

October 24, 2012

TO: Members of the MAG Population Technical Advisory Committee

FROM: Charlie McClendon, Avondale, Chair

SUBJECT: TRANSMITTAL OF MEETING NOTICE AND TENTATIVE AGENDA

Tuesday, October 30, 2012 - **10:00 a.m.**
MAG Office, Second Floor, **Chaparral Room**
302 North 1st Avenue, Phoenix

A meeting of the MAG Population Technical Advisory Committee (POPTAC) will be held at the time and place noted above.

Members of the POPTAC may attend either in person or by telephone conference. If you are attending via audioconference please contact Steve Gross at (602) 254-6300 at least one day prior to the meeting.

If you drive to the meeting, please park in the garage under the building and bring your ticket to the meeting; parking will be validated. For those using transit, the Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Scott Wilken at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures approved by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum to conduct business. A quorum is a simple majority of the membership or 14 people for the MAG POPTAC. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction with Steve Gross at (602) 254-6300.

TENTATIVE AGENDA
MAG Population Technical Advisory Committee
October 30, 2012

1. Call to Order

2. Call to the Audience

An opportunity will be provided to members of the public to address the MAG POPTAC on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested to limit their comments to three minutes. A total of 15 minutes will be provided for this agenda item, unless the Chair of the POPTAC provides for an exception to this limit. Those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.

3. Approval of Meeting Minutes of August 28, 2012.

4. Draft July 1, 2012 Maricopa County and Municipality Resident Population Updates and Methodology

Arizona Department of Administration (ADOA) is preparing the July 1, 2012 resident population updates for each county in the state. MAG has received a draft 2012 County population update for Maricopa County. MAG staff has developed a draft set of provisional municipality updates based on the draft control total for Maricopa County. The updates, which are used to prepare budgets and set expenditure limitations, were prepared using the 2010 Census as the base and housing unit data supplied and verified by MAG member agencies. These updates are needed by the Economic Estimates Commission. Because there may be changes to the State and county control totals by ADOA, the MAG POPTAC is requested to

2. For information.

3. For information, discussion and approval of the minutes of August 28, 2012.

4. For information, discussion, and possible recommendation to the MAG Management Committee to approve the Draft July 1, 2012 Maricopa County and MAG Municipality Resident Population Updates, provided the Maricopa County control total is within one percent of the final control total.

recommend approval of these updates to the MAG Management Committee provided the Maricopa County control total is within one percent of the final control total. Please see Attachments 1 and 2.

5. MAG Socioeconomic Projections

a. Maricopa County Resident Population and Employment Projections

Arizona Department of Administration (ADOA) has prepared a set of draft resident population projections for Maricopa County consistent with the 2010 Census. MAG has also developed draft employment projections which are consistent with the ADOA population projections utilizing an updated methodology. These projections will be used as control totals for the preparation of sub-regional socioeconomic projections by MAG. Because there may be changes to the State and county projections totals by ADOA, the MAG POPTAC is requested to recommend approval of the draft ADOA 2010 to 2040 population projections for Maricopa County; and the draft 2010 to 2040 employment projections for Maricopa County based on the revised methodology provided the Maricopa County control total is within three percent of the final control total. Please see Attachments 3 and 4.

b. Preparation of MAG Socioeconomic Projections

MAG is in the process of developing a new set of socioeconomic projections for 2010 to 2040. The socioeconomic projections timeline will be discussed. Please see Attachment 5.

5.

a. For information, discussion and possible recommendation to the MAG Management Committee to approve the Draft ADOA 2010 to 2040 population projections for Maricopa County; and the draft 2010 to 2040 employment projections for Maricopa County based on the revised methodology provided the Maricopa County control total is within three percent of the final control total.

b. For information and discussion.

6. Census Update

As of October 25, 2012 the One Year Estimates and the Three Year Estimates from the 2011 American Community Survey are available. An overview of the data for the MAG Region as well as updates on other Census Bureau activities will be provided.

7. 2015 Mid-Decade Census Options

For the last several decades MAG has coordinated a mid-decade Census or Census Survey with the U.S. Census Bureau and MAG Member Agencies. While the Census Bureau will not accept requests for cost estimates until a year prior to the anticipated date of a Special Census or Special Census Survey, staff has prepared preliminary analysis in order to begin a review of available options. Results of this analysis will be presented.

8. 2013 MAG Homeless Street Count Methodology

Staff will discuss the new methodology for homeless street count recommended by MAG Continuum of Care Regional Committee on Homelessness. Please see Attachments 6 and 7.

9. Data Collection, Review and Presentation

Ongoing data collection efforts include land use information such as General Plan amendments and development projects. The land use data collected are used in preparing socioeconomic projections and conducting regional analyses. A schedule for the collection of data for 2012 is included in Attachment 8

10. Arizona Game and Fish Department Wildlife Linkages Database

Representatives from the Arizona Game and Fish Department will give an overview of their Wildlife Linkages Database and new Wildlife

6. For information and discussion.

7. For information and discussion.

8. For information and discussion.

9. For information and discussion.

10. For information and discussion.

Assessment Report for Maricopa County.
Please see Attachment 9.

11. Regional Updates

MAG POPTAC members and MAG staff will have the opportunity to provide an update on development within their jurisdiction, amendments to general plans and any special projects.

12. Next Meeting of MAG POPTAC

The next meeting is scheduled for Tuesday January 22, 2013 at 10:00 a.m.

PLEASE NOTE: This meeting will be immediately followed by a POPTAC reception and informational presentation.

11. For information and discussion.

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
POPULATION TECHNICAL ADVISORY COMMITTEE

August 28, 2012
MAG Offices, Chaparral Room
302 N. 1st Ave, Phoenix

MEMBERS IN ATTENDANCE

Charlie McClendon, Avondale
*Tracy Clark, ADOT
A-Brad Steinke for Bryant Powell, Apache Junction
*Andrea Marquez, Buckeye
*DJ Stapley, Carefree
* Usama Abujbarah, Cave Creek
*David de la Torre, Chandler
A-Mark Smith, El Mirage
A-Ken Valverde, Fountain Hills
*Rick Buss, Gila Bend
Patrick Banger, Gilbert
Thomas Ritz, Glendale
Katie Wilken, Goodyear
*Gino Turrubiarres, Guadalupe

A-Sonny Culbreth, Litchfield Park
A-John Verdugo for Matt Holm, Maricopa County
*Wahid Alam, Mesa
*Molly Hood, Paradise Valley
A-Ed Boik, Peoria
Chris DePerro, Phoenix
Dave Williams, Queen Creek
*Bryan Meyers, Salt River Pima-Maricopa Indian
Community
*Adam Yaron, Scottsdale
A-Lloyd Abrams, Surprise
A-Arlene Palisoc for Lisa Collins, Tempe
Ratna Korepella for Anne McCracken, Valley Metro
*Diane Cordova, Youngtown

** Not in attendance*

A - Participated via audioconference

OTHERS IN ATTENDANCE

Abhishek Dayal, Metro Light Rail
Eric Morgan, Avondale
Max Enterline, Phoenix
Mohammed Al-Sabbry, ADWR
A-Linda Edwards, Gilbert
Scott Wilken, MAG
David Worley, MAG

Jami Garrison, MAG
Anubhav Bagley, MAG
Shannon Acevedo, MAG
Jason Howard, MAG
Jesse Ayers, MAG
Lora Mwaniki-Lyman, MAG
Vern Wolfley, MAG

1. Call to Order

The meeting was called to order at 10:07 am by Chair Charlie McClendon.

2. Call to the Audience

Anubhav Bagley introduced Lora Mwaniki-Lyman, Regional Economist, as the newest member of the MAG Information Services Team.

3. Approval of the Meeting Minutes of June 26, 2012

Dave Williams made a motion to approve the June 26, 2012 minutes as written. Katie Wilken seconded the motion, and the motion passed unanimously.

4. State Demographer's Office Update

Anubhav Bagley gave an update on activities of the State Demographer's Office (SDO). He said that MAG recently received draft set of projections from the SDO, which are required to be used for MAG's sub-county projections. He said that MAG staff had found issues with the draft projections, and have been meeting with the SDO to resolve these issues, including low birth rates and low migration rates. He said that MAG staff is working with the SDO to revise the draft projections, and the SDO will provide an updated draft in the near future. He said that the MAG sub-county projections will take about 6 months to produce once the SDO projections are final, and, because of the work to revise the draft projections, the final MAG projections will be delayed until at least March 2013.

Chris DePerro asked if this will delay the annual July 1 population estimate. Anubhav Bagley said that this is separate from the annual population estimate. He said that the annual population estimate methodology is also being examined, and there will be a presentation in the September POPTAC meeting on that topic.

Katie Wilken asked if, given the delay, will the 2010 data still be used as the base for the projections, or will it be updated with the 2011 data. Anubhav Bagley said that the 2010 figures have to be used as the base because they include the comprehensive census count, but the model will use the latest information available since 2010 when it starts the projection process.

5. Census Update

Jami Garrison gave an update on census products and activities. She said that the Census Bureau is preparing to resume its population estimates challenge program this year, which will provide eligible entities the opportunity to file requests for review of population estimates for 2011 and subsequent years. She said that the rules for the program are in the public comment period until September 10, 2012. She said there are three important parts to the rules: instead of providing the jurisdiction's alternative population estimate, the new challenge procedure will focus on the specific component of the estimate being challenged; the formerly two-step process will be streamlined into one step; and states are no longer eligible to directly participate in the program.

Jami Garrison gave an update on American Community Survey (ACS) release schedule. She said that the one-year 2011 ACS estimates will be release on September 20 for counties and places over 65,000 population; the three-year 2009-2011 estimates will be released October 25 for places over 20,000 population; and the five-year 2007-2011 estimates will be release on December 6 down to the block group level.

Jami Garrison gave a demonstration of the new Census Bureau mobile app. She said that it includes the key economic indicators from various federal agencies, as well as release dates for the data sets included in the app.

6. Assumptions for MAG Socioeconomic Projections

Jesse Ayers Jesse Ayers presented the methods and assumptions used in Arizona's Socioeconomic Modeling, Analysis, and Reporting Toolbox (AZ-SMART) to prepare the 2012

MAG Socioeconomic Projections. He said that this is the second presentation on factors and methods for the AZ-SMART model system, this one focusing on special populations: airport originations, school enrollment, group quarters, transient population, and seasonal population.

Jesse Ayers said that the MAG travel model requires average daily airport originations. He said that Sky Harbor and Phoenix-Mesa Gateway airports are the two airports involved with this population because they primarily deal with commercial flights, as opposed to the smaller airports around the valley. He said the airport master plans were used for base year data and projections. He said that Sky Harbor provided daily enplanements, which include flights by people who fly to Phoenix and transfer to a different flight at Sky Harbor. He said the travel model is only interested in the number of trips generated because people are going to the airport. He said that approximately 60% of enplanements are originations at Sky Harbor, so the daily enplanements were converted to daily originations by using a factor of 0.6. He said that while Phoenix-Mesa Gateway used annual originations, converted to daily originations by using 1/365, because that airport currently does not have transfer flights.

Jesse Ayers said that school enrollment is anyone who is enrolled in school and their primary activity is being a student. He said for the base year data and projections, the model will use participation rates by age cohort, using different rates for different levels and types of schools. He said the number of school enrollment then gets allocated to the nearest school site.

Jesse Ayers said that Group Quarters population means permanent population not living in households, including military barracks, prisons, jails, college dormitories, nursing homes, and others such as group homes. He said base year data comes from the 2010 census, and projections are calculated as a percentage of particular age cohorts of the total population, except for military population which is held constant at 927. He said that after those numbers are calculated, the population is allocated to the respective group quarters location based on size.

Jesse Ayers said that Transient population includes residents of the region for less than 2 weeks, and the travel model is interested in average daily overnight visitors. He said that most transient population stays in hotels, motels, and resorts, while some stays in single and multi-family housing. He said that the base included an estimate of 14 million average annual visitors with an average party size of 2.6 from the Arizona Office of Tourism (AOT). He said the big change for this set of projections is that transient population will be tied to growth in employment in the food services, leisure, and hospitality sectors.

Jesse Ayers said that Seasonal population is defined as residents of the region for 2 weeks to 6 months of the year. He said that this population lives in single and multi-family housing, mobile home parks, and recreational vehicle parks. He said that the vast majority of the base data comes from the census, and the model relies on the seasonal vacancy rates by place type. He said the projections are made using the projected data for those seasonal vacancy rates.

Charlie McClendon said that this was heard by the Ad Hoc sub-committee, who recommended that the methodology be approved by the full committee.

Mark Smith asked if MAG is using the Census Bureau definition of group home or the state definition of group homes in single-family residences. Anubhav Bagley said that MAG will use the Census Bureau definition of Group Quarters.

Patrick Banger said that the POPTAC Ad Hoc subcommittee recommended approval of the AZ-SMART assumptions and methodologies for the 2012 socioeconomic projections. Dave Williams seconded the motion, and the motion passed unanimously.

7. Data Collection, Review, and Presentation

Jason Howard gave an update on MAG data collection, review, and presentation. He said that the Job Centers dataset is currently out to member agencies for review. He said a review of the Building and Landmark Inventory dataset is upcoming. He said that MAG has received aerial imagery for the region from October 2011, and it is available to the member agencies. He said the resolution is 0.8 foot. He said that members should contact him if they are interested in acquiring a copy of the imagery.

Vern Wolfley gave a presentation on the Building and Landmark Inventory online interactive map viewer. He said there are over 1,500 points in the database broken down into 7 main categories and 25 subcategories. He said that the database is available for view in an interactive mapping site, and users are able to make comments on the points in the database if any of the information is missing or incorrect. Thomas Ritz asked when this will be sent out for review. Anubhav Bagley said that it will be sent out soon, once one final technical hitch is corrected.

Anubhav Bagley said that this was based on research done by a consultant, along with research on multiple location employers. He said that this is an effort to improve the existing land use database.

Max Enterline asked why parks are not a part of the database. Vern Wolfley said that parks are not currently part of the dataset, but could be added if desired. He said that if anyone else has ideas for points that can be added to the dataset to let staff know. Anubhav Bagley said that if anyone has a parks dataset that could be shared, that would be a good place to start. He said that MAG has a parks dataset as part of the existing land use dataset, but it is missing specific information about the parks, such as name, size, and other details. Mark Smith said that another dataset that could be included is schools. Jason Howard said that the schools dataset is forthcoming, but it is still being validated.

8. Employer Database

Shannon Acevedo gave an update on the 2011 Employer Database. She said that the database includes nearly 39,000 employers with 5 or more employees, accounting for almost 1.5 million employees. She said that 77% of employers have between 5 and 24 employees, but those employees only make up about 19% of total employment. She said that 5% of employers have 100 or more employees, and their employees make up 60% of employees. She said that trends from 2010 to 2011 haven't changed much.

She said that the Job Centers database is currently out for review. She said that it hasn't been updated since 2009, and that the 2011 Employer Database could be useful in updating that data. She said that there isn't a formal definition of what a job center is, and can vary by jurisdiction. She said that the Employer Database could help in developing a job center typology, and help analyze the job centers by place type, industry, or land use.

Thomas Ritz asked if job centers should be homogenous, or if nearby job centers with different place types and land uses should be combined. Shannon Acevedo said that it would depend on what the jurisdiction is trying to achieve with the job centers. Anubhav Bagley said that staff is looking to the local experience of the planners or economic development staff for how they would define a job center. He said after the analysis is done, the boundaries could be reexamined and changed again if necessary. Thomas Ritz said that it sounds like the greater the similarity in use the more useful the data may be.

Shannon Acevedo said that in the future MAG is discussing holding a high-level economic forum, with an economic development focus. Anubhav Bagley said that the idea at this stage is that, because MAG has so much data, a group could be pulled together to get ideas of what other regional data and analysis could be useful to the member agencies.

9. Sustainable Transportation – Land Use Integration Study

Scott Wilken said that a presentation was originally planned to give an update on the Sustainable Transportation – Land Use Integration Study. He said that the presentation will be postponed to a future meeting, to allow for more time to develop the draft toolkit for pathways to sustainable transportation and place types related to high-capacity transit stops. He said that the draft toolkit is still under development and will be shared with the stakeholders, most likely in October, and an update will be provided to POPTAC soon after.

10. Regional Updates

Mark Smith said that last year El Mirage adopted a form-based code. He said that, while that code allows development to go to the property line, it isn't mandatory. He said that for that purpose, the city has created an overlay for Thunderbird Road, which will be heard by the City Council in September. He said the overlay requires that buildings along Thunderbird Road line the street; that 50% of the ground floor and 25% of the upper stories are open to the street.

Katie Wilken asked about the MAG Continuum of Care Regional Committee on Homelessness's updated methodology for how the homeless population is counted. She said that the new methodology is based on the City of Phoenix methodology. She asked if POPTAC will get involved in that process. Anubhav Bagley said that staff will have MAG Human Services provide an update at the next POPTAC meeting.

11. Next Meeting of MAG POPTAC

Chair Charlie McClendon said that the next meeting is scheduled for Tuesday, September 25, 2012 at 10:00 am. The meeting adjourned at 10:59 am.

