

Figure 2.5-41 — {Geologic Section C-C'}

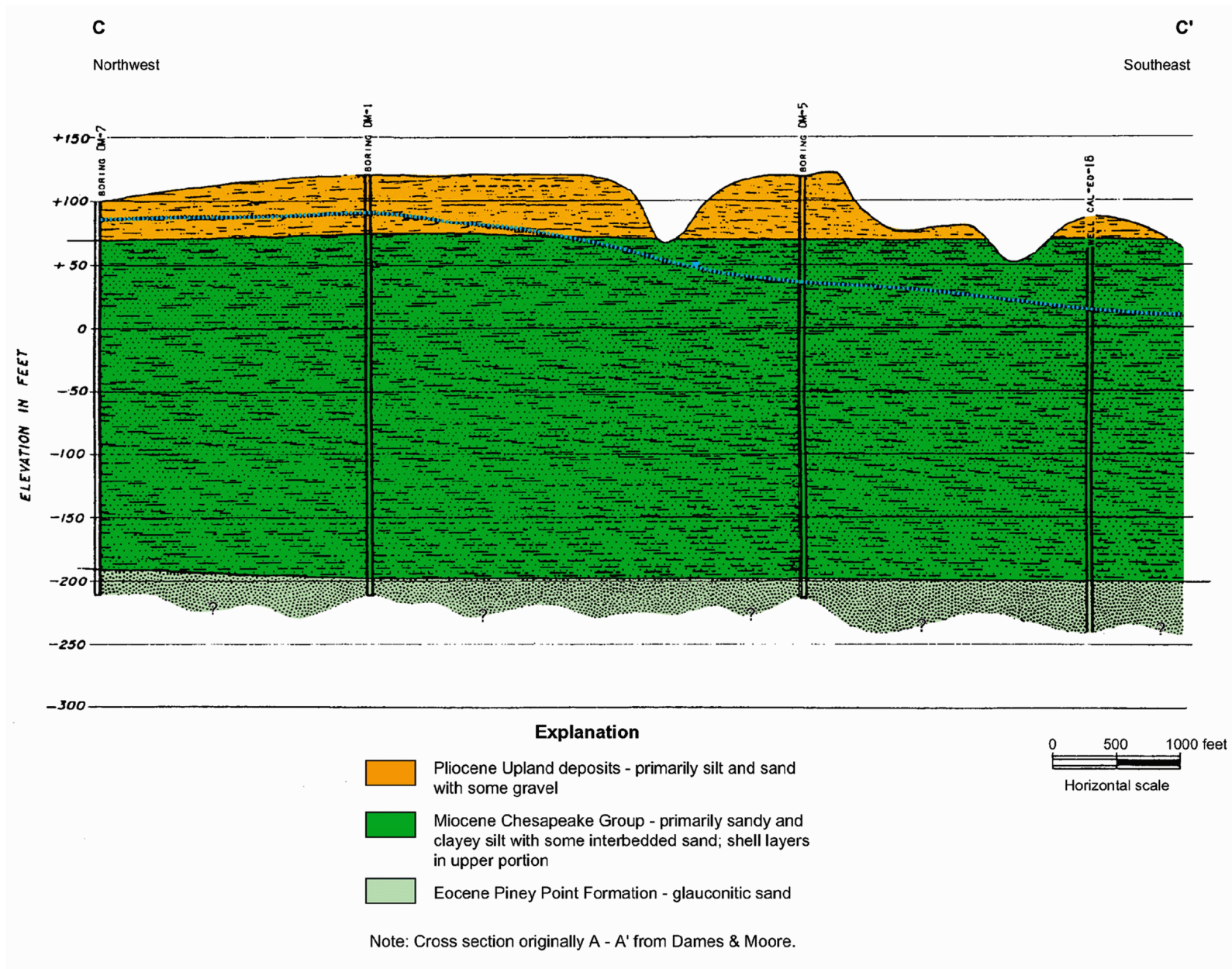


Figure 2.5-42 — {Geologic Section D-D'}

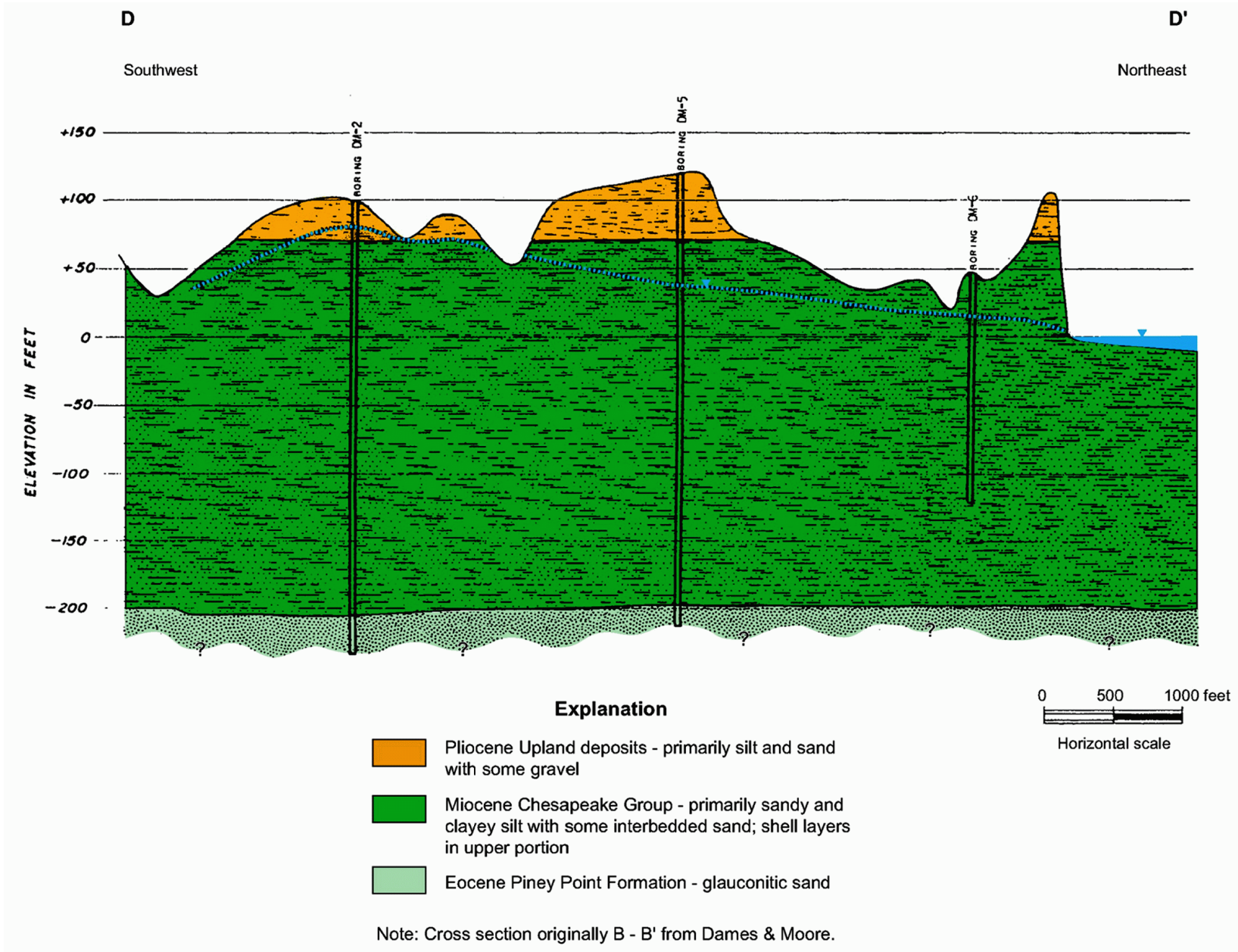
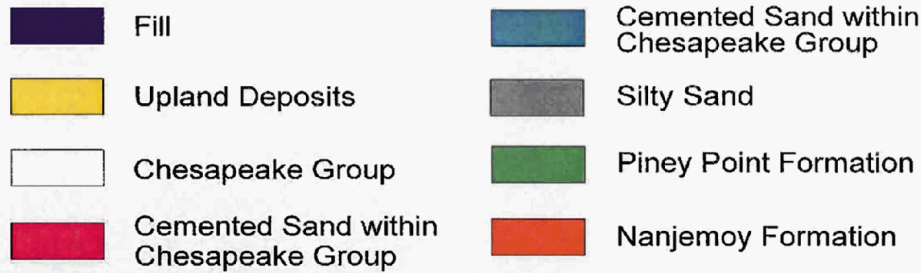
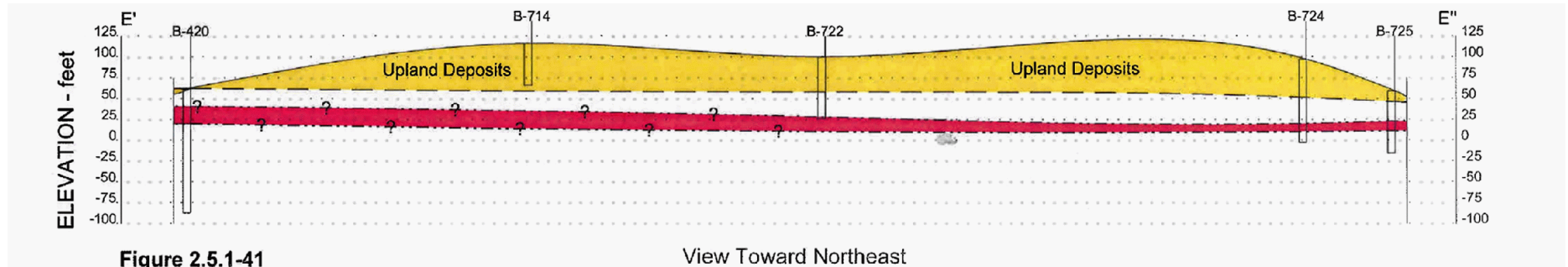


