

AIR POLLUTION – LOS ANGELES, CALIFORNIA STYLE!®

by Dan Pemble, Kissimmee, Florida – June 29, 2024

Long before the words “climate change and global warming” came into play, there was indeed a recognition that varying degrees of visible atmospheric pollution were occurring in many areas of the USA and at other world locations and efforts were being made to mitigate the problem..



Typical Pollution as Seen in the Los Angeles, California Area!

During 1968-1978, I resided in the Los Angeles, California area and during this entire 10-year period, I lived in the polluted environment as shown in the above photo! Such pollution was widely-described as “smog” and was the result of pollutants trapped between the Pacific Ocean to the west and the San Gabriel mountains to the east of Los Angeles. Actually warmer upper atmospheric temperatures versus the relatively cooler surface temperatures brought about by mild ocean wind & moisture (“marine layer”) is what causes the pollutants to be trapped. The main components of photochemical smog, the hazy air pollution that can blanket Los Angeles and other urban areas, are ground-level ozone and particulate matter. To learn more about the causes and contents of smog, please see the following link: <https://scienceexchange.caltech.edu/topics/sustainability/what-causes-smog>

During the time I lived in the Los Angeles area, due to its extremely-populous/dense urban sprawl and the lack of any meaningful public transportation offerings, inhabitants depended exclusively on their own private cars and trucks for their transportation needs; in fact, many residents even owned more than 1 vehicle. Consequently and amazingly, Los Angeles County alone had more total cars and trucks than any state in the USA! The emissions from all these vehicles were a primary contributor to Los Angeles’ air pollution! To mitigate this, the state of California implemented mandates for all vehicles to be modified to reduce their harmful emissions; subsequently, each modified vehicle had to be certified annually as being in continuing-compliance with anti-smog measures.

“Santa Ana Winds”

Typically, the west-to-east winds in the Los Angeles area come from the immediately adjacent Pacific Ocean. However, several times a year strong winds from the desert east of Los Angeles and east of the San Gabriel mountains known as “Santa Ana Winds” transpire. These east-to-west winds overpower the normally-prevailing west-to-east ocean winds. The net result is that the smog is blown out to sea and the Los Angeles area is transformed into a clear-air scenic wonderland, a very welcome sight!



A Transformed Los Angeles Due to “Santa Ana Winds”!

Unfortunately, the Santa Ana Winds are short lived and when they are gone, the Los Angeles area is once again transformed into a smog-laden city.

Today, the Los Angeles area smog has been significantly reduced, but will persist for many years to come.

As I believe is relevant to this air pollution discussion, during 1992-1998 my wife and I resided in Sweden and Norway. It is an actual fact that during our frequent walks at these locations, the air that we breathed was so clean and pure that we became “light-headed”!

We all need to be mindful about the air around us and do what we can to minimize pollution.