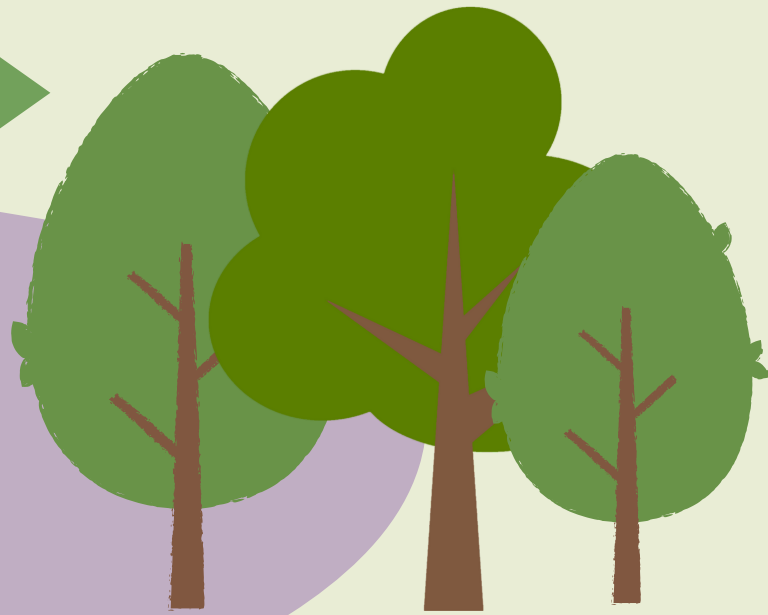


# CLIMATE READY TREES



## Tree Benefits

- Cleaner air
- Cleaner water
- Carbon storage
- Energy savings
- Heat mitigation
- Reduction of water runoff
- Improved physical and mental health



## Status of Albuquerque Trees

- Tree canopy declining
- Poor species selection
- Bad planting practices
- Poor or no maintenance
- No protection
- 60% of trees are young providing little shade
- Lack of diversity, vulnerable to disease



## + Urban Heat Island

- Impervious surfaces like concrete and buildings absorb heat making it hotter



## Solution

- Plant more climate ready trees!
- Increase diversity
- Match tree to correct site
- Protect trees
- Properly maintain trees



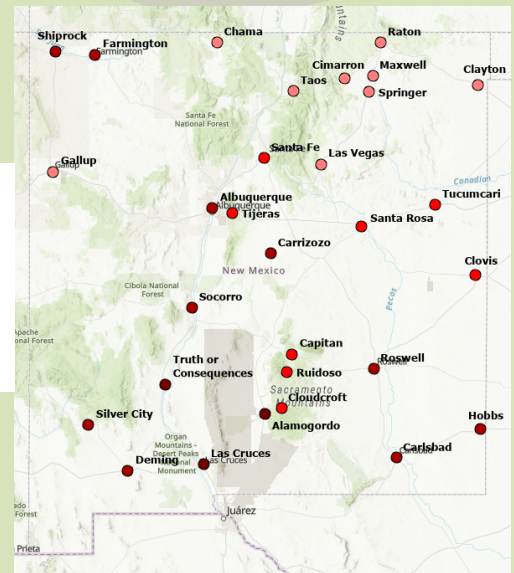
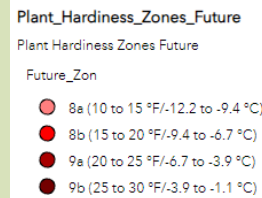
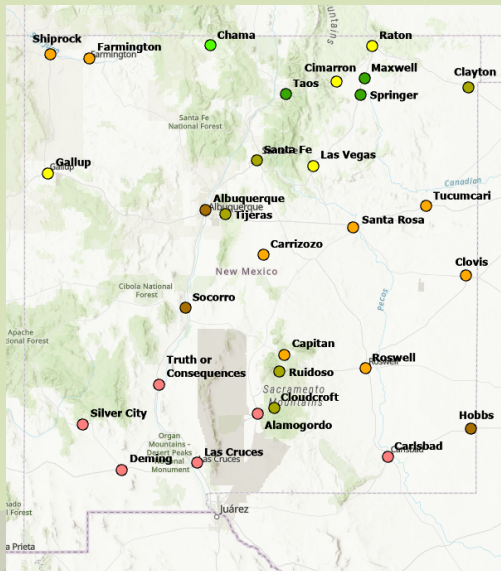
# CLIMATE READY TREES

