

# CALIFORNIA GEOLOGICAL SURVEY

## AGGREGATE SUSTAINABILITY IN CALIFORNIA

### Fifty-Year Aggregate Demand Compared to Permitted Aggregate Reserves

By

John P. Clinkenbeard (PG #4731)  
and Fred W. Gius (PG #7788)  
2018

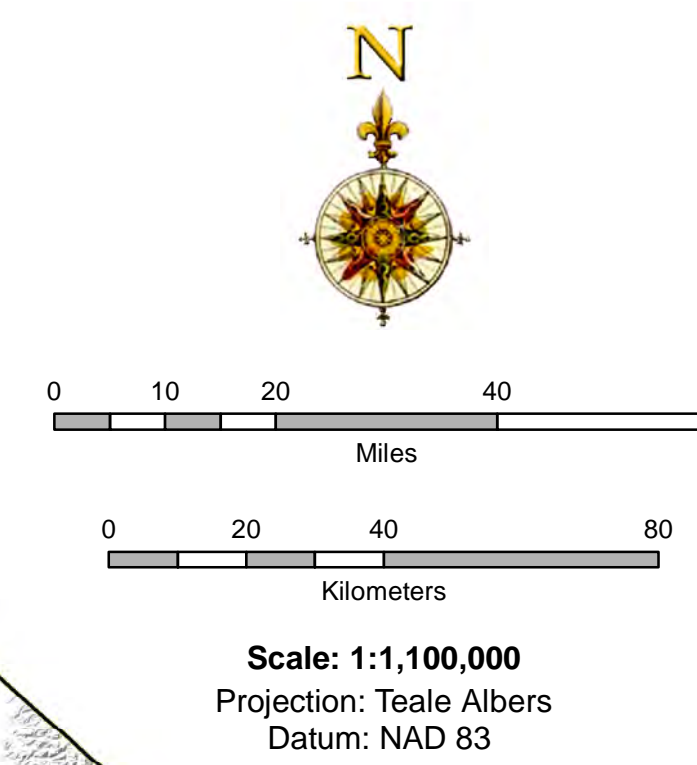
Contributions By:  
Matt O'Neal, Joshua Goodwin  
and Lawrence L. Busch

GIS Design and Map Layout By:  
Milton Fonseca



#### LEGEND

- 50-year demand that will not be met by existing permitted reserves.
  - Permitted aggregate reserves.
  - 50-year demand is < 200 million tons.
  - 50-year demand is > 200 to 500 million tons.
  - 50-year demand is > 500 to 800 million tons.
  - 50-year demand is more than 800 million tons.
- Examples
- 50-year demand for aggregate is 100 million tons; permitted reserves total 25 million tons of the 50-year demand.  
25/100 Million Tons (permitted reserves/ 50-year demand)  
11 to 20 Years (years of permitted reserves remaining)
  - 50-year demand for aggregate is 510 million tons; permitted reserves are greater than or equal to the 50-year demand.  
550/510 Million Tons (permitted reserves/ 50-year demand)  
More Than 50 Years (years of permitted reserves remaining)
- Areas With Short Term Aggregate Supply
- < 10 years of permitted reserves remaining in the study area.
- Aggregate Production Areas  
(Symbols represent one or more aggregate mines, tonnage represents 2016 annual production)
- < 0.5 Million Tons per Year
  - > 0.5 - 1.5 Million Tons per Year
  - > 1.5 - 3 Million Tons per Year
  - > 3 - 5 Million Tons per Year
  - > 5 Million Tons per Year
- Population
- 1 Dot = 100 Persons (based on 2010 Census Data)