Figure 2.5-43 — {Subsurface Profile E-E'}



Vertical Exaggeration= 5X

- Notes: 1) See Figures 2.5.1-32 and -33 for location of cross-section
 2) See FSAR Section 2.5.4-Appendix A for site boring logs

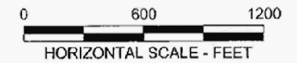
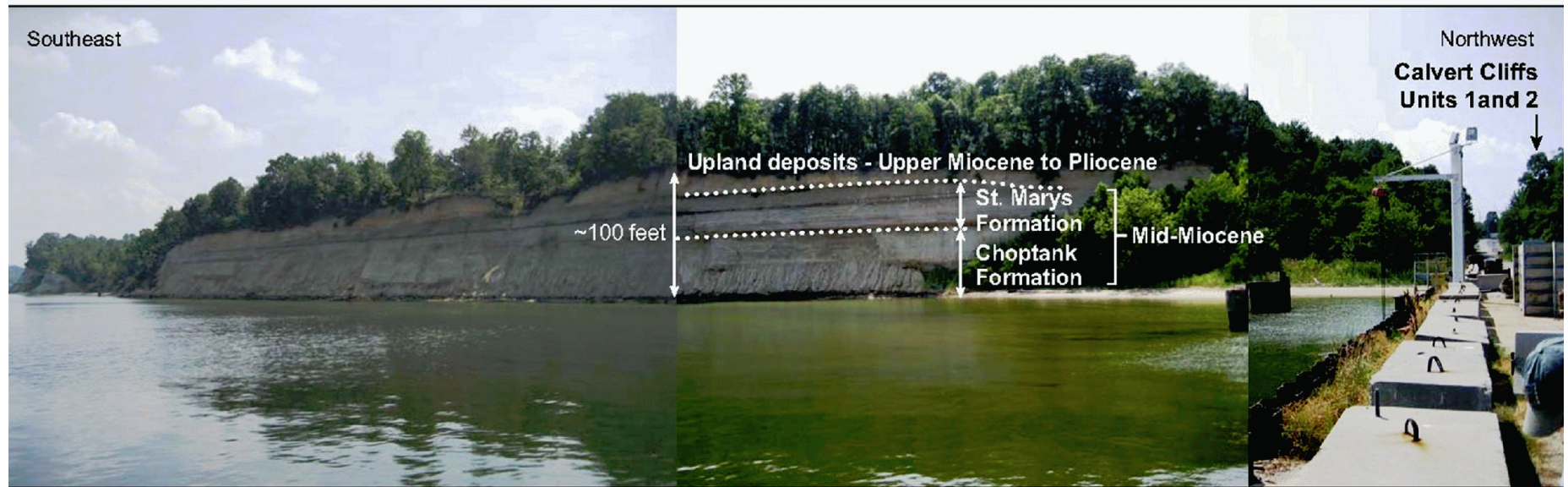
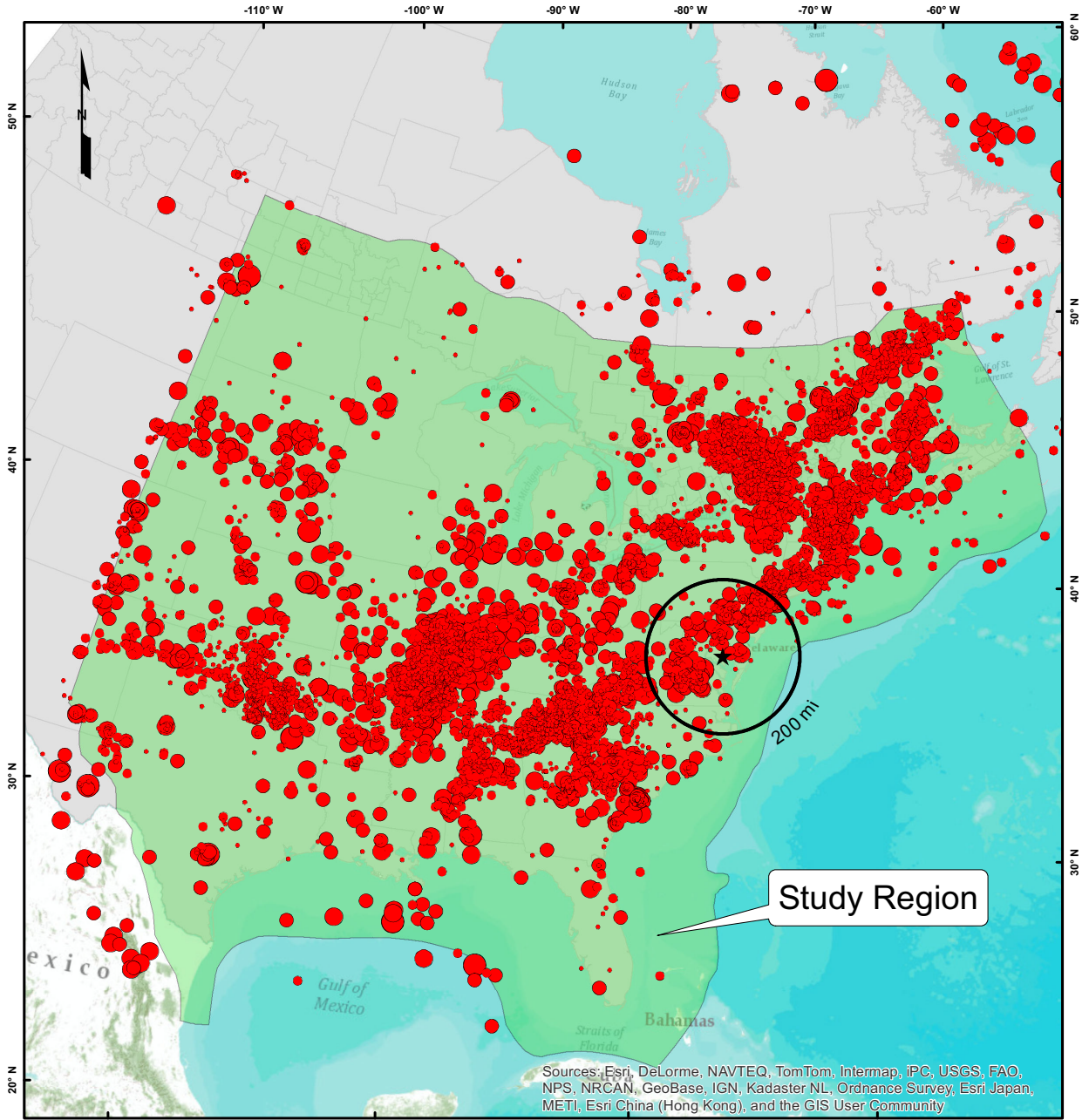


