

# Planning & Executing a Sustainable Urban Tree Program



**Ken Menzer, Folsom City Arborist**  
Community Development Department

# Components of a Successful Governmental Policy

- Citizen desired
- Laws
- Enforcement
- Judges
- Penalty/Rewards
- Enforcement of Penalty/Rewards
- Citizen + hired/elected personnel support



# Components of a Successful Urban Tree Program

- **Citizen desired**
- **Laws** Tree Preservation Code, Standards, Specs, General Plan
- **Enforcement** Municipal Arborist, Code Enforcement, police
- **Judges** A fair & balanced appeal system
- **Penalty/Rewards** Providing a “carrot & stick”
- **Enforcement of Penalty/Rewards** Actions & Liens
- **A procedure to mitigate for removal** Plant or pay
- **Citizen + hired/elected personnel support** All of this must be reasonable to continue receiving required support



# Your inheritance!!!

Reactionary

- Out dated code
- Old specifications
- Failing trees needing care...now!
- Conflicts between infrastructure & trees
- Expensive irrigation operational practices
- Poorly designed & outdated parks
- Overly used and now run down facilities
- Low budget that is now receiving less funding
- A mandate to do more with less



# React to what you have...

## Existing: codes, plans, plants, & piping.





# React to tree issues!



# **Help Create a NEW World Order** **even if it is just in your small sphere of influence**

- New parks
- New subdivisions
- New commercial developments
- Revamped public or private green spaces
- Re-writing rules that affect trees and landscape
- Educated others to understand the need for trees, landscaping, and proper usage to reduce costs
- Educate your superiors about the value of quality trees and the costs for the wrong tree, in the wrong location, with the wrong care.

# Understand What You Have...

- Your position, responsibilities, and duties
- Tree Preservation Ordinance
- Construction Standards & Specifications
- Design & Procedure Manual
- Subdivision by subdivision: CC&Rs
- Who is responsibilities for: trees, landscaping, & irrigation in: parks, open space, “street trees”, Lighting & Landscape areas?
- Are Public Works or Code Enforcement responsible for tree clearance issues?



# **Do You Reviews Landscape & Irrigations Plans – Specifications?**

- Is there a check list for the owner, surveyor, architect, engineer, developer, & landscape architect to follow?
- Does the community have a recommended/approved list of trees to be used?
- Is there a minimum size tree to be utilized?
- What is the diversity requirement? 30-20-10 or 15-15-5?
- Percent “parking lot shade” calculation & how?
- Required “street tree(s)” and their specifications?
- Requirements for emergency access, trash, parking, ADA, deliveries, and signage
- Can lighting & photometric requirements be met?

# Issuance of Permits:

## Building, Excavation/Demo, Tree, & Encroachment

- Issue these all at the same time
- If issued separately, you may have protected trees destroyed or compromised
- If issued separately, you may end up with a bare lot that is not built upon for years or decades



*“It is not the strongest of the species  
that survive, nor the most intelligent,  
but the one most responsive to change.”*

*—Charles Darwin*

In most cases, we are the one that needs to change!