DRAFT Municipality Population and Housing Unit Update

**April 1, 2010 and July 1, 2012
Maricopa Association of Governments**

Jurisdiction	Census 2010 (April 1, 2010)**							April 1, 2010 - June 30, 2012					July 1, 2011 Update		July 1, 2012 Update			Jurisdiction	
	Population			Housing Units		Occupancy Rate	Persons per Occupied Units	Residential Completions	Residential Demolitions	Annexed Housing Units	Annexed Household Population	Change in Group Quarters	Housing Units	Population	Total Housing Units	Population			
	Total	Household	Group Quarter	Total	Occupied											Household	Group Quarter		Total
Apache Junction*	294	294	0	293	210	71.67%	1.40000	0	0	0	0	0	293	294	293	296	0	296	Apache Junction*
Avondale	76,238	76,078	160	27,001	23,386	86.61%	3.25314	81	7	0	0	-29	27,041	76,392	27,075	76,722	131	76,853	Avondale
Buckeye	50,876	45,782	5,094	18,207	14,424	79.22%	3.17402	965	0	5	9	102	18,669	52,334	19,177	48,895	5,196	54,091	Buckeye
Carefree	3,363	3,316	47	2,251	1,654	73.48%	2.00484	4	0	0	0	0	2,253	3,367	2,255	3,340	47	3,387	Carefree
Cave Creek	5,015	5,015	0	2,579	2,150	83.37%	2.33256	30	1	1	0	0	2,594	5,055	2,609	5,108	0	5,108	Cave Creek
Chandler	236,326	235,780	546	94,472	86,924	92.01%	2.71248	1,305	24	2	7	-10	95,134	238,381	95,755	240,624	536	241,160	Chandler
El Mirage	31,797	31,784	13	11,326	9,416	83.14%	3.37553	30	1	0	0	0	11,343	31,862	11,355	32,047	13	32,060	El Mirage
Fort McDowell	971	971	0	308	283	91.88%	3.43110	0	0	0	0	0	308	971	308	976	0	976	Fort McDowell
Fountain Hills	22,489	22,307	182	13,167	10,339	78.52%	2.15756	40	0	0	0	0	13,195	22,554	13,207	22,508	182	22,690	Fountain Hills
Gila Bend	1,922	1,922	0	943	664	70.41%	2.89458	0	0	0	0	0	943	1,922	943	1,932	0	1,932	Gila Bend
Gila River*	2,994	2,984	10	835	748	89.58%	3.98930	0	0	0	0	0	835	2,994	835	2,999	10	3,009	Gila River*
Gilbert	208,352	208,048	304	74,870	69,372	92.66%	2.99902	3,129	7	0	0	0	76,203	213,519	77,992	219,313	304	219,617	Gilbert
Glendale	226,721	223,464	3,257	90,505	79,114	87.41%	2.82458	277	18	0	0	327	90,629	227,446	90,764	225,374	3,584	228,958	Glendale
Goodyear	65,275	61,447	3,828	25,027	21,491	85.87%	2.85920	1,173	2	0	0	-35	25,640	67,337	26,198	65,210	3,793	69,003	Goodyear
Guadalupe	5,523	5,508	15	1,376	1,292	93.90%	4.26316	72	0	0	0	0	1,444	5,895	1,448	5,926	15	5,941	Guadalupe
Litchfield Park	5,476	5,439	37	2,716	2,263	83.32%	2.40345	51	0	0	0	0	2,733	5,523	2,767	5,583	37	5,620	Litchfield Park
Mesa	439,041	435,503	3,538	201,173	165,374	82.20%	2.63344	1,227	9	191	244	0	201,967	441,160	202,582	441,220	3,538	444,758	Mesa
Paradise Valley	12,820	12,789	31	5,643	4,860	86.12%	2.63148	77	0	0	0	0	5,692	12,972	5,720	13,072	31	13,103	Paradise Valley
Peoria*	154,058	152,831	1,227	64,814	57,454	88.64%	2.66006	980	4	0	0	0	65,340	155,754	65,790	156,391	1,227	157,618	Peoria*
Phoenix	1,445,632	1,423,894	21,738	590,149	514,806	87.23%	2.76588	3,889	312	1	3	979	592,127	1,451,966	593,727	1,441,688	22,717	1,464,405	Phoenix
Queen Creek*	25,912	25,896	16	8,394	7,569	90.17%	3.42132	312	0	0	0	0	8,596	26,764	8,706	27,227	16	27,243	Queen Creek*
Salt River	6,289	6,284	5	2,607	2,198	84.31%	2.85896	41	0	0	0	0	2,623	6,342	2,648	6,430	5	6,435	Salt River
Scottsdale	217,385	216,226	1,159	124,001	101,273	81.67%	2.13508	576	32	0	0	52	124,244	217,965	124,545	218,453	1,211	219,664	Scottsdale
Surprise	117,517	117,243	274	52,586	43,272	82.29%	2.70944	538	22	0	0	0	52,859	118,349	53,102	119,229	274	119,503	Surprise
Tempe	161,719	151,531	10,188	73,462	66,000	89.84%	2.29592	935	13	0	0	0	73,740	162,503	74,384	154,437	10,188	164,625	Tempe
Tolleson	6,545	6,545	0	2,169	1,959	90.32%	3.34099	1	1	0	0	0	2,168	6,541	2,169	6,578	0	6,578	Tolleson
Wickenburg	6,363	6,174	189	3,617	2,909	80.43%	2.12238	13	0	19	35	0	3,624	6,379	3,649	6,267	189	6,456	Wickenburg
Youngtown	6,156	5,953	203	2,831	2,470	87.25%	2.41012	0	0	0	0	0	2,831	6,156	2,831	5,984	203	6,187	Youngtown
Balance of County	274,048	272,932	1,116	141,957	117,709	82.92%	2.31870	608	2	-219	-298	0	142,093	274,673	142,344	275,457	1,116	276,573	Balance of County
Total	3,817,117	3,763,940	53,177	1,639,279	1,411,583	86.11%	2.66647	16,354	455	0	0	1,386	1,647,161	3,843,370	1,655,178	3,829,286	54,563	3,883,849	Total

Note: These figures are preliminary and subject to change. Totals may not add due to rounding

* Maricopa County portion only

** Updated with Count Quest Resolution Results, October 2012

Sources: U.S. Census Bureau, Arizona State Demographer's Office, Maricopa Association of Governments

See attached document for methodology

DRAFT
Jurisdiction Population Update
Census 2010 and July 1, 2012

Jurisdiction	Total Population			Percent Change		Share	
	April 1, 2010 (Census 2010)	July 1, 2012	Change	Overall	Annual	Share of Growth	Share of County
Apache Junction*	294	296	2	0.7%	0.30%	0.0%	0.0%
Avondale	76,238	76,853	615	0.8%	0.36%	0.9%	2.0%
Buckeye	50,876	54,091	3,215	6.3%	2.76%	4.8%	1.4%
Carefree	3,363	3,387	24	0.7%	0.32%	0.0%	0.1%
Cave Creek	5,015	5,108	93	1.9%	0.82%	0.1%	0.1%
Chandler	236,326	241,160	4,834	2.0%	0.90%	7.2%	6.2%
El Mirage	31,797	32,060	263	0.8%	0.37%	0.4%	0.8%
Fort McDowell	971	976	5	0.5%	0.23%	0.0%	0.0%
Fountain Hills	22,489	22,690	201	0.9%	0.40%	0.3%	0.6%
Gila Bend	1,922	1,932	10	0.5%	0.23%	0.0%	0.0%
Gila River*	2,994	3,009	15	0.5%	0.22%	0.0%	0.1%
Gilbert	208,352	219,617	11,265	5.4%	2.37%	16.9%	5.7%
Glendale	226,721	228,958	2,237	1.0%	0.44%	3.4%	5.9%
Goodyear	65,275	69,003	3,728	5.7%	2.50%	5.6%	1.8%
Guadalupe	5,523	5,941	418	7.6%	3.30%	0.6%	0.2%
Litchfield Park	5,476	5,620	144	2.6%	1.16%	0.2%	0.1%
Mesa	439,041	444,758	5,717	1.3%	0.58%	8.6%	11.5%
Paradise Valley	12,820	13,103	283	2.2%	0.98%	0.4%	0.3%
Peoria*	154,058	157,618	3,560	2.3%	1.02%	5.3%	4.1%
Phoenix	1,445,632	1,464,405	18,773	1.3%	0.58%	28.1%	37.7%
Queen Creek*	25,912	27,243	1,331	5.1%	2.25%	2.0%	0.7%
Salt River	6,289	6,435	146	2.3%	1.03%	0.2%	0.2%
Scottsdale	217,385	219,664	2,279	1.0%	0.46%	3.4%	5.7%
Surprise	117,517	119,503	1,986	1.7%	0.75%	3.0%	3.1%
Tempe	161,719	164,625	2,906	1.8%	0.79%	4.4%	4.2%
Tolleson	6,545	6,578	33	0.5%	0.22%	0.0%	0.2%
Wickenburg	6,363	6,456	93	1.5%	0.65%	0.1%	0.2%
Youngtown	6,156	6,187	31	0.5%	0.22%	0.0%	0.2%
Balance of County	274,048	276,573	2,525	0.9%	0.41%	3.8%	7.1%
Total	3,817,117	3,883,849	66,732	1.7%	0.77%	100.0%	100.0%

Note: These figures are preliminary and subject to change. Totals may not add due to rounding

* Maricopa County portion only

Sources: U.S. Census Bureau, Arizona State Demographer's Office, Maricopa Association of Governments

See attached document for methodology

Methodology for Preparing July 1, 2012 Municipality Population Updates

1. Prepare Census Data

Using the Census 2010 as the Base, determine the April 1, 2010 household population, group quarter population, total housing units, occupied housing units, occupancy rates and population per occupied unit for total units for each jurisdiction.

2. Collect New Data

Obtain the residential housing unit completions and demolitions for the time period from April 1, 2010 through June 30, 2012 from the MAG member agencies.

Obtain annexed and de-annexed housing unit data from member agencies. Determine population change from annexations/de-annexations using persons per household and occupancy rates from the Census 2010 blocks intersecting each annexed/de-annexed area.

Obtain July 1, 2012 group quarters population from survey of MAG member agencies.

3. Calculate July 1, 2012 Housing Units

Calculate the July 1, 2012 housing stock by municipality by adding the net housing units (completions minus demolitions) and the net housing units annexed from step 2 above to the Census base.

4. Calculate July 1, Resident Population

Calculate changes in the household population using the Housing Unit Method (HUM) by multiplying the new housing stock of non-annexed units from step 3 times the respective occupancy rates and persons per occupied unit by municipality and adding this to the annexed population for each municipality. Calculate the total household population by adding the change in household population to the household population in the previous year.

The occupancy rate and persons per occupied unit by municipality were taken from Census 2010 to calculate the new household population.

Bench the residential population in households to the county control total for population in households from Arizona State Demographer's Office (SDO) to obtain July 1, 2012 population in households. Benching is necessary when the MAG derived total population does not match the control total obtained from SDO. MAG utilizes the July 1, 2011 population estimates by jurisdiction as the base and benches its numbers by municipality by proportionately distributing the difference from 2011 updates.

Calculate the total resident population for July 1, 2012 by adding the July 1, 2012 group quarter population from step 2 to the July 1 2012 household population.

**DRAFT Maricopa County Population and Employment
For July 1 of Each Projection Year**

Year	Total Resident Population	Total Employment
2010	3,824,000	1,706,000
2015	4,063,000	1,931,000
2020	4,504,000	2,313,000
2025	4,931,000	2,491,000
2030	5,354,000	2,697,000
2035	5,770,000	2,892,000
2040	6,168,000	3,097,000

Notes:

Population Projections are from the Arizona Department of Administration Draft Projections, October 2012

Employment projections are based on the revised methodology described in Draft Employment Projections, Control Totals for Maricopa County.

Population and employment numbers have been rounded to the nearest thousand.

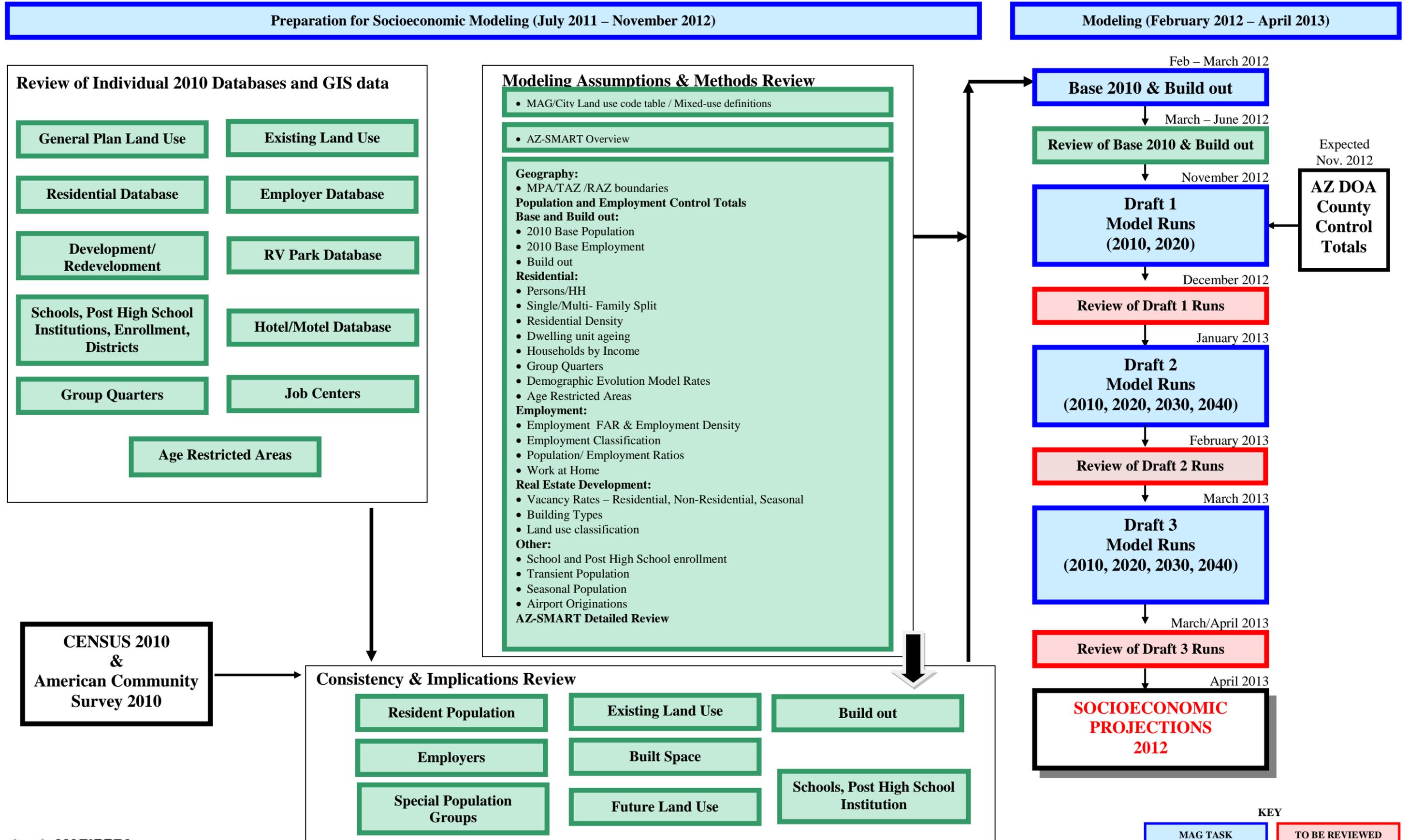
Draft Population and Employment Projections Control Totals for Maricopa County

A. Population

- The Arizona State Demographer created a cohort-component population projection model to be consistent with the results of the 2010 Census. The cohort-component model was created with input from the Council for Technical Solutions.
- MAG develops its sub-regional resident population projections to be consistent with population control totals for Maricopa County developed by the Arizona State Demographer.

B. Employment

- The Arizona Department of Administration's Office of Employment and Population Statistics (EPS) does not produce county level long term employment forecasts therefore it is necessary to obtain employment projections from another source.
- MAG staff, along with a consultant (Jeff Tayman from University of California, San Diego) conducted an analysis of commercial long term socioeconomic projections for purchase.
- Based on the analysis and consultant recommendations, it was recommended that MAG purchase population and employment projections from Moody's Economy.com. These are annual projections of employment by NAICS code for Maricopa County. In addition, MAG subscribes to quarterly employment forecasts for the Phoenix metro area (Maricopa and Pinal) produced by Marshall Vest at the University of Arizona, Economic and Business Research Center. The University of Arizona forecasts augment Moody's economy.com socio-economic projections by updating the projection base to the current year (2011) and provide a benchmark for the analysis of Moody's economy.com projections.
- Derive employment growth rates for Maricopa and Pinal from the Moody's employment projections and for Phoenix metro area from Marshall Vest's employment projections and conduct a comparative analysis of the employment growth rates and employment to population ratios. The comparative analysis also included a review of the series against the employment forecasts for 2012 and 2013 released by the Arizona Department of Administration's Office of Employment and Population Statistics and national economic forecasts by the National Association of Business Economists (NABE). Overall, Moody's and Vest's employment growth rates were found to be similar for most periods with the exception of 2012 to 2016 where Marshall Vest's projections seem in line with the current local economic environment.
- Calculate projected employment numbers for three components – covered employment, military, and uncovered employment. Based on the analysis, apply growth rates derived from Marshall Vest's employment projections to the base employment data for Maricopa County for uncovered employment. Apply a 11 year average growth rate to project the uncovered employment. Hold military employment at its 12 year average number for the projections. Employment to population ratios were developed utilizing the ADOA draft population projections and were found to be growing for Maricopa County and stable for the Phoenix metro area.
- Derive County level employment by business sector by year from a combination of the two series (Moody's Economy.com and Marshall Vest at the University of Arizona)



**Maricopa Association of Governments (MAG) Continuum of Care Regional Committee on
Homelessness
Maricopa County 2013 Point-In-Time Homeless Count**

What is the 2013 Point-In-Time Homeless Count?