Figure 2.5-44 — {View of Calvert Cliffs Toward the Southwest from the Barge}



Note: St. Marys and Choptank Formation contact from Kidwell (1977).

Figure 2.5-45 — {Study Region of the CEUS SSC model}



Legend

- ★ SITE
- 200 Mile Radius
- Study Region

Earthquake Magnitude (E[M])

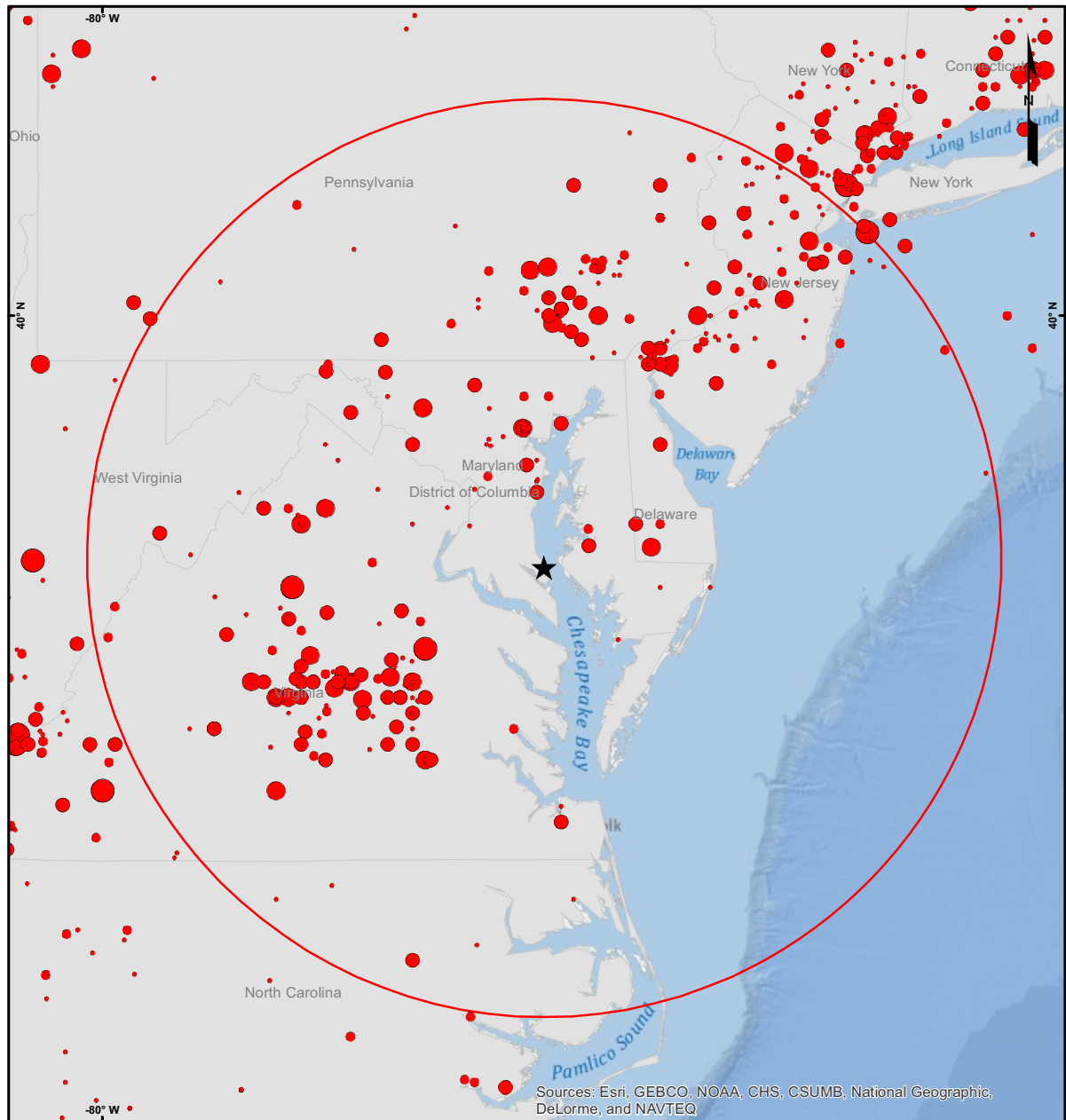
- 2.2 - 2.7
- 2.8 - 3.1
- 3.2 - 3.8
- 3.9 - 4.8
- ≥4.9

Reference(s):
1. EPR/DOE/NRC (2012)

0 100 200 300 400 500 600 700 800 Miles
DATUM: NAD 83

09-4179-GIS-A004

Figure 2.5-46 — {Seismicity in the 200-mile CCNPP Unit 3 Site Region (CEUS SSC catalog)}



Legend

- ★ CCNPP Unit 3
 - 200-mile Radius
- | Earthquake Magnitude (E[M]) | |
|-----------------------------|-----------|
| • | 2.2 - 2.7 |
| • | 2.8 - 3.1 |
| • | 3.2 - 3.8 |
| • | 3.9 - 4.8 |
| • | >=4.9 |
- Reference(s):
1. EPRI/DOE/NRC (2012)

