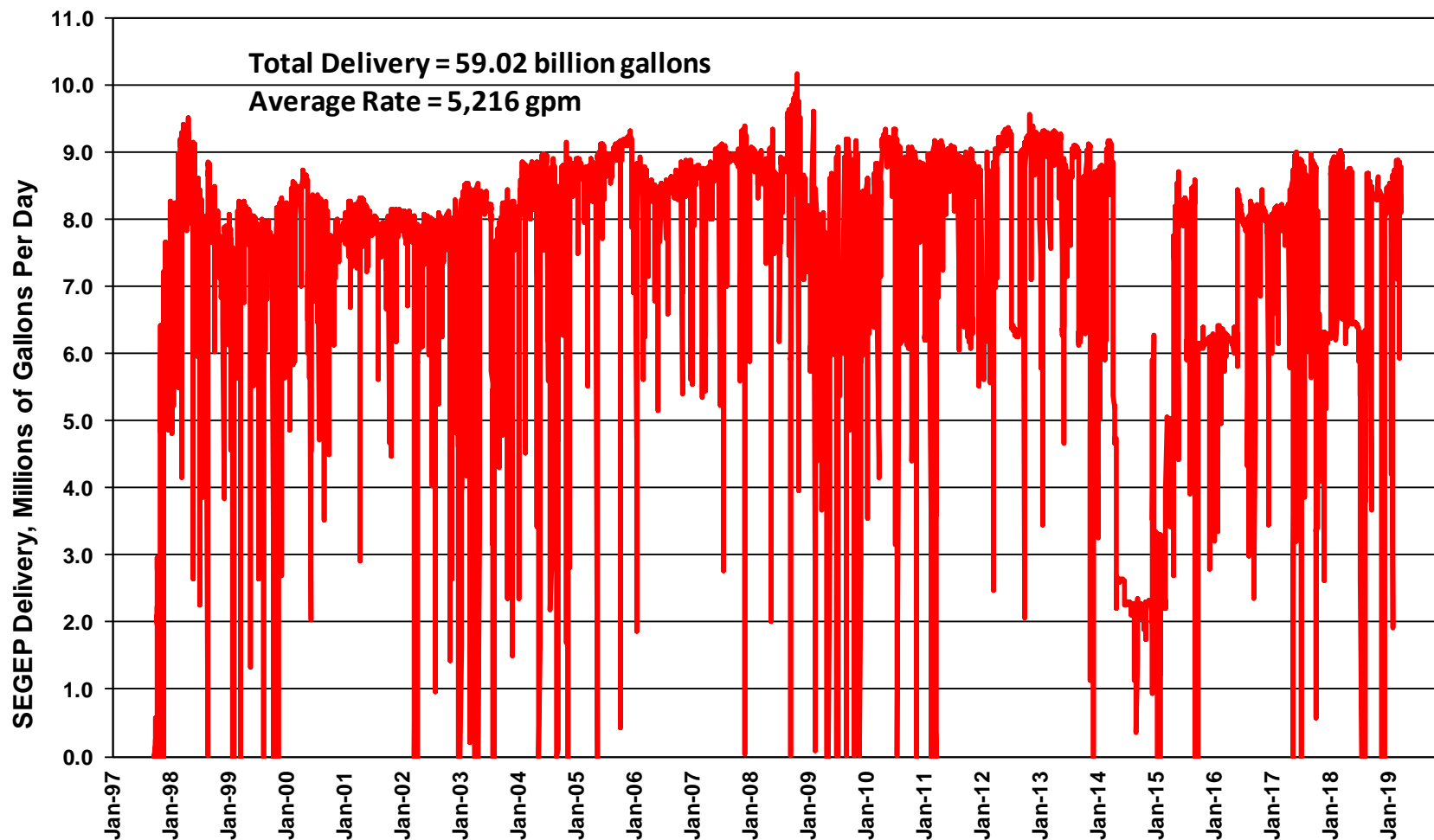




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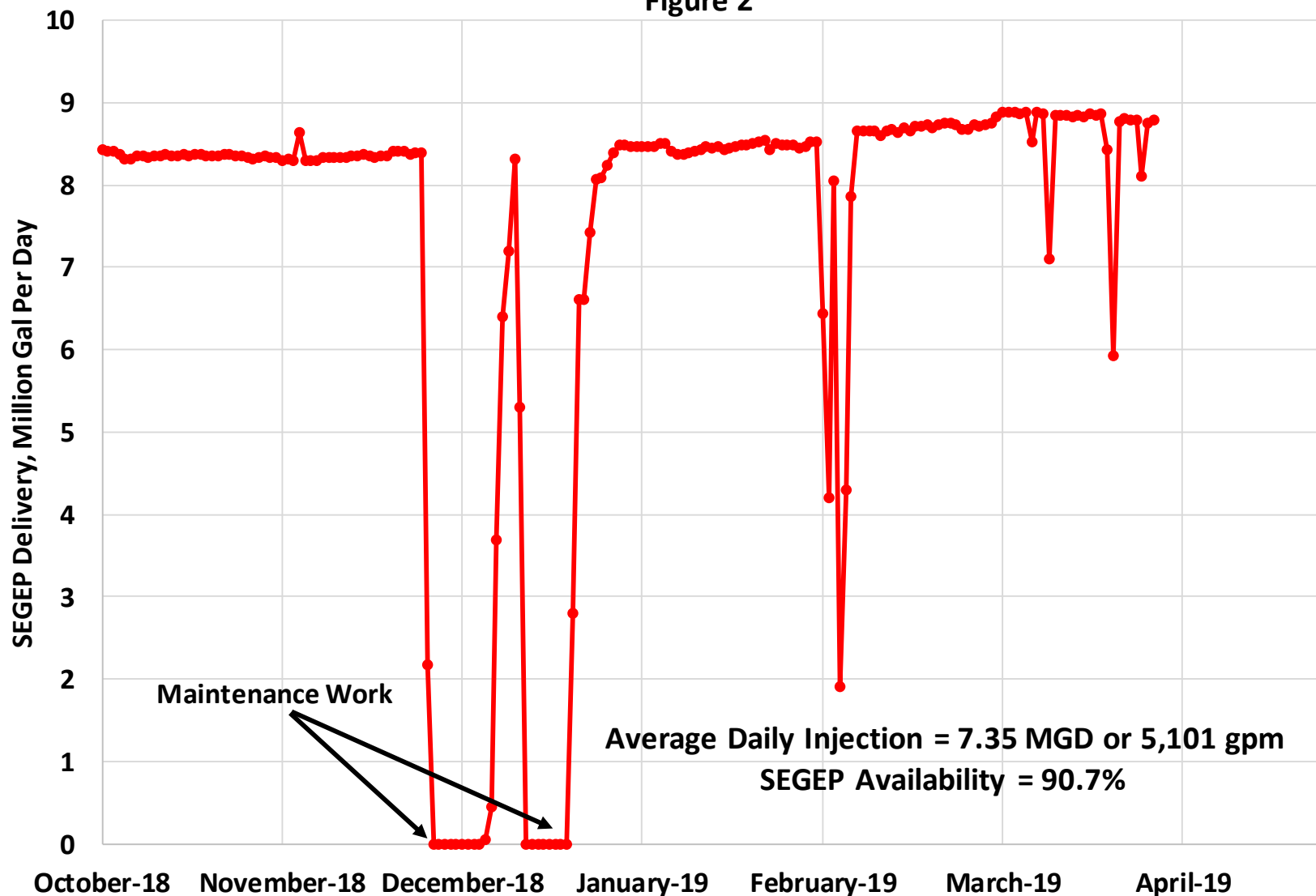
Ed Voge
Reservoir Engineer
May 13, 2019

Historical SE Geysers Effluent Pipeline Deliveries to The Geysers Figure 1



Southeast Geysers Effluent Pipeline Delivery **October 1, 2018 through April 30, 2019**

