



San Joaquin Valley Air Pollution: What your doctor wants you to know

Fresno Madera Medical Society





Your doctor wants you
to know...

Our Valley's air
pollution greatly
impacts our health.
We must make
lifestyle changes for
the sake of ourselves
and our children.

-Don Gaede, M.D.

What is air pollution?



Air pollution is simply anything that is in the air that shouldn't be, and that causes harm to human health.

In the San Joaquin Valley...

...there are

2

major pollutants
that **dirty** our **air**
and **hurt** our
health.

OZONE



Volatile Organic Compounds (VOC)

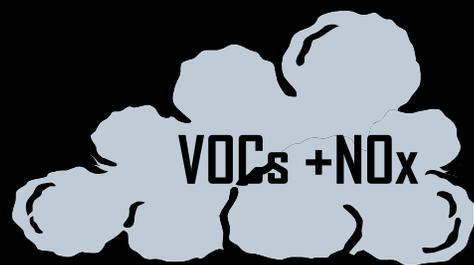
- Cars, Cows, Pesticides, Consumer Products, etc.



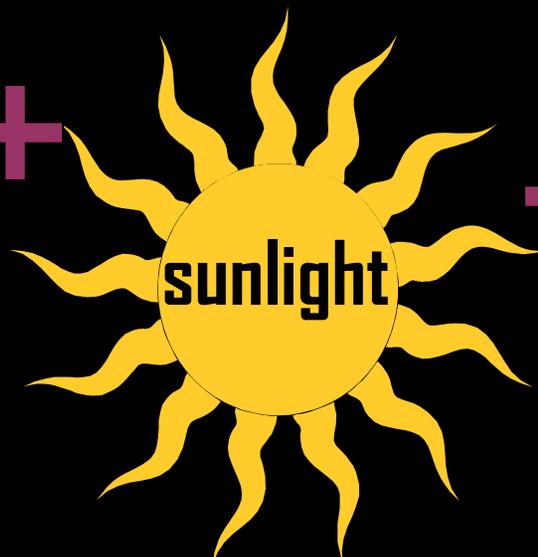
Nitrogen Oxides (NO_x)

- auto/diesel exhaust
- any combustion source

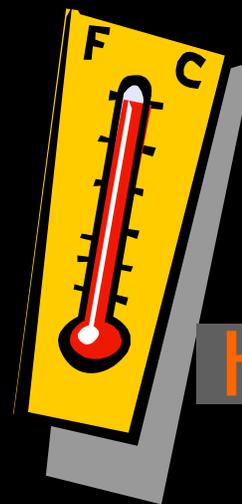




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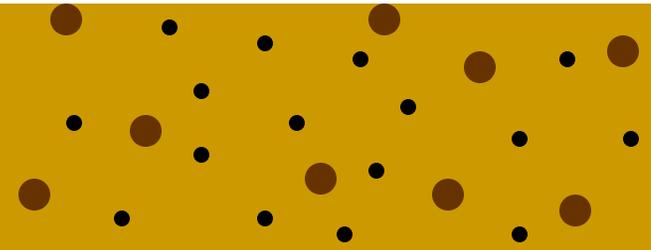
heat

=

OZONE



Small Particles



Diesel (fumes and exhaust)

