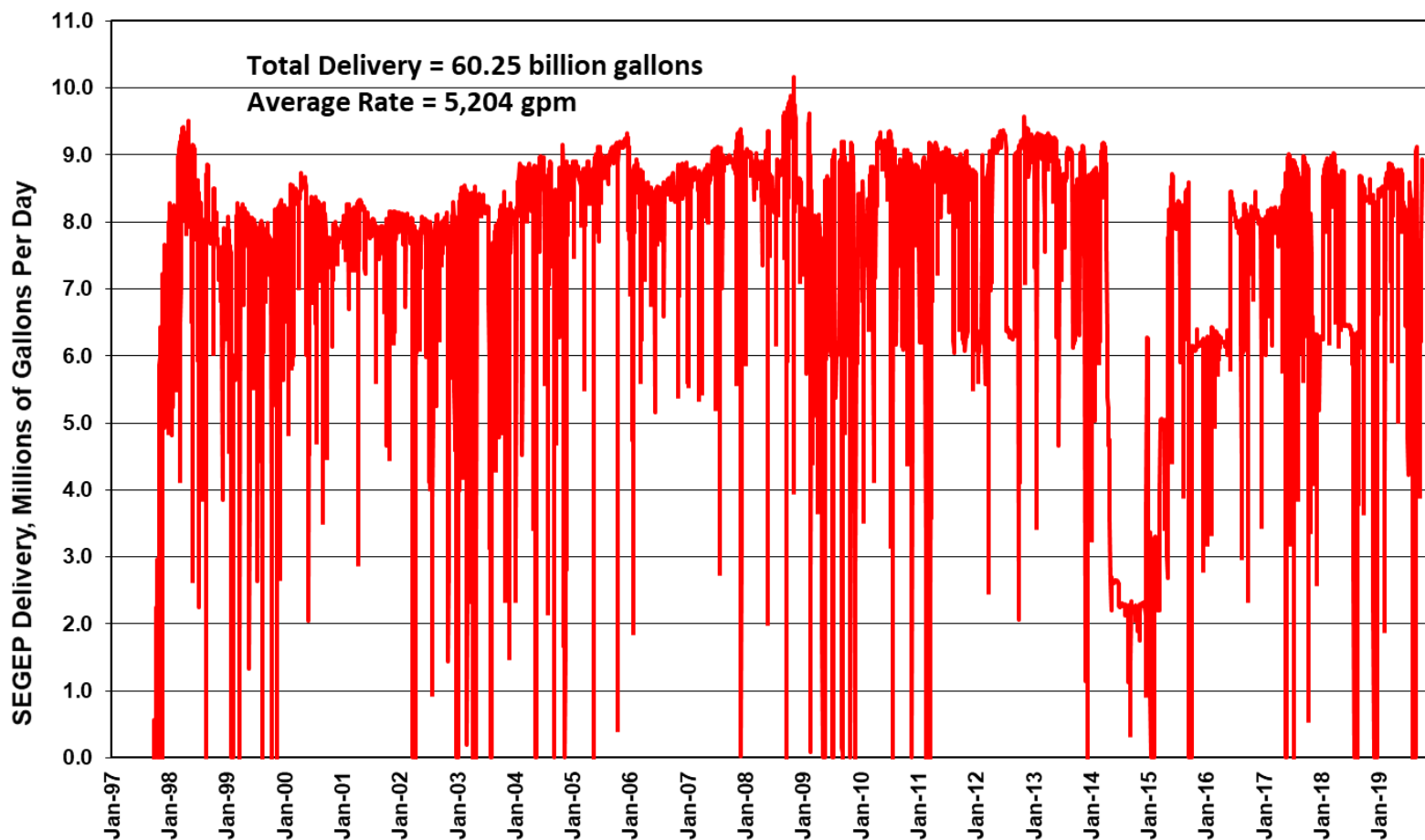




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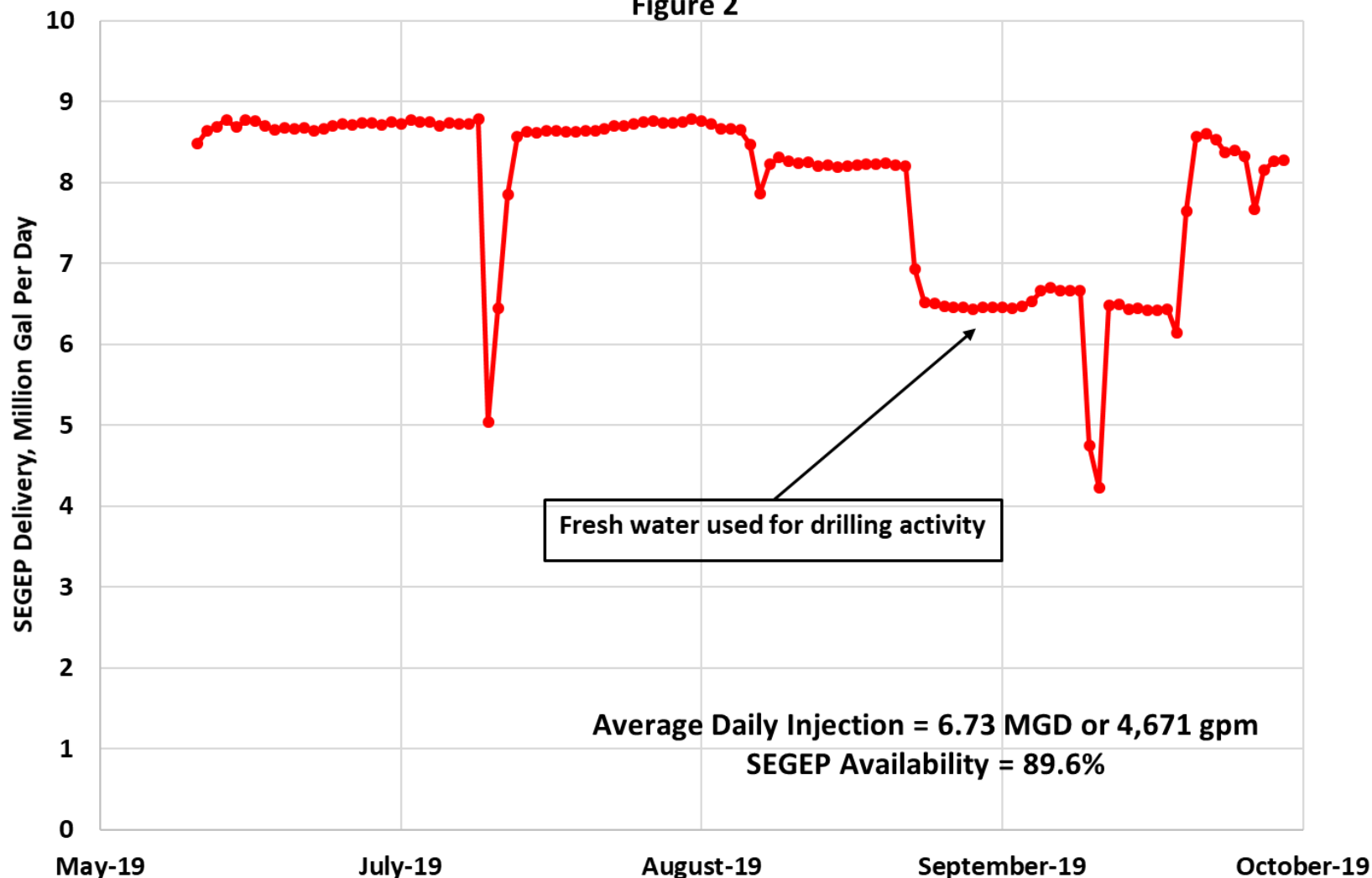
Ed Voge
Reservoir Engineer
December 12,
2019

Historical SE Geysers Effluent Pipeline Deliveries to The Geysers
Figure 1



Southeast Geysers Effluent Pipeline Delivery **April 1, 2019 through September 30, 2019**