The 2013 Point-In-Time (PIT) Homeless Count is a one-night street and shelter count to determine the number of people experiencing homelessness in Maricopa County during a given point-in-time. The count includes a brief survey to identify some characteristics of people experiencing homelessness in the community. As the lead agency for the Maricopa County Continuum of Care, MAG coordinates the regional count each year.

When will the 2013 PIT Count take place?

The 2013 PIT count will take place during the hours of 3:00 a.m. to 9:00 a.m. on Tuesday, January 29, 2013.

Why a Point-In-Time Homeless Count?*Better understand homelessness:*

The PIT count is an effort to learn more about the individuals and families experiencing homelessness in Maricopa County. In order to accomplish community goals and make a difference in the lives of homeless men, women, children, we first need to know who they are, where they are, and better understand the factors that led to their homelessness.

Bring resources to the community/measure progress:

The data gathered in the count can be used to measure progress and make the case for additional resources. Data from the count also helps to indicate how well we are meeting community goals to prevent and end homelessness.

Drive Engagement:

The PIT count will bring together community leaders, volunteers and persons experiencing homelessness on one night with a common goal of better understanding the extent of homelessness in our community. This unique opportunity will increase awareness of homelessness and create a venue to drive further discussion and engagement toward ending homelessness.

Required to receive funding:

Our community relies on federal, state, and local funding to support a wide range of housing and services for homeless individuals and families. Communities that receive federal funding for homeless assistance from The U.S. Department of Housing and Urban Development (HUD) are required to conduct a comprehensive PIT count during the last ten days of January. In addition to fulfilling federal requirements, the PIT count helps local governments and nonprofits more effectively allocate resources necessary to meet the needs of the homeless population in the community.

Who will be counted?

The PIT count aims to quantify the number of individuals and families who are experiencing homelessness on the night of the count. This includes homeless veterans, families, youth, and single adults sleeping on the streets and in emergency and transitional shelters. The count does NOT include persons who are housed in doubled-up living situations or persons who are about to become homeless.

Who coordinates the PIT Count?

The count is coordinated by the MAG Continuum of Care (CoC) Regional Committee on Homelessness in partnership with coordinators across the region. Data are reported to HUD on an annual basis to track and measure progress on goals toward ending homelessness. The lead agency works with coordinators throughout the region to identify volunteers as well as locations in the city/town that tend to have a high number of homeless people.

Methodology

Maricopa County will utilize a '*count plus survey*' approach. This means that a brief survey will be administered in addition to the count. The survey will collect subpopulation information and other data about persons who are homeless. The count will be regional in scope, utilizing a consistent methodology throughout the entire region. Both a sheltered and unsheltered count will be conducted in 2013.

Unsheltered Count: The CoC lead agency (MAG) will work with regional coordinators throughout the county to ensure that the entire area is covered on the night of the count. The approach to cover the vast geographic area of Maricopa County will include a complete coverage as well as a random sampling approach. First, the region will be categorized into separate sections based on the density of homeless persons in the area. High density areas are areas consisting of ten or more homeless persons on a regular basis. Medium-density areas are areas consisting of five to ten homeless persons on a regular basis. Low-density areas are areas consisting of five or less homeless persons on a regular basis. The complete coverage approach will apply to small cities and towns in the region as well as high-density areas in large cities. Complete coverage means that all parts of the geography in the city or town will be covered. For large cities, a complete coverage approach combined with a random sampling approach will be used. Random sampling means that areas will be identified into low, medium, or high density categories. All low-density areas will be randomly selected for counting. Medium and high-density areas will utilize a complete coverage approach.

On the night of the count, teams of volunteers, service providers and others will search the streets to count and survey men, women, and children who are homeless. At the assigned time, volunteers will meet, be trained, given supplies, assigned an area to survey and be dispatched in survey teams. Volunteers will conduct brief surveys with the homeless persons in their assigned area and then return to the meeting place to drop off their completed surveys. Volunteer coordinators will be trained in advance of the count and volunteer counters will be trained on the night of the count. Teams will be assigned their counting area and will canvass the streets during the hours of the count. Once the count has ended, volunteers will return to the training area to turn in their completed surveys.

Cities and towns will have the opportunity to opt-in to participate in the regional approach. A city/town that opts-in will be able to join other cities/towns in the pooling of volunteers, regional training, and other resources to conduct a regional count. Cities/towns that opt-out of the regional approach will still follow the PIT count requirements established by HUD and the CoC to ensure that a consistent approach is followed in the implementation of the count and survey.

Shelter Count: The shelter count will include all emergency and transitional shelters throughout the region. Emergency shelter is short-term shelter for individuals and families in crisis for up to 120 days. Transitional shelter is housing and supportive services for up to twenty-four months, that's intended to transition individuals and families off the streets and into permanent housing. Data for the shelter count will be collected through the Homeless Management Information System (HMIS). HMIS is an electronic database used by shelter providers to collect information about the individuals and families served in shelter. MAG will coordinate with the shelter providers and Community Information and

Referral, the HMIS lead agency, to obtain the data necessary from HMIS for the PIT shelter count. The shelter count will take place on the same night as the street count. Shelters not using HMIS will complete an electronic survey with the data needed to complete the PIT count.

Who should participate in the 2013 Homeless Count?

In order to conduct a comprehensive count of homeless individuals and families in Maricopa County, community volunteers are needed. Volunteering in the PIT Homeless Count is open to anyone interested. Examples of volunteer groups include faith based groups, neighborhood associations, homeless service providers, and homeless outreach teams, city staff, volunteer groups, community leaders, and students with required volunteer hours to graduate. For more information and to sign-up to participate in the 2013 PIT Homeless Count, contact Brande Mead, at bmead@azmag.gov or visit www.azmag.gov

**2013 Maricopa County Homeless Point-In-Time Street Count
WE COUNT!**

Hello, my name is ___. I am a volunteer for the annual homeless street count. I am conducting a brief survey to better understand homelessness in Maricopa County. Will you take a few minutes to answer some interview questions? (If NO (refused), thank them and fill out attached household information sheet.) To protect your privacy, we will not use your name in any reports. Your participation in this interview is voluntary and you may refuse to answer any question. You may also stop the interview at any time. Thank you for participating, we will begin now.

<p>1. Did you/are you sleep(ing) on the street, sidewalk, a camp, park, car, bus, or in any other outdoor location tonight?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No -- IF NO Where? _____</p> <p>If Shelter or housed location, STOP survey.</p> <p>2. Have you answered a survey given by a volunteer already tonight?</p> <p><input type="radio"/> Yes – IF Yes, STOP survey.</p> <p><input type="radio"/> No --proceed with survey</p> <p>3. What is your name?</p> <div style="border: 1px solid black; height: 25px; width: 100%; margin-bottom: 5px;"></div> <p>(First Name) (Last Name)</p> <p>4. How old are you?</p> <div style="border: 1px solid black; height: 25px; width: 100%; margin-bottom: 5px;"></div> <p><input type="radio"/> Refused</p> <p>5. How do you identify your gender?</p> <p><input type="radio"/> Male</p> <p><input type="radio"/> Female</p> <p><input type="radio"/> Transgender</p> <p><input type="radio"/> Refused</p> <p>6. Do you have any children that live with you?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No (Skip to Question 8)</p> <p><input type="radio"/> Refused</p> <p>7. (If Yes) What are the ages of the children that live with you?</p> <p><input type="radio"/> Child one- age: _____</p> <p><input type="radio"/> Child two- age: _____</p> <p><input type="radio"/> Child three- age: _____</p> <p><input type="radio"/> Child four- age: _____</p> <p><input type="radio"/> Other children- ages: _____</p> <p>8. Are there any adults over the age of 18 that live with you?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No (Skip to Question 10)</p> <p><input type="radio"/> Refused</p>	<p>9. (If Yes) What are the ages of the adults that live with you?</p> <p><input type="radio"/> Adult one- age: _____</p> <p><input type="radio"/> Adult two- age: _____</p> <p><input type="radio"/> Adult three- age: _____</p> <p><input type="radio"/> Adult four- age: _____</p> <p><input type="radio"/> Other adults- ages: _____</p> <p>10. Have you ever served in the U.S. Armed Forces (e.g. served in full-time capacity in the Army, Navy, Air Force, Marines Corps, or Coast Guard)?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Refused</p> <p>11. Were you ever called into active duty as a member of the National Guard or as a Reservist?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Refused</p> <p>12. (If unsure to above questions) Have you ever received health care benefits from a VA center?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Refused</p> <p>13. Have you ever been a victim of domestic violence by a person you have lived with, such as a spouse or intimate partner?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Refused</p> <p>14. Have you been living on the streets (including bus stations, underpasses, camps, abandoned buildings, etc.) and/or in emergency shelter for the past year or more?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Refused</p>
--	---

15. (IF NO) How many different times have you lived on the street or have had to stay in a shelter in the past three years?

- 1 time
- 2 or 3 times
- 4 or more times
- Refused

16. In addition to right now, how long would you say that you've stayed in these kinds of places over the past three years?

- _____ # of months
- _____ # of years
- _____ Other
- Refused

17. I am going to ask some questions regarding potential health factors. Are you dealing with:

-daily alcohol or drug use?

- Yes
- No
- Refused

-a serious mental health problem?

- Yes
- No
- Refused

-a developmental disability (includes learning disability)?

- Yes
- No
- Refused

-a chronic physical illness?

- Yes
- No
- Refused

-do you have HIV/AIDS?

- Yes
- No
- Refused

-any other disability?

- Yes—What? _____
- No
- Refused

18. If yes (to any of the above), does this limit your ability to get or keep a job or take care of personal matters? (Such as taking care of yourself, your children, or taking medications.)

- Yes
- No
- Refused

19. Many situations can cause people to become homeless. What is the main reason for you?

- Having been a victim of domestic violence
- Having disputes with family or household members
- drug use
- alcohol use
- Having mental health issues
- Having medical problems or illness
- Having lost your job
- Having been evicted
- Insufficient or no income

Other – What? _____

- Refused

20. Which of the following best describes your employment situation most of the time?

- Part-time paid job
- Full-time paid job
- Day labor or pick-up work
- Student/vocational training
- Recycling or selling things
- Panhandling
- Disabled and cannot work
- Unemployed
- Volunteer work
- Refused

21. Are you currently receiving any of the following forms of government assistance?

- Unemployment benefits
- SSI/SSDI (Social Security Income or Social Security Disability Income)
- Food stamps
- Temporary Assistance for Needy Families
- AHCCCS (Arizona Healthcare)
- Veteran's disability benefits
- Other veterans benefits
- Child support
- Other – _____
- None
- Refused

<END of questions>

That concludes our survey. Thank you for participating and sharing personal information with me. Your answers will help the community to better understand homelessness. **(Surveyor: Please complete Household Summary information on attached sheet.)**

2013 Maricopa County Homeless Point-In-Time Street Count

WE COUNT!

Household Type

- Yes, Completed Attached Survey** (Summarize household data from attached survey.)
- Refused Survey**
(If refused survey, use best judgment to complete the household information below.)
Location of household (if refused) _____

Summary of Household Data: **Family**

Household with at least one adult and one child (Family)	
Number of persons (under age 18)	
Number of persons (age 18-24)	
Number of persons (over age 24)	
Total number of persons in household (add column totals)	

Summary of Household Data: **Single Adult or Adult Couple**

Household without children (Adults)	
Number of persons (age 18-24)	
Number of persons (over age 24)	
Total number of persons in household (add column totals)	

Summary of Household Data: **Unaccompanied Children** (Youth under 18 without an adult)

Household with only children (Unaccompanied Youth)	
Number of persons (under age 18)	
Total number of persons in household (add column totals)	

DRAFT MAG POPTAC Timeline From October 2012 to April 2013		
MAG Due Date	Member Agency Due Date	Activity
	Submit when the latest Plan or update is complete.	Submit General Plans for 60 day review.
	Submit when Amendment is ready for review.	Submit Major General Plan Amendments for 60 day review.
Ongoing	Ongoing	Submit Minor General Plan Amendments, Area Plans and Development Master Plans/Community Master Plans and Amendments.
Ongoing	Ongoing	Submit Planned Area Developments/Planned Community Developments/Planned Residential Developments/Unit Planned Development/Final Plats and Reports.
Ongoing	Ongoing	Submit copy of C404 Form to MAG.
Ongoing	Ongoing	Submit Annexations to MAG as they occur.
	October, 2012	Submit Q3 residential completions to MAG.
October, 2012	November, 2012	Review 2012 Existing Land Use database
November/December, 2012		Review of County and Sub-county 2012 population updates dependent upon State Demographer's Office schedule.
	January, 2013	Submit Q4 residential completions to MAG.
December, 2012	January, 2013	MAG sends jurisdictions the 2012 draft Employer database for review.
December, 2012	January, 2013	MAG sends jurisdictions list of all land use documents received for calendar year 2011 for their review.
January, 2013	February, 2013	MAG sends jurisdictions the draft 2012 General Plan and Developments database for review.
	April, 2013	Submit Q1 residential completions to MAG.
April, 2013	April, 2013	MAG sends jurisdictions the draft annexations between July 1, 2012 and March 31, 2013 for July 1 Arizona Department of Commerce population estimates. Jurisdictions verify and provide number of units.

Maintaining Connectivity for Wildlife: The Maricopa County Wildlife Linkages Project



Arizona Game & Fish Department

Importance of wildlife to Maricopa County

Silberman, 2001

- FISHING AND HUNTING EXPENDITURES
 - \$ 409.1 Million
- SALARIES AND WAGES
 - \$ 103 Million
- FULL-TIME AND PART-TIME JOBS
 - 5,382
- STATE TAX REVENUES
 - \$ 21.1 Million
- TOTAL MULTIPLIER EFFECT=The sum of hunting and fishing expenditures, the indirect or secondary effects generated from the expenditures, and the induced impact from the salaries and wages paid by the directly and indirectly impacted industries.

\$ 515 Million

Importance of habitat connectivity

Access to essential resources

Seasonal migration & dispersal

Maintenance of genetic diversity

Metapopulation dynamics (e.g. “rescue” effect)

Demographic effects - mortality & reproduction



Adaptation to climate change

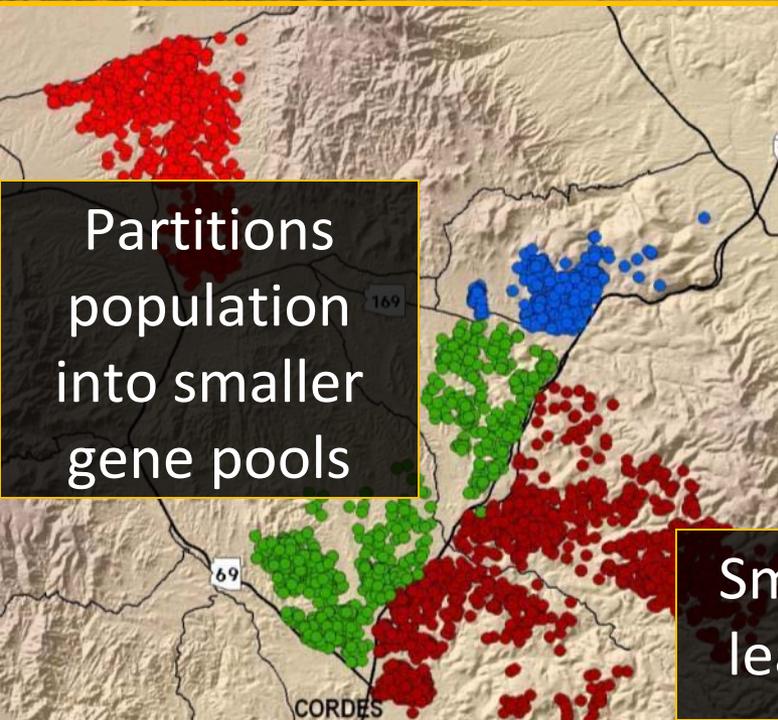
Maintenance of ecological processes (e.g. pollination)