40 20 0 40 80 Miles
DATUM: WGS84

09-4179-GIS-A005

Figure 2.5-47 — {Master Logic Tree of the CEUS SSC Model}

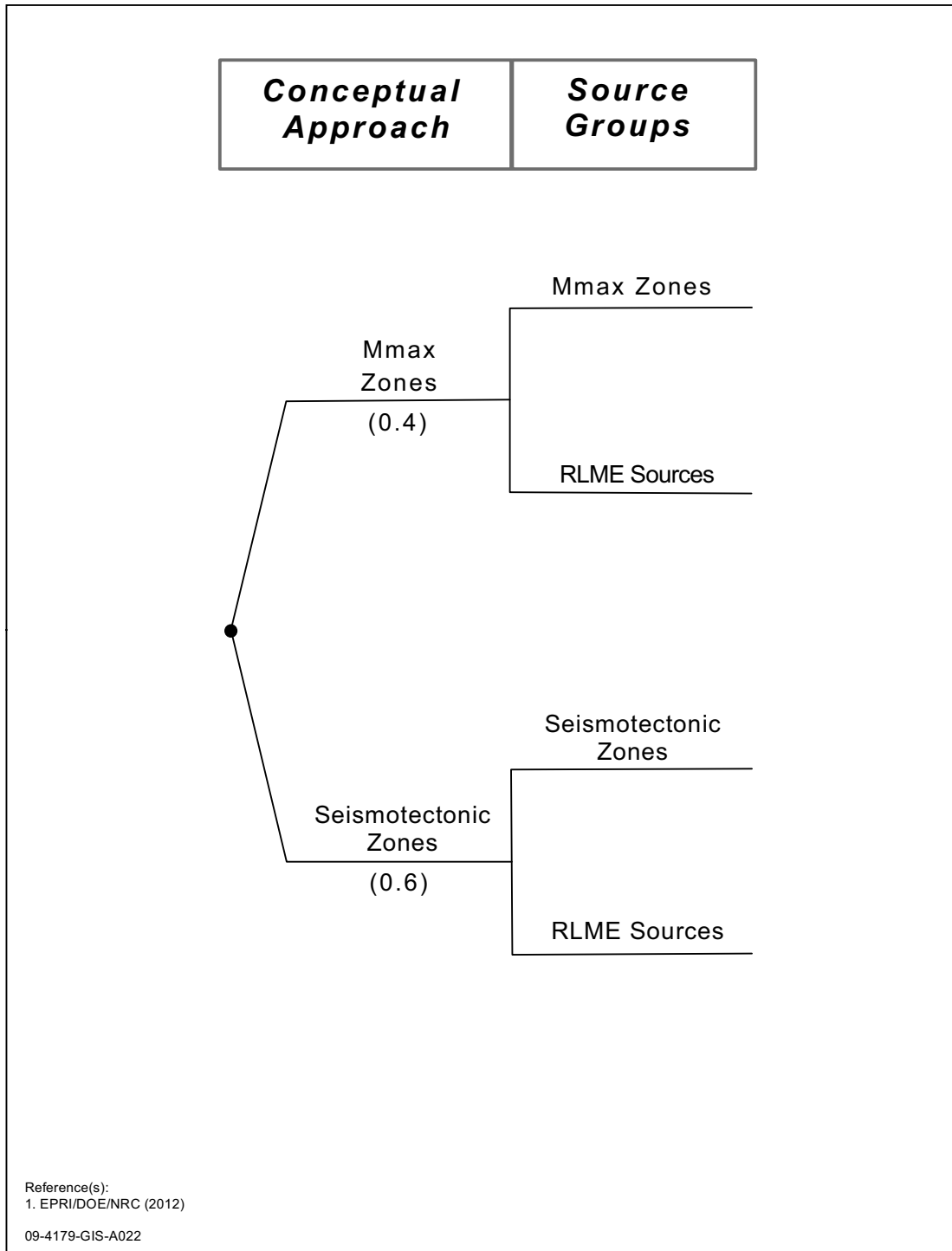
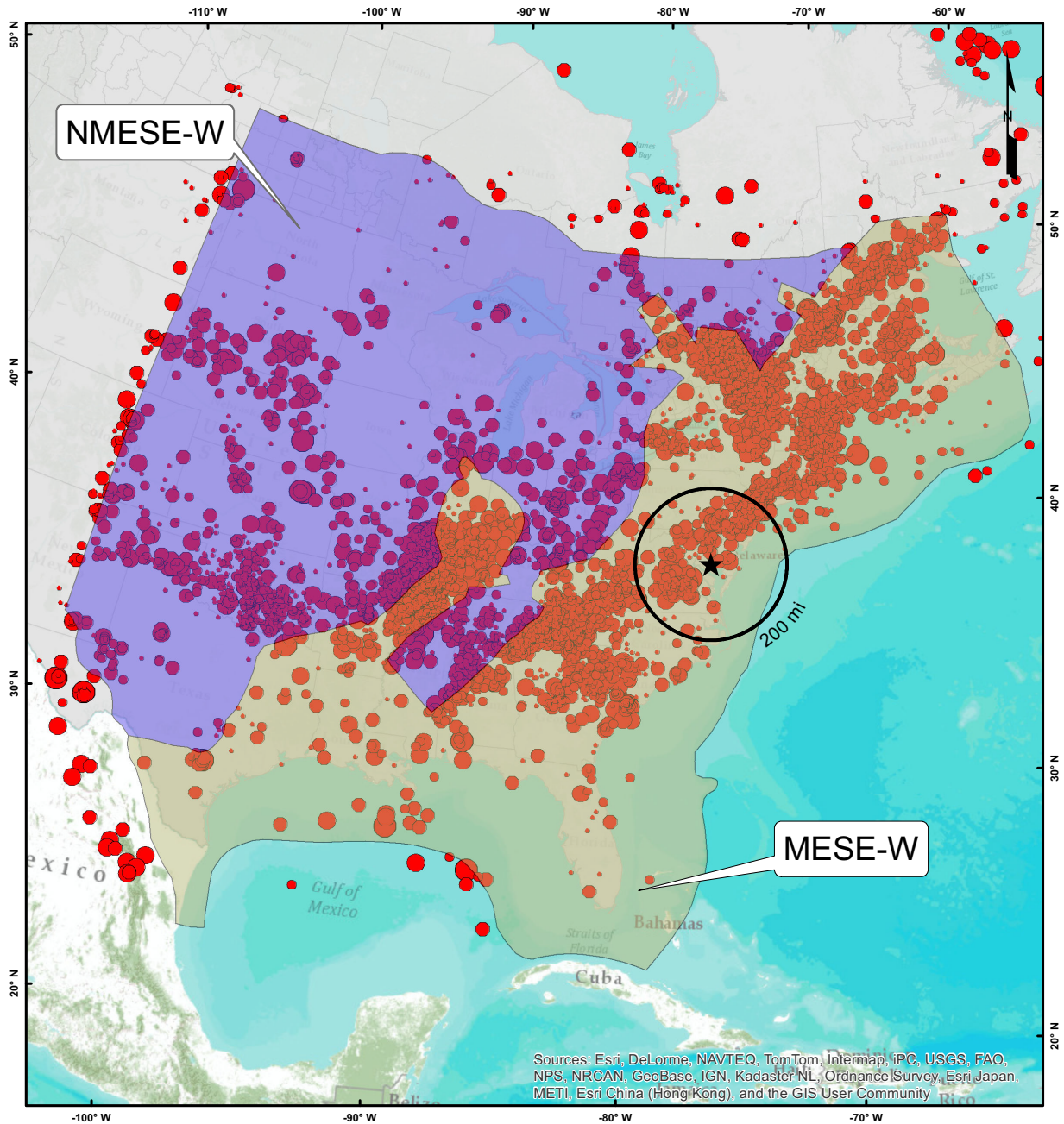


