

Appendix E

TABLE 1
PERCENT OF UNDERSTORY CANOPY COVER

Forested Cover Type	Average Percent Understory Canopy Cover Of:				Total Number of Different Species (>5% cover)	Most Common Understory Woody Species
	Shrub Cover	Forb Cover	Grass Cover	Bare Ground		
Aspen	31	27	25	4	223	Mountain snowberry
Ponderosa Pine	34	6	10	10	82	Greenleaf manzanita
White Fir	30	10	9	6	89	Mountain snowberry
Douglas-fir	32	11	10	7	165	Mountain snowberry
Englemann/Blue Spruce	19	14	10	5	112	Grouse whortleberry
Lodgepole Pine	22	10	11	4	88	Grouse whortleberry
Spruce/Fir	16	17	11	4	151	Gooseberry currant

TABLE 2
PROPORTION OF LAND MANAGED BY VARIOUS
ADMINISTRATIVE ENTITIES
RATED AS HIGH VALUE AND OPTIMUM GOSHAWK HABITAT

Entity	High ¹	Optimum ²
<i>----- percent -----</i>		
Forest Service	57	24
Bureau of Land Management	3	0
State	34	9
Native American	2	0
Private	7	5
National Park Service	4	4
Bankhead Jones ³	10	10

¹ Areas rated high as nesting habitat and high as habitat for one or more prey groups (mammals, woodpeckers, and other birds).

² Areas rated high as nesting habitat and high as habitat for all three prey groups (mammals, woodpeckers, and other birds).

³ These lands were set aside to correct maladjustments in land use and thus assist in control of erosion, reforestation, and protection of fish and wildlife by the Bankhead-Jones Farm Tenet Act of 1937.

TABLE 3
PERCENTAGE OF HIGH AND OPTIMUM VALUE HABITAT
MANAGED BY VARIOUS ADMINISTRATIVE ENTITIES

Entity	High ¹	Optimum ²
<i>----- percent -----</i>		
Forest Service	60	56
Bureau of Land Management	12	5
State	6	7
Native American	1	0
Private	19	29
National Park Service	1	2
Bankhead Jones ³	0	0

¹ Areas rated high as nesting habitat and high as habitat for one or more prey groups (mammals, woodpeckers, and other birds).

² Areas rated high as nesting habitat and high as habitat for all three prey groups (mammals, woodpeckers, and other birds).

³ These lands were set aside to correct maladjustments in land use and thus assist in control of erosion, reforestation, and protection of fish and wildlife by the Bankhead-Jones Farm Tenet Act of 1937.

TABLE 4
PROPORTION OF EACH VEGETATION TYPE CURRENTLY IN
VARIOUS FOREST COVER TYPES

Current Cover ²	Vegetation Type (Percent) ¹							
	White fir	Subalpine fir	Lodgepole pine	Engelmann spruce	Ponderosa pine	Pinyon/juniper	Quaking aspen	Douglas-fir
White fir	84	2	-	-	-	-	-	-
Subalpine fir	1	45	-	2	6	-	3	2
Pinyon/juniper	-	-	-	-	-	99	-	-
Lodgepole pine	-	-	14	2	-	-	-	16
Lodgepole pine/quaking aspen	-	3	51	12	-	-	2	-
Engelmann spruce	-	12	1	18	-	-	-	-
Engelmann spruce/subalpine fir	-	8	-	49	-	-	-	-
Engelmann spruce/lodgepole pine	-	20	6	14	-	-	-	-
Engelmann spruce/Douglas fir	-	-	-	-	-	-	2	-
Ponderosa pine	1	1	-	1	84	-	1	2
Cottonwood	-	-	2	-	-	1	-	-
Quaking aspen	2	4	11	2	9	-	84	-
Douglas-fir	3	3	2	-	-	-	-	18
Douglas-fir/ponderosa pine/quaking aspen/lodgepole pine	1	-	13	-	-	-	-	-
Douglas-fir/subalpine fir	-	-	-	-	-	-	1	-
Quaking aspen/subalpine fir	-	-	-	-	-	-	1	-
Douglas-fir/quaking aspen	-	-	-	-	-	-	-	61
Gambel oak	-	1	-	-	-	-	4	2
Gambel oak/big tooth maple	10	-	-	-	-	-	-	-
Gambel oak/quaking aspen	-	-	-	-	-	-	3	-

¹ See table E1 in the Graham et al. 1999 publication provided, for vegetation descriptions.