Human values & safety

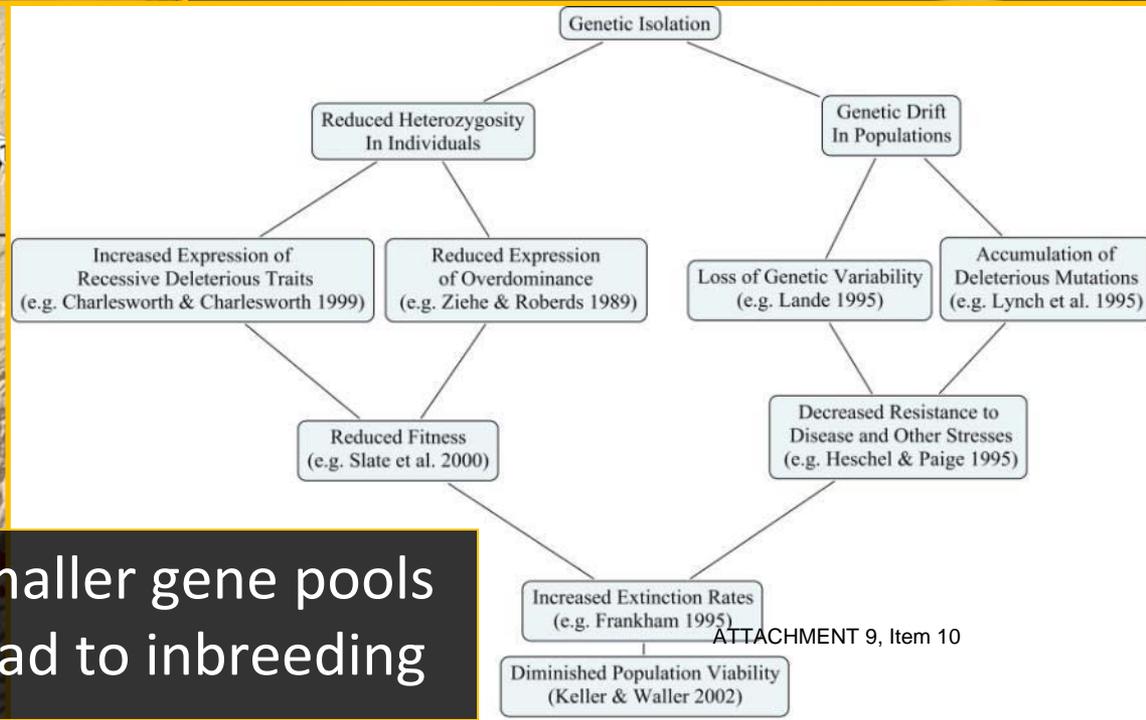
Fragmentation



Blocked resources



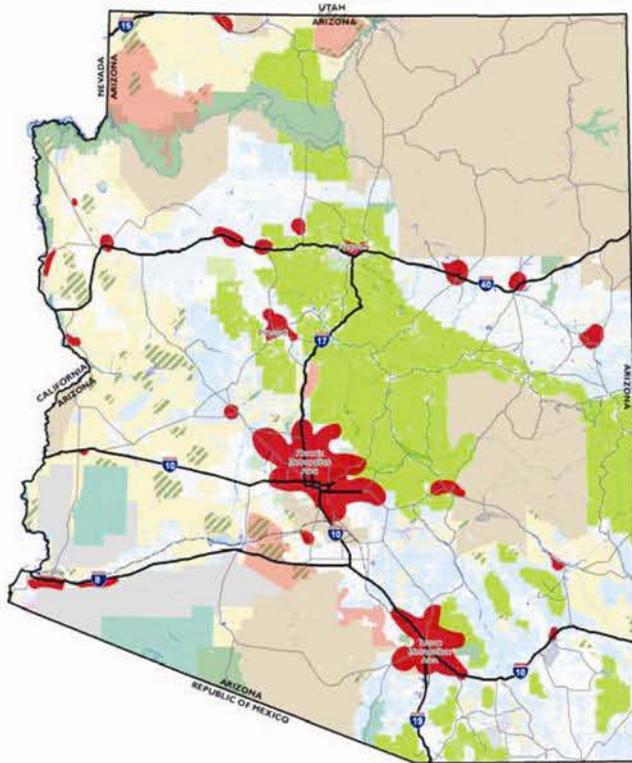
Smaller gene pools lead to inbreeding



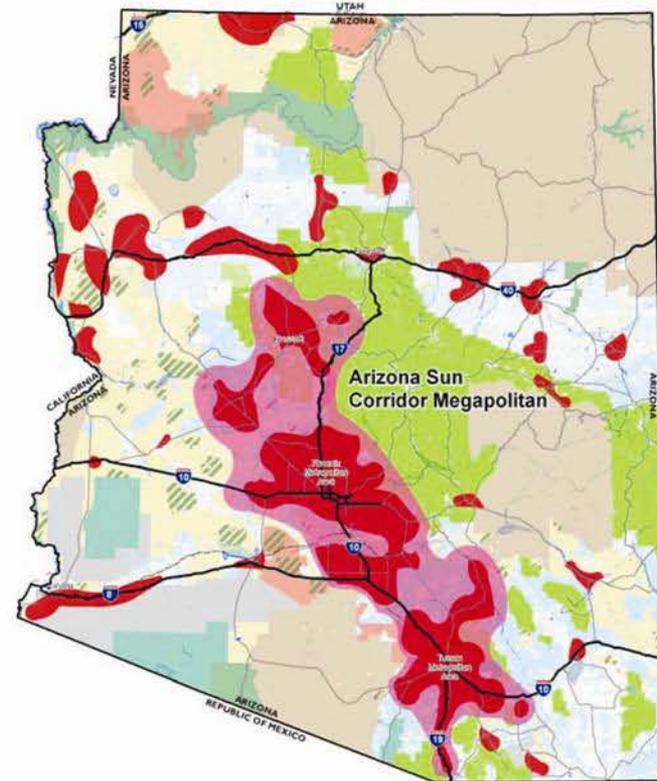
WHY WE NEED WILDLIFE LINKAGE PLANNING IN MARICOPA COUNTY

- POPULATION GROWTH
 - greater than 14 million by 2050 (Arizona Department of Transportation 2010a, US Census Bureau 2011)
 - TRANSPORTATION INFRASTRUCTURE
 - BQAZ
 - UTILITY INFRASTRUCTURE
 - alternative energy
- = significant losses of wildlife habitat and connectivity in parts of the county that are as yet undeveloped.**

Arizona's Potential for Growth



2005 Growth Areas
Population: 5.1 million



2050 Growth Areas
Population: 14.1 million



CANALS



RAILROADS



**AGRICULTURE
& FARMING**



ALTERNATIVE ENERGY



Roadways

- An estimated area the size of Georgia is under pavement in U.S.

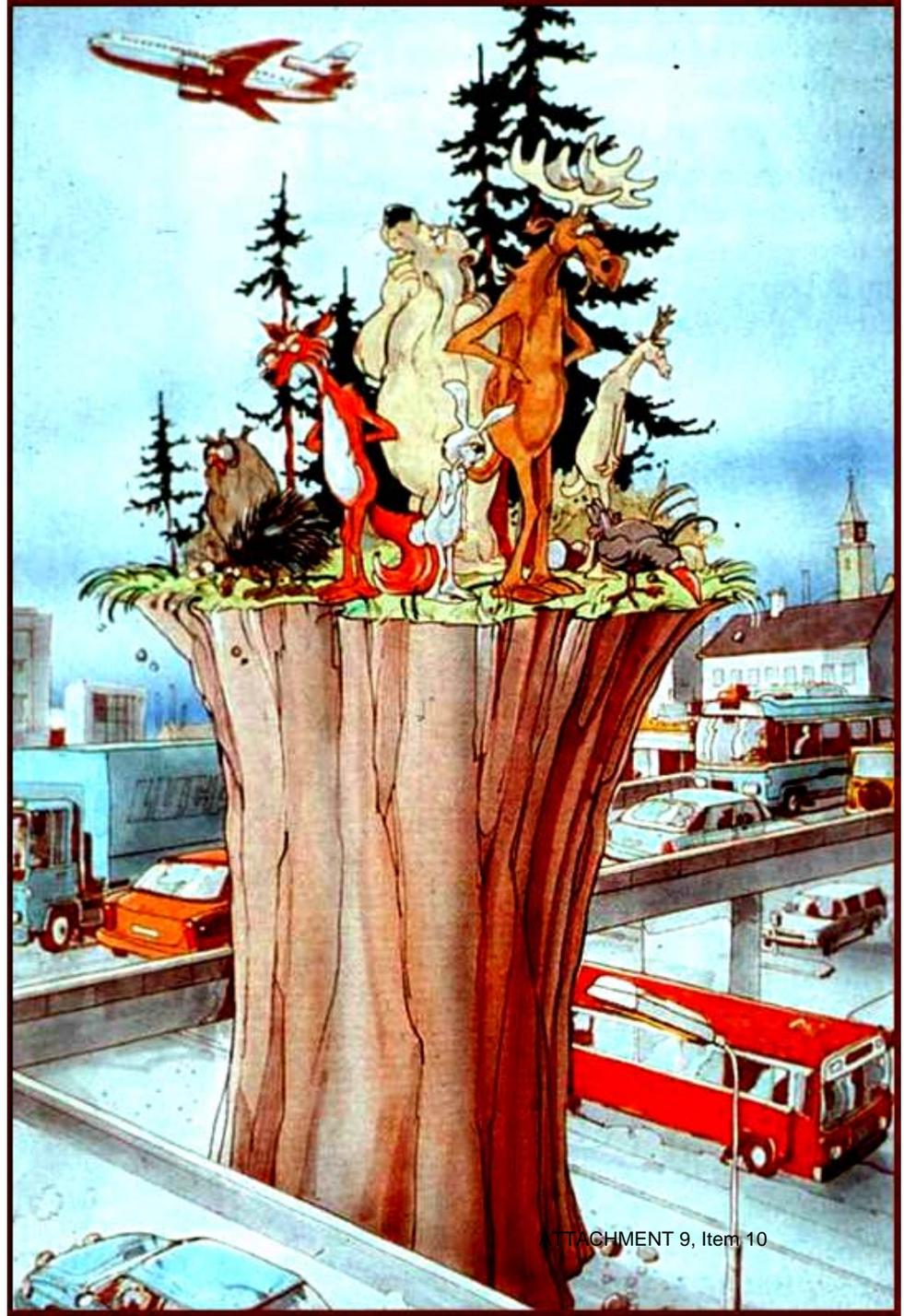
- “Road Effect” Zone -15-20 times size of paved ROW
- 48 acres lost with every mile of Interstate
- 4 million miles of roadways in US

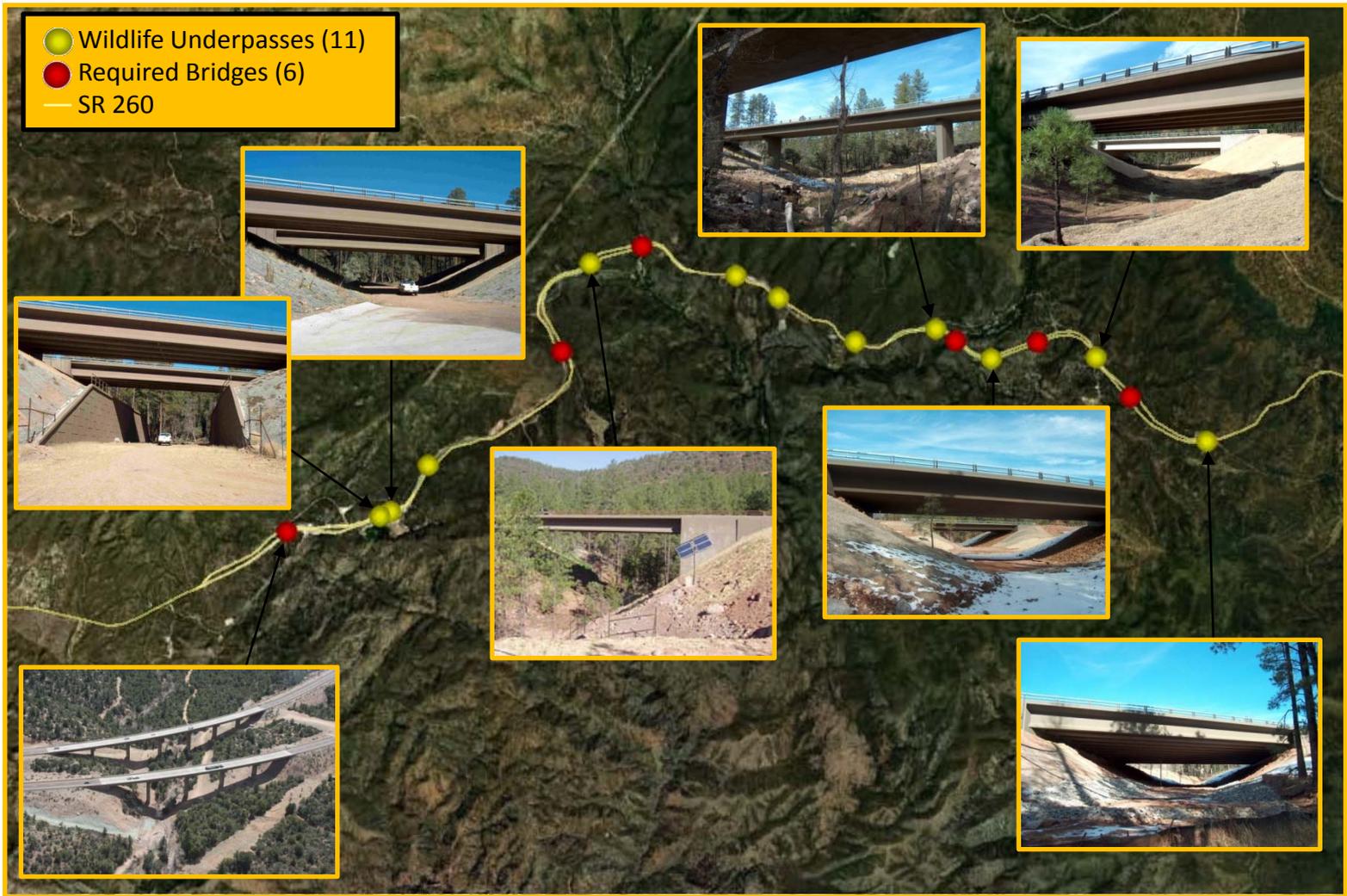
DIRECT ECONOMIC IMPACTS

- 
- **Human death, injury ,property loss – Billions/Year**
 - **5% of wildlife/vehicle collisions result in human injury**
 - **0.2% result in human death**

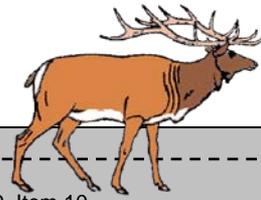
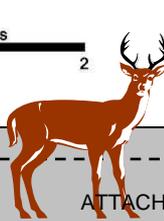
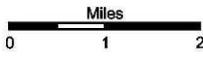
WHAT ARE WE DOING ABOUT IT?

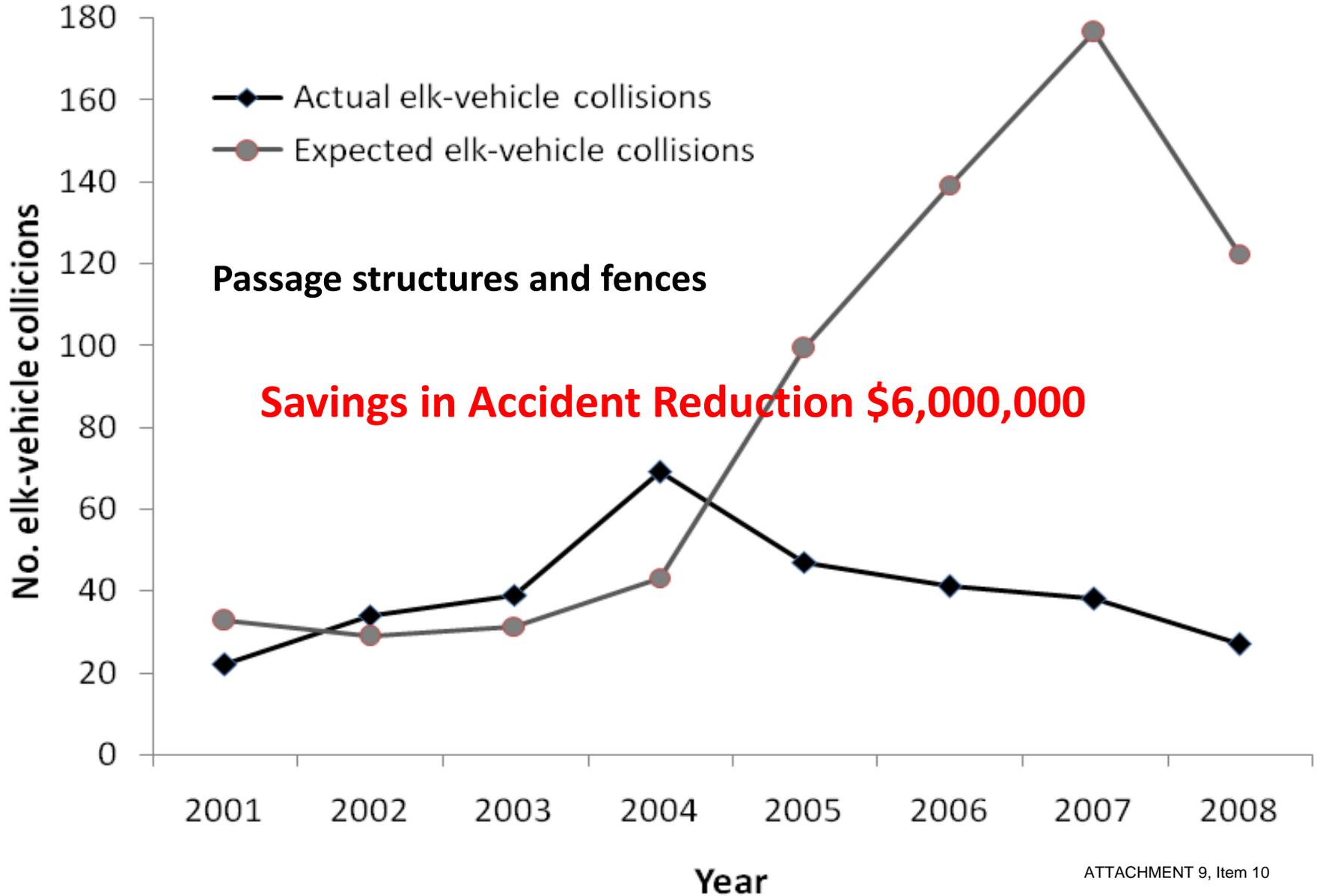
- Wildlife Research
- Linkage Planning
- Design Guidelines
- Outreach
- Collaborative Planning & Implementation





