

CLIMATE

Two climatic stations are sufficiently similar to the Little Water Canyon Research Area to be of interpretive value. These are El Morro National Monument at 7225' elevation, 6 miles to the southwest, and Mc Gaffey at 7800' elevation, about 20 miles to the northwest. Monthly normals of temperature and precipitation are provided as given in the "Monthly normals of temperature, precipitation, and heating and cooling degree days 1951-1980, New Mexico," published by the National Oceanic and Atmospheric Administration in 1982.

Precipitation Normals (inches)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
Mc Gaffey	1.74	1.28	1.54	.93	.60	.54	2.32	2.43	1.40	1.59	1.08	1.36	16.81
El Morro	1.02	.78	.95	.69	.55	.47	1.86	2.56	1.21	1.13	.73	.93	12.88

Temperature Normals (Deg F)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
Mc Gaffey													
Max	39.2	42.0	46.9	55.8	66.2	77.7	81.3	78.1	73.1	63.2	49.7	41.9	59.6
Min	9.5	12.0	17.9	24.3	31.4	39.0	46.6	45.0	37.8	28.2	18.2	11.1	26.8
Mean	24.3	27.0	32.4	40.1	48.8	58.4	63.9	61.6	55.5	45.7	34.0	26.5	43.2
El Morro													
Max	42.5	46.2	52.4	62.4	72.0	82.9	85.8	82.0	77.2	67.1	53.2	44.6	64.0
Min	13.0	16.5	22.1	27.6	34.6	43.1	51.6	49.7	42.5	31.7	21.3	13.8	30.6
Mean	27.8	31.4	37.3	45.0	53.3	63.0	68.7	65.8	59.8	49.4	37.3	29.2	47.3

A map with isohyets for the area is also provided (Map 5).



Northern Arizona University · FLAGSTAFF, ARIZONA 86011

BOX 4098

SCHOOL OF FORESTRY
October 3, 1979

(602) 523-3031

Earl Aldon
U. S. Forest Service
517 Gold Ave., S. W.
Albuquerque, N. M. 87102

Dear Earl:

Here are the data sheets I promised you long ago. These show the location of the blue spruce canyon bottom area I think should be a research natural area. It is truly unique.

Good luck in your efforts along this line.

Sincerely,

Lee Fitzhugh

*Review it should be SECTION R13 W
Check with Steve Romero*

*Ron Clauson (on District) may be
you will be acquainted with area.*

GENERAL-DATA PLOT FORM

Photo No. 155 A Observer _____

Plot No. 963A ELEV 7980 ASPECT 290° SLOPE 1 DATE 6-1-02
Location: 3880 - 7900 LITTLE WATER CANYON
10N R HW S 7 Q 10000 USFS QUAD 1715E 5110N

Landform CANYON Position Ridge Upper Mid Lower Bench Stream Other

Soil Surface: Soil 1 Rocky 0 Litter 97 Moss 2 Veg BA 2 =100%

Soil PM SPURSTON ALLUVIUM Mapping Unit _____

% Surface stoniness (describe) 0

% Exposed bedrock 0 - SIDES OF CANYON NOT INCLUDED IN RECTANGLE

Surface/subsurface drainage (describe) SUBIRRIGATED - PERM. STREAM 1 M OR LESS
FROM WATER LEVEL

Natural Erosion Tendencies (describe) NEGLECTABLE

Soil Rooting Depth 1 M TO BEDROCK

Nature of Bedrock & Root Penetration SOLID

% Solum stoniness (rock + gravel by volume) 20% (SANDY)

GENERAL OBSERVATIONS

Fire History 0

Logging influence PIPE LOCATED 30-40 YRS AGO - OPENED CANYON - IMPROVED
HABITAT COVER

Grazing Influence:
No change in species cover or presence
Change in species cover only (note species & change) _____
Change in species presence (detail) _____

Change in Life Form
Mistletoe: L M H Evidence VIB - HANDLED PIPE - RESULTS? Species PIPE

Canopy Cover (%) 10
General Stand Description and areal extent OPENING IN GENERAL DENSE PIPE - CAUSED BY
OLD LOGS - SMALL GAP - WIDE ENOUGH FOR PIPE

