



# Parks & Open Space

## Shaping Urban Form & Creating Great Places

### Pinal County Outdoors

Nov 8, 2007

Jim Holway, Anne Ellis & Chris Mercer

**SUSTAINABILITY PARTNERSHIP**

*“Bringing Science to Practice, and the Practical to Science”*



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## Shaping Urban Form & Creating Great Places

What are Great Civic Places & Parks

They Enjoy Public Support

They Can Shape the Form of Growth

Think Corridors & Linkages

Make a Long Term Investment

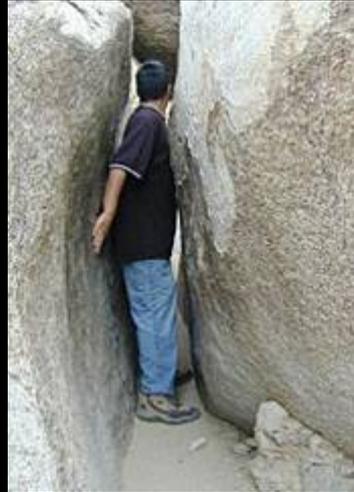
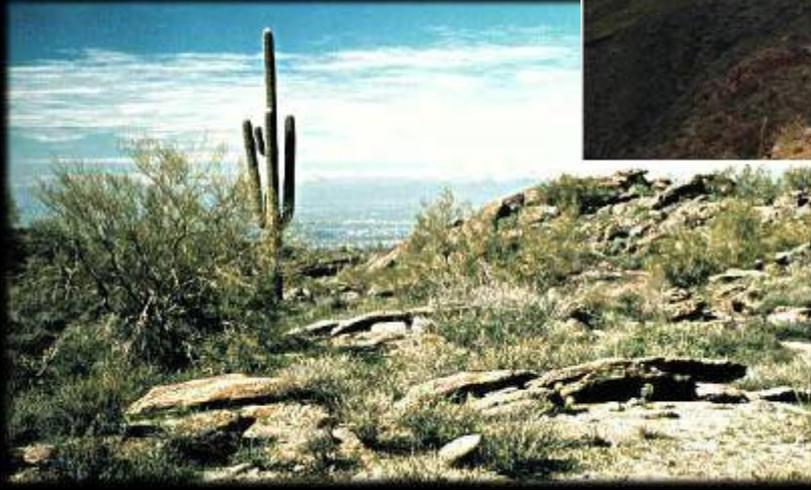
What is the Payoff

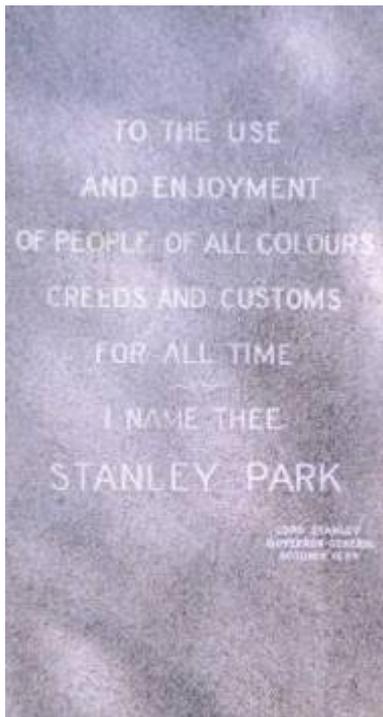
-- Economic Development --

-- Quality of Life - Public Health - Sense of Place --



# Great Places - Great Parks Great Open Spaces





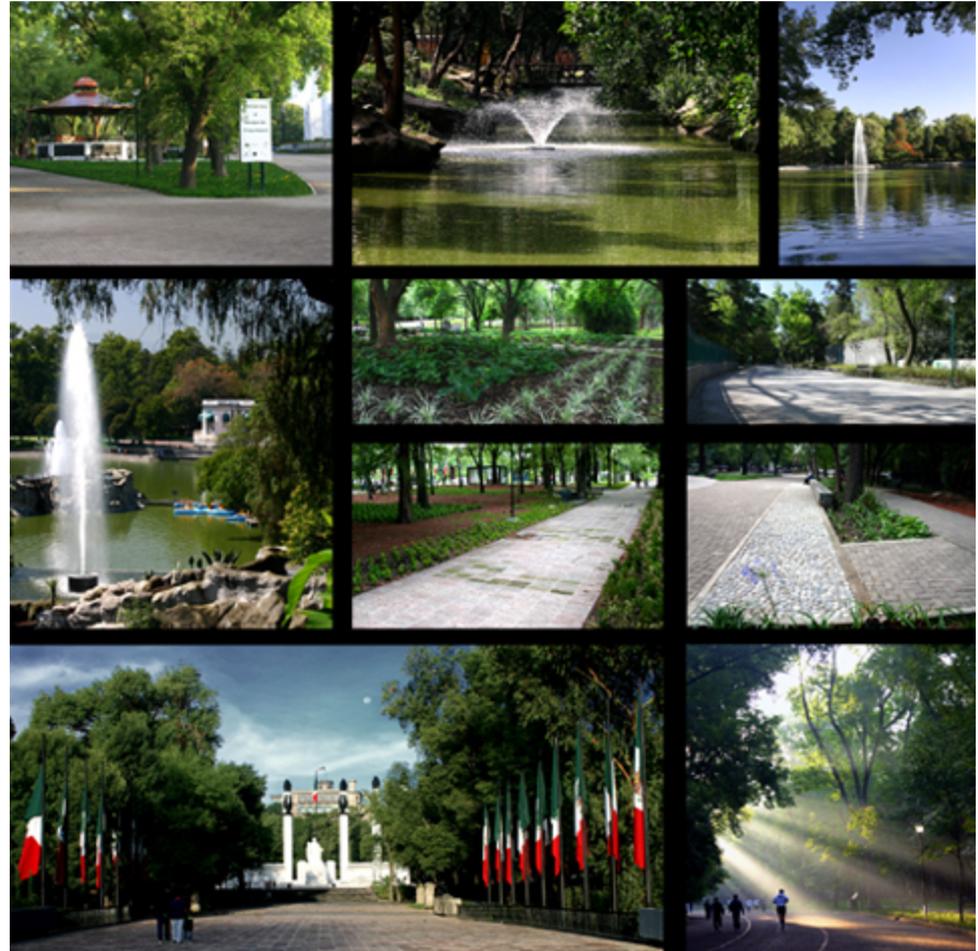
# Stanley Park Vancouver, BC





## Chapultepec Park Mexico City

Chapultepec is more than just a vast verdant expanse in the heart of Mexico City. It is also a repository of national history and identity, a major cultural center and the favorite place for a Sunday picnic, soccer game or flirtation.





**Millennium Park  
Chicago**

**Make no little plans, they have no magic to stir men's blood and probably will themselves not be realized. Make big plans, aim high in hope and work, remembering that a noble, logical diagram once recorded will not die. - Daniel Burnham**





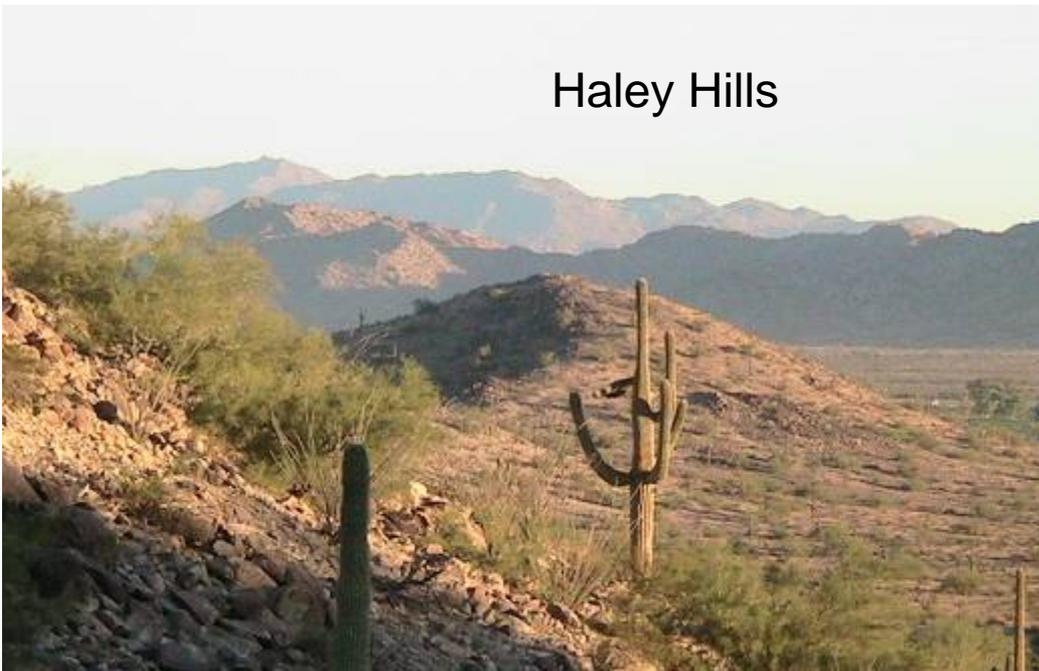


Oracle State Park

Pichaco State Park

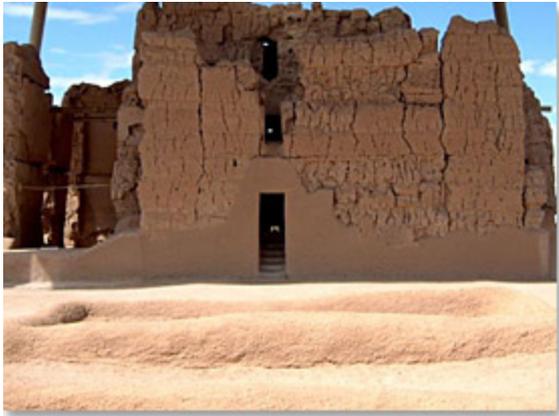


Boyce Thompson



Haley Hills







The Public Wants Parks & Open  
Spaces

&

They Are Paying For Access  
To Open Space



# Survey of Pinal County Households

- 60% visited park or rec area last 3 months
- 37% travel > 50 miles to get to the park
- 26% travel 6 to 50 miles
- 28% travel 2 to 5 miles
- 9% travel < 2 miles
  
- 51% say they would go more often to a closer park

2003 Arizona Statewide Comprehensive Outdoor Recreation Plan



- A study in Dallas showed people were **paying 22% more** to be within  $\frac{1}{2}$  mile of greenspace
- Boulder, CO - Property values decreased \$420 for every 100 feet further from a greenbelt

