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Appendix A. Local Unit Development Process

5th Codes clipped to Forest boundary

Rule set:

Three regional “rules of thumb”

- 4-8 local units
- At least 10x historical patch size
- Try to have representation of each ERUs in as many units as possible

1. Set min and max local unit size

- Gila is roughly 3,300,000 acres
- $3,300,000 \text{ acres} / 8 = 412,500 \text{ acres} = \text{minimum local unit}$
- $3,300,000 \text{ acres} / 4 = 825,000 \text{ acres} = \text{maximum local unit}$

2. Start with smallest watershed

3. Set 400,000 acre threshold. Lump smallest polygon with adjacent polygon with fewest acres. Continue lumping until all polygons cross the 400,000 acre threshold.

- Results of this process create 6 local units.
- Any additional lumping would cross the 800,000 maximum acre threshold.
- Smallest unit is well above the 10x historical patch size.

Table A1 compares representativeness of this proposal with using administrative boundaries (Districts) as an alternative approach. Note: this is based on the draft ERUv5 with grassland corrections and excludes riparian/wetland and Madrean ERUs.

Table A1. Representation of Ecological Response Units

ERU	# of Proposed Local Units ERU Occurs In	# of Local Units ERU Occurs in if Ranger Districts are used
SFF	4 of 6 (very few acres in “Apache” unit)	3 of 6
MCW	6 of 6	6 of 6
MCD	6 of 6	6 of 6
CP/GBG	5 of 6	4 of 6
MSG	6 of 6	4 of 6
SDG	3 of 6	3 of 6

ERU	# of Proposed Local Units ERU Occurs In	# of Local Units ERU Occurs in if Ranger Districts are used
PPF	6 of 6	6 of 6
PPE	6 of 6	6 of 6
PJG	6 of 6	6 of 6
PJE	6 of 6	6 of 6
PJW	6 of 6	6 of 6
JGW	5 of 6	2 of 6
GOS	5 of 6	4 of 6
MMS	6 of 6	6 of 6

Wilderness representation in 5 out of 6 units.

Appendix B. Carbon Assessment Methods

Assignment of Biomass Carbon Values by Seral State – Forests and Woodlands

The Southwestern Region incorporated a process of using the Forest Vegetation Simulator (FVS) in conjunction with the Vegetation Dynamic Development Tool (VDDT) to help inform State and Transition Models (STM) that were developed in support of forest planning. One objective of this dual modeling system was to test the assumptions made by the STM developer—in some cases, this process led to modification of some STM model parameters. Another objective of this process was to use existing forest inventory data as input into the FVS model to provide an empirical basis to more fully understand important vegetation pathways that may not have been adequately represented through expert opinion or pertinent research literature—and perhaps, therein expand the STM framework. Conversely, a development pathway conceived to be important in the STM may be shown through the FVS process to be not as prevalent as originally thought—and therefore, lead to eliminating a particular pathway in a revised STM. Finally, we know of no better way than an FVS analysis to estimate outputs for the many complex transitions that are likely to be modeled in an STM—FVS, especially when used with the Event Monitor, can be used to develop outputs such as standing and harvest volumes, fuel conditions, stand structural attributes, and biomass and carbon stocks that can be linked to vegetation states in VDDT models.

Inventory Data

The modeling process began by dividing the southwestern United States into terrestrial ecosystems that range from dry grasslands-shrublands, to semi-arid woodlands, to moist forestlands. Each ecosystem is representative of an Ecological Response Units (ERU) (aka Potential Natural Vegetation Type (PNVT)) (Schussman and Smith, E. 2006). Each ERU, which is depicted within separate VDDT models, was then further broken into vegetation states. A vegetation state is a composite of cover type (prevailing species composition) and stand structure (dominant tree size, canopy cover density, and vertical canopy layering).

During this initial phase, Forest Inventory and Analysis (FIA) plots were filtered by habitat type (USDA Forest Service 1997) to represent each ERU⁶⁹. Table B1 provides a listing of the habitat types associated with the ponderosa pine/bunchgrass (PPG) ERU. Table B2 shows FIA plot distribution by ERU and representation by National Forest. For reference, the PPG ERU is highlighted. Table B3 lists the criteria used to develop the vegetation states for the PPG ecosystem and its associated VDDT model. Table B4 displays the FIA plot samples that were tallied for each vegetation state within the PPG ERU.

⁶⁹ The terms “habitat type” and “plant association” are synonymous in the southwestern region. An ERU is comprised of several habitat types.

Table B1. Habitat type codes associated to the ponderosa pine/bunchgrass ERU.

Habitat Type Code	Common Name
011092	ponderosa pine/Arizona fescue/blue gramma
011093	ponderosa pine/Arizona fescue/Gambel oak
011330	ponderosa pine/mountain muhly
011340	ponderosa pine/screwleaf muhly
011341	ponderosa pine/screwleaf muhly/Gambel oak
011350	ponderosa pine/Indian ricegrass
011380	ponderosa pine/black sagebrush
011390	ponderosa pine/screwleaf muhly-Arizona fescue
011391	ponderosa pine/screwleaf muhly-Arizona fescue/blue gramma
011392	ponderosa pine/screwleaf muhly-Arizona fescue/Gambel Oak
011400	ponderosa pine/kinnikinnik
011470	ponderosa pine/Arizona walnut

Table B2. Forest Inventory and Analysis (FIA) Plot Distribution by ERU.

Forest Type	ERU - VDDT Model	FIA Plots	Σ FIA Plots
Spruce-Fir_pure	Spruce-Fir Forest	21	93
Spruce-Fir_mix		72	
Mixed_Conifer-Wet	Mixed Conifer Wet (infrequent fire)	123	123
Mixed_Conifer-Dry	Mixed Conifer Dry (frequent fire)	372	372
Ponderosa-Grass	Ponderosa Pine Forest	482	788
Ponderosa-gmbOak		306	
Ponderosa-avgOak	Ponderosa Pine-Mild/Evergreen Oak	137	137
WdInd_PJGrass	PJ Woodland	713	1803
WdInd_PJOak		163	
WdInd_PJChap	PJ Evergreen Shrubland	303	
WdInd_PJSage	PJ Sagebrush	48	
WdInd_JUGrass	JU Grassland	268	
WdInd_Oak	WDL Evergreen Oak	308	
WdInd_None		53	970
Riparian		5	
Non-Forest		912	
Total:		4286	4286

Forest: Code	State	Name	Plot Count			Dates	
			Periodic	Annual	Total	Periodic	Annual
01	AZ	Apache-Sitgreaves	326	172	498	1996-1997	2001-2005
02	NM	Carson	235	0	235	1998-1999	
03	NM	Cibola	268	0	268	1997	
04	AZ	Coconino	301	167	468	1995-1996	2001-2005
05	AZ & NM	Coronado	282	157	439	1996-1998	2001-2005
06	NM	Gila	526	0	526	1993-1996	
07	AZ	Kaibab	247	146	393	1995-1997	2001-2005
08	NM	Lincoln	187	0	187	1997	
09	AZ	Prescott	193	107	300	1995-1996	2001-2005
10	NM	Santa Fe	255	0	255	1998-1999	
12	AZ	Tonto	464	253	717	1996-1998	2001-2005
Total:			3284	1002	4286		

Table B3. Stratification of ponderosa pine/bunchgrass ERU vegetation states A through N, according to key attributes of dominant tree size, canopy cover, and canopy layering.

GFB	Tree Diameter				Canopy Cover ¹	Canopy Layering
	0-5"	5-10"	10-20"	20"+		
A or N ²	B	C	D	E	Open	Single
	F	G	H	I	Closed	Single
			J ³	K ³	Open	Multi
			L	M	Closed	Multi

¹ – Except for States A and N, “Open” states have 10 to 30% canopy cover and “Closed” states have greater than 30% canopy cover. States A and N have less than 10% canopy cover.

² – States A and N are grass, forbs, brush, and shrub states (GFB). State A is the characteristic state which existed in reference conditions. State N is the uncharacteristic state resulting when stand-replacing fires occur in closed canopy states. (Smith 2006)

³ – The *desired condition* is an open multi-layered (≥ 5 age classes) state with average diameter varying by site productivity with State J occurring on low productive sites and State K occurring on high productivity sites. (Triepeke et al. 2011)

Table B4. FIA sample plot counts and percentages for the PPG ecosystem.

Model State Class	PPG	
	n	%
A	32	6.6%
B	7	1.5%
C	24	5.0%
D	61	12.7%
E	18	3.7%
F	23	4.8%
G	84	17.4%
H	52	10.8%
I	6	1.2%
J	44	9.1%
K	21	4.4%
L	92	19.1%
M	18	3.7%
Total	482	100.0%

FVS Adjustments

Before projecting the FIA inventory plots with FVS, it was important to adjust default parameters for growth, mortality, and regeneration for each ERU. The purpose of performing these adjustment steps is so that the projections more closely mimic the empirical (i.e. endemic) conditions determined from the actual field measurements. One example of a situation where calibration is essential is for projecting old-forest stands. The sample base upon which the empirical growth and mortality equations in FVS are built are intrinsically not well suited to modeling old-growth forests over long time horizons, and yet typically VDDT simulations are performed for 200 to 300-year intervals. Thus, thoughtful calibration can greatly improve the realism of simulations when projecting stands over long time periods by attenuating height and diameter growth and mortality during stand senescence.

Adjustment procedures include using the FVS self-calibrating feature (for example, altering the baseline estimate of the large-tree diameter growth models), accounting for tree defect for volume estimates (adjusting net merchantable volume from gross tree dimensions), determining tree species size attainment, limiting stand maximum density, and estimating and inputting natural regeneration response (querying existing stands to tabulate their seedling component). A paper (Vandendriesche 2009a) has been written that deals with this topic in more detail.

Natural Growth Projections

In VDDT, the successional classes, pathways, and transition probabilities are defined for each Ecological Restoration Unit. A single ERU may have more than one set of probabilities defined to represent different management regimes or ecological conditions. In general, two types of transitions can occur. One type is movement between states due to natural succession. This process integrates background disturbances that affect regeneration, growth, and self-thinning, but not extrinsic disturbances such as insect or disease outbreaks, wildfire, or silvicultural treatment. Transitions representing natural successional dynamics (or 'natural growth') are modeled deterministically in VDDT. What this means is that transitions from one class to the next class occur when the residence time (a surrogate for successional 'age') has exceeded the value set for the state. For transitions in VDDT related to disturbances, movement between states is determined stochastically according to probabilities conveyed by modeling or set by the user.

Once the FVS adjustment procedure has been completed, FVS commands (keywords) were used to adjust growth, mortality, and regeneration responses as outlined in the above section. To model natural succession in FVS, residence time in a state was tracked —the average length of time that vegetation typically remains in that state before transitioning to the next state along the successional pathway. This was accomplished by projecting all the plots in the specific ERU without invoking any disturbances such as pest effects or catastrophic wildfires in FVS. Then 250-year projections are performed for every plot, outputting tree lists and stand summaries each cycle for completing the next two steps in the process.

Classify the Tree Lists, Calculate Residence Times

In order to accomplish the integration of FVS within the VDDT-STM approach, a computer program was developed to classify inventory data into vegetation states (i.e. cover type, size class, canopy cover, canopy layers) for initial conditions and for subsequent projection cycles. The Preside program (Vandendriesche 2009b) summarizes various vegetation classes into classes and provides average time in a particular vegetation state and the probability of movement to associated states.

Preside classifies the current tree list for each plot at each projection cycle boundary. Estimates of the residence times and resultant pathways are summarized by use of an array of all possible transitions from one state to another, and indexed by vegetation state to which a plot belongs. For each plot at each cycle, its source (that is what state it began the cycle in) and destination (that is what state it ended the cycle in) are recorded. The length of time each plot remains within a state class between cycles is accumulated and the mean and variance of residence times is summarized over all the cycles and transitions in the projection. The pathways (direction of movement between source and destination) between vegetation states are also summarized using the array.

Accumulate and Summarize Outputs

At the end of an FVS projection, a set of FVS post-processing steps have been bundled together that produce aggregate summaries for each of the vegetation classes, using the sample of plots populating each vegetation state during the projection. It is then relatively easy to display graphics for communicating the STM results. For example, images from the Stand Visualization System (SVS) can be displayed for each vegetation state that is an aggregate of the plots in that state (Figure B1). The post-processing programs also index the aggregate state classes to summary values derived from the tree lists, attributes from standard FVS output reports, and variables computed from the Event Monitor. This feature is useful for tracking important values such as stand volume and biomass across states (example, Figure B2).

Figure B1. Aggregate Stand Visualization System (SVS) Graphic Depictions of Vegetation States within the PPG ecosystem.

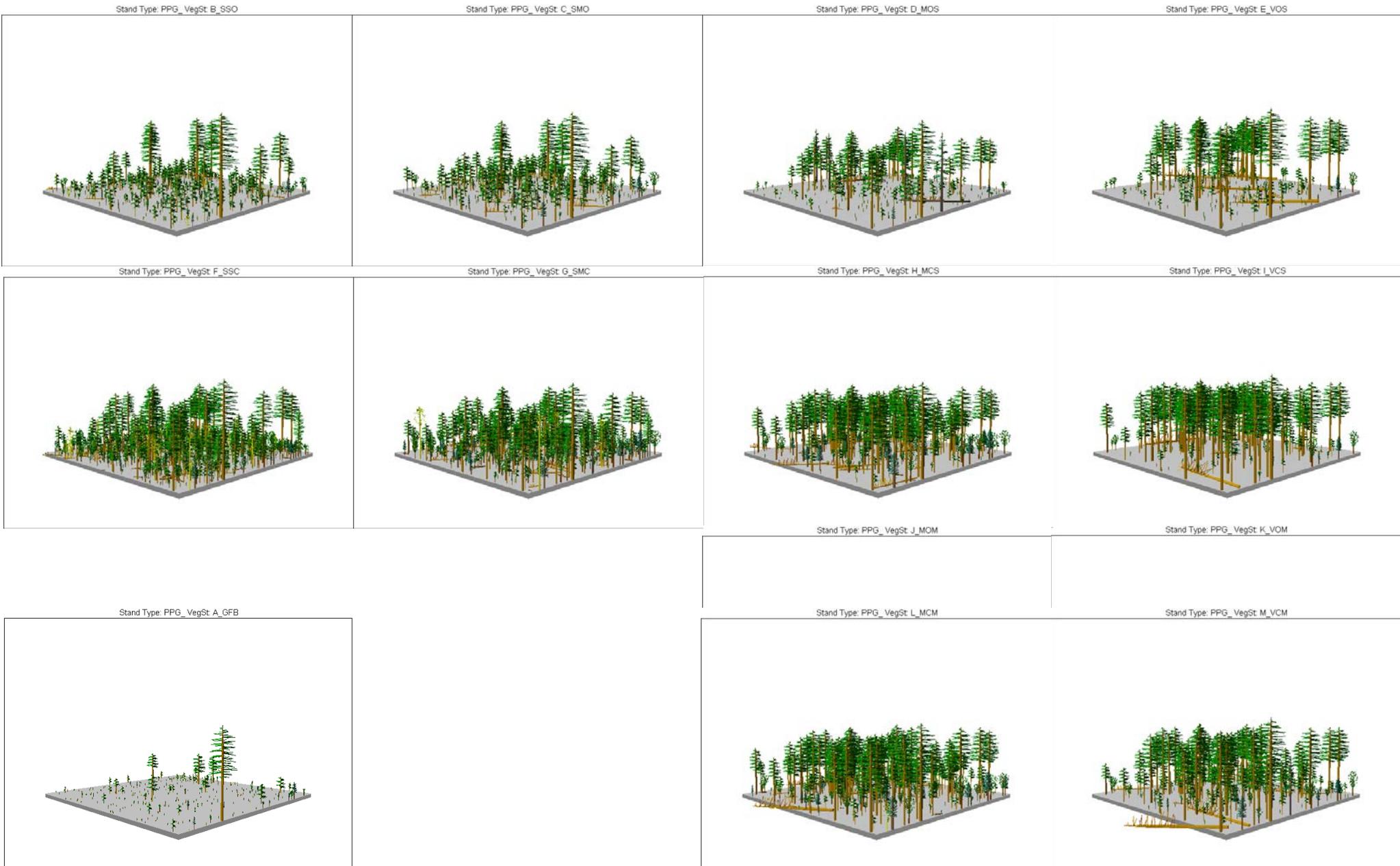


Figure B2. Aggregate Summaries of FVS Event Monitor Computed Variables for PPG ERU