Auto Exhaust

Fireplaces

Dust

Pollen

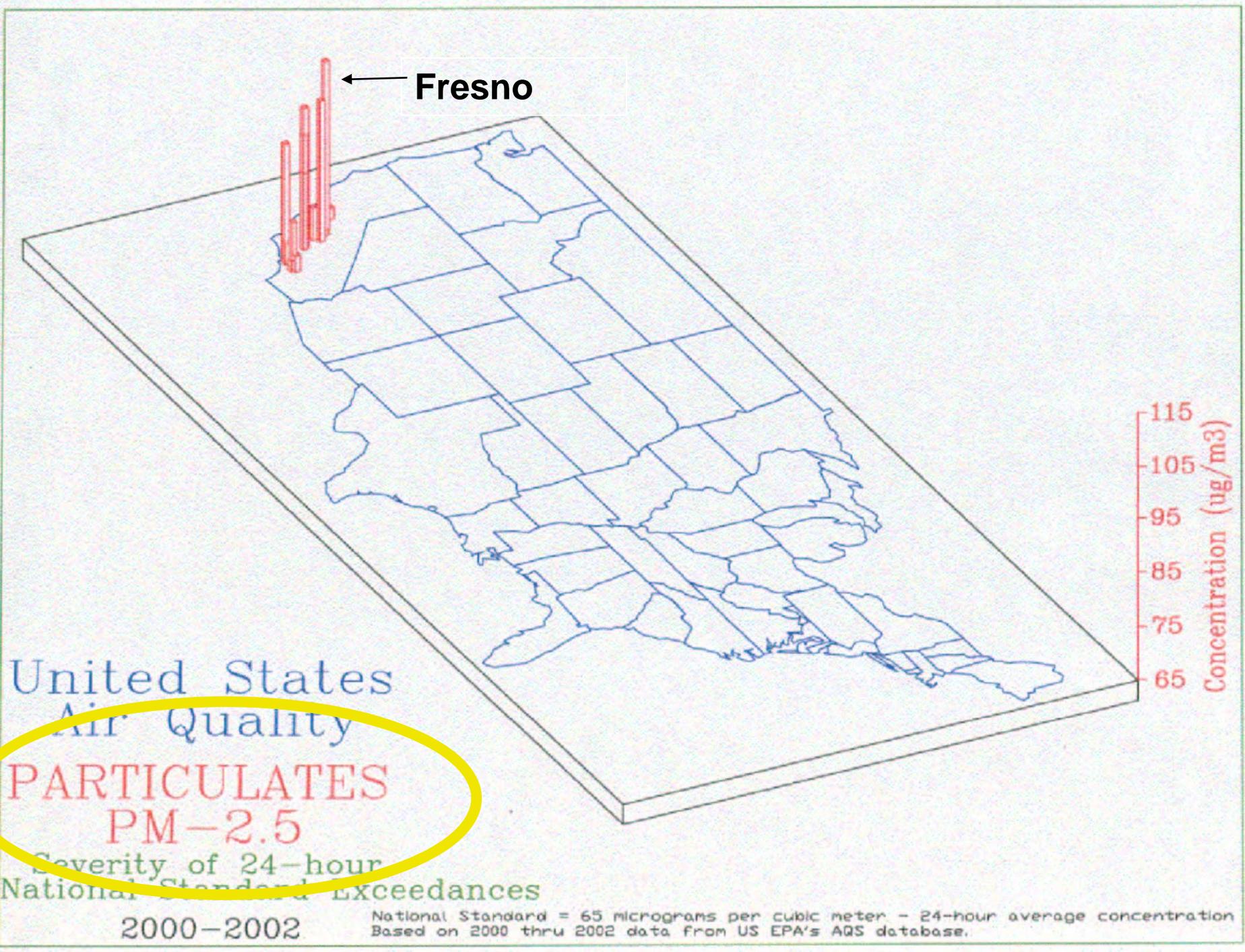
Pesticides

Both Indoor and Outdoor

Federal Air Pollution Standards & the Valley

Standard	Achieved	Not Achieved
Ozone (8 Hour)		✓
PM 10		✓
PM 2.5		✓

Here's how we look compared to other states in the nation...



