

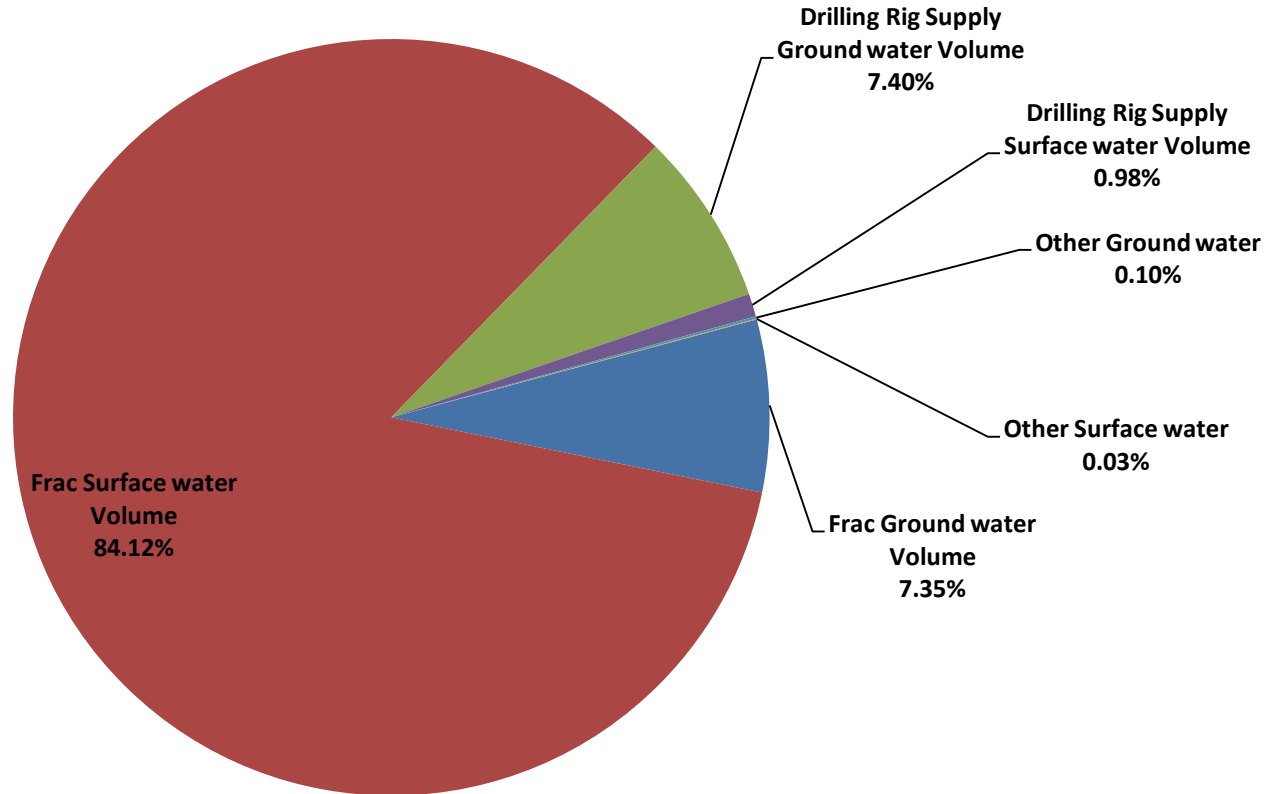
Oil and Gas Well Development Hydraulic Fracture Operations

