



Flagstaff
Wildlife Summit

October 23, 2004

Demographics and Interest Areas

11 Participants

- Kim Crumbo, Grand Canyon Wildlands Council
- Kevin Davidson, Mohave County
- Scotty Johnson, Defenders of Wildlife, SW Center
- Mike MaCauley, Coconino Natural Resources Conservation District
- Tom Mackin, Coconino Sportsmen
- Don Martin, Mohave Sportsman Club
- Mikele Painter, USFS, North Kaibab RD
- Steve Rich, Fredonia Habitat Partnership Committee
- Barbara Wilson, NPS, Glen Canyon National Rec Area
- Bill Werner, AZ Department of Water Resources
- Liz Boussard, Grand Canyon Wildlands Council

The participants were asked to indicate which stakeholder group they were representing during the summit and to identify their personal interests. *Note: One participant arrived late and was not included in the demographic vote.*

Demographic results indicate the group was somewhat diverse in the stakeholder groups represented but were very similar in their personal interests.

Figure F-1: Participant Representation

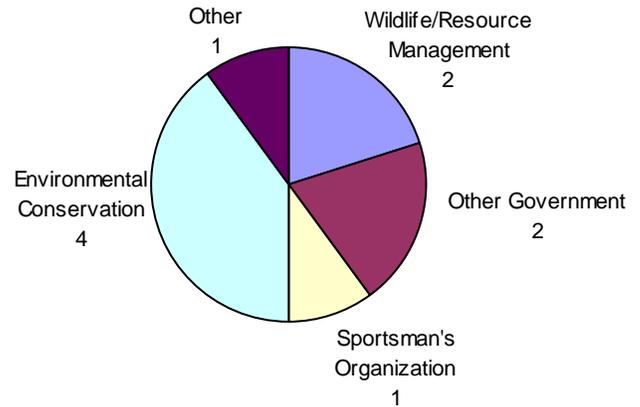
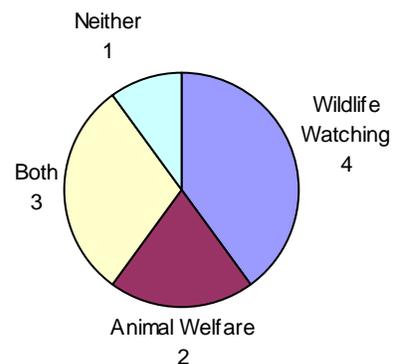


Figure F-2: Hunting and Fishing



Figure F-3: Wildlife



- Equal number of government representatives and environmentalists (4), a sportsman and one other (Figure F-1.)
- 6 hunt and/or fish (Figure F-2.)
- 9 watch wildlife and/or participate in animal welfare activities (Figure F-3.)
- 7 use off-highway vehicles and/or watercraft (Figure F-4.)
- 9 garden and/or watch wildlife at their home (Figure F-5.)

Figure F-4: Recreation

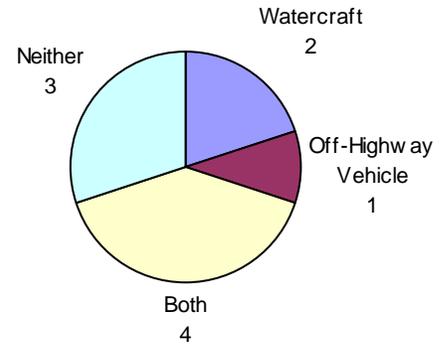
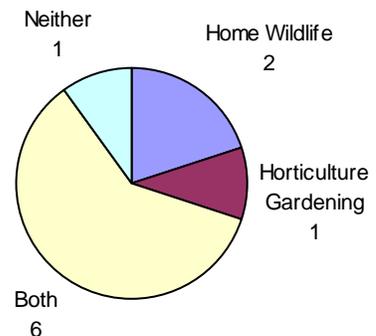


Figure F-5: Home Activities



Part 1: Arizona Game and Fish's 12 Challenges

During recent strategic planning efforts, the Arizona Game and Fish Department (AZGFD) staff identified 12 challenge areas. Summit participants were asked to review the list and determine **“Which one of these challenges is the most important in achieving the AZGFD’s mission.”**

Agency Mission: *To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.*

The following is a description of each of the 12 challenges used during the Summit. The capital word in parentheses is the keyword used to identify the challenge on the CoNexus® graphs:

- **Planning and Funding** – Manage wildlife resources as a public trust through efficient and funded activities. (PLAN)
- **Biological Information** – Ensure that biological information used in decision making is accurate and used to implement multi-use land management. (BIO INFO)
- **Wildlife Management** - Make wildlife decisions that reflect sound science and values. (MANAGE)
- **Wildlife Habitat** - Work to ensure habitat is protected and properly managed for wildlife. (HABITAT)
- **Partnerships** – Develop partnerships that recognize wildlife as a public trust. (PARTNER)
- **Laws and Legal Considerations** – Ensure laws and policies are sufficient to protect wildlife and their habitats. (LEGAL)
- **Law Enforcement** - Enforce laws to protect wildlife, public health and safety and sustain recreation opportunities. (ENFORCE)
- **Wildlife Recreation** – Provide ample wildlife recreation opportunities for the full spectrum of wildlife recreation users. (RECREAT)
- **Information and Education** – Provide the public wildlife information and education. (EDUCATION)
- **Off-Highway Vehicle Management** – Manage off-highway vehicles impacts on wildlife and their habitats. (OHV)
- **Watercraft Management** - Manage watercraft impacts on wildlife and their habitats. (WATERCRAFT)
- **Administrative Challenges** – Maintain effective agency through sound fiscal management, business practices and well-trained workforce. (ADMIN)

A dual-paired comparison was used to determine which challenges were the most important to the Summit participants. Participants were also asked to rate how well the AZGFD was performing today in each of the challenge areas.



Importance

The participants ranked the importance of the 12 challenges as follows:

- | | |
|----------------------------------|------------------------------------|
| 1. Wildlife Habitat | 7. Information and Education |
| 2. Wildlife Management | 8. Law Enforcement |
| 3. Biological Information | 9. Administrative Challenges |
| 4. Planning and Funding | 10. Wildlife Recreation |
| 5. Partnerships | 11. Off-Highway Vehicle Management |
| 6. Laws and Legal Considerations | 12. Watercraft Management |