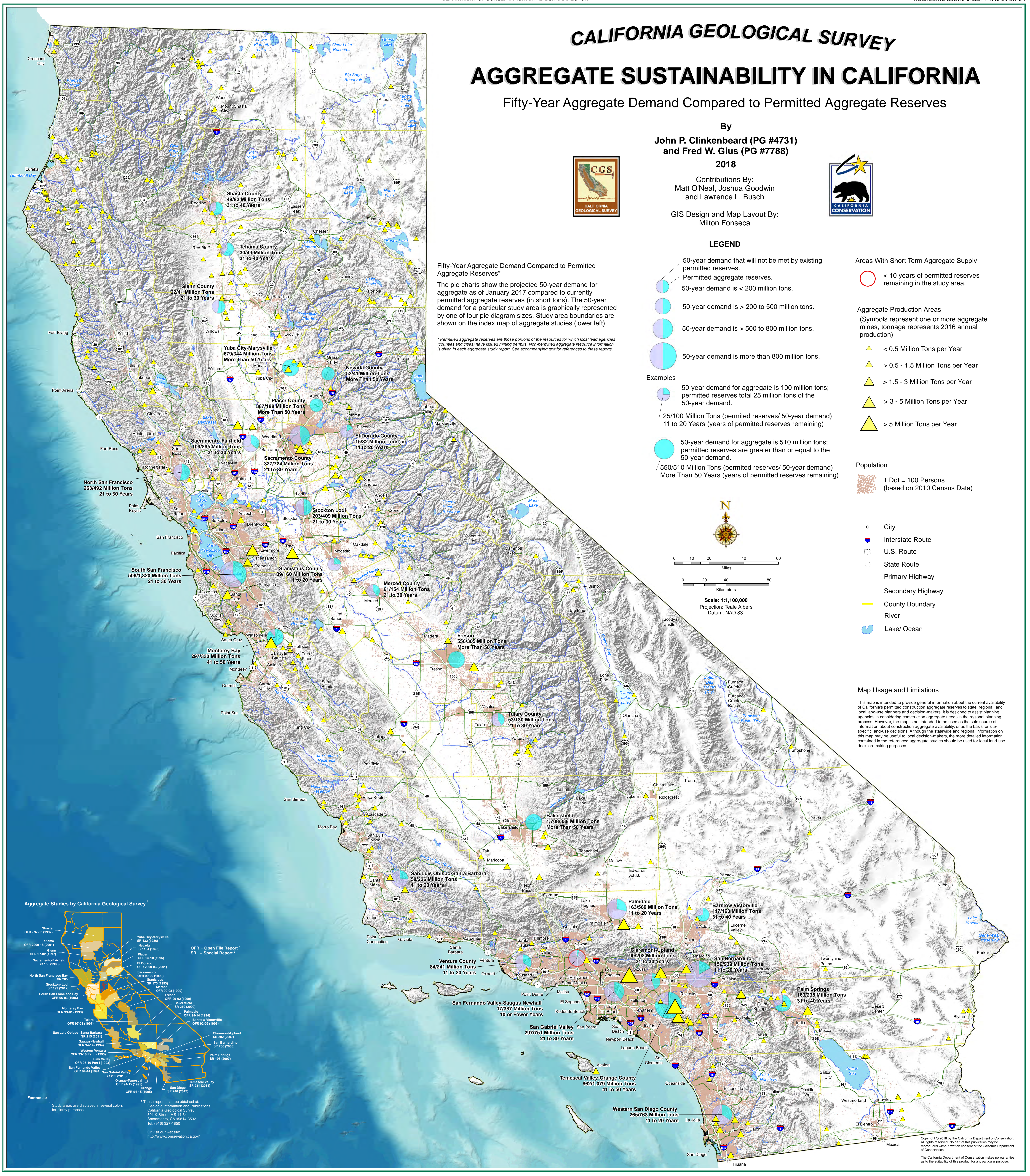
#### Map Usage and Limitations

This map is intended to provide general information about the current availability of California's permitted construction aggregate reserves to state, regional, and local land-use planners and decision-makers. It is designed to assist planning agencies in considering construction aggregate needs in the regional planning process. However, the map is not intended to be used as the sole source of information about construction aggregate availability, or as the basis for site-specific land-use decisions. Although the statewide and regional information on this map may be useful to local decision-makers, the more detailed information contained in the referenced aggregate studies should be used for local land-use decision-making purposes.

