

		CPP	DSP	AEG	notes
land allocation in square feet	total square footage of the baylands	31,929,480	31,929,480	31,929,480	Default 31929480 square feet
	total square footage of open space (lagoon)	5,924,160	5,924,160	5,924,160	Default 5924160 square feet
	total square footage of open space (parkland 25%)	7,982,370	7,982,370	7,982,370	Default 7982370 square feet
	total square footage available for development	18,022,950	18,022,950	18,022,950	
	square footage of development	7,900,000	12,000,000	971,200	<===== variable set by user. DSP is 12 million, CPP is 7.9 million, AEG is 971,200. Aprox max build under general plan is 1445836
	unallocated square footage	10,122,950	6,022,950	17,051,750	undeveloped land not dedicated to open space or lagoon
Carbon footprint per square foot calculations for construction & operation	CO2e per square footage of construction 20 year amm	0.0014427	0.0014427	0.0014427	based on construction carbon calculator. DEIR estimate is aprox.1/7.
	CO2e allocated to transporation (DEIR)	0.0085129	0.00328808	0.0085129 *	
	CO2e allocated to electricity consumption	0.00100966	0.00100966	0.00100966	
	CO2e allocated to NG consumption	0.00083908	0.00083908	0.00083908	All these numbers are taken from the DEIR and divided by squarefootage to get an aproximation of CO2e per square footage. *Note that the transportation allocation is double for non-housing projects. # DEIR make no estimate of food & consumer goods, both large sources of emission.
	CO2e allocated to solid waste	0.00222858	0.00222858	0.00222858	
	CO2e allocated to other	0.00011317	0.00011317	0.00011317	
	CO2e allocated to food, consumer goods	0	0	0 #	
	total carbon footprint of uses	111,754.11	107,055.24	13,738.68	
pv calculations	embedded CO2e/kwh (1/20)	46 grams	46 grams	46 grams	embodied CO2e of pannel itself. Not allocated in this version
	negative CO2e per square foot of PV in metric tons	0.00253621	0.00253621	0.00253621	PV .00253621 per DEIR. Molten Salt ~.015483 per Inhabit.com
	square footage of PV	1,089,000	1,089,000	7,405,200	<===== variable set by user. Alternative energy plan 7405200 DSP & CPP 1089000,
	total generation of negative CO2e	2,761.93	2,761.93	18,781.14	
population calculations	total population living & working on bayland	16,191	27,428	2,050	<===== variable set by user. DSP is 27428, CPP is 16191, AEG ?2050?
	service poplation per square footage of development	0.002049494	0.002285667	0.002110791	DEIR population density is ~0.0020
	CO2e allowance per person per year in metic tons	4.59	4.59	4.59	<===== World target is 2 metric tons of CO2e/person-year. BAAQMAD/DEIR is 4.6
	total carbon allowance for service population	74,316.69	125,894.52	9,409.50	
other options	US101 emissions allocated to Baylands project	64,000	64,000	64,000	Default 64000.State requires the city of Brisbane to address US101 emission but not in DEIR. The baylands are at
	additional mitigation measures	0	0	0	<===== variable set by user. See DEIR 4.F-22 for list. However no values are assigned.
	housing/transportation credit as per DEIR	0	62,698	0	<===== Housing/Transportation credit for mixed use (DSP). Zero for CPP & AEG
Total GHG output	sustainability = 0 or less	98,675.49	105,096.63	49,548.04	
	sustainability including mitigation & housing credits	98,675.49	42,398.79	49,548.04	