Reported Water Usage from 10/01/2009 to 08/10/2017

Statewide Oil and Gas Well Development Hydraulic Fracture Stimulation Operations

Reported Water Usage from 10/01/2009 through 08/10/2017

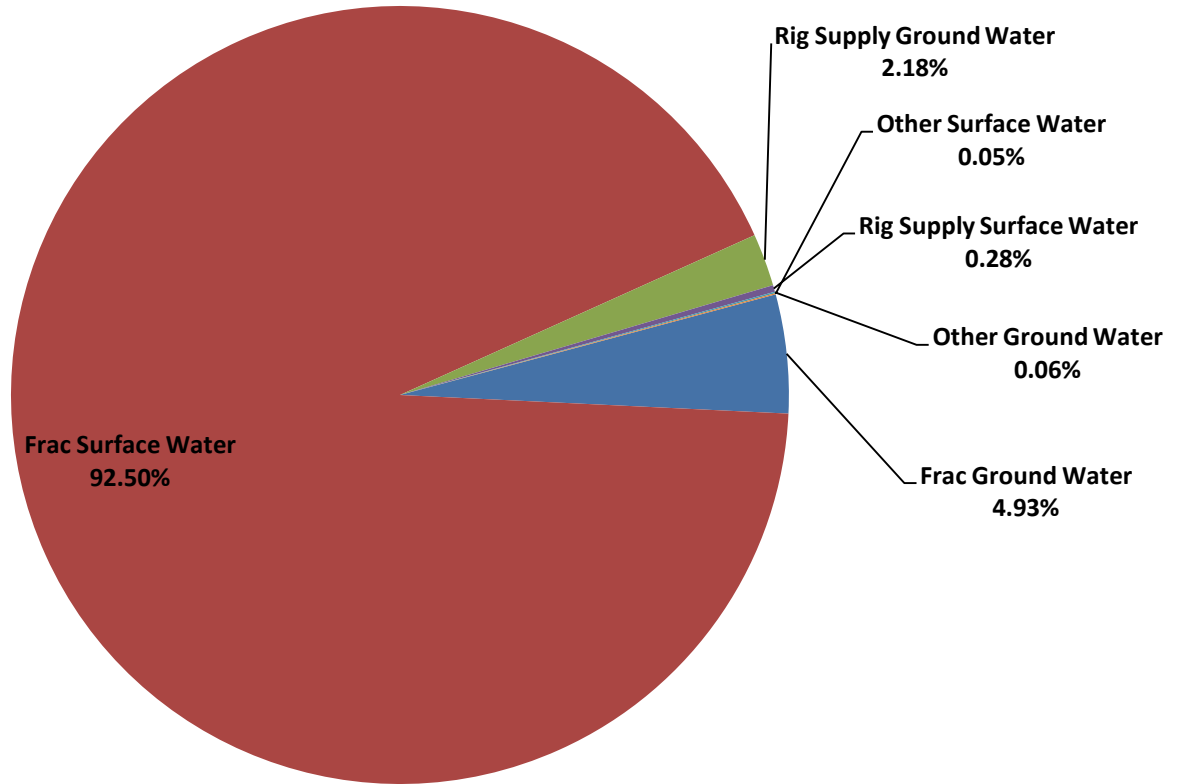
Source	Volume (Gallons)
Frac Ground water Volume	1,463,853,709.00
Frac Surface water Volume	16,744,511,165.00
Drilling Rig Supply Ground water Volume	1,473,609,337.00
Drilling Rig Supply Surface water Volume	196,011,452.00
Other Ground water	20,558,535.00
Other Surface water	6,471,059.00
Frac Stages	50,648.00
Total Frac Water Volume	18,208,364,874.00
Volume per Frac Stage	359,508.07
Average Frac stages Per Well	13.94
Average Water Use Per Well	5,753,308.17
Average Frac Water Use Per Well	5,013,316.32



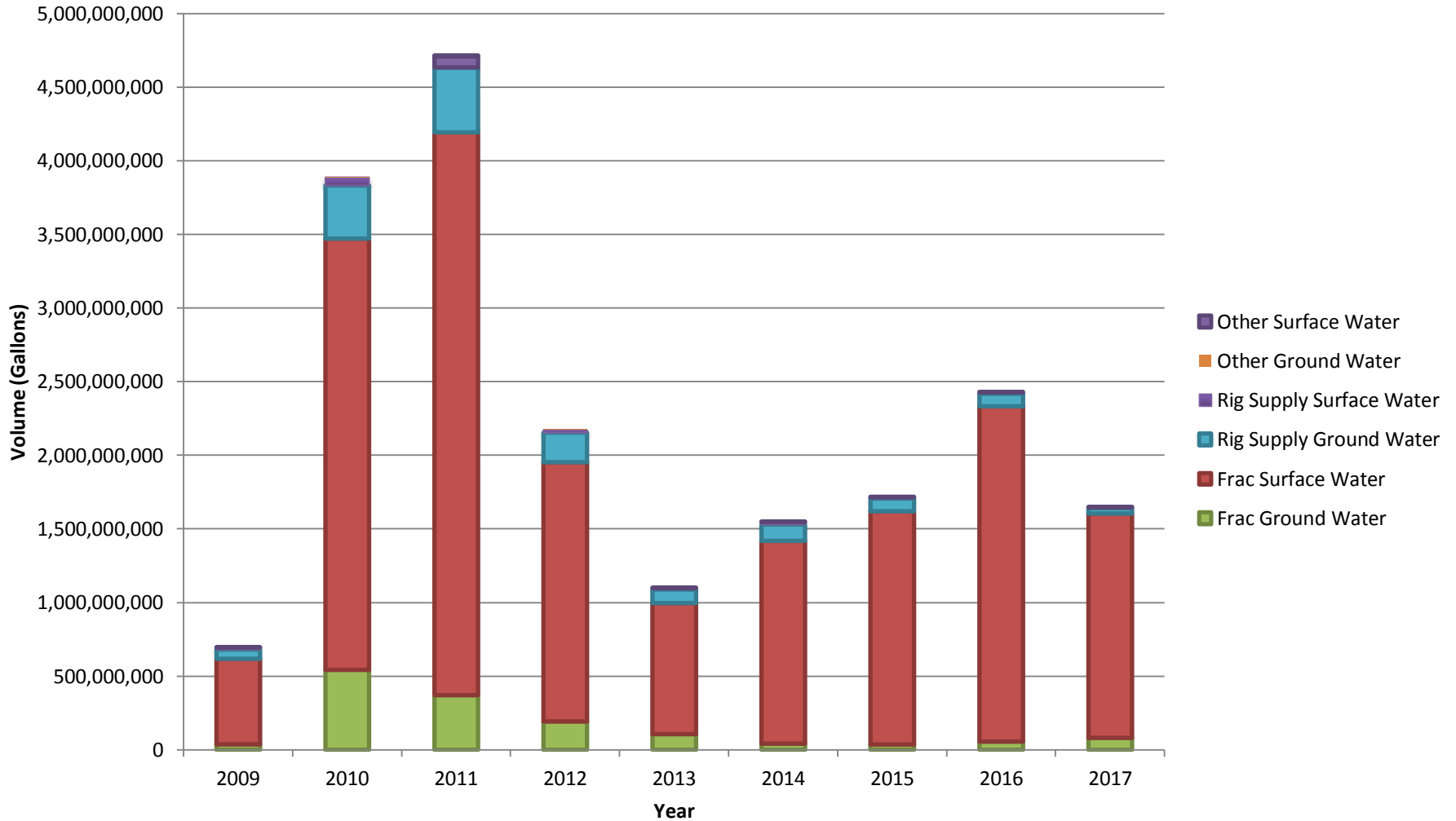
Statewide Oil and Gas Well Development Hydraulic Fracture Stimulation Operations