² See table E1 in the Graham et al. 1999 publication provided, for current vegetation descriptions.

TABLE 5
PROPORTION OF KNOWN NESTS BY COVER TYPE

Cover Type ¹	Proportion Of Nests (%)
White fir	9
Subalpine fir	9
Lodgepole pine	8
Engelmann spruce	12
Ponderosa pine	12
Quaking aspen	10
Douglas-fir	7
Lodgepole pine/quaking aspen	20
Engelmann spruce/subalpine fir	1
Engelmann spruce/lodgepole pine	9
Douglas-fir/ponderosa pine/quaking aspen/ lodgepole pine	1
Douglas-fir/lodgepole pine	1
Quaking aspen/Engelmann spruce	1

¹ Defined as a plurality of one species or a mixture of two or more species in a particular forest or stand.

**TABLE 6
CHARACTERISTICS OF KNOWN NEST SITES IN UTAH
BY FOREST COVER TYPE¹**

Forest Types²	Patch Size/Heterogeneity	Stand Structure	Landscape Features	Degree of Use for Nesting
ES/SAF ES/LLP ES, ES/DF SAF	Small (0.25 to 0.50 acre) openings in large matrix of predominantly mature to old forest habitat; stand sizes 100s to 1000s of acres	Moderately dense to dense stocking; trees with interlocking crowns; multi-storied stands; large trees; occasional patches of Aspen; clumpy tree distribution; sparse understory vegetation; abundant large woody debris; large snags present.	Usually on benches adjacent to drainages or near other water sources. Often near natural openings such as wet meadows.	High
LPP LPP/QA	100s to 1000s of acres, mostly homogeneous	Green stands have simple, single-storied structures; stocking varies from dense to very dense ("doghair"); sparse understory vegetation; little down woody debris; closed canopies; few snags. Mature and old stands often much different due to insect activity; many snags, abundant woody debris, open canopies.	Limited to the Uinta Mountains of northeastern Utah. Occupies benches, plateaus, moderate slopes along drainages at mid-elevations. Seral aspen often present, especially on moister sites. Most nests near drainages or small meadows.	High
QA	10s to 100s of acres, often as forested islands mixed with open habitats such as sagebrush.	Moderately dense to dense stands; interlocking crowns; multi-storied; large trees present; stout forks form nest platforms; diverse, highly productive understory; moderate amounts of down woody debris.	Mesic sites on flat to moderate slopes, often near natural openings. Occupies elevational zone between sage/grasslands and beginning of coniferous forest.	Moderate to high
DF/QA DF/SAF DF WF	Small (1/4 to 1/2 acres) openings scattered throughout mature forest. Stand size varies; 100s of acres in southern Utah, 10s to 100s of acres in north and west Utah.	Dense stands; complex, multi-storied structure; high tree species diversity; large trees present; interlocking crowns; abundant down woody debris	Limited to shady aspects, high elevations in dry habitats and to limestone sites in Uintas. Widespread in southern Utah at appropriate elevations.	Moderate to high where patch size large; low elsewhere
PP	Small (1/4 to 1/2 acre) openings mixed with patches of varying sizes and ages of trees. Stand size 100s of acres.	Two size classes, one with large trees; sometimes mixed with Quaking aspen or Douglas fir; clumpy tree distribution; more open stands than in other types; large snags present.	Found on benches, foothills, plateaus; dry sites but nests often near drainages with perennial water.	Moderate
Cottonwood DF/PP/QA LPP	Small patch size, high variability in tree size and density. Cottonwood often present as small inclusions along drainages in P/J cover types	Multi-storied; high tree species diversity; diverse and productive understory; mix of coniferous and deciduous trees when occurring in shady canyon bottoms, dominated by cottonwoods in broader, lower elevation valleys.	Narrow, linear stands along perennial streams	Moderate in canyon bottoms, low for exposed valley locations (possible winter habitat?)
P/J	Large, homogeneous stands (100s to 1000s of acres) when on P/J sites. More variable, often mixed with small amounts of Ponderosa Pine, Douglas fir or Cottonwood when on White fir or Douglas fir sites	Uniform tree distribution; little decadence (snags or down woody material) except in very old stands (200 to 400 years); untreated stands have fairly dense stocking levels and very sparse understory vegetation.	Hot, dry sites with poor soils; often on south and west facing slopes.	Low (possible winter habitat?)
GO/M GO/M GO	Small patches in a highly variable mix of opening habitats, aspen and conifer stands depending on location	Dense stands; shrubby growth form	Often on steep south or west facing hillsides, sometimes along stream courses	Low