Figure 2.5-48 — {Mesozoic Extended (MESE-W) and Non-Extended (NMESE-W) Mmax Zones for the "Wide" Interpretation}

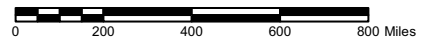


Legend

- ★ Site
- 200 Mile Radius
- Mesozoic Extended (wide)
- Mesozoic Non-Extended (wide)

Earthquake Magnitude (E[M])

- 2.2 - 2.7
- 2.8 - 3.1
- 3.2 - 3.8
- 3.9 - 4.8
- ≥4.9

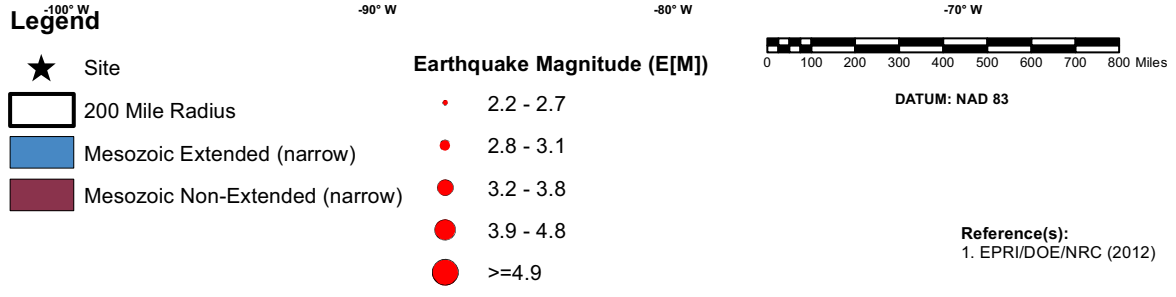
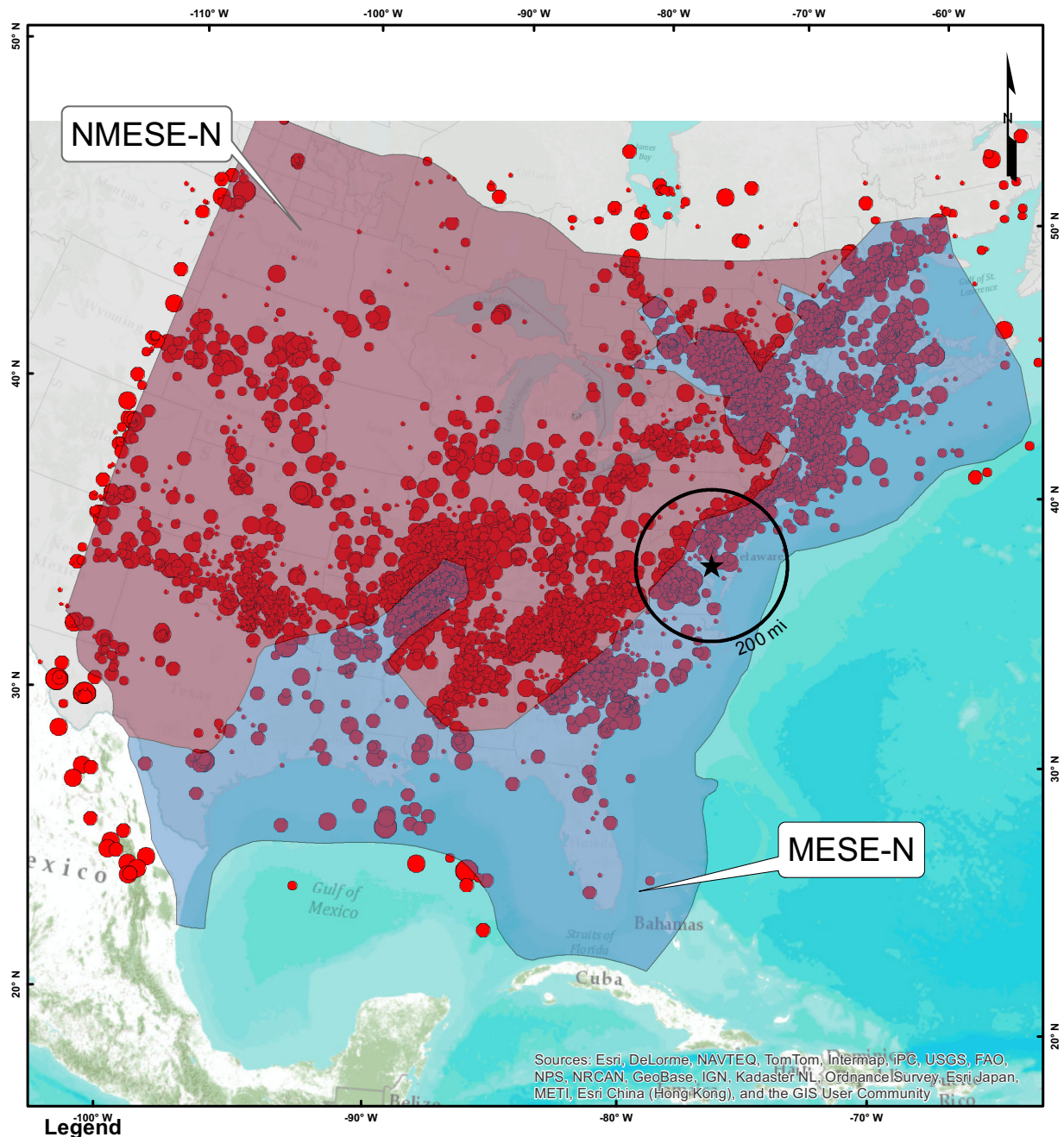


DATUM: NAD 83

Reference(s):
1. EPRI/DOE/NRC (2012)