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1			PPG Ponderosa Pine - Grass ERU Coarse-filter												
2			VDDT STATE												
3															
4	Computed Variables	Vegetation Structure Variables:	A_GFB	B_SSO	C_SMO	D_MOS	E_VOS	F_SSC	G_SMC	H_MCS	I_VCS	J_MOM	K_VOM	L_MCM	M_VCM
5	DOM_TYPE	Dominance Type	NVG	PIPO											
6	CAN_SZTMB	Size Class	0	1	2	3	4	1	2	3	4	3	4	3	4
7	CAN_SZWDL	Size Class	0	1	2	3	3	1	2	3	3	3	3	3	3
8	CAN_CLASS	Canopy Class	0	1	1	1	1	2	2	2	2	1	1	2	2
9	BA_STORY	Canopy Layers	0	2	2	1	1	2	2	1	1	2	2	2	2
10	QMD_AGE	Stand Age - Overstory	11	41	74	75	93	72	99	116	139	95	114	132	150
11	CAN_AGE	Stand Age - Dominant Story	13	30	59	78	98	55	88	116	143	90	114	125	148
12	Stand_Age	Stand Age	13	30	60	80	109	55	89	118	149	91	121	128	152
13	Proj_Year_St_Age/10	Stand Age/10	2	3	6	8	11	6	9	12	15	10	13	13	16
14	PLT_ACRES	Total Plot/Activity Count	46	42	74	131	150	159	893	1124	609	140	175	2847	1322
15	TRT_ACRES	Treatment Plot/Activity Count	0	0	0	0	0	0	0	0	0	0	0	0	0
16	PRP_STCK	Proportion Stockable Area	0.92	0.96	0.87	0.90	0.86	0.99	0.99	0.99	0.99	0.92	0.89	0.99	1.00
17															
18	Stand-Stock Variables:														
19	SEEDS/AC	Seedlings/Acre < 1.0" diameter	201	352	186	170	118	340	122	66	26	352	126	66	41
20	STEMS/AC	Trees/Acre = 1.0"+ diameter	64	280	182	114	97	892	504	264	148	184	130	315	242
21	BA_STM	Basal Area/Acre = 1.0"+ diameter	12	35	43	53	76	105	129	149	161	62	78	151	157
22	QMD_STM	Quadratic Mean Diameter - Trees = 1.0"+ diameter	6.0	4.9	6.7	9.7	14.4	4.9	7.0	10.8	15.7	8.0	10.8	9.9	11.5
23	QMD_TOP20	Quadratic Mean Diameter - Top 20 percent, diameter	0.0	8.9	10.6	15.1	21.0	8.8	11.9	16.8	24.4	15.7	19.3	17.6	21.7
24	SDI_SUM	Stand Density Index	11	71	80	89	105	213	240	243	223	102	112	247	233
25	SDI_DJ	Stand Density Index - SDI_Dj [Zeide]	33	97	129	129	165	263	274	270	256	149	171	282	272
26	SDI_DQ	Stand Density Index - SDI_Dq [Reineke]	25	76	111	113	135	216	242	245	226	119	137	248	234
27	CAN_COV	Canopy Cover Percent	6	22	23	22	22	51	51	47	40	24	24	48	44
28															
29	LCA.ALLSX	Live - Cubic Feet/Acre = 5.0"+ diameter	163	390	499	808	1969	1294	1812	2690	4215	993	1803	2811	3534
30	LBD.ALLSX	Live - Board Feet/Acre = 9.0"+ diameter	695	1659	1511	3348	11170	6102	6537	12093	23923	3952	9903	12939	19150
31	HCA.ALLSX	Harvest - Cubic Feet/Acre = 5.0"+ diameter	0	0	0	0	0	0	0	0	0	0	0	0	0
32	HBD.ALLSX	Harvest - Board Feet/Acre = 9.0"+ diameter	0	0	0	0	0	0	0	0	0	0	0	0	0
33	CUGROW	Growth - Cubic Feet/Acre/Year = 5.0"+ diameter	1.0	13.4	12.2	11.6	21.0	33.4	37.7	46.5	37.2	14.6	21.1	40.2	34.4
34	CUMORT	Mortality - Cubic Feet/Acre/Year = 5.0"+ diameter	0.2	6.0	6.0	5.0	26.9	13.9	15.6	19.6	26.5	14.0	34.9	19.4	22.5
35															
36	Wildlife Habitat Variables:														
37	R3_VSS	R3 - Vegetative Structural Stage	1	1	3ASS	4ASS	6BSS	2C	3CMS	4CSS	5CSS	5AMS	6BMS	4CMS	6CMS
38	SDI12%18	Percent SDI 12-18" diameter class	17	15	8	45	8	12	12	44	12	28	13	31	15
39	SDI18%24	Percent SDI 18-24" diameter class	15	11	7	15	34	11	8	22	41	16	20	19	27
40	SDI24%	Percent SDI 24"+ diameter class	10	11	10	2	45	9	9	2	37	17	44	12	32
41	Standing Snags														
42	SNG08T12	Small = 8-12" diameter	2	1	2	3	2	2	4	9	2	3	2	7	4
43	SNG12T18	Medium = 12-18"+ diameter	2	1	1	3	2	2	2	6	4	2	2	4	3
44	SNG18P	Large = 18"+ diameter	1	5	3	2	7	3	3	2	5	3	7	2	4
45	Snag Recruitment (i.e. prior period mortality = 10 years)														
46	RCR08T12	Small = 8-12" diameter	0	1	1	1	1	2	5	6	1	1	1	5	3
47	RCR12T18	Medium = 12-18"+ diameter	0	0	0	1	1	1	1	4	2	1	1	3	2
48	RCR18P	Large = 18"+ diameter	0	1	1	0	2	1	1	1	2	2	3	1	2
49															
50	Pestilent Disturbance Variables:														
51	DMAI	Dwarf Mistletoe Awareness Indicator (plot count)	2	6	3	11	45	32	183	248	151	22	68	527	229
52	TR_PTI	Percent Infected Host Trees = 1.0"+ diameter	3	8	4	4	27	16	15	15	21	12	39	15	15
53	SB_HZRD	Spruce Beetle Hazard	0	0	0	0	0	0	0	0	0	0	0	0	0
54	MPB_HZRD	Mountain Pine Beetle Hazard	2	2	2	2	2	2	2	3	3	2	2	3	3
55															
56	Wildfire Risk Variables:														
57	CRWNBLKD	Crown Bulk Density	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
58	CRWNBSHG	Crown Base Height	11.2	6.0	10.1	13.0	24.5	9.6	9.9	18.8	28.7	15.6	19.4	15.5	19.5
59	CRWNIDX	Crowning Index	95.3	52.6	45.7	47.7	53.6	34.9	31.9	28.7	39.3	57.1	57.5	31.5	37.6
60	TRCHIDX	Torching Index	7.0	0.0	7.0	12.2	30.4	9.4	12.9	33.3	61.6	17.1	23.0	25.7	30.8
61	CWDDUFF	Fuel Load - Duff Layer	0.7	1.4	2.2	2.2	3.6	3.4	3.0	3.7	5.1	2.3	3.9	3.8	4.6
62	CWDLTR	Fuel Load - Litter Layer	0.6	1.1	1.8	1.7	2.3	3.5	3.9	3.9	3.8	1.7	2.5	4.1	4.0
63	CWD00T03	Fuel Load - Coarse Woody Debris = 0-3" diameter	0.4	1.7	2.0	1.9	6.3	4.4	5.0	5.7	8.0	2.1	6.9	5.9	7.0
64	CWD03T12	Fuel Load - Coarse Woody Debris = 3-12" diameter	1.1	2.2	3.5	3.4	10.7	5.1	6.3	8.5	13.6	3.7	12.0	8.6	10.8
65	CWD12P	Fuel Load - Coarse Woody Debris = 12"+ diameter	0.1	1.9	3.2	0.6	8.2	1.8	3.5	3.2	7.6	2.3	10.2	4.0	6.2
66															
67	Biomass-Carbon Variables:														
68	TRBIOMSS	Tree Biomass - Dry weight live & dead/boles & crown	7	18	23	28	63	42	48	63	91	31	59	66	80
69	STDCARB	Stand Carbon - Total carbon above & below ground	6	16	21	23	55	36	41	52	75	26	54	54	66

Appendix C. Air NAAQS NMAAQs

Table C1. National and New Mexico ambient air quality standards

Pollutant	Averaging Time	New Mexico Standards	National Standards ^a Primary ^{b,c}	National Standards ^a Secondary ^{b,d}
Ozone	8-hour	—	0.070 ppm	Same as primary
Carbon monoxide	8-hour	8.7 ppm	9 ppm	—
	1-hour	13.1 ppm	35 ppm	—
Nitrogen dioxide	Annual	0.05 ppm	53 ppb	Same as primary
	24-hour	0.10 ppm	—	—
	1-hour	—	100 ppb	—
Sulfur dioxide	Annual	0.02 ppm	—	—
	24-hour	0.10 ppm	—	—
	3-hour	—	—	0.5 ppm
	1-hour	—	75 ppb	—
Hydrogen sulfide	1-hour	0.010 ppm	—	—
Total Reduced Sulfur	½-hour	0.003 ppm	—	—
PM ₁₀	24-hour	Same as Federal	150 µg/m ³	Same as primary
PM _{2.5}	Annual (arithmetic mean)	Same as Federal	12 µg/m ³	15 µg/m ³
	24-hour	Same as Federal	35 µg/m ³	Same as primary
Total Suspended Particulates (TSP)	Annual (geometric mean)	60 µg/m ³	—	—
	30-day Average	90 µg/m ³	—	—
	7-day	110 µg/m ³	—	—
	24-hour	150 µg/m ³	—	—
Lead	Rolling 3 month average	—	0.15 µg/m ³	Same as primary

Notes:

(a) Standards other than the 1-hour ozone, 24-hour PM₁₀, and those based on annual averages are not to be exceeded more than once a year.

(b) To attain the 8 hour ozone standard the 3 year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.070 ppm.

(c) Concentrations are expressed in units in which they were promulgated. µg/m³ = micrograms per cubic meter and ppm = parts per million. Units shown as µg/m³ are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury.

(d) Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

(e) Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Averaging Time: the amount of time that the associated data is averaged to assess compliance with the standard.

µg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion

Appendix D. Water

Table D1. Plan area subbasin, watershed and subwatershed extent and Gila NF percent

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
13020208	<i>Plains of San Agustin</i>	1,275,453	135,981	11
<i>1302020804</i>	<i>Nester Draw</i>	<i>169,190</i>	<i>5,328</i>	<i>3</i>
130202080401	Bear Canyon	11,723	4,485	38
130202080404	Headwaters Nester Draw	28,451	843	3
<i>1302020806</i>	<i>Y Canyon</i>	<i>97,476</i>	<i>52,140</i>	<i>53</i>
130202080601	La Jolla Canyon	36,942	36,581	99
130202080603	Y Canyon	37,145	15,558	42
<i>1302020807</i>	<i>Patterson Lake</i>	<i>207,398</i>	<i>78,514</i>	<i>38</i>
130202080701	Alamocito Creek	23,076	8,590	37
130202080703	West Pasture Springs	24,184	340	1
130202080704	Patterson Canyon	28,535	18,842	66
130202080705	Dark Canyon	15,833	6,701	42
130202080706	Patterson Lake	27,991	11,194	40
130202080707	Long Canyon	22,698	21,762	96
130202080708	T H Canyon	36,866	11,085	30
13020211	<i>Elephant Butte Reservoir</i>	1,403,516	40,451	3
<i>1302021106</i>	<i>Headwaters Alamosa Creek</i>	<i>257,399</i>	<i>40,451</i>	<i>16</i>
130202110603	Little Pigeon Canyon-Alamosa Creek	22,562	4,846	21
130202110606	Wahoo Canyon-Alamosa Creek	32,951	17,010	52
130202110607	Sim Yaten Canyon-Alamosa Creek	24,360	3,800	16
130202110608	Wildhorse Canyon	39,987	14,795	37

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
13030101	Caballo	795,153	211,635	27
<i>1303010101</i>	<i>Cuchillo Negro Creek</i>	<i>236,142</i>	<i>76,046</i>	<i>32</i>
130301010101	Turkey Creek	21,754	18,396	85
130301010102	Poverty Creek	35,362	16,904	48
130301010103	Chloride Creek	24,175	18,462	76
130301010104	South Fork Cuchillo Negro Creek	20,241	14,426	71
130301010105	Monument Creek	12,175	3,662	30
130301010106	Monument Creek-Cuchillo Negro Creek	20,852	4,196	20
<i>1303010102</i>	<i>Palomas Creek-Rio Grande</i>	<i>234,606</i>	<i>57,833</i>	<i>25</i>
130301010204	Mud Spring Canyon	11,488	11,483	100
130301010205	Circle Seven Creek	11,783	11,362	96
130301010206	North Fork Palomas Creek	27,832	15,537	56
130301010207	South Fork Palomas Creek	34,090	19,451	57
<i>1303010103</i>	<i>Percha Creek</i>	<i>77,379</i>	<i>24,763</i>	<i>32</i>
130301010301	South Percha Creek	24,291	12,774	53
130301010302	North Percha Creek	22,194	11,990	54
<i>1303010104</i>	<i>Caballo Reservoir</i>	<i>247,026</i>	<i>52,993</i>	<i>21</i>
130301010401	North Seco Canyon	18,465	14,044	76
130301010403	Seco Creek	37,113	3,691	10
130301010404	Holden Prong	15,707	15,707	100
130301010405	Cave Creek	16,702	3,653	22
130301010406	Headwaters Los Animas Creek	24,329	15,899	65
13030102	El Paso-Las Cruces	3,542,482	37,572	1
<i>1303010202</i>	<i>Cuervo Arroyo_Rio Grande</i>	<i>226,938</i>	<i>37,572</i>	<i>17</i>
130301020201	Trujillo Canyon Creek	32,304	10,652	33
130301020203	Headwaters Tierra Blanca Creek	11,273	11,094	98
130301020204	Outlet Tierra Blanca Creek	29,771	4,411	15

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
130301020207	Jaralosa Creek	18,417	2,367	13
130301020208	Headwaters Berenda Creek	24,633	9,049	37
13030202	Mimbres	4,283,488	210,291	5
<i>1303020201</i>	<i>Gallinas Canyon-Mimbres River</i>	<i>205,881</i>	<i>151,448</i>	<i>74</i>
130302020101	Powderhorn Canyon-Mimbres River	34,772	34,303	99
130302020102	Allie Canyon-Mimbres River	39,146	37,836	97
130302020103	Sheppard Canyon-Mimbres River	35,286	28,449	81
130302020104	Noonday Canyon	16,312	12,800	78
130302020105	Noonday Canyon-Mimbres River	28,962	12,826	44
130302020106	Gallinas Canyon	34,694	25,234	73
<i>1303020202</i>	<i>Headwaters San Vicente Draw</i>	<i>144,197</i>	<i>26,072</i>	<i>18</i>
130302020201	Rio de Arenas	16,527	956	6
130302020203	Pipeline Draw-San Vicente Draw	35,273	5,747	16
130302020204	Cameron Creek	35,879	19,254	54
130302020205	Cameron Creek-San Vicente Draw	31,507	114	<1
<i>1303020203</i>	<i>Outlet San Vicente Draw</i>	<i>160,634</i>	<i>1,684</i>	<i>1</i>
130302020302	Headwaters Whitewater Creek	29,873	852	3
130302020305	Antelope Draw-San Vicente Draw	35,466	832	2
<i>1303020204</i>	<i>Lampbright Draw</i>	<i>92,105</i>	<i>2,351</i>	<i>3</i>
130302020401	Headwaters Lampbright Draw	26,633	2,351	9
<i>1303020205</i>	<i>Lampbright Draw-Mimbres River</i>	<i>124,477</i>	<i>20,713</i>	<i>17</i>
130302020501	Gavilan Arroyo	20,663	8,270	40
130302020502	Gavilan Arroyo-Mimbres River	31,746	12,442	39
<i>1303020208</i>	<i>Macho Creek</i>	<i>213,735</i>	<i>3,641</i>	<i>2</i>
130302020801	Upper Macho Creek	37,240	3,641	10
<i>1303020213</i>	<i>Upper Seventysix Draw</i>	<i>114,409</i>	<i>1,313</i>	<i>1</i>
130302021301	Whiterock Canyon	29,085	1,313	5

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
1303020214	<i>Cow Spring Draw-Seventysix Draw</i>	184,549	3,070	2
130302021402	130302021402 Headwaters Cow Spring Draw	22,468	3,070	14
15020001	<i>Little Colorado Headwaters</i>	515,246	13,510	3
1502000103	<i>Coyote Creek</i>	147,501	13,510	9
150200010301	Hay Vega	7,091	2,775	39
150200010302	Canovas Creek-Coyote Creek	32,466	10,735	33
15020003	<i>Carrizo Wash</i>	1,446,531	197,142	14
1502000301	<i>Rito Creek</i>	279,878	37,218	13
150200030101	Upper Mangas Creek	36,487	21,099	58
150200030102	Middle Mangas Creek	33,664	5,757	17
150200030103	Lower Mangas Creek	28,248	2,014	7
150200030109	Escondido Creek	17,756	8,348	47
1502000302	<i>Upper Largo Creek</i>	98,300	75,156	76
150200030201	El Caso Spring Canyon	24,252	24,173	100
150200030202	Sawmill Canyon-Largo Creek	26,750	24,350	91
150200030203	Paradise Canyon-Largo Creek	20,420	17,327	85
150200030204	Rito Creek-Largo Creek	26,879	9,306	35
1502000305	<i>Agua Fria Creek</i>	218,968	76,850	35
150200030501	Harris Creek-Agua Fria Creek	30,978	27,842	90
150200030502	Demetrio Creek	16,670	9,827	59
150200030503	Demetrio Creek-Agua Fria Creek	19,684	7,222	37
150200030504	Gatlin Lake	25,404	18,441	73
150200030505	Mangitas Creek	23,062	9,453	41
150200030506	Cerro La Mula	38,056	3,751	10
150200030507	Cerro La Mula-Agua Fria Creek	17,282	314	2
1502000307	<i>LA Draw-Cienega Amarilla</i>	160,256	7,918	5
150200030703	Cow Springs Draw	31,273	7,918	25

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
15040001	Upper Gila	1,269,561	1,069,298	84
<i>1504000101</i>	<i>Railroad Canyon</i>	<i>89,105</i>	<i>14,046</i>	<i>16</i>
150400010101	Upper Railroad Canyon	35,504	1,567	4
150400010102	Middle Railroad Canyon	26,162	10,621	41
150400010103	Lower Railroad Canyon	27,439	1,858	7
<i>1504000102</i>	<i>Corduroy Draw</i>	<i>111,118</i>	<i>68,279</i>	<i>61</i>
150400010201	Upper Corduroy Draw	30,828	6,861	22
150400010202	South Water Canyon	24,643	19,489	79
150400010203	Middle Corduroy Draw	24,390	11,932	49
150400010204	Lower Corduroy Draw	31,256	29,997	96
<i>1504000103</i>	<i>Beaver Creek</i>	<i>147,638</i>	<i>79,799</i>	<i>54</i>
150400010301	Horse Camp Canyon	15,100	10,978	73
150400010302	Coyote Canyon	32,704	193	1
150400010303	O Bar O Canyon	39,489	18,176	46
150400010304	Houghton Canyon	22,043	20,296	92
150400010305	Houghton Canyon-Beaver Creek	38,302	30,156	79
<i>1504000104</i>	<i>Headwaters East Fork Gila River</i>	<i>193,943</i>	<i>192,473</i>	<i>99</i>
150400010401	Hoyt Creek	27,022	26,806	99
150400010402	Taylor Creek	37,997	37,531	99
150400010403	Taylor Creek-Beaver Creek	26,657	26,380	99
150400010404	Headwaters Diamond Creek	20,910	20,906	100
150400010405	South Diamond Creek	25,605	25,600	100
150400010406	Outlet Diamond Creek	24,885	24,829	100
150400010407	Diamond Creek-East Fork Gila River	30,867	30,424	99
<i>1504000105</i>	<i>Middle Fork Gila River</i>	<i>218,844</i>	<i>218,128</i>	<i>100</i>
150400010501	T Bar Canyon	26,574	26,490	100
150400010502	Gilita Creek	25,238	25,170	100

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
150400010503	Snow Canyon	31,354	31,347	100
150400010504	Canyon Creek	29,988	29,751	99
150400010505	Canyon Creek-Middle Fork Gila River	32,448	32,448	100
150400010506	Indian Creek Canyon	21,872	21,705	99
150400010507	Indian Creek Canyon-Middle Fork Gila River	21,408	21,408	100
150400010508	Big Bear Canyon-Middle Fork Gila River	29,963	29,810	99
<i>1504000106</i>	<i>West Fork Gila River</i>	<i>103,948</i>	<i>102,439</i>	<i>99</i>
150400010601	White Creek	13,961	13,961	100
150400010602	Headwaters West Fork Gila River	23,183	23,183	100
150400010603	Little Creek	26,790	26,761	100
150400010604	Outlet West Fork Gila River	40,014	38,534	96
<i>1504000107</i>	<i>Outlet East Fork Gila River</i>	<i>104,412</i>	<i>103,887</i>	<i>99</i>
150400010701	Tom Moore Canyon	13,535	13,530	100
150400010702	Headwaters Black Canyon	21,638	21,638	100
150400010703	Apache Creek	15,167	15,167	100
150400010704	Outlet Black Canyon	34,982	34,943	100
150400010705	Black Canyon-East Fork Gila River	19,089	18,608	97
<i>1504000108</i>	<i>Sapillo Creek</i>	<i>110,693</i>	<i>108,907</i>	<i>98</i>
150400010801	Rocky Canyon	15,161	15,161	100
150400010802	Rocky Canyon-Sapillo Creek	29,748	29,283	98
150400010803	Lake Roberts-Sapillo Creek	23,377	22,793	98
150400010804	Copperas Creek-Sapillo Creek	16,759	16,021	96
150400010805	Sheep Corral Canyon-Sapillo Creek	25,649	25,649	100
<i>1504000109</i>	<i>Sapillo Creek-Gila River</i>	<i>189,860</i>	<i>181,341</i>	<i>96</i>
150400010901	Sapillo Creek-Gila River	26,533	26,533	100
150400010902	Hells Canyon-Gila River	25,248	25,248	100
150400010903	Turkey Creek	32,976	32,936	100