¹ Based on description provided by Northern Goshawk Interagency Technical Team and others listed in Chapter 5.

² Refer to Table 1 footnotes in the Graham et al. 1999 publication provided, for cover type definitions.

TABLE 7
PREY SPECIES USED BY NESTING GOSHAWKS IN UTAH¹

Species	Northern Utah	Southern Utah
<i>Mammals</i>		
Snowshoe hare	Observed ²	Observed
Cottontail rabbit	Suspected ³	Observed
Red Squirrel	Observed	Observed
Uinta ground squirrel	-	Observed
Abert's squirrel	-	Suspected
Flying squirrel	-	Suspected
<i>Woodpeckers</i>		
Northern flicker	Observed	Observed
Three-toed woodpecker	Observed	Observed
Other woodpeckers ⁴	-	-
<i>Other birds</i>		
Gray jay	Observed	Suspected
Black-billed magpie	Observed	Suspected
American kestrel	Observed	-
Common raven	Observed	-
Clark's nutcracker	Observed	Suspected
Steller's jay	Observed	Observed
Grouse (ruffed and/or blue)	Observed	Observed
American robin	Observed	Observed
Townsend's solitaire	Observed	-
Mourning dove	-	Observed
Mountain bluebird	Observed	Observed
Dark-eyed junco	Observed	-
Mallard	Observed	Suspected
Unidentified blackbird	Observed	-

¹ Based on descriptions provided by Northern Goshawk Interagency Team.

² Biologists report identifying prey remains near an active nest

³ Present in habitats used by goshawks but no prey remains identified to date.

⁴ Includes downy and hairy woodpeckers, red-naped and Williamson's sapsuckers.

TABLE 8
IMPORTANT HABITAT ATTRIBUTES FOR MAINTAINING POPULATIONS
OF SELECTED GOSHAWK PREY^{1 2}

Prey Species	Large Down Woody Debris	Snags	Large Trees	Understory Vegetation	Openings	Mix of Structural Stages	Interlocking Trees Crowns	Most Common in These Cover Types³
<i>Mammals</i>								
Snowshoe hare	Low	None	None	High	Low	High	None	LPP, SAF, ES
Red squirrel	High	High	High	Med	None	Low	High	ES, LPP, DF
<i>Woodpeckers</i>								
Northern flicker	High	High	High	Med	Low	High	None	PP, QA
Three-toed woodpecker	Med	High	High	None	None	Med	None	LPP, ES
Hairy Woodpeckers/ Williamson's sapsucker	Med	High	High	Med	None	Med	None	QA, LPP, ES, DF, SAF
Down Woodpecker	Med	High	High	Med	None	Med	None	QA
Red-naped sapsucker	Med	High	High	Med	None	Med	None	PP
<i>Other Birds</i>								
Stellar's jay	Low	Low	High	Low	None	Low	Low	PP, P/J
Ruffed grouse	High	None	Low	High	High	High	Low	QA
Blue grouse	Med	None	High	High	High	High	Low	DF
American robin	Low	None	Low	High	Med	High	Med	PP, QA
Mountain bluebird	Low	High	High	High	High	High	None	QA, PP, P/J

¹ Based on descriptions provided by Northern Goshawk Ineragency Team and others listed in Chapter 5.

² Reynolds et al (1992). Information on ruffed goruse and mountain bluebird from DeGraaf et al. (1991), Ehrlich et al (1998). Additional information on bird use of forest cover types from Forest Service breeding bird surveys (Ashley NF 1995). Information on snoeshoe hare from Dolbeer and Clark 1975, Koehler 1989, Koehler and Brittel 1990. Dominant tree species alone or in mixed stands.