Figure F-6: 12 Challenges by Importance

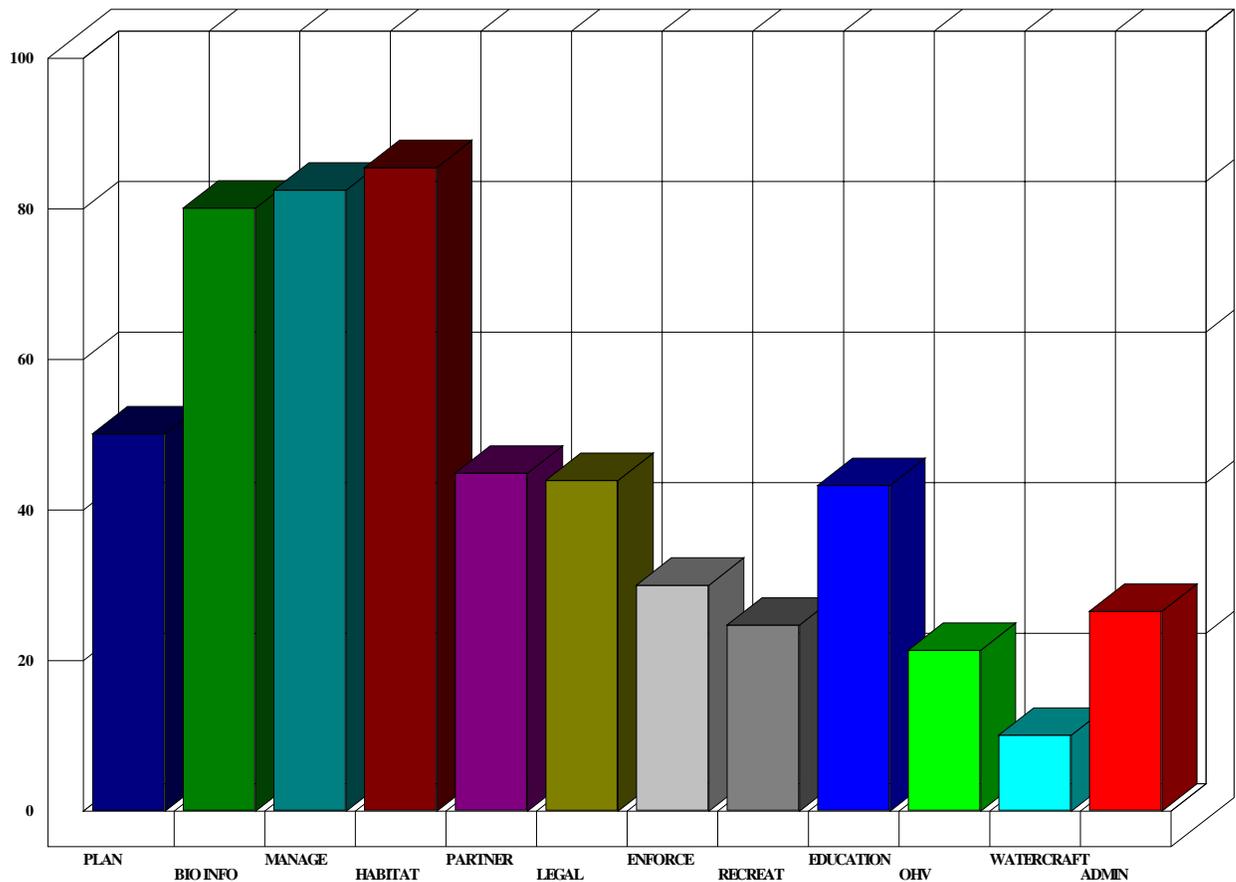


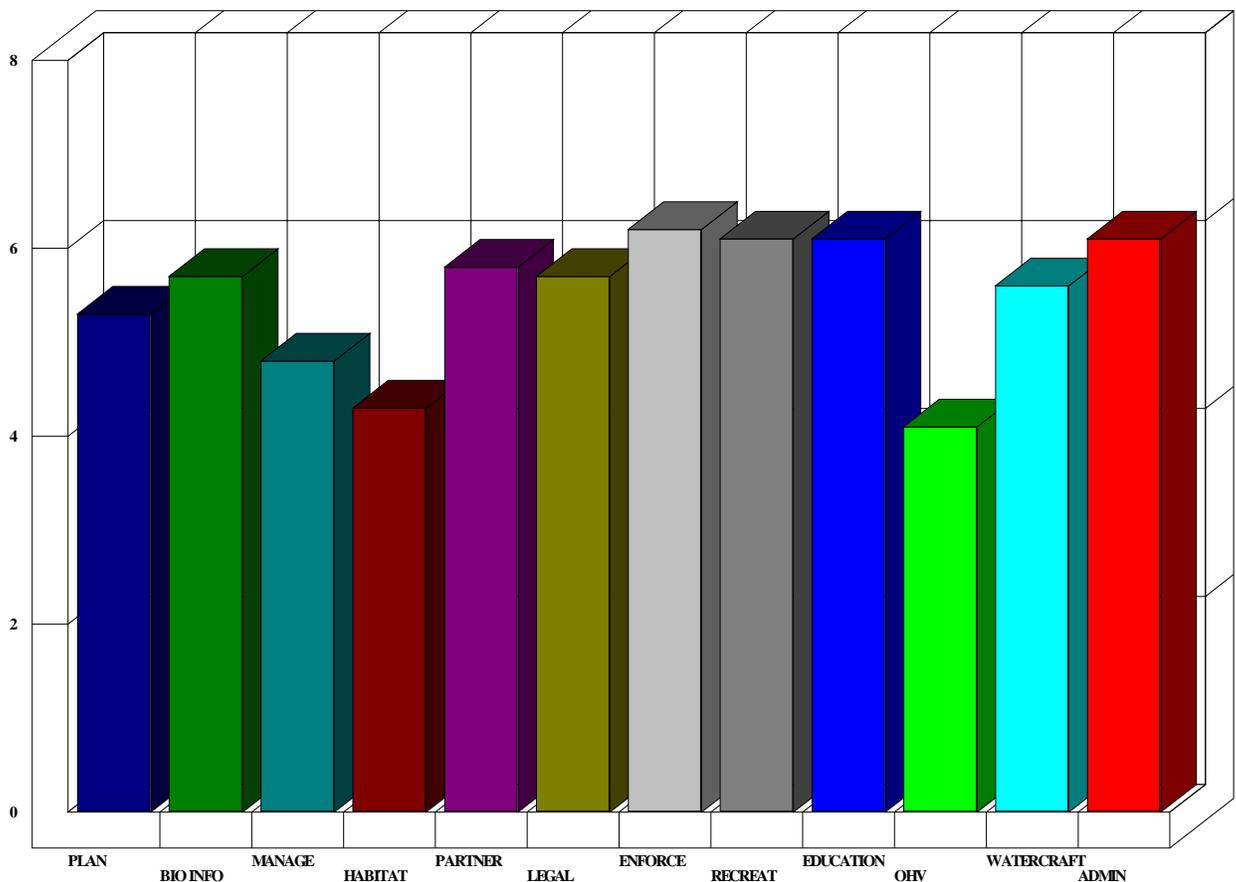
Figure F-6 shows the difference in how much more important each challenge was to the group. Overwhelmingly, the group agreed that working to ensure that **habitats** are protected and properly managed for wildlife, **wildlife management** and **biological information** were the three most important challenges for the Department. There were significant differences in the three most important challenges and the remaining nine.

