

# GROWING A HEALTHIER COMMUNITY

## KEY TREES – LAS CRUCES



**LACEBARK ELM**  
*Ulmus parvifolia*  
height 40'-60'  
canopy 35'-40'



**TEXAS HONEY MESQUITE**  
*Prosopis spp*  
height 12'-20'  
canopy 35'-45'



**CHINQUAPIN OAK**  
*Quercus muehlenbergii*  
height 35'-70'  
canopy 30'-50'



**BURR OAK**  
*Quercus macrocarpa*  
height 35'-70'  
canopy 60'-80'



**TEXAS RED OAK**  
*Quercus buckleyi*  
height 45'-55'  
canopy 40'-60'



**MEXICAN WHITE OAK**  
*Quercus polymorpha*  
height 60'-80'  
canopy 40'-60'



**CHINESE PISTACHE**  
*Pistacia chinensis*  
height 45'-65'  
canopy 35'-45'



**WESTERN SOAPBERRY**  
*Sapindus saponaria var. drummondii*  
height 30'-50'  
canopy 30'-40'



**AFGHAN / ITALIAN STONE PINE**  
*Pinus eldarica/ Pinus pinea*  
height 40'-70'  
canopy 25'-30'



**ALLIGATOR JUNIPER**  
*Juniperus deppeana*  
height 50'-80'  
canopy 75'-85'

**Total Annual Value in Urban Tree Benefits: \$1 million/year**

Combined values for annual benefits provided for pollution removal, carbon sequestration, carbon avoidance, energy savings, and storm water avoidance.

**Total Structural Value in Urban Trees: \$2.05 million**

Structural Value is the standing value of each tree plus the carbon it stores.

## SUMMARY OF KEY FINDINGS



### Key Highlights

#### POLLUTION REMOVAL

Trees within the City of Las Cruces remove 92 tons of air pollution annually, a service valued at \$235,000/year. Trees are most effective at reducing ozone and particulate. These pollutants are of special concern to Las Cruces because they occur at levels that exceed EPA air quality standards.

#### AIR QUALITY

The City of Las Cruces urban tree population stores 17,800 tons of carbon and removes 1,580 tons of carbon from our air each year (valued at \$112,000 annually). Las Cruces trees remove enough carbon to offset emissions from 900 cars per year.

#### STORMWATER RUNOFF

Las Cruces urban trees reduce stormwater runoff by 898,000 cubic feet per year, helping to stop pollutants like oil, antifreeze, detergents, and pesticides from washing untreated into the Rio Grande.

#### ENERGY USE

It is estimated in the City of Las Cruces that trees reduce energy-related costs from residential buildings by \$563,000/year.

#### SHADE

Trees in Las Cruces account for 3.7% of shade within the city – equivalent to 5 million umbrellas.

## Project DESERT CANOPY LAS CRUCES

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Produced in cooperation with the USDA Forest Service, which is an equal opportunity service provider and employer

DATA	LAS CRUCES
Number of Trees	257,000
Project Study Area	44.0 sq mi (114 sq km) 28,171 acres
City Land Area	76 sq mi (197 sq km) 48,640 acres
Number of Species Sampled	36
Tree Cover	3.7% - 9.1 trees/acre
Most Common Species	Desert Willow 18.0% Italian Cypress 15.8% Afghan Pine 11.8%
Percentage of Trees less than 6" DBH* DBH is the diameter at 4.5 feet above ground	64.3%
 Pollution Removal	92 tons/year (\$235 thousand/year)
 Carbon Sequestration	1,580 tons/year (\$112 thousand/year)
 Carbon Storage	17,800 tons/year (\$1.26 million/year)
 Avoided Carbon Emissions	\$75 thousand/year
 Oxygen Production	3,290 tons/year
 Building Energy Savings	\$563 thousand/year
 Avoided Stormwater Runoff	898,000 cu ft (\$59.8 thousand/year)
 Replacement Values	\$205 million (\$798/tree)

