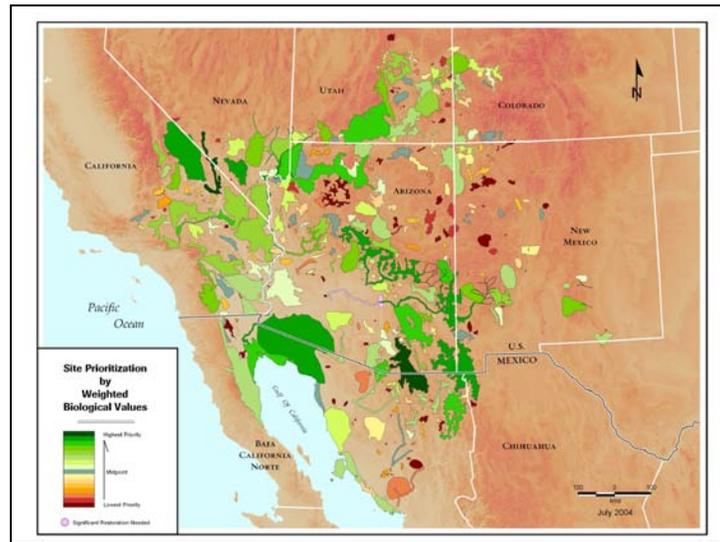
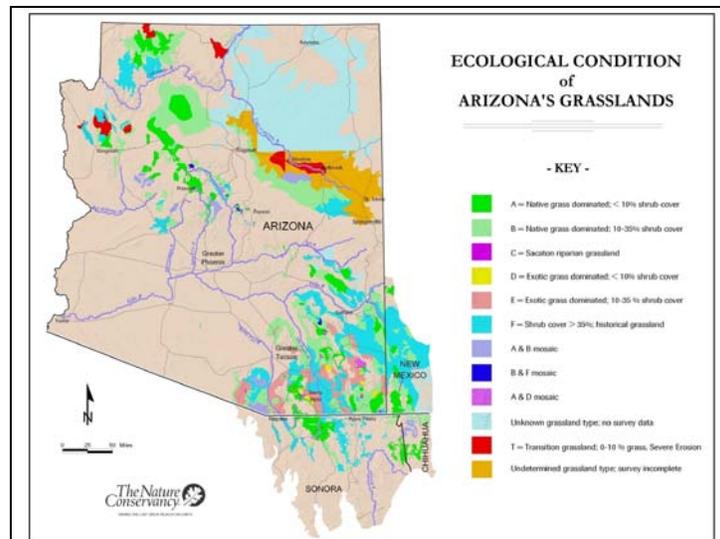


Slide 1



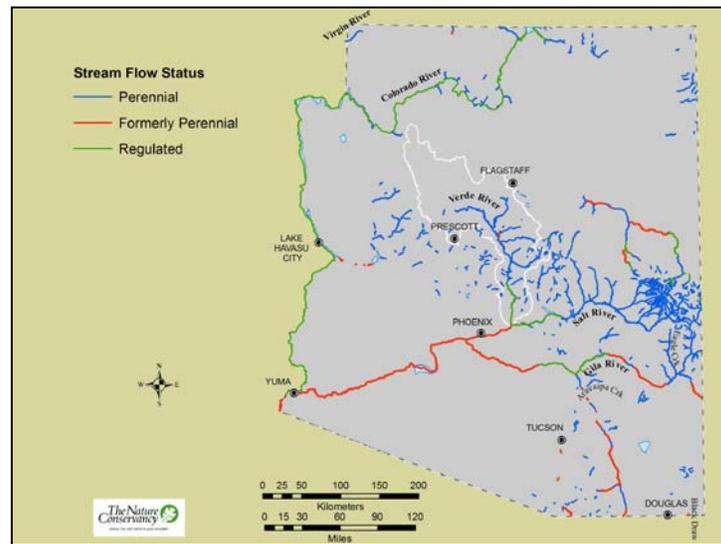
The Nature Conservancy has a global mission to protect the diversity of life on earth by protecting the land and water that plants and animals need to survive. Clearly we need to set priorities as to where we direct our time and effort. Our priority setting is guided by Ecoregional Planning; a process which identifies areas with high concentrations of biological diversity values. These include things like rare and endangered species, important and threatened natural communities, and it emphasizes large, sustainable landscapes. This map shows the roughly 400 sites in the Southwest identified as having important biodiversity values.