Performance

Participants also were asked to rate the current performance of the AZGFD in fulfilling each of the challenges. A scale of 1-9 was used (9=practically perfect; 5=just getting by; 1=not at all.) Nine of the 12 challenges were rated 5 or higher. The lowest performing challenge was off-highway vehicles (value=38.8). According to the participants, AZGFD is performing the best on the following 4 challenges:

1. Law Enforcement
2. Wildlife Recreation
3. Information and Education
4. Administration

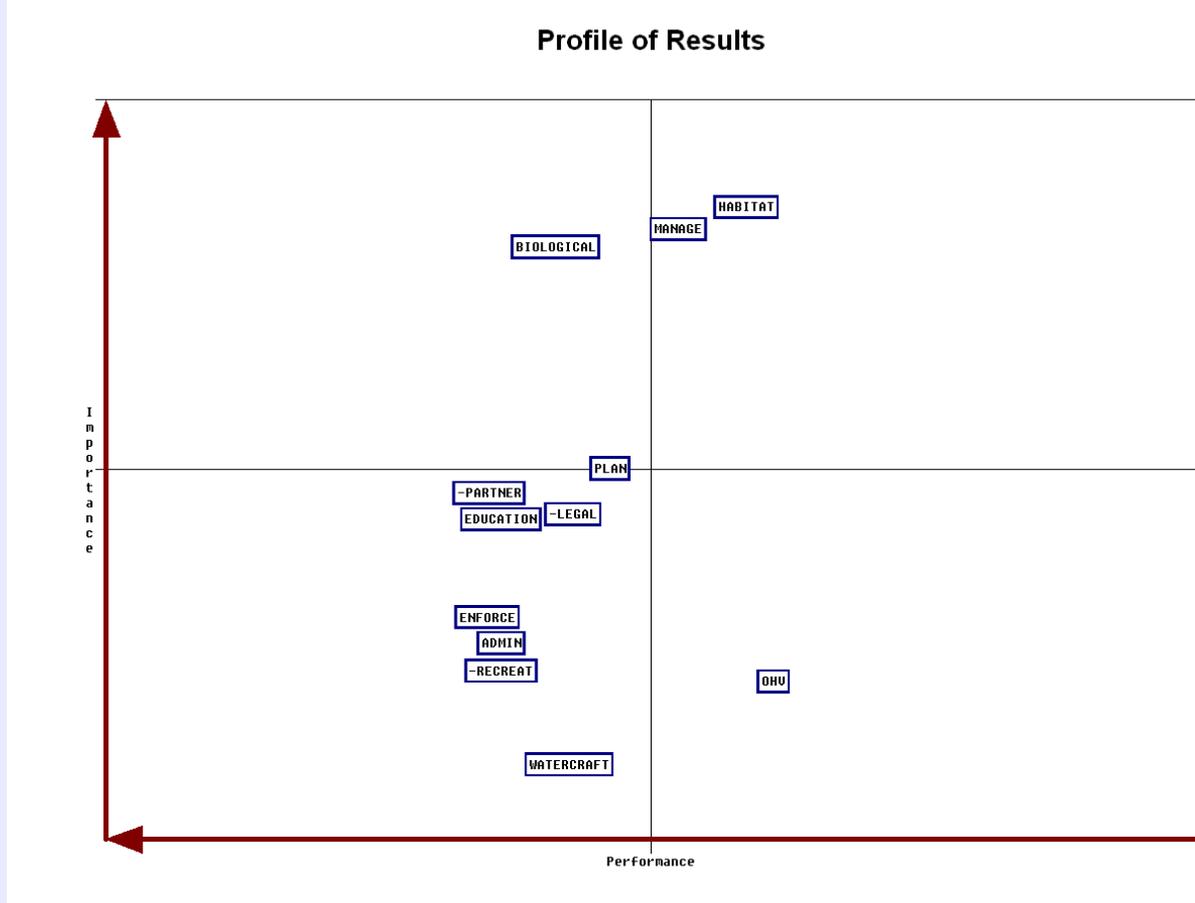
Figure F-7: Current Performance by Challenge



Profile Interpretation

The CoNexus® software creates a profile showing the relationship between the importance rankings and performance ratings. Figure F-8 shows the importance from top to bottom; the higher the challenge on the profile the more important it was to the participants. Performance is measured from right to left; the further left the challenge is on the profile the better the Department is performing.

