

MT. TRUMBULL HABITAT ANALYSIS

Summary of Management Recommendations

A. Turkey

1. Manage Livestock grazing so as to increase desirable understory grasses and forbs such as:

<u>Grasses</u>	<u>Forbs</u>
Western wheatgrass	Mt. Dandelion
Squirrel tail	Deer vetch
Mt. brome	Penstemon

2. Limit utilization of key species ^{hickory} to 50% in key areas.
3. Defer grazing in the ponderosa pine area until June 9 each year to provide adequate cover for nesting.
4. Designate and protect at least 8 roost tree areas within the 2,400 acre proposed timber harvest area. (Roost sites should meet Jantzen's Criteria 4).
5. Prohibit logging activity during April, May and June to avoid disruption of nesting turkeys.
6. Allow no logging, thinning or slash disposal within 1/8 mile of the Mt. Logan Catchment or proposed sawmill and turkey track catchments.
7. Plow and reseed 300 acres of open parks in the ponderosa type and seed to a mixture of grasses, forbs, and shrubs.
8. Develop the following four catchments to provide water for turkeys.
 - a. Hells Hole Catchment - Sec. 15, T. 34 N., R. 9 W.
 - b. Saw Mill Catchment - Sec. 6, T. 34 N., R. 8 W.
 - c. Turkey Track Catchment - Sec. 8, T. 34 N., R. 8 W.
 - d. Mt. Trumbull Catchment - Sec. 26, T. 35 N., R. 8 W.

B. Elk

Based on the preceding analysis and MFP direction, it is recommended that no elk transplants be considered in the immediate future. When future studies show sufficient improvement in forage condition to support an elk herd, the proposal could be reconsidered.

C. Mule Deer

1. Manage the Mt. Trumbull area to provide habitat for 4,220 head of mule deer and maintain a healthy viable herd.
2. Manage livestock grazing within the habitat so as to improve the habitat for mule deer in accordance with guidelines on Page 29 of this analysis. Limit livestock utilization of forage to 50% of key areas within summer range.

Guidelines on Page 29

"The following objectives and key species should be included in AMP's for this habitat:

"1. Spring-Summer Range, April through September

Management should maximize production and availability of succulent forage during this time. Key species for mule deer could include:

<u>Grasses</u>	<u>Forbs</u>	<u>Browse</u>
Introduced wheatgrasses	Mt. dandelion	Birch leaf Mt. mahogany
Muttongrass	Penstemon	Gambel oak
Squirrel tail	Deer vetch (<u>Lotus spp.</u>)	<u>Ceanothus spp.</u>
Western wheatgrass	<u>Menodora spp.</u>	Bitterbrush
Mt. brome	Yellow sweet clover	Silk tassel

"2. Fall-Winter Range, October through March

Management should be directed toward maximizing production of desirable browse species. Cool season grasses should be

also be considered important during this period. Some grasses at lower elevations may stay green all winter. Key species on the winter range for mule deer should include:

<u>Grasses</u>	<u>Forbs</u>	<u>Browse</u>
Squirreltail	Mallow	Cliffrose
<u>Stipa spp.</u>	<u>Penstemon spp.</u>	Bitterbrush
Indian ricegrass		<u>Ceanothus spp.</u> "

3. Develop 23 water catchments to provide needed water for mule deer, and other uses where practical.

(See attached list)

4. Plow and reseed 300 acres of "parks" in Mt. Logan area as wildlife food "patches."
5. Insure that other vegetative manipulation projects meet criteria on Page 27 of this analysis.
6. Take steps to insure water is safely available for wildlife at livestock water facilities. The waters on the attached list need special attention to provide for mule deer needs. (See Page 33)

Guidelines for Page 27

"The following guidelines should be followed when designing land treatment projects to enhance mule deer habitat in the Mt. Trumbull Habitat Area:

- "1. Openings should be small, irregular shaped; 660 foot maximum width is optimum, but shouldn't exceed 1,220 feet. Edges should be irregular to create maximum edge effect.
- "2. Treatment should be as thorough as possible to get a maximum soil disturbance to provide good seed bed; and use of a disc plow on mountain clearings is recommended.