Species Composition Shifts in Stand GROUP OF SMST TYPICAL PIPE - RESULTS? - PATIENTS OF
(Relate to environmental factors) WATER - HUMIDITY, TEMPS, FOGS

Adjacent Communities:
Higher _____ More Moist _____
Lower _____ Less Moist _____
Rocky Areas _____ Other Environmental factors _____

Other SMALL OPENING - PIPE - CAUSED BY OLD LOGS - WIDE ENOUGH FOR PIPE
SIGNIFICANT REGION PROBABLY NATURAL - N. SIDE - ROCKY - PIPE - PIPE
BROWN-TAN & PIPE - HUMIDITY, TEMPS, FOGS

Dominant Understory: Height 20 Species PAPA Date 9/21/79 Observer FITZ-FITZ-FITZ
 Dominant Stand: Height _____ DBH (tallest tree) _____ Estimated Age _____ Species PIPU
 → See Site Tree

PRISM SEED-TALLY

	< 2"	2-10"	> 10"
en			
la			
co			
mev			
pu			
st			
tr			
po			
ga			
Stump			
adPip			
Prism Factor	<u>10</u>		

GRAMINOIDS	COVER	NOTES
Brel		
Bromus ✓	1	
* Cafo ✓	50	
Carex		
Elgl		
Kocr ✓	.9	
Mulo		
Mumo ✓	.1	
Muvi		
Oras		
Pofe ✓	.9	
Popr		
Sihy		
Trmo		
Stump CR.	.9	

RUBS	COVER	NOTES
gl ✓	61	
gr		
al		
re ✓	5	
du		
am		
co		
bo		
nicerar	5	TERMINAL PERSICIFOLIA-LIFE
my ✓	3	
ga ✓	.9	
ne		
mo		
bes ✓	20	3 STRAIGHT SPINDLES
sa AR	3	
pa		
sc		
lix		
or		
ccinium		
ST	22	
IST	5	
PUNUS	1	
NID CARINUS	3	
LEMONS		

SPP	COVER	NOTES
Acla ✓	.1	* BUSHY Equisetum .1
Aquel		* VALERIANA SPP. .1
Arfr		* PURPLE PENSTEMON .1
Clps		* BLUEBELL .1
Ersu		TALL CENOTHERA .1
Erigeron ^{11/79}	.1	* VERBENA SPP. .1
Frov		* PHACELIA .1
Frvl		
Gabo		
* Geca ✓	.9	
Geri	.0	
Hapa		
Laar ✓	1	
Lipo		
Mefr		
Osob ✓	1	
Pera		
Pode		
Psmo		
Ptag		
Senecio		
Sewo		
Smro ✓	1	
Smst ✓	5	
Solidago		
Thfe ✓	3	
Thpi ✓	1	
Vaac		
Viam ✓	1	
Vica ✓	.9	
* EQUISETUM	2	
* THLASPIE	.7	
SUTERIA	.9	
TRICAX	.9	

68' 13.4" 118 yrs PAPA

ESTIMATES VARIATION IN THIS SITUATION - MUST BE PLANNED ON ANALYTICAL

Tree Sp.	Prism Tally	Number by DBH (inches) Size Class												
		<4.5'	>4.5'	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-22	>22
Abco														
Jude														
Jumo														
Jusc														
Juut														
Pien														
Pied														
Pipo														
Pist														
Potr		••	⊗	•										
Psme		•	•	•										
Quga														
Qugr														
Quhy														
Quzz														
Quem														
P. pipu		•					•	•			•			
Stumps	Stumps													24.1
DEAD	DEAD													30.4

Stumps

Prism Factor _____

NOTES

GENERAL-DATA PLOT FORM

Photo No. 964 Observer F12 F12 F12 - incl SEVERAL SHOTS OF VICINITY

Plot No. 764 ELEV 8040 ASPECT Z86 SLOPE 4 DATE 9/21/79

Location: LITTLE WATER CANYON 1150.4 - 3889.1

10 N R 13 W S 7 Q 1 E NW USFS QUAD 17 SE EL MORRO

Landform CANYON Position Ridge Upper Mid Lower Bench Stream Other

Soil Surface: Soil 1 ^{SUPRAHED} Rocky 0 Litter 99 Moss 2 Veg BA 7 =100%

Soil PM SANDSTONE Mapping Unit _____

% Surface stoniness (describe) 0

% Exposed bedrock 0

Surface/subsurface drainage (describe) SUB IRR - < 1 M TO H₂O

Natural Erosion Tendencies (describe) 0

Soil Rooting Depth 1 M

Nature of Bedrock & Root Penetration SOLID

% Solum stoniness (rock + gravel by volume) 30%

GENERAL OBSERVATIONS

Fire History 0

Logging influence 0

Grazing Influence:

No change in species cover or presence

Change in species cover only (note species & change) _____

Change in species presence (detail) _____

Change in Life Form _____

Mistletoe: L ✓ M H Evidence _____ Species PIPU

Canopy Cover (%) 80%

General Stand Description and areal extent _____

Species Composition Shifts in Stand PLUG, PAMY ONLY PLANTS UNDER DENSE PIPU
(Relate to environmental factors) _____

Adjacent Communities:

Higher _____ More Moist _____

Lower _____ Less Moist _____

Rocky Areas _____ Other Environmental factors _____

Other _____

Dominant Understory: Height 10 Species Al Date 11/21/89 Observer F117 - F112 - F112
 Dominant Stand: Height 10 DBH (tallest tree) 27.3 Estimated Age 96 Species Pipu

TREES	PRISM SEED-LINGS			
	TALLY	< 2"	2-10"	> 10"
Pien				
Abla				
Abco				
Psme				
Pipu	10		10	10
Pist				
Potr				
Jwo				
Pipo				
Quga				
Dead				
Prism Factor	<u>10</u>			

GRASS	COVER	NOTES
Brei		
* Bromus	.9	2 SPECIES coll.
Cafo	.9	
Carex	.1	
Elgl		
Kocr		
Mulo		
Mumo		
Muvi		
Oras		
Pofe		
Popr		
Sihy		
Trmo		
* GRASS	.1	
TRNK	.1	

SHRUBS	COVER	NOTES
Acgl		Amph
Acgr		
Amal		
Bere	2	
Hodu		
Jaam		
Juco		
Libo		
Lonicera		
Pamy	1	
Quga	.1	
Rone		
Rimo		
Ribes	1	3 STRAIGHT SPINDLES
Rosa	1	
Rupa		
Sasc		
Salix		
Syor		
Vaccinium		
ALNUS	1	
CORNUS	1	
WILLOW	1	
* AMAR	.9	

SPP	COVER	NOTES
Acla	.9	SWEETIA .1
Aque	.0	THASPE .1
Arfr		STELLARIA .1
Clps		CYSTopteris .1
Ersu		STELLARIA LG. .1
Erigeron		BLVDIC .1
Frov		PURPLE PANSY (S) .1
Frve	1	WIFE .1
Gabo		
Geca		
* Geriv		WHITE
Hapa		
Laar		
Lipo	.1	
Mefr		
Osob	2	
Pera		PURPLE PANSY SPP .1
Pode		
Psmo		
Ptaq		
Senecio	.1	
Sewo		
Smro	.1	
Smst		
Solidago		
Thfe	1	
Thpi	.1	
Vaac		Not found in plot
Viam	.9	
Vica	1	
EGUS	1	(1/2)
EGUS	1	
* JACQU	1	
TRP	.9	

Site Index Trees:
 1. Age(BH) 122 ± 6 Dia(BH) 26.8 HT 1.3
 2. Age(BH) _____ ± _____ Dia(BH) _____ HT _____
 3. Age(BH) _____ ± _____ Dia(BH) _____ HT _____

GENERAL-DATA PLOT FORM

Photo No. _____

Observer Fitz Fitz Fitz

Plot No. 965 ELEV 8240 ASPECT 270 SLOPE 4

DATE 7/21/99

Location: LITTLE WATER SPRING TWP. 3 S. R. 3889.9

T. 10N R. 13W S. 6 Q. 35 USFS QUAD 172SW VALLE (MORO W. N.E.)

Landform _____ Position Ridge Upper Mid Lower Bench Stream X Other Edge

Soil Surface: Soil 0 Rocky 0 Litter 99 Moss T Veg BA 1 =100%

Soil PM SANDSTONE Mapping Unit _____

% Surface stoniness (describe) 0

% Exposed bedrock 0

Surface/subsurface drainage (describe) SUBIRR 1 M. ABOVE TL0

Natural Erosion Tendencies (describe) 0

Soil Rooting Depth 2 M or 1 1/2 M

Nature of Bedrock & Root Penetration SOLID

% Solum stoniness (rock + gravel by volume) 5

GENERAL OBSERVATIONS

Fire History 0

Logging influence 0

Grazing Influence:

No change in species cover or presence ✓ - IS SPARTEN

Change in species cover only (note species & change) _____

Change in species presence (detail) _____

Change in Life Form _____

Mistletoe: LV M H _____ Evidence _____ Species PSME

Canopy Cover (%) 60

General Stand Description and areal extent WIDE STREAM TERRACES

Species Composition Shifts in Stand CATCHING OF STELLARIA & BERT
(Relate to environmental factors) _____

Adjacent Communities:

Higher _____ More Moist _____

Lower _____ Less Moist _____

Rocky Areas _____ Other Environmental factors _____

PICO/EDGE - QUAD OR STOPS

Other UPPER SITE - 1/20 (1.0.0.0.0.0) - SIMILAR, W/OUT, ALTHO PSME, PIRICARIS, POTT STROUSSER

LIDATION-FLOR FORM (ST, 10, DE SERIES)

PRUNUS 965
 10
 Height 30 Species POTP Date 7/21/79 Observer F02-F02-F02
 Height 106 DBH (tallest tree) 27.5 Estimated Age 131 Species PIPU
 ±20

SEED- TALLY	PRISM LINGS		
	< 2"	2-10"	> 10"
en			
la			
co			
me			
pu			
st			
tr			
pu			
po			
ga			
ad			
ism Factor	10		

GRAMINOIDS	COVER	NOTES
Brol		
Bromus ✓	1	
Cafo ✓	20	
Carex		
Elgl		
Kocr		
Mulo		
Mumo		
Muvi		
Oras		
Pofe		
Popr		
Sihy		
Trmo		
(AN) (964)	.1	BY STREAMSIDE
UNIP PIPU	.0	" "

RUBS	COVER	NOTES
gl	.0	
gr		
al		
re ✓	4	
du		
am		
co		
bo		
nicera		
my	.0	
ga ✓		
ne		
mo		
bes ✓	1	3 STREAM SIDES
sa AR	.9	
pa		
sc		
lix		
or		
ccinium		
UNUS	2	
BRUNUS	.1	
UNIP PIPU	.1	BY STREAM

SPP	COVER	NOTES
Acla ✓	.1	ANAP .1
Aquel		TARAX .1
Arfr		JACK-IN-PULPIT (964) .1 BY STR
Clps		PAINTED OPP BLUE .1 BY STR
Ersu ✓	.9	* BLUE STICKER .1
Erigeron		* MINT (963) .0
Frov	.0	SPOTTED GUPPIE .0
FrvBR	3	RED " " .0
Gabo		PIPPIN PENST (963) .0
Geca		
Geri		
Hapa		
Laar ✓	1	
Lipo ✓	1	
Mefr		
Osob ✓	1	HOSTED BY STREAM
Pera		
Pode		
Psmo		
Ptag		
Senecio ✓	.9	
Sewo		
Smro		
Smst	.1	BY STREAM
Solidago		
Thfe ✓	1	
Thpi ✓	.1	BY STREAM
Vaac		
Viam ✓	1	
Vica ✓	.9	BY STREAM
SEGLARIA	12	
PIPPIN	2	
STREAM	1	
THE ASPIC	.1	

No SITE INFO APPR
 PSML
 ALL BIG ONES
 ON SLOPE

Dominant Understory: Height 30 Species LOT Date 7/21/79 Observer F172-F172-F172
 Dominant Stand: Height 106 DBH (tallest tree) 27.5 Estimated Age 131 Species PIPU
 ±20

PRISM SEED-

TREES	TALLY	LINGS	< 2"	2-10"	> 10"
Pien					
Abla					
Abco					
Psme					
Pipu					
Pist					
Potr					
Ppu					
Pipo					
Quga					
Dead					
Prism Factor	<u>10</u>				