Miller 2001

TPL 2007



# Shaping Growth

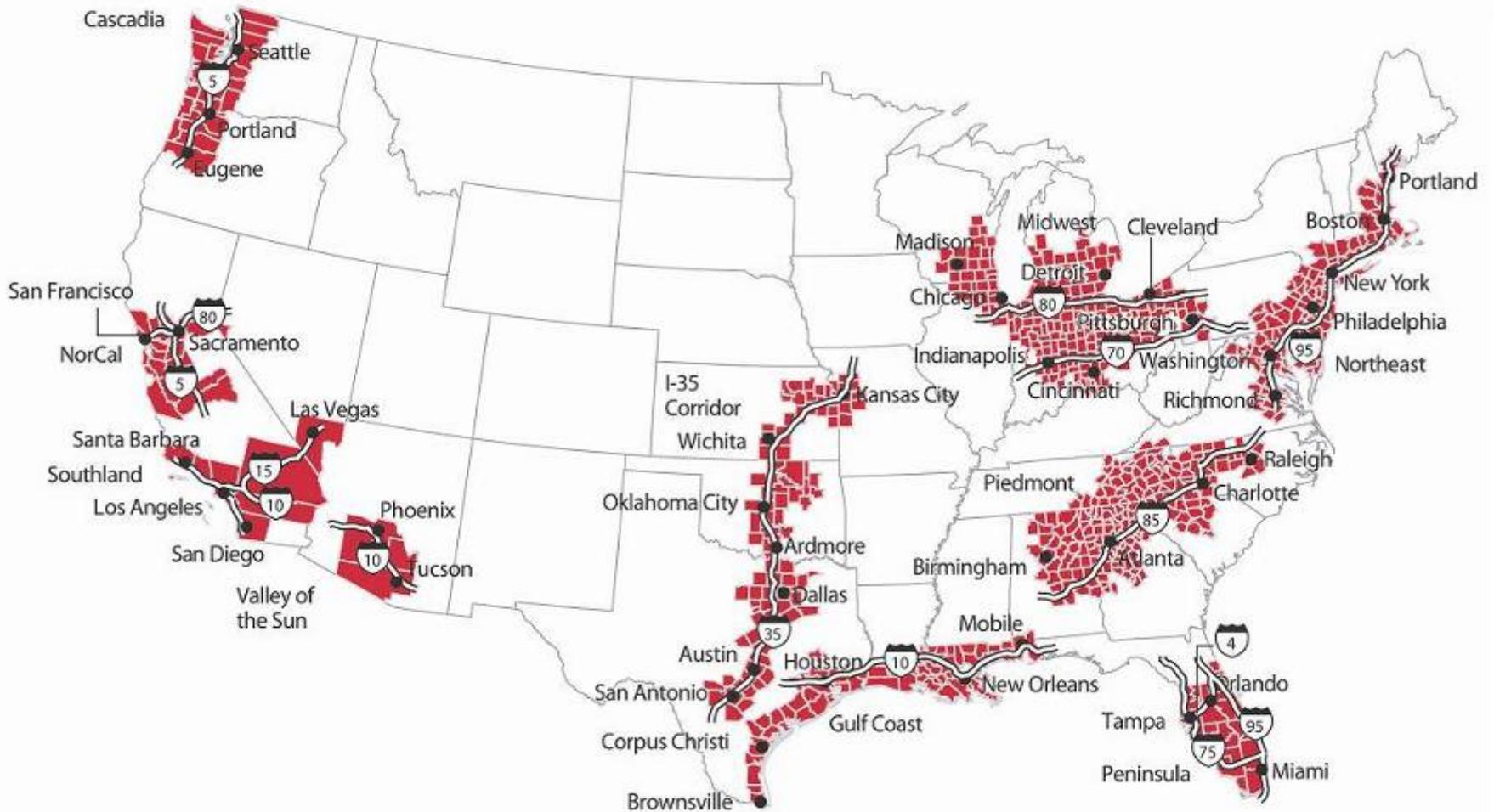
## The Role of Parks & Open Spaces in Shaping Development

# Stakes are High

The growth is coming. The growth is going to occur, but how can we modify it so that it produces a higher quality of life, produces the jobs, and reserves the rights of way well before growth occurs? (Pinal Leader)



# Original Megapolitan Geography, 2005: Robert Lang and John Hall



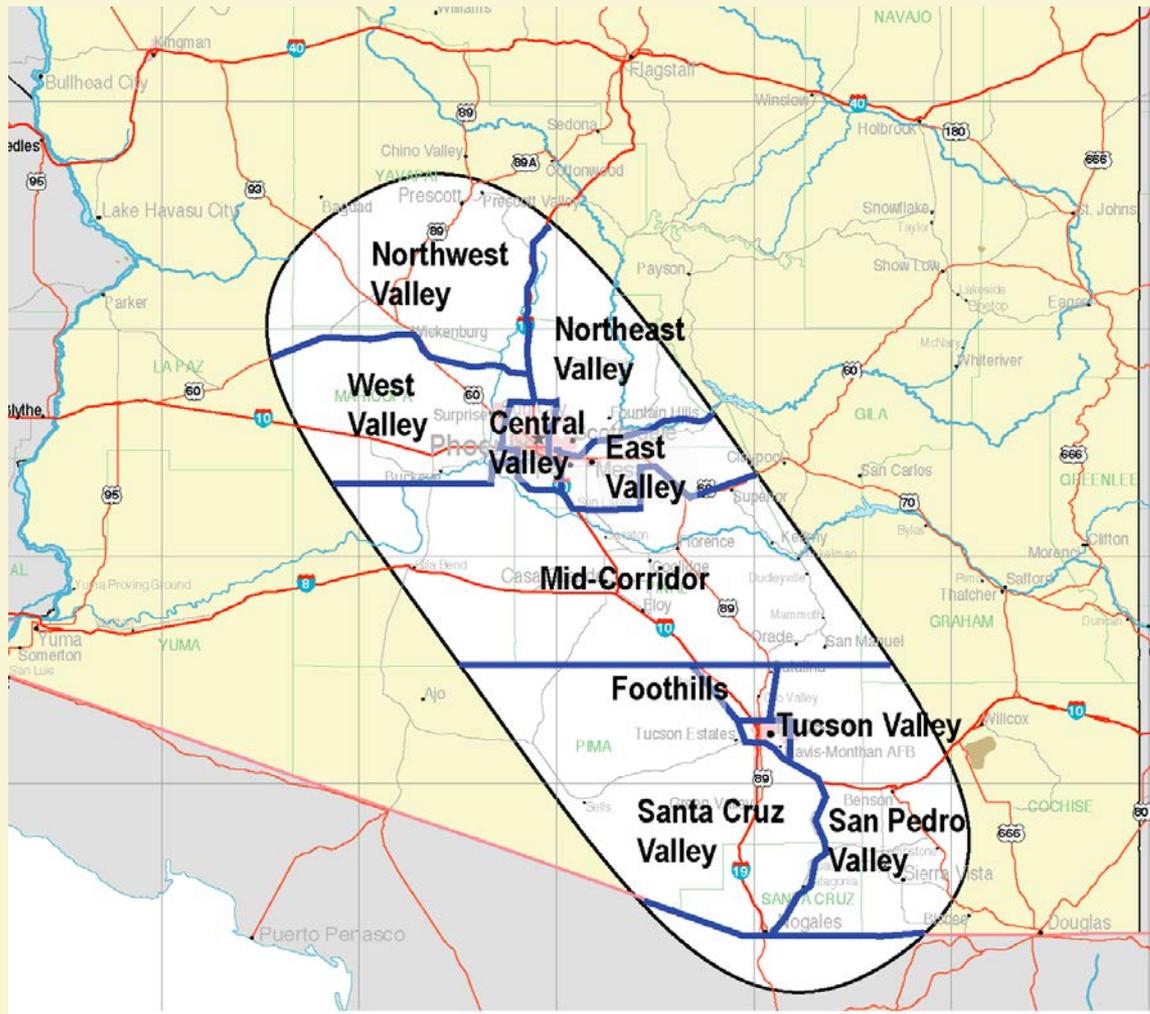


## Megapolitan Area Population and Growth Rates

Megapolitan Area	2004 Population*	00-04 Growth Rate
<b>Arizona Sun Corridor</b>	<b>5.0</b>	<b>12.6</b>
Cascadia	7.6	5.5
Florida Peninsula	14.9	9.2
Front Range	3.9	6.6
Great Lakes	40.6	1.9
Gulf Coast	9.9	5.8
I-35 Corridor	15.5	7.4
Megalopolis	54.5	3.1
NorCal	15.1	4.6
Piedmont	19.3	6.7
SoCal	22.5	7.5
<b>Megapolitan Total</b>	<b>208.8</b>	<b>5.0</b>
<b>United States</b>	<b>293.7</b>	<b>4.4</b>

\*Population in Millions  
Source: Census Bureau

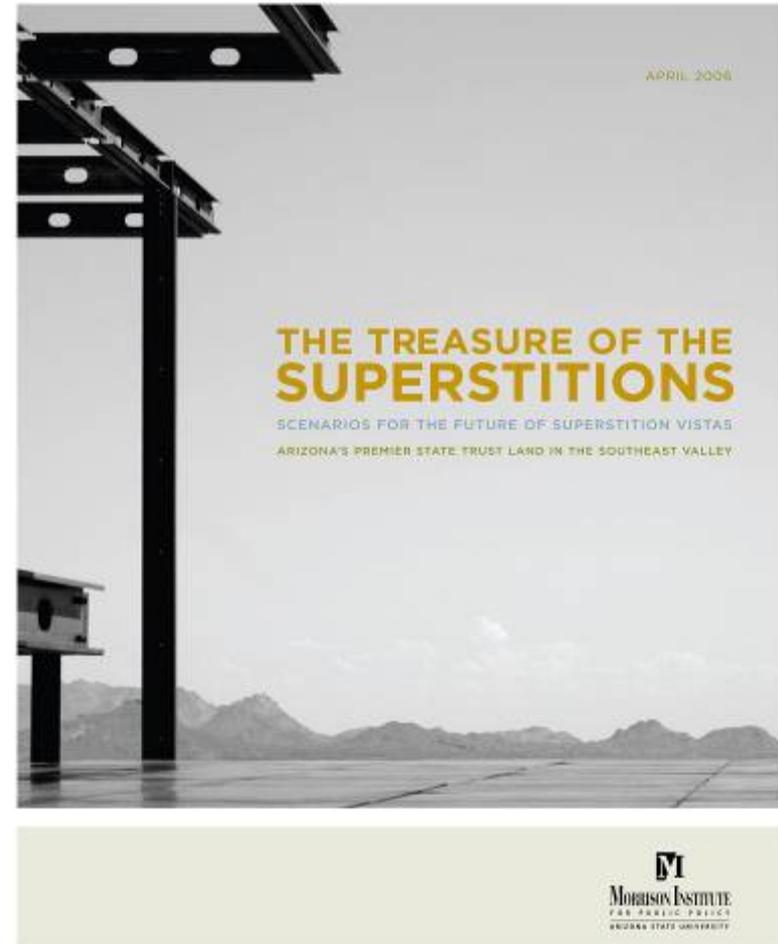
# Arizona's "Sun Corridor"





# “Opening the Treasure”

## April 6, 2006

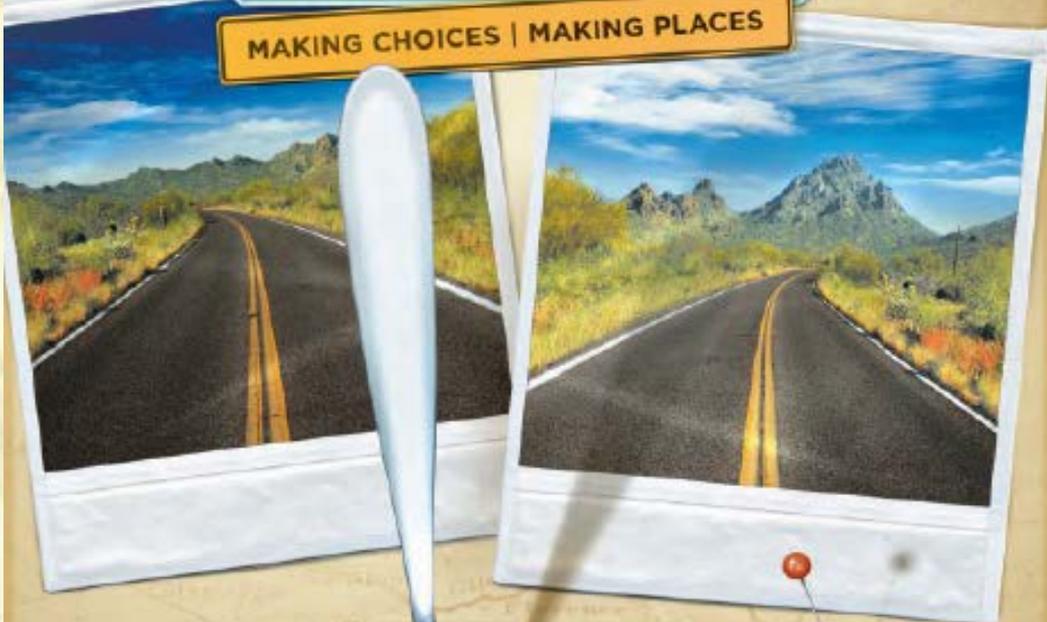


M



The Future  
at Pinal

MAKING CHOICES | MAKING PLACES



July 2007

**M**  
**MORRISON INSTITUTE**  
FOR PUBLIC POLICY  
ARIZONA STATE UNIVERSITY

## Cool Tools

### PINAL'S LEADERS AND RESIDENTS FOCUSED ON 6 PLACEMAKING GOALS

#### PLACEMAKING GOALS

#### COOL TOOLS

Distinguish Pinal from Maricopa County and Pima County.