Figure F-8: Comparison of Importance and Performance



Group Discussion

- Thought partnerships would rank higher.
- Thought off-highway vehicles would rank higher.

“What’s missing in the challenges?”

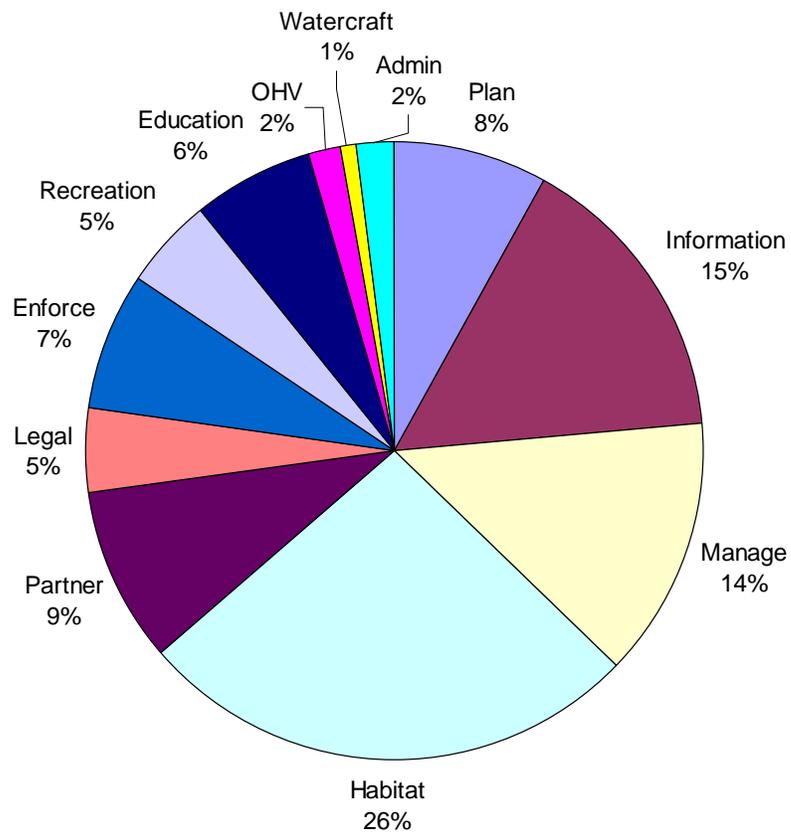
- How private property owners view their relationship with Game & Fish.
 - Need to address ranchers that have shut down access.
 - Use of state land is less expensive than the use of private land.
 - Private property rights vs. state land. Also, don’t see coordination between agencies.
 - State Lands need to stop scapegoating ranchers. Proper grazing activities are shown to be positive to the habitat. This information needs to get out to the public.
- Loss of habitat is a number one problem.
- There was no opportunity to compare game vs. non-game.
 - Both are important – you can’t separate them.
 - The perception is that game is more important.
 - What is the funding for game vs. non-game?
 - Groups of species are not considered, game or non-game.
- Good science says that the habitat tells you what is important.
- Politics can prevent an agency from its mission - the aggressive pursuit to enhance or restore.
- Politics affects the implementation of sound science.
- Early land use was proto-agriculture and included burning and managing agricultural species. This differs from current uses, including the addition of dams to the habitat. A challenge is that we must recognize that wildlife was adapted from this agricultural/proto-agricultural lifestyle.
 - The concept of pristine conditions is not accurate compared to early land use, roughly 5,000 years ago.

Funding

Each participant was given ten gold coins representing \$100. At the back of the room were 12 folders – one for each challenge. The participants were asked to spend their money as they felt appropriate. They were instructed to spend all of their money and not to break any of the coins.

Figure F-9 indicates that the participants spent 55% of their money on their three most important challenges (as shown on Figure F-6): wildlife habitat, wildlife management and biological information.