³ For full description of cover types see Table 1 footnotes in the Graham et al. 1999 publication provided.

TABLE 9
ENDANGERED, THREATENED,
AND PROPOSED THREATENED
SPECIES IN UTAH

Species	Occur In Habitat Used By Goshawk
Vertebrates	
<i>Endangered</i>	
Peregrine Falcon	*
Southwestern Willow Flycatcher	*
California Condor (experimental population)	
Black Footed Ferret	
Whooping Crane (migrating population only)	
Bonytail Chub	
Colorado Squawfish	
Razorback Sucker	
Humpback Chub	
June Sucker	
Virgin River Chub	
Woundfin	
<i>Threatened</i>	
Bald Eagle	*
Utah Prairie Dog	
Mexican Spotted Owl	*
Desert Tortoise	
Lahontan Cutthroat Trout	
<i>Proposed Threatened</i>	
Canada Lynx	*
Mountain Plover	
Plants	
<i>Endangered</i>	
San Rafael Cactus	
Clay Phacelia	
<i>Threatened</i>	
Heliotrope Milkvetch	
Maguire's Primrose	
Last Chance Townsendia	
Ute Ladies' Tresses	
Winkler Cactus	

TABLE 10
ENDANGERED, THREATENED AND PROPOSED
PLANT SPECIES

Plant Species	Ash	Dix	Fish	M-L	Uin	W-C
<i>Endangered</i>						
San Rafael cactus <i>Pediocactus despainii</i>			X			
Clay phacelia <i>Phacelia argillaces</i>				?	X	
<i>Threatened</i>						
Heliotrope milkvetch <i>Astragalus montii</i>				X		
Maguire's primrose <i>Primula maguirei</i>						X
Last chance townsendia <i>Townsendia aprica</i>			X			
Ute ladies' tresses <i>Spiranthes diluvialis</i>	?			?	X	?
Winkler cactus <i>Pediocactus winkleri</i>			X	?		

TABLE 11
SENSITIVE VERTEBRATE SPECIES

Species	Occur in Habitat Used by Goshawk
Spotted Bat	*
Townsend's big-eared Bat	*
Boreal Owl	*
Flammulated Owl	*
Three-toed Woodpecker	*
Great Gray Owl	*
Northern goshawk	*
Spotted frog	
Colorado River Cutthroat Trout	
Bonneville Cutthroat Trout	

TABLE 12
SENSITIVE PLANT SPECIES

Plant Species	Ash	Dix	Fish	M-L	Uin	W-C
Chatterly onion <i>Allium geyerei chatterleyi</i>				X		
Sweet-flowered rock jasmine <i>Androsace chamaejasme carinata</i>				X		
Link Trail columbine <i>Aquilegia flavescens rubicund</i>				X		
Graham columbine <i>Aquilegia grahamii</i>	X					
Petiolate wormwood <i>Artemisia campestris petiolata</i>	X					
Barneby woody aster <i>Aster kingii</i> var. <i>barnebyana</i>		X			X	
Bicknell milkvetch <i>Astragalus consobrinus</i>			X	?		
Dana milkvetch <i>Astragalus henrimontanensis</i>		X				
Starving milkvetch <i>Astragalus jejunus jejunus</i>						X
Navajo Lake milkvetch <i>Astragalus limnocharis</i> var. <i>limnocharis</i>		X				
Table Cliff milkvetch <i>Astragalus limnocharis</i> var. <i>tabulaeus</i>		X				
Guard milkvetch <i>Astragalus zionis vigulus</i>		X				
Dainty moonwort <i>Botrychium crenulatum</i>					X	
Paradox moonwort <i>Botrychium paradoxum</i>		X				
Beautiful Bryum <i>Bryum calobryoides</i>		X				
Aquarius paintbrush <i>Castilleja aquariensis</i>		X				
Tushar paintbrush <i>Castilleja parvula</i> var. <i>parvula</i>		X	X			
Reveal paintbrush <i>Castilleja parvula</i> var. <i>revealii</i>		X				
Creutzfeldt-flwr cryptanth <i>Cryptantha creutzfeldtii</i>				X		
Yellow-white catseye <i>Cryptantha ochroleuca</i>		X				
Pinnate spring-parsley <i>Cymopterus beckii</i>				X		