Trees adapted to face present and future climate challenges such as heat, drought, extreme weather, and pests without becoming invasive



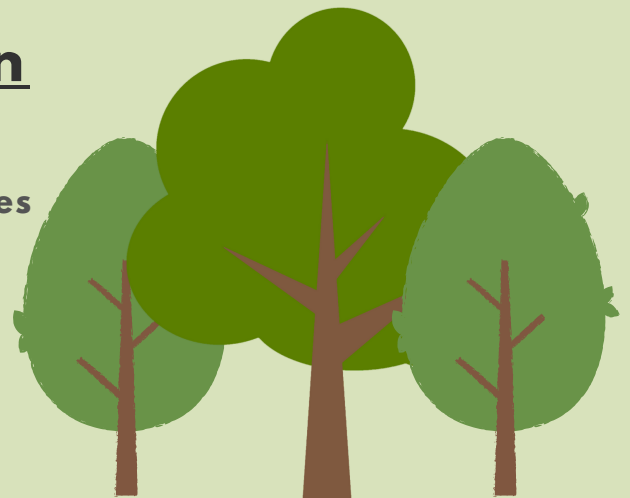
## Climate Change in Albuquerque

- Analyze change in temperature using 39 global climate models
- Temperatures increase 10F average maximum and 15F increase with urban heat island
- Increased drought
- Extreme weather events
- New pests and diseases
- Change from USDA Zone 7 to 9



## Tree Species Evaluation

- Extreme heat and cold tolerance
- Tolerate variety soil textures and types
- Non invasive
- Drought tolerant



# CLIMATE READY TREES



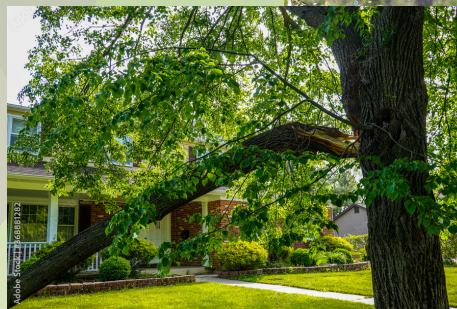
## Choosing a Tree - Site Considerations

- Does area flood?
- Is soil compacted?
- Is area irrigated?
- Can you maintain area?
- Are there overhead hazards?
- Are there underground hazards?
- Will the tree grow into a structure or walkway?
- Do you want wildlife?
- Pollution exposure
- Is the area exposed to mechanical damage; cars, pedestrians?



## Choosing a Tree - Species Considerations

- Height
- Spread
- Allergens
- Thorns or toxins
- Pest susceptibility
- Maintenance needs - fruit, leaves, pruning
- Branch strength
- Fire tolerance
- Flammability



# CLIMATE READY TREES

## Type 1: Small Areas with Occasional Flooding.

### Location:

- Collects water
- Small depressions
- Water runoff from road or building
- Swales
- Rain gardens



### Tree Characteristics:

- Trees can survive occasional flooding with polluted water
- Less than 40 feet tall

### Recommended Trees

- Netleaf Hackberry
- Mexican Redbud\*
- Western Redbud\*
- Oklahoma Redbud\*
- Texas Redbud\*
- Russian Hawthorn\*
- New Mexico Privet
- Fragrant Ash\*
- Crape Myrtle\*
- Chinese Pistache
- Honey Mesquite\*
- Screwbean Mesquite\*
- Goodding's Willow
- Western Soapberry\*