Figure F-9: Money Spent by Challenge



Group Discussion:

- Interesting spread on lower categories
- OHV is managing impacts, not activity
- Cost of damage due to gaming and fishing activities is not paid by Game & Fish
- Other land managers do not receive money to handle impacts

Part 2: Stressors (Threats) to Arizona's Natural Habitats and Wildlife

Stressors Identified by Individuals

Each participant was asked to identify three stressors (threats) to Arizona's natural habitats and wildlife that they felt were the most important to be addressed in the next ten years. This brainstorming activity resulted in the following list of stressors.

- Ongoing drought
- "Wildness" politics over science
- Inappropriate severe fire
- Use of fire at "sever" levels instead of treatments which conserve soil organics, soil biodiversity, general biodiversity
- Future energy development
- Ben Brooks & Associates
- Suburban growth at urban interface and development of exurban, private holdings
- Urban and exurban development in general and in key habitats
- Ham encroachment (loss of habitat)
- Roads/Motorized vehicles
- Fire suppression
- Human manipulation of natural processes (biotic & a biotic)
- Habitat and habitat linkage fragmentation
- Population growth/urbanization
- Urbanization
- Drought
- Increasing human water demand impacting natural/aquatic systems
- Funding
- Urban interface wildlife issues
- Loss of connectivity of wildlife population
- Loss of habitat for all native species
- Negative impacts of roads
- Differences between land management
- Loss of habitat
- Invasive exotic species
- Public awareness and involvement
- Habitat loss to development
- Decreased funding
- Loss of available funding
- Less game, fewer hunters = less license sales
- More money spent on lawsuits, other species
- Increased human demands - OHV use, Great hunter/fishing demands, Other outdoor recreation activities
- Habitat loss - Natural-fire, drought, flood, Development, fragmentation
- Changes to habitat



Stressors Identified by Groups

The participants were divided into groups and asked to review their individual list of stressors and come to a consensus on the top stressors. The following were the stressors identified by the groups.

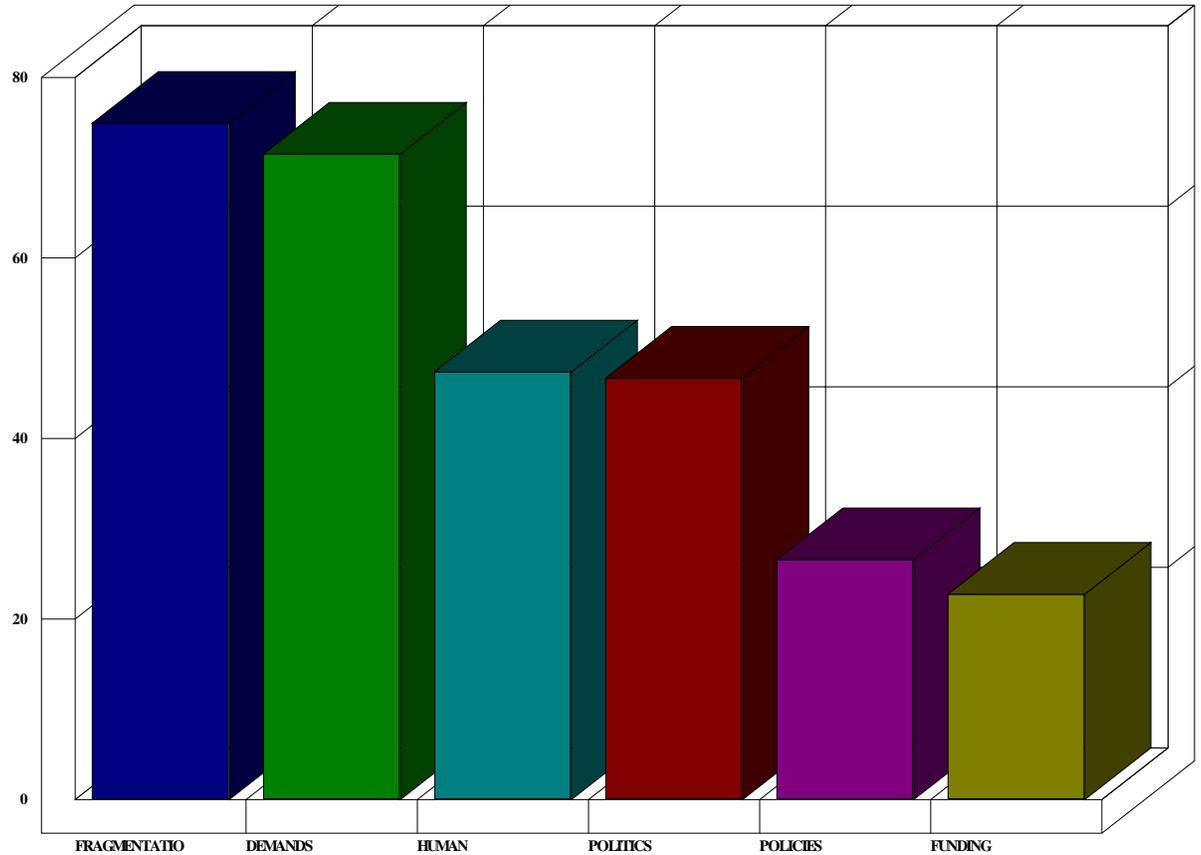
- Inappropriate fire management with severe drought
- Human manipulation (fire suppression, non-native species, etc.)
- Unintended consequences
- Lack of funding
- Human encroachment
- Suburbanization
- Private development within an interlaced land tenure
- Habitat and Linkage fragmentation (urbanization, roads, agriculture)
- Habitat loss (many forms of loss)
- Competition for scarce water resources
- Humans, Agriculture, Grazing, Other wildlife
- Increased human demands on wildlife and habitat
- Politics superseding science and implementation