Figure 2



Southeast Geysers - Historical Seismic Activity
Magnitude > 1.5
Figure 3

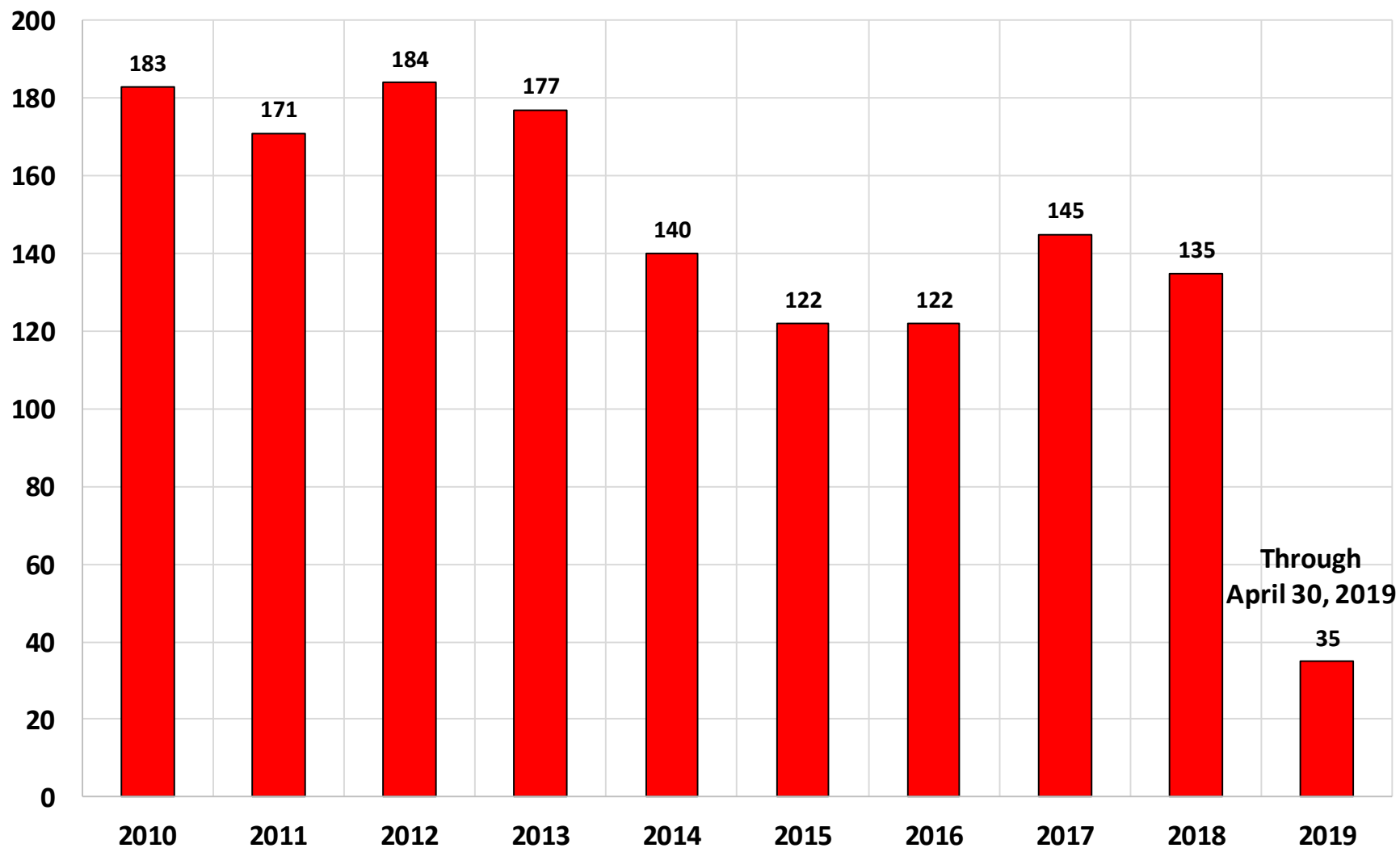
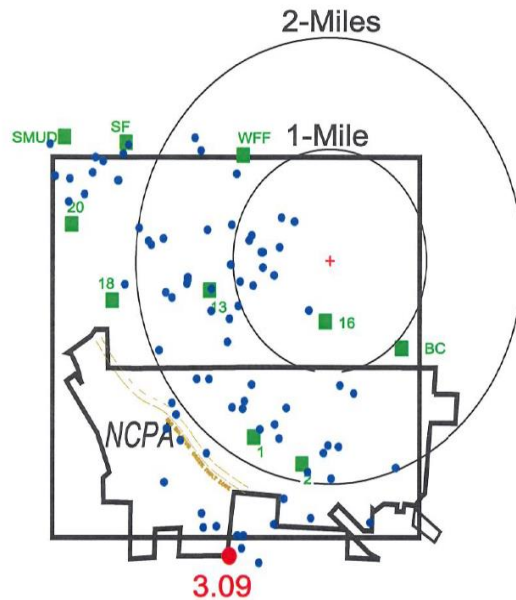