Slide 2



One example of the kind of information that goes into ecoregional planning is this state-wide assessment of grassland condition, the first-ever statewide grassland assessment of its kind. Protection of temperate grasslands is an important conservation goal because grasslands are one of the most depleted, and least protected, natural communities on earth. Grasslands are important biologically because many kinds of grassland wildlife are declining as grasslands are lost. They are also important for people because grasslands are a critical part of healthy watersheds which provide our water, and they are the most productive rangeland for livestock production.

Slide 3



Another kind of information included in ecoregional planning is the distribution of aquatic habitats, such as the perennial streams and rivers shown here, and the many rare and endangered species that depend on these habitats such as fish, amphibians and nesting birds.

Brown, Carmony, and Turner's 1981 map, *Drainage Map of Arizona Showing Perennial Streams and Some Important Wetlands*,

digitized to quantify loss of natural perennial flow and determine areas where restoration of flow may be possible.

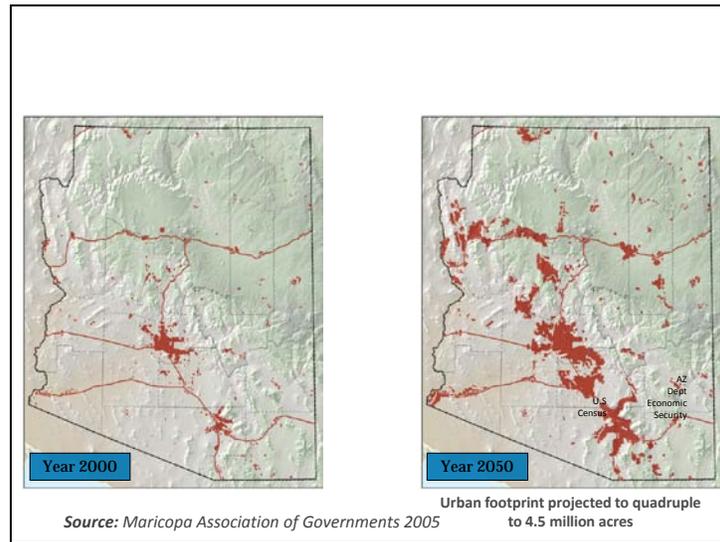
"Formerly perennial" was determined from records of native fish distribution.

Big Rivers - the Colorado, Gila, Salt, and Verde - 91% of free-flowing perennial miles have been lost.

Moderate-sized rivers - 37% of free-flowing perennial reaches have been lost. These rivers include the San Pedro, Santa Cruz, Little Colorado, White, Black, Blue, San Francisco, and Babocomari rivers.

Small streams - 9% of free flowing perennial reaches have been lost. This is a much less studied category of stream

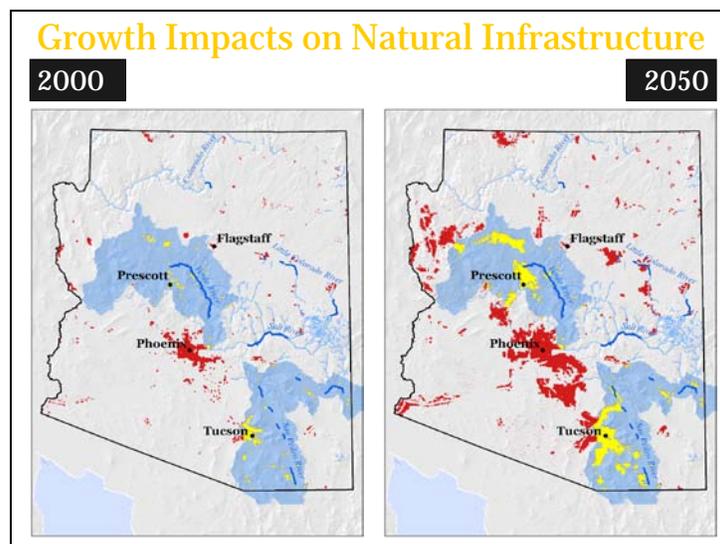
Slide 4



Setting conservation priorities must also take into account future threats to biological diversity, the most important of which is urban expansion. Our priorities are directed at places where natural landscapes are sustainable, so a critical question to ask is: which areas are likely to be impacted by urbanization, and which areas have greater potential for sustaining natural resources?