09-4179-GIS-A006

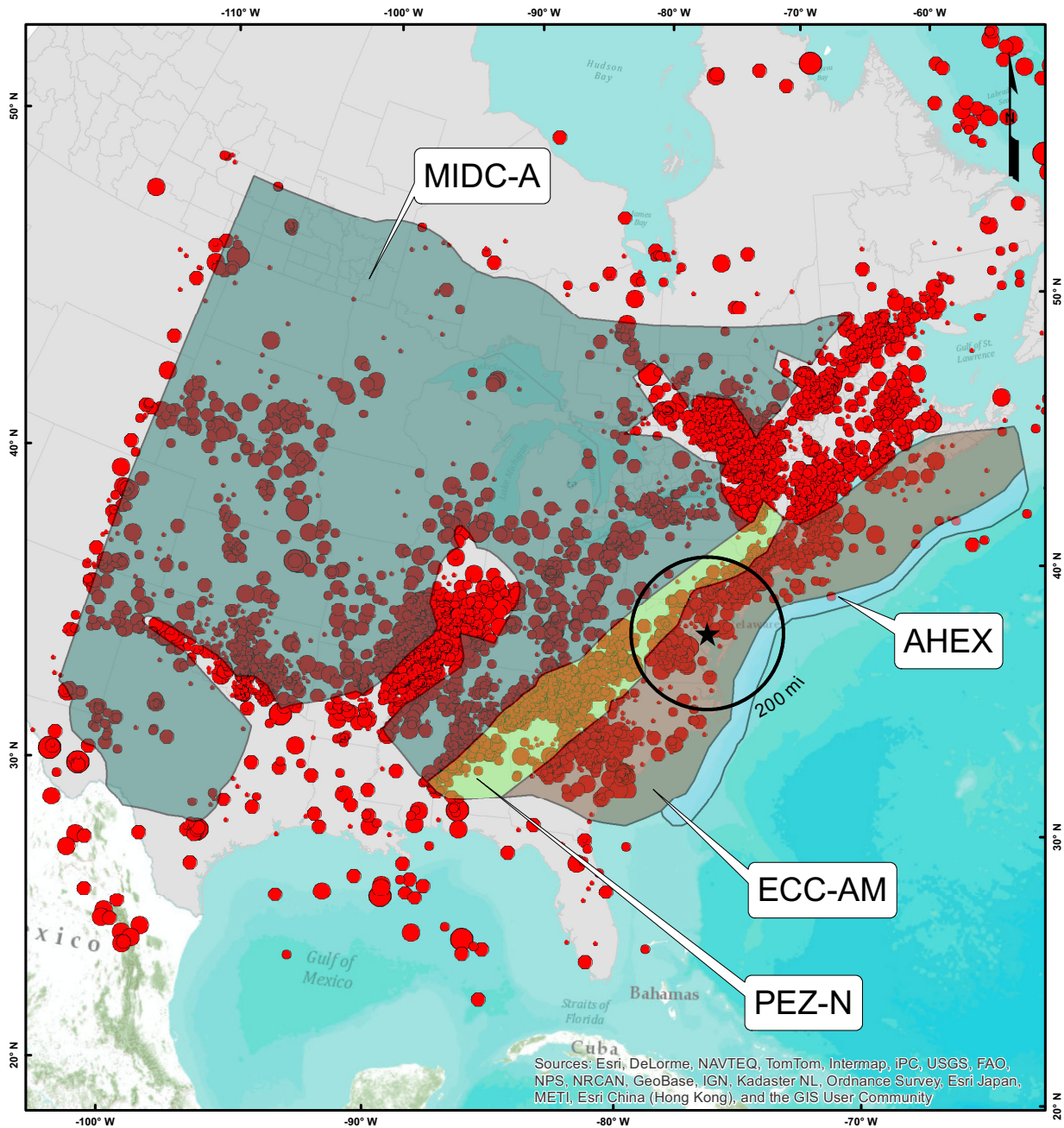
Figure 2.5-49 — {Mesozoic Extended (MESE-N) and Non-Extended (NMESE-N) Mmax Zones for the "Narrow" Interpretation}



Reference(s):
1. EPR/DOE/NRC (2012)

09-4179-GIS-A007

Figure 2.5-50 — {Seismotectonic Zones Showing the Case where the Rough Creek Graben is not Part of the Reelfoot Rift (RR) and the Paleozoic Extended Zone is Narrow (PEZ-N)}

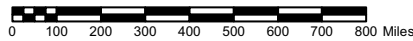


Legend

- ★ Site
- 200 Mile Radius
- AHEx
- ECC-AM
- MIDC-A
- PEZ-N

Earthquake Magnitude (E[M])

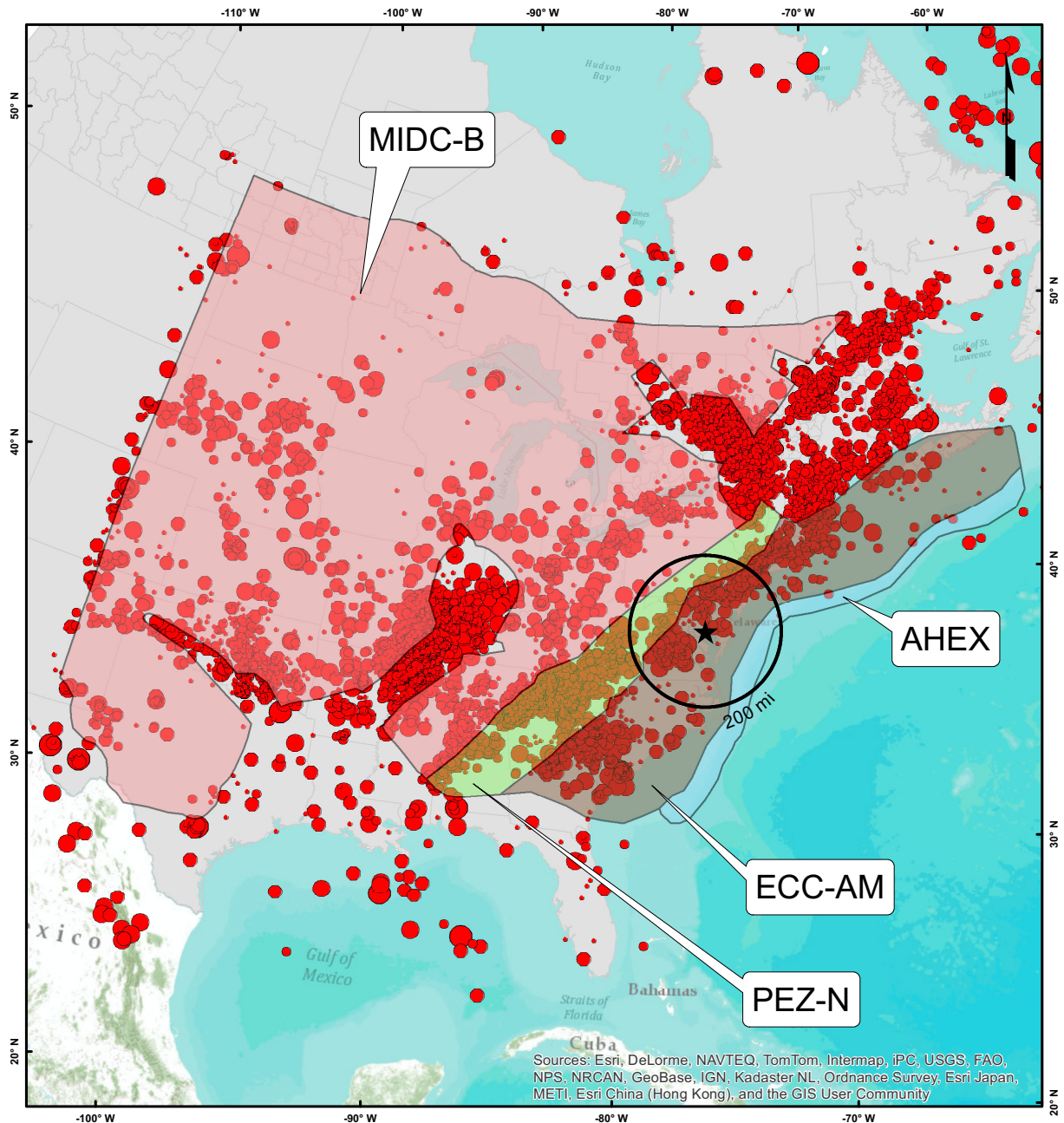
- 2.2 - 2.7
- 2.8 - 3.1
- 3.2 - 3.8
- 3.9 - 4.8
- ≥4.9