Figure 2



Southeast Geysers - Historical Seismic Activity **Magnitude > 1.5** **Figure 3**

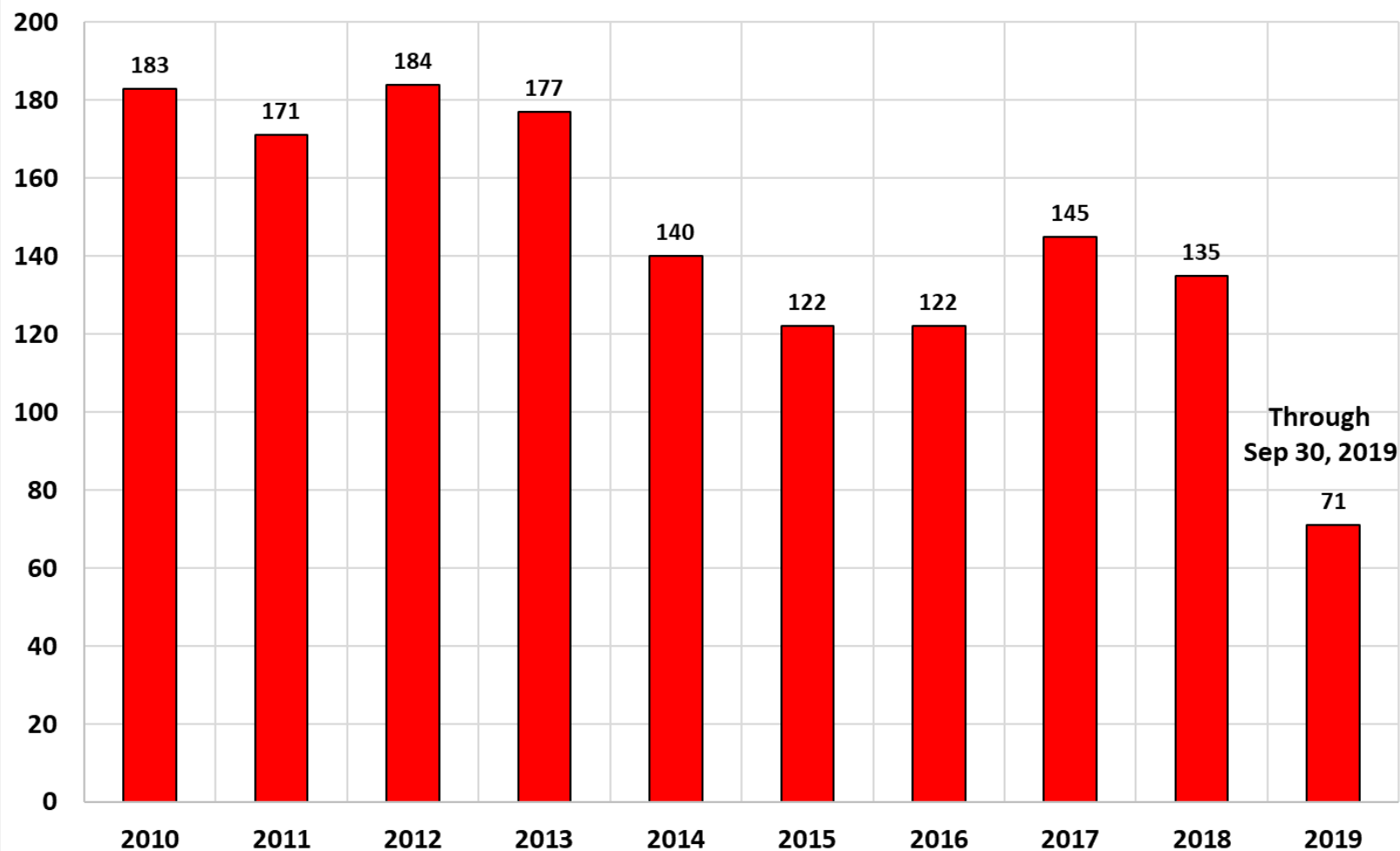
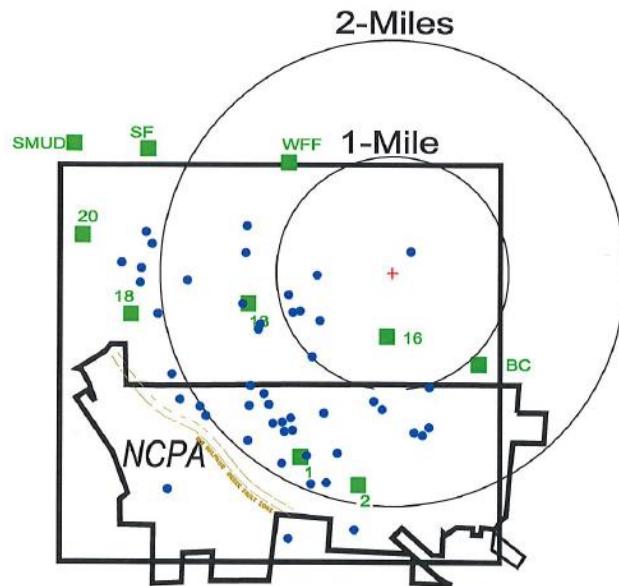