Reported Usage from 01/01/2017 through 08/10/2017

Source	Volume (Gallons)
Frac Ground Water	81,173,660.00
Frac Surface Water	1,523,328,776.00
Rig Supply Ground Water	35,976,342.00
Rig Supply Surface Water	4,577,689.00
Other Ground Water	980,280.00
Other Surface Water	848,862.00
Frac Stages	4,764.00
Total Wells	142.00
Total Water (gal)	1,646,885,609.00
Total Frac Water (gal)	1,604,502,436.00
Vol per Frac Stage	336,797.32
Avg Frac Stage per Well	33.55
Avg Water Use per Well	11,597,785.98
Avg Frac Water Use per Well	11,299,312.93



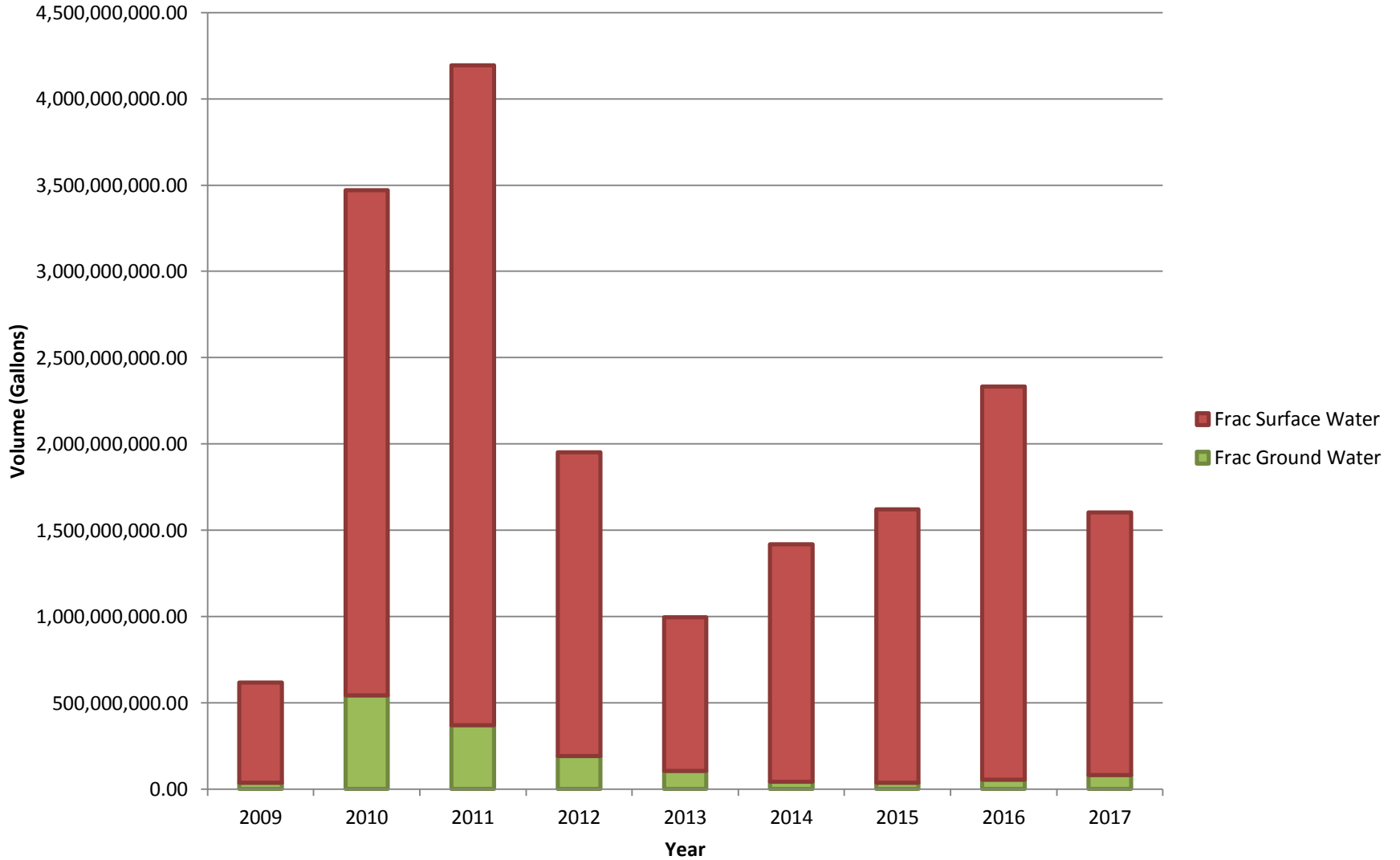
Statewide Hydraulic Fracture Water Usage By Year