State Route 260 Wildlife Structures (2013 completion)



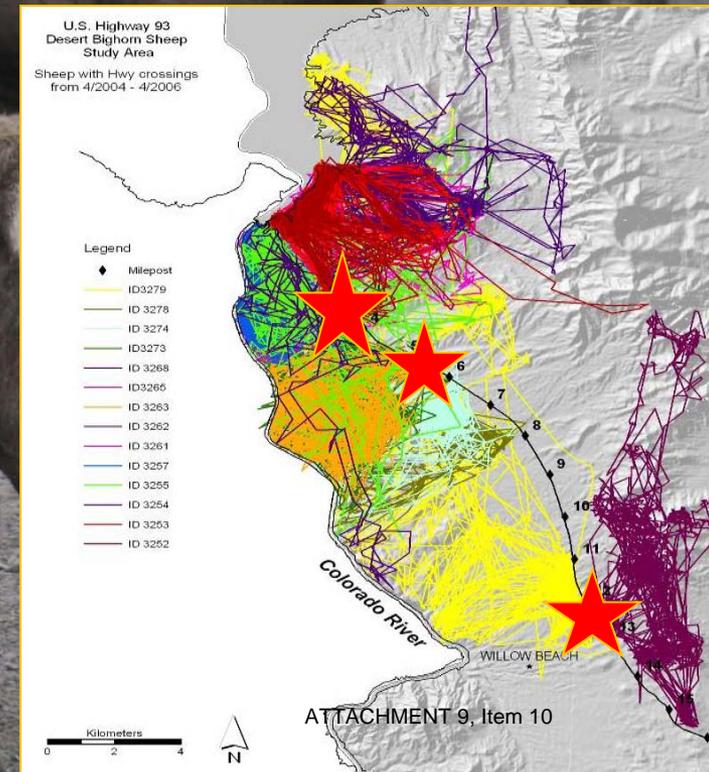


U.S. Highway 93 Desert Bighorn Sheep

- Pre-Construction Sheep Data

- 2004 – 2006

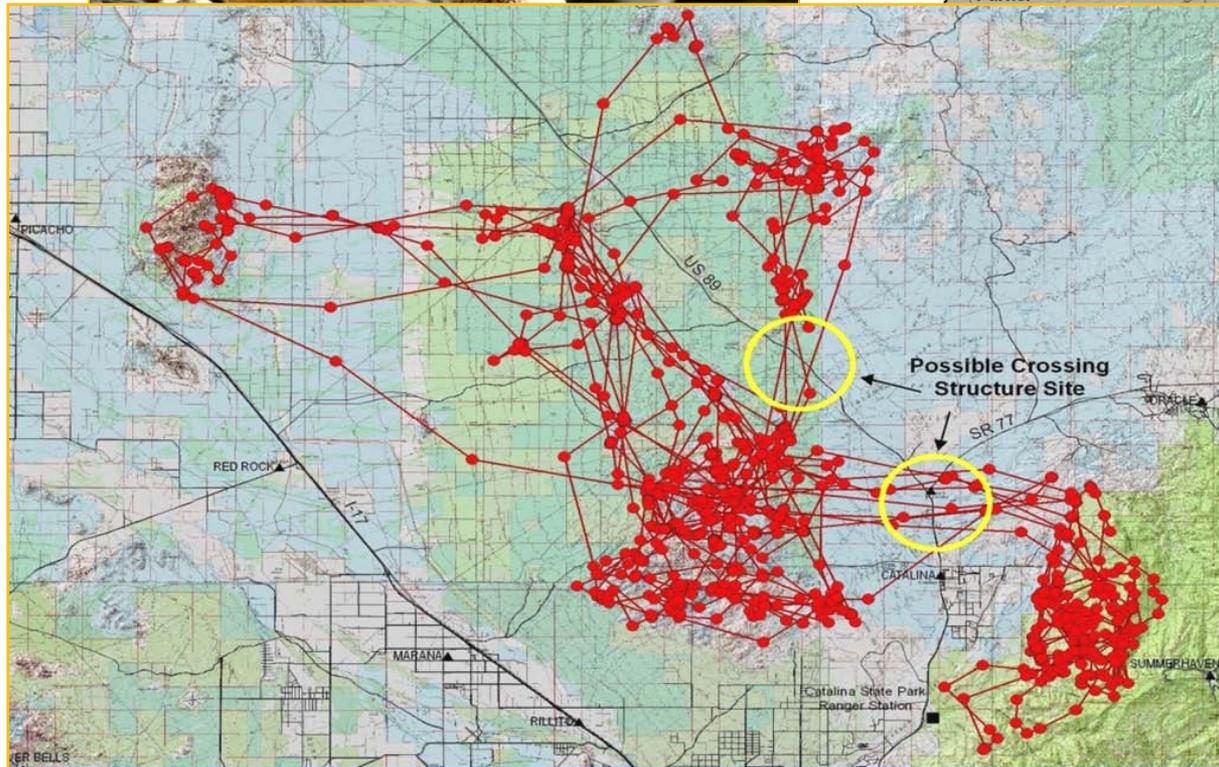
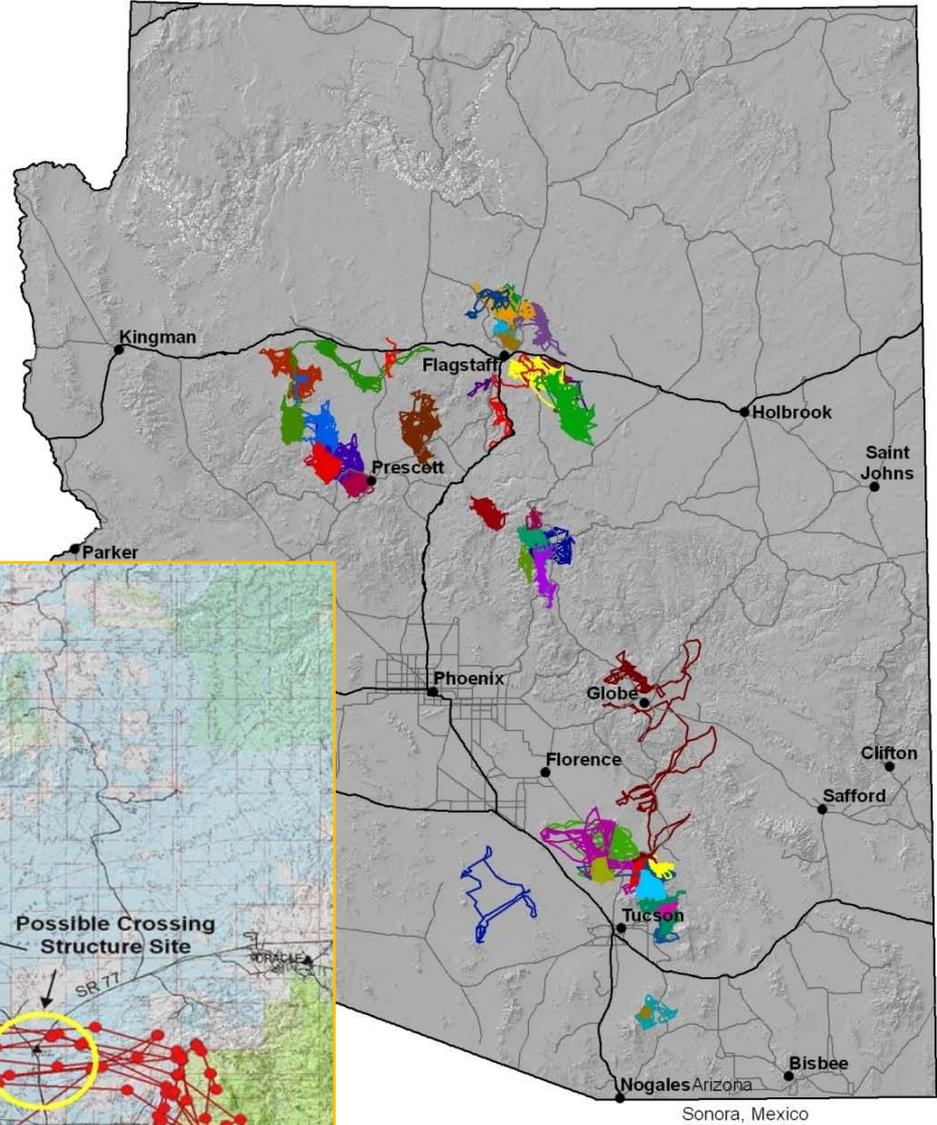
- 82% of bighorn crossings occurred at 3 ridge locations, at which overpasses were recommended





ATTACHMENT 9, Item 10

MOUNTAIN LION STUDIES



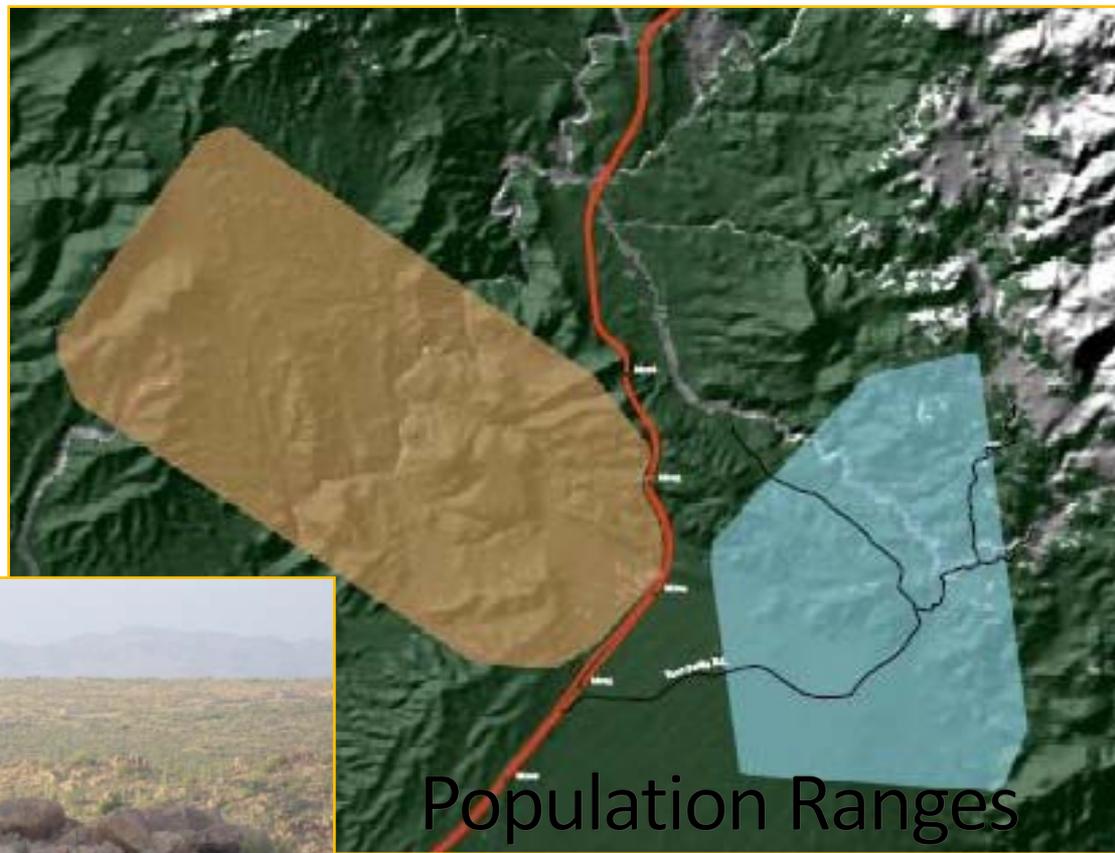
ATTACHMENT 9, Item 10

WILDLIFE ROAD MORTALITY ALONG WILDLIFE CORRIDORS IN THE TUCSON, AZ AREA

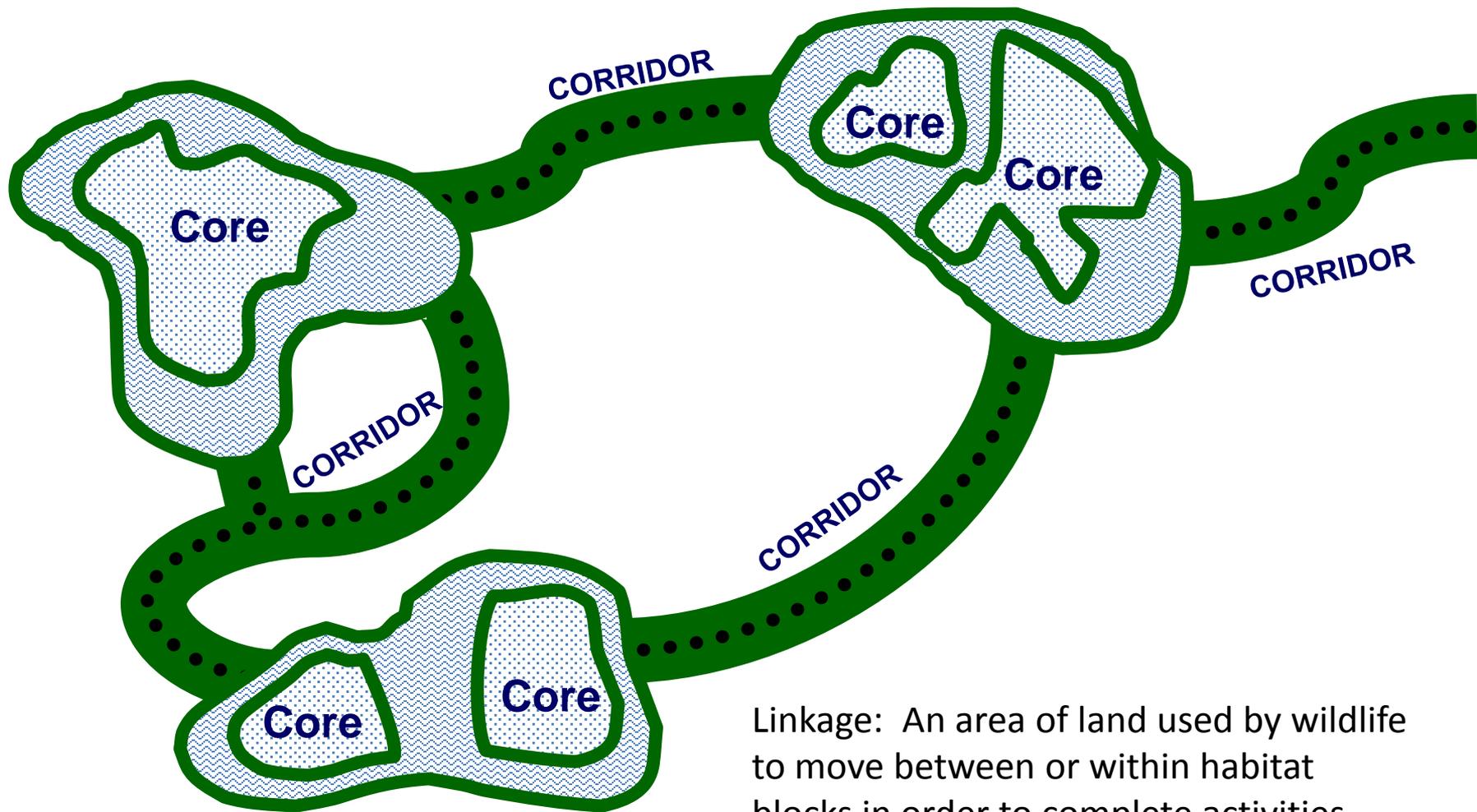
- 34 survey days
- 20 miles of roadway
- ~ 2,540 vertebrates found dead
 - Amphibians (55%)
 - Reptiles (26%)
 - Mammals (14%)
 - Birds (5%)



AZ State Route 87 Sonoran Desert Tortoise Project



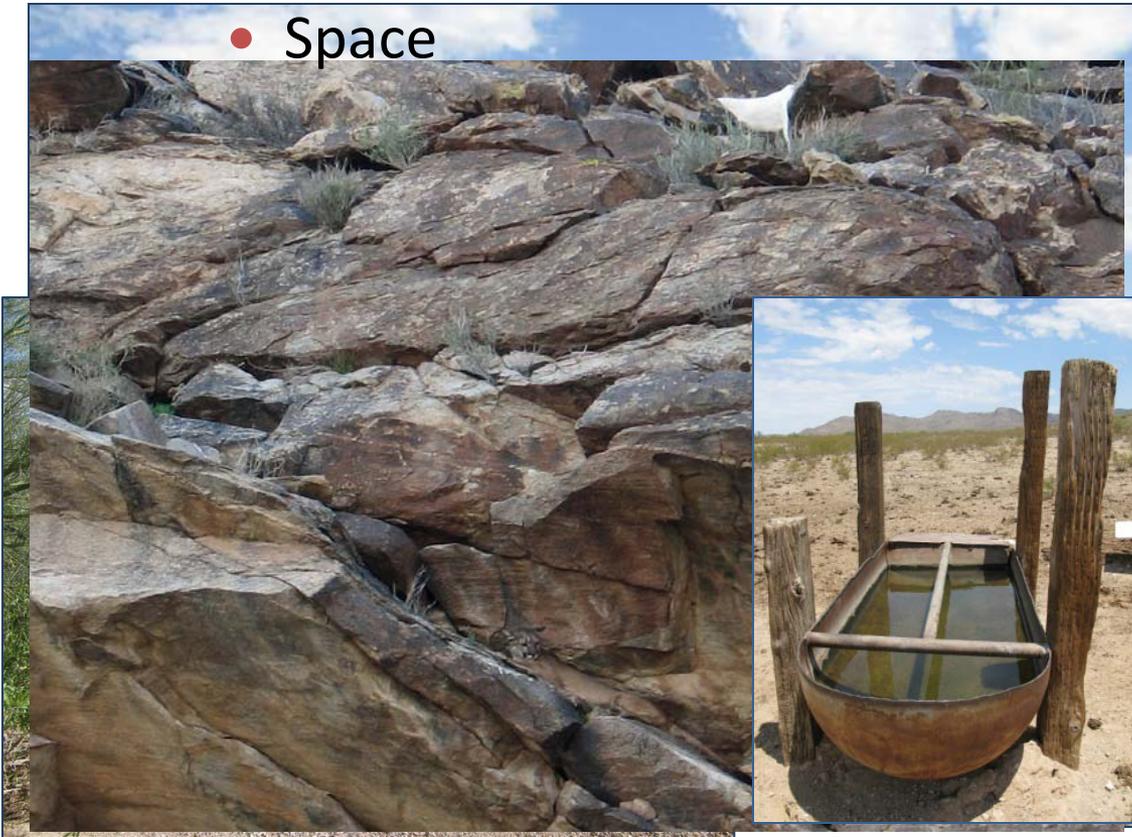
What are linkages & corridors?