**“Good judgment comes from bad experience,  
and a lot of that come from bad judgment.”**



# Mono Cultures...





# “Change, change, change...”





# The “Burbs” are changing to Berkeley



# New systems, devices, and planning :

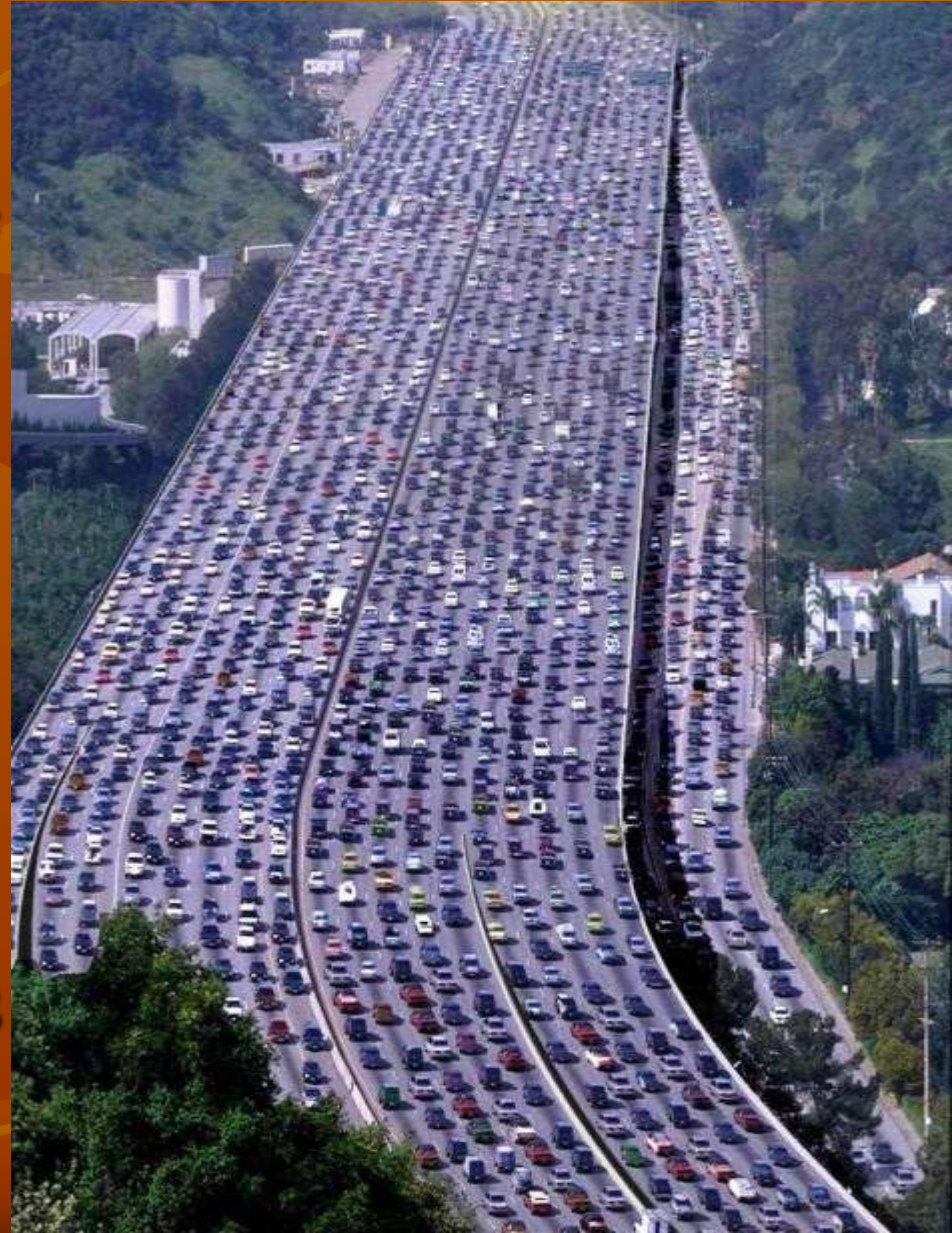
- Photometrics (lumens per sq meter)
- Solar panels (blockage &/or parking lot shade)
- Low Impact Development (LID)
- Porous surfaces for streets, parking lots, walks, & patios
- Tree growth regulators (good &/or problematic)
- Root barriers (pros & cons)
- New irrigation controller features:
  - Zip Code controlled time clocks
  - Soil based moisture sensors
  - Rain event shut-off controls
  - High usage (line break) shut off sensors
  - Satellite controlled time clocks





