# EAST COACHELLA VALLEY: OZONE POLICY

## EXECUTIVE SUMMARY

Air quality in the East Coachella Valley is primarily affected by ozone levels. While there are also issues around particulate matter, ozone is the most abundant air contaminant in the East Coachella Valley.

## GROUND-LEVEL OZONE:

- A component of smog produced when nitrogen oxides (NOx) combine with volatile organic compounds (VOCs) and "cook" in the summer heat.
- Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOx and VOCs.
- Ozone at ground level is a pollutant that affects our lung health.

## COACHELLA VALLEY OZONE LEVELS

- Exceed federal ozone standard
- Classified as "serious" ozone non-attainment area
- Little of this is from local emissions
- Drifts in from South Coast Air Basin

## THE HEALTH EFFECTS OF OZONE

Ozone pollution penetrates deep into the lungs irritating mucous membranes in the respiratory system.

Some health effects include:

- increased asthma attacks
- inflamed and damaged lungs
- increased susceptibility to respiratory infection

Sensitive populations should stay indoors when ozone levels rise. These sensitive groups include the elderly, children, those with chronic bronchitis, emphysema, and asthma. Even people who work outdoors are susceptible to effects of elevated levels of ozone.

## OZONE EFFECTS ON THE ENVIRONMENT

Ground-level ozone interferes with the ability of plants to produce and store food as ozone is absorbed by plant leaves. This compromises the growth, reproduction, and overall health of the plant. Also, weakened vegetation is more susceptible to disease, pests, and environmental stresses. Ground-level ozone has also been shown to reduce agricultural yields.

## POLICIES FOR REDUCING OZONE

A recent study released by the National Oceanic and Atmospheric Agency revealed that air pollutant levels in Los Angeles have decreased over the past fifty years by approximately 98%.[i] This change is attributed directly to reductions in vehicle emissions.

Policies that reduce greenhouse gas emissions will reduce ozone.

- Support higher standards for clean vehicles both regionally and nationally
- Local public transportation should consist solely of low emission vehicles
- Increase local representation on South Coast Air Quality Management Board
- Support for a tightened ozone standard to protect agricultural production

## POLICY DISCUSSION

### POLICY PROPOSALS

Enacting local policies to directly reduce ozone emissions will reduce ozone generated locally. Supporting regional and national air quality standards improvement for vehicles will improve air quality overall. Creating activism around low emission public transportation may change local practices. The current representative for the ECV on the air quality management board is John Benoit. Make sure he knows the needs of local residents. Elevated levels of ozone are detrimental to agricultural crops which are an economic driver in California. By creating a secondary, more stringent, ozone standard for protection of agricultural production, community residents will also benefit.

### POLICY OBSTACLES

Ozone levels from the Los Angeles Basin are difficult to manage and small regions working with larger ones are at a disadvantage. Ozone in the East Coachella Valley is not primarily produced in situ. As a result, efforts to reduce locally produced greenhouse gases may not result in measureable changes. Setting standards can have a positive effect on air quality but enforcement remains problematic. Funding for mitigation from a newly built power plant has been earmarked for local non-profits but the effects of mitigation will not reduce air pollution.

[i] http://www.noaanews.noaa.gov/stories2012/20120809_laairqualitystudy.html

CALIFORNIA INSTITUTE FOR RURAL STUDIES with funding from The California Endowment