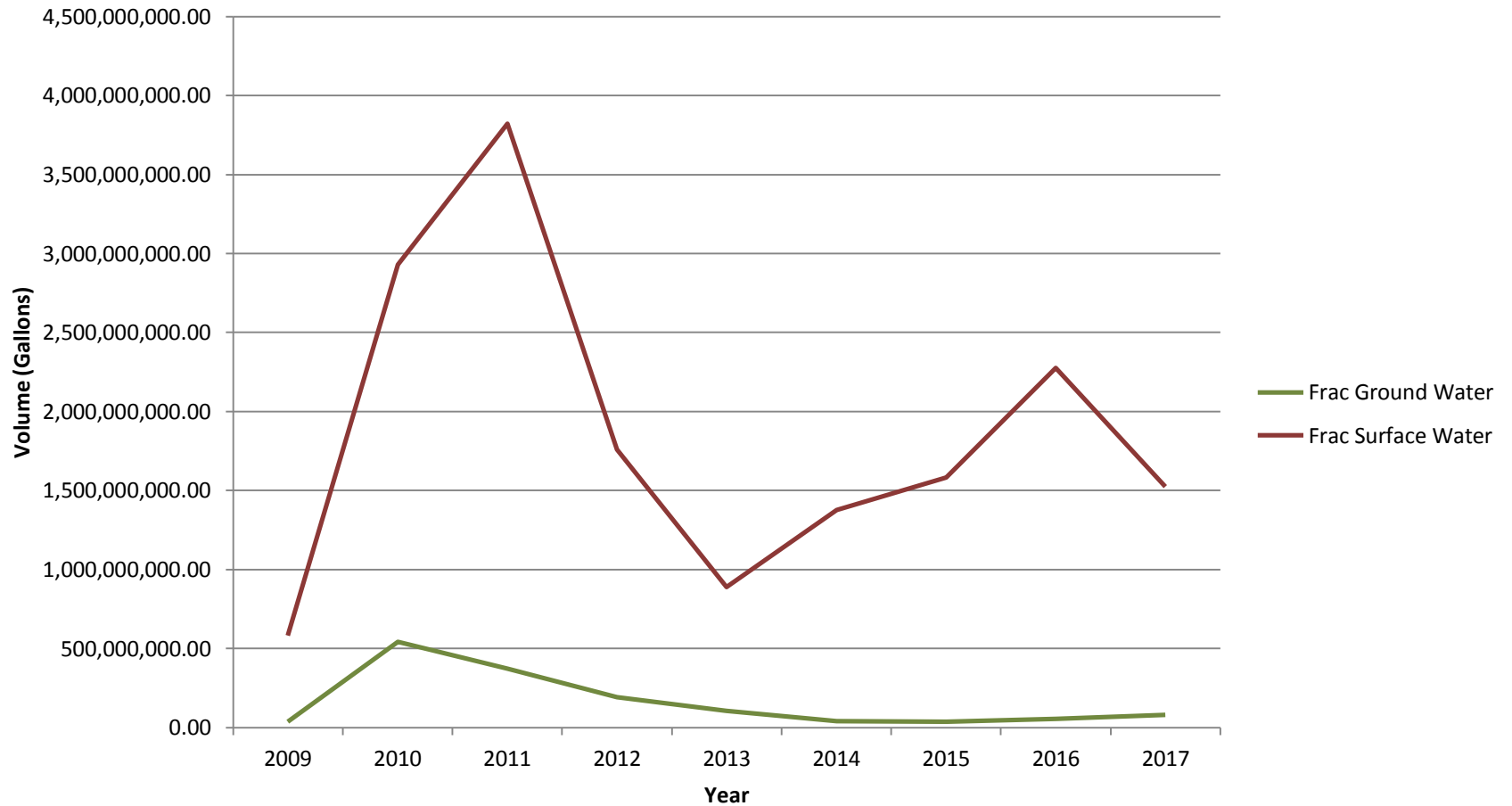
*In 2009 only October 1, 2009 – December 31, 2017 are recorded.