1. Establish the **Pinal Consensus Council**.
2. Agree on a **Pinal tax treaty**.
3. Establish Pinal as a **regional service provider**.

Protect miles of desert and open land.

4. "**Greenprint**" the state trust land in Pinal.
5. Use a uniform county-wide **impact fee to buy open space**.
6. Make Pinal a leader in outdoor education with **Pinal's Outdoor Kids**.

Provide choices for transportation and mobility.

7. Create the 3-county **Megapolitan Mobility Project** to move people and cargo efficiently through the heart of the Sun Corridor.

Support unique, "fair share" communities.

8. Celebrate agriculture with **community gardens** and co-op farms.
9. Use the **3Rs to fix it first**.
10. Carry out **smart growth principles** in all development and redevelopment.
11. Adopt a **uniform "green" building code** across Pinal.
12. **Prohibit landscape plants that are harmful to the Sonoran Desert**.

Create and attract "career pay – career path" jobs.

13. Integrate education, training, economic development, and employment services **with Pinal Workways**.
14. **Agree on locations for employment centers** and do not allow homes to be built there.

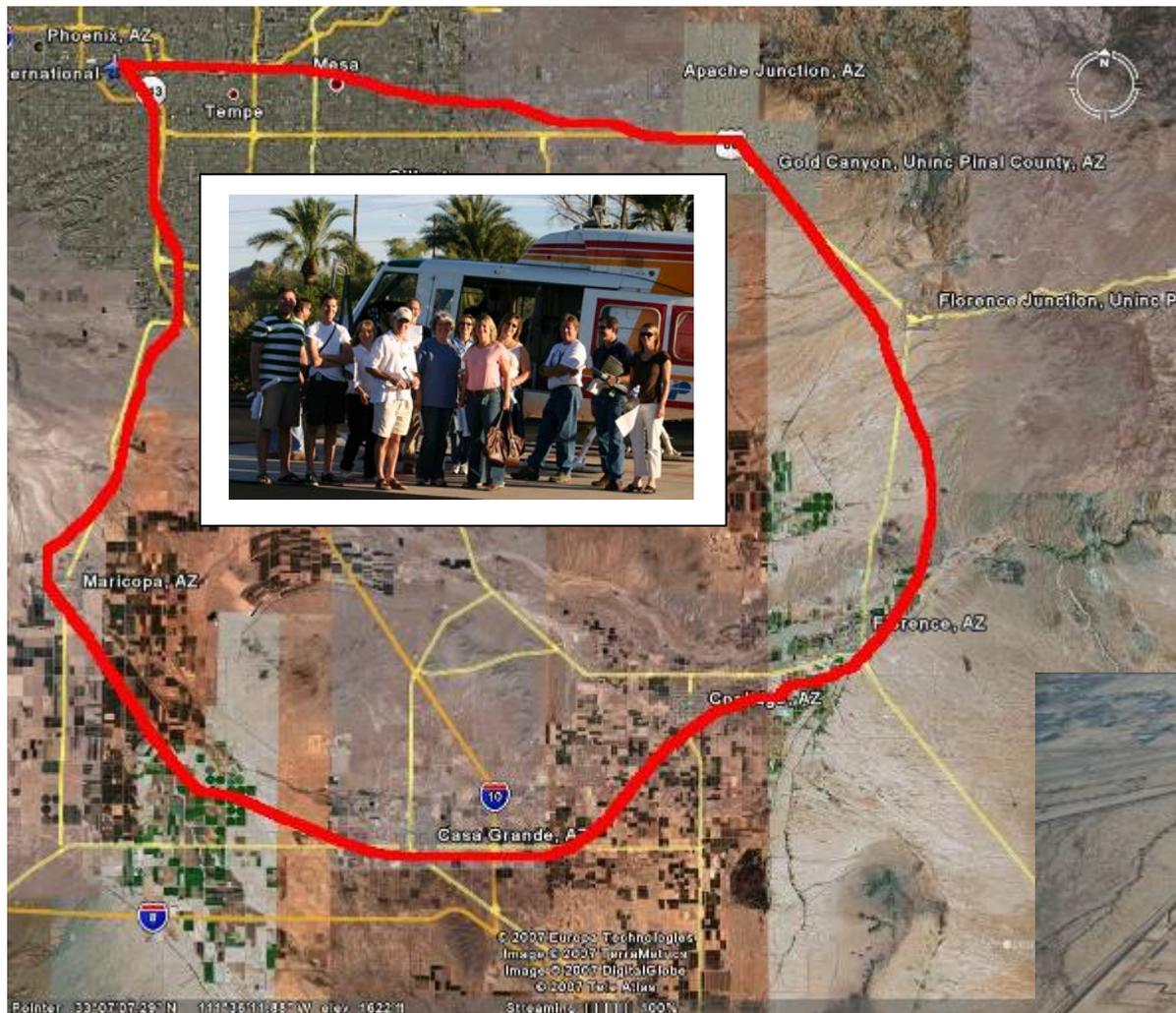
Develop Pinal's talent pool.

15. Establish the **Pinal Scholars fund**.
16. Use **arts and culture as a major tool in quality education**, strong communities, and a robust economy.
17. Give every child in Pinal a **Super Start**.

Source: Morrison Institute for Public Policy, Arizona State University, 2007.

# Arizona State Trust Lands:

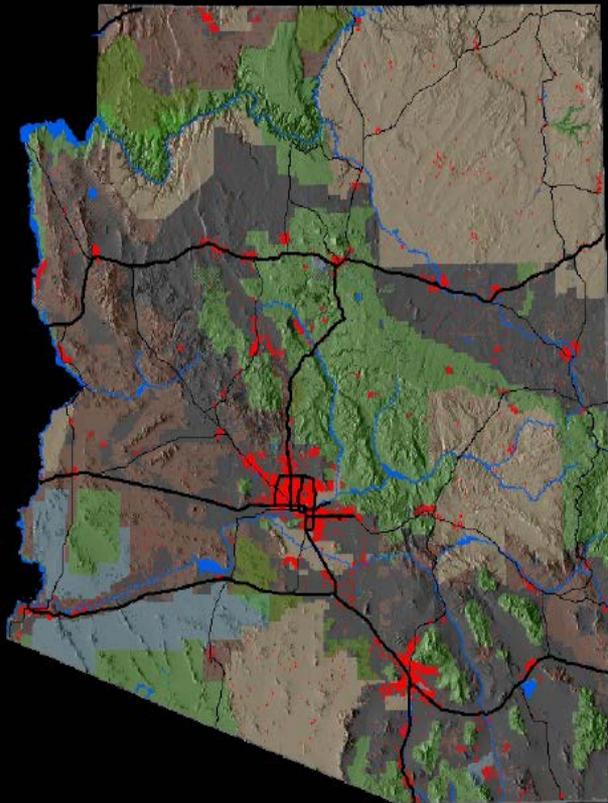
## Planning & Policy for Growth & Infrastructure Management