# What has changed in the last 10-20 years?

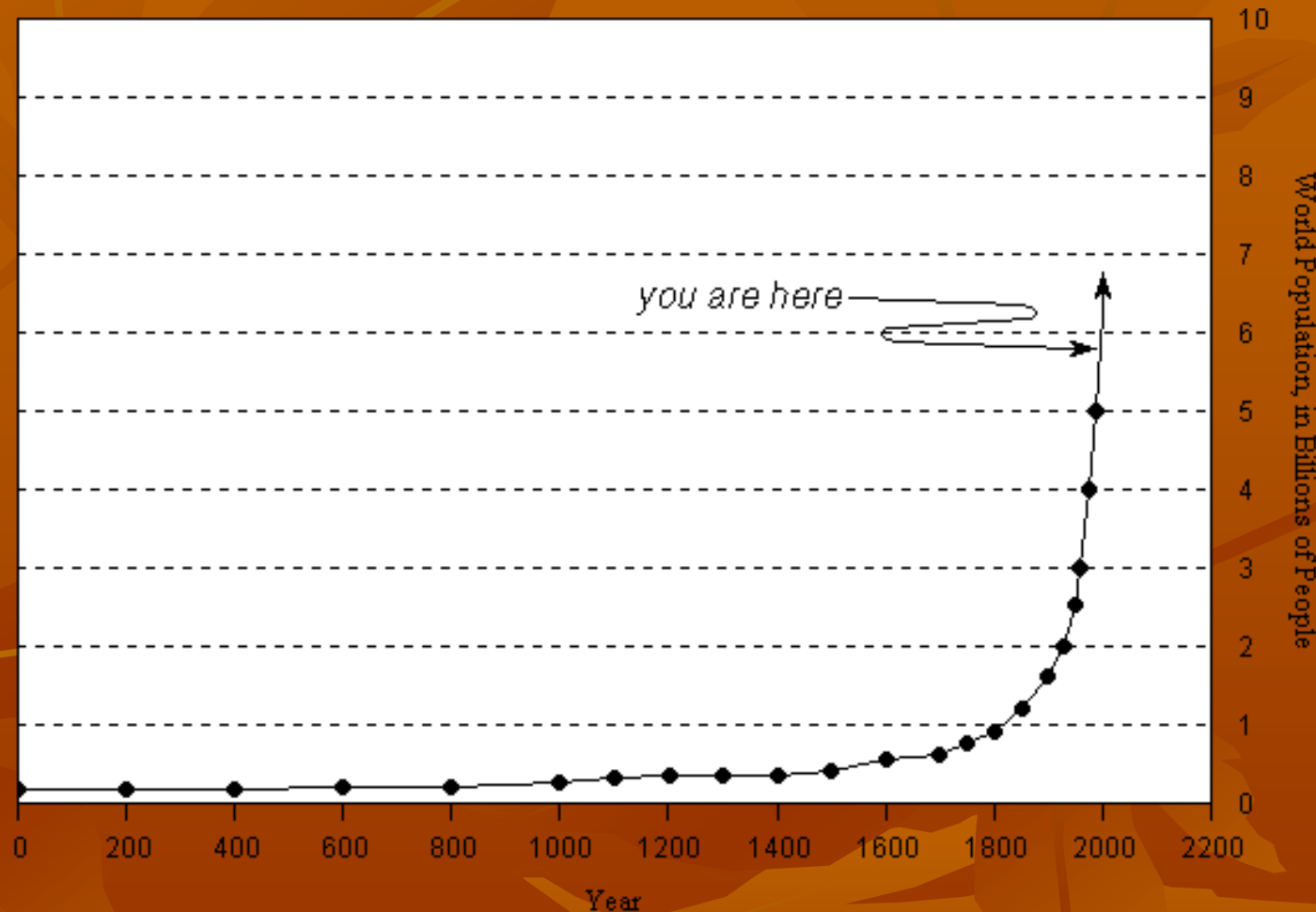
- Internet, GPS, GIS information exchange
- Employment
- Population
- Global Temperatures
- Drought
- CO<sub>2</sub>
- Regulations
- Cost of gas & utilities
- ...





# Population (explosion)?

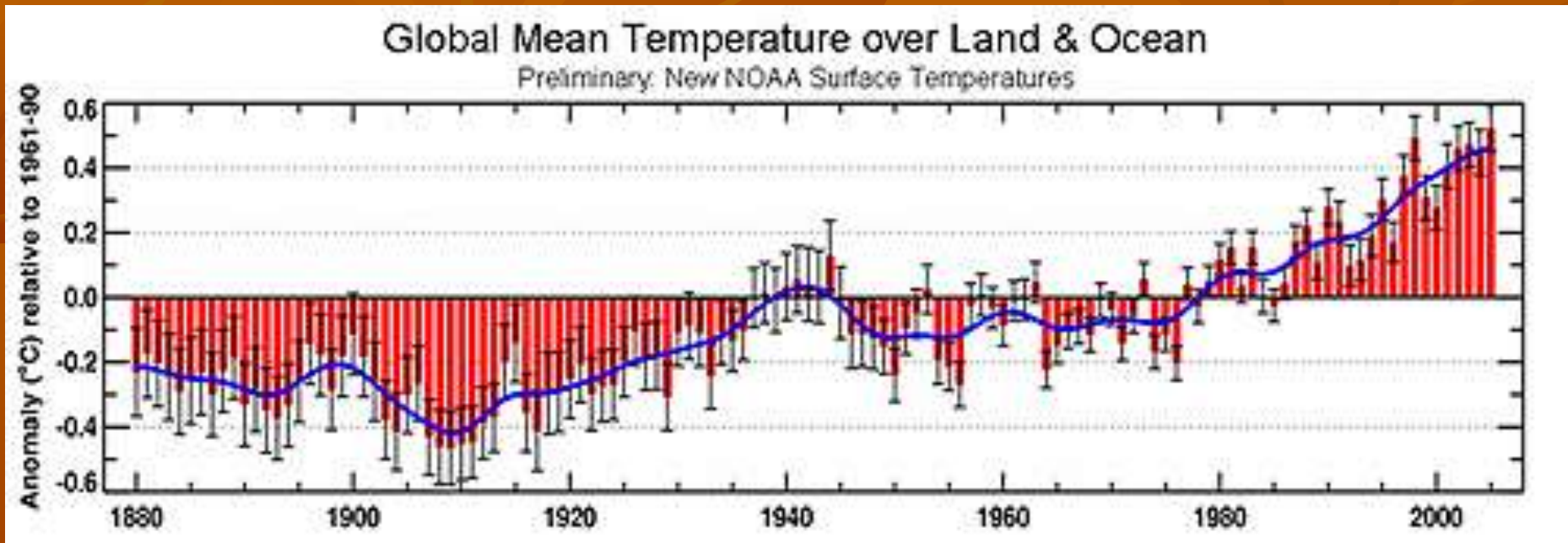
- 1350AD  
370 Million
- 11-2-12  
7.1 Billion
- 2050 AD  
9.4 Billion