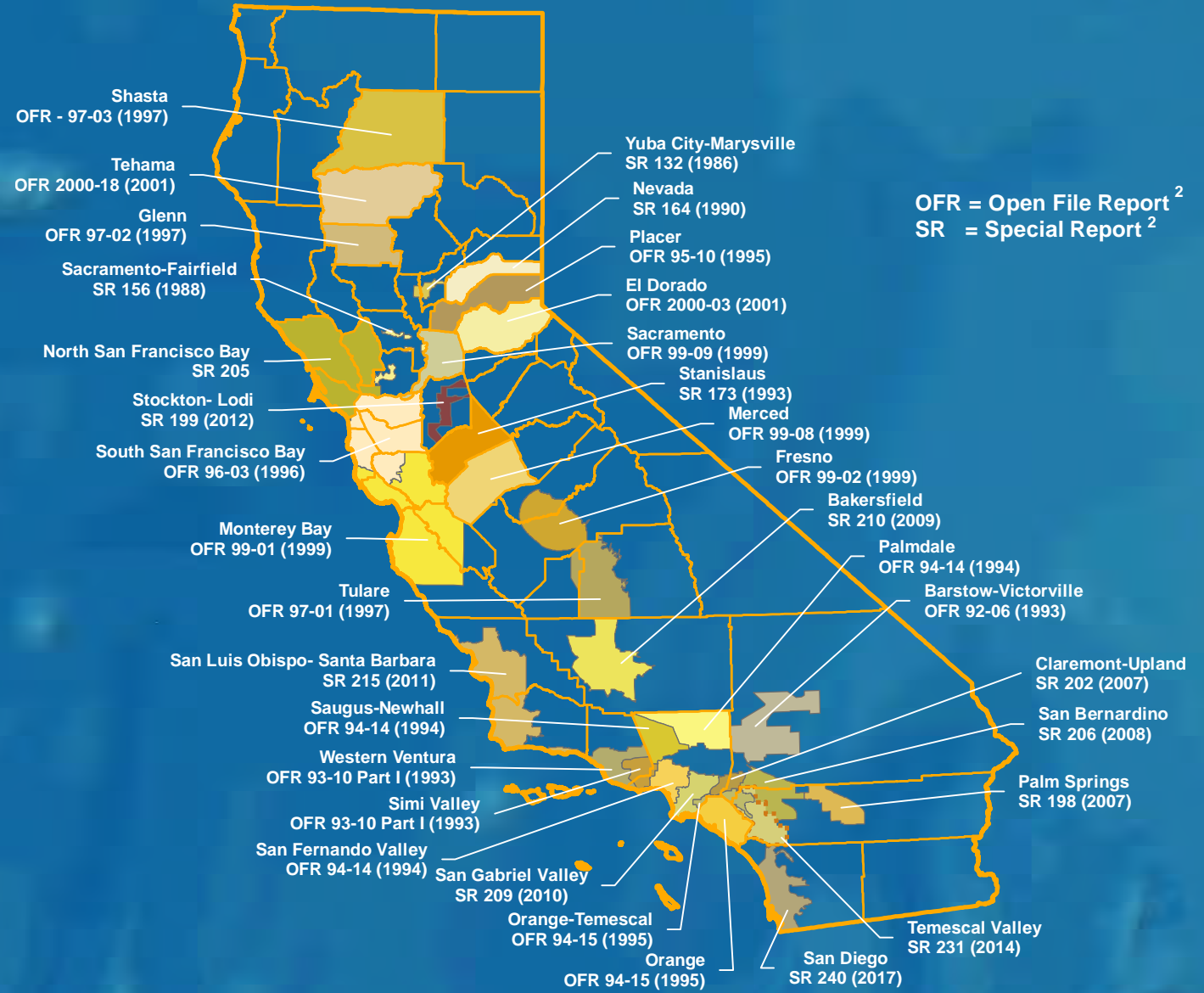
#### Fifty-Year Aggregate Demand Compared to Permitted Aggregate Reserves\*

The pie charts show the projected 50-year demand for aggregate as of January 2017 compared to currently permitted aggregate reserves (in short tons). The 50-year demand for a particular study area is graphically represented by one of four pie diagram sizes. Study area boundaries are shown on the index map of aggregate studies (lower left).

\* Permitted aggregate reserves are those portions of the resources for which local lead agencies (counties and cities) have issued mining permits. Non-permitted aggregate resource information is given in each aggregate study report. See accompanying text for references to these reports.



#### Aggregate Studies by California Geological Survey<sup>1</sup>



<sup>1</sup> Study areas are displayed in several colors for clarity purposes.  
<sup>2</sup> These reports can be obtained at:  
Geologic Information and Publications  
California Geological Survey  
521 K Street, MS 14-234  
Sacramento, CA 95814-3532  
Tel: (916) 327-1850  
Or visit our website:  
<http://www.conservation.ca.gov/>