*In 2017 only January 1, 2017 – August 10, 2017 are recorded.

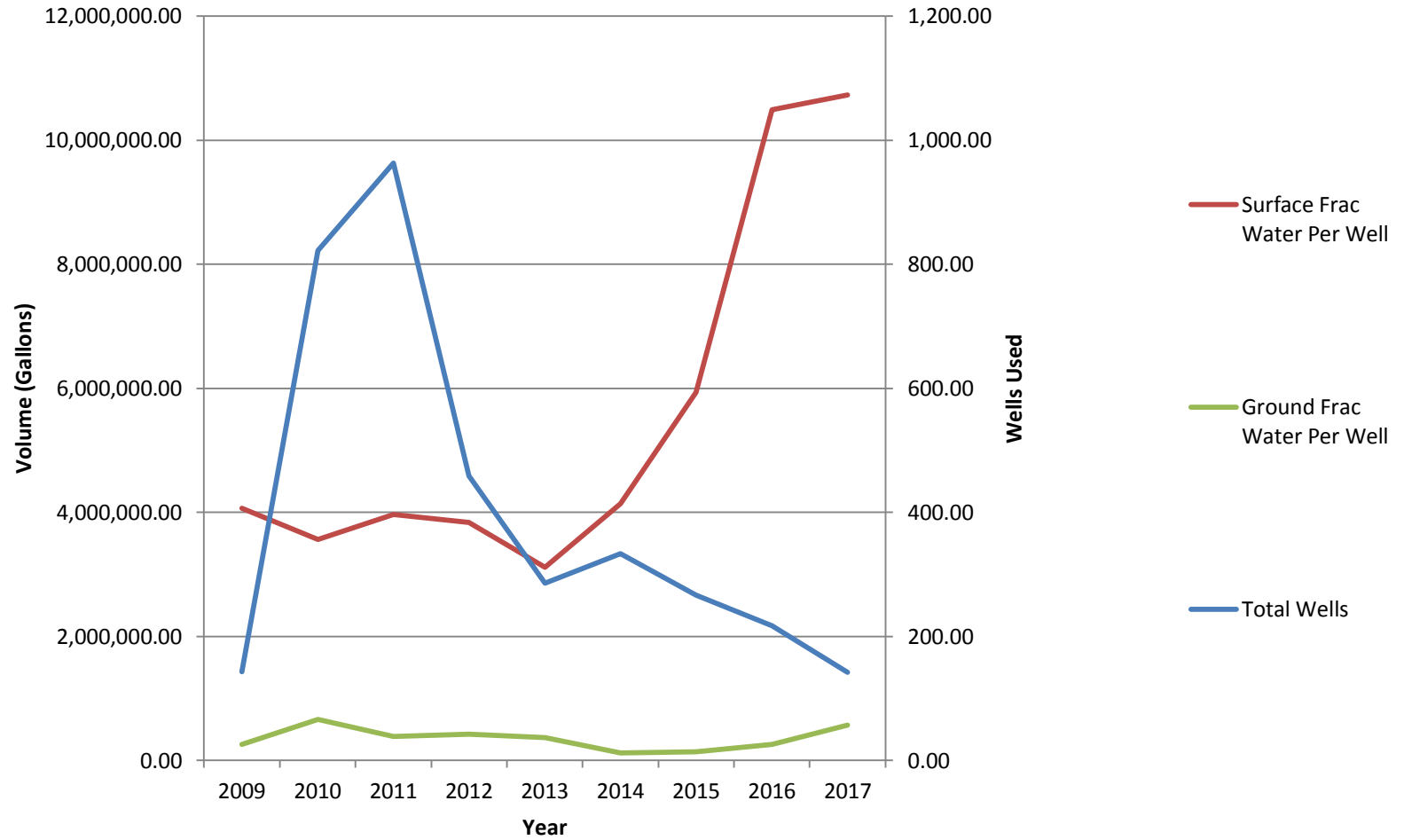
Statewide Hydraulic Fracture Water Usage