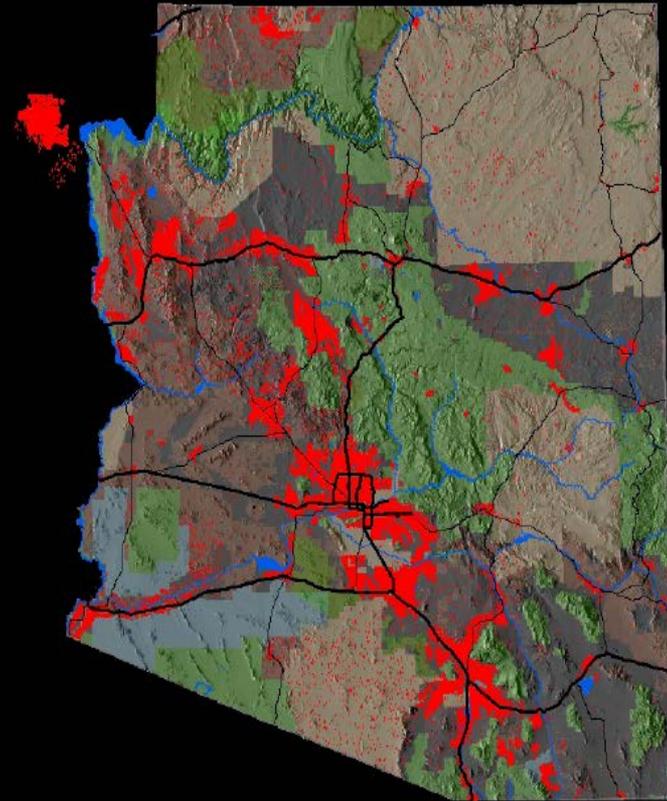
ASU Workshop Course on  
Pinal County

# Shaping our Future Urban Form

.....What Role for Parks and Open Space & Infrastructure Corridors



2000



2050



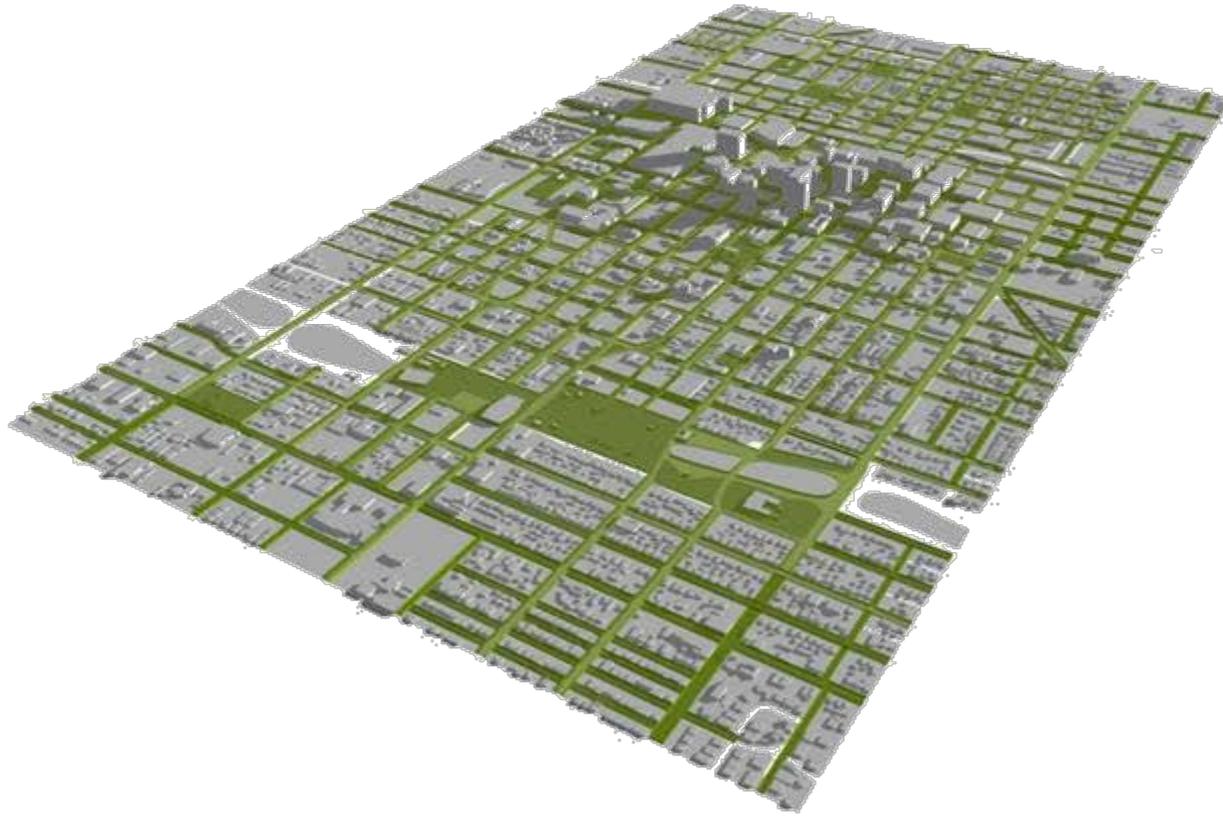


# Shaping Growth

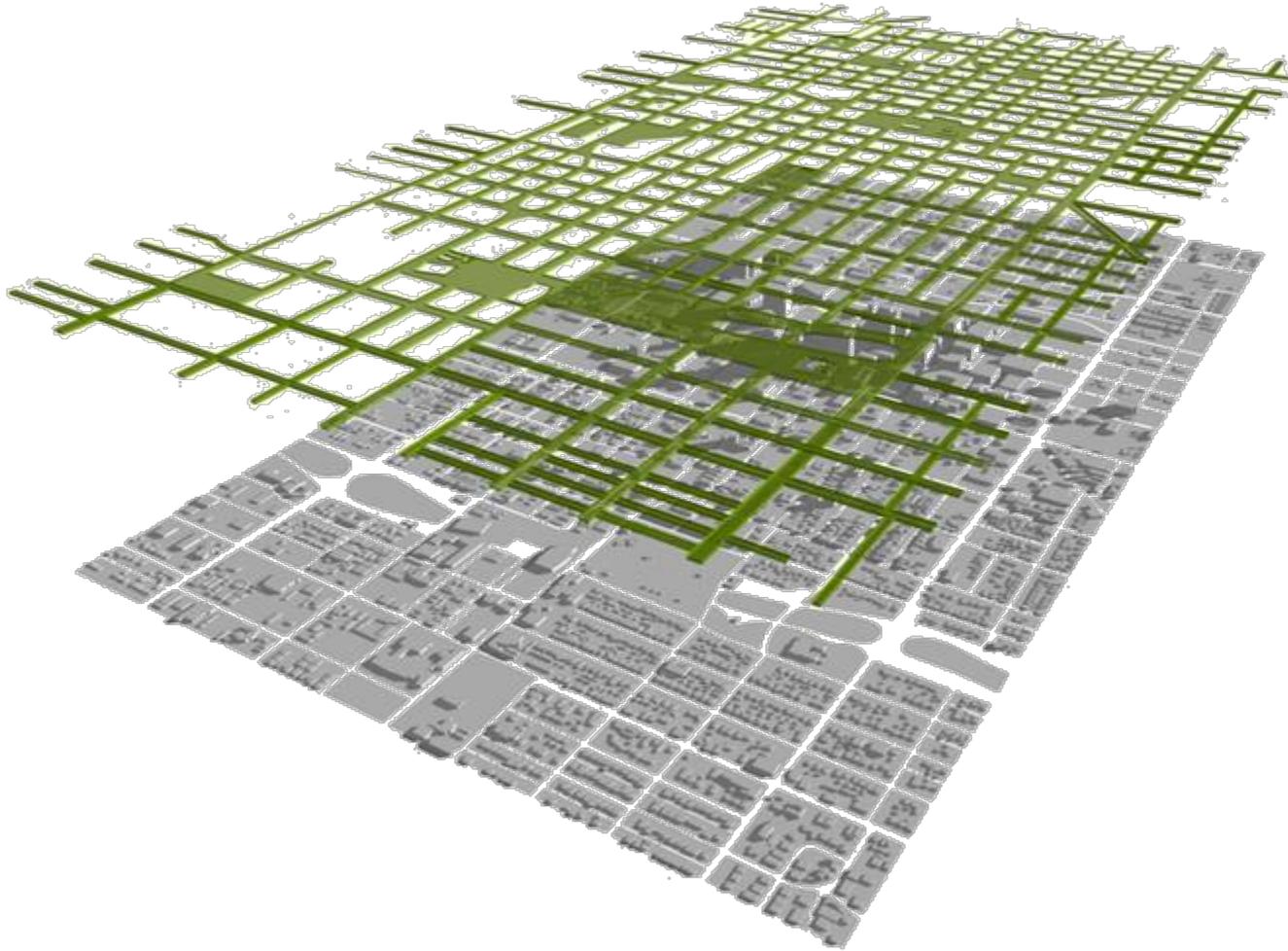
## The Role of Parks & Open Spaces in Shaping Development

Networks - Edges - Corridors

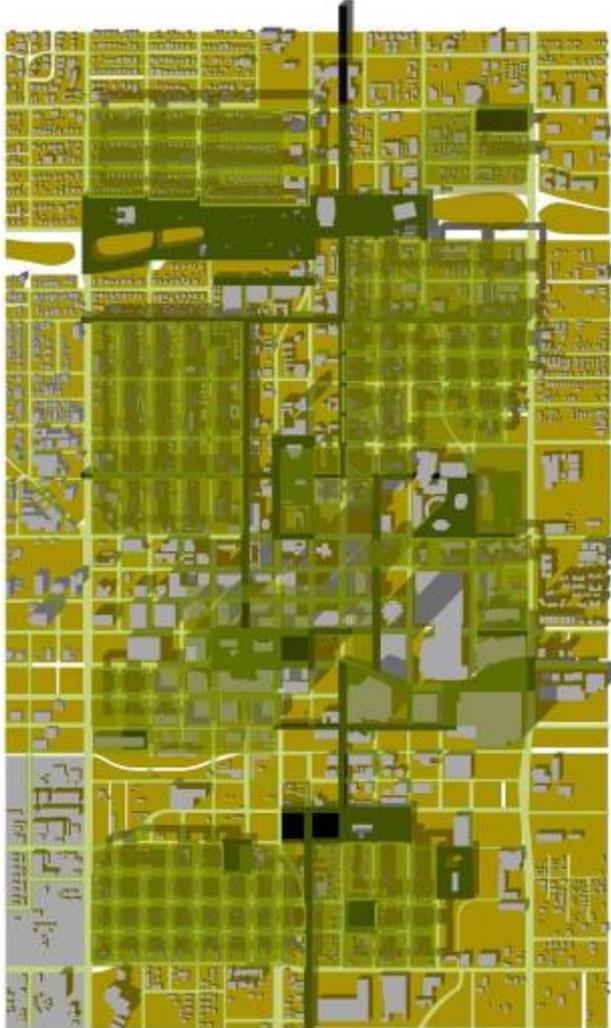
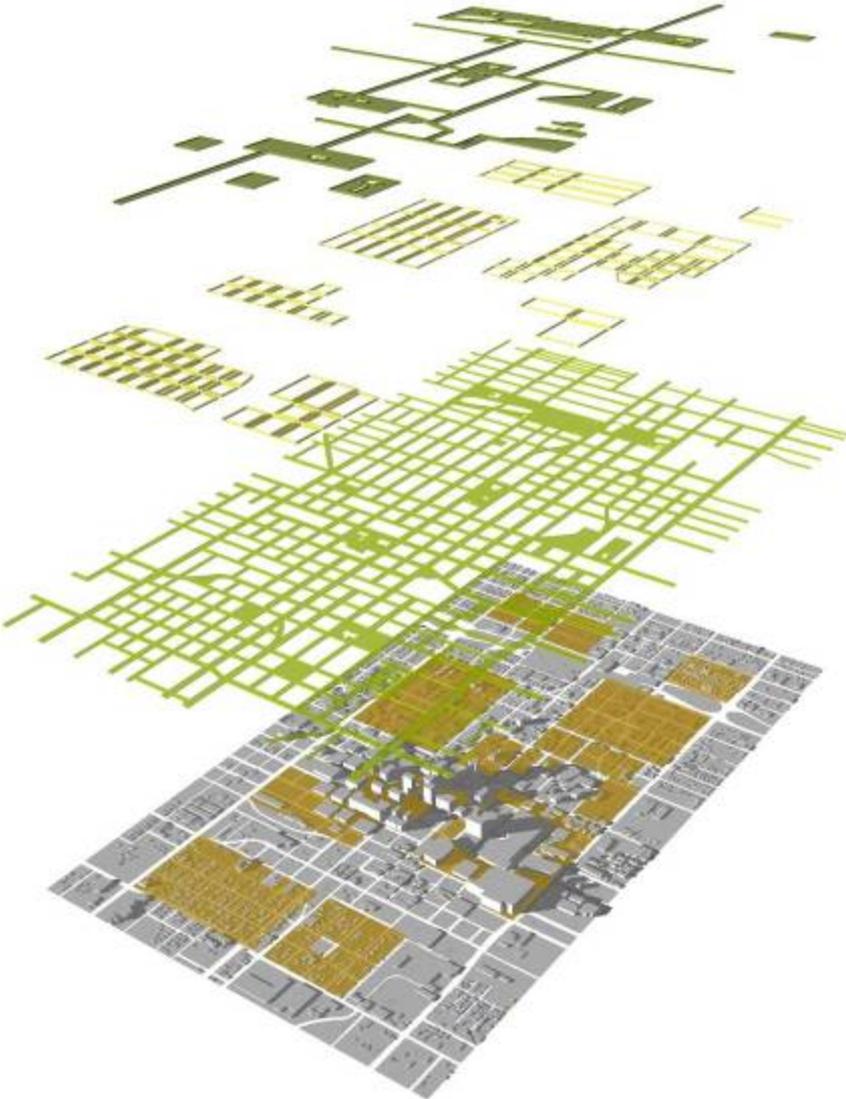
# Street Network