Figure 4



Radial distances are
from Anderson Springs
Strong Motion
Instrument

Apr. 1 - Sept. 30, 2019

Magnitude > 1.5 - 36 Events

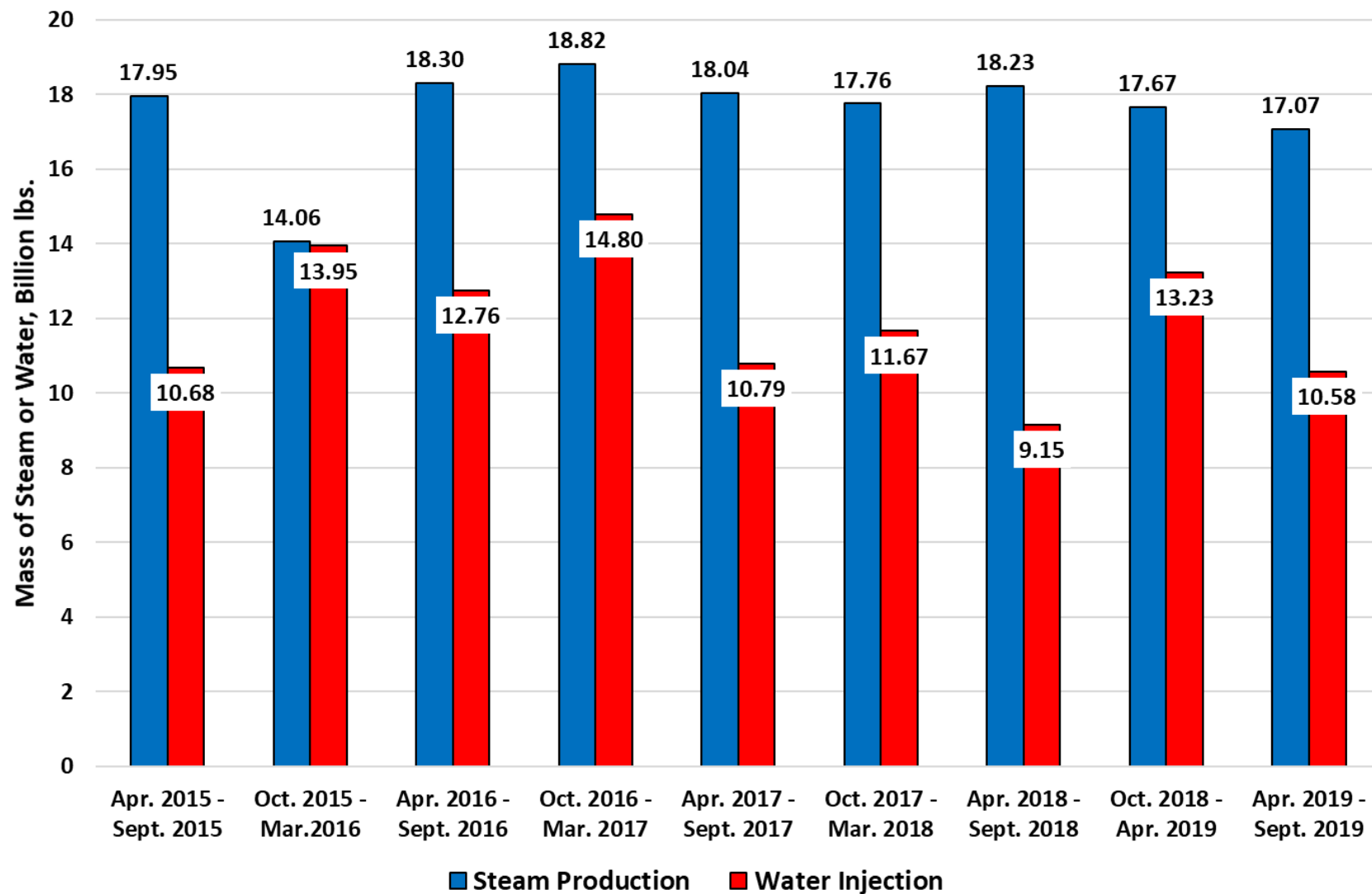