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
150400010904	Upper Mogollon Creek	34,707	34,707	100
150400010905	Middle Mogollon Creek	25,232	22,115	88
150400010906	Lower Mogollon Creek	19,603	14,659	75
150400010907	Mogollon Creek-Gila River	25,562	25,143	98
15040002	Upper Gila-Mangas	1,311,302	198,660	15
<i>1504000201</i>	<i>Bear Creek</i>	<i>103,985</i>	<i>65,069</i>	<i>63</i>
150400020101	Upper Bear Creek	38,368	33,926	88
150400020102	Middle Bear Creek	28,809	21,224	74
150400020103	Lower Bear Creek	36,808	9,919	27
<i>1504000202</i>	<i>Duck Creek</i>	<i>144,993</i>	<i>16,862</i>	<i>12</i>
150400020201	Headwaters Buckhorn Wash	26,685	5,640	21
150400020203	Sacaton Creek	25,984	7,899	30
150400020204	Headwaters Duck Creek	31,673	3,323	10
<i>1504000203</i>	<i>Mangas Creek</i>	<i>130,597</i>	<i>50,698</i>	<i>39</i>
150400020301	Willow Creek-Mangas Creek	34,843	14,319	41
150400020302	McKeefer Canyon-Mangas Creek	28,457	8,772	31
150400020303	Ash Spring Canyon-Mangas Creek	29,292	16,256	55
150400020304	Schoolhouse Canyon-Mangas Creek	38,005	11,351	30
<i>1504000204</i>	<i>Sycamore Creek-Upper Gila River</i>	<i>121,829</i>	<i>3,601</i>	<i>3</i>
150400020401	Bear Creek-Upper Gila River	31,011	3,601	12
1504000205	Blue Creek	88,931	3,428	4
150400020501	Cherry Creek-Blue Creek	36,784	3,428	9
<i>1504000206</i>	<i>Blue Creek-Upper Gila River</i>	<i>186,504</i>	<i>46,732</i>	<i>25</i>
150400020601	Bear Canyon-Upper Gila River	26,257	23,169	88
150400020602	Swan Canyon	25,979	14,673	56
150400020603	Swan Canyon-Upper Gila River	27,903	8,140	29
150400020607	Corral Canyon	29,201	750	3

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
1504000208	Apache Creek-Gila River	237,306	12,270	5
150400020804	Apache Creek	39,084	12,270	31
15040003	Animas Valley	1,449,526	59,574	4
1504000302	Headwaters Burro Cienega	109,203	17,666	16
150400030201	Hall Draw-Burro Cienega	24,929	13,923	56
150400030203	Ninetysix Creek	31,683	3,743	12
1504000303	Outlet Burro Cienega	179,037	291	<1
150400030305	Jones Canyon-Burro Cienega	18,522	48	<1
150400030307	Walker Canyon	28,099	243	1
1504000304	Lordsburg Draw	221,184	41,617	19
150400030401	Gold Hill Canyon-Lordsburg Draw	33,208	7,043	21
150400030402	Hoodoo Canyon-Lordsburg Draw	28,024	3,762	13
150400030403	Headwaters Thompson Canyon	25,164	20,081	80
150400030404	Outlet Thompson Canyon	23,426	4,948	21
150400030405	Thompson Canyon-Lordsburg Draw	29,220	5,783	20
15040004	San Francisco	1,793,569	1,097,383	61
1504000401	Headwaters Tularosa River	225,391	211,838	94
150400040101	Sand Flat Canyon	22,395	20,457	91
150400040102	Canon Del Buey	17,597	17,556	100
150400040103	Negro Canyon-Tularosa River	35,750	33,531	94
150400040104	Whiskey Creek	28,857	26,695	93
150400040105	Hardcastle Canyon	31,732	30,025	95
150400040106	Apache Creek	28,803	26,303	91
150400040107	Apache Creek-Tularosa River	29,286	27,394	94
150400040108	Cold Springs Canyon-Tularosa River	30,971	29,877	96
1504000402	Outlet Tularosa River	184,206	180,493	98
150400040201	Long Canyon-Tularosa River	33,507	32,065	96

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
150400040202	Headwaters North Fork Negrito Creek	20,426	20,235	99
150400040203	South Fork Negrito Creek	31,698	31,227	99
150400040204	Outlet North Fork Negrito Creek	24,183	24,054	99
150400040205	Sign Camp Canyon	26,241	26,222	100
150400040206	Negrito Creek	25,674	25,415	99
150400040207	Negrito Creek-Tularosa River	22,477	21,275	95
<i>1504000403</i>	<i>Centerfire Creek-San Francisco River</i>	<i>267,108</i>	<i>207,266</i>	<i>78</i>
150400040302	Trout Creek	20,934	12,646	60
150400040303	Stone Creek-San Francisco River	35,769	21,849	61
150400040304	Spur Draw	26,179	21,531	82
150400040305	SA Creek	22,560	21,861	97
150400040306	Headwaters Centerfire Creek	18,536	17,581	95
150400040307	Outlet Centerfire Creek	20,591	17,861	87
150400040308	Big Canyon-San Francisco River	16,418	15,579	95
150400040309	Starkweather Canyon	25,279	24,339	96
150400040310	Largo Canyon	21,765	21,006	97
150400040311	Cienega Canyon-San Francisco River	36,089	33,014	91
<i>1504000404</i>	<i>Deep Creek-San Francisco River</i>	<i>153,321</i>	<i>149,537</i>	<i>98</i>
150400040401	Headwaters Saliz Canyon	26,229	26,116	100
150400040402	Outlet Saliz Canyon	14,052	13,722	98
150400040403	Saliz Canyon-San Francisco River	36,832	35,358	96
150400040404	Devils Creek	22,767	22,767	100
150400040405	Deep Creek	30,521	29,230	96
150400040406	Devils Creek-San Francisco River	22,920	22,344	97
<i>1504000405</i>	<i>Upper Blue River</i>	<i>198,049</i>	<i>27,915</i>	<i>14</i>
150400040502	Dry Blue Creek	25,048	19,114	76
150400040503	Campbell Blue Creek	34,218	617	2

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Total HUC Acres	Gila NF HUC Acres	Gila NF HUC %
150400040504	Centerfire Creek-Blue River	17,311	2,456	14
150400040506	Steeple Canyon-Blue River	37,760	5,728	15
<i>1504000406</i>	<i>Pueblo Creek-San Francisco River</i>	<i>226,379</i>	<i>198,993</i>	<i>88</i>
150400040601	Upper Pueblo Creek	21,554	21,537	100
150400040602	Lower Pueblo Creek	29,508	27,925	95
150400040603	Keller Canyon	24,804	13,875	56
150400040604	Vigil Canyon	25,883	20,241	78
150400040605	Mineral Creek	32,917	30,175	92
150400040606	Wendy Flat-San Francisco River	22,813	20,377	89
150400040607	Whitewater Creek	34,875	33,008	95
150400040608	South Dugway Creek-San Francisco River	34,025	31,855	94
<i>1504000407</i>	<i>Lower Blue River</i>	<i>198,105</i>	<i>277</i>	<i><1</i>
150400040704	Little Blue Creek	25,067	277	1
<i>1504000408</i>	<i>Mule Creek-San Francisco River</i>	<i>244,422</i>	<i>121,064</i>	<i>50</i>
150400040801	Little Dry Creek	33,243	14,821	45
150400040802	Big Dry Creek	25,070	24,533	98
150400040803	Pine Cienega Creek	25,986	12,879	50
150400040804	Upper Mule Creek	20,283	13,499	67
150400040805	Lower Mule Creek	13,801	6,626	48
150400040806	Citizen Canyon	14,783	9,164	62
150400040807	Big Pine Canyon-San Francisco River	30,093	29,909	99
150400040808	Harden Cienega Creek	21,979	7,770	35
150400040809	Coal Creek	17,542	1,772	10
150400040811	Coalson Creek-San Francisco River	19,389	90	<1

Table D2. Extent and distribution of perennial and intermittent stream miles by subbasin, watershed and subwatershed

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Perennial Stream Miles			Intermittent Stream Miles		
			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
13020208	Plains of San Agustin	11	0.7	0.5	76	No data	10.7	No data
1302020804	Nester Draw	3	0.2	0.0	0	3.8	0.4	10
130202080401	Bear Canyon	38	0.0	0.0	0	1.4	0.4	26
130202080404	Headwaters Nester Draw	3	0.0	0.0	0	2.4	0.0	0
1302020806	Y Canyon	53	0.0	0.0	0	0.0	0.0	0
130202080601	La Jolla Canyon	99	0.0	0.0	0	0.0	0.0	0
130202080603	Y Canyon	42	0.0	0.0	0	0.0	0.0	0
1302020807	Patterson Lake	38	0.5	0.5	100	18.5	10.3	56
130202080701	Alamocito Creek	37	0.0	0.0	0	12.1	4.9	41
130202080703	West Pasture Springs	1	0.0	0.0	0	0.0	0.0	0
130202080704	Patterson Canyon	66	0.5	0.5	100	6.4	5.4	85
130202080705	Dark Canyon	42	0.0	0.0	0	0.0	0.0	0
130202080706	Patterson Lake	40	0.0	0.0	0	0.0	0.0	0
130202080707	Long Canyon	96	0.0	0.0	0	0.0	0.0	0
130202080708	T H Canyon	30	0.0	0.0	0	0.0	0.0	0
13020211	Elephant Butte Reservoir	3	74.3	0.0	0	No data	17.2	No data
1302021106	Headwaters Alamosa Creek	16	1.4	0.0	0	80.3	17.2	21
130202110603	Little Pigeon Canyon-Alamosa Creek	21	0.0	0.0	0	8.9	5.5	62
130202110606	Wahoo Canyon-Alamosa Creek	52	0.0	0.0	0	9.5	6.7	70
130202110607	Sim Yaten Canyon-Alamosa Creek	16	0.0	0.0	0	0.8	0.0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Perennial Stream Miles			Intermittent Stream Miles		
			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
130202110608	Wildhorse Canyon	37	0.0	0.0	0	5.8	5.0	86
13030101	Caballo	27	160.8	73.8	46	No data	99.1	No data
<i>1303010101</i>	<i>Cuchillo Negro Creek</i>	32	29.7	18.3	62	86.2	44.6	52
130301010101	Turkey Creek	85	0.0	0.0	0	29.5	22.1	75
130301010102	Poverty Creek	48	6.9	5.4	79	12.6	11.4	90
130301010103	Chloride Creek	76	10.2	8.9	87	15.1	8.7	58
130301010104	South Fork Cuchillo Negro Creek	71	4.8	4.0	84	3.5	2.3	66
130301010105	Monument Creek	30	0.0	0.0	0	8.2	0.0	0
130301010106	Monument Creek-Cuchillo Negro Creek	20	0.0	0.0	0	11.1	0.0	0
<i>1303010102</i>	<i>Palomas Creek-Rio Grande</i>	25	49.0	19.5	40	41.6	24.4	59
130301010204	Mud Spring Canyon	100	5.5	5.3	97	0.0	0.0	0
130301010205	Circle Seven Creek	96	5.0	4.8	97	4.9	4.0	82
130301010206	North Fork Palomas Creek	56	8.7	6.0	69	14.8	8.5	58
130301010207	South Fork Palomas Creek	57	6.6	3.4	52	19.2	11.9	62
<i>1303010103</i>	<i>Percha Creek</i>	32	34.3	9.9	29	16.5	9.1	55
130301010301	South Percha Creek	53	12.1	1.7	14	6.3	5.4	85
130301010302	North Percha Creek	54	19.9	8.3	42	4.0	3.7	92
<i>1303010104</i>	<i>Caballo Reservoir</i>	21	47.8	26.1	55	58.4	21.0	36
130301010401	North Seco Canyon	76	9.9	9.4	95	20.2	9.0	45
130301010403	Seco Creek	10	0.0	0.0	0	15.8	0.0	0
130301010404	Holden Prong	100	9.2	9.2	100	4.8	4.8	100
130301010405	Cave Creek	22	0.5	0.0	0	6.2	1.6	26

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			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
130301010406	Headwaters Los Animas Creek	65	11.8	7.4	63	11.4	5.6	49
13030102	El Paso-Las Cruces	1	116.0	6.6	6	No data	6.1	No data
<i>1303010202</i>	<i>Cuervo Arroyo, Rio Grande</i>	<i>17</i>	<i>21.2</i>	<i>6.6</i>	<i>31</i>	<i>52.2</i>	<i>6.1</i>	<i>12</i>
130301020201	Trujillo Canyon Creek	33	0.0	0.0	0	7.4	1.9	25
130301020203	Headwaters Tierra Blanca Creek	98	4.4	4.4	100	2.0	2.0	100
130301020204	Outlet Tierra Blanca Creek	15	0.0	0.0	0	14.8	0.0	0
130301020207	Jaralosa Creek	13	0.0	0.0	0	10.0	0.0	0
130301020208	Headwaters Berenda Creek	37	2.2	2.2	100	16.9	2.2	13
13030202	Mimbres	5	98.6	78.0	79	No data	37.2	No data
<i>1303020201</i>	<i>Gallinas Canyon-Mimbres River</i>	<i>74</i>	<i>83.1</i>	<i>74.3</i>	<i>89</i>	<i>73.0</i>	<i>23.2</i>	<i>32</i>
130302020101	Powderhorn Canyon-Mimbres River	99	15.3	13.9	90	2.0	2.0	100
130302020102	Allie Canyon-Mimbres River	97	18.1	17.0	94	5.5	5.5	100
130302020103	Sheppard Canyon-Mimbres River	81	17.8	13.4	76	7.5	0.9	11
130302020104	Noonday Canyon	78	13.2	12.5	95	8.6	2.9	33
130302020105	Noonday Canyon-Mimbres River	44	5.0	4.0	80	12.6	2.5	20
130302020106	Gallinas Canyon	73	13.8	13.5	98	21.3	9.4	44
<i>1303020202</i>	<i>Headwaters San Vicente Draw</i>	<i>18</i>	<i>4.0</i>	<i>3.6</i>	<i>89</i>	<i>46.5</i>	<i>7.3</i>	<i>16</i>
130302020201	Rio de Arenas	6	0.4	0.0	0	12.8	0.0	0
130302020203	Pipeline Draw-San Vicente Draw	16	0.0	0.0	0	22.1	2.6	12
130302020204	Cameron Creek	54	3.6	3.6	100	11.6	4.7	40
130302020205	Cameron Creek-San Vicente Draw	<1	0.0	0.0	0	0.0	0.0	0
<i>1303020203</i>	<i>Outlet San Vicente Draw</i>	<i>1</i>	<i>6.9</i>	<i>0.0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>0</i>

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			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
130302020302	Headwaters Whitewater Creek	3	6.4	0.0	0	0.0	0.0	0
130302020305	Antelope Draw-San Vicente Draw	2	0.5	0.0	0	0.0	0.0	0
<i>1303020204</i>	<i>Lampbright Draw</i>	3	0.0	0.0	0	0.0	0.0	0
130302020401	Headwaters Lampbright Draw	9	0.0	0.0	0	0.0	0.0	0
1303020205	Lampbright Draw-Mimbres River	17	0.0	0.0	0	50.1	6.2	12
130302020501	Gavilan Arroyo	40	0.0	0.0	0	7.2	0.7	09
130302020502	Gavilan Arroyo-Mimbres River	39	0.0	0.0	0	26.0	5.5	21
1303020208	Macho Creek	2	0.0	0.0	0	0.0	0.0	0
130302020801	Upper Macho Creek	10	0.0	0.0	0	0.0	0.0	0
1303020213	Upper Seventysix Draw	1	0.3	0.0	0	0.5	0.5	100
130302021301	Whiterock Canyon	5	0.3	0.0	0	0.5	0.5	100
1303020214	Cow Spring Draw-Seventysix Draw	2	0.0	0.0	0	0.0	0.0	0
130302021402	Headwaters Cow Spring Draw	14	0.0	0.0	0	0.0	0.0	0
15020001	Little Colorado Headwaters	3	268.5	0.7	0	No data	0.3	No data
<i>1502000103</i>	<i>Coyote Creek</i>	9	32.6	0.7	0.02	32.4	0.3	1
150200010301	Hay Vega	39	3.0	0.7	0.24	0.0	0.0	0
150200010302	Canovas Creek-Coyote Creek	33	24.1	0.0	0.00	11.6	0.3	2
15020003	Carrizo Wash	14	43.6	14.0	32	No data	8.7	No data
<i>1502000301</i>	<i>Rito Creek</i>	13	6.3	3.7	59	10.5	3.9	37
150200030101	Upper Mangas Creek	58	4.8	3.3	70	4.8	3.9	81
150200030102	Middle Mangas Creek	17	1.1	0.0	0	1.4	0.0	0
150200030103	Lower Mangas Creek	7	0.0	0.0	0	0.0	0.0	0

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			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
150200030109	Escondido Creek	47	0.5	0.4	82	0.0	0.0	0
<i>1502000302</i>	<i>Upper Largo Creek</i>	<i>76</i>	<i>19.3</i>	<i>6.7</i>	<i>35</i>	<i>8.2</i>	<i>2.8</i>	<i>34</i>
150200030201	El Caso Spring Canyon	100	0.0	0.0	0	0.6	0.6	100
150200030202	Sawmill Canyon-Largo Creek	91	9.0	3.5	39	2.5	2.2	89
150200030203	Paradise Canyon-Largo Creek	85	10.3	3.1	31	0.0	0.0	0
150200030204	Rito Creek-Largo Creek	35	0.0	0.0	0	5.1	0.0	0
<i>1502000305</i>	<i>Agua Fria Creek</i>	<i>35</i>	<i>10.6</i>	<i>3.2</i>	<i>.30</i>	<i>2.2</i>	<i>2.0</i>	<i>89</i>
150200030501	Harris Creek-Agua Fria Creek	90	9.5	2.7	28	0.0	0.0	0
150200030502	Demetrio Creek	59	0.6	0.0	0	0.0	0.0	0
150200030503	Demetrio Creek-Agua Fria Creek	37	0.0	0.0	0	0.0	0.0	0
150200030504	Gatlin Lake	73	0.5	0.5	100	2.2	2.0	89
150200030505	Mangitas Creek	41	0.0	0.0	0	0.0	0.0	0
150200030506	Cerro La Mula	10	0.0	0.0	0	0.0	0.0	0
150200030507	Cerro La Mula-Agua Fria Creek	2	0.0	0.0	0	0.0	0.0	0
<i>1502000307</i>	<i>LA Draw-Cienega Amarilla</i>	<i>5</i>	<i>7.4</i>	<i>0.4</i>	<i>6</i>	<i>0.0</i>	<i>0.0</i>	<i>0</i>
150200030703	Cow Springs Draw	25	1.8	0.4	24	0.0	0.0	0
15040001	Upper Gila	84	504.9	471.0	93	No data	131.5	No data
<i>1504000101</i>	<i>Railroad Canyon</i>	<i>16</i>	<i>0.0</i>	<i>0.0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>0</i>
150400010101	Upper Railroad Canyon	4	0.0	0.0	0	0.0	0.0	0
150400010102	Middle Railroad Canyon	41	0.0	0.0	0	0.0	0.0	0
150400010103	Lower Railroad Canyon	7	0.0	0.0	0	0.0	0.0	0
<i>1504000102</i>	<i>Corduroy Draw</i>	<i>61</i>	<i>11.9</i>	<i>6.7</i>	<i>56</i>	<i>11.4</i>	<i>10.6</i>	<i>93</i>
150400010201	Upper Corduroy Draw	22	0.1	0.0	0	2.8	2.7	99