Figure 4



Radial distances are
from Anderson Springs
Strong Motion
Instrument

October 1, 2018 - April 30, 2019

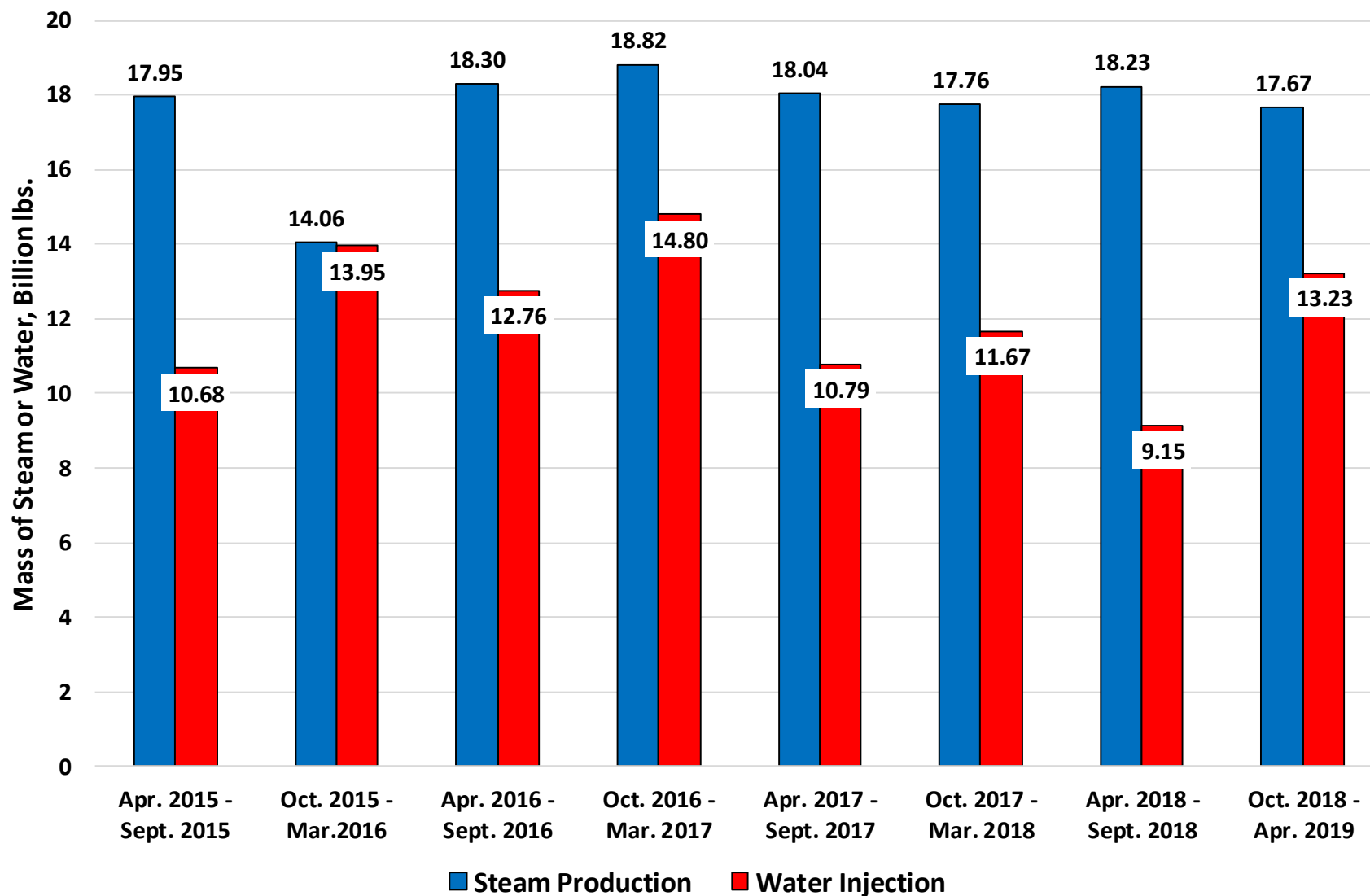
- **Magnitude > 1.5 - 82 Events**
- **Magnitude > 3.0 - 1 Event**