USA: Today's Population 314, 671, 9746

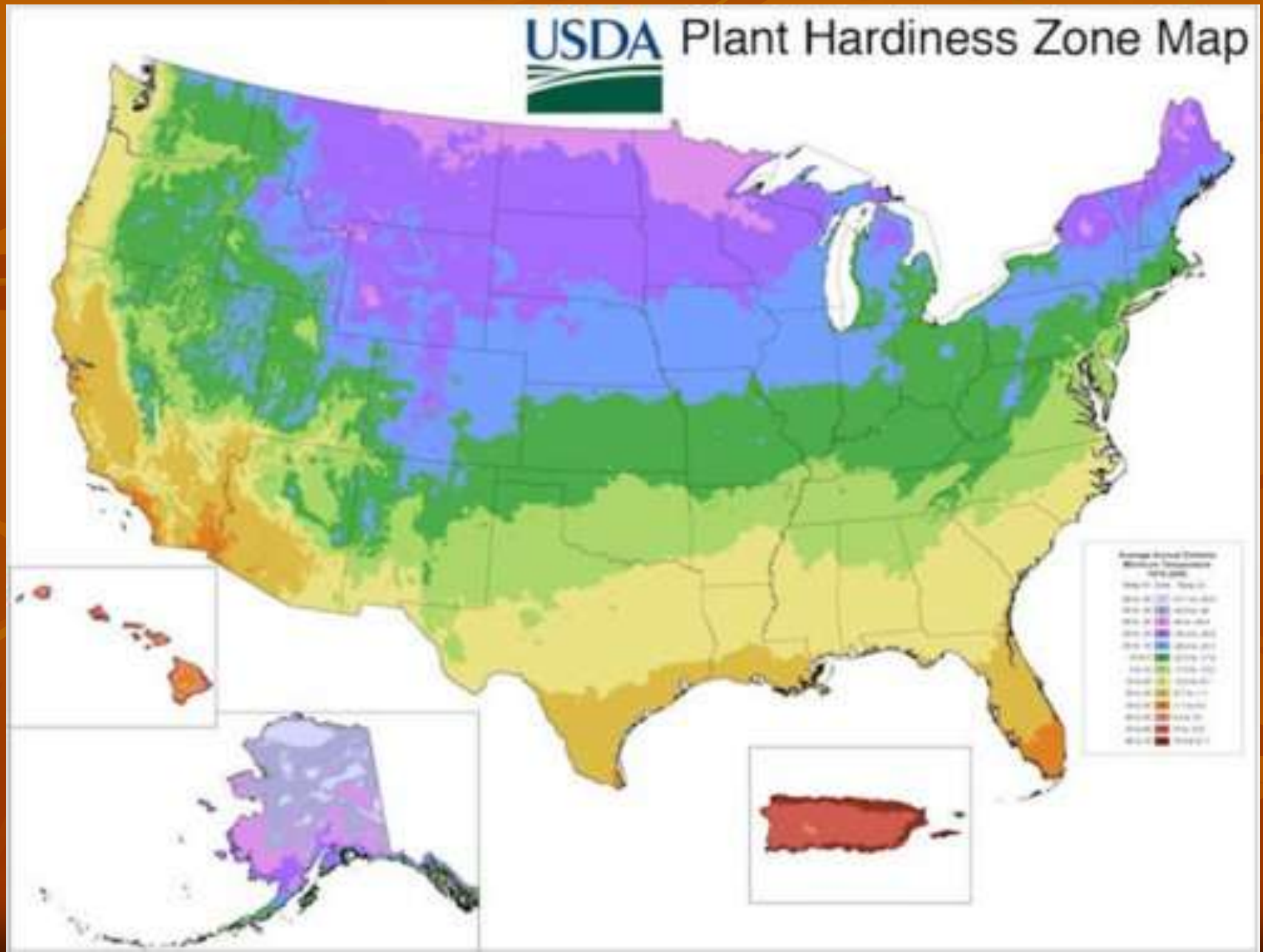
California: Today's population: 37,691,912