DATUM: NAD 83

Reference(s):
 1. EPRI/DOE/NRC (2012)
 09-4179-GIS-A008

Figure 2.5-51 — {Seismotectonic Zones Showing the Case where the Rough Creek Graben is Part of the Reelfoot Rift (RR-RCG) and the Paleozoic Extended Zone is Narrow (PEZ-N)}



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, iPC, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

Legend

- ★ Site
- 200 Mile Radius
- AHEX
- ECC-AM
- MIDC-B
- PEZ-N

Earthquake Magnitude (E[M])

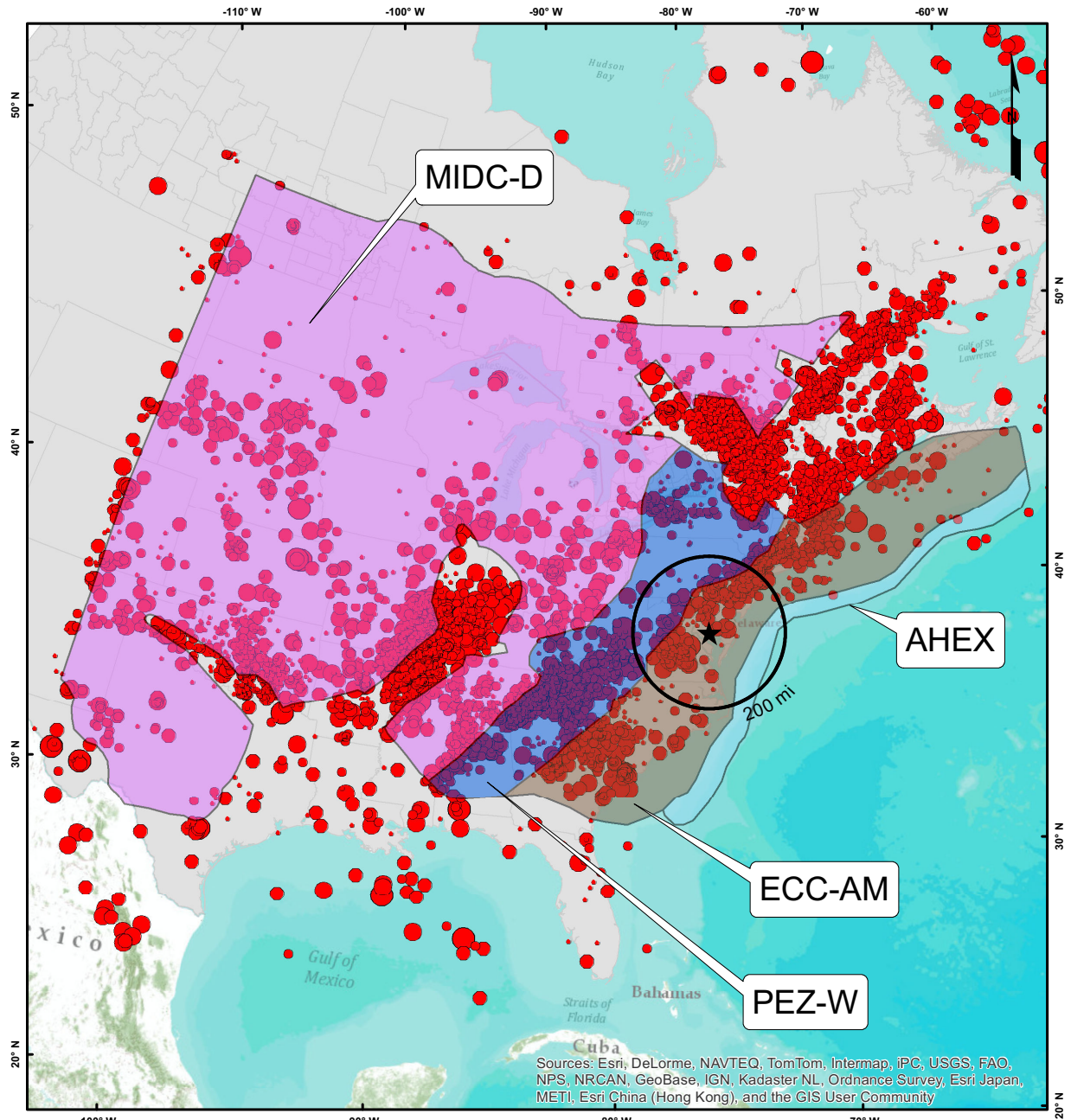
- 2.2 - 2.7
- 2.8 - 3.1
- 3.2 - 3.8
- 3.9 - 4.8
- ≥4.9



DATUM: NAD 83

Reference(s):
1. EPRI/DOE/NRC (2012)
09-4179-GIS-A009

Figure 2.5-52 — {Seismotectonic Zones Showing the Case where the Rough Creek Graben is not Part of the Reelfoot Rift (RR) and the Paleozoic Extended Zone is Wide (PEZ-W)}