Photo Credit: MRWM Landscape Architects



# CLIMATE READY TREES

## Type 2: Large Areas with Occasional Flooding.

### Location:

- Collects water
- Large depressions
- Lots of water runoff from road or building
- Swales

### Tree Characteristics:

- Trees can survive occasional flooding with polluted water
- More than 40 feet tall

### Recommended Trees

Netleaf Hackberry  
Mexican Redbud\*  
Western Redbud\*  
Western Redbud\*  
Oklahoma Redbud\*  
Texas Redbud\*  
Russian Hawthorn\*  
New Mexico Privet  
Fragrant Ash  
Kentucky Coffeetree\*  
Mexican Sycamore  
Crape Myrtle\*  
Osage Orange\*  
Chinese Pistache  
Eastern Cottonwood  
Rio Grande Cottonwood  
Honey Mesquite\*  
Screwbean Mesquite  
Arizona White Oak  
Holly Oak\*  
Chinkapin Oak  
Cork Oak\*  
Southern Live Oak\*  
Goodding's Willow  
Western Soapberry\*  
Accolade Elm  
Frontier Elm  
Lacebark Elm\*  
Montezuma Cypress\*  
Japanese Zelkova



Photo Credit: MRWM Landscape Architects

# CLIMATE READY TREES

## Type 3: Xeriscape trees survive with minimal water

### Location:

- Low water areas
- Water does not collect

### Tree Characteristics:

- Trees can survive with minimal water

### Recommended Trees

American Smoketree  
New Mexico Privet  
Kentucky Coffeetree  
Fragrant Ash\*  
Alligator Juniper\*  
One Seed Juniper\*  
Eastern Red Cedar\*  
Crape Myrtle  
Goldenball Leadtree\*  
Osage Orange  
Palo Verde Hybrids\*  
Afghan Pine\*  
Italian Stone Pine  
Chinese Pistache\*  
Honey Mesquite\*  
Velvet Mesquite\*  
Arizona White Oak  
Escarpment Live Oak  
Chisos Red Oak  
Holly Oak  
Chinquapin Oak  
Blue Oak  
Cork Oak\*  
Western Soapberry\*  
Texas Mountain Laurel\*  
Prairie Flameleaf Sumac  
Accolade Elm  
Frontier Elm  
Lacebark Elm\*  
Chaste Tree  
Texas Madrone  
Netleaf Hackberry  
Mexican Redbud  
Oklahoma Redbud  
Texas Redbud  
Western Redbud  
Atlas Cedar  
Desert Willow



# CLIMATE READY TREES

## Type 4: Frequent Irrigation

### Location:

- Areas that receive regular and often irrigation
- Park, golf course, home

### Tree Characteristics:

- Trees survive with regular and consistent watering

### Recommended Trees

Netleaf Hackberry  
Mexican Redbud  
Oklahoma Redbud  
Texas Redbud  
Western Redbud  
Atlas Cedar  
Deodar Cedar  
New Mexico Privet\*  
Kentucky Coffeetree  
Fragrant Ash\*  
Alligator Juniper\*  
Eastern Red Cedar\*  
Crape Myrtle  
Osage Orange\*  
Afghan Pine  
Italian Stone Pine  
Chinese Pistache  
Mexican Sycamore  
Eastern Cottonwood  
Rio Grande Cottonwood  
Screwbean Mesquite\*  
Mexican Plum  
Arizona White Oak  
Escarpment Live Oak  
Chisos Red Oak  
Holly Oak  
Chinkapin Oak  
Cork Oak\*  
Texas Red Oak  
Southern Live Oak  
Western Soapberry\*  
Texas Mountain Laurel Prairie  
Flameleaf Sumac  
Montezuma Cypress\*  
Accolade Elm  
Frontier Elm  
Lacebark Elm  
Chaste Tree  
Japanese Zelkova