# Globally is it (really) warming?



- Which trees will prefer warmer temperatures?
- Which pests & diseases will move into your zone if the temperatures keep rising?

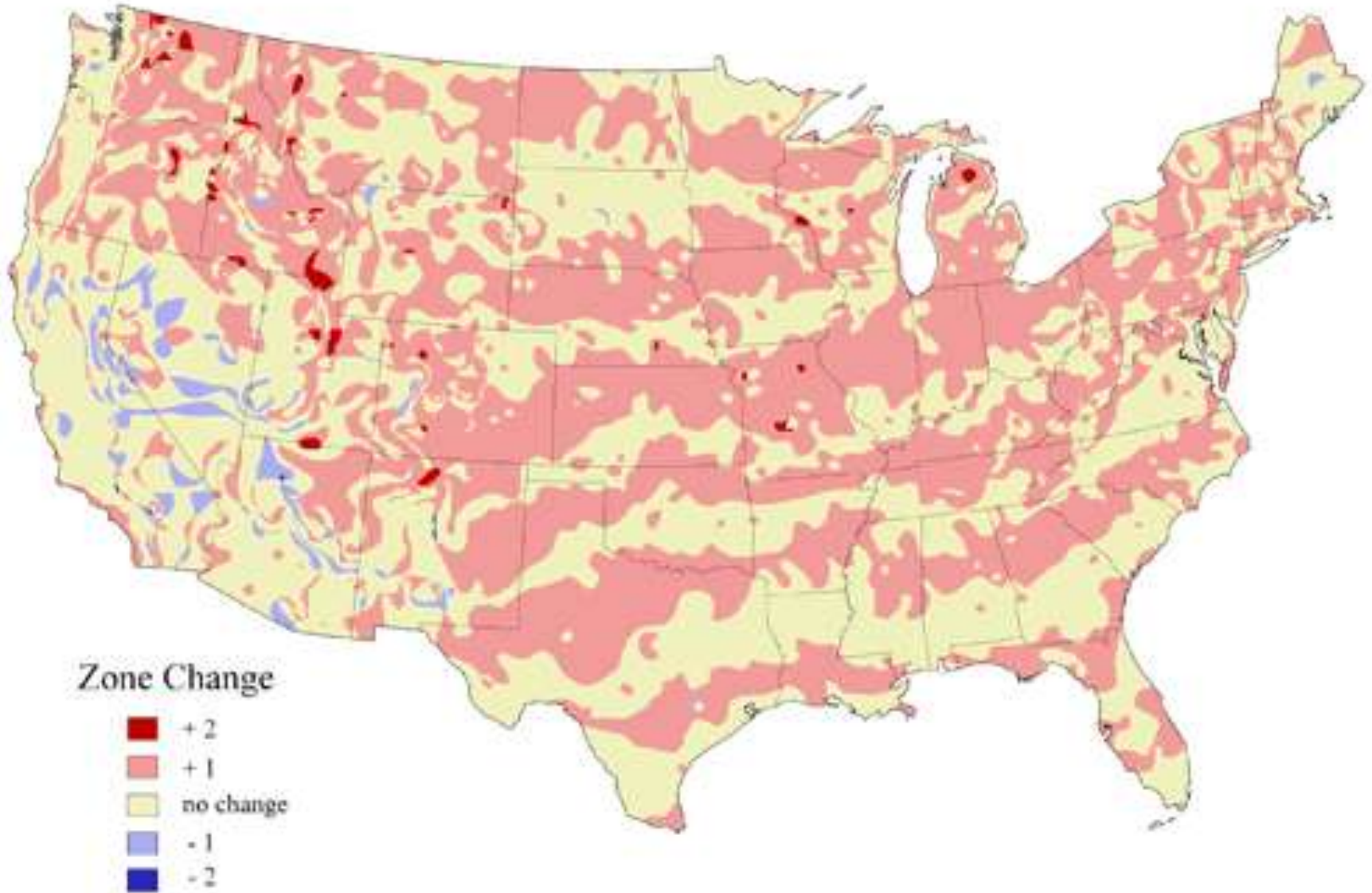
# 2012 USDA Zones



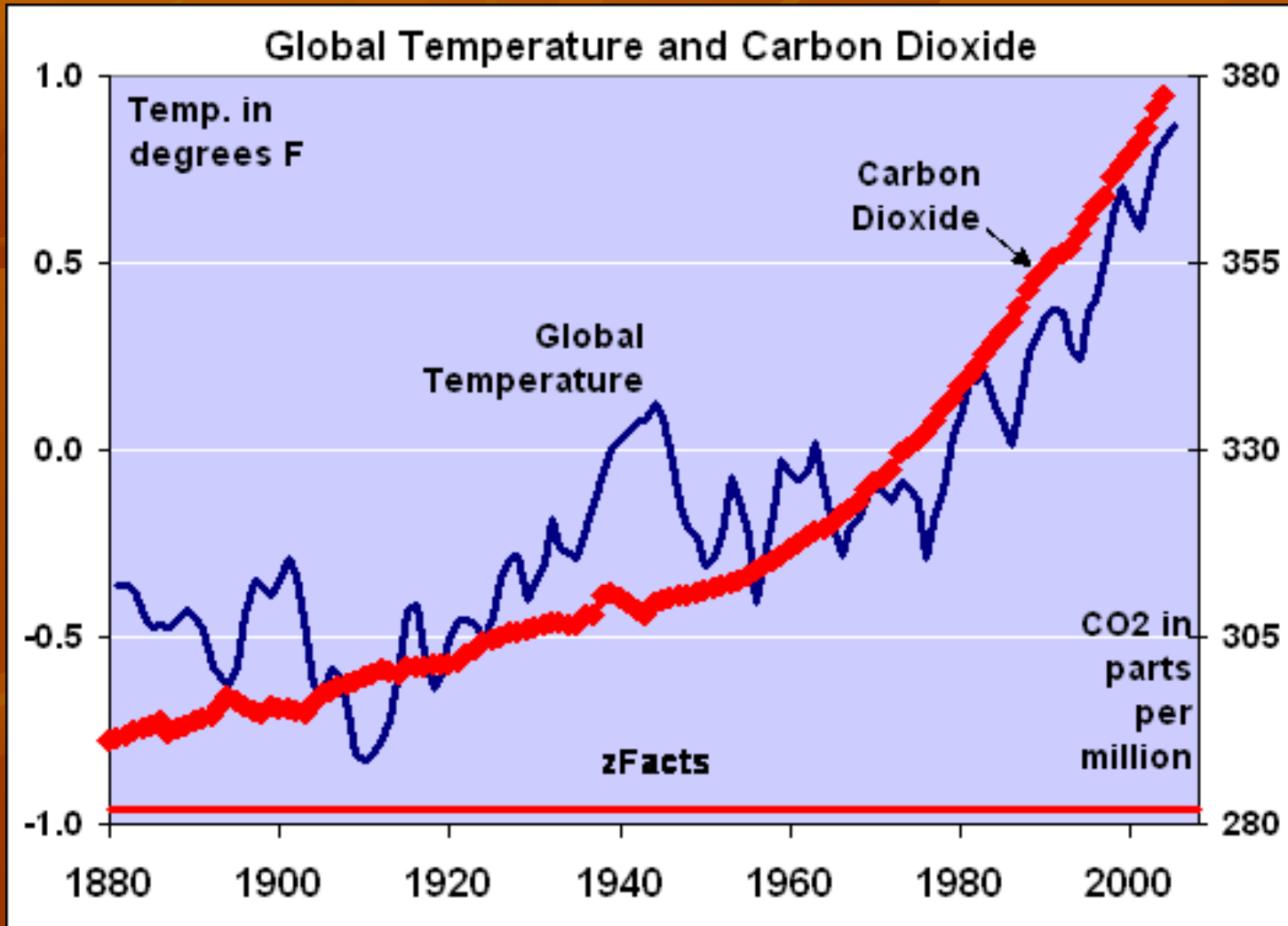


# USA Temperature changes 1990 -2006

(mainland USA)



# Carbon Dioxide (CO<sub>2</sub>) Levels



**Raised  
CO<sub>2</sub>  
levels  
generally  
from  
burning  
fossil  
fuels**



# Oh how quickly we forget...



01/21/2009

# Hurricane Sandy simulation 2050





# Assume **Warmer** & **Drier**...

- Trees that can be weaned from irrigation
- An expanded and more diverse tree pallet
- Use 30-20-10 for smaller projects
  - 30% max Genus
  - 20% max Species
  - 10% max Cultivar
- Larger projects (60 trees +) 15-10-5
  - Example...



