em.myflorida.com](mailto:steve.martin@em.myflorida.com)

**Subject:** RESPONSE: Sinkhole Damage in a Special Flood Hazard Area

Thank you for your inquiry to the FEMA Building Science helpline regarding sinkhole damage and the Substantial Improvement/Substantial Damage determination. This response is based on published FEMA Building Science guidance.

State and local jurisdictions may have requirements that are more stringent than FEMA's guidance and recommendations. If your community participates in the National Flood Insurance Program (NFIP), you may wish to discuss this further with your local floodplain administrator or the State floodplain management office. The contact information for Florida's NFIP Coordinator is below:

Steve Martin, CFM  
Florida Div. Emerg. Mgmt.  
2555 Shumard Oak Blvd.  
Tallahassee, FL 32399-2100  
850-922-5269  
[steve.martin@em.myflorida.com](mailto:steve.martin@em.myflorida.com)

**Question 1.** Is Damage to a home as a result of sinkhole activity considered to be damage that would count towards the need for substantial repair? FEMA P-758 Section 5.6.4 states "However, buildings also may be damaged by causes that are not related to a specific event. These include soil settlement..." it is important to note that sinkhole damaged homes are typically not deemed to have a safety code violation.

**Answer 1.** Yes, damage to a home as a result of sinkhole activity is considered when determining whether the home has been Substantially Damaged. The definition of Substantial Damage includes "damage of any origin sustained by a structure." FEMA P-758 Section 5.6.4 describes several possible causes of damage. Because the definition for Substantial Damage does not include a definitive list of causes of damage, the list included in FEMA P-758 is not intended to exclude other causes of damage, whether associated with a specific event or incurred over time. Therefore, the costs to repair the sinkhole damage must be included in the Substantial Damage determination.

FEMA P-758 Section 4.4.8 explains the provision in the Substantial Improvement definition that allows exclusion of certain costs to "correct existing violations of State or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions." Those costs may be excluded if an official who has the authority to enforce the community's health and sanitary code previously cited the condition as a violation. Note that the condition and citation must pre-date the application for a permit or the date of a damage event.

**Question 2.** After a building in an SFHA is affected by sinkhole activity, are the costs for subsurface compaction grouting considered to be site preparation related to the repair and must those costs be included in the substantial damage determination? FEMA P-758 states in Section 4.4.1 that "Site Preparation related to the improvement or repair" should be included in the cost.

**Answer 2.** Yes, all costs to repair damage that is directly associated with the building must be included in the Substantial Improvement/Substantial Damage determination. The list provided in FEMA P-758 Section 4.4.1 is not intended to be exhaustive, but characterizes the types of costs that must be included. The list includes site

preparation related to the improvement or repair, which must be included in the cost. This would include foundation excavation and subsurface soil compaction grouting necessary to support the building. The cost of site preparation unrelated to the building, such as landscaping and Irrigation, may be excluded.

If you have additional questions pertaining to FEMA Building Science publications, please feel free to contact us again at [FEMA-Buildingsciencehelp@fema.dhs.gov](mailto:FEMA-Buildingsciencehelp@fema.dhs.gov).

Thank you,

FEMA Building Science Helpline  
[FEMA-BuildingScienceHelp@fema.dhs.gov](mailto:FEMA-BuildingScienceHelp@fema.dhs.gov)  
<http://www.fema.gov/building-science>

**Sent:** Monday, October 06, 2014 8:47 AM  
**To:** FEMA-BuildingScienceHelp  
**Subject:** Sinkhole Damage in a Special Flood Hazard Area

There is some confusion in our area regarding sinkhole damaged homes that are in a FEMA Special Flood Hazard Area and are non-compliant. I am looking for a formal FEMA statement regarding the following two questions:

1. Is Damage to a home as a result of sinkhole activity considered to be damage that would count towards the need for substantial repair.  
FEMA P-758 Section 5.6.4 states "However, buildings also may be damaged by causes that are not related to a specific event. These include soil settlement..." it is important to note that sinkhole damaged homes are typically not deemed to have a safety code violation.
2. After a building in an SFHA is affected by sinkhole activity, are the costs for subsurface compaction grouting considered to be site preparation related to the repair and must those costs be included in the substantial damage determination?  
FEMA P-758 states in Section 4.4.1 that "Site Preparation related to the improvement or repair" should be included in the cost.