# CLIMATE READY TREES

## Type 5: Streetscape

### Location:

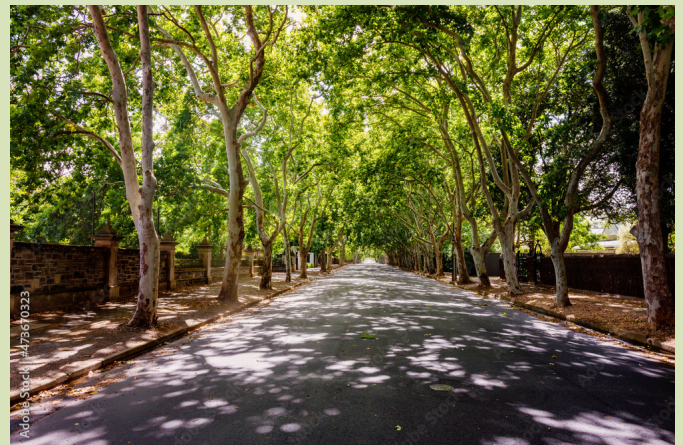
- Areas prone to pollution and mechanical threats like cars and pedestrian damage

### Tree Charecteristics:

- Strong branch attachment
- Low root damage
- Low litter and maintenance
- Sustain exposure to traffic, pollutant

### Recommended Trees

Texas Madrone  
Netleaf Hackberry  
Mexican Redbud  
Oklahoma Redbud  
Texas Redbud  
Western Redbud  
Deodar Cedar  
Desert Willow  
American Smoketree  
Russian Hawthorn  
New Mexico Privet  
Kentucky Coffeetree  
Fragrant Ash\*  
Crape Myrtle  
Golden-ball Lead-tree\*  
Osage Orange  
Palo Verde hybrids\*  
Chinese Pistache\*  
Honey Mesquite\*  
Arizona White Oak  
Escarpment Live Oak  
Chisos Red Oak  
Holly Oak  
Chinkapin Oak  
Blue Oak  
Cork Oak\*  
Texas Red Oak  
Western Soapberry\*  
Texas Mountain Laurel\*  
Prairie Flameleaf Sumac  
Accolade Elm  
Frontier Elm  
Lacebark Elm\*  
Chaste Tree  
Japanese Zelkova





# CLIMATE READY TREES

## Type 6: Restricted Area

### Location:

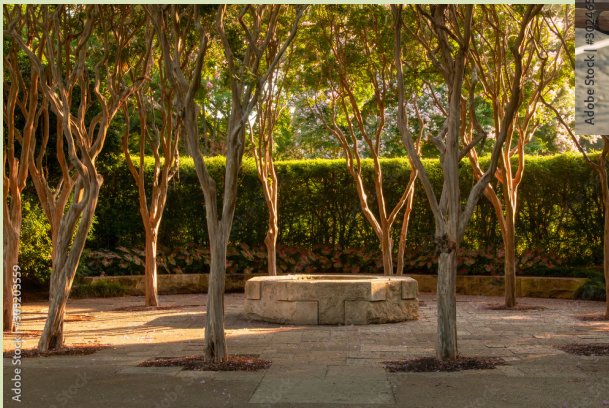
- Areas with less room to grow
- Bike paths, parking lots, sidewalks

### Tree Charecteristics:

- Strong branch attachment
- Low root damage
- Low litter or maintenance
- Sustain exposure to traffic, pollutant

### Recommended Trees

Netleaf Hackberry  
Mexican Redbud  
Western Redbud  
Oklahoma Redbud  
Texas Redbud  
Fragrant Ash  
Crape Myrtle  
Honey Mesquite Blue Oak



# CLIMATE READY TREES

## Type 6: Fruit Trees

### Location:

- Areas with access to regular irrigation
- Access to maintain
- Can be messy
- Wildlife attracting

### Tree Charecteristics:

- Fruit

### Recommended Trees

Texas Persimmon  
Black Mission Fig  
Little Leaf Mulberry\*  
Pistachio  
Pomegranate  
Jujube  
Quince  
Japanese Persimmon  
Little Walnut  
Pecan  
Apricot  
Loquat\*