# “The Fab Forties”





# Details, details, details...

- ◆ Fabulous 40s trees: mixed seedlings of American Sycamore
- ◆ American Sycamore x Oriental Plane = London Plane
- ◆ We wanted to emulate the Fab 40s,  
...but to improve upon the plan
- ◆ Our Master Tree List of ~20 trees required developer to  
only plant the best...

## Platanus X acerifolia 'Bloodgood'



Hail:

'Columbia'

# Your inheritance may or may not change



# What can we “Treeborists\*” do?

- ☑ Drive less
- ☑ Ride a bike
- ☑ Don't use paper (no reports!)
- ☑ Don't read books or the newspaper
- ☑ Plant trees (not people or pets)
- ☑ Hug more trees
- ☑ Build a steel frame house with no wood
- ☑ Only eat meat & dairy products
- ☑ Picket the USA, state, county, & cities to eliminate roads
- ☑ Write to our elected officials to change our national bird to be a tree
- ☑ No more wood pencils!

HA! HA! HA! LOL Now get real...<sup>29</sup>

\* Term used by a recent US president referring to “tree specialists” that work on his ranch's trees



# The Real deal!

- Garner support from others in your community
- Educate all of the staff regards tree issues where you will need their help
- Engage non-profits of all types
- Help formula a new or improved tree ordinance
- Carefully perfect a Master Tree List
- Review your Standards for: nursery stock, planting, tree care, maintenance, and irrigation

# Communicate





# Advertize what is and could be





# Announce Your Presence!



# Advertize (who you are, what you do)



Tree Clearance Permit

City of Folsom

Notice to Correct Violation(s)

This is an official notification that a Notice to Correct Violation(s) has been issued by the City of Folsom Code Enforcement Division and/or City Attorney on Nov 1, 2012.

Property Address: 101 Casserole Way

☐ Destroying And/or damaging protected tree(s) §12.16.030(A)

☐ Destroying And/or damaging the Tree Protection Zone (TPZ) of protected tree(s) §12.16.030(A)

☐ Pruning And/or damaging protected tree(s) without a Tree Permit or performing work beyond the scope of the issued Tree Permit §12.16.030(A) Tree Permit # \_\_\_\_\_

☐ Tree Protection Zone (TPZ) fences not maintained in required upright exclusionary condition §12.16.040(A)(4)(a)

☐ TPZ signs not maintained as required §12.16.040(A)(4)(b)

☒ Corner sight triangle not clear §17.57.070(1)(2) (fig A & B) D

☒ Vertical distances not kept clear §14.6(A) Folsom Design & Procedure Manual (fig C) C

☐ 14.5' over streets measured at the gutter or at any point on the street & drive aisles in parking lots

☐ 8' over bike paths

☒ 7' over public pedestrian sidewalk (Size of House Dry Cross right)

☐ Other § \_\_\_\_\_

☒ Note 1 See Figure A - Tree

☒ 2 Potpourri & Oleander Shrubs

Property owner \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_

Phone ( ) \_\_\_\_\_ Cell ( ) \_\_\_\_\_

Violation by \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_

Phone ( ) \_\_\_\_\_ Cell ( ) \_\_\_\_\_

☐ STOP WORK NOTICE

The property will be re-inspected within 60 days from the date of this notice. If you fail to correct the violation, the responsible party will not monetary liability for non-compliance.

Executed by Ann M. [Signature]

Executed on 11-1-12

City of Folsom Code Enforcement Division, 90 Folsom St., Folsom, CA 95630  
Telephone (916) 244-7208 Fax (916) 244-1343  
August City Attorney  
Inspection #010-2012-0114 Total Penalties/Amounts \$0.00

Notice to Correct Violation(s)

Violating public, including to plus drive lanes in needed to emergency etc. or other places that and unobstructed.