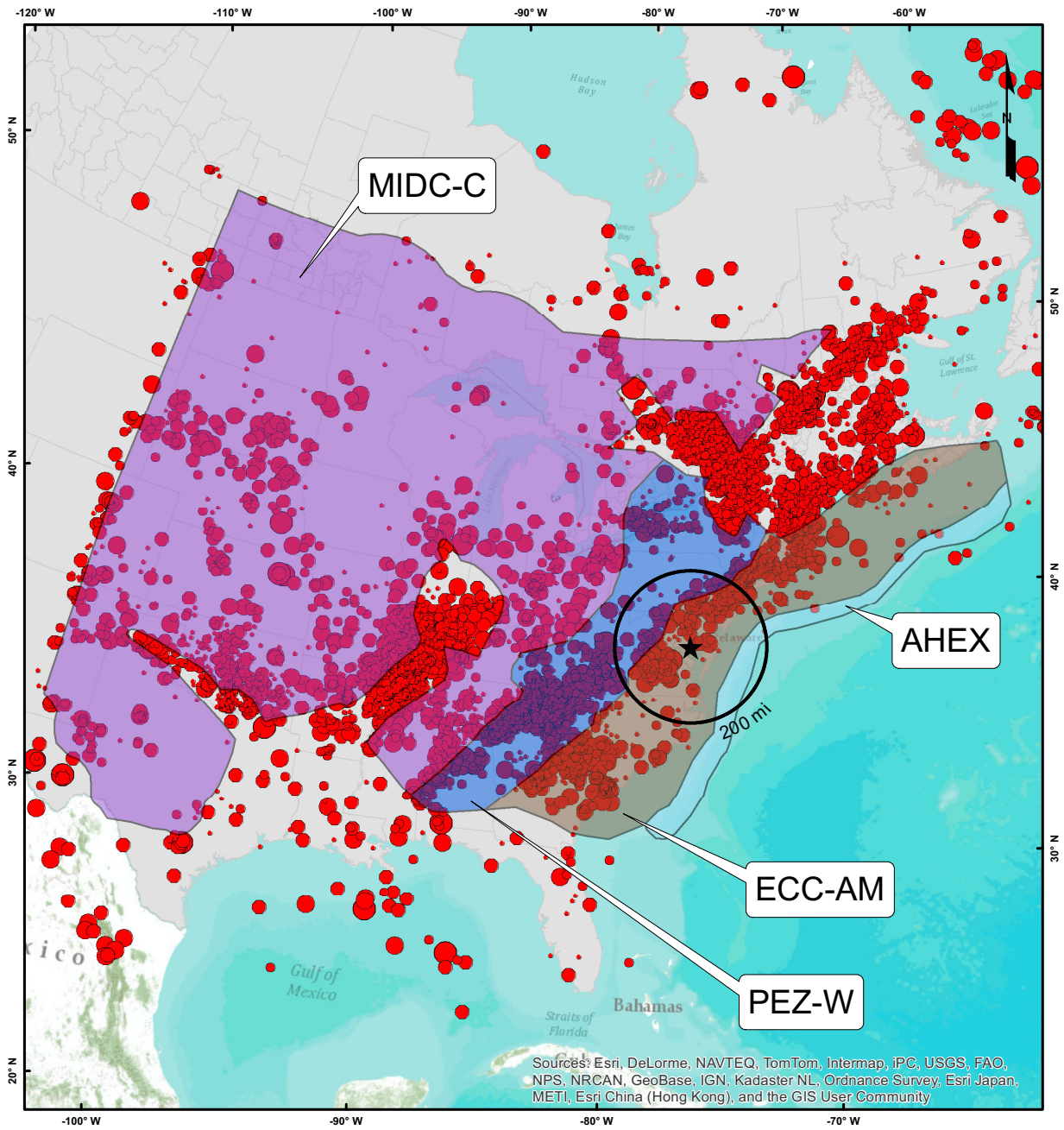
Legend

- ★ Site
 - 200 Mile Radius
 - AHEX
 - ECC-AM
 - MIDC-D
 - PEZ-W
- | Earthquake Magnitude (E[M]) | |
|-----------------------------|-----------|
| • | 2.2 - 2.7 |
| • | 2.8 - 3.1 |
| • | 3.2 - 3.8 |
| • | 3.9 - 4.8 |
| • | >=4.9 |

Reference(s):
1. EPR/DOE/NRC (2012)

09-4179-GIS-A011

Figure 2.5-53 — {Seismotectonic Zones Showing the Case where the Rough Creek Graben is Part of the Reelfoot Rift (RR-RCG) and the Paleozoic Extended Zone is Wide (PEZ-W)}



Legend

- ★ Site
- 200 Mile Radius
- AHEX
- ECC-AM
- MIDC-C
- PEZ-W

Earthquake Magnitude (E[M])

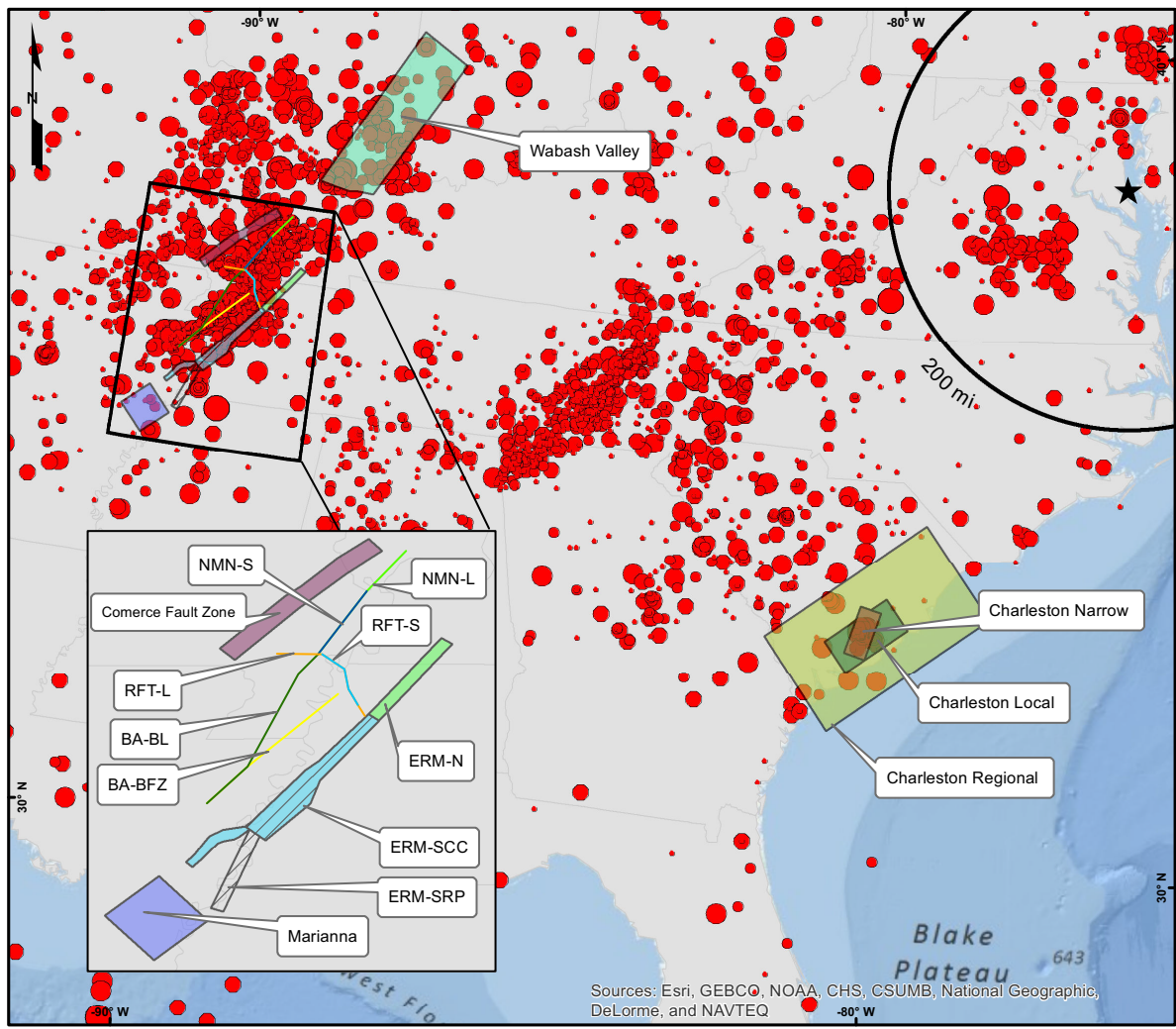
- 2.2 - 2.7
- 2.8 - 3.1
- 3.2 - 3.8
- 3.9 - 4.8
- ≥4.9

DATUM: NAD 83

Reference(s):
1. EPRI/DOE/NRC (2012)

09-4179-GIS-A010

Figure 2.5-54 — {RLME Sources Considered for the PSHA of the CCNPP Unit 3 Site}



Legend

- ★ Site
- 200 Mile Radius

Fault

- NMN Extended: NMN-L
- NMN Short: NMN-S
- NMS: BA-BFZ
- NMS: BA-BL
- RFT Extended: RFT-L
- RFT Short: RFT-S

Source Zone

- Commerce Fault Zone
- ERM-N
- ERM-SCC
- ERM-SRP
- Marianna
- Charleston-Local
- Charleston - Narrow
- Charleston - Regional
- Wabash Valley

Earthquake Magnitude (E[M])

- 2.2 - 2.7
- 2.8 - 3.1
- 3.2 - 3.8
- 3.9 - 4.8
- >=4.9

DATUM: NAD 83



Reference(s):
1. EPRI/DOE/NRC (2012)

09-4179-GIS-A012