TABLE 12 (continued)
SENSITIVE PLANT SPECIES

Plant Species	Ash	Dix	Fish	M-L	Uin	W-C
Cedar Breaks biscuitroot <i>Cymopterus minimus</i>		X				
Brownie ladyslipper <i>Cypripedium fasciculatum</i>						X
Rockcress draba <i>Draba densifolia apiculata</i>					X	X
Maguire draba <i>Draba maguirei</i>						X
Creeping draba <i>Draba sobolifera</i>		X	X			
Nevada willowherb <i>Epilobium nevadense</i>			X			
Abajo daisy <i>Erigeron abajoensis</i>				X		
Carrington daisy <i>Erigeron carringtonae</i>				X		
Cronquist daisy <i>Erigeron cronquistii</i>						X
Kachina daisy <i>Erigeron Kachinensis</i>				X		
Maguire daisy <i>Erigeron maguirei</i>						X
LaSal daisy <i>Erigeron mancus</i>				X		
Untermann daisy <i>Erigeron untermannii</i>	X					
Widtsoe buckwheat <i>Eriogonum aretioides</i>		X				
Elsinore buckwheat <i>Eriogonum batermanii</i> var. <i>ostlundii</i>			X			
Logan buckwheat <i>Eriogonum brevicaulae</i> var. <i>loganum</i>						X
Wonderland Alice flower <i>Gilia caespitosa</i>						
Pine Valley goldenweed <i>Haplopappus crispus</i>		X				
Canyon sweetvetch <i>Hedysarum occidentale</i> var. <i>canone</i>				X		
Jones goldenaster <i>Heterotheca jonesii</i>		X				
Wasatch jamesia <i>Jamesia americana macrocalyx</i>					X	X

TABLE 12 (continued)
SENSITIVE PLANT SPECIES

Plant Species	Ash	Dix	Fish	M-L	Uin	W-C
Zion jamesia <i>Jamesia americana zionis</i>		X				
Neeses' peppergrass <i>Lepidium montanum</i> var. <i>neeseae</i>		X				
Garrett bladderpod <i>Lesquerella garrettii</i>					X	X
Canyoonlands lomatium <i>Lomatium latilobum</i>				X		
Fish Lake naiad <i>Najas caespitosa</i>			X			
Artic poppy <i>Papaver radicum</i> var. <i>pygmaeum</i>	X					X
Paria breadroot <i>Pediomelum pariense</i>		X				
Red Canyon beardtongue <i>Penstemon bracteatus</i>		X				
Cache beardtongue <i>Penstemon compactus</i>						X
Little penstemon <i>Penstemon parvus</i>		X	X			
Pinyon penstemon <i>Penstemon pinorum</i>		X				
Ward beardtongue <i>Penstemon wardii</i>			X			
Angell cinquefoil <i>Potentilla angelliae</i>		X				
Cottam cinquefoil <i>Potentilla cottamii</i>						X
Arizona willow <i>Salix arizonica</i>		X	X	X		
Beaver Mountain groundsel <i>Senecio castroeus</i>			X			
Podunk groundsel <i>Senecio malmstenii</i>		X				
Musinea groundsel <i>Senecio musiniensis</i>				X		
Maguire campion <i>Silene petersonii</i>		X	?	X		
Rock-tansy <i>Sphaeromeria capiata</i>		X				
Caespitose greenthread <i>Thelesperma caespitosa</i>	X					

TABLE 12 (continued)
SENSITIVE PLANT SPECIES

Plant Species	Ash	Dix	Fish	M-L	Uin	W-C
Uinta green thread <i>Thelesperma pubescens</i>						X
Bicknell thelsperma <i>Thelesperma subnuda</i> var. <i>alpina</i>		X	X			
Sevier townsendia <i>Townsendia jonesii</i> var. <i>lutea</i>			X			
Smith violet <i>Viola franksmithii</i>						X

Ash - Ashley
Dix - Dixie
Fish - Fishlake
M-L - Manti-LaSal
Uin - Uinta
W-C - Wasatch-Cache