# Street Network



CONNECTED OASIS

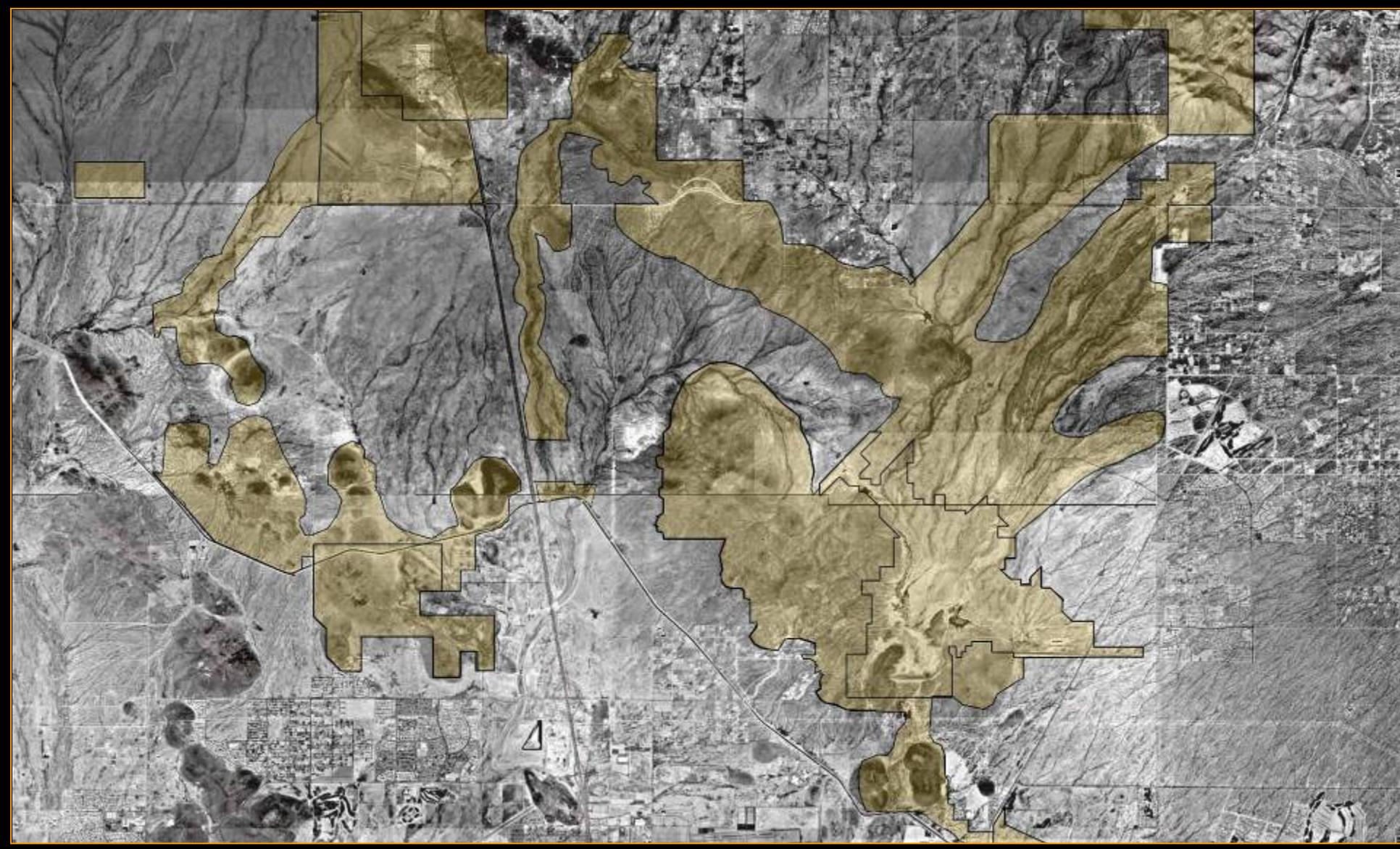


# Edges between Open Space & Development

.... A Past of Mistakes & Lost Opportunities



# New Design Concepts For The Edge









# Single Loaded Road



- Patios close to side walk
- No visible garages
- Walkable street front
- Allows for eyes on the preserve

# Medium Density Housing with Open Space on Preserve



- Brings preserve into development
- Creates physical and visual access
- Public access to preserve
- Neighborhood Parking
- More houses front preserve
- Alleyway access to garages



Edge Concept



Edge Concept



# Think Corridors & Linkages

## Linking Green and Gray Corridors



# Open Space & Infrastructure Corridors

- Opportunity at urban edge to guide development of physical infrastructure between and within new communities:
  - transportation -- drainage & recharge
  - open space -- wildlife migration
  - recreational corridors -- utility & telecommunications
- Maintain viable ecosystems in urbanizing areas
- Facilitate alternative transportation
- Reduce infrastructure costs and increase amenities
- Apply scientific understanding



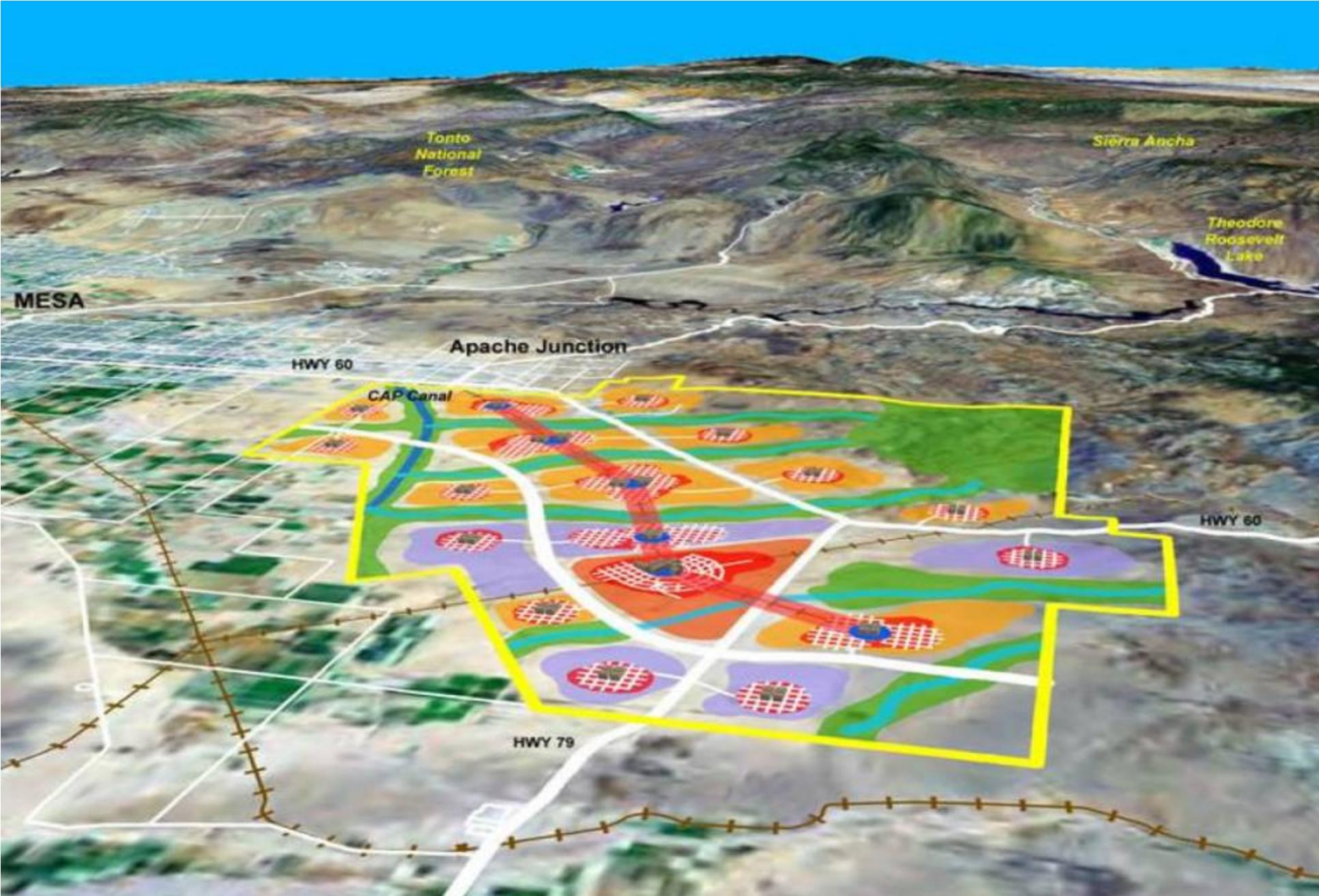
# Benefits of Corridor Linkages

- **Wildlife movement**
- **Riparian area buffer zone: protect from runoff and erosion**
- **Drainage and recharge**
- **Connect residents with nature**
- **Connect ecosystems**
- **Provide recreation**
- **Routes for utilities (“gray infrastructure”)**



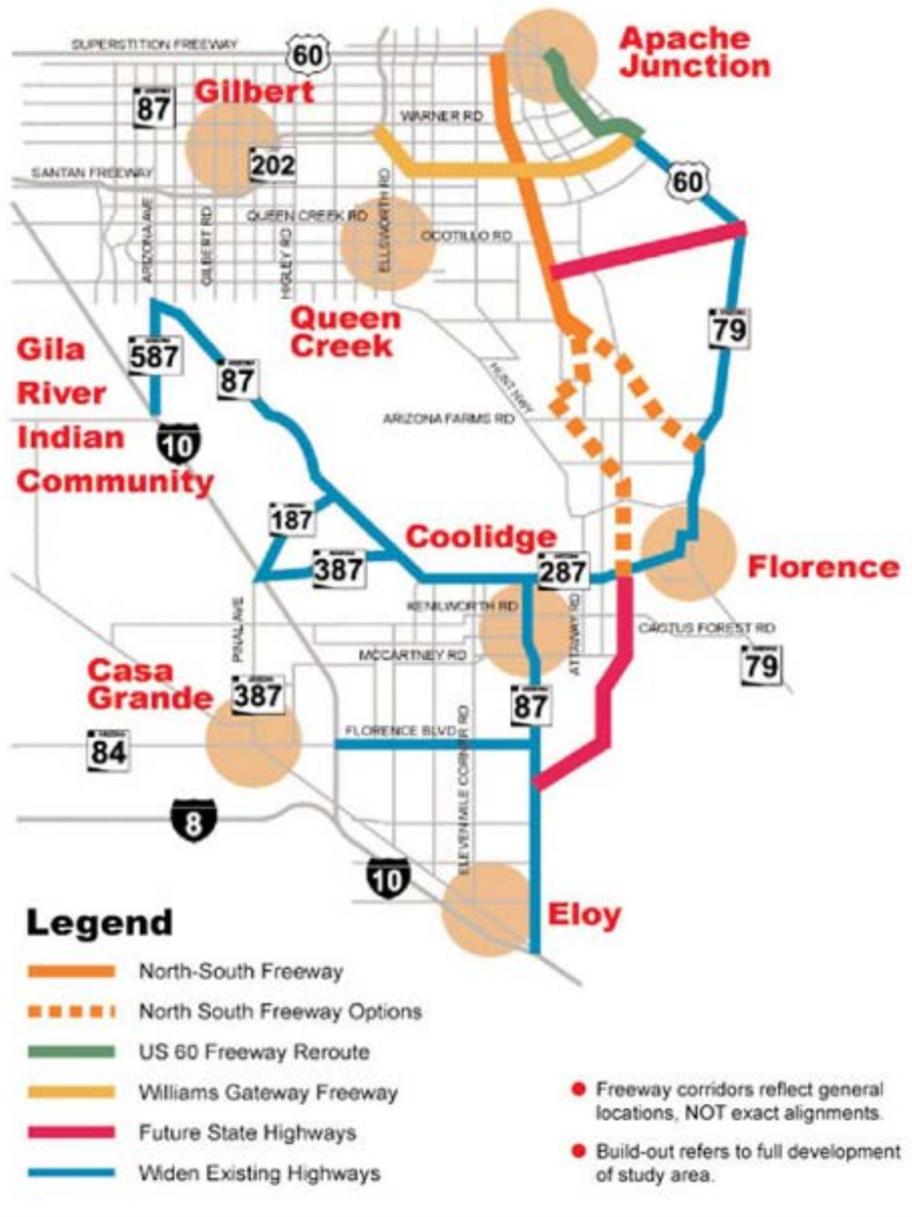
## ...Not to mention...

