

Earthquake Scenario Related Projects/Exercises in Central U.S.

- St. Louis Urban Hazard Mapping Project**
- Spills of National Significance – SONS**
- New Madrid Catastrophic Planning**
- Illinois Emergency Management Agency
Seismic Risk Assessment**

St. Louis Urban Hazard Mapping Project

Material maps down to & including bedrock

and

Soil geotechnical properties

to

**Produce Soil Site Class & Liquefaction
Susceptibility Maps**

~5 year project

Started 2005

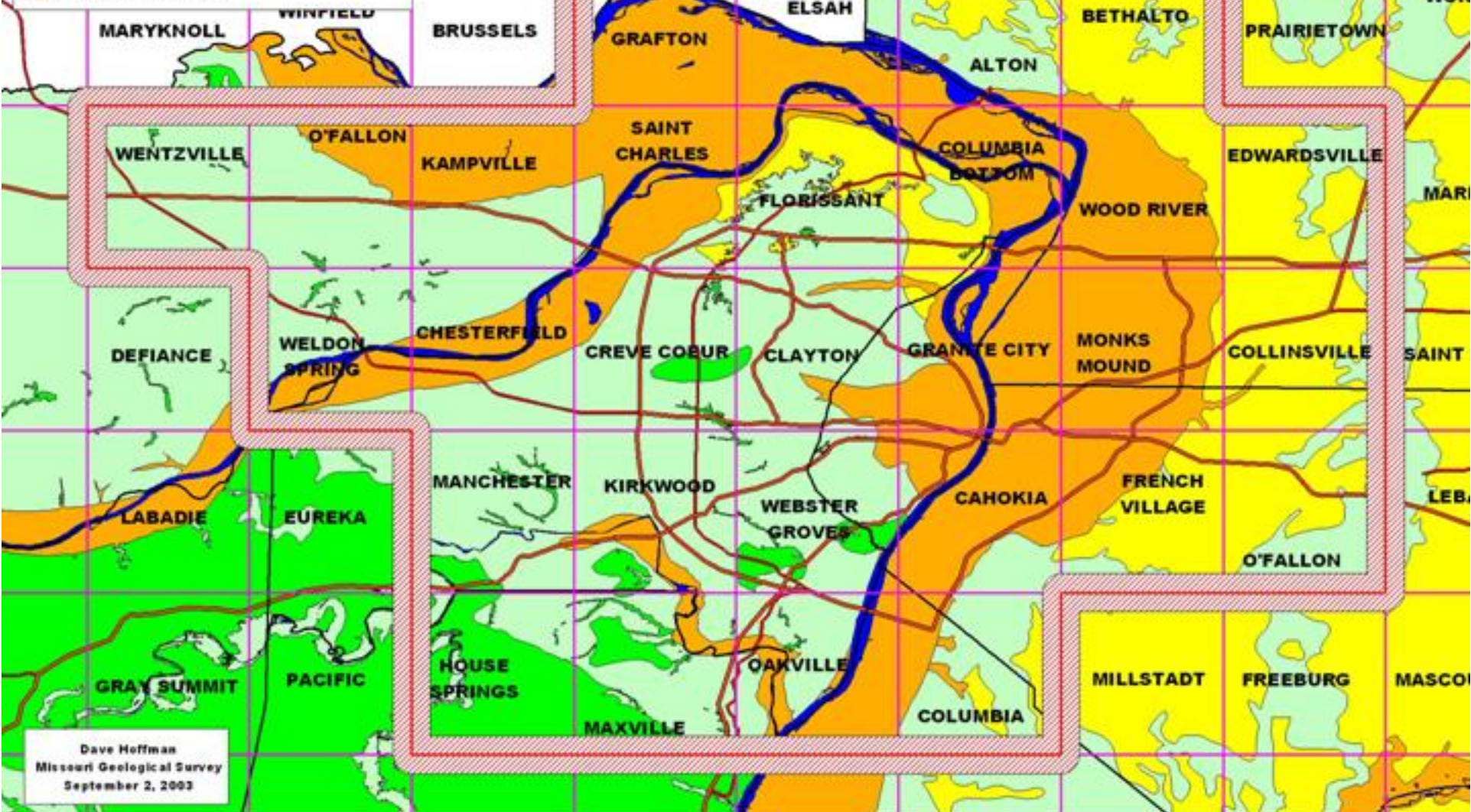
St. Louis Urban Area

NEHRP Soil Amplification Class

NEHRP Soil Amplification Site Class

- A - Hard Rock - $V_s > 1,500$ m/sec
- B - Rock - $V_s = 760$ to $1,500$ m/sec
- C - Very Dense Soil & Soft Rock - $V_s = 360$ to 760 m/sec
- D - Stiff Soil - $V_s = 180$ to 360 m/sec
- E - Soft Soil - $V_s < 180$ m/sec

- St. Louis Urban - 23 Census Tractangles - 246
- St. Louis Area M-D-II, 8 Counties
- St. Louis Area M-D-II, Interstate Highways
- St. Louis M-D-II, US Routes
- St. Louis M-D-II, Major Water



Dave Hoffman
Missouri Geological Survey
September 2, 2003

ABS Consulting

Illinois State Geological Survey

Missouri Geological Survey

University of Missouri-Rolla

**U.S. Geological Survey – Golden, CO. & Memphis,
TN.**

URS Corporation

Spills of National Significance – SONS

**Exercise for response to oil & hazardous
material releases**

**Great Lakes, Mississippi and Ohio River
regions**

June 19 – 29, 2007

Spills on/in Mississippi & Ohio River region triggered by a 7.7 Mag. New Madrid Earthquake

Participants exercising spill response:

U.S. and State EPAs

Coast Guard

FEMA/DHS

Some region/county/city emergency managers

Some pipeline companies

Participants exercising earthquake response:

**Arkansas, Missouri and Tennessee Emergency
Managers and State Geological Surveys**

**University of Memphis – Center for Earthquake
Research & Information (CERI)**

US Geological Survey

Central US Earthquake Consortium (CUSEC)

New Madrid Catastrophic Planning

FEMA sponsored project

Impact of New Madrid Event on 400 Counties in 8 states

Input into exercise tentatively scheduled for 2011

8 CUSEC EMAs & 4 FEMA Regions have planners

CUSEC has 2 planners & one exercise Officer

**Mid-America Earthquake Center performing analysis with
George Washington University**

Illinois Emergency Management Agency Seismic Risk Assessment

Southern most 32 counties in Illinois

HAZUS Level 2/3 assessment

Mid-America Earthquake Center

University of Illinois

Georgia Tech

Illinois State Geological Survey