X = known distribution species and/or habitat
? = suspected or potential habitat

TABLE 13
MANAGEMENT INDICATOR SPECIES FOR EACH NATIONAL FOREST

National Forest	Reason for Designation
<i>Ashley National Forest</i>	
Mule Deer *	Economic importance
Rocky Mountain Elk *	Economic importance
Northern Goshawk *	Old Growth Forests
Golden Eagle *	Cliffs and rocks
Warbling viero *	Deciduous woodlands (aspen and riparian hardwoods)
Red-Naped sapsucker *	Deciduous woodlands (aspen and riparian hardwoods)
Lincoln's Sparrow *	Riparian shrub
Song Sparrow *	Riparian shrub
Sage grouse	Sagebrush
White-tailed ptarmigan	Alpine meadow
Cutthroat trout	Aquatic
Macroinvertebrates	Aquatic
<i>Dixie National Forest</i>	
Mule deer *	Economic importance, grass-forb, sagebrush, mountain brush, pinyon-juniper, sapling-mature aspen, sapling-mature conifer
Rocky Mountain Elk *	Economic importance, grass-forb, sagebrush, mountain brush, pinyon-juniper, sapling-mature aspen, sapling-mature conifer
Wild Turkey *	Mountain brush, pole-mature aspen, sapling ?mature conifer
Northern Goshawk *	Riparian tree, mature aspen, mature-old growth conifer
Common Flicker *	Mature aspen, mature conifer
Riparian Condition *	All riparian vegetation
Bonneville Cutthroat Trout	Pristine headwater streams
Resident Trout	Streams, rivers, lakes and reservoirs
Macroinvertebrates	Streams, rivers, lakes and reservoirs
<i>Fishlake National Forest</i>	
Mule Deer *	Economic importance, aspen, conifer, meadow, sagebrush,*mountain brush, pinyon-juniper, and riparian
Rocky Mountain Elk *	Economic importance, aspen, conifer, meadow, sagebrush, mountain brush, pinyon-juniper, and riparian
Ryberg's Milkvetch	Aspen, conifer, riparian
Bonneville Cutthroat Trout	Aquatic
Resident Trout	Aquatic
Macroinvertebrates	Aquatic
Sage Nesters	Sagebrush
Cavity Nesters *	Aspen, mountain brush, pinyon-juniper, riparian
Riparian Guild *	Riparian
Northern Goshawk *	Conifer

* Occur in goshawk habitat

TABLE 13 (continued)
MANAGEMENT INDICATOR SPECIES FOR EACH NATIONAL FOREST

National Forest	Reason for Designation
<i>Manti-LaSal National Forest</i>	
Mule Deer *	Economic importance, most forest vegetation types
Rocky Mountain Elk *	Economic importance, most forest vegetation types
Abert Squirrel *	Ponderosa pine with grass, forb, shrub understory
Blue Grouse *	Mature conifer, ecotones between timber and shrub grass
Golden Eagle *	Escarpment areas in most vegetation types
Macroinvertebrates	Aquatic
<i>Uinta National Forest</i>	
Mule Deer *	Conifer, mountain brush, and early to mid-seral aspen sagebrush and grass
Rocky Mountain Elk *	Conifer, mountain brush, and early to mid-seral aspen sagebrush and grass
Beaver *	Riparian, wetlands
Northern Goshawk *	Old growth, Douglas-fir, mixed conifer and aspen
Sage grouse	Sagebrush, old growth and successional stages
Three-toed woodpecker *	Snags, old growth, or decadent conifer and aspen
Salmonids Colorado River	Aquatic
Bonneville cutthroat trout	Aquatic
Macroinvertebrates	Water quality
Ute Ladies' Tresses	Riparian
Clay Phacelia	Narrow endemic, mountain brush type
<i>Wasatch-Cache National Forest</i>	
Grey Jay *	Mature subalpine fir-spruce-lodgepole pine, understory
Red-breasted Nuthatch *	Mature Douglas-fir
Hairy Woodpecker *	Mature subalpine fir-lodgepole pine
Red- Naped sapsucker *	Mature aspen
Warbling Vireo *	Sapling aspen
Mountain bluebird *	Grassland/forb
Water Pipit *	Wet meadow
MacGillivray's Warbler *	Riparian shrub
Green-tailed Towhee	Mountain brush
Black-throated Gray Warbler	Juniper
Vesper Sparrow	Sagebrush
Macroinvertebrates	Riverine and lacustrine
Cutthroat Trout	Riverine and lacustrine