- **Nearby land values will increase**
- **Better quality of life for residents**
- **Economic development opportunities**



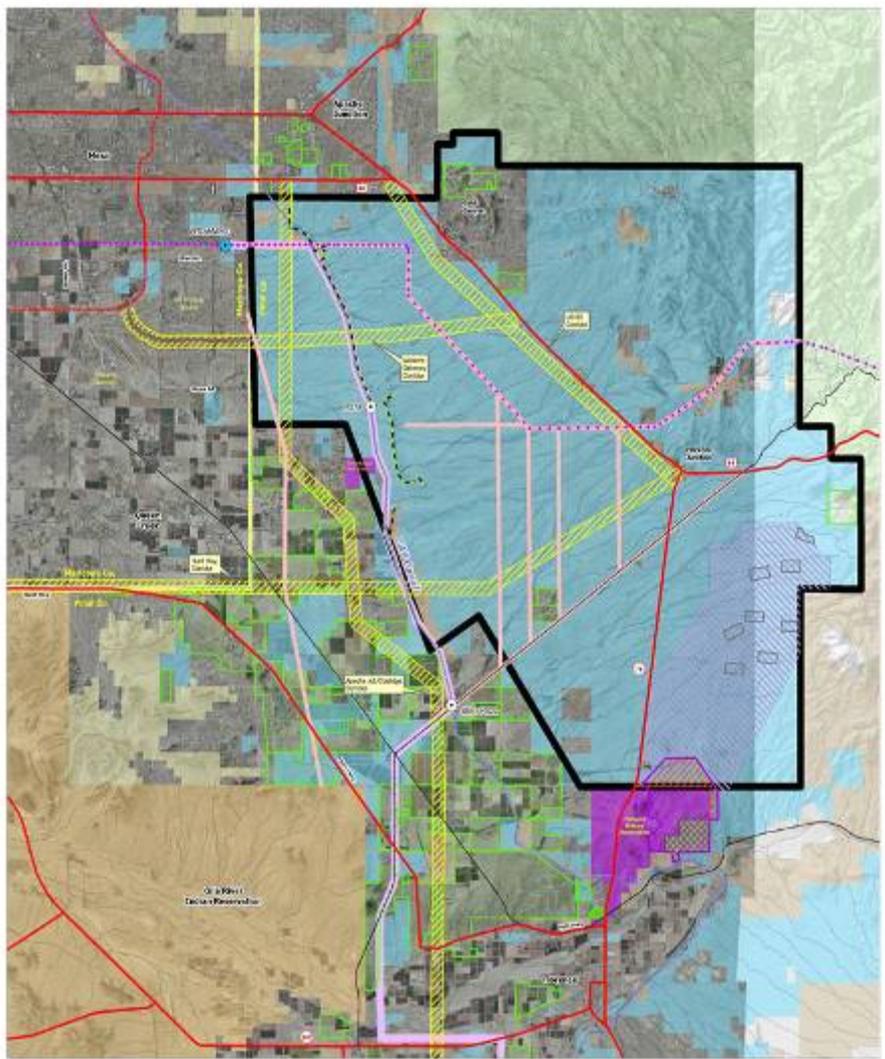






Source: Arizona Department of Transportation, 2006.



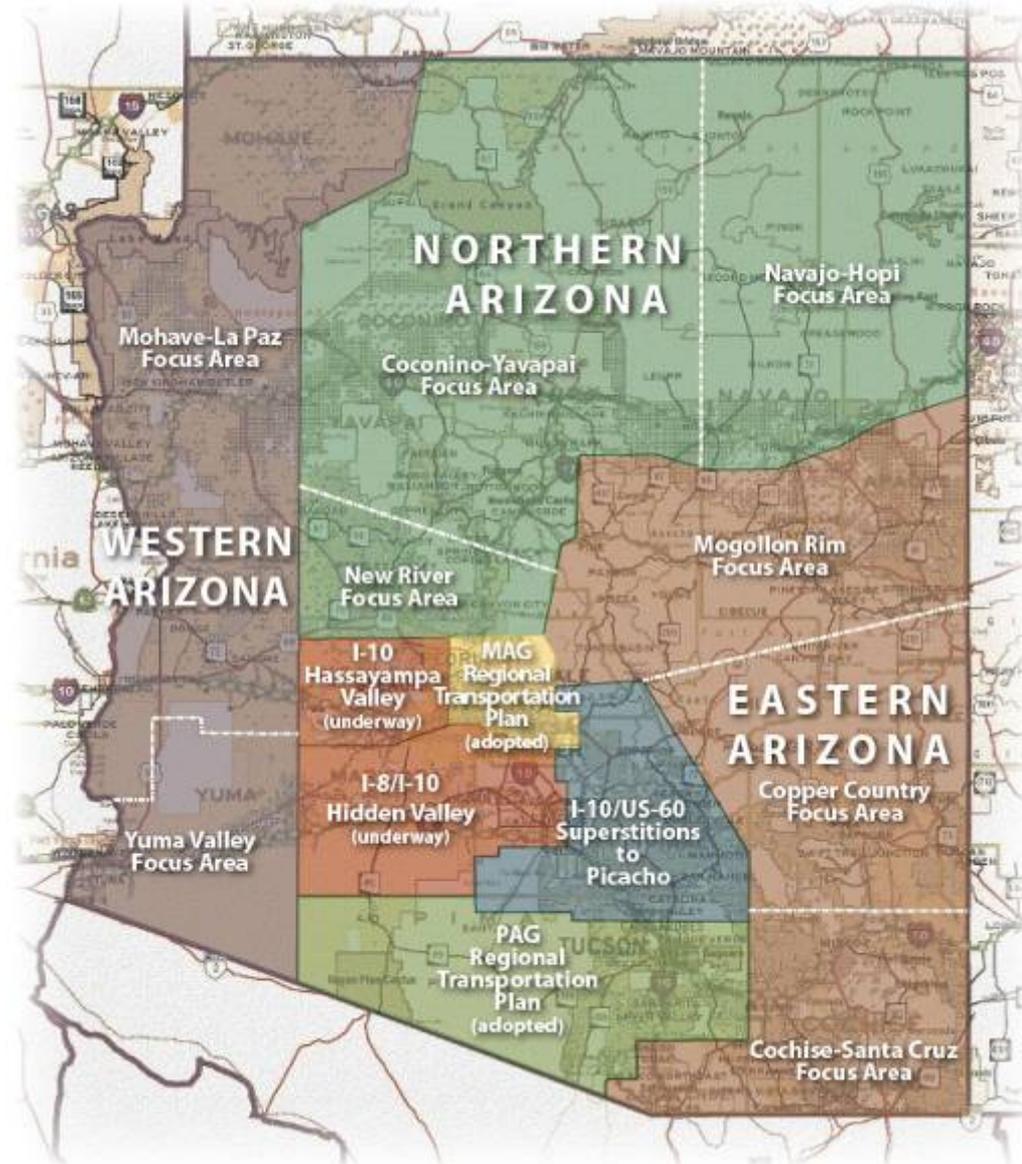


# Building a Quality Arizona

## Statewide Roadway Framework Studies

Framework Study Locations

Arizona COG/MPO Association  
&  
Arizona Department of  
Transportation





# I-8/I-10 Hidden Valley Roadway Framework Study

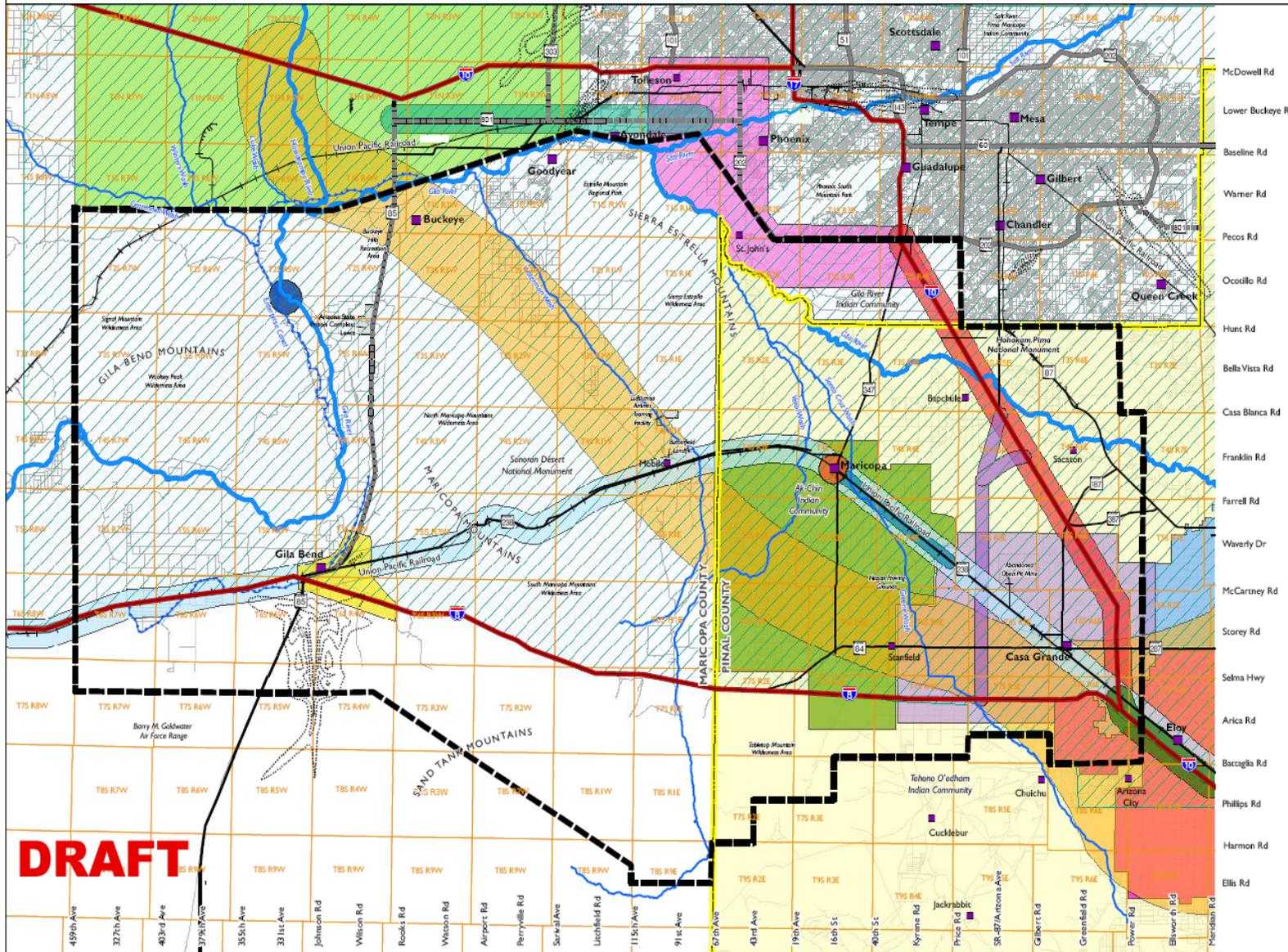
## Current Transportation Planning Projects