Stressors which are the most important for AZGFD to address in the next 10 years:

The participants defined, discussed, and combined their stressors into the following list which was voted using the CoNexus® dual-paired comparison software. The capital word in parentheses is the keyword used to identify the challenge on the CoNexus® graphs.

- **Negative impacts** from human manipulation - fire suppression, non-native species (HUMAN)
- **Fragmentation** and loss of habitat and linkages (FRAGMENTATIO)
- **Increased human demands** on limited natural resources (DEMANDS)
- **Lack of funding** (FUNDING)
- **Inconsistency management policies** and goals between land stewards (POLICIES)
- **Politics superseding sound science** and implementation (POLITICS)

Figure F-10 (page F-11) indicates that **fragmentation** and loss of habitat and linkages and negative impacts from **human manipulation** included fire and non-native species were the two most important stressors identified by the group. During the day, there was a significant amount of discussion regarding inconsistent management policies and lack of funding but these issues were ranked as the least important stressors.

Figure F-10: Most Important Stressors

Group Discussion

- Concern about the use of numbers, may end up with a public skew on certain issues. Response: The data will be used to frame the discussion and determine the range of issues to be considered. This is qualitative data, not quantitative.
- The majority of the public may “vote” one way, this is a concern. The demographic information will assist in this area as well.

Part 3:

Criteria for Identifying “Wildlife of Greatest Conservation Need”

Criteria Identified by Individuals

Each participant was asked to identify three factors that should be used by AZGFD to select the “Wildlife of Greatest Conservation Need.” This brainstorming activity resulted in the following list of criteria:

- Endangered species
- Endangered species and clusters
- Endangered species and those likely to become listed
- Species whose needs cover a large group, “umbrella” species
- Umbrella carnivores
- Large carnivores
- Native species
- Keystone native species
- Determine which species may be ecosystem indicators
- Review of scientific data from State, Federal, and civilian groups (TNC, Ducks ULTD, etc. and university sources
- Species for which conservation effort can make a difference
- Restore funding based on ecosystem goals, not species specific
- Does the species occur only in Arizona?
- Provides greatest benefit
- Does the species depend on a limited landscape component?
- Keystone species
- Environmental biased
- Sound scientific information
- Species with large area requirements
- Habitat utilization
- Broadest “common” appeal
- Best exemplifies “wildlife”
- Can they be saved?
- Are they keystone or indicator species?
- Huntability (recreation value) of animal
- Population dispersal
- Ensure diversity of all species
- If we save them, what is helped/hurt?
- Population size
- Population trend wild
- Birth weight or count (depending on species)

Criteria Identified by Groups

The participants were divided into two groups and asked to review their individual list of criteria and come to a consensus on five top criteria. The following were the 10 criteria identified by the two groups:

- Species for which funding/conservation efforts support ecosystem goals
- Can they be saved without sacrifice to others
- Unique species depends on a unique habitat
- Ensure diversity of all species
- Native species
- Endangered species (species clusters, those likely to become)