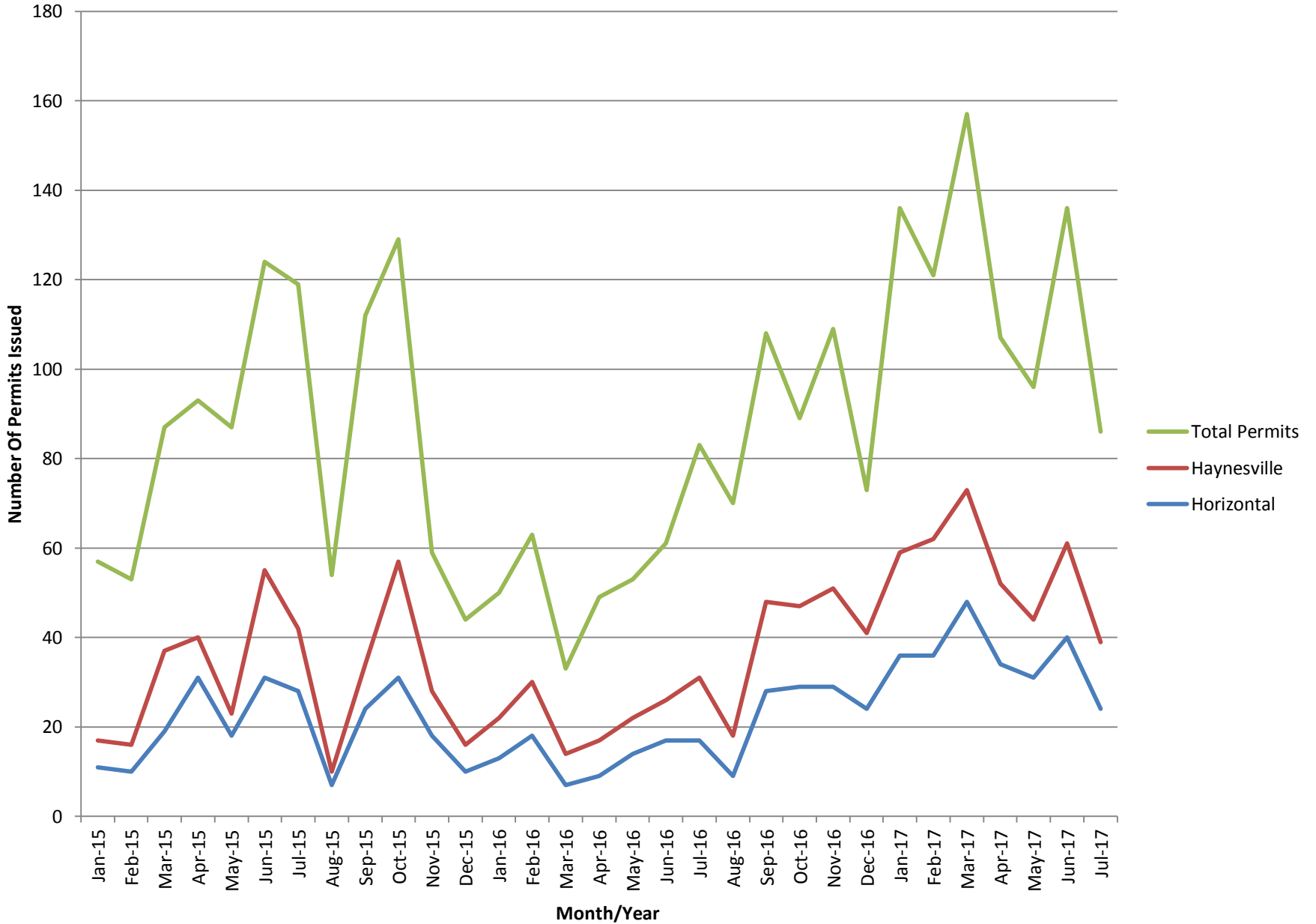
Statewide Hydraulic Fracture Water Usage



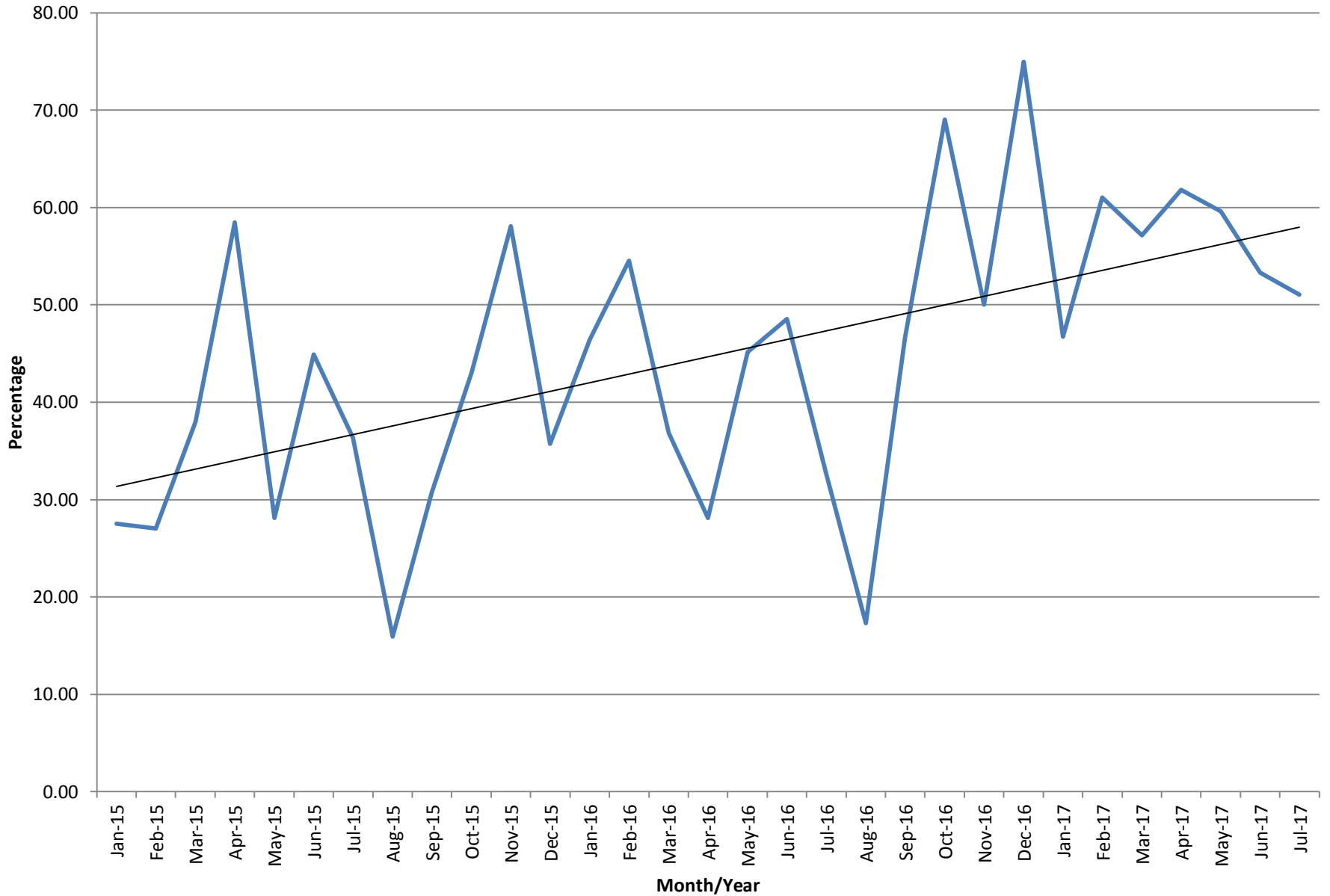
Hydraulic Fracture Water Usage Volume per Well