GRAMINOIDS	COVER	NOTES
Brel		
Bromus	<u>1</u>	
Cafo	<u>20</u>	
Carex		
Elgl		
Kocr		
Mulo		
Mumo		
Muvi		
Oras		
Pofe		
Popr		
Sihy		
Trmo		
UNID (964)	<u>.1</u>	<u>BY STREAMSIDE</u>
UNID PIPU	<u>.0</u>	<u>" "</u>

SHRUBS	COVER	NOTES
Acgl	<u>.0</u>	
Acgr		
Amal		
Bere	<u>4</u>	
Hodu		
Jaam		
Juco		
Libo		
Lonicera		
Pamy	<u>.0</u>	
Quga		
Rone		
Rimo		
Ribes	<u>1</u>	<u>3 STRAGGLES</u>
Rosa AR	<u>.9</u>	
Rupa		
Sasc		
Salix		
Syor		
Vaccinium		
PRUNUS	<u>2</u>	
CORNUST	<u>.1</u>	
AMUT AGH	<u>.1</u>	<u>BY STREAM</u>

SPP	COVER	NOTES
Acla	<u>.1</u>	<u>ANAP .1</u>
Aquel		<u>TARNY .1</u>
Arfr		<u>JACK-IN-PULPIT (964) .1</u>
Clps		<u>UNID OFF BLUE .1</u>
Ersu	<u>.9</u>	<u>* BLUE STICKER .1</u>
Erigeron		<u>* MINT (963) .0</u>
Frov	<u>.0</u>	<u>SPOTTED GUPPIE .0</u>
FrvBR	<u>3</u>	<u>RED " " .0</u>
Gabo		<u>PIPPIN BENT (963) .0</u>
Geca		
Geri		
Hapa		
Laar	<u>1</u>	
Lipo	<u>1</u>	
Mefr		
Osob	<u>1</u>	<u>HOSTA BY STREAM</u>
Pera		
Pode		
Psmo		
Ptaq		
Senecio	<u>9</u>	
Sewo		
Smro		
Smst	<u>.1</u>	<u>BY STREAM</u>
Solidago		
Thfe	<u>1</u>	
Thpi	<u>.1</u>	<u>BY STREAM</u>
Vaac		
Viam	<u>1</u>	
Vica	<u>.9</u>	<u>BY STREAM</u>
STELLARIA	<u>12</u>	
PIPER	<u>2</u>	
SARLAWIS	<u>1</u>	
THLASPIE	<u>.1</u>	

No Sign of the ...
 PSME
 All BIG ON-S
 ON SLOPE

GENERAL-DATA PLOT FORM

Photo No. 963 A Observer _____

Plot No. 963A ELEV 7780 ASPECT 270 SLOPE _____ DATE 7/2/97
Location: 3887.2 - 750.1 LITTLE WATER CANYON
T 10N R 14W S 7 Q NO NEW USFS QUAD 7150 EL MORRO, N.M.

Landform CANYON Position Ridge Upper Mid Lower Bench Stream X Other _____

Soil Surface: Soil (1) Rocky 0 Litter 97 Moss 2 Veg BA 2 =1

Soil PM SANDSTONE ALLUVIUM Mapping Unit _____

% Surface stoniness (describe) 0

% Exposed bedrock 0 - SIDES OF CANYON NOT INCLUDED IN RECTANGULAR

Surface/subsurface drainage (describe) SUBIRRIGATED - PERM. STREAM 1 M OR LESS ABOVE WATER LEVEL

Natural Erosion Tendencies (describe) NEGLIGIBLE

Soil Rooting Depth +1M TO BEDROCK

Nature of Bedrock & Root Penetration SOLID

% Solum stoniness (rock + gravel by volume) 20% (SANDY)

GENERAL OBSERVATIONS

Fire History 0

Logging influence PIPU LOGGED ± 30-40 YRS AGO - OPENED CANYON - IMPROVED HERBAGE COVER

Grazing Influence:

No change in species cover or presence

Change in species cover only (note species & change) _____

Change in species presence (detail) _____

Change in Life Form

Mistletoe: L M H Evidence W/B - MANY DEAD PIPI - BEETLES? Species PIPU

Canopy Cover (%) 10

General Stand Description and areal extent OPENING IN GENERALLY DENSE PIPI - CAUSED BY OLD LOGGING. - ONLY SPOT WIDE ENOUGH FOR PLOT