You have \_\_\_\_\_ days a site re-inspected for toward will complete the tree pruning. If you are pruning cuts are to be re-permit issued by the or call 220-3016.

comply with the Notice use the work crew and PR.

entries in your Notice to arboricultural care for so may want to contract as the tree care work.

the Vertical Distances Clear to the right triangle do not plant trees existing higher than 12 existing lower than 12 5' over streets & drive lanes of parking lots over bike paths over public pedestrian sidewalks

FIGURE A

FIGURE B

FIGURE C



# Stimulate



# Regulate

## Some by other “high powers”:

SB1881 Model Water Efficient Landscape Ordinance

PRC (Public Resources Code) Utility Line Clearance, §4292

PRC §25984 (a) Solar v. Trees

State Contractor License

State Air Resources (chippers 50 hp+)

There local business license

Insurance





# Regulations by “your” local jurisdiction

- ❖ Tree Ordinance (protected by: species, size, location, landmark status, “street tree”, or parking lot shade tree)
- ❖ Construction Standards
- ❖ Tree Care Standards ANSI A300
- ❖ Nursery Stock Standards ANSI Z60.1
- ❖ Notice to Correct Violation(s)
- ❖ City Business License



# Educate





# ★ ATTENTION ★

## Tree Protection Zone

**DO NOT DISTURB THIS AREA WITHOUT SPECIFIC  
AUTHORIZATION FROM THE CITY OF FOLSOM CITY ARBORIST.**

Within this TPZ fenced area there shall be NO: storage of material, grubbing, excavation, dumping of chemicals, attaching anything to trees, boring, trenching, animals, people, grade changes, pruning, or any activities that may damage these protected trees.

This fence shall not be moved throughout the entire construction process, unless written consent is given from the City Arborist or Community Development Department. This TPZ fence with signs shall be maintained in proper upright condition at all times.

◆ Fines will be levied if this TPZ fence and signs are not properly maintained or moved without written permission ◆

**FAILURE TO PROTECT TREES WILL RESULT IN AN IMMEDIATE 'STOP WORK  
NOTICE' AND MAY RESULT IN MISDEMEANOR CHARGES AND FINES OF UP  
TO \$10,000.00 PER VIOLATION PER THE FOLSOM MUNICIPAL CODE.**

**FMC §12.16**

CITY OF FOLSOM COMMUNITY DEVELOPMENT DEPARTMENT (916) 355-7222

**Inspire others to educate themselves!**





# Collaborate



Folsom, El Dorado & Sacramento Historical Railroad Association

# All Non-Profits

- Friends of Folsom Parkways
- Sacramento Tree Foundation
- Folsom Garden Club
- Folsom Lake College
- Folsom High School
- Vista High School
- Boy Scouts
- Girl Scouts
- Rotary Club
- Church groups





# Add more drought tolerant trees:

*Bauhinia lunarioides*, Anacacho Orchid Tree

*Bauhinia macranthera*, Chihuahuan Orchid Tree

*Caesalpinia cacalaco* 'Smoothie™', Thornless Cascalote

*Chilopsis linearis* 'Art's Seedless™', Desert Willow

*Chilopsis linearis* 'Bubba', Desert Willow

*Chilopsis linearis* 'Lucretia Hamilton™', Desert Willow

*Chilopsis linearis* 'Warren Jones™', Desert Willow

*Ebenopsis ebano*, Texas Ebony

*Fraxinus greggii*, Little Leaf Ash

*Pistacia* X 'Red Push', Red Push Pistache

*Prosopis glandulosa* 'Maverick®', Maverick Texas Honey Mesquite

*Prosopis* hybrid 'Phoenix®', Phoenix (thornless) Mesquite

*Sophora secundiflora* 'Silver Sierra', Texas Mountain Laurel

*Vitex agnus-castus* 'Montrose Purple', Chaste Tree 'Montrose Purple'

# “Gotta know the territory...”





# LOCAL: Soils, insects, diseases, fungus...





# ...and Cultivars





# Hire a passionate City Arborist!







**Ken Menzer**, Consulting & ISA Certified Arborist/Municipal Specialist #WE-2122AM

Folsom City Arborist

Folsom is a **"Tree City USA"** for the 5th year

Folsom City Arborist's goal: **"Positive & Profound Long-Term Effect"**

50 Natoma Street, Folsom City Hall, Community Development Department

Folsom, CA 95630

**916-220-3016 Cellular**

916-355-7281 City Hall office

916-355-7274 digital fax

[kmenzer@folsom.ca.us](mailto:kmenzer@folsom.ca.us)