- "3. A mixture of seed should be seeded with the purpose of supplying succulent forage over a long period. The wheatgrasses should include crested and intermediate. Yellow sweet clover and alfalfa should be included as part of the forbs. A species trial plot was established on Mt. Trumbull in the fall of 1975. The performance of the 30 different species seeded here should be evaluated in order to plan seeding mixture on future sites.
- "4. Livestock grazing must be managed after seeding to allow even most palatable species to maintain themselves. This type of management would include a maximum allowable utilization figure and adequate rest from grazing to allow plants to maintain optimum vigor and production. If adequate protection cannot be obtained via a grazing system, then fencing to exclude livestock from wildlife food patches may be necessary. Livestock would then be allowed to use the area only to enhance wildlife values; i. e., seed trampling and removal of old growth."

D. Predators

1. More information is needed concerning predator and prey relationships. A cooperative study of predators on the Arizona Strip with the Arizona Game and Fish or a university, would be a means of acquiring better information.
2. The harvest of predators for fur and sport should be encouraged as a means of reducing predators in problem areas.
3. Effective methods of reducing predator populations are needed as a management tool to enhance wildlife values.

4. The positive values of predators for recreation, fur and as a natural population control of other wildlife species, should be carefully weighed against predator damage prior to approving any control effort.

E. Small Game

1. All existing and future waters developed should be designed so they are freely available to small game animals.
2. Livestock management should include objectives to:
 - a. Increase seed and forage production of desirable plants.
 - b. Avoid extreme utilization in pastures to provide for small game needs. These animals have small home ranges and cannot always move to the "rested" pasture.
3. Reseeding projects should include species for seed production and cover for small game. Some downed trees and brush should be left for escape cover.

Valuable small game plants which should be included in treated areas if possible:

- a. Annual rye (Large seeds attractive to game birds)
 - b. Yellow Sweet Clover (Large seeds plus succulent forage)
 - c. Four-wing Saltbush (Large seeds plus good cover plant)
 - d. Wheat grasses (Forage production plus some seeds)
4. Transplant chukar into Whitmore and Parashaunt Canyon areas.
After fire - fire from 7/10
 5. Develop proposed water catchments for deer in a manner so as to also provide for chukar needs in Hacks Canyon and Whitmore Point areas.

F. Waterfowl

Formulate a plan for waterfowl habitat development around the Crosby Dam (Secs. 10 & 11, T. 35 N., R. 9 W.). This would involve input from other resources and could possibly include fencing, reseeding and development of waterfowl "pot holes."

G. Kaibab Squirrel

1. Continue to cooperate with Arizona Game and Fish in trying to establish Kaibab squirrels in the Mt. Trumbull area.
2. Protect existing mature ponderosa pine from commercial harvest or fire to provide habitat for the Kaibab squirrel.
3. Limit upgrading of access roads or other practices which would allow an increase in people pressure into the area.
4. Establish permanent type studies to monitor Kaibab squirrel numbers on the Mt. Logan Area.

H. Small Non-game Mammals - No specific recommendation.

I. Non-Game Birds

1. Manage livestock grazing toward protection and improvement of native vegetation types. Rest rotation systems can accomplish this if heavy grazing use is not allowed in used pastures (do not exceed 50% utilization of key species in key areas).
2. Vegetative manipulative projects should be carefully designed to create maximum edge effect. No more than 1/3 of a type should be treated. A diversity of plant species should be seeded following the treatment.
3. Water Developments - all water should be equipped so as to be safely available for bird use. Additional water should be developed in presently dry areas.

4. The needs of birds should be carefully considered in any timber harvest operation. Where possible the following trees should be left uncut.
 - a. 27 snags (10" DBH & above) should be left per 10-acre tract.
 - b. 27 to 54 live trees which are expected to die and become snags in the next 20 years or which presently provide nesting cavities should be left per 10-acre tract. Live trees left to become snags could be those having a lot of defect which are of low value for commercial purposes.
 5. Steps should be taken to protect snags from cutting for firewood. Signs should be erected to educate and warn public about cutting of snags. Wood permits should contain stipulation prohibiting the falling of snags for firewood in ponderosa areas.
- J. Endangered Species - No specific recommendation.