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			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
150400010202	South Water Canyon	79	1.0	0.9	94	4.3	3.6	85
150400010203	Middle Corduroy Draw	49	0.0	0.0	0	1.0	0.8	88
150400010204	Lower Corduroy Draw	96	10.8	5.8	053	3.4	3.4	100
<i>1504000103</i>	<i>Beaver Creek</i>	<i>54</i>	<i>0.0</i>	<i>0.0</i>	<i>0</i>	<i>5.0</i>	<i>5.0</i>	<i>100</i>
150400010301	Horse Camp Canyon	73	0.0	0.0	0	0.0	0.0	0
150400010302	Coyote Canyon	1	0.0	0.0	0	0.0	0.0	0
150400010303	O Bar O Canyon	46	0.0	0.0	0	0.0	0.0	0
150400010304	Houghton Canyon	92	0.0	0.0	0	5.0	5.0	100
150400010305	Houghton Canyon-Beaver Creek	79	0.0	0.0	0	0.0	0.0	0
<i>1504000104</i>	<i>Headwaters East Fork Gila River</i>	<i>99</i>	<i>68.5</i>	<i>60.2</i>	<i>88</i>	<i>41.1</i>	<i>39.3</i>	<i>96</i>
150400010401	150400010401 Hoyt Creek	99	8.2	7.4	90	8.3	7.2	87
150400010402	Taylor Creek	99	17.0	14.1	83	11.7	11.0	95
150400010403	Taylor Creek-Beaver Creek	99	6.2	4.7	76	6.0	6.0	100
150400010404	Headwaters Diamond Creek	100	9.9	9.9	100	5.6	5.6	98
150400010405	South Diamond Creek	100	11.1	11.1	100	6.0	6.0	100
150400010406	Outlet Diamond Creek	100	5.7	5.7	100	3.5	3.4	100
150400010407	Diamond Creek-East Fork Gila River	99	10.5	7.3	69	0.0	0.0	0
<i>1504000105</i>	<i>Middle Fork Gila River</i>	<i>100</i>	<i>96.6</i>	<i>94.1</i>	<i>97</i>	<i>18.5</i>	<i>18.4</i>	<i>100</i>
150400010501	T Bar Canyon	100	0.9	0.9	100	0.4	0.3	81
150400010502	Gilita Creek	100	20.1	18.7	93	6.9	6.9	100
150400010503	Snow Canyon	100	0.8	0.8	100	2.3	2.3	100
150400010504	Canyon Creek	99	4.8	4.3	91	1.5	1.5	100
150400010505	Canyon Creek-Middle Fork Gila River	100	29.3	29.3	100	0.7	0.7	100

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			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
150400010506	Indian Creek Canyon	99	6.3	6.3	100	5.6	5.6	100
150400010507	Indian Creek Canyon-Middle Fork Gila River	100	17.9	17.9	100	0.1	0.1	100
150400010508	Big Bear Canyon-Middle Fork Gila River	99	16.7	16.0	96	1.1	1.1	100
<i>1504000106</i>	<i>West Fork Gila River</i>	<i>99</i>	<i>86.3</i>	<i>81.0</i>	<i>94</i>	<i>11.9</i>	<i>11.9</i>	<i>100</i>
150400010601	White Creek	100	19.9	19.9	100	4.4	4.4	100
150400010602	Headwaters West Fork Gila River	100	23.4	23.4	100	2.2	2.2	100
150400010603	Little Creek	100	11.9	11.7	98	5.3	5.3	.00
150400010604	Outlet West Fork Gila River	96	31.1	26.1	84	0.0	0.0	0
<i>1504000107</i>	<i>Outlet East Fork Gila River</i>	<i>99</i>	<i>56.4</i>	<i>53.3</i>	<i>94</i>	<i>11.5</i>	<i>11.5</i>	<i>100</i>
150400010701	Tom Moore Canyon	100	0.0	0.0	0	0.0	0.0	0
150400010702	Headwaters Black Canyon	100	11.0	11.0	100	6.7	6.7	100
150400010703	Apache Creek	100	5.9	5.9	100	3.3	3.3	100
150400010704	Outlet Black Canyon	100	21.8	21.7	99	1.4	1.4	100
150400010705	Black Canyon-East Fork Gila River	97	17.7	14.7	83	0.1	0.1	100
<i>1504000108</i>	<i>Sapillo Creek</i>	<i>98</i>	<i>45.3</i>	<i>40.5</i>	<i>89</i>	<i>15.8</i>	<i>14.4</i>	<i>91</i>
150400010801	Rocky Canyon	100	7.0	7.0	100	2.1	2.1	.00
150400010802	Rocky Canyon-Sapillo Creek	98	8.7	8.7	100	0.6	0.6	100
150400010803	Lake Roberts-Sapillo Creek	98	7.9	6.3	79	5.2	4.2	80
150400010804	Copperas Creek-Sapillo Creek	96	3.2	0.0	0	0.7	0.4	49
150400010805	Sheep Corral Canyon-Sapillo Creek	100	18.5	18.5	100	7.2	7.2	100
<i>1504000109</i>	<i>Sapillo Creek-Gila River</i>	<i>96</i>	<i>139.9</i>	<i>135.3</i>	<i>97</i>	<i>27.2</i>	<i>20.4</i>	<i>75</i>
150400010901	Sapillo Creek-Gila River	100	17.9	17.9	100	0.4	0.4	100

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150400010902	Hells Canyon-Gila River	100	22.6	22.6	100	3.0	3.0	100
150400010903	Turkey Creek	100	25.2	24.8	99	0.7	0.7	100
150400010904	Upper Mogollon Creek	100	34.5	34.5	100	1.6	1.6	100
150400010905	Middle Mogollon Creek	88	12.6	10.0	79	6.4	2.9	46
150400010906	Lower Mogollon Creek	75	5.3	5.3	100	10.1	7.6	75
150400010907	Mogollon Creek-Gila River	98	21.8	20.2	93	5.0	4.2	85
15040002	Upper Gila-Mangas	15	100.9	22.3	22	No data	68.6	No data
<i>1504000201</i>	<i>Bear Creek</i>	63	10.5	2.8	26	70.8	46.2	65
150400020101	Upper Bear Creek	88	2.3	1.9	81	34.0	30.3	89
150400020102	Middle Bear Creek	74	1.5	0.4	29	16.8	10.4	62
150400020103	Lower Bear Creek	27	6.7	0.4	6	20.1	5.5	27
<i>1504000202</i>	<i>Duck Creek</i>	12	12.4	5.7	46	30.7	0.0	0
150400020201	Headwaters Buckhorn Wash	21	0.0	0.0	0	3.4	0.0	0
150400020203	Sacaton Creek	30	7.2	5.7	80	10.6	0.0	0
150400020204	Headwaters Duck Creek	10	0.0	0.0	0	3.1	0.0	0
<i>1504000203</i>	<i>Mangas Creek</i>	39	0.4	0.4	100	31.6	6.0	19
150400020301	Willow Creek-Mangas Creek	41	0.0	0.0	0	5.4	2.0	36
150400020302	McKeefer Canyon-Mangas Creek	31	0.0	0.0	0	5.2	0.4	8
150400020303	Ash Spring Canyon-Mangas Creek	55	0.0	0.0	0	6.5	3.4	52
150400020304	Schoolhouse Canyon-Mangas Creek	30	0.4	0.4	100	14.4	0.2	1
<i>1504000204</i>	<i>Sycamore Creek-Upper Gila River</i>	3	17.1	1.1	6	0.5	0.4	94
150400020401	Bear Creek-Upper Gila River	12	8.7	1.1	012	0.4	0.4	100

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1504000205	Blue Creek	4	20.6	0.0	0	0.0	0.0	0
150400020501	Cherry Creek-Blue Creek	9	16.7	0.0	0	0.0	0.0	0
1504000206	<i>Blue Creek-Upper Gila River</i>	25	33.5	11.7	35	42.1	11.1	26
150400020601	Bear Canyon-Upper Gila River	88	10.3	8.9	87	8.2	6.8	83
150400020602	Swan Canyon	56	0.0	0.0	0	1.2	0.5	43
150400020603	Swan Canyon-Upper Gila River	29	8.7	2.8	32	8.9	3.8	43
150400020607	Corral Canyon	3	0.0	0.0	0	0.0	0.0	0
1504000208	<i>Apache Creek-Gila River</i>	5	1.4	0.7	49	125.0	4.9	4
150400020804	Apache Creek	31	1.4	0.7	49	30.1	4.9	16
15040003	<i>Animas Valley</i>	4	4.2	2.2	52	No data	2.1	No data
1504000302	<i>Headwaters Burro Cienega</i>	16	0.0	0.0	0	8.2	0.1	1
150400030201	Hall Draw-Burro Cienega	56	0.0	0.0	0	2.6	0.1	3
150400030203	Ninety-six Creek	12	0.0	0.0	0	0.0	0.0	0
1504000303	<i>Outlet Burro Cienega</i>	<1	0.0	0.0	0	0.0	0.0	0
150400030305	Jones Canyon-Burro Cienega	<1	0.0	0.0	0	0.0	0.0	0
150400030307	Walker Canyon	1	0.0	0.0	0	0.0	0.0	0
1504000304	<i>Lordsburg Draw</i>	19	4.2	2.2	53	2.0	2.0	100
150400030401	Gold Hill Canyon-Lordsburg Draw	21	1.3	0.0	0	0.0	0.0	0
150400030402	Hoodoo Canyon-Lordsburg Draw	13	0.0	0.0	0	0.0	0.0	0
150400030403	Headwaters Thompson Canyon	80	1.9	1.9	100	1.7	1.7	100
150400030404	Outlet Thompson Canyon	21	0.3	0.3	100	0.4	0.4	100
150400030405	Thompson Canyon-Lordsburg Draw	20	0.6	0.0	0	0.0	0.0	0

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15040004	San Francisco	61	759.8	287.5	38	No data		No data
1504000401	Headwaters Tularosa River	94	39.3	10.5	27	25.3	18.4	73
150400040101	Sand Flat Canyon	91	1.8	1.0	58	0.3	0.1	16
150400040102	Canon Del Buey	100	0.0	0.0	0	3.1	3.1	00
150400040103	Negro Canyon-Tularosa River	94	5.9	1.3	22	1.1	1.0	90
150400040104	Whiskey Creek	93	3.7	2.0	54	3.8	1.1	30
150400040105	Hardcastle Canyon	95	2.1	0.1	3	5.6	3.1	56
150400040106	Apache Creek	91	16.7	5.2	31	9.4	8.1	86
150400040107	Apache Creek-Tularosa River	94	6.7	0.4	7	0.0	0.0	0
150400040108	Cold Springs Canyon-Tularosa River	96	2.5	0.5	18	2.0	2.0	100
1504000402	Outlet Tularosa River	98	54.6	39.4	72	8.2	8.2	100
150400040201	Long Canyon-Tularosa River	96	6.7	3.9	59	2.6	2.6	100
150400040202	Headwaters North Fork Negrito Creek	99	0.0	0.0	0	0.0	0.0	0
150400040203	South Fork Negrito Creek	99	12.7	11.9	94	5.6	5.6	100
150400040204	Outlet North Fork Negrito Creek	99	7.8	7.3	93	0.0	0.0	0
150400040205	Sign Camp Canyon	100	0.0	0.0	0	0.0	0.0	0
150400040206	Negrito Creek	99	13.0	11.0	84	0.0	0.0	0
150400040207	Negrito Creek-Tularosa River	95	14.4	5.3	37	0.0	0.0	0
1504000403	Centerfire Creek-San Francisco River	78	145.9	64.0	44	119.8	41.1	34
150400040302	Trout Creek	60	24.6	14.7	60	23.1	3.0	13
150400040303	Stone Creek-San Francisco River	61	28.8	11.4	40	31.6	4.2	13
150400040304	Spur Draw	82	0.9	0.6	71	1.9	1.9	100

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Perennial Stream Miles			Intermittent Stream Miles		
			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
150400040305	SA Creek	97	7.0	6.6	94	11.1	9.5	86
150400040306	Headwaters Centerfire Creek	95	6.1	3.1	50	5.6	5.2	94
150400040307	Outlet Centerfire Creek	87	7.6	0.5	7	4.1	2.7	66
150400040308	Big Canyon-San Francisco River	95	7.6	5.7	75	2.5	2.5	100
150400040309	Starkweather Canyon	96	2.1	1.5	68	2.2	2.2	100
150400040310	Largo Canyon	97	9.3	7.1	77	7.0	5.6	81
150400040311	Cienega Canyon-San Francisco River	91	24.1	12.8	53	4.4	4.3	97
<i>1504000404</i>	<i>Deep Creek-San Francisco River</i>	<i>98</i>	<i>60.6</i>	<i>49.1</i>	<i>81</i>	<i>20.1</i>	<i>19.3</i>	<i>96</i>
150400040401	Headwaters Saliz Canyon	100	3.8	3.8	100	4.2	4.2	100
150400040402	Outlet Saliz Canyon	98	7.3	5.1	70	0.0	0.0	0
150400040403	Saliz Canyon-San Francisco River	96	15.4	11.3	73	0.0	0.0	0
150400040404	Devils Creek	100	2.1	2.1	100	3.2	3.2	100
150400040405	Deep Creek	96	18.4	16.9	92	12.7	11.8	93
150400040406	Devils Creek-San Francisco River	97	13.6	10.0	74	0.0	0.0	0
<i>1504000405</i>	<i>Upper Blue River</i>	<i>14</i>	<i>172.3</i>	<i>9.7</i>	<i>6</i>	<i>372.3</i>	<i>8.7</i>	<i>2</i>
150400040502	Dry Blue Creek	76	16.3	8.5	52	12.4	3.9	31
150400040503	Campbell Blue Creek	2	32.1	0.4	1	76.0	0.0	0
150400040504	Centerfire Creek-Blue River	14	16.1	0.4	2	34.8	1.6	5
150400040506	Steeple Canyon-Blue River	15	27.0	0.4	2	82.5	3.2	4
<i>1504000406</i>	<i>Pueblo Creek-San Francisco River</i>	<i>88</i>	<i>81.7</i>	<i>63.5</i>	<i>78</i>	<i>76.5</i>	<i>52.9</i>	<i>69</i>
150400040601	Upper Pueblo Creek	100	9.1	9.1	100	5.9	5.9	100
150400040602	Lower Pueblo Creek	95	2.5	2.5	100	20.5	20.3	99
150400040603	Keller Canyon	56	0.0	0.0	100	13.0	6.3	48

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Perennial Stream Miles			Intermittent Stream Miles		
			Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles	Total HUC Miles	Gila NF HUC Miles	Gila NF % HUC Miles
150400040604	Vigil Canyon	78	0.1	0.0	0	15.9	5.0	32
150400040605	Mineral Creek	92	18.9	16.7	89	13.8	11.4	82
150400040606	Wendy Flat-San Francisco River	89	11.1	1.9	17	0.8	0.8	90
150400040607	Whitewater Creek	95	26.2	24.9	95	6.5	3.3	50
150400040608	South Dugway Creek-San Francisco River	94	13.8	8.4	61	0.0	0.0	0
<i>1504000407</i>	<i>Lower Blue River</i>	<i><1</i>	<i>90.0</i>	<i>0.0</i>	<i>0</i>	<i>410.0</i>	<i>0.5</i>	<i>0</i>
150400040704	Little Blue Creek	1	5.7	0.0	0	62.1	0.5	1
<i>1504000408</i>	<i>Mule Creek-San Francisco River</i>	<i>50</i>	<i>82.7</i>	<i>51.3</i>	<i>62</i>	<i>161.1</i>	<i>15.4</i>	<i>10</i>
150400040801	Little Dry Creek	45	3.1	2.8	90	0.8	0.1	14
150400040802	Big Dry Creek	98	18.8	18.8	100	10.1	7.7	76
150400040803	Pine Cienega Creek	50	0.2	0.0	0	14.8	2.4	16
150400040804	Upper Mule Creek	67	13.9	7.0	51	2.7	0.0	0
150400040805	Lower Mule Creek	48	8.8	4.3	49	0.0	0.0	0
150400040806	Citizen Canyon	62	1.3	0.0	0	14.5	3.9	27
150400040807	Big Pine Canyon-San Francisco River	99	18.8	18.3	97	0.0	0.0	100
150400040808	Harden Cienega Creek	35	0.4	0.0	0	26.7	0.0	0
150400040809	Coal Creek	10	0.0	0.0	0	36.4	1.4	4
150400040811	Coalson Creek-San Francisco River	<1	14.8	0.0	0	27.8	0.0	0

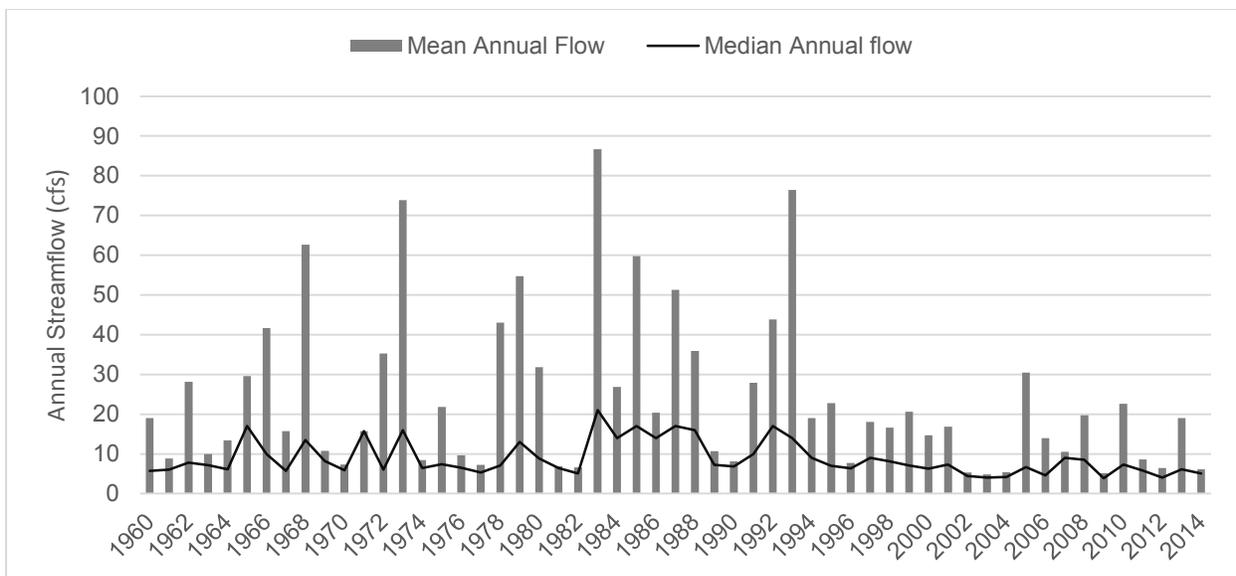


Figure D1. Annual streamflow metrics at the San Francisco gage near Reserve, period of record 1960-2014