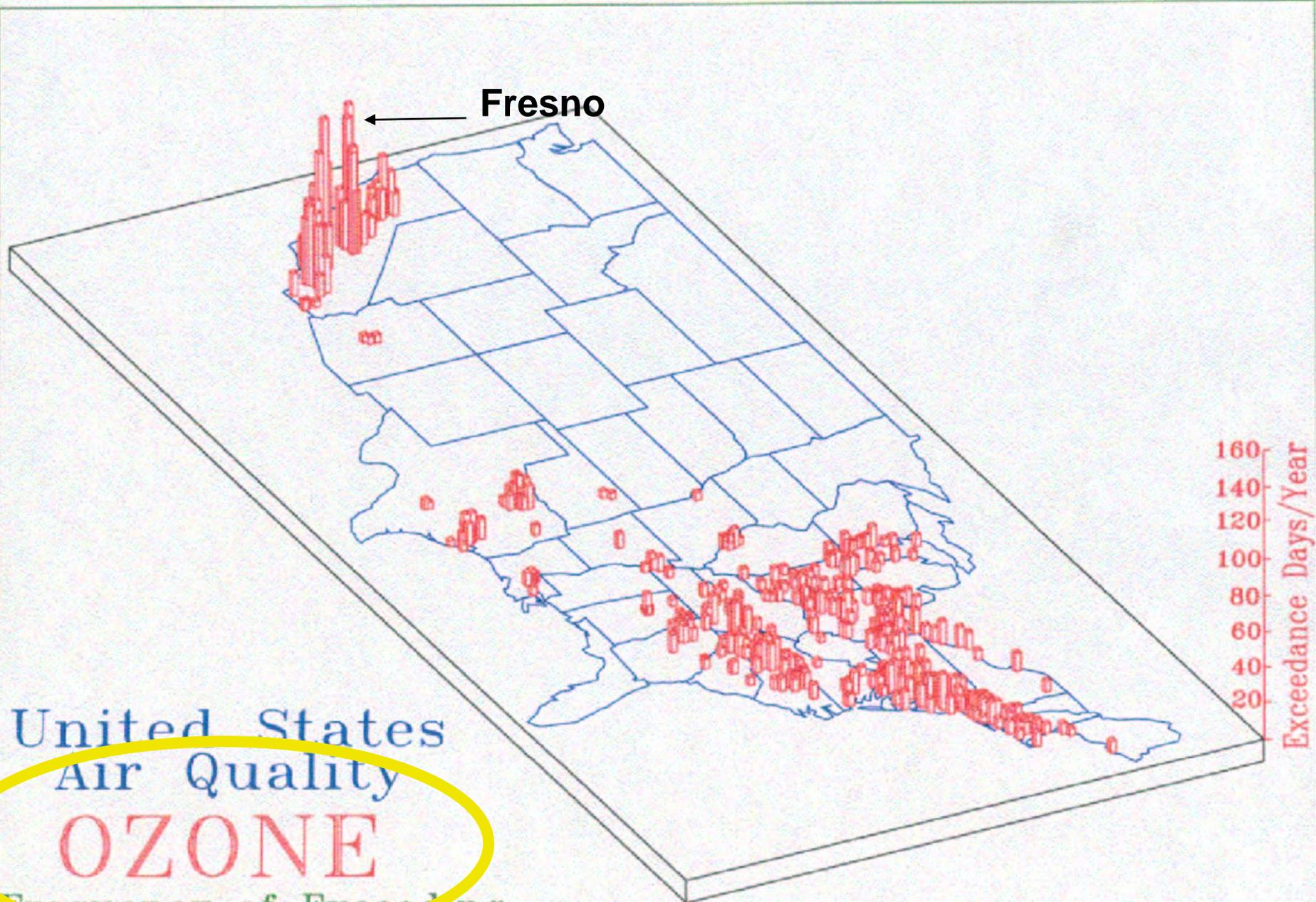
United States
Air Quality

**PARTICULATES
PM-2.5**

Severity of 24-hour
National Standard Exceedances

2000-2002

National Standard = 65 micrograms per cubic meter - 24-hour average concentration
Based on 2000 thru 2002 data from US EPA's AQS database.



