

Building Science Publication

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Announcing Version 3.0 of the Substantial Damage Estimator (SDE) Tool

Improvements to SDE 3.0 Tool

The SDE 3.0 Tool release focuses on enhancing three key areas: Performance, Data Accessibility, and Usability:

• Updates to the tool's embedded functionality create significant performance enhancements over previous versions. The SDE 3.0 Tool can:



- Import over 1000% faster than the previous version for over 1,200 records
- Export over 6,000% faster than the previous version for over 700 records
- Users can now access the underlying SDE database to run queries, perform bulk updates of data, or generate custom reports using their own databases and reporting tools.
- The updated tool has dozens of enhancements that address user feedback from previous SDE data collection efforts.

Note that the *Substantial Damage Estimator (SDE) User Manual and Workbook* (FEMA P-784) has been updated to reflect the enhanced functions in the SDE tool and is more concise. It focuses on the tool's functionality and refers

users to the *Substantial Improvement/Substantial Damage Desk Reference* (FEMA P-758) for policy and other non-tool issues.

What is the SDE tool?

- Developed to assist State and local officials in determining Substantial Damage in accordance with a local floodplain management ordinance meeting the requirements of the National Flood Insurance Program (NFIP)
- Can be used to assess flood, wind, wildfire, seismic, and damage caused by other hazard or sources
- Helps communities to provide timely Substantial Damage determinations so that reconstruction can begin following a disaster

How is the SDE tool used?

The tool is based on the concept of using estimates of damage to individual building elements to determine whether the building as a whole has incurred Substantial Damage.

Depending on the type of structure and specific attributes, the tool calculates the value of each building element as a percentage of the total building.

Using the calculated element percentages, the user can apply a "percent damaged" or "percent improved" value to each building element to establish a Substantial Damage/Improvement determination for each building.

Questions?

- Visit FEMA's Building Science Web site at http://www.fema.gov/building-science
- Download FEMA Building Science publications at http://www.fema.gov/building-science-publications
- View FEMA's Building Science and SDE FAQs at https://www.fema.gov/frequently-asked-questionsbuilding-science

 Contact FEMA's Building Science Helpline by email at FEMA-BuildingScienceHelp@fema.dhs.gov or by calling 866-927-2104

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