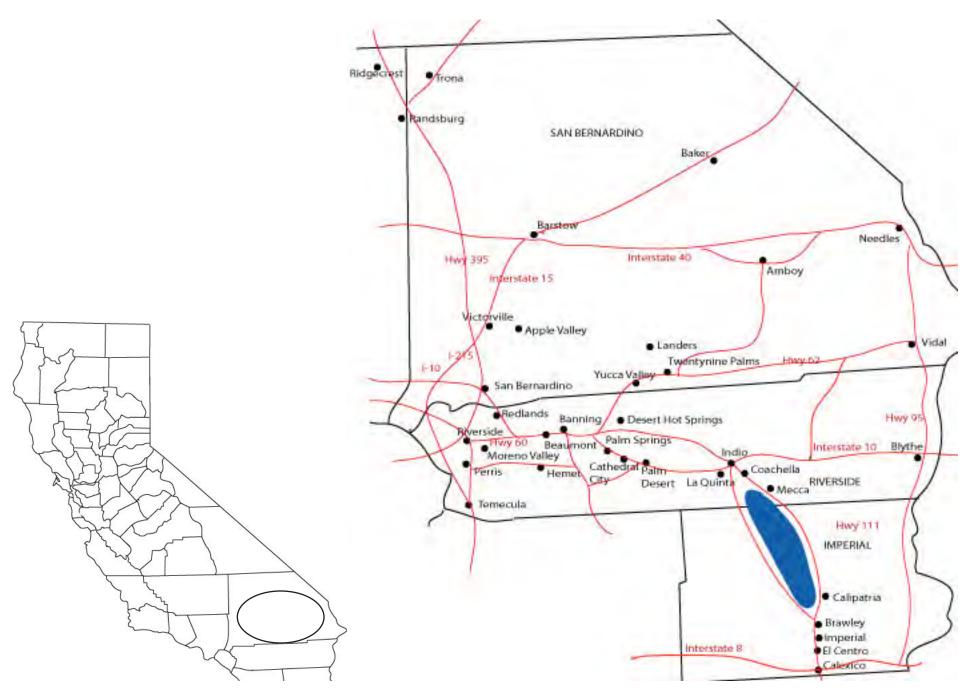
# San Bernardino

The San Bernardino Courthouse. Part 7 of 8: Trona, Trona Pinnacles, Baker, Needles.



#### San Bernardino County

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Trona is on the edge of Searles Lake which is a dry lake. The town was established in 1913 as a company town. It has a population of about 2,700. Trona is a mineral found in the dry lake. (February 2004)



The plant has gone through many changes of ownership. These pictures were taken when it was IMC. Now it is called Searles Valley Minerals. (February 2004)



The major products extracted from the lake are borax, boric acid, soda ash and sodium sulfate. Many of these are major components in glass production. (February 2004)



Many of the houses are boarded up because of contamination. (February 2004)







(February 2004)







One of the interesting extraction methods is to pump water into the lake and let it absorb minerals to form a brine which is then pumped out. (February 2004)







Searles Lake as seen from the high school parking lot. (February 2004)





The school's nickname is the "Tornados." They have no grass on their football field. It is dirt. On game day the field is watered and leveled. Grass does not grow here. They play eight man football. The school has about 120 students and ten teachers. (February 2004)



#### Westend

There are three production facilities along the lake – Westend, Argus and the big plant at Trona. (February 2004)



#### Westend

(February 2004)



#### Westend



These tufa spires are similar to the ones found at Mono Lake but they are much taller – up to 140 feet. There are 500 of them. They are at the south end of Searles Lake. Many movies and ads are filmed here. (June 2010)







Because a movie was being made a truck kept the dust down. (June 2010)







## **Tufa: A Unique Geological Recipe**

#### How Do You Make Tufa Pinnacles?

You can make a tufa pinnacle with this unique geological recipe:

- Travel back 10,000 to 100,000 years.
  Capture snowmelt from the Sierra Nevada as it flows toward Death Valley through a chain of glacial lakes.
- Accumulate highly concentrated carbonated brine in Searles Lake.
- Fracture the bottom of the lake with upsurges from underground hot springs.
- Allow the calcium-rich groundwater to bubble up through the lakebed fissures.

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 Combine the groundwater with the carbonated brine to produce calcium carbonate.

Simmer ingredients over the years to:

- Bond these ordinary calcium carbonate deposits with algae colonies.
- Watch the small hollow tubes grow to become the most spectacular tufa formations in North America!

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#### Results May Vary With Ingredients

Uke any special recipe, the final results vary with the ingredients. Tufa shapes will reflect the size, flow, and chemical composition of the bot springs; the spacing of the springs; the depth of the lake water; and the rate the lake rises and falls



Towers are taking then they are wide and this do to 40 feet. Tombettees are studier, equat and size 20 to 30 feet.

Midges and massive, tracking take rates. Conny, the base three 18 front take

Baker is a stop on I-15 to Las Vegas. (February 2004)



The town is famous for its thermometer. (February 2004)







#### **Needles**

Needles is on Interstate 40 as it crosses the Colorado River into Arizona. It has a population of 4,844. The city was founded in 1883 when the railroad was built across the river. (February 2005)



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The Harvey Hotel was in the process of being restored in 2005. The El Garces Hotel was built in 1908. It was considered the best of the Harvey Hotels. (February 2005)











Needles is in the middle of the Mojave Desert. The average temperature is 74.2 but the hottest temperature was 125 in 2005. However the most unusual weather event took place this year. On August 13 rain fell that was 115 degrees hot. The air temperature was 118 degrees. The humidity was only 11% so the rain evaporated almost instantly. This is the only recorded instance when rain has fallen with such low humidity in recorded history on earth. (February 2005)





(February 2005)



The theatre has improved over the years. (April 2009)









(February 2005)