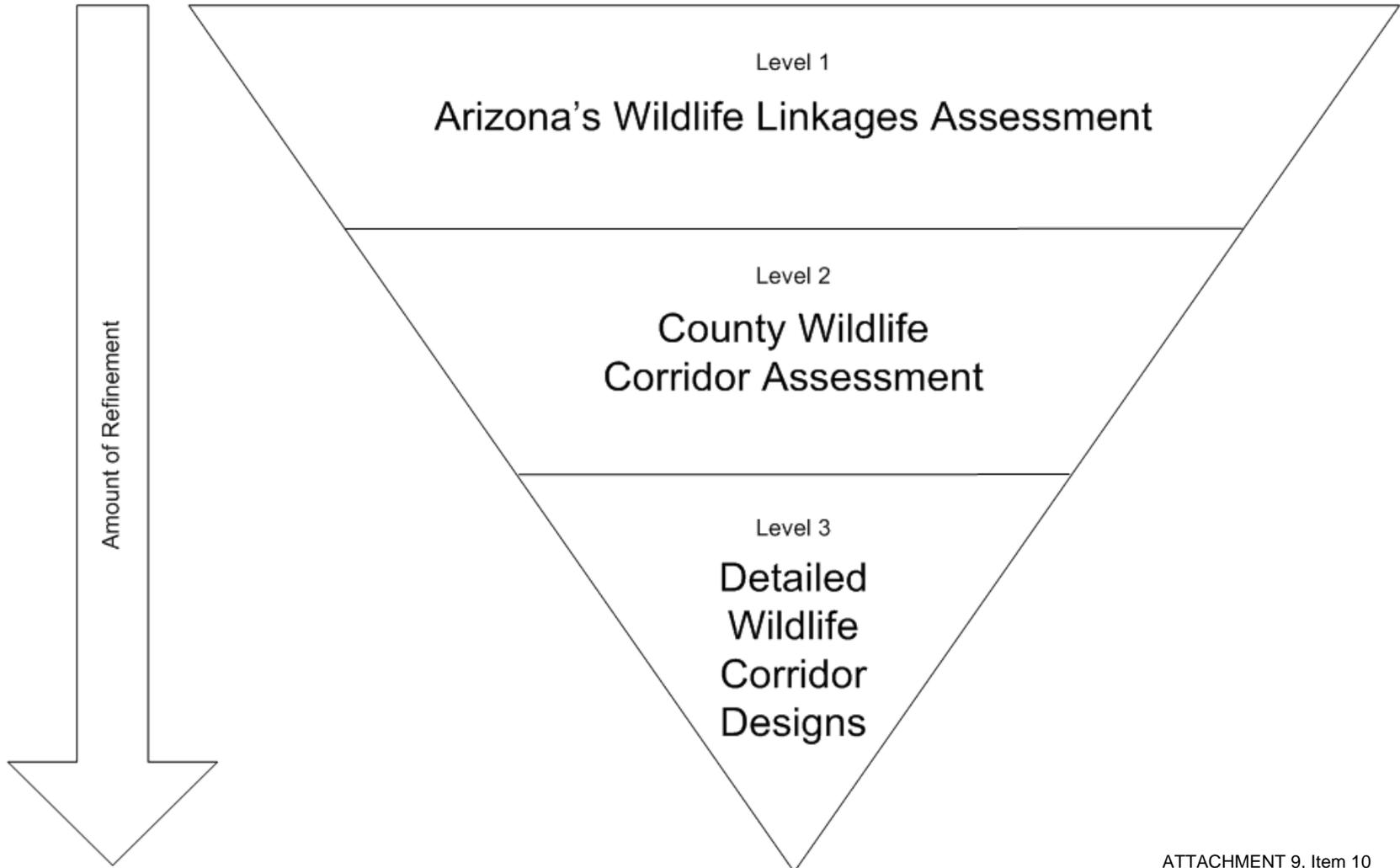
Linkage: An area of land used by wildlife to move between or within habitat blocks in order to complete activities necessary for survival and reproduction.

Important Habitat Features for Corridors

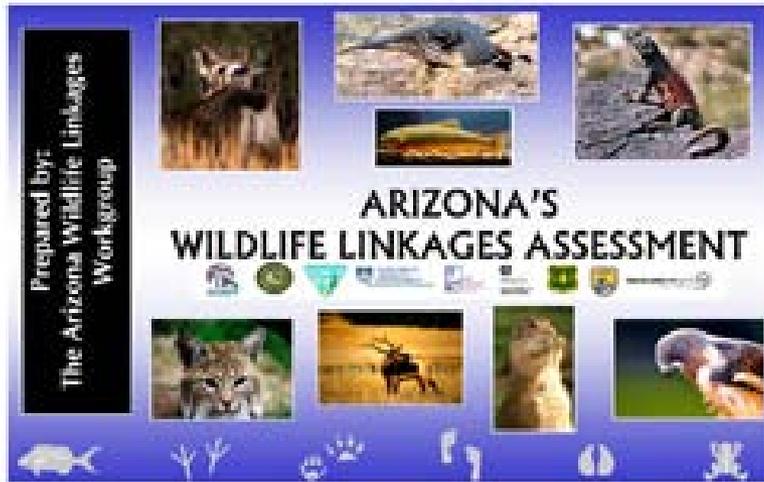
- Native vegetation
- Natural topographic features
- Natural washes
- Water sources
- Space



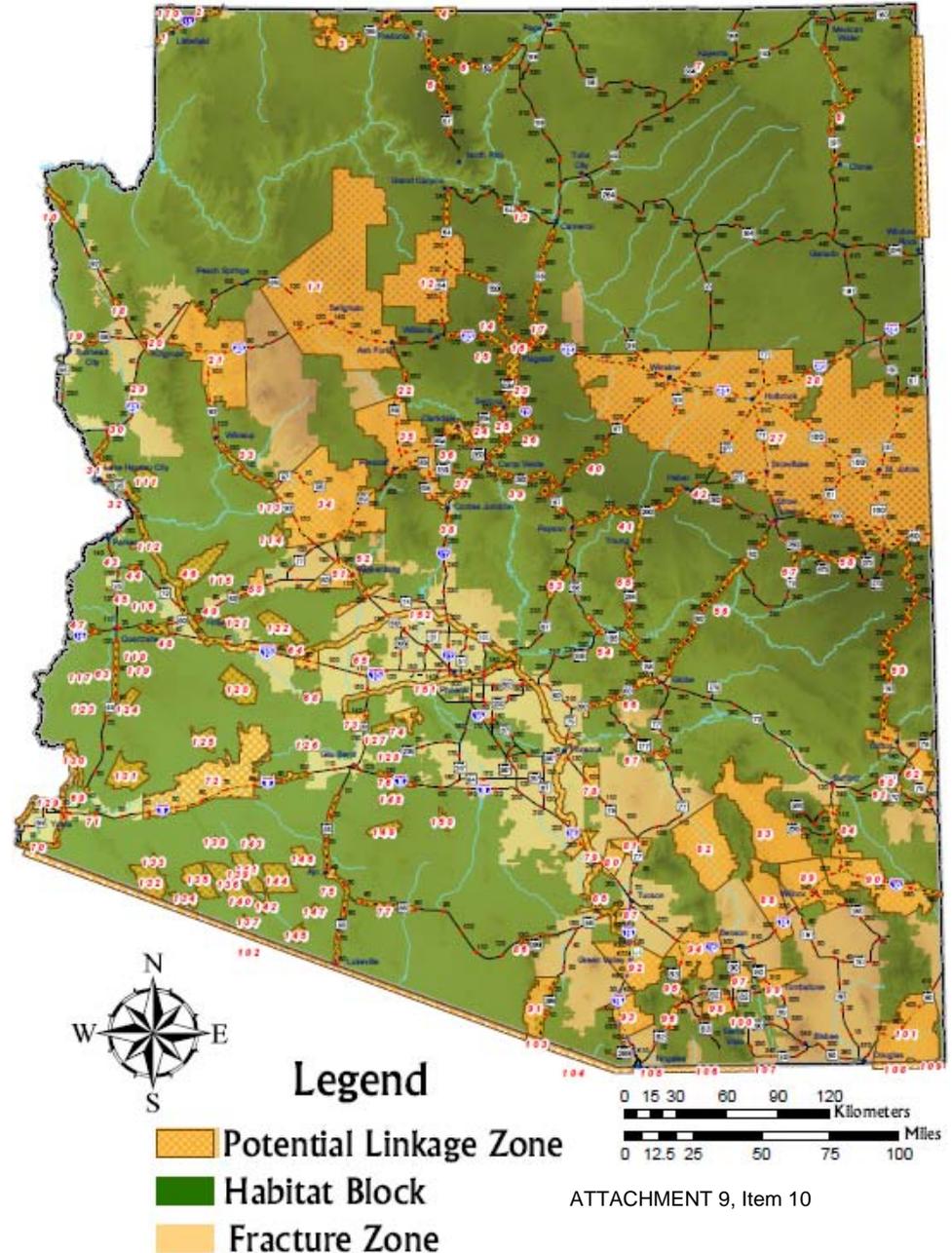
Arizona approach: Statewide-to-Local

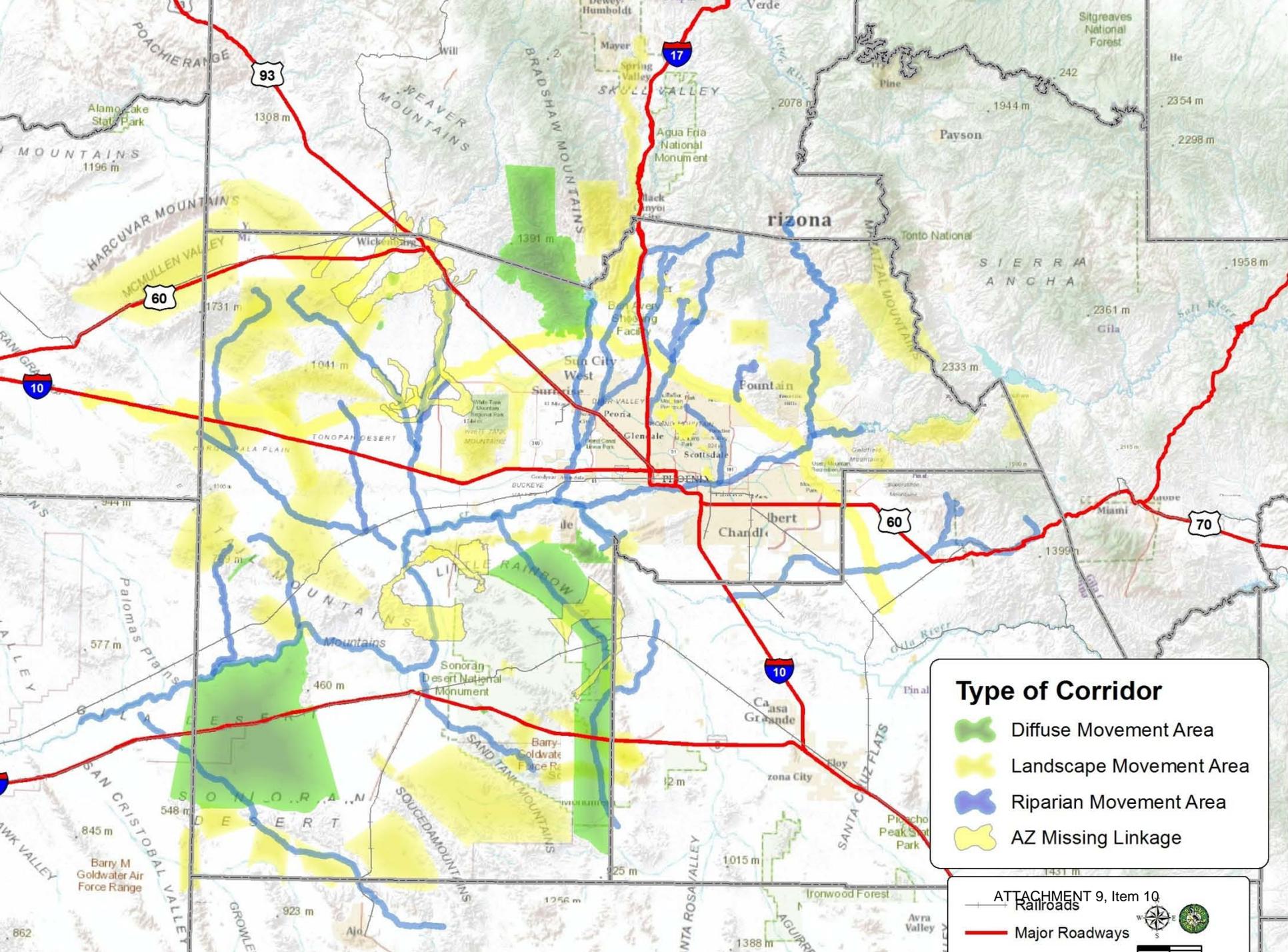


ARIZONA'S WILDLIFE LINKAGES



Statewide -
Over 100 experts defined
large-scale linkages





Type of Corridor

-  Diffuse Movement Area
-  Landscape Movement Area
-  Riparian Movement Area
-  AZ Missing Linkage

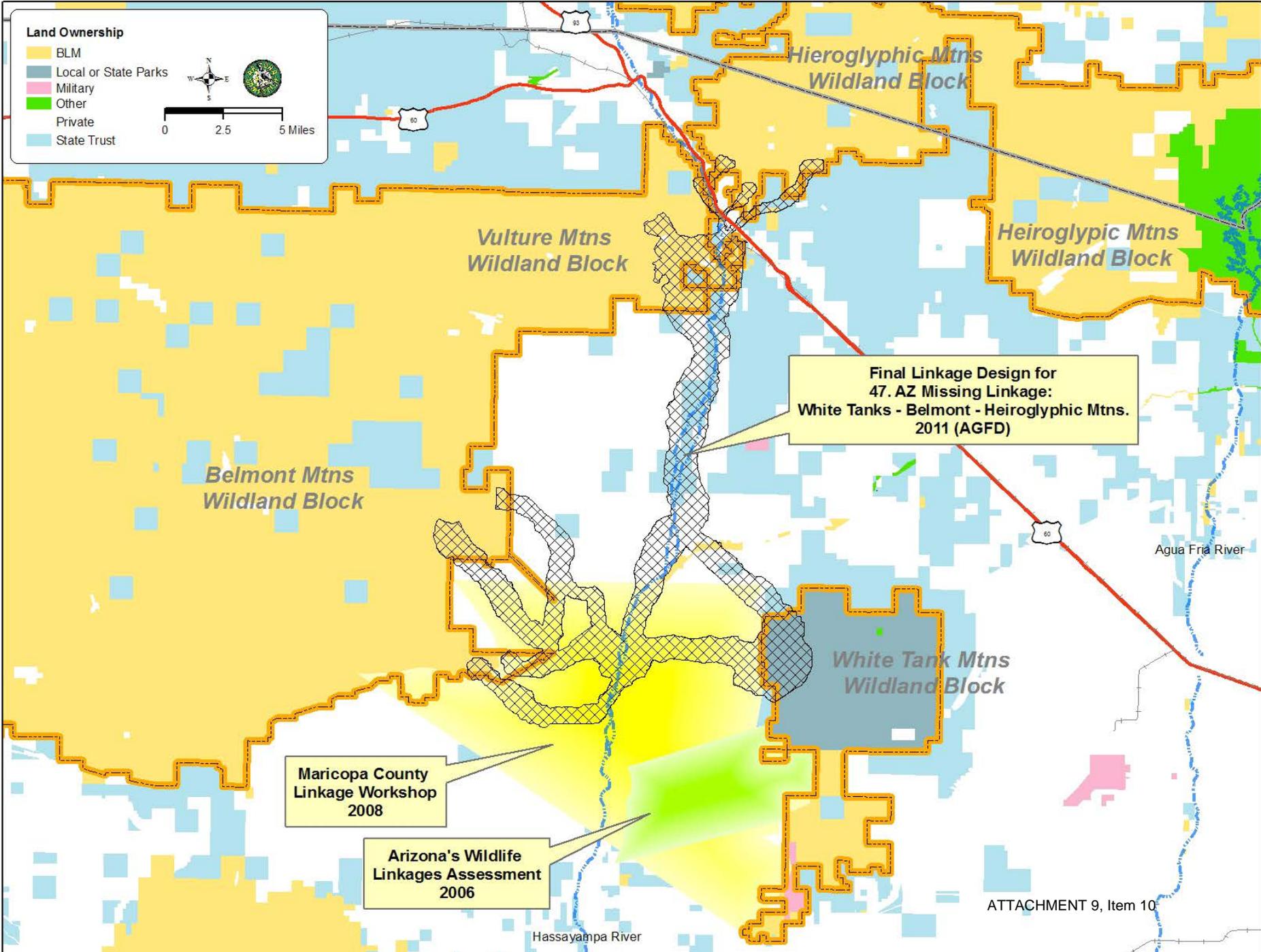
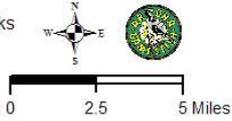
ATTACHMENT 9, Item 10
Railroads