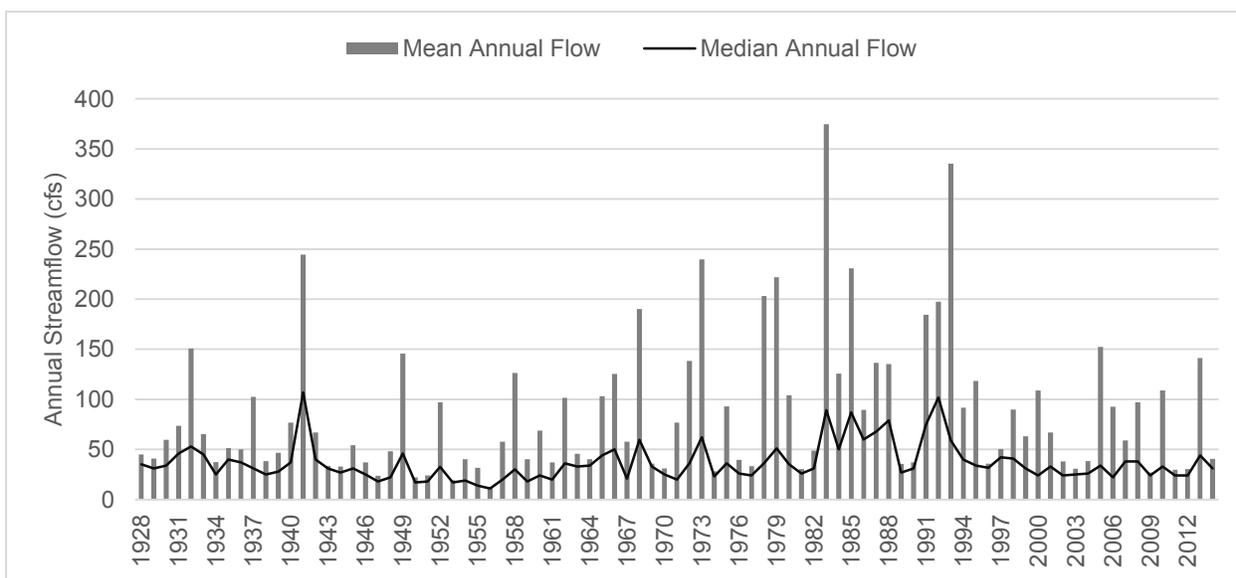


Figure D2. Annual streamflow metrics at the San Francisco gage near Glenwood, period of record 1928-2014

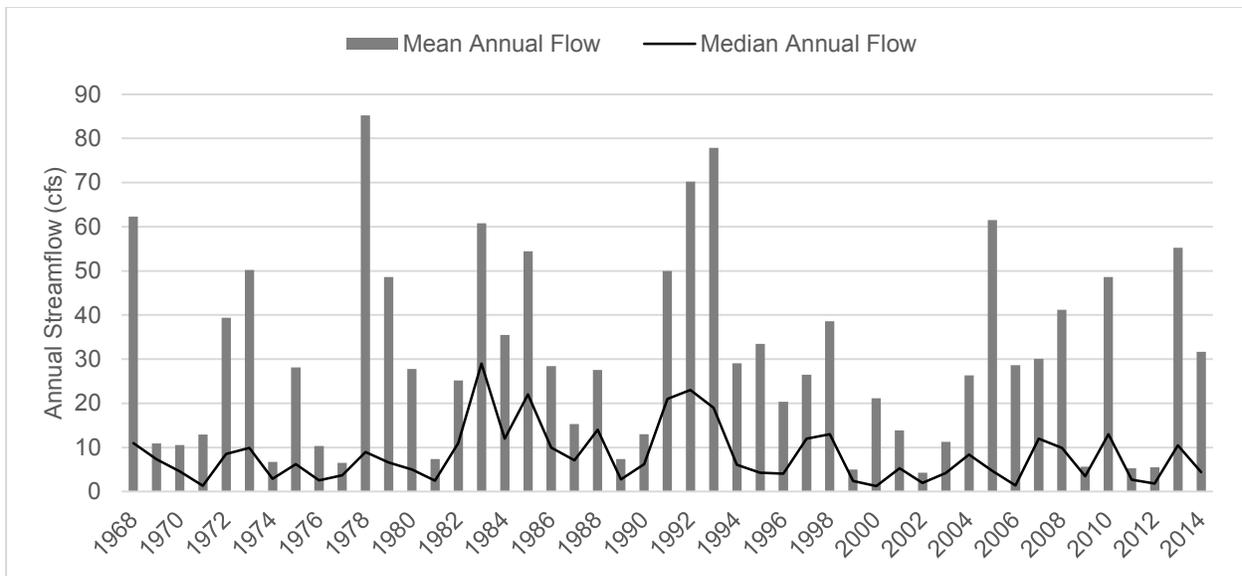


Figure D3. Annual streamflow metrics at the Mogollon Creek gage near Cliff, period of record 1968-2014

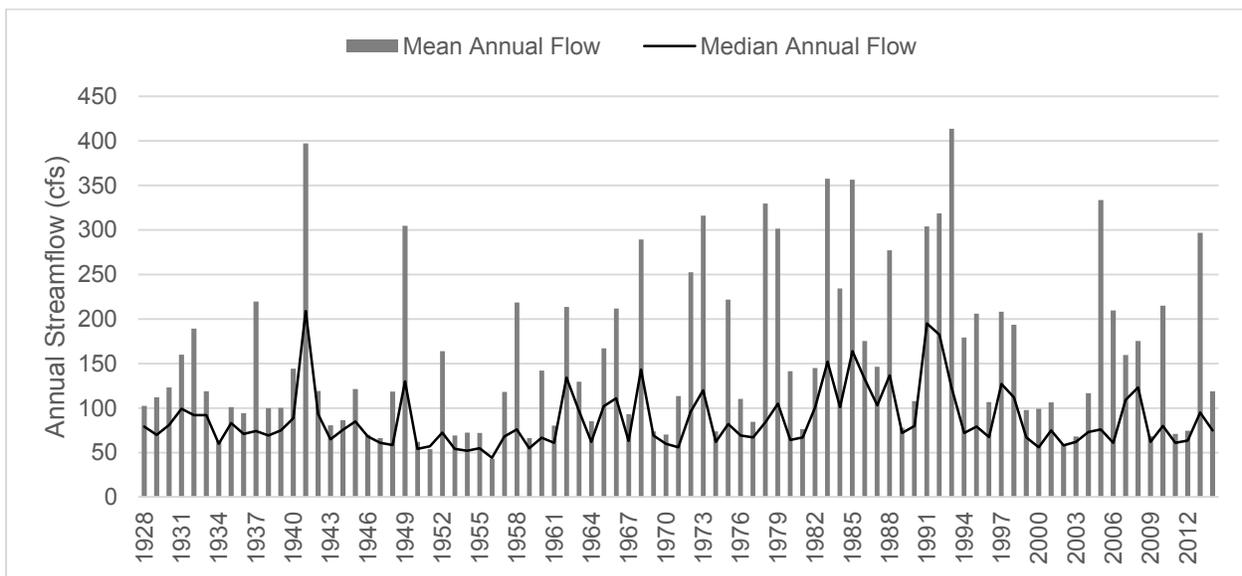


Figure D4. Annual streamflow metrics at the Gila River gage near Gila, period of record 1928-2014

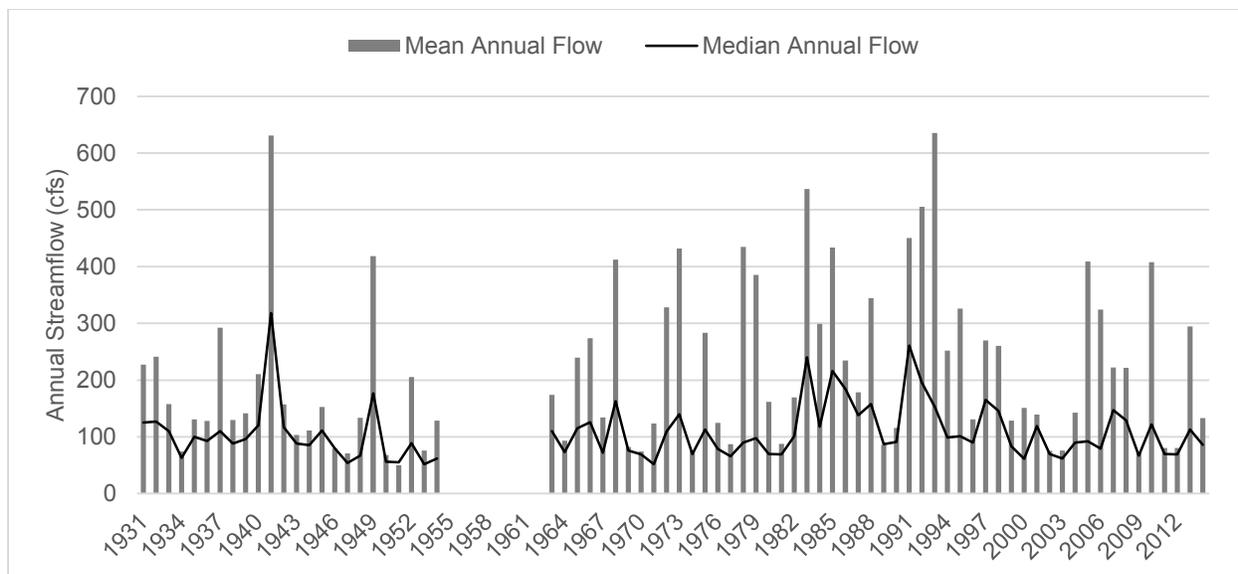


Figure D5. Annual streamflow metrics at the Gila River gage near Redrock, period of record 1931-2014 with missing data during 1955-1962

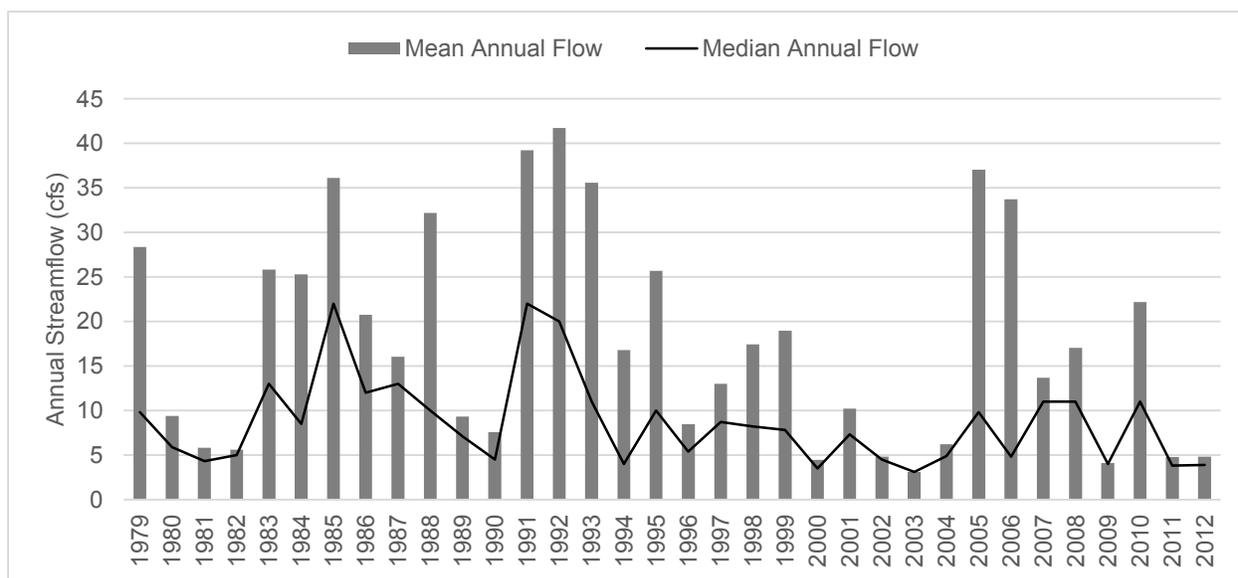


Figure D6. Annual streamflow metrics at the Mimbres River gage near Mimbres, period of record 1979-2012

Table D3. Mean monthly flow at the USGS gages within the plan and context areas

USGS Gage Number	USGS Gage Name	Period of Record	Mean Monthly Streamflow (cfs)											
			Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
9442680	San Francisco River near Reserve, NM	1960- 2014	19.4	35.3	63.9	44.0	16.4	5.8	7.7	16.7	18.8	23.7	16.2	17.3
9444000	San Francisco River near Glenwood, NM	1928- 2014	97.9	125.7	178.8	133.5	69.5	27.2	37.4	80.1	72.6	81.7	50.2	78.9
9430600	Mogollon Creek near Cliff, NM	1968- 2014	37.3	56.5	65.3	48.7	22.2	2.7	9.9	21.6	29.3	20.0	15.7	34.9
9430500	Gila River near Gila, NM	1928- 2014	173.6	238.5	300.7	212.4	131.8	56.1	65.4	150.3	177.9	115.2	99.1	158.0
9431500	Gila River near Redrock, NM	1931- 2014	271.6	359.1	418.3	274.3	159.0	54.4	79.6	206.1	236.9	159.6	130.9	233.5
8477110	Mimbres River at Mimbres, NM	1979- 2012	22.6	26.9	24.6	20.7	13.2	7.2	10.3	31.4	15.8	11.6	10.0	19.5

Table D4. A comparison of annual streamflow metrics and climatic variables between the reference and current time periods

Variable	Pre-1990	Post 1990		Post 2000	
			Change from pre-1990		Change from pre-1990
<i>San Francisco River near Reserve, NM</i>					
Mean Annual Flow (cfs)	28.5	18.0	-37%	12.6	-56%
Median Annual Flow (cfs)	8.5	6.7	-21%	5.4	-36%
High Flow Days (number of days/total days in period of record)	19/10,959	2/9,130	-87%	0/5,478	-100%
Low Flow Days (number of days/total days in period of record)	382/10,959	798/9,130	+151%	543/5,478	+184%
<i>Southwestern Mountains Climate Division</i>					
Mean Annual Precipitation (in)	15.6	15.4	-1%	14.3	-8%
Mean Annual Temperature (°F)	48.6	49.8	+1.2	50.1	+1.5
<i>San Francisco River near Glenwood, NM</i>					
Mean Annual Flow	84.1	90.6	+8%	70.8	-16%
Median Annual Flow	30	32	+7%	28	-7%
High Flow Days (number of days/total days in period of record)	28/22,645	23/9,130	+104%	12/5,478	+77%
Low Flow Days (number of days/total days in period of record)	1,713/22,645	322/9,130	-53%	239/5,478	-42%

Variable	Pre-1990	Post 1990		Post 2000	
			Change from pre-1990		Change from pre-1990
<i>Southwestern Mountains Climate Division</i>					
Mean Annual Precipitation (in)	15.1	15.4	+2%	14.3	-5%
Mean Annual Temperature (°F)	48.6	49.8	+1.2	50.1	+1.5
<i>Mogollon Creek near Cliff, NM</i>					
Mean Annual Flow	30.1	30.3	+1%	26.3	-13%
Median Annual Flow	6.6	5.4	-18%	4.4	-33%
High Flow Days (number of days/total days in period of record)	1/8,035	2/9,130	+193%	2/5,478	+193%
Low Flow Days (number of days/total days in period of record)	613/8,035	834/9,130	+20%	632/5,478	+51%
<i>Southwestern Mountains Climate Division</i>					
Mean Annual Precipitation (in)	15.7	15.4	-2%	14.3	-9%
Mean Annual Temperature (°F)	48.7	49.8	+1.1	50.1	+1.4
<i>Gila River near Gila, NM</i>					
Mean Annual Flow	149.6	172.5	+15%	144.7	-3%
Median Annual Flow	72	77	+7%	68	-6%
High Flow Days (number of days/total days in period of record)	77/22,645	58/9,130	+87%	28/5,478	+50%
Low Flow Days (number of	1,040/22,645	589/9,130	+40%	455/5,478	+81%

Variable	Pre-1990	Post 1990		Post 2000	
		Change from pre-1990		Change from pre-1990	
days/total days in period of record)					
<i>Southwestern Mountains Climate Division</i>					
Mean Annual Precipitation (in)	15.1	15.4	+2%	14.3	-5%
Mean Annual Temperature (°F)	48.6	49.8	+1.2	50.1	+1.5
<i>Gila River near Redrock, NM</i>					
Mean Annual Flow	204.1	236.2	+16%	188.7	-8%
Median Annual Flow	90	95	+6%	86	-8%
High Flow Days (number of days/total days in period of record)	22/18,627	22/9,130	+104%	9/5,478	+<1%
Low Flow Days (number of days/total days in period of record)	998/18,627	513/9,130	+5%	405/5,478	+38%
<i>Southern Desert Climate Division</i>					
Mean Annual Precipitation (in)	11.8	12.2	+3%	11.4	-3%
Mean Annual Temperature (°F)	59.2	60.1	+0.9	60.4	+1.2
<i>Mimbres River at Mimbres, NM</i>					
Mean Annual Flow	19.5	17.0	-13%	12.8	-35%
Median Annual Flow	8.5	6.9	-19%	5.4	-35%
High Flow Days (number of days/total days in period of record)	6/4,017	9/8,400	-28%	6/4,748	-15%

Variable	Pre-1990	Post 1990		Post 2000	
			Change from pre-1990		Change from pre-1990
Low Flow Days (number of days/total days in period of record)	94/4,017	556/8,400	+183%	441/4,478	+299%
<i>Southwestern Mountains Climate Division</i>					
Mean Annual Precipitation (in)	16.0	15.5	-3%	14.3	-11%
Mean Annual Temperature (°F)	49.0	49.7	+0.7	50.1	+1.1