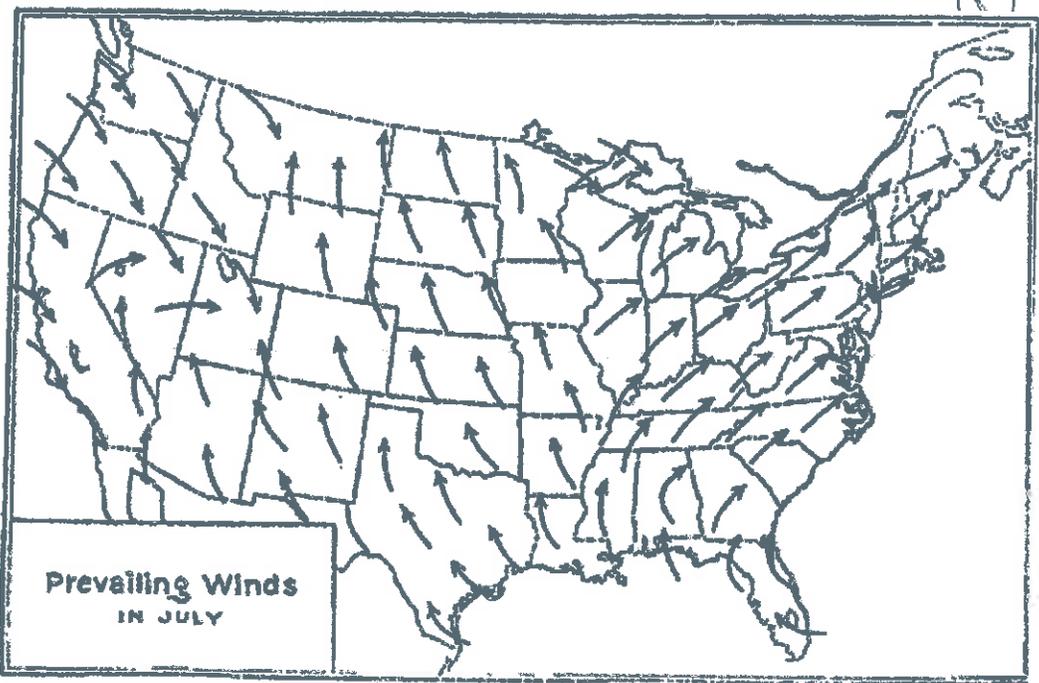
Results
49527 metric tons CO2e for AEG
104822/42124 DSP without/with housing credit
98513 metric tons CO2e for CPP w/170 acres of PV.

acre to square footage calculator
1 acres = square footage 43560
square footage to acre calculator
20000 square foot = acres 0.459147363



CALIFORNIA FARM TO SCHOOL NETWORK

Regions and Regional Leads



<http://www.epa.gov/region07/air/quality/o3health.htm>

How does Ground-Level Ozone Harm the Environment?

- Ground-level ozone interferes with the ability of plants to produce and store food, so that growth, reproduction and overall plant health are compromised.
- By weakening sensitive vegetation, ozone makes plants more susceptible to disease, pests, and environmental stresses.
- Ground-level ozone has been shown to reduce agricultural yields for many economically important crops (e.g., soybeans, kidney beans, wheat, cotton).
- The effects of ground-level ozone on long-lived species such as trees are believed to add up over many years so that whole forests or ecosystems can be affected. For example, ozone can adversely impact ecological functions such as water movement, mineral nutrient cycling, and habitats for various animal and plant species.
- Ground-level ozone can kill or damage leaves so that they fall off the plants too soon or become spotted or brown. These effects can significantly decrease the natural beauty of an area, such as in national parks and recreation areas.
- One of the key components of ozone, nitrogen oxides, contributes to fish kills and algae blooms in sensitive waterways, such as the Chesapeake Bay.

<http://www.mnn.com/health/fitness-well-being/stories/ozone-health-and-environmental-effects>

Ground-level ozone also damages vegetation and ecosystems. In the United States alone, ozone is responsible for an estimated \$500 million in reduced crop production each year.

Repeated exposure may permanently scar lung tissue.

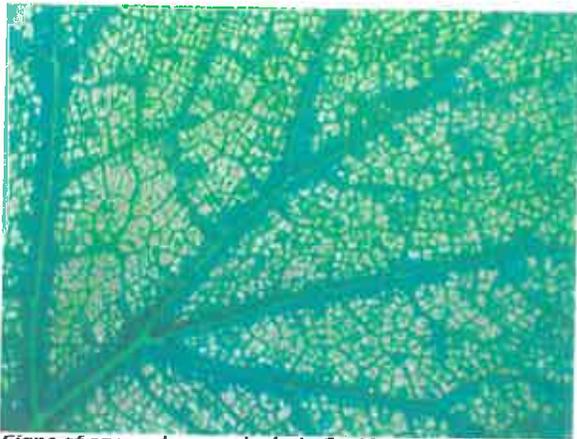
<http://www.iowadnr.gov/Environment/AirQuality/CommonAirPollutants/Ozone/GroundlevelOzoneEffects.aspx>

Environmental Effects

Ozone damages vegetation and ecosystems by inhibiting the ability of plants to open the microscopic pores on their leaves to breathe. It

interferes with the photosynthesis process by reducing the amount of carbon dioxide the plants can process and release as oxygen.