Major Roadways



Land Ownership

- BLM
- Local or State Parks
- Military
- Other
- Private
- State Trust



**Final Linkage Design for
47. AZ Missing Linkage:
White Tanks - Belmont - Hieroglyphic Mtns.
2011 (AGFD)**

**Maricopa County
Linkage Workshop
2008**

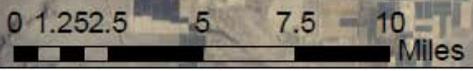
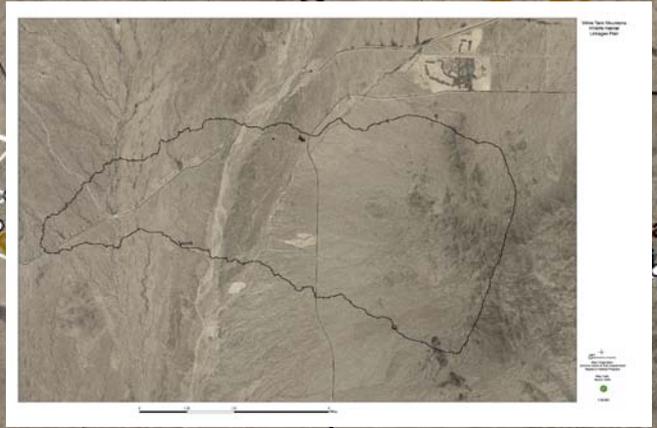
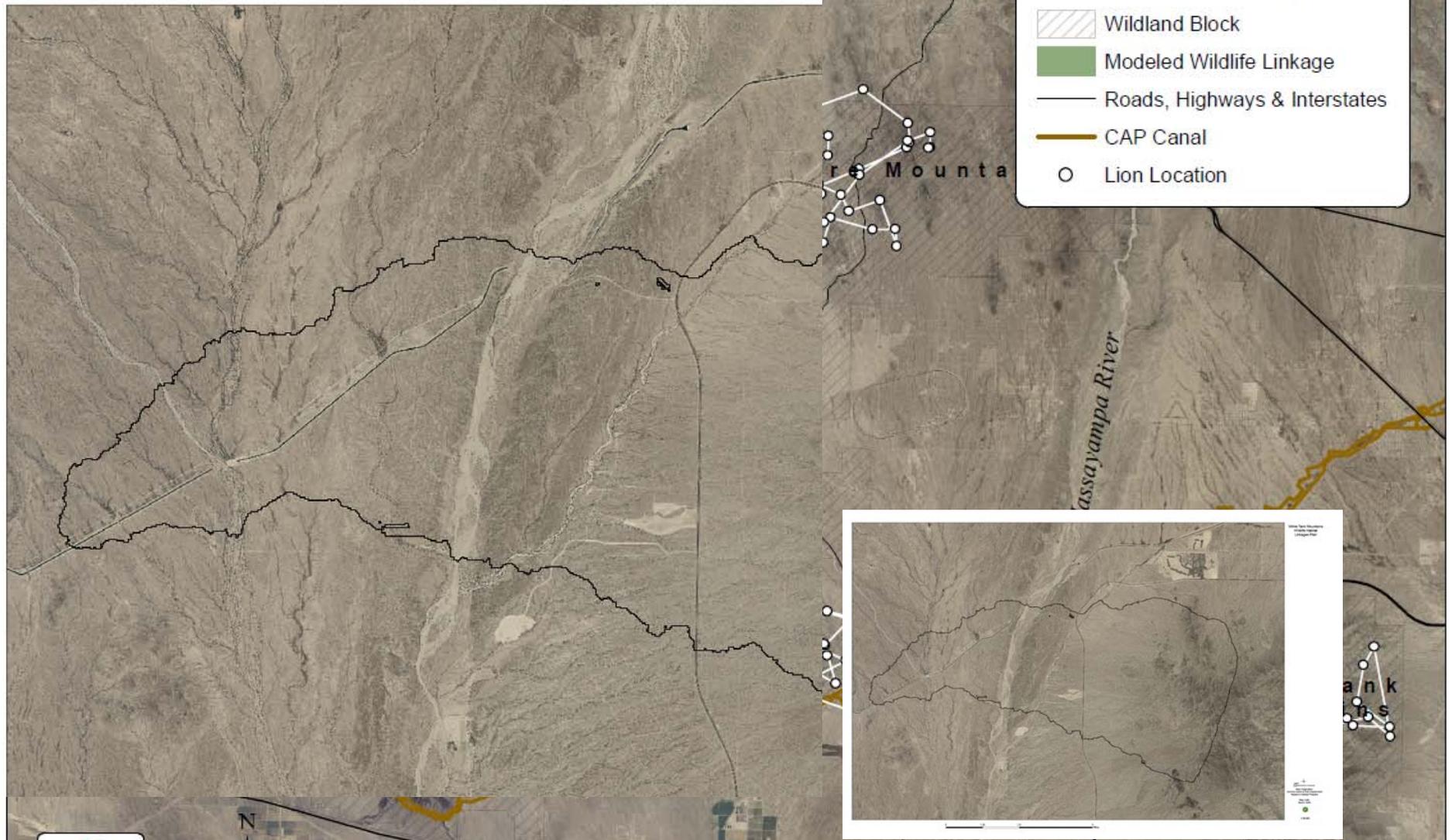
**Arizona's Wildlife
Linkages Assessment
2006**

Agua Fria River

Hassayampa River

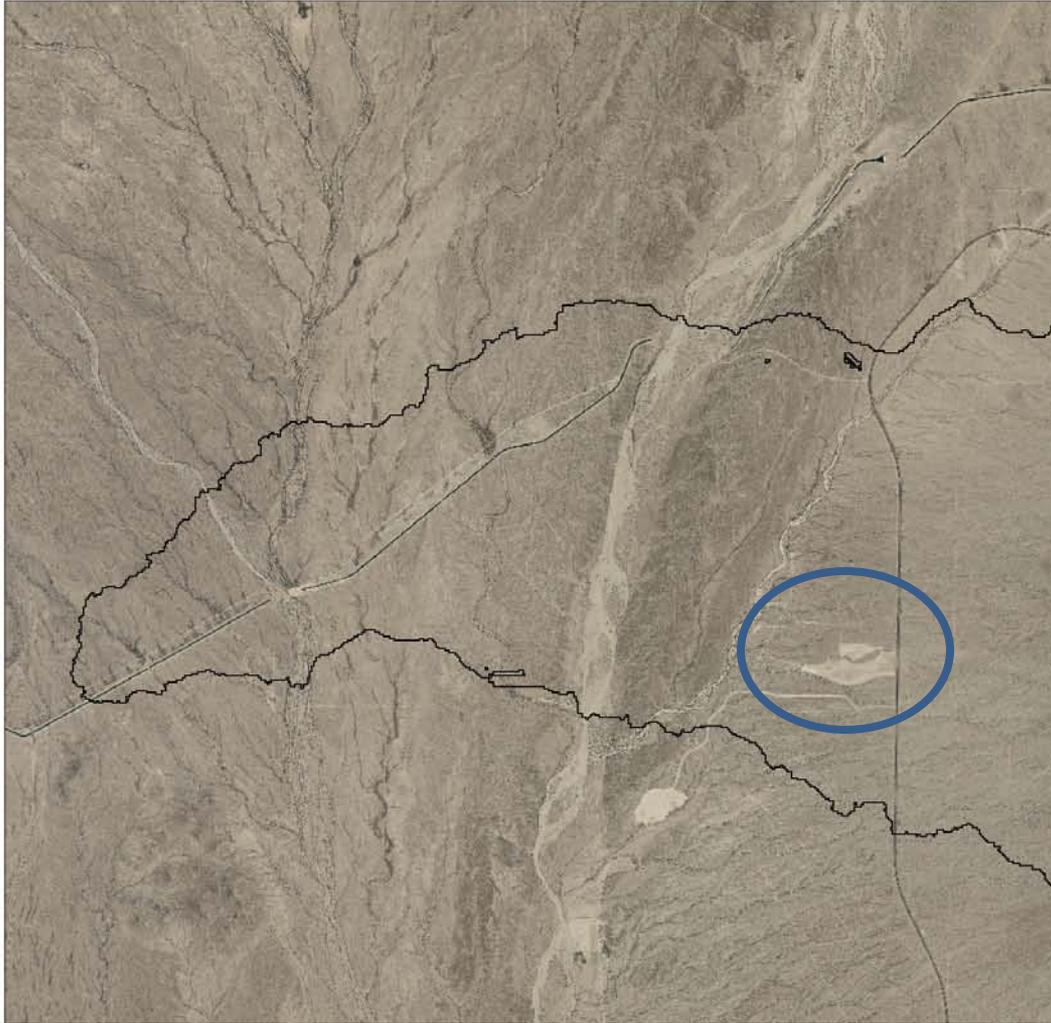
Mountain Lion Movements

-  Wildland Block
-  Modeled Wildlife Linkage
-  Roads, Highways & Interstates
-  CAP Canal
-  Lion Location



Tonopah

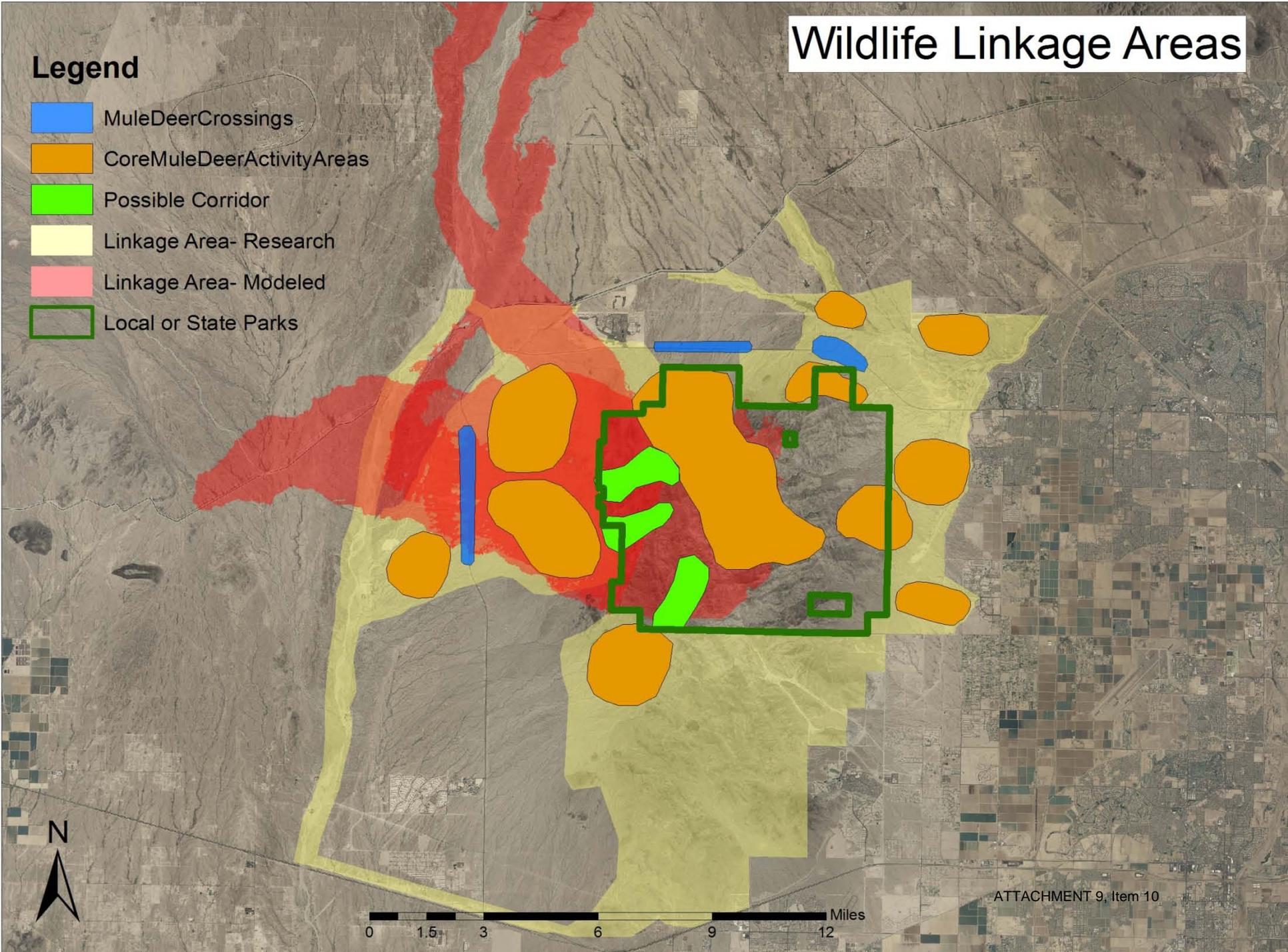
Field Validation & Design Modification



Wildlife Linkage Areas

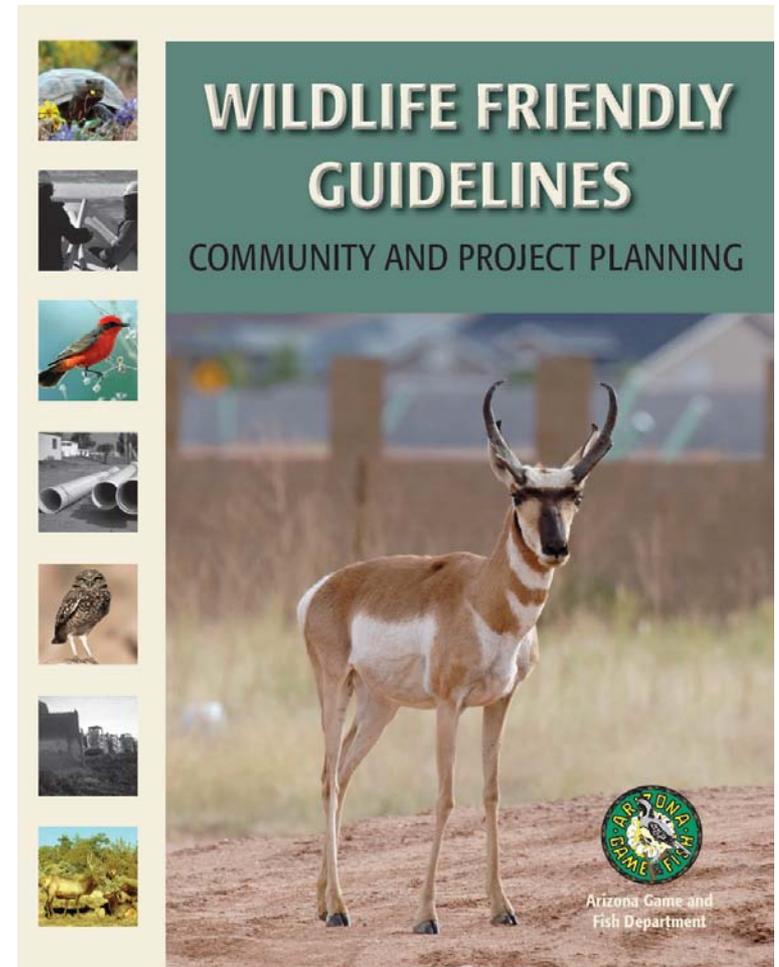
Legend

- MuleDeerCrossings
- CoreMuleDeerActivityAreas
- Possible Corridor
- Linkage Area- Research
- Linkage Area- Modeled
- Local or State Parks



Wildlife Friendly Development

- Mitigate barriers
- Buffer against edge effects (noise, light, pets, invasive species, human activity, development)
- Integrate conservation design into development
...minimize footprints