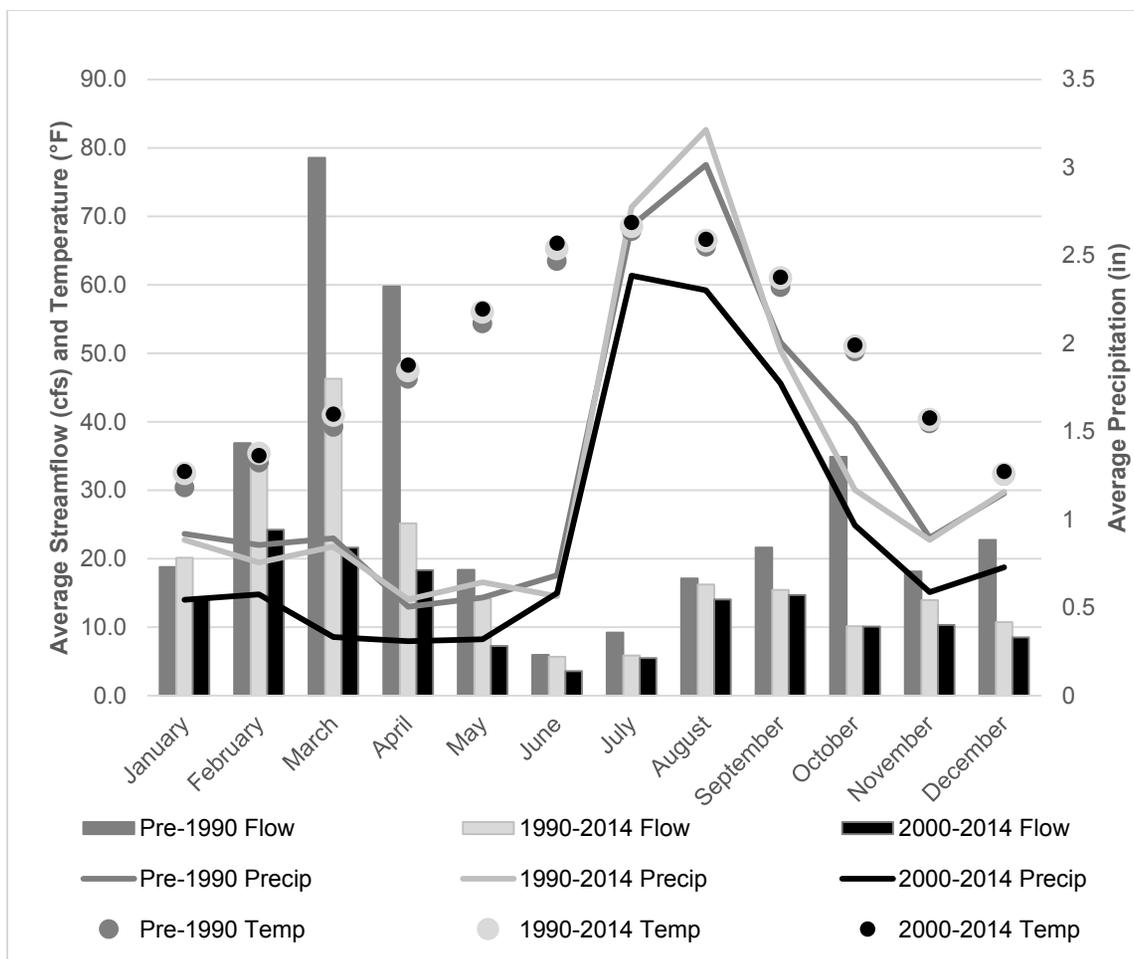


Figure D7. Monthly metrics at the San Francisco gage near Reserve, period of record 1960-2014; Southwestern Mountains climate division

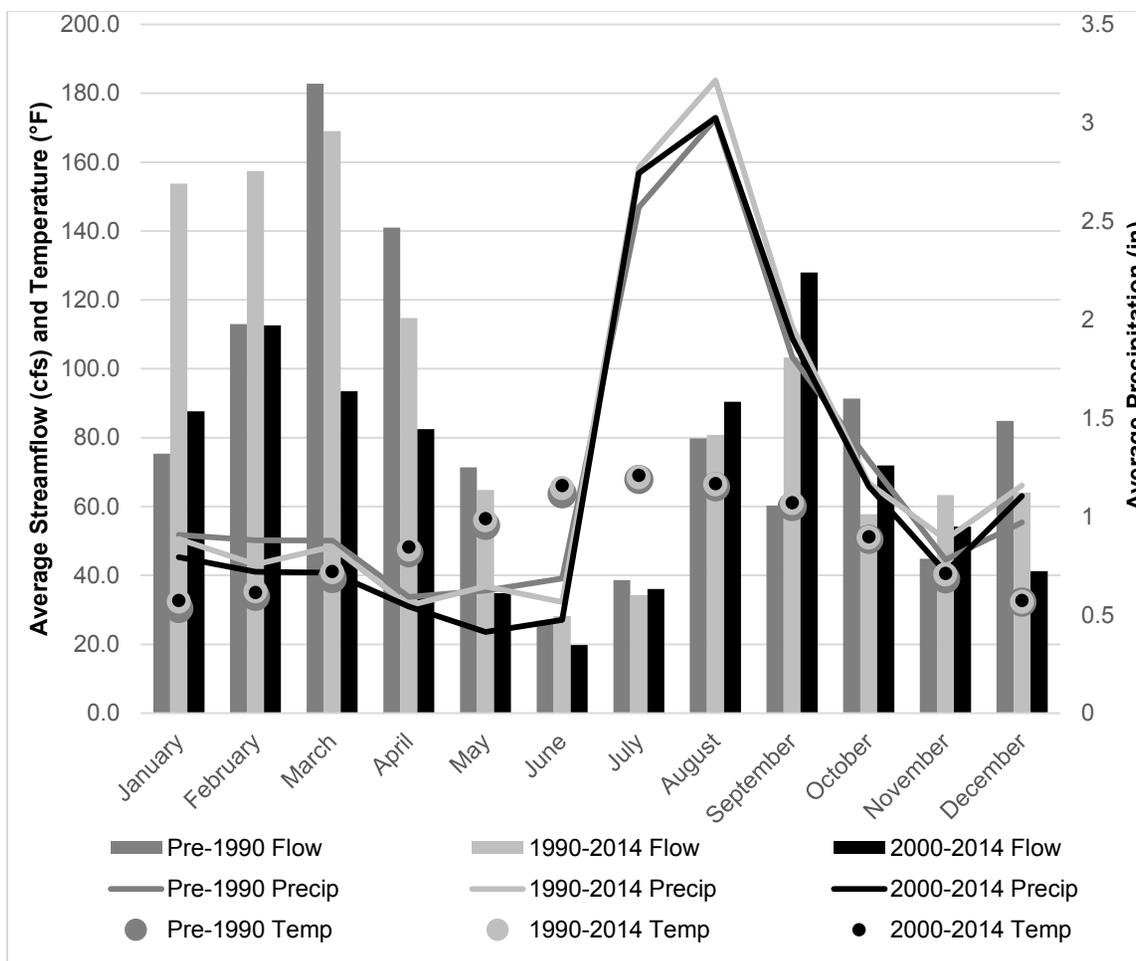


Figure D8. Monthly metrics at the San Francisco gage near Glenwood, period of record 1928-2014; Southwestern Mountains climate division

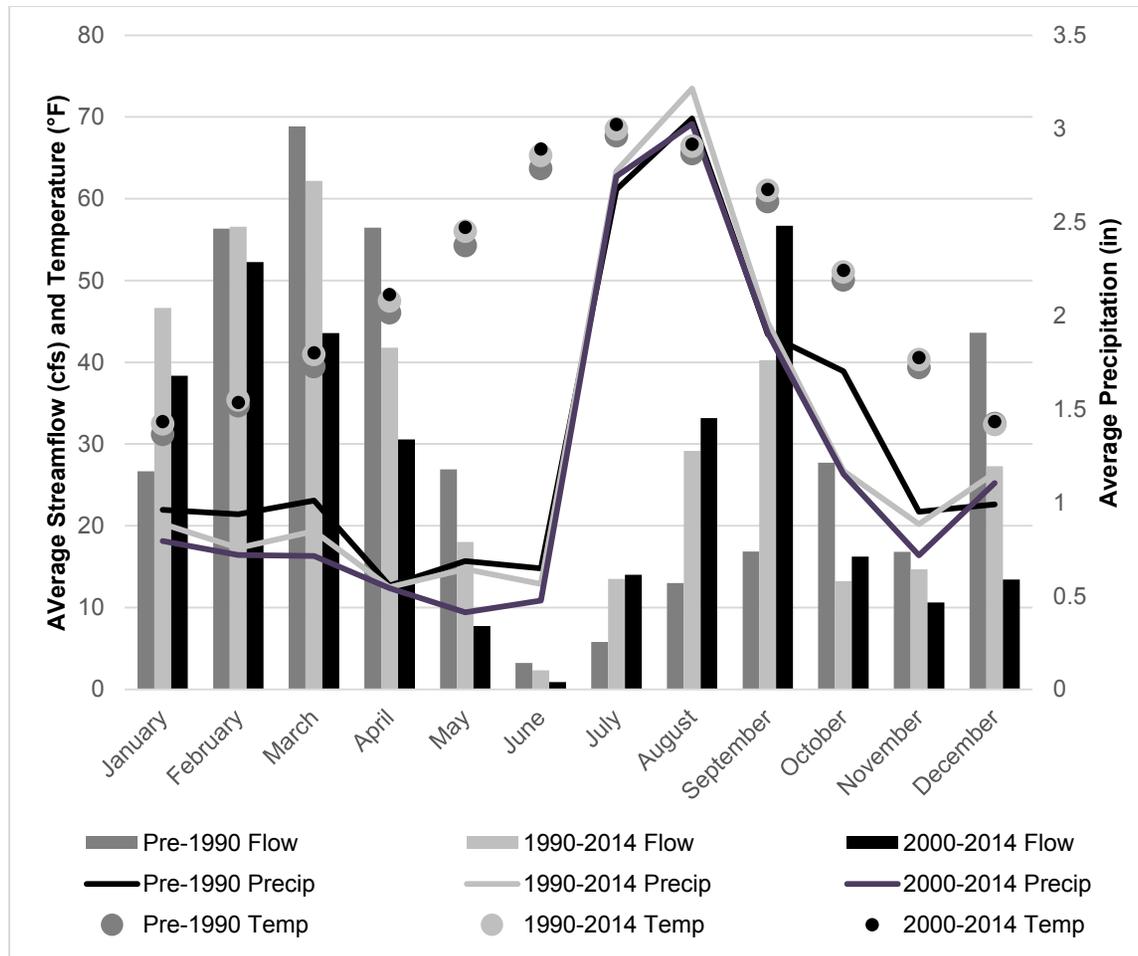


Figure D9. Monthly metrics at the Mogollon Creek gage near Cliff, period of record 1968-2014; Southwestern Mountains climate division

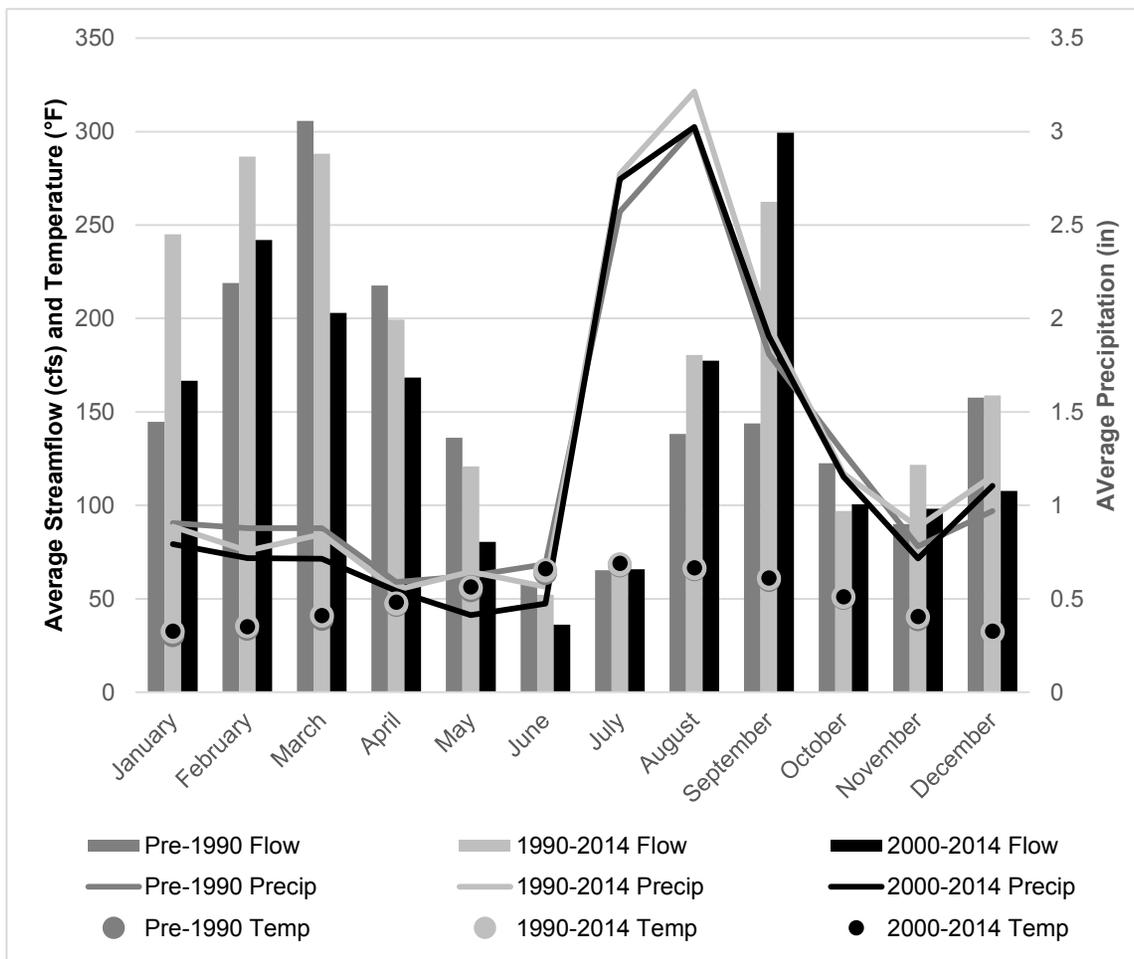


Figure D10. Monthly metrics at the Gila River gage near Gila, period of record 1928-2014; Southwestern Mountains climate division

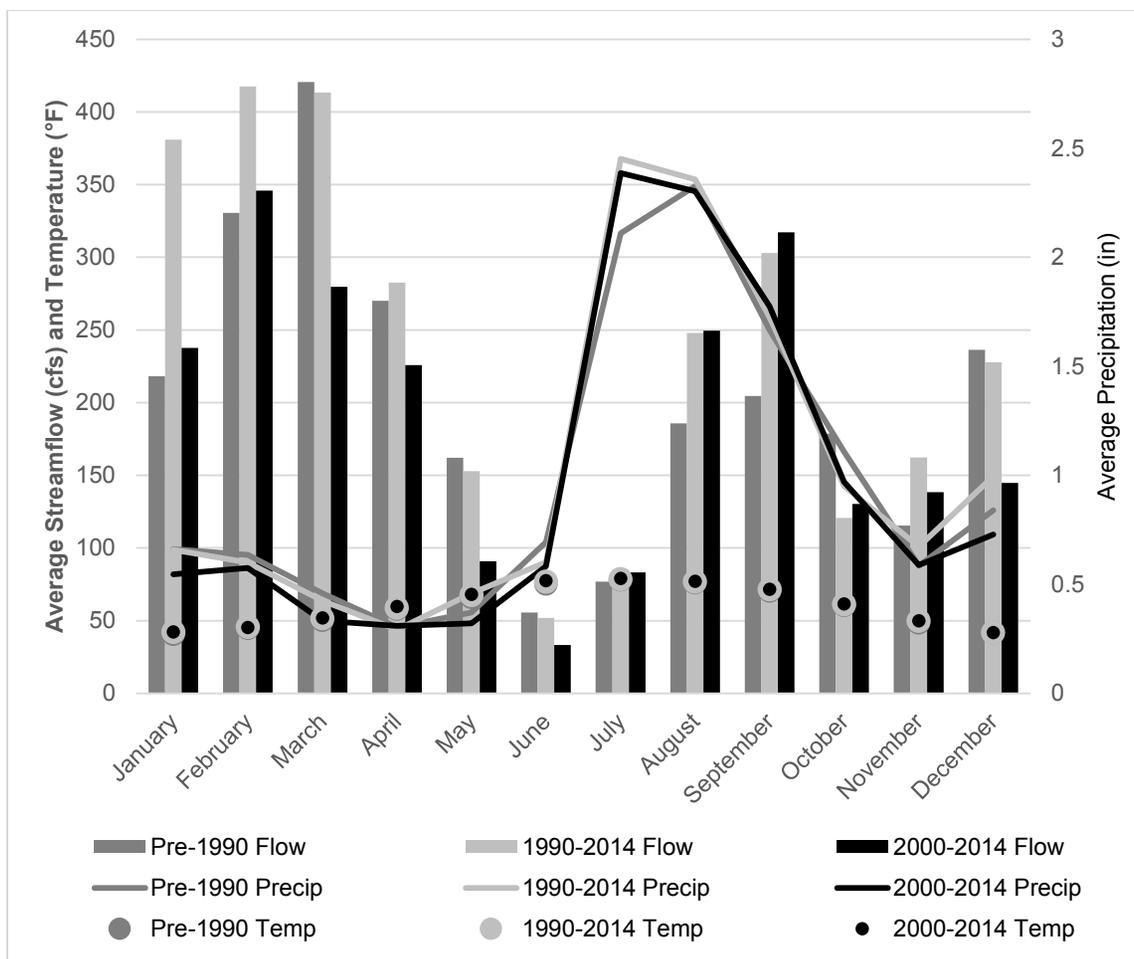


Figure D11. Monthly streamflow metrics at the Gila River gage near Redrock, period of record 1931-2014 with missing data during 1955-1962; Southern Desert climate division