Fresno

160
140
120
100
80
60
40
20
Exceedance Days/Year

United States
Air Quality

OZONE

Frequency of Exceeding
the 8-hour National Standard
2000-2002

Standard = 0.08ppm - 8 hour average concentration
Only sites not meeting the standard (40CFR 50.10) are shown
Based on 2000 thru 2002 data from US EPA's AQS database.

A satellite image of the Himalayan region, showing the mountain ranges, valleys, and surrounding areas. The text is overlaid on the right side of the image. There are two small red squares on the image: one near the text and another further down in the mountain range.

**Why such
high
levels of
ozone
and
particulate
pollution?**

Your Doctor
wants you to
know...

Air pollution can
exacerbate
preexisting
conditions and
can create new
ones.

-Michael V. De Lollis, M.D.



How your heart is affected

Inflammation

*Increased risk
of dying of
heart attack*



Spasm of heart
arteries

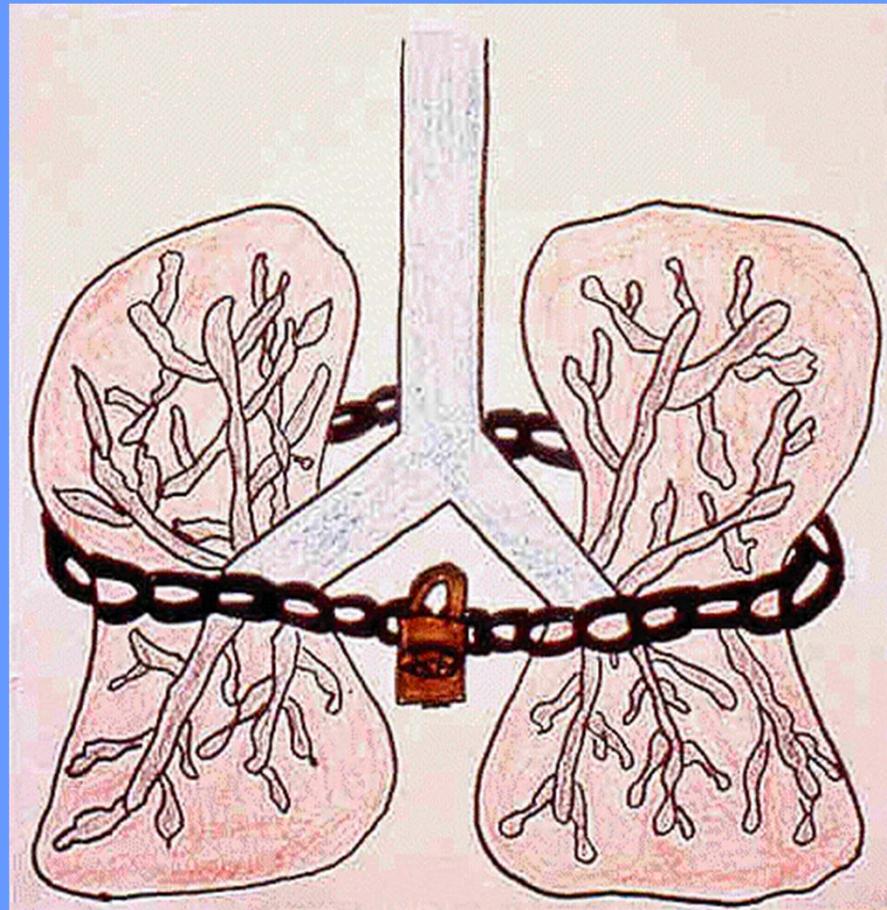
Abnormal
heart
rhythms

Worsens chronic conditions even when they have been
controlled

How your lungs are affected

Stunts lung growth in children

Inflames airways of adults and children



Decreases lung function,
Chronic Bronchitis in adults

Increased coughing and wheezing

Worsens asthma & emphysema

The High Cost of Air Pollution

23,000
asthma
attacks
a year



The High Cost of Air Pollution



3,000 missed work days

The High Cost of Air Pollution



188,000

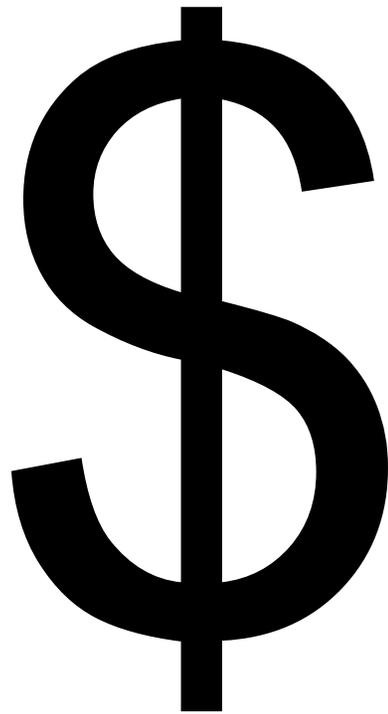
missed school days

every year ¹⁷

The High Cost Of Air Pollution

460
Premature Deaths
every year
in the Valley





3.2

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

BILLION

ANNUALLY

SAN JOAQUIN VALLEY

\$3.2 billion (annually)

+

Human suffering

+

People leaving Valley

+

Businesses not locating here