Species Composition Shifts in Stand STAND OF SMST TOP OF PLOT - REASON? - PATCHES (Relate to environmental factors) CHOCHECHERRY, CORNUS, RIBES

Adjacent Communities:

Higher _____ More Moist _____

Lower _____ Less Moist _____

Rocky Areas _____ Other Environmental factors _____

Other S.E. - PARKER - BASE OF CANYON. BEEN ON MIDDLE CENTERED BEHIND PLUMBER SIGNIFICANTLY MORE NATURALLY. N. SIDE - ROCKLAND - PICTURES OF BOTH BROWN-TAILED TITMICE? HUMMINGBIRDS, RED-CROSS BILLS

Dominant Understory: Height 20 Species P. ...
 Dominant Stand: Height _____ DBH (tallest tree) _____

Date 7/21/77 Observer _____
 Estimated Age _____ Species 1

→ See Site Tree

PRISM SEED-TREES TALLY LINGS < 2" 2-10" > 10"

Species	< 2"	2-10"	> 10"
Pien			
Abla			
Abco			
Psme ✓			
Pipu ✓			
Pist			
Potr ✓			
Pipo			
Quga			
Dead P...			

Prism Factor 10

GRAMINOIDS COVER NOTES

Species	Cover	Notes
Brci		
Bromus ✓	1	
* Cafo ✓	50	
Carex		
Elgl		
Kocr ✓	.9	
Mulo		
Mumo ✓	.1	
Muvi		
Oras		
Pofe ✓	.9	
Popr		
Sihy		
Trmo		
STIPA PR.	.9	

SHRUBS COVER NOTES

Species	Cover	Notes
Acgl ✓	.1	
Acgr		
Amal		
Bere ✓	5	
Hodu		
Jaam		
Juco		
Libo		
* Lonicera ✓	5	TYPICAL PERFORATED LEAF
Pamy ✓	3	
Quga ✓	.9	
Rone		
Rimo		
Ribes ✓	20	3 STRAIGHT SPINES
Rosa AR	3	
Rupa		
Sasc		
Salix		
Syor		
Vaccinium		
CORNUS ST.	20	
RUST	5	
PRUNUS I	1	
UNID CORNUS	3	

ALICES 1

PERENNIAL FORBS

SPP	Cover	Notes
Acla ✓	.1	* BUSHY EQUISETUM .1
Aquel		* VALERIANA SPP. .1
Arfr		* PURPLE PENSTEMON .1
Clps		* BLUEBELL .1
Ersu		TALL OENOTHERA .1
Erigeron	.1	VERBIS THAPSUS .1
Frov		* PHACELIA .1
Frvi		
Gabo		
* Geca ✓	.9	
Geri	.0	
Hapa		
Laar ✓	1	
Lipo		
Mefr		
Osob ✓	1	
Pera		
Pode		
Psmo		
Ptaq		
Senecio		
Sewo		
Smro ✓	1	
Smst ✓	5	
Solidago		
Thfe ✓	3	
Thpi ✓	1	
Vaac		
Viam ✓	1	
Vica ✓	.9	
* E...	2	
* TILASPIE	.9	
SUERTIA	.9	
TARAY	.9	

68' 13.4" 118 yrs APW

ESTIMATES IMPOSSIBLE IN THIS SITUATION - MUST DEPEND ON ANALYTICAL

Tree Sp.	Prism: Tally	Number by DBH (inches) Size Class												
		<4.5'	>4.5'	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-22	>22
Abco														
Jude														
Jumo														
Jusc														
Juut														
Pien														
Pied														
Pipo														
Pist														
Potr		••	⊗											
Psme		•	•											
Quga														
Qugr														
Quhy														
Quzz														
Quem														
P. Pipu		•												
STUMPS P. Pipu	□													24.1
DEAD P. Pipu														
STUMPS Psme														30.4

Prism Factor _____

NOTES

VEGETATIVE COVER FORM (All Forest Series -- analytical plots)

Plot No: 963 2 (See GENERAL DATA PLOT FORM for location and other data)