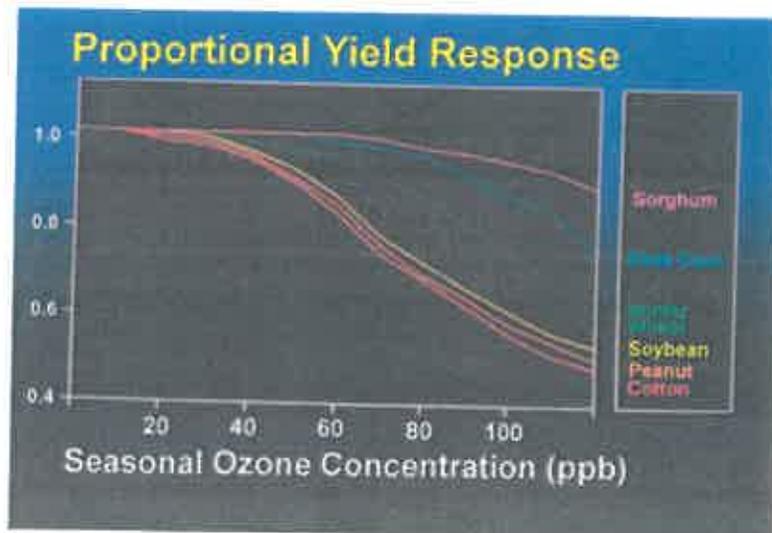
Elevated levels of ozone leads to reduced agricultural crop and commercial forest yields, reduced growth and survivability of tree seedlings, and increased susceptibility to diseases, pests and other stresses such as harsh weather.



Signs of ozone damage include flecking, stippling, bronzing and reddening on plant leaves. Photo courtesy of USDA

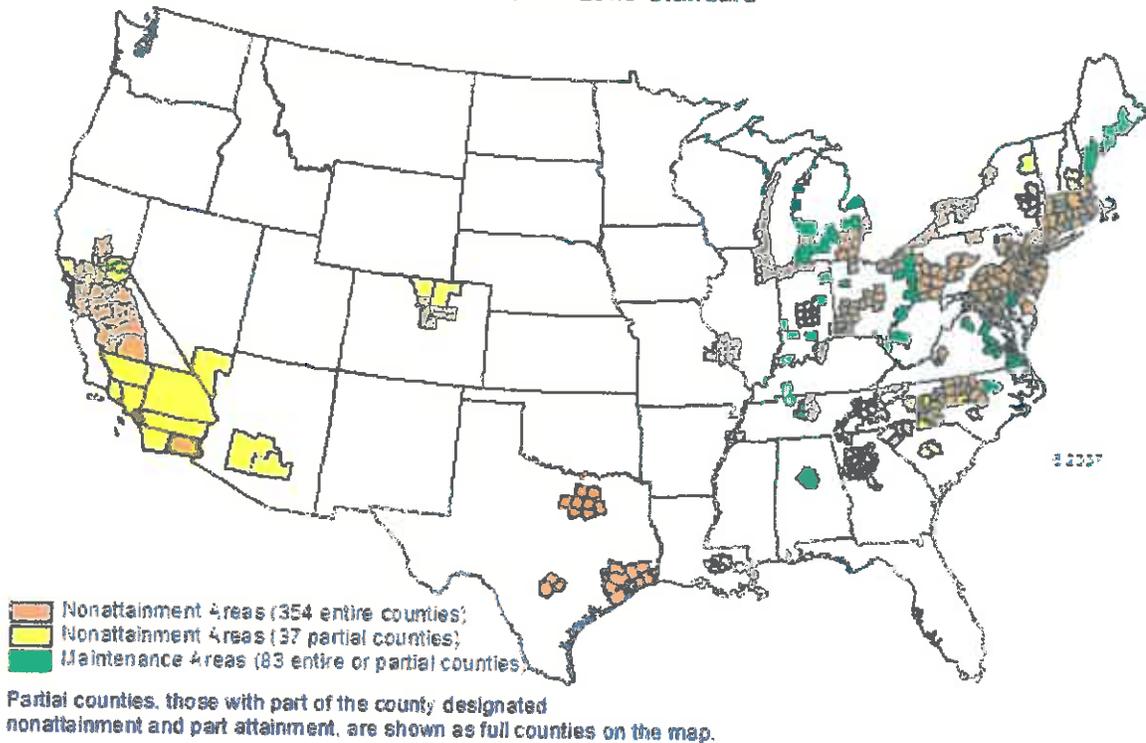
Yield Loss Caused by Ozone

Dicot species, such a soybean, cotton and peanut, are more sensitive to yield loss caused by ozone than monocot species such as sorghum, field corn and winter wheat. The USDA provides [additional information on the effects of ozone air pollution on plants](#).



<http://en.wikipedia.org/wiki/File:US-ozone-non-attainment-2007-06.png>

**Nonattainment and Maintenance Areas in the U. S.
8-hour Ozone Standard**



<http://www.arb.ca.gov/research/aaqs/caaqs/ozone/ozone-fs.pdf>

Ozone's Effect on Materials

Ozone can cause substantial damage to a variety of materials such as rubber, plastics, fabrics, paint and metals. Exposure to ozone progressively damages both the functional and aesthetic qualities of materials and products, and shortens their life spans. Damage from ozone exposure can result in significant economic losses as a result of the increased costs of maintenance, upkeep and replacement of these materials