SOUTH EAST
GEYSERS
SEISMIC STUDY
AREA

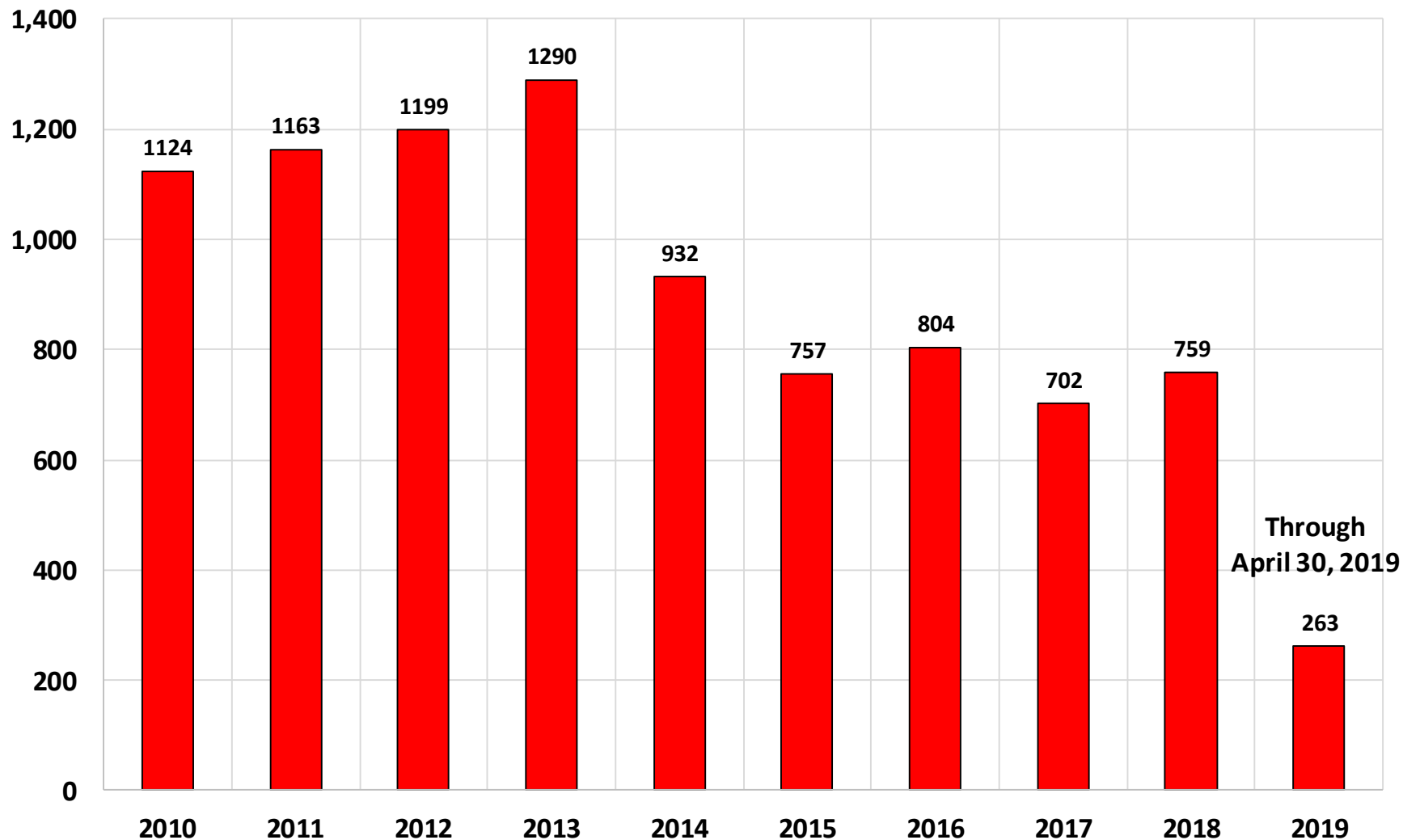
SEISMIC EVENTS
REPORTED BY THE USGS
(from U.C. Berkeley Catalog)