Cover classes (Vegetation): 0-1% = T; 1-5% = 1; 5-25% = 2; 25-50% = 3; 50-100% = 4

Soil Surface Cover (Actual Percentages = 100%): Rock, Exposed mineral

SPECIES	QUADRAT NUMBER																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
SP. 1																														
SP. 2																														
SP. 3																														
SP. 4																														
SP. 5																														
SP. 6																														
SP. 7																														
SP. 8																														
SP. 9																														
SP. 10																														
SP. 11																														
SP. 12																														
SP. 13																														
SP. 14																														
SP. 15																														
SP. 16																														
SP. 17																														
SP. 18																														
SP. 19																														
SP. 20																														
SP. 21																														
SP. 22																														
SP. 23																														
SP. 24																														
SP. 25																														
SP. 26																														
SP. 27																														
SP. 28																														
SP. 29																														
SP. 30																														

SP. 30 SECOND

VEGETATIVE COVER FORM (All Forest Series -- analytical plots)

Plot No: 963A (See GENERAL DATA PLOT FORM for location and other data)

Cover classes (Vegetation): 0-1% = 1; 1-5% = 1; 5-25% = 2; 25-50% = 2; 50-100% = 3
 Soil Surface Cover (Actual Percentages = 100%): Rock, Exposed mineral

SPECIES	PRESENT IN PLOTS	QUADRAT NUMBER																												
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
SPERMATOPHYTES																														
Gymnosperms																														
Angiosperms																														
Herbaceous																														
Epiphytes																														
Other																														
ROCK																														
EXPOSED MINERAL																														
SOIL SURFACE COVER																														
ROCK																														
EXPOSED MINERAL																														
VEGETATION																														
0-1%																														
1-5%																														
5-25%																														
25-50%																														
50-100%																														
QUADRAT NUMBER																														
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2																														
3																														
4																														
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9

5

2

SPECIES PRESENT IN PLOTS BUT NOT IN QUADRATS
 MAIZE
 (11-25)
 25-50
 SHRUBS
 + 2/3
 0
 HERB
 DOWN
 ROCK
 RAISED
 W/HT
 1-2

10160

10160

GENERAL-DATA PLOT FORM

Photo No. 964 Observer FMZ FMZ FMZ - incl SEVERAL SITES OF VICINITY

Plot No. 964 ELEV 8040 ASPECT Z86 SLOPE 4 DATE 7/21/77
Location: LITTLE WATER CANYON 750.4 - 3889.1
T 10N R 13W S 7 Q NE NW USFS QUAD 17A SE EL HERRO

Landform CANYON Position Ridge Upper Mid Lower Bench Stream Other X

Soil Surface: Soil 1 - STREAM BED Rocky 0 Litter 97 Moss 2 Veg BA T

Soil PM SANDSTONE Mapping Unit _____

% Surface stoniness (describe) 0

% Exposed bedrock 0

Surface/subsurface drainage (describe) SUB IRR - < 1 M TO H₂O

Natural Erosion Tendencies (describe) 0

Soil Rooting Depth 1 M

Nature of Bedrock & Root Penetration SOLID

% Solum stoniness (rock + gravel by volume) 30%

GENERAL OBSERVATIONS

Fire History 0

Logging influence 0

Grazing Influence:

No change in species cover or presence ✓

Change in species cover only (note species & change) _____

Change in species presence (detail) _____

Change in Life Form _____

Mistletoe: L ✓ M ✓ H ✓ Evidence _____ Species PIP

Canopy Cover (%) 80%

General Stand Description and areal extent _____

Species Composition Shifts in Stand BARE, MANY ONLY PLANTS UNDER DENSE PIP
(Relate to environmental factors) _____

Adjacent Communities:

Higher _____ More Moist _____

Lower _____ Less Moist _____

Rocky Areas _____ Other Environmental factors _____

Other _____

10

Dominant Understory: Height 20 Species ALNUS Date 7/21/79 Observer Fitz - Fitz
 Dominant Stand: Height 103 DBH (tallest tree) 27.3 Estimated Age 96 Species Pipu
± 5

TREES	PRISM SEED-LINGS		
	< 2"	2-10"	> 10"
Pien			
Abla			
Abco			
Psme			
Pipu	5	2	1
Pist			
Potr			
Jun			
Pipo			
Quga			
Dead	1	2	1