Magnitude > 3.0 - No Events

SOUTH EAST
GEYSERS
SEISMIC STUDY
AREA

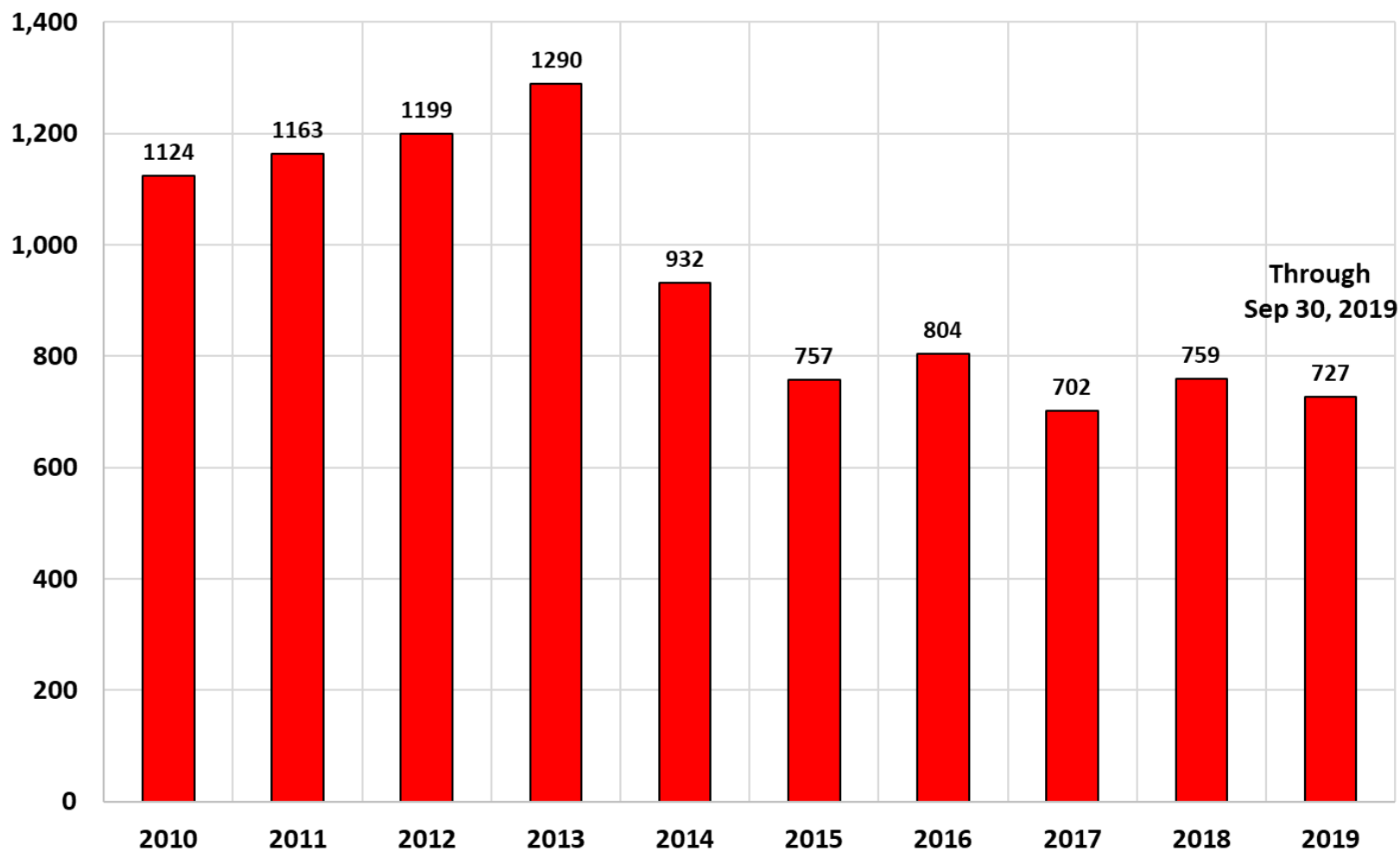
SEISMIC EVENTS
REPORTED BY THE USGS
(from U.C. Berkeley Catalog)