### Legend

- ADOT Phoenix-Tucson I-10 Bypass Project
- ADOT SR-801 Corridor Study
- ADOT I-10 Widening Study, Design Concept Report (DCR) and Environmental Study; SR-202L to Junction I-8
- ADOT I-10 Corridor Study, DCR and Environmental Assessment (EA); Junction I-8 to Tangerine Road
- ADOT SR-85/I-8 DCR and EA
- ADOT South Mountain Freeway Corridor Study
- FCDMC/MCDOT Historic Gillespie Dam Bridge Rehabilitation
- UPRR Study for Doubletracking
- Casa Grande Small Area Transportation Study (SATS)
- Casa Grande Montgomery Road Toll Road Feasibility Study
- Coolidge-Florence Regional Transportation Study
- Eloy SATS
- Maricopa Regional Transportation Plan Update
- Maricopa Maricopa-Casa Grande Highway Project Assessment
- Maricopa State Route 347/ Union Pacific Railroad Grade Separation Feasibility Study
- I-10/Hassayampa Valley Roadway Framework Study
- MAG Commuter Rail Strategic Plan
- Pinal Countywide Projects
  - ADOT I-10/Pinal Regional Transportation Profile
  - Pinal County Regionally Significant Routes Study
  - Pinal County Comprehensive Plan Update

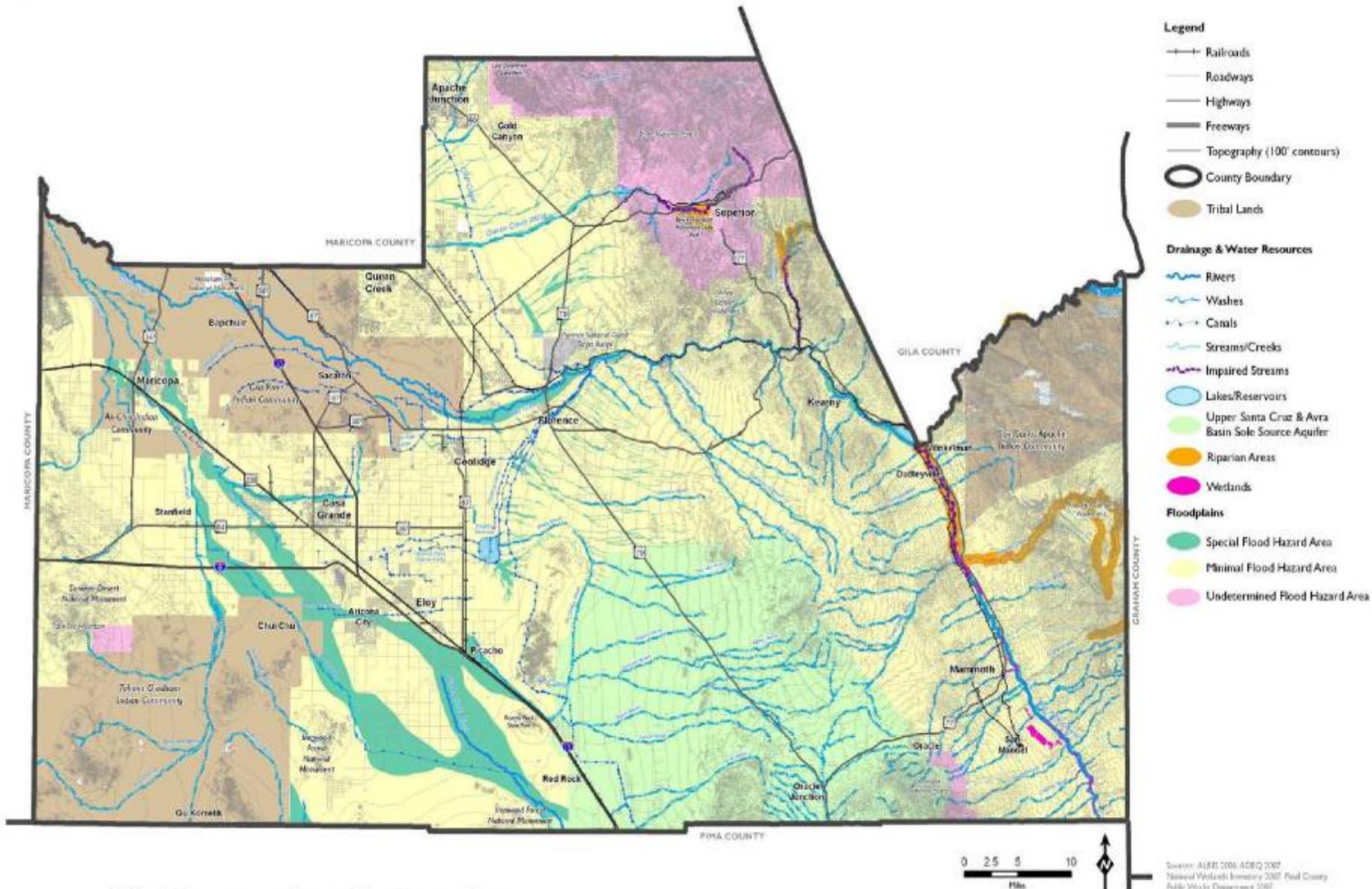
### Statewide Projects

- State of Arizona Railroad Inventory & Assessment
- Building a Quality Arizona: Statewide Reconnaissance Mobility Study
- ADOT Statewide Access Management Plan
- ADOT Phoenix-Tucson High Speed Rail Study



**DRAFT**

# Figure 5: Drainage, Water Resources and Floodplains





# Figure 11: Conservation Areas

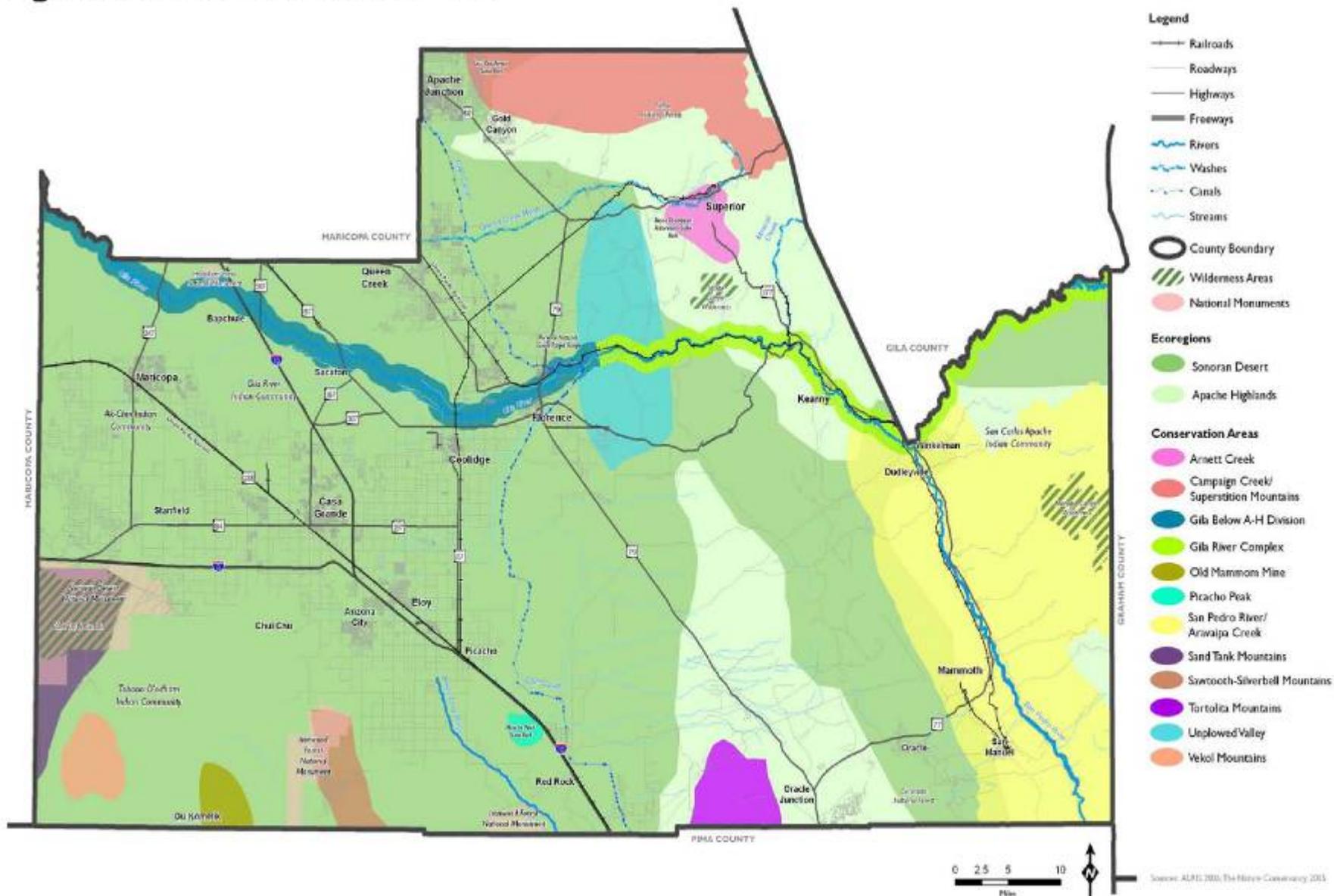
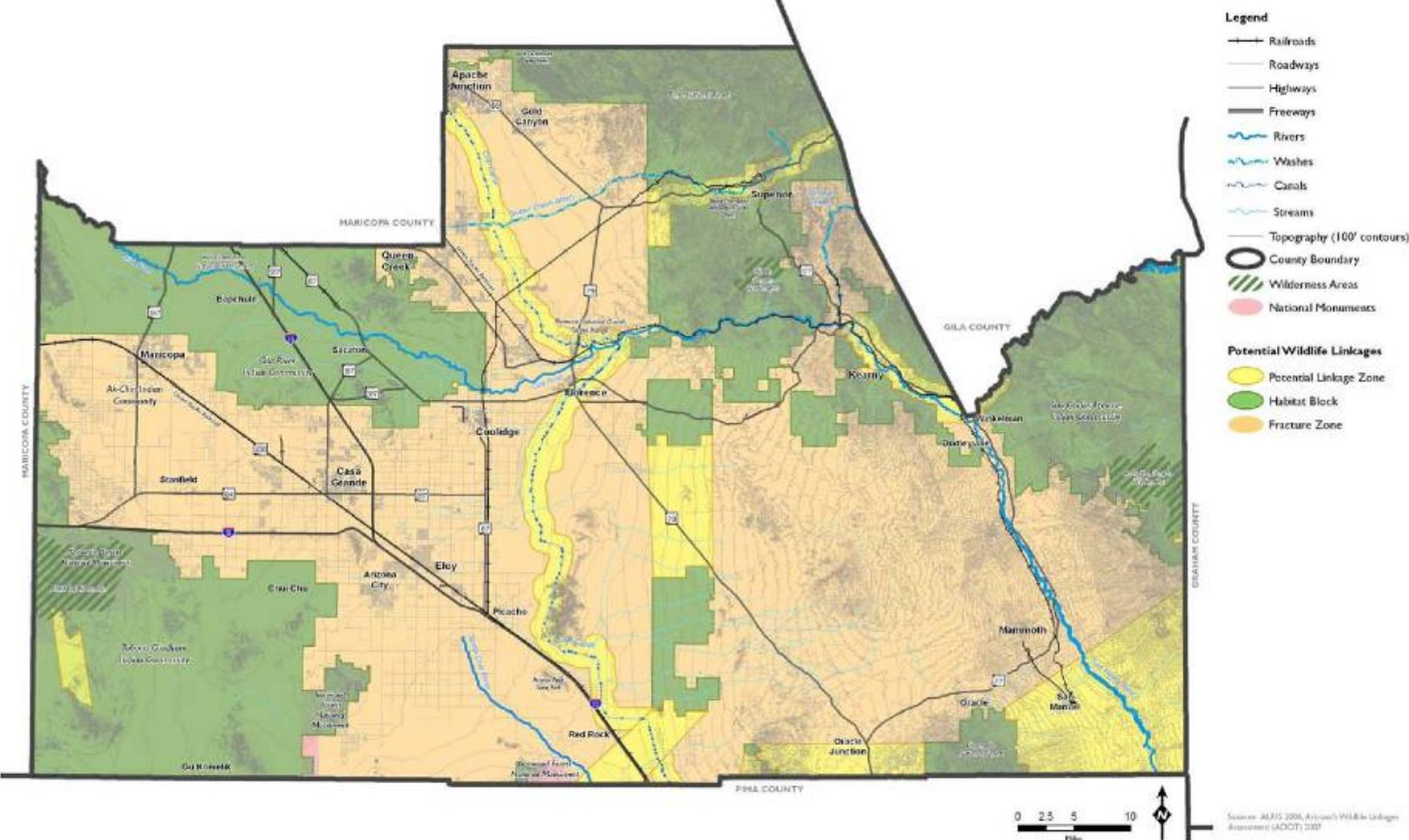


Figure 9: Wildlife Linkages







# Investing in Ourselves

Will Planning & Public Investment  
? Pay Off ?