* Occur in goshawk habitat

TABLE 14
CULTURAL RESOURCES BY FOREST, 1998¹

Activity	Ashley NF	Dixie NF	Fislake NF	Manti- LaSal NF	Uinta NF	Wasatch- Cache NF	Total
Acres Surveyed	23,745	20,000	30,000	90,000	47,269	33,348	244,362
Percent Suveyed	1.7	1.0	1.9	6.3	4.8	1.7	
Total Sites	947	1,698	1,621	3,493	309	257	8,319
Total Sites Eligible	121	923	319	²	85	89	1,5373
Sites on the NRHP	0	3 ³	175 ⁴	2	0	1	142

- ¹ Intermountain Region USDA Forest Service Data Submitted for the Secretary of Interior's Report to Congress on Federal Archaeology Activities (1998).
- ² No data available. Many early surveys in the Manti-La Sal did not evaluate the National Register significance of sites. However, forest archaeologists estimate that of the 3,493 known sites, approximately 2,800 of these may qualify for listing in the National Register. Consequently, the total number of eligible and potentially eligible sites in the Utah National Forests may exceed 4,300
- ³ Data from Dixie National Forest Environmental Impact Statement and Land and Resource Management Plan, pp. III-9.
- ⁴ Data from Gooseberry National Historic District and Aspen Cloud Rockshelters. Data from Fislake National Forest Environmental Impact Statement and Land and Resource Management Plan, pp. III-24.

TABLE 15
SPECIAL USE PERMITS ISSUED

<u>National Forest</u>	<u>Permit Category</u>	<u># of Permits</u>	<u>Acres Involved</u>	<u>Right-of-Way Miles</u>
Ashley	1	255	138.28	
	2	3	73.21	
	3	10	19.67	
	4	3	459.7	21
	5	3	35.23	
	6	28	944.92	176
	7	25	610.54	110
	8	29	355.3	88
	9	86	3514.3	437
		TOTAL	442	6151.15
Dixie	1	141	1580.33	422
	2	8	353.44	
	3	10	87.05	.22
	4	4	3.6	5
	5	5	32.64	1
	6	34	1764.24	540
	7	50	473.49	46
	8	44	222.78	103
	9	122	2377.43	215
		TOTAL	418	6895
Fishlake	1	180	412.3	
	2	5	409	
	3	8	4.2	
	4	0		
	5	8	25.31	
	6	34	1851.43	185
	7	33	2241.14	96
	8	33	67.93	15
	9	123	2217.7	160
		TOTAL	424	7229.01
Manti-LaSal	1	124	1222.76	1
	2	16	601.95	2
	3	8	6.66	
	4	9	95.65	
	5	11	116.41	6
	6	33	1009.85	103
	7	30	178.78	13
	8	66	35.82	17
	9	113	1568.65	112
		TOTAL	410	4836.53

TABLE 15 (continued)
SPECIAL USE PERMITS ISSUED

<u>National Forest</u>	<u>Permit Category</u>	<u># of Permits</u>	<u>Acres Involved</u>	<u>Right-of-Way Miles</u>
Uinta	1	121	2571.61	126
	2	3	9.27	
	3	3	3.47	
	4	3	.05	
	5	4	67.72	
	6	25	1494.13	135
	7	15	423.52	11
	8	16	52.11	24
	9	77	526.07	53
	TOTAL		267	5145.95
Wasatch-Cache	1	816	24033.38	88
	2	12	22.64	3
	3	46	113.58	43
	4	46	4189.02	1
	5	36	975.28	
	6	196	1497.34	344
	7	138	17525.56	3103
	8	144	421.42	213
	9	280	3278.6	133
	TOTAL		1714	52056.82

Permit Category:

- 1 Recreational
- 2 Agricultural
- 3 Community & Public Information
- 4 Feasibility, Research, Training, Cultural Resources & Historical
- 5 Industrial
- 6 Energy Generation & Transmission
- 7 Transportation
- 8 Communication
- 9 Water (non-power generating)