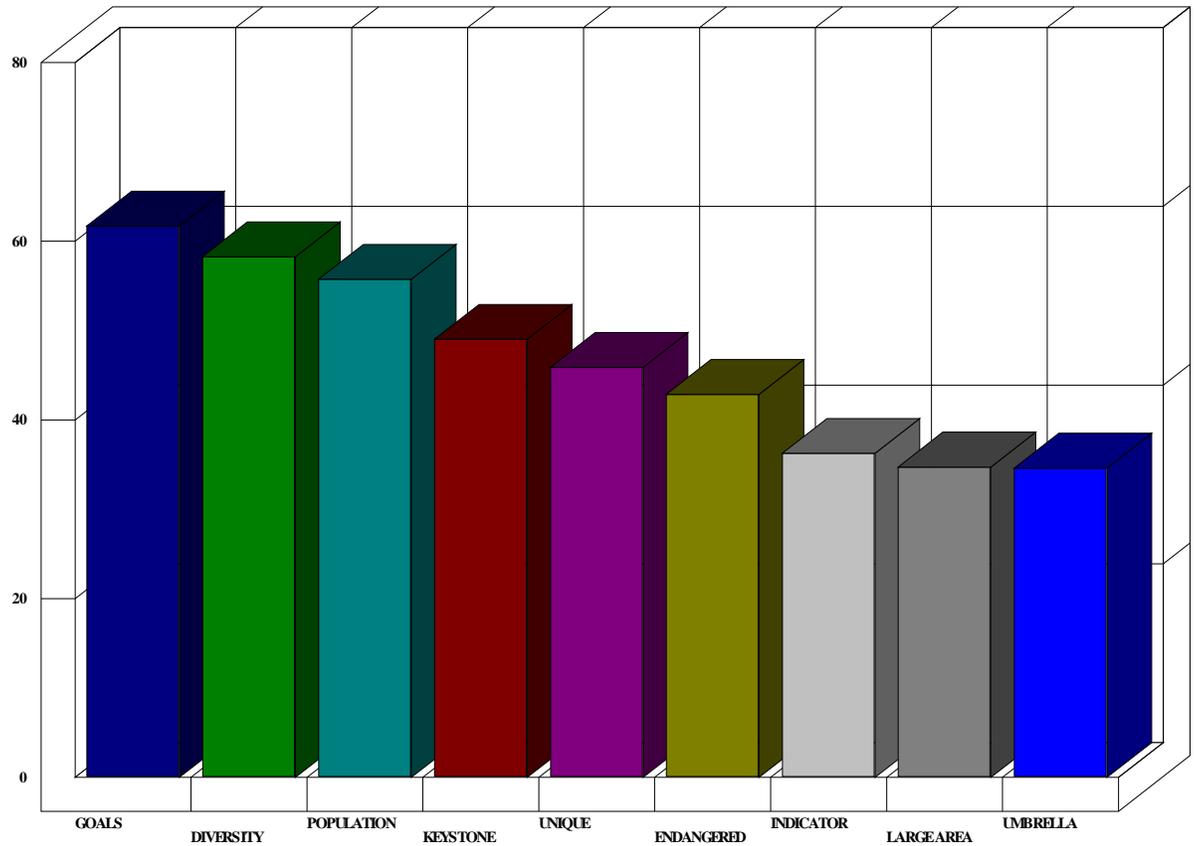
- Population trends size
- Keystone species
- Indicator species
- Umbrella species
- Species with large area requirement
- Provides greatest benefit
- Species with large habitat requirements (large carnivores)

What are the factors that AZGFD should use to determine if a species needs special attention?

The participants defined, discussed, and combined their criteria into the following list which was voted using the CoNexus® dual-paired comparison software. The capital word in parentheses is the keyword used to identify the challenge on the CoNexus® graphs.

- **Ensure native species diversity** (DIVERSITY)
- **Consider population trends and sizes** proactively (POPULATION)
- **Endangered species** (ENDANGERED)
- **Umbrella species** (UMBRELLA)
- **Species with large area requirements** (LARGE AREA)
- **Indicator species** (INDICATOR)
- **Keystone species** (KEYSTONE)
- **Native and unique species** (UNIQUE)
- Species for which further conservation efforts **support ecosystem goals** (GOALS)

As shown in Figure F-11 (page F-14) the three most important criteria were **support ecosystem goals**, **ensure native species diversity**, and **population trends and sizes**.

Figure F-11: Criteria Ranked by Importance

Group Discussion

Discussion following the paired matching of participant-suggested criteria included:

- Need definitions – forgot what differentiated similar concepts.
- The most general criteria resulted in the higher voting responses.
- Not as many hunters were present today as might be on another day.