# Tempe Town Lake



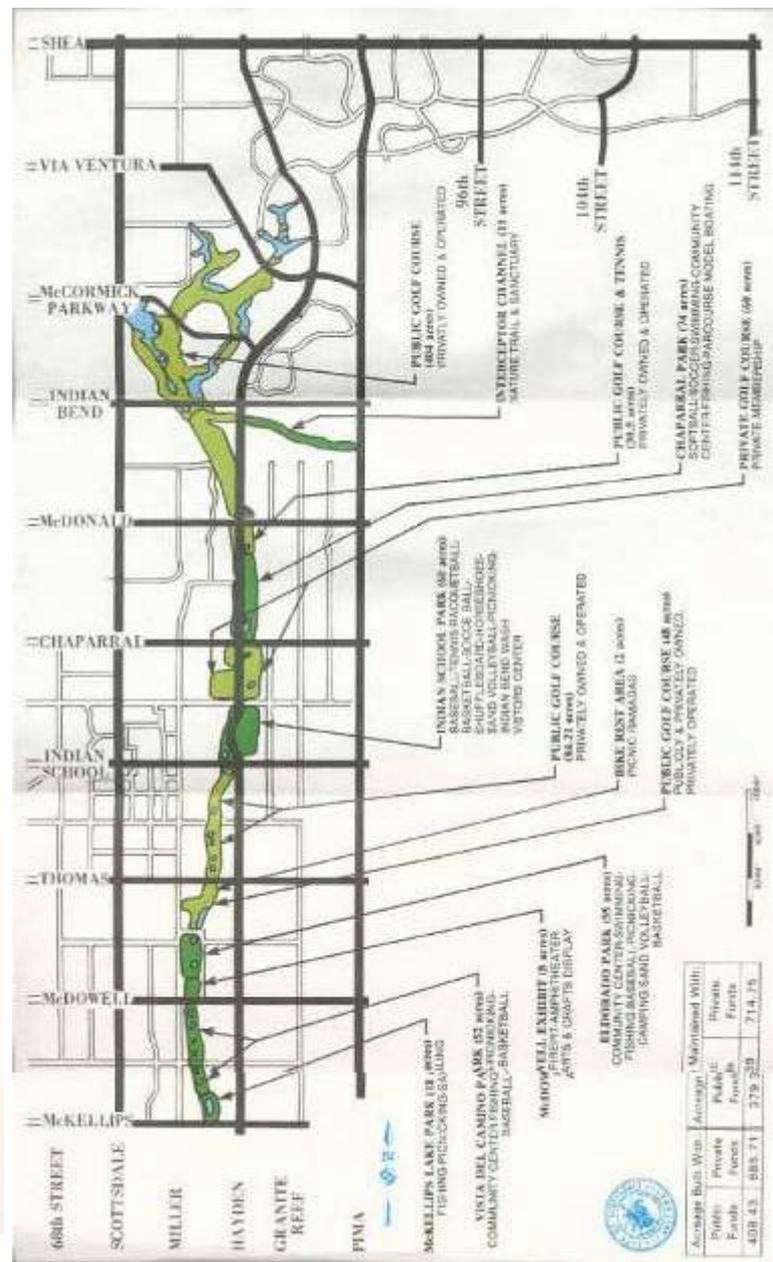
# Indian Bend Wash Scottsdale



The eroded condition of the Indian Bend Wash floodplain prior to the greenbelt's development.

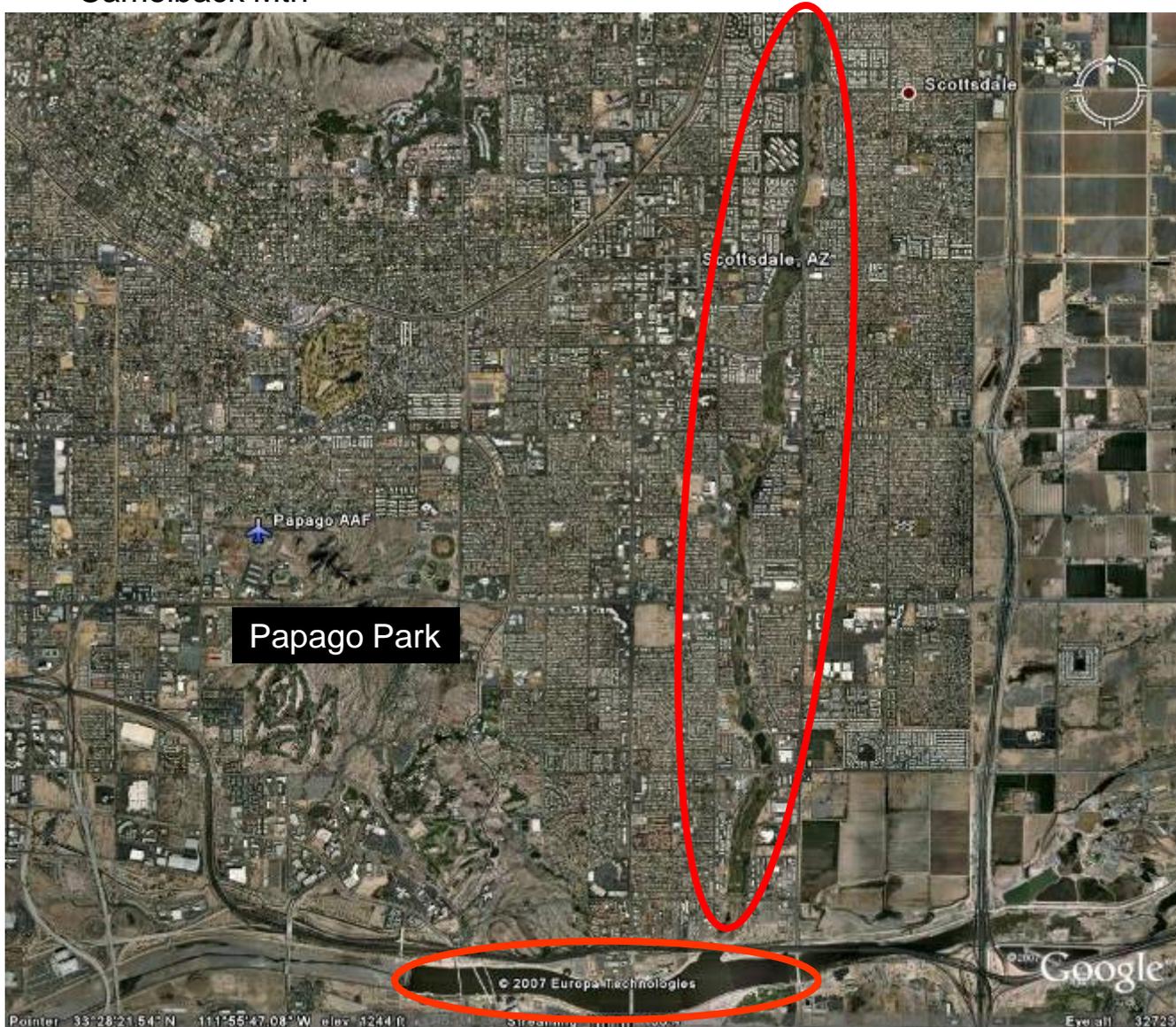


Above and below: Uncontrolled floodwaters rampaged through the community in 1972 prior to the completion of the Indian Bend Wash project.



# Indian Bend Wash & Town Lake

Camelback Mtn



Salt River Pima  
Maricopa Indian  
Community

Salt River & Tempe Town Lake



# Returns on Investment

Quality of Life

Public Health

Sense of Place

Economic Development

Is There A Return .....?



# Parks and open space increase health

- Parks & Greenways increase regular physical activity & reduce obesity
- Parks promote the social health of communities by providing common space
- And, vegetation reduces the urban heat island effect



# Economic Benefits to the Community

## Impact on property taxes

- Studies show that property near parks or open spaces sell for more money, increasing valuation and **increasing property tax revenue as much as 20%**

## Impact on Infrastructure costs

- The cost of building infrastructure and servicing developed residential property usually exceeds the property tax revenue it generates, so **open space does not cause revenue loss**



# Open Space contributes to job growth

- Pinal County wants to build its economic base with new “smokeless” industries and the jobs they create
- Research shows quality of life is a determining factor in attracting such companies
- Most new jobs are created by small businesses, which put even more emphasis on quality of life



# If you build it, they will come....

A study of key decision-makers from 174 businesses that had relocated, expanded, or been launched reported that quality of life was the most important factor for location choice, and that park, recreation, and open space amenities were the most important factors within the category.

Trust For Public Land 2007



# Parks & Open Space

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What are Great Civic Places & Places

They Enjoy Public

They Can Support a Pattern of Growth

Role for University - Research  
Public Spaces & Linkages

Make a Long Term Investment

What is the Payoff

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# State Trails Conference - 2007

## Workshop on Corridors & Open Space

### Biggest Challenges in Arizona

- Sprawl Fragmenting Lands & Habitat
- Need to Connect Communities
- State Trust Land - Land Development & Lack of Management
- Increasing Land Values - Cost of Land
- Political Will
  - Need for common vision
  - Out of date county & municipal codes
  - Antiquated mining & railroad laws
  - Too dependant on development - lack of diverse economy



# State Trails Conference - 2007 Workshop on Corridors & Open Space

## Data / Research Needed

- Data on Wildlife Movement & Interaction
- Size & Connectivity for Biodiversity
- Use / Habitat Degradation Thresholds
- Intensity of Human Uses & How Impact
- Invasive Species Mapping & Controls
- Impacts of Different Edge Treatments



# Open Space & Infrastructure Corridors Research & Data Needs

- Identify BMP's for washes, retention basins, drainage areas & recharge sites to preserve ecosystems, manage water & allow multiple uses
- Develop comprehensive regional wash development & mitigation plans
- Identify, map and plan for wildlife habitats and migration corridors
- Identify critical open space areas and opportunities to preserve them
- Identify critical trail and open space connections & access points
- Investigate ecosystem and quality of life impacts for different methods of treating edge/interface between development and open/natural areas
- Translate knowledge into design guidelines to assist local planning
- Secure permanent ecological monitoring sites & link to schools
- Identify long terms uses of public lands and policies shaping use of those lands



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