Urban footprint projected to quadruple to 4.5 million acres
Source for Growth Projections: Maricopa Association of Governments 2005

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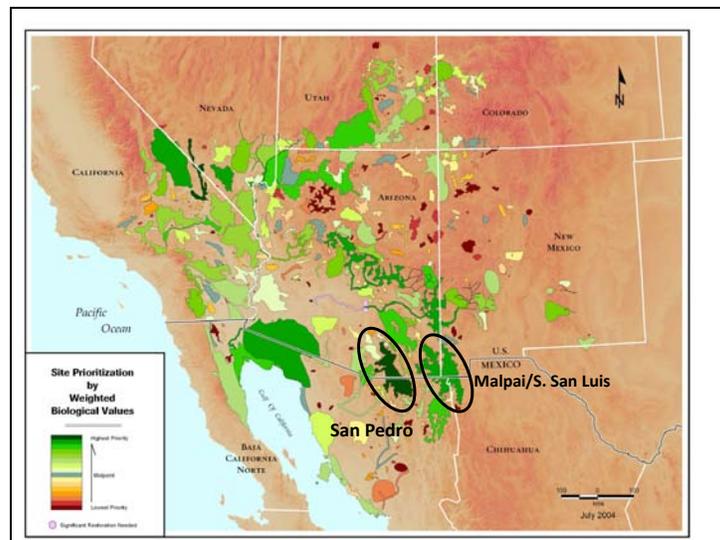


One approach is to compare expected future growth patterns with areas of high biological value: perennial streams and rivers. These perennial streams are also an important element of the natural infrastructure on which people depend; they are the natural delivery system for the water we need to survive. One thing we have found through planning of this kind around the world is that sustainability of natural ecosystems, and sustainability of human communities, must go hand-in-hand. The same watersheds and rivers that provide water for our cities support diverse communities of plants and animals; if we lose one, we will lose the other. As urban areas expand we are losing productive agricultural lands as well as natural landscapes.

The first map shows the impact of development in the year 2000 (MAG projection) on Arizona's natural water infrastructure. The blue represents natural water infrastructure (perennial reaches and surface-connected groundwater aquifers); the red represents development; the yellow indicates areas of natural water infrastructure potentially impacted by development. Note: Water use is complicated – not all water use comes from areas where cities are developed. The purpose of this map is to show where compare the location of where our sensitive water resources exist against projections in development.

The second map shows the impact of development in the year 2050 (MAG projection). Again, we can see large areas of impact (yellow) in areas surrounding Tucson and also the San Pedro and Verde River valleys.

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The outcome of this planning has led us to focus on large landscapes where natural communities are relatively intact, and where threats are manageable. This combination of conditions gives us the best chance for success in the long run. The high priority landscapes where we are focusing our efforts in AZ are the upper Verde River watershed and the San Pedro River watershed, as well as the Malpai Borderlands in southeast AZ. We have found that in all of these areas our goals often coincide with that of NRCS. In many places, the most effective

way to protect natural landscape is to keep traditional, well-managed ranches in place. Ranchers are natural partners when it comes to protecting and managing native grassland because both wildlife and livestock production can benefit.

Slide 7



A sustainable future for human communities is intimately linked with a sustainable future for natural communities.

The presence of animals such as these pronghorn, which need open, healthy grasslands, is also an indicator that the watershed is healthy, which is good for our water supply, and range productivity is high, which is good for agriculture. Focusing our effort on landscapes where our shared goals are likely to be sustainable in the future, especially where goals such as conservation and agriculture overlap, will give us all the best chance for success.