See - <http://www.azgfd.gov/hgis/guidelines.aspx>

CONSERVATION & IMPLEMENTATION

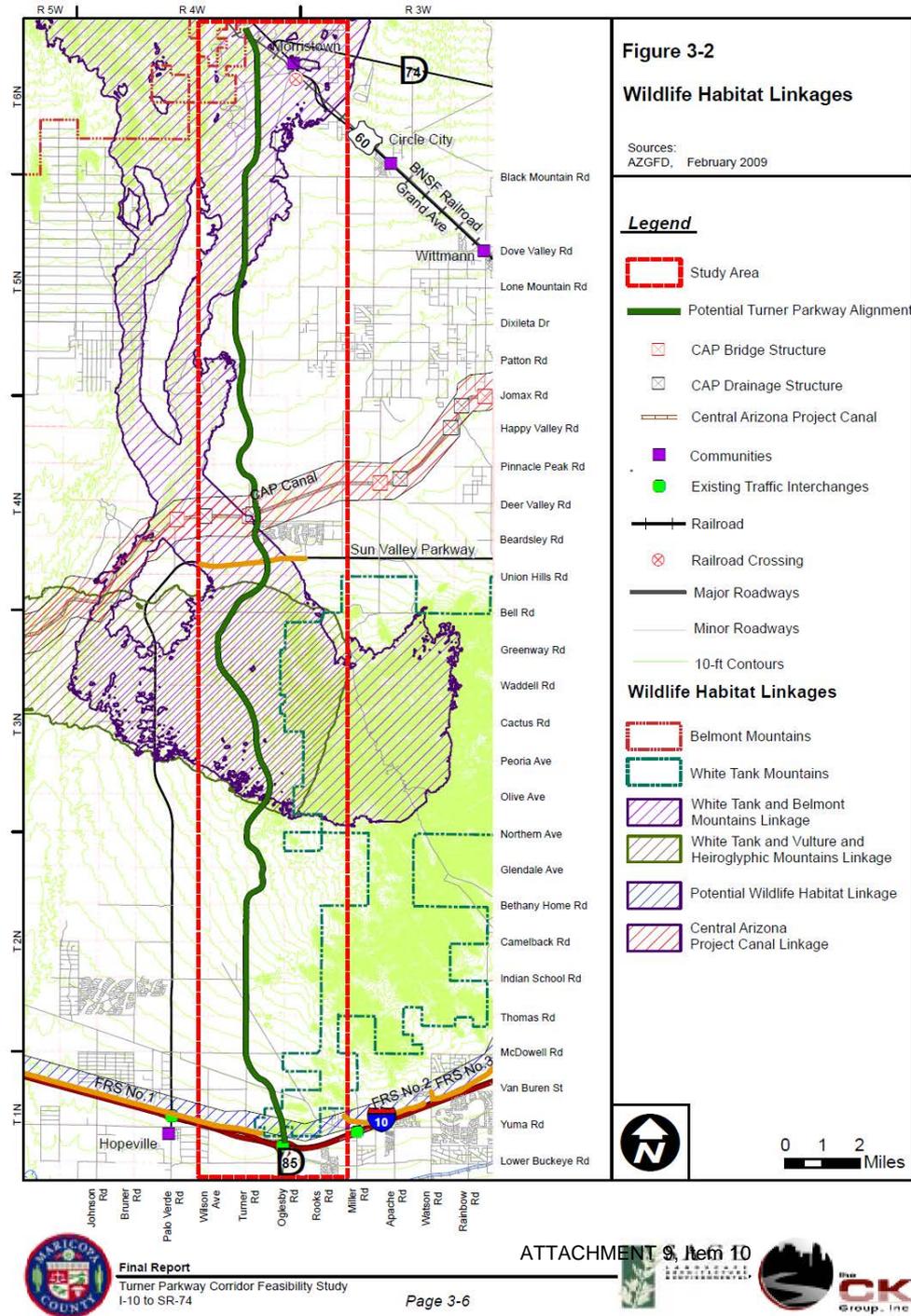
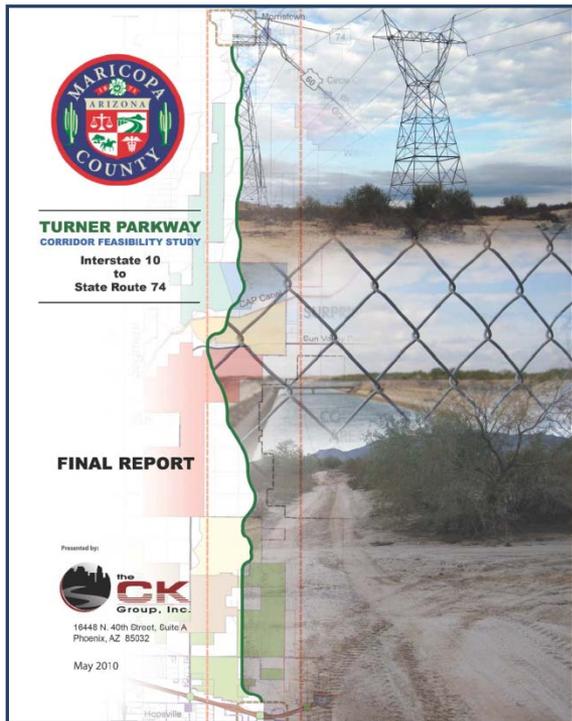


What can you do as a professional landscape architect or land use planner?



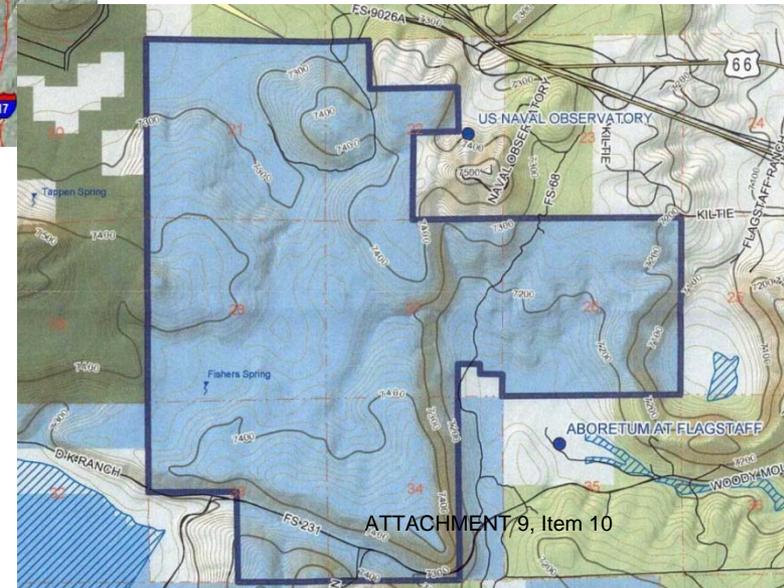
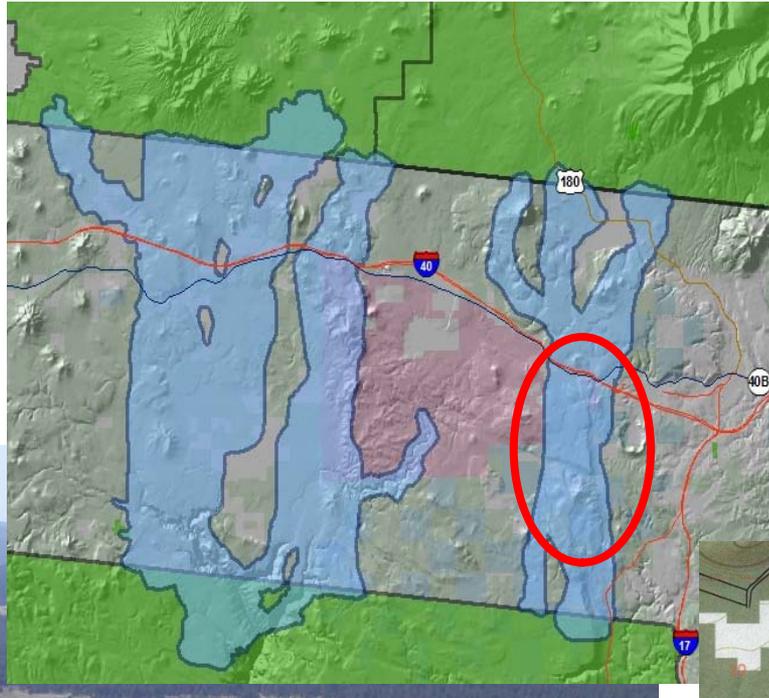
Transportation Studies

- Early ID in planning
- Alignments
- Roadway design



Land management & acquisition

Coconino County Parks & Recreation - Rogers Lake, “Old Growth”



Conservation takes time...

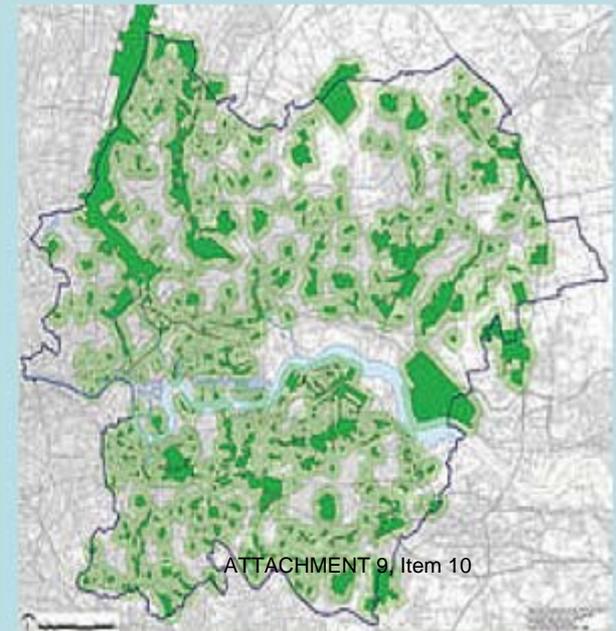


- Mitigation
 - Crossing structures
 - Habitat enhancement
 - Water development
- Wildlife Research, Monitoring and Adaptive Management
- General Land Use Plans
 - Environmental goals or elements
- Zoning & Ordinances
- Development Guidelines
 - Preservation of natural vegetation
 - Minimize edge effects
 - Promote living with wildlife strategies
- Land Conservation
 - Acquisition & easements
 - Transferring development rights
 - Density bonus

What Can a Community Do?

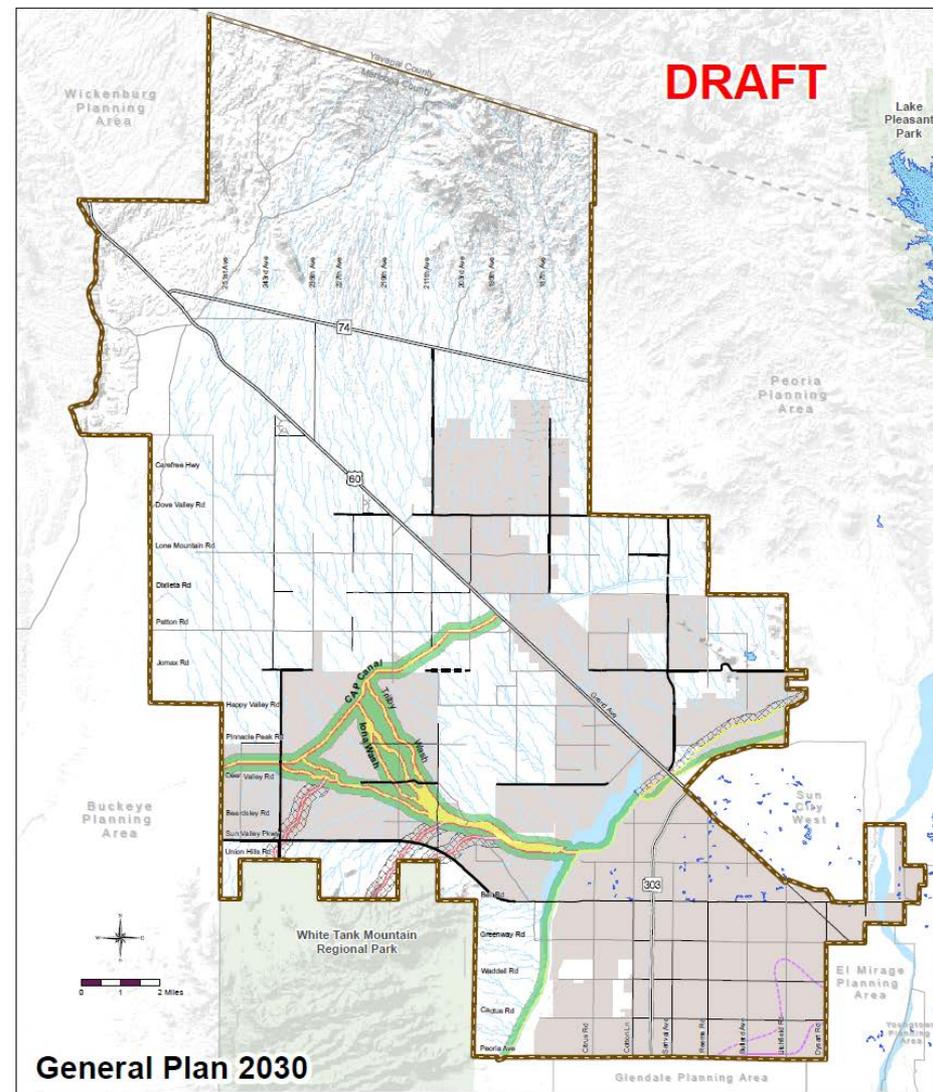
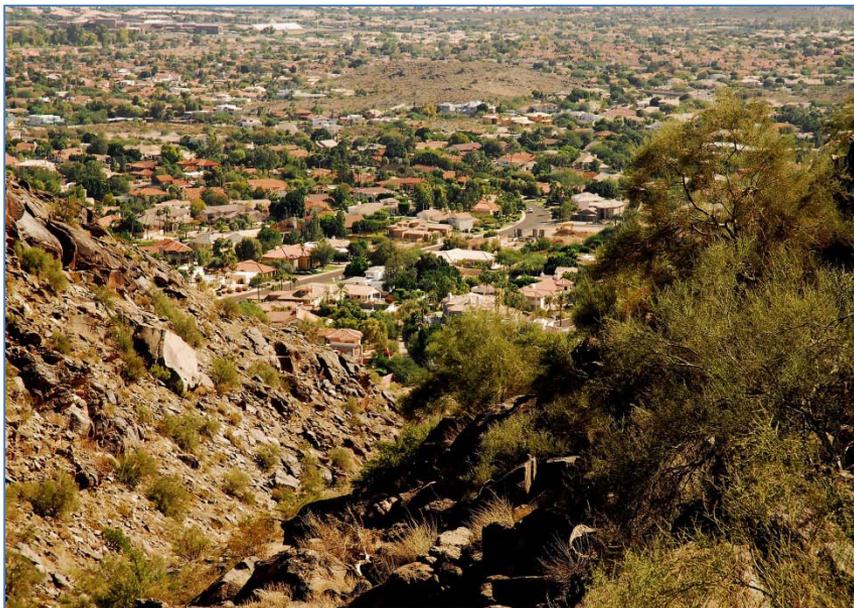
PRACTICE GOOD LAND USE DESIGN

Sometimes the best development design that preserves the most environment land and habitat may be dense, gridded development - thoughtfully linked to greenspace or that uses green infrastructure to meet necessary ecosystem services (stormwater management, shade, recreational open space, etc.). Bottom-line, Less Sprawl



City of Surprise Wildlife Linkage Corridors

- General Plan 2030
- Zoning & Ordinance
- Development Guidelines



General Plan 2030

Wildlife Linkage Corridors

- Wildlife Corridor, Wash or Floodway
- 100 Foot Buffer
- 900 Foot Wildlife Friendly Regulations
- Wildlife Friendly Regulations *
- Lakes
- Washes
- Parks

* Wildlife friendly development regulations for this area will be determined at the time of the development.

Flood Control Note: The priority land use function for Flood Control District property is for flood control. A secondary use, if compatible with the flood control function, could be for use as a wildlife corridor and other beneficial functions as identified in the amendment.



Map 6.2D - Wildlife Linkages

Map prepared by the City of Surprise; December, 2010
Adopted by City Council; Date



ATTACHMENT 9, Item 10

The maps, data and/or GIS information being provided by the City of Surprise to the end user "user" are provided in an "as is" condition. By acceptance of this document, user acknowledges and agrees that any and all use of the maps, data and/or GIS information is at User's own risk. The City of Surprise expressly disclaims any and all expressed or implied warranties and expressly disclaims liability for the accuracy of the information thereof.

Working for Connectivity not against development

- Identify Common Goals
- Invest staff & resources
- Build community support
- Work together to make great things happen!





Key Messages



- Habitat fragmentation & loss is currently impacting wildlife in Maricopa County
- Conserving corridors & linkages can mitigate development impacts
- Wildlife research can define impact locations and inform mitigation design
- Cumulative impacts from all development/infrastructure need to be considered in planning & design
- Solutions include collaboration & partnerships (funding, planning, research, design, implementation)
- Local plans should contribute to the statewide goals; work for connectivity not against development
- Plan for ecosystems not individuals; common species common; one size does not fit all; no species left behind
- Preserving natural habitats is better than “engineered” habitats