Prism Factor 10

GRAMINOIDS	COVER	NOTES
Brci		
* Bromus ✓	.9	2 SPECIES COLL.
Cafo ✓	.9	
Carex (R)	.1	
Elgl		
Kocr		
Mulo		
Mumo		
Muvi		
Oras		
Pofe		
Popr		
SiHy		
Trmo		
* UNID GRASS	.1	
FEAR	.1	

SHRUBS	COVER	NOTES
Acgl		Anta .1
Acgr		
Amal		
Bere ✓	2	
Hodu		
Jaam		
Juco		
Libo		
Lonicera		
Pamy ✓	1	
Quga ✓	.1	
Rone		
Rimo		
Ribes ✓	1	3 STRAIGHT SPINDS
Rosa APR	1	
Rupa		
Sasc		
Salix		
Syor		
Vaccinium		
ALNUS ✓	14	
CORNUS SF	2	
WILLOW	1	
* AMUT?	.9	

SPP	COVER	NOTES
Acla ✓	.9	SUMPTUA .1
Aquichry ✓	.0	THLASPIC .1
Arfr		STELLARIA SMALL .1
Clps		CYSTOPTERIS .1
Ersu		*STELLARIA LG .1
Erigeron		BLUED L L .1
Frov		PURPLE PENST (963) .1
Frv BR	1	HIFE .1
Gabo		
Geca ✓		
* Geri ✓		WHITE
Hapa		
Laar		
Lipo ✓	.1	
Mefr		
Osob ✓	2	
Pera		PENSTEMON spp .1
Pode		
Psmo		
Ptaq		
Senecione ✓	.1	
Sewo		
Smro ✓	.9	
Smst		
Solidago		
Thfe ✓	1	
Thpi ✓	.1	
Vaac		NOT FOUND IN PROT
Viam ✓	.9	
Vica ✓	1	
EQUIS STRAIGHT	2	(963)
EQUIS BUSH	1	(963)
* JACQUIN PULC	1	
TARAY	.9	

Site Index Trees:
 1. Age(BH) 122 ± 6 Dia(BH) 26.8 HT 123
 2. Age(BH) ± Dia(BH) HT
 3. Age(BH) ± Dia(BH) HT

GENERAL-DATA PLOT FORM

Photo No. _____ Observer FITZ FITZ FITZ

Plot No. 965 ELEV 8240 ASPECT 220 SLOPE 4 DATE 7/21/79
Location: LITTLE WATER SPRING 751.3 - 3889.9
T 10N R 13W S 6 Q S3 USFS QUAD 172SW VALLE LARGA W

Landform _____ Position _____ Ridge _____ Upper _____ Mid _____ Lower _____ Bench _____ Stream Y Other _____

Soil Surface: Soil 0 Rocky 0 Litter 99 Moss T Veg BA 1

Soil PM SANDSTONE Mapping Unit _____

% Surface stoniness (describe) 0

% Exposed bedrock 0

Surface/subsurface drainage (describe) SUBIRRI 1 M. ABOVE H₂O

Natural Erosion Tendencies (describe) 0

Soil Rooting Depth 2 M or 1 1/2 M

Nature of Bedrock & Root Penetration SOLID

% Solum stoniness (rock + gravel by volume) 5

GENERAL OBSERVATIONS

Fire History 0

Logging influence 0

Grazing Influence:

No change in species cover or presence ✓ - IS GRAZED
Change in species cover only (note species & change) _____

Change in species presence (detail) _____

Change in Life Form

Mistletoe: LV M H _____ Evidence _____ Species PSME

Canopy Cover (%) 60

General Stand Description and areal extent WIDE STREAM TERRACES

Species Composition Shifts in Stand PATCHES OF STELLARIA & BERB
(Relate to environmental factors) _____

Adjacent Communities:

Higher _____ More Moist _____

Lower _____ Less Moist _____

Rocky Areas _____ Other Environmental factors _____

PIPO/FERN - QUAG ON SLOPES

Other DRYER SITE - NON PERENNIAL = SIMILAR, W/ MORE MORE PSME, PIPISORAL, POTR STRONGER