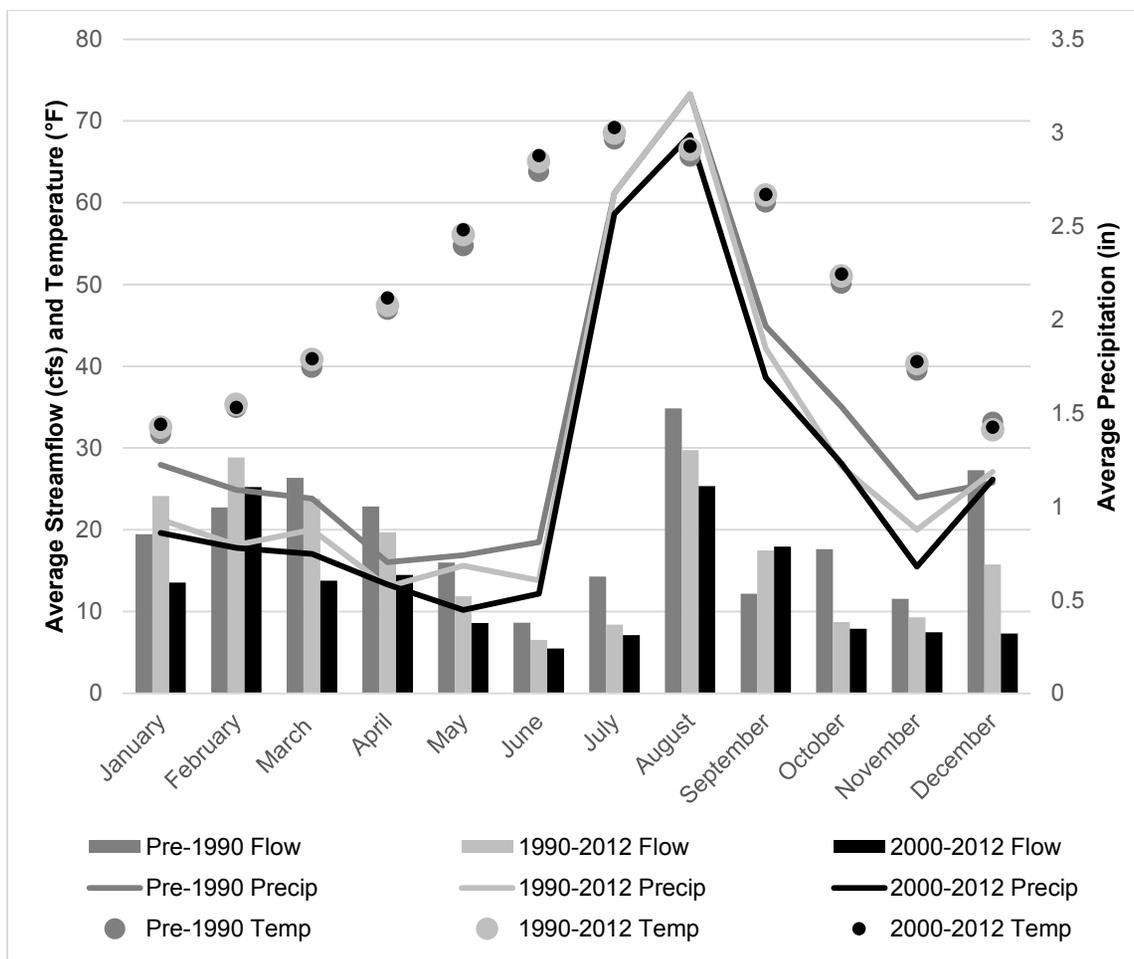


Figure D12. Monthly metrics at the Mimbres River gage near Mimbres, period of record 1979-2012; Southwestern Mountains climate division

Table D5. Extent and distribution of waterbodies and wells by subbasin, watershed and subwatershed

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
13020208	Plains of San Agustin	11	531	89	17	602	12	2
1302020804	Nester Draw	3	110	5	5	272	5	2
130202080401	Bear Canyon	38	7	3	43	9	5	56
130202080404	Headwaters Nester Draw	3	13	2	15	103	0	0
1302020806	Y Canyon	53	51	28	55	14	2	14
130202080601	La Jolla Canyon	99	22	20	91	2	0	0
130202080603	Y Canyon	42	17	8	47	11	2	18
1302020807	Patterson Lake	38	116	56	48	37	5	14
130202080701	Alamocito Creek	37	20	8	40	5	2	40
130202080703	West Pasture Springs	1	11	0	0	3	0	0
130202080704	Patterson Canyon	66	27	16	59	3	0	0
130202080705	Dark Canyon	42	10	4	40	3	0	0
130202080706	Patterson Lake	40	16	7	44	5	1	20
130202080707	Long Canyon	96	16	15	94	3	2	67
130202080708	T H Canyon	30	12	6	50	13	0	0
13020211	Elephant Butte Reservoir	3	629	51	8	411	1	0
1302021106	Headwaters Alamosa Creek	16	180	51	28	33	1	3
130202110603	Little Pigeon Canyon-Alamosa Creek	21	46	12	26	2	0	0
130202110606	Wahoo Canyon-Alamosa Creek	52	44	30	68	3	1	33
130202110607	Sim Yaten Canyon-Alamosa Creek	16	14	6	43	1	0	0
130202110608	Wildhorse Canyon	37	28	3	11	8	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
13030101	Caballo	27	398	21	5	1523	17	1
1303010101	Cuchillo Negro Creek	32	83	12	14	301	12	4
130301010101	Turkey Creek	85	2	1	50	8	3	38
130301010102	Poverty Creek	48	26	8	31	28	5	18
130301010103	Chloride Creek	76	5	3	60	38	1	3
130301010104	South Fork Cuchillo Negro Creek	71	0	0	0	11	2	18
130301010105	Monument Creek	30	1	0	0	7	1	14
130301010106	Monument Creek-Cuchillo Negro Creek	20	12	0	0	30	0	0
1303010102	Palomas Creek-Rio Grande	25	145	0	0	843	1	0
130301010204	Mud Spring Canyon	100	0	0	0	0	0	0
130301010205	Circle Seven Creek	96	0	0	0	0	0	0
130301010206	North Fork Palomas Creek	56	5	0	0	0	0	0
130301010207	South Fork Palomas Creek	57	2	0	0	3	1	33
1303010103	Percha Creek	32	53	6	11	73	3	4
130301010301	South Percha Creek	53	16	3	19	35	3	9
130301010302	North Percha Creek	54	3	3	100	2	0	0
1303010104	Caballo Reservoir	21	119	3	3	306	1	0
130301010401	North Seco Canyon	76	2	2	100	0	0	0
130301010403	Seco Creek	10	20	1	5	18	0	0
130301010404	Holden Prong	100	0	0	0	0	0	0
130301010405	Cave Creek	22	2	0	0	1	0	0
130301010406	Headwaters Los Animas Creek	65	0	0	0	1	1	100
13030102	El Paso-Las Cruces	1	1,084	27	2	8931	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
1303010202	<i>Cuervo Arroyo_Rio Grande</i>	17	197	27	14	320	0	0
130301020201	Trujillo Canyon Creek	33	65	13	20	14	0	0
130301020203	Headwaters Tierra Blanca Creek	98	1	1	100	0	0	0
130301020204	Outlet Tierra Blanca Creek	15	28	3	11	7	0	0
130301020207	Jaralosa Creek	13	16	10	63	36	0	0
130301020208	Headwaters Berenda Creek	37	8	0	0	60	0	0
13030202	Mimbres	5	2,709	107	4	5608	25	0
1303020201	<i>Gallinas Canyon-Mimbres River</i>	74	197	81	41	397	14	4
130302020101	Powderhorn Canyon-Mimbres River	99	16	16	100	7	6	86
130302020102	Allie Canyon-Mimbres River	97	34	34	100	84	6	7
130302020103	Sheppard Canyon-Mimbres River	81	28	14	50	25	0	0
130302020104	Noonday Canyon	78	5	2	40	23	0	0
130302020105	Noonday Canyon-Mimbres River	44	59	9	15	174	2	1
130302020106	Gallinas Canyon	73	24	6	25	31	0	0
1303020202	Headwaters San Vicente Draw	18	216	9	4	856	6	1
130302020201	Rio de Arenas	6	22	1	5	148	2	1
130302020203	Pipeline Draw-San Vicente Draw	16	43	3	7	503	2	0
130302020204	Cameron Creek	54	28	5	18	76	2	3
130302020205	Cameron Creek-San Vicente Draw	<1	57	0	0	30	0	0
1303020203	Outlet San Vicente Draw	1	158	0	0	219	1	0
130302020302	Headwaters Whitewater Creek	3	45	0	0	102	1	1
130302020305	Antelope Draw-San Vicente Draw	2	32	0	0	44	0	0
1303020204	<i>Lampbright Draw</i>	3	143	3	2	94	0	0
130302020401	Headwaters Lampbright Draw	9	42	3	7	81	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
1303020205	Lampbright Draw-Mimbres River	17	99	11	11	116	0	0
130302020501	Gavilan Arroyo	40	4	2	50	2	0	0
130302020502	Gavilan Arroyo-Mimbres River	39	37	9	24	25	0	0
1303020208	Macho Creek	2	136	2	1	80	1	1
130302020801	Upper Macho Creek	10	17	2	12	7	1	14
1303020213	Upper Seventysix Draw	1	45	0	0	53	3	6
130302021301	Whiterock Canyon	5	11	0	0	48	3	6
1303020214	Cow Spring Draw-Seventysix Draw	2	107	1	1	95	0	0
130302021402	Headwaters Cow Spring Draw	14	15	1	7	57	0	0
15020001	Little Colorado Headwaters	3	838	26	3	1814	0	0
1502000103	Coyote Creek	9	169	26	15	123	0	0
150200010301	Hay Vega	39	10	4	40	6	0	0
150200010302	Canovas Creek-Coyote Creek	33	49	22	45	19	0	0
15020003	Carrizo Wash	14	1,470	146	10	722	16	2
1502000301	Rito Creek	13	254	19	7	303	1	0
150200030101	Upper Mangas Creek	58	32	14	44	26	1	4
150200030102	Middle Mangas Creek	17	33	0	0	19	0	0
150200030103	Lower Mangas Creek	7	15	2	13	8	0	0
150200030109	Escondido Creek	47	17	3	18	0	0	0
1502000302	Upper Largo Creek	76	91	66	73	25	8	32
150200030201	El Caso Spring Canyon	100	21	21	100	3	3	100
150200030202	Sawmill Canyon-Largo Creek	91	40	36	90	3	0	0
150200030203	Paradise Canyon-Largo Creek	85	10	8	80	6	4	67

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150200030204	Rito Creek-Largo Creek	35	20	1	5	13	1	8
<i>1502000305</i>	<i>Agua Fria Creek</i>	<i>35</i>	<i>202</i>	<i>43</i>	<i>21</i>	<i>69</i>	<i>7</i>	<i>10</i>
150200030501	Harris Creek-Agua Fria Creek	90	19	12	63	31	5	16
150200030502	Demetrio Creek	59	16	4	25	2	0	0
150200030503	Demetrio Creek-Agua Fria Creek	37	28	1	4	3	1	33
150200030504	Gatlin Lake	73	37	17	46	18	1	6
150200030505	Mangitas Creek	41	13	8	62	2	0	0
150200030506	Cerro La Mula	10	23	1	4	4	0	0
150200030507	Cerro La Mula-Agua Fria Creek	2	21	0	0	0	0	0
<i>1502000307</i>	<i>LA Draw-Cienega Amarilla</i>	<i>5</i>	<i>225</i>	<i>18</i>	<i>8</i>	<i>51</i>	<i>0</i>	<i>0</i>
150200030703	Cow Springs Draw	25	55	18	33	2	0	0
15040001	Upper Gila	84	628	418	67	225	72	32
<i>1504000101</i>	<i>Railroad Canyon</i>	<i>16</i>	<i>52</i>	<i>6</i>	<i>12</i>	<i>5</i>	<i>0</i>	<i>0</i>
150400010101	Upper Railroad Canyon	4	27	1	4	1	0	0
150400010102	Middle Railroad Canyon	41	10	5	50	2	0	0
150400010103	Lower Railroad Canyon	7	15	0	0	2	0	0
<i>1504000102</i>	<i>Corduroy Draw</i>	<i>61</i>	<i>100</i>	<i>44</i>	<i>44</i>	<i>3</i>	<i>2</i>	<i>67</i>
150400010201	Upper Corduroy Draw	22	21	3	14	0	0	0
150400010202	South Water Canyon	79	30	16	53	0	0	0
150400010203	Middle Corduroy Draw	49	23	4	17	1	0	0
150400010204	Lower Corduroy Draw	96	26	21	81	2	2	100
<i>1504000103</i>	<i>Beaver Creek</i>	<i>54</i>	<i>113</i>	<i>54</i>	<i>48</i>	<i>5</i>	<i>0</i>	<i>0</i>
150400010301	Horse Camp Canyon	73	11	7	64	0	0	0
150400010302	Coyote Canyon	1	35	0	0	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400010303	O Bar O Canyon	46	25	10	40	4	0	0
150400010304	Houghton Canyon	92	15	14	93	0	0	0
150400010305	Houghton Canyon-Beaver Creek	79	27	23	85	1	0	0
<i>1504000104</i>	<i>Headwaters East Fork Gila River</i>	<i>99</i>	<i>91</i>	<i>87</i>	<i>96</i>	<i>12</i>	<i>5</i>	<i>42</i>
150400010401	150400010401 Hoyt Creek	99	6	5	83	3	1	33
150400010402	Taylor Creek	99	20	17	85	1	1	100
150400010403	Taylor Creek-Beaver Creek	99	17	17	100	0	0	0
150400010404	Headwaters Diamond Creek	100	1	1	100	0	0	0
150400010405	South Diamond Creek	100	10	10	100	0	0	0
150400010406	Outlet Diamond Creek	100	15	14	93	4	1	25
150400010407	Diamond Creek-East Fork Gila River	99	23	23	100	4	2	50
<i>1504000105</i>	<i>Middle Fork Gila River</i>	<i>100</i>	<i>115</i>	<i>105</i>	<i>91</i>	<i>45</i>	<i>42</i>	<i>93</i>
150400010501	T Bar Canyon	100	13	12	92	0	0	0
150400010502	Gilita Creek	100	19	11	58	42	41	98
150400010503	Snow Canyon	100	20	20	100	1	1	100
150400010504	Canyon Creek	99	19	19	100	1	0	0
150400010505	Canyon Creek-Middle Fork Gila River	100	3	3	100	0	0	0
150400010506	Indian Creek Canyon	99	11	10	91	1	0	0
150400010507	Indian Creek Canyon-Middle Fork Gila River	100	5	5	100	0	0	0
150400010508	Big Bear Canyon-Middle Fork Gila River	99	25	25	100	0	0	0
<i>1504000106</i>	<i>West Fork Gila River</i>	<i>99</i>	<i>22</i>	<i>16</i>	<i>73</i>	<i>57</i>	<i>5</i>	<i>9</i>

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400010601	White Creek	100	0	0	0	0	0	0
150400010602	Headwaters West Fork Gila River	100	0	0	0	0	0	0
150400010603	Little Creek	100	4	4	100	0	0	0
150400010604	Outlet West Fork Gila River	96	18	12	67	57	5	9
<i>1504000107</i>	<i>Outlet East Fork Gila River</i>	99	42	41	98	6	3	50
150400010701	Tom Moore Canyon	100	12	12	100	1	1	100
150400010702	Headwaters Black Canyon	100	0	0	0	0	0	0
150400010703	Apache Creek	100	9	9	100	0	0	0
150400010704	Outlet Black Canyon	100	9	9	100	0	0	0
150400010705	Black Canyon-East Fork Gila River	97	12	11	92	5	2	40
<i>1504000108</i>	<i>Sapillo Creek</i>	98	50	43	86	84	12	14
150400010801	Rocky Canyon	100	3	3	100	0	0	0
150400010802	Rocky Canyon-Sapillo Creek	98	22	20	91	13	2	15
150400010803	Lake Roberts-Sapillo Creek	98	13	10	77	54	8	15
150400010804	Copperas Creek-Sapillo Creek	96	5	3	60	17	2	12
150400010805	Sheep Corral Canyon-Sapillo Creek	100	7	7	100	0	0	0
<i>1504000109</i>	<i>Sapillo Creek-Gila River</i>	96	43	22	51	8	3	38
150400010901	Sapillo Creek-Gila River	100	3	3	100	0	0	0
150400010902	Hells Canyon-Gila River	100	10	10	100	0	0	0
150400010903	Turkey Creek	100	2	2	100	0	0	0
150400010904	Upper Mogollon Creek	100	0	0	0	4	1	25
150400010905	Middle Mogollon Creek	88	17	4	24	3	1	33
150400010906	Lower Mogollon Creek	75	9	1	11	1	1	100
150400010907	Mogollon Creek-Gila River	98	2	2	100	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
15040002	Upper Gila-Mangas	15	1,319	106	8	2706	33	1
1504000201	Bear Creek	63	43	16	37	210	11	5
150400020101	Upper Bear Creek	88	14	8	57	97	8	8
150400020102	Middle Bear Creek	74	10	6	60	25	2	8
150400020103	Lower Bear Creek	27	19	2	11	88	1	1
1504000202	Duck Creek	12	306	18	6	234	0	0
150400020201	Headwaters Buckhorn Wash	21	47	12	26	4	0	0
150400020203	Sacaton Creek	30	40	2	5	2	0	0
150400020204	Headwaters Duck Creek	10	65	4	6	13	0	0
1504000203	Mangas Creek	39	178	23	13	409	12	3
150400020301	Willow Creek-Mangas Creek	41	59	3	5	177	5	3
150400020302	McKaefer Canyon-Mangas Creek	31	39	6	15	170	4	2
150400020303	Ash Spring Canyon-Mangas Creek	55	28	6	21	27	2	7
150400020304	Schoolhouse Canyon-Mangas Creek	30	52	8	15	35	1	3
1504000204	Sycamore Creek-Upper Gila River	3	222	1	0	275	1	0
150400020401	Bear Creek-Upper Gila River	12	60	1	2	161	1	1
1504000205	Blue Creek	4	67	7	10	5	0	0
150400020501	Cherry Creek-Blue Creek	9	40	7	18	1	0	0
1504000206	Blue Creek-Upper Gila River	25	157	34	22	67	8	12
150400020601	Bear Canyon-Upper Gila River	88	18	15	83	8	5	63
150400020602	Swan Canyon	56	9	7	78	14	3	21
150400020603	Swan Canyon-Upper Gila River	29	28	11	39	13	0	0
150400020607	Corral Canyon	3	31	1	3	1	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
1504000208	Apache Creek-Gila River	5	174	7	4	737	1	0
150400020804	Apache Creek	31	22	7	32	48	1	2
15040003	Animas Valley	4	991	24	2	962	1	0
1504000302	Headwaters Burro Cienega	16	84	7	8	15	0	0
150400030201	Hall Draw-Burro Cienega	56	15	5	33	2	0	0
150400030203	Ninety-six Creek	12	22	2	9	6	0	0
1504000303	Outlet Burro Cienega	<1	87	0	0	137	0	0
150400030305	Jones Canyon-Burro Cienega	<1	2	0	0	2	0	0
150400030307	Walker Canyon	1	21	0	0	51	0	0
1504000304	Lordsburg Draw	19	143	17	12	166	1	1
150400030401	Gold Hill Canyon-Lordsburg Draw	21	13	1	8	41	0	0
150400030402	Hoodoo Canyon-Lordsburg Draw	13	26	3	12	48	0	0
150400030403	Headwaters Thompson Canyon	80	13	3	23	2	1	50
150400030404	Outlet Thompson Canyon	21	26	6	23	27	0	0
150400030405	Thompson Canyon-Lordsburg Draw	20	21	4	19	37	0	0
15040004	San Francisco	61	2,277	1,354	59	1991	167	8
1504000401	Headwaters Tularosa River	94	185	149	81	170	28	16
150400040101	Sand Flat Canyon	91	27	23	85	10	0	0
150400040102	Canon Del Buey	100	14	14	100	0	0	0
150400040103	Negro Canyon-Tularosa River	94	17	16	94	41	3	7
150400040104	Whiskey Creek	93	23	19	83	7	1	14
150400040105	Hardcastle Canyon	95	38	31	82	2	0	0
150400040106	Apache Creek	91	34	25	74	39	6	15
150400040107	Apache Creek-Tularosa River	94	24	14	58	31	8	26