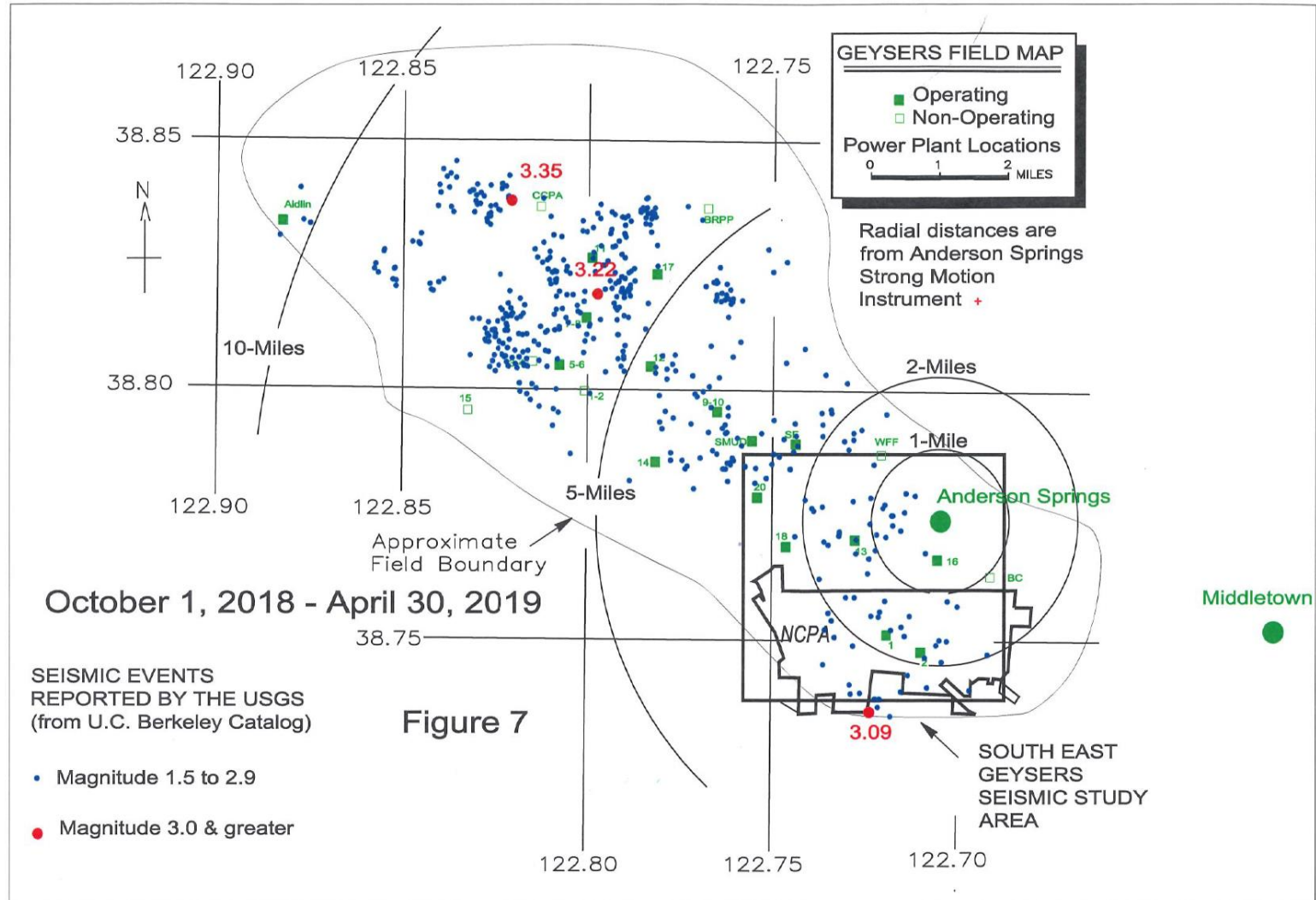
SE Geysers Production and Injection

Figure 5



The Geysers - Historical Seismic Activity Magnitude > 1.5 Figure 6





Summary

- **SEGEP Operation**
 - Injection Rate – 5,101 gpm
 - Pipeline availability - 90.7%
 - Maintenance Work – October & December 2018
- **Southeast Production & Injection**
 - Production – 17.67 Glbs
 - Injection – 13.23 Glbs
- **Seismic Activity – SE Geysers**
 - 82 Events > Magnitude 1.5
 - 1 Events > Magnitude 3.0
- **Seismic Activity – Geysers**
 - 503 Events > Magnitude 1.5
 - 3 Events > Magnitude 3.0
 - Highest Event – Magnitude 3.35