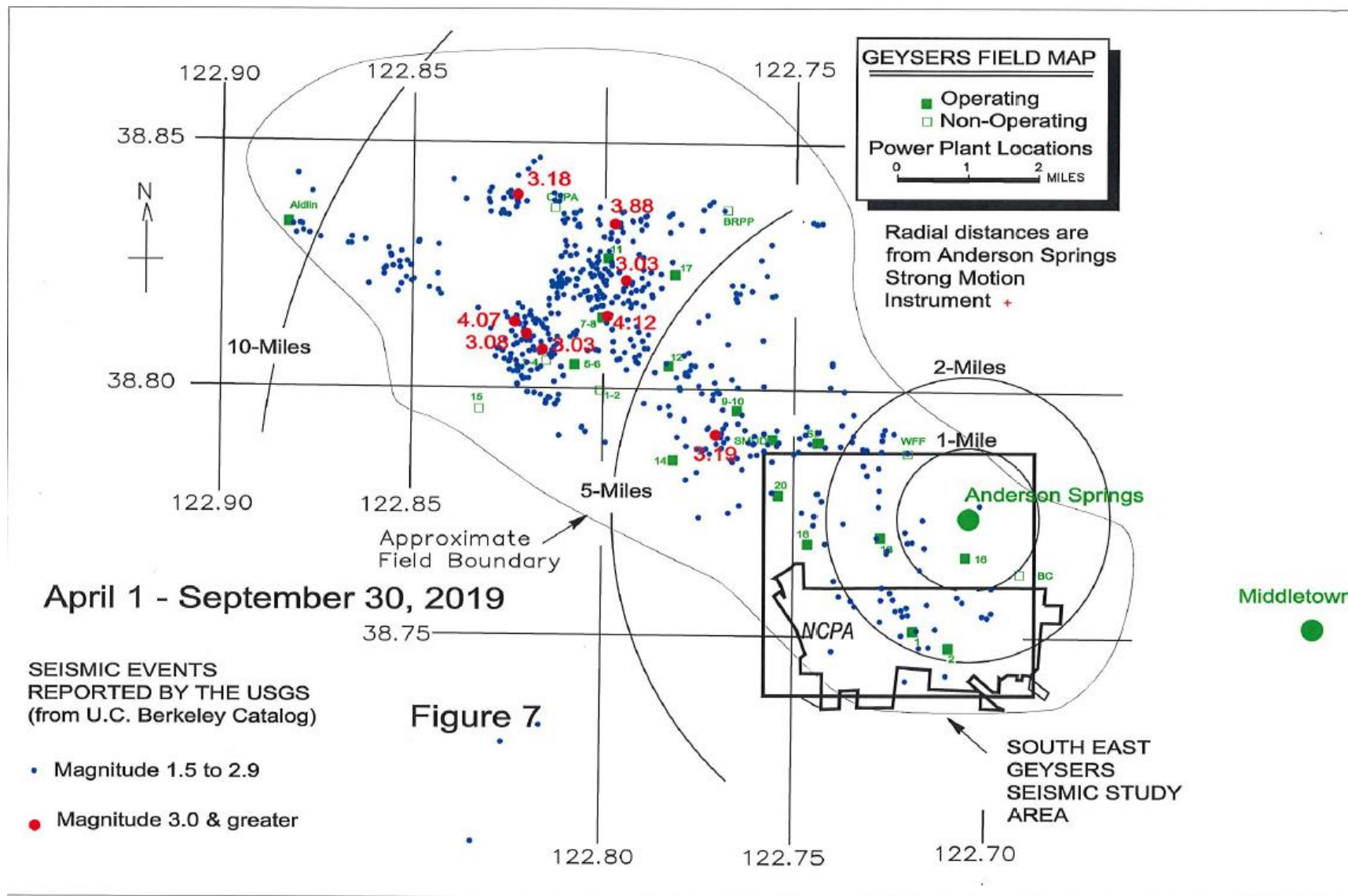
SE Geysers Production and Injection

Figure 5



The Geysers - Historical Seismic Activity Magnitude > 1.5 Figure 6





Summary

- **SEGEP Operation**
 - Injection Rate – 4,671 gpm
 - Pipeline availability – 89.6%
 - Drilling Activity– August and September, 2019
- **Southeast Production & Injection**
 - Production – 17.07 Glbs
 - Injection – 10.58 Glbs
- **Seismic Activity – SE Geysers**
 - 36 Events > Magnitude 1.5
 - 0 Events > Magnitude 3.0
- **Seismic Activity – Geysers**
 - 464 Events > Magnitude 1.5
 - 8 Events > Magnitude 3.0
 - Highest Event – Magnitude 4.12