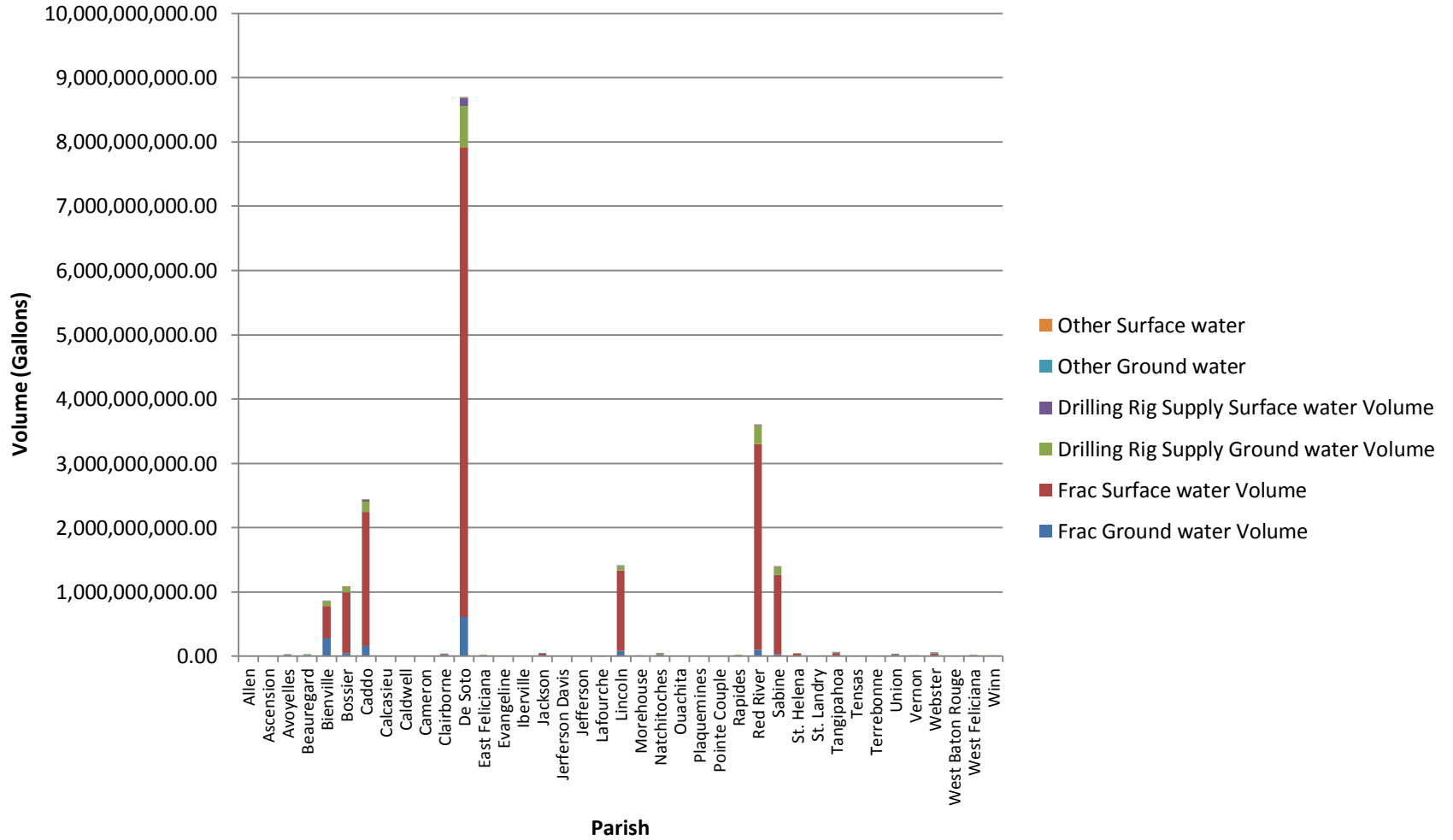
Permits Issued Since January 2015



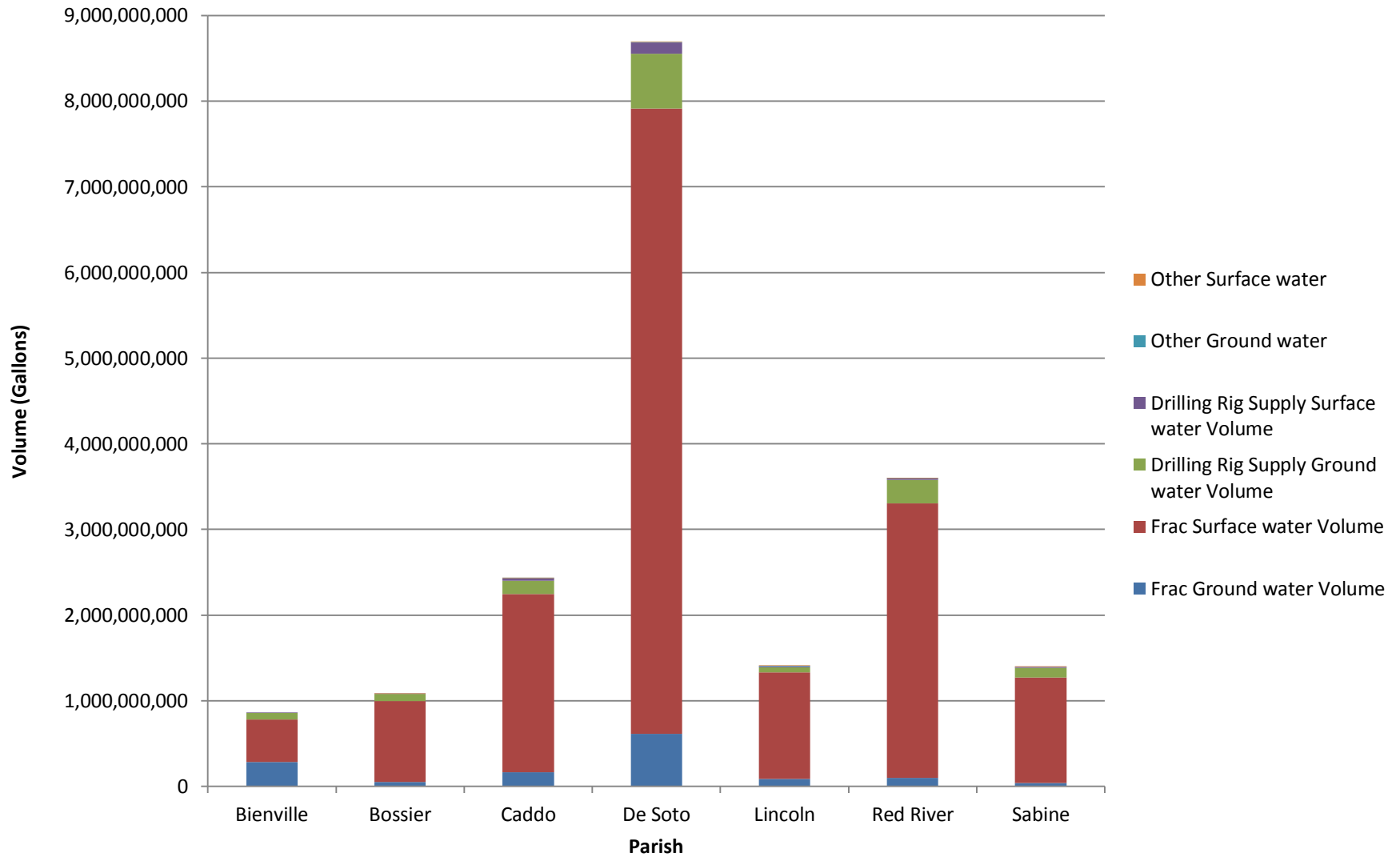
Percent of Permits Specific to Horizontal Drilling



Parish Hydraulic Fracture Water Usage from 10/01/2009 to 08/10/2017



Parish Oil and Gas Water Usage of Major Hydraulic Fracture Stimulation Activity



Parish Oil and Gas Water Usage of Minor Hydraulic Fracture Stimulation Activity