+

Impact on healthcare capacity

\$

IMMEASURABLE



Those most affected

Our Children



Your Doctor
wants you to
know...

We can all be
part of the
solution for
better health.

-David Slater, M.D.

What can I do to protect myself and my family?

Winter -
(High Particulates)

Exercise during the day,
not morning or evening

Summer - (High Ozone)

Exercise early morning or
after sundown



AQI: Air Quality Index

50	moderate	sensitive affected
100	unhealthy	normal kids affected, not adults
150	unhealthy	
200	very unhealthy	everyone has symptoms
300	hazardous	everyone stay indoors

What can we do for Healthier Air?

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Maintain your
car regularly





Use a push
mower or
electric
mower in the
yard

For lunch, try
walking to
the nearest
restaurant
instead of
driving





Park your car one
day a week.

Call the Air District
when you see a
gross polluter.
(1-800-5599-AIR)

Promote city choices that are bike & transit friendly



Would you rather spend
time...



Here?



Or...

Here?



Ask City planners for:
Walkable communities
Restricted Sprawl
Parks & Transit options



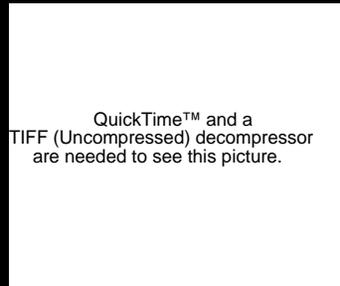
Let Your Voice Be Heard

Call, write, email, fax, show up:



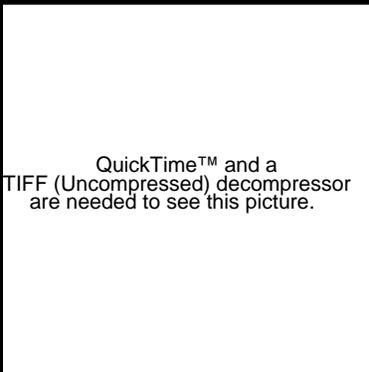
San Joaquin Valley Air Pollution Control District

www.valleyair.org 230-6000 230-6061 FAX



County of Madera

www.madera-county.com 675-7703 673-3302 FAX



City of Madera

www.cityofmadera.org 661-5400 674-2972 FAX

Websites

- www.calcleanair.org
 - Central Valley Air Quality Coalition
- www.healthandcleanair.org
 - California Air Resources Board
- www.wri.org
 - World Resource Institute for Study of Health and the Environment
- www.healtheffects.org
 - Health Effects Institute USA