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400040108	Cold Springs Canyon-Tularosa River	96	8	7	88	40	10	25
<i>1504000402</i>	<i>Outlet Tularosa River</i>	<i>98</i>	<i>148</i>	<i>133</i>	<i>90</i>	<i>61</i>	<i>14</i>	<i>23</i>
150400040201	Long Canyon-Tularosa River	96	30	28	93	48	9	19
150400040202	Headwaters North Fork Negrito Creek	99	14	13	93	2	0	0
150400040203	South Fork Negrito Creek	99	38	26	68	3	1	33
150400040204	Outlet North Fork Negrito Creek	99	20	20	100	0	0	0
150400040205	Sign Camp Canyon	100	22	22	100	0	0	0
150400040206	Negrito Creek	99	15	15	100	2	1	50
150400040207	Negrito Creek-Tularosa River	95	9	9	100	6	3	50
<i>1504000403</i>	<i>Centerfire Creek-San Francisco River</i>	<i>78</i>	<i>432</i>	<i>230</i>	<i>53</i>	<i>708</i>	<i>32</i>	<i>5</i>
150400040302	Trout Creek	60	56	36	64	10	0	0
150400040303	Stone Creek-San Francisco River	61	49	16	33	130	8	6
150400040304	Spur Draw	82	47	27	57	4	1	25
150400040305	SA Creek	97	54	52	96	4	1	25
150400040306	Headwaters Centerfire Creek	95	19	18	95	2	0	0
150400040307	Outlet Centerfire Creek	87	38	19	50	14	3	21
150400040308	Big Canyon-San Francisco River	95	18	15	83	26	0	0
150400040309	Starkweather Canyon	96	24	16	67	25	4	16
150400040310	Largo Canyon	97	23	17	74	10	4	40
150400040311	Cienega Canyon-San Francisco River	91	26	14	54	64	11	17
<i>1504000404</i>	<i>Deep Creek-San Francisco River</i>	<i>98</i>	<i>93</i>	<i>86</i>	<i>92</i>	<i>70</i>	<i>14</i>	<i>20</i>
150400040401	Headwaters Saliz Canyon	100	19	18	95	1	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400040402	Outlet Saliz Canyon	98	6	6	100	10	1	10
150400040403	Saliz Canyon-San Francisco River	96	22	18	82	47	9	19
150400040404	Devils Creek	100	11	11	100	0	0	0
150400040405	Deep Creek	96	12	11	92	7	2	29
150400040406	Devils Creek-San Francisco River	97	23	22	96	5	2	40
<i>1504000405</i>	<i>Upper Blue River</i>	<i>14</i>	<i>134</i>	<i>11</i>	<i>8</i>	<i>100</i>	<i>1</i>	<i>1</i>
150400040502	Dry Blue Creek	76	21	10	48	32	1	3
150400040503	Campbell Blue Creek	2	55	0	0	5	0	0
150400040504	Centerfire Creek-Blue River	14	7	0	0	13	0	0
150400040506	Steeple Canyon-Blue River	15	13	1	8	26	0	0
<i>1504000406</i>	<i>Pueblo Creek-San Francisco River</i>	<i>88</i>	<i>511</i>	<i>410</i>	<i>80</i>	<i>241</i>	<i>70</i>	<i>29</i>
150400040601	Upper Pueblo Creek	100	0	0	0	0	0	0
150400040602	Lower Pueblo Creek	95	10	10	100	0	0	0
150400040603	Keller Canyon	56	98	70	71	4	0	0
150400040604	Vigil Canyon	78	163	150	92	1	1	100
150400040605	Mineral Creek	92	27	14	52	56	26	46
150400040606	Wendy Flat-San Francisco River	89	97	85	88	33	3	9
150400040607	Whitewater Creek	95	22	9	41	75	10	13
150400040608	South Dugway Creek-San Francisco River	94	94	72	77	72	30	42
<i>1504000407</i>	<i>Lower Blue River</i>	<i><1</i>	<i>96</i>	<i>0</i>	<i>0</i>	<i>11</i>	<i>0</i>	<i>0</i>
150400040704	Little Blue Creek	1	5	0	0	0	0	0
<i>1504000408</i>	<i>Mule Creek-San Francisco River</i>	<i>50</i>	<i>611</i>	<i>335</i>	<i>55</i>	<i>121</i>	<i>8</i>	<i>7</i>
150400040801	Little Dry Creek	45	74	29	39	7	1	14

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Waterbodies (Number)			Wells (Number)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400040802	Big Dry Creek	98	15	12	80	11	2	18
150400040803	Pine Cienega Creek	50	62	20	32	21	1	5
150400040804	Upper Mule Creek	67	50	32	64	53	1	2
150400040805	Lower Mule Creek	48	50	26	52	1	0	0
150400040806	Citizen Canyon	62	31	28	90	0	0	0
150400040807	Big Pine Canyon-San Francisco River	99	112	112	100	4	1	25
150400040808	Harden Cienega Creek	35	126	73	58	8	2	25
150400040809	Coal Creek	10	34	3	9	13	0	0
150400040811	Coalson Creek-San Francisco River	<1	21	0	0	2	0	0

Table D6. Plan area assessed stream miles by subbasin, watershed, subwatershed and water quality status^{1,2}.

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Assessed Stream Miles		Miles Meeting All Water Quality Standards		Impaired Miles [303(d) listed]	
			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
13020208	Plains of San Agustin	11	0	0	0	0	0	0
1302020804	Nester Draw	3	0	0	0	0	0	0
130202080401	Bear Canyon	38	0	0	0	0	0	0
130202080404	Headwaters Nester Draw	0	0	0	0	0	0	0
1302020806	Y Canyon	0	0	0	0	0	0	0
130202080601	La Jolla Canyon	0	0	0	0	0	0	0
130202080603	Y Canyon	0	0	0	0	0	0	0
1302020807	Patterson Lake	0	0	0	0	0	0	0
130202080701	Alamocito Creek	0	0	0	0	0	0	0
130202080703	West Pasture Springs	0	0	0	0	0	0	0
130202080704	Patterson Canyon	0	0	0	0	0	0	0
130202080705	Dark Canyon	0	0	0	0	0	0	0
130202080706	Patterson Lake	0	0	0	0	0	0	0
130202080707	Long Canyon	96	0	0	0	0	0	0
130202080708	T H Canyon	30	0	0	0	0	0	0
13020211	Elephant Butte Reservoir	3	37.0	0	37.0	0	0	0
1302021106	Headwaters Alamosa Creek	16	0.1	0	0.1	0	0	0
130202110603	Little Pigeon Canyon-Alamosa Creek	21	0	0	0	0	0	0
130202110606	Wahoo Canyon-Alamosa Creek	52	0	0	0	0	0	0
130202110607	Sim Yaten Canyon-Alamosa Creek	16	0	0	0	0	0	0
130202110608	Wildhorse Canyon	37	0	0	0	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Assessed Stream Miles		Miles Meeting All Water Quality Standards		Impaired Miles [303(d) listed]	
			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
13030101	Caballo	27	110.8	10.8	62.5	0	48.3	10.8
1303010101	Cuchillo Negro Creek	32	1.2	0	1.2	0	0	0
130301010101	Turkey Creek	85	0	0	0	0	0	0
130301010102	Poverty Creek	48	0	0	0	0	0	0
130301010103	Chloride Creek	76	0	0	0	0	0	0
130301010104	South Fork Cuchillo Negro Creek	71	0	0	0	0	0	0
130301010105	Monument Creek	30	0	0	0	0	0	0
130301010106	Monument Creek-Cuchillo Negro Creek	20	0	0	0	0	0	0
1303010102	Palomas Creek-Rio Grande	25	38.5	0	23.8	0	14.7	0
130301010204	Mud Spring Canyon	100	0	0	0	0	0	0
130301010205	Circle Seven Creek	96	0	0	0	0	0	0
130301010206	North Fork Palomas Creek	56	0.1	0	0.1	0	0	0
130301010207	South Fork Palomas Creek	57	0.1	0	0.1	0	0	0
1303010103	Percha Creek	32	24.7	0	24.7	0	0	0
130301010301	South Percha Creek	53	5.9	0	5.9	0	0	0
130301010302	North Percha Creek	54	0	0	0	0	0	0
1303010104	Caballo Reservoir	21	62.7	10.8	12.9	0	49.8	10.8
130301010401	North Seco Canyon	76	0	0	0	0	0	0
130301010403	Seco Creek	10	0	0	0	0	0	0
130301010404	Holden Prong	100	3.5	3.5	0	0	3.5	3.5
130301010405	Cave Creek	22	<0.1	0	0	0	<0.1	0
130301010406	Headwaters Los Animas Creek	65	16.8	7.4	0	0	16.8	7.4

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Assessed Stream Miles		Miles Meeting All Water Quality Standards		Impaired Miles [303(d) listed]	
			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
13030102	El Paso-Las Cruces	1	159.7	9.1	86.5	9.1	73.2	0
1303010202	Cuervo Arroyo_Rio Grande	17	48.8	9.1	36.8	9.1	12.0	0
130301020201	Trujillo Canyon Creek	33	0	0	0	0	0	0
130301020203	Headwaters Tierra Blanca Creek	98	8.5	7.9	8.5	7.9	0	0
130301020204	Outlet Tierra Blanca Creek	15	25.2	1.2	25.2	1.2	0	0
130301020207	Jaralosa Creek	13	0	0	0	0	0	0
130301020208	Headwaters Berenda Creek	37	0	0	0	0	0	0
13030202	Mimbres	5	154.2	67.0	84.0	47.7	70.2	19.3
1303020201	Gallinas Canyon-Mimbres River	74	93.4	60.6	45.8	43.0	47.6	17.6
130302020101	Powderhorn Canyon-Mimbres River	99	17.3	29.2	12.1	11.6	41.1	17.6
130302020102	Allie Canyon-Mimbres River	97	29.4	24.8	23.7	22.5	5.7	2.3
130302020103	Sheppard Canyon-Mimbres River	81	13.4	8.9	10.0	8.9	3.4	0
130302020104	Noonday Canyon	78	0	0	0	0	0	0
130302020105	Noonday Canyon-Mimbres River	44	6.6	0	0	0	6.6	0
130302020106	Gallinas Canyon	73	20.2	11.9	0	0	20.2	11.9
1303020202	Headwaters San Vicente Draw	18	5.4	0	3.5	0	1.9	0
130302020201	Rio de Arenas	6	0	0	0	0	0	0
130302020203	Pipeline Draw-San Vicente Draw	16	5.4	0	3.5	0	1.9	0
130302020204	Cameron Creek	54	0	0	0	0	0	0
130302020205	Cameron Creek-San Vicente Draw	<1	0	0	0	0	0	0
1303020203	Outlet San Vicente Draw	1	24.2	<0.1	24.2	<0.1	0	0
130302020302	Headwaters Whitewater Creek	3	18.2	<0.1	18.2	<0.1	0	0
130302020305	Antelope Draw-San Vicente Draw	2	0	0	0	0	0	0

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			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
1303020204	Lampbright Draw	3	0	0	0	0	0	0
130302020401	Headwaters Lampbright Draw	9	0	0	0	0	0	0
1303020205	Lampbright Draw-Mimbres River	17	31.4	6.5	10.5	4.8	20.9	1.7
130302020501	Gavilan Arroyo	40	0	0	0	0	0	0
130302020502	Gavilan Arroyo-Mimbres River	39	22.8	6.5	10.5	4.8	12.3	1.7
1303020208	Macho Creek	0	0	0	0	0	0	0
130302020801	Upper Macho Creek	10	0	0	0	0	0	0
1303020213	Upper Seventysix Draw	1	0	0	0	0	0	0
130302021301	Whiterock Canyon	5	0	0	0	0	0	0
1303020214	Cow Spring Draw-Seventysix Draw	2	0	0	0	0	0	0
130302021402	Headwaters Cow Spring Draw	14	0	0	0	0	0	0
15020001	Little Colorado Headwaters	3	234.4	0	185.3	0	49.1	0
1502000103	Coyote Creek	9	0	0	0	0	0	0
150200010301	Hay Vega	39	0	0	0	0	0	0
150200010302	Canovas Creek-Coyote Creek	33	0	0	0	0	0	0
15020003	Carrizo Wash	14	88.6	11.6	77	11.6	0	0
1502000301	Rito Creek	13	0	0	0	0	0	0
150200030101	Upper Mangas Creek	58	0	0	0	0	0	0
150200030102	Middle Mangas Creek	17	0	0	0	0	0	0
150200030103	Lower Mangas Creek	7	0	0	0	0	0	0
150200030109	Escondido Creek	47	0	0	0	0	0	0
1502000302	Upper Largo Creek	76	32.7	11.6	32.7	11.6	0	0
150200030201	El Caso Spring Canyon	100	0	0	0	0	0	0

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			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150200030202	Sawmill Canyon-Largo Creek	91	12.8	8.7	12.8	8.7	0	0
150200030203	Paradise Canyon-Largo Creek	85	11.1	2.9	11.1	2.9	0	0
150200030204	Rito Creek-Largo Creek	35	8.7	0	8.7	0	0	0
<i>1502000305</i>	<i>Agua Fria Creek</i>	<i>35</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
150200030501	Harris Creek-Agua Fria Creek	90	0	0	0	0	0	0
150200030502	Demetrio Creek	59	0	0	0	0	0	0
150200030503	Demetrio Creek-Agua Fria Creek	37	0	0	0	0	0	0
150200030504	Gatlin Lake	73	0	0	0	0	0	0
150200030505	Mangitas Creek	41	0	0	0	0	0	0
150200030506	Cerro La Mula	10	0	0	0	0	0	0
150200030507	Cerro La Mula-Agua Fria Creek	2	0	0	0	0	0	0
<i>1502000307</i>	<i>LA Draw-Cienega Amarilla</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
150200030703	Cow Springs Draw	25	0	0	0	0	0	0
15040001	Upper Gila	84	388.6	339.3	103.1	96.6	285.5	242.7
<i>1504000101</i>	<i>Railroad Canyon</i>	<i>16</i>	<i><0.1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i><0.1</i>	<i>0</i>
150400010101	Upper Railroad Canyon	4	0	0	0	0	0	0
150400010102	Middle Railroad Canyon	41	0	0	0	0	0	0
150400010103	Lower Railroad Canyon	7	<0.1	0	0	0	<0.1	0
<i>1504000102</i>	<i>Corduroy Draw</i>	<i>61</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
150400010201	Upper Corduroy Draw	22	0	0	0	0	0	0
150400010202	South Water Canyon	79	0	0	0	0	0	0
150400010203	Middle Corduroy Draw	49	0	0	0	0	0	0
150400010204	Lower Corduroy Draw	96	0	0	0	0	0	0
<i>1504000103</i>	<i>Beaver Creek</i>	<i>54</i>	<i>24.6</i>	<i>2.4</i>	<i>0</i>	<i>0</i>	<i>24.6</i>	<i>2.4</i>

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Assessed Stream Miles		Miles Meeting All Water Quality Standards		Impaired Miles [303(d) listed]	
			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150400010301	Horse Camp Canyon	73	0	0	0	0	0	0
150400010302	Coyote Canyon	1	15.0	0	0	0	15.0	0
150400010303	O Bar O Canyon	46	0.2	0	0	0	0.2	0
150400010304	Houghton Canyon	92	0	0	0	0	0	0
150400010305	Houghton Canyon-Beaver Creek	79	9.4	2.4	0	0	9.4	2.4
<i>1504000104</i>	<i>Headwaters East Fork Gila River</i>	<i>99</i>	<i>88.8</i>	<i>79.3</i>	<i>45.6</i>	<i>43.4</i>	<i>43.2</i>	<i>35.9</i>
150400010401	Hoyt Creek	99	19.9	18.1	19.9	18.1	0	0
150400010402	Taylor Creek	99	22.4	19.5	0	0	22.4	19.5
150400010403	Taylor Creek-Beaver Creek	99	11.4	10.0	0	0	11.4	10.0
150400010404	Headwaters Diamond Creek	100	12.6	12.6	12.6	12.6	0	0
150400010405	South Diamond Creek	100	0	0	0	0	0	0
150400010406	Outlet Diamond Creek	100	13.0	12.7	13.0	12.7	0	0
150400010407	Diamond Creek-East Fork Gila River	99	9.4	6.4	<0.1	<0.1	9.4	6.4
<i>1504000105</i>	<i>Middle Fork Gila River</i>	<i>100</i>	<i>84.7</i>	<i>81.6</i>	<i>20.3</i>	<i>20.3</i>	<i>64.4</i>	<i>61.3</i>
150400010501	T Bar Canyon	100	0	0	0	0	0	0
150400010502	Gilita Creek	100	20.0	18.7	6.6	6.6	13.5	12.1
150400010503	Snow Canyon	100	0.8	0.8	0.8	0.8	<0.1	<0.1
150400010504	Canyon Creek	99	14.1	13.1	0	0	14.1	13.1
150400010505	Canyon Creek-Middle Fork Gila River	100	25.4	25.4	13.0	13.0	12.4	12.4
150400010506	Indian Creek Canyon	99	9.1	9.1	0	0	9.1	9.1
150400010507	Indian Creek Canyon-Middle Fork Gila River	100	0	0	0	0	0	0

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			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150400010508	Big Bear Canyon-Middle Fork Gila River	99	24.2	19.8	0	0	24.2	19.8
<i>1504000106</i>	<i>West Fork Gila River</i>	99	<i>61.8</i>	<i>57.2</i>	<i>25.4</i>	<i>25.2</i>	<i>36.4</i>	<i>32.0</i>
150400010601	White Creek	100	9.0	9.0	9.0	9.0	0	0
150400010602	Headwaters West Fork Gila River	100	12.2	12.2	<0.1	<0.1	12.2	12.2
150400010603	Little Creek	100	16.4	16.2	16.4	16.2	0	0
150400010604	Outlet West Fork Gila River	96	24.2	19.8	<0.1	0	24.2	19.8
<i>1504000107</i>	<i>Outlet East Fork Gila River</i>	99	<i>41.8</i>	<i>39.0</i>	<i>0</i>	<i>0</i>	<i>41.8</i>	<i>39.0</i>
150400010701	Tom Moore Canyon	100	0	0	0	0	0	0
150400010702	Headwaters Black Canyon	100	8.3	8.3	0	0	8.3	8.3
150400010703	Apache Creek	100	0	0	0	0	0	0
150400010704	Outlet Black Canyon	100	16.9	16.9	0	0	16.9	16.9
150400010705	Black Canyon-East Fork Gila River	97	16.7	14.0	0	0	16.7	14.0
<i>1504000108</i>	<i>Sapillo Creek</i>	98	<i>11.8</i>	<i>7.6</i>	<i>11.8</i>	<i>7.6</i>	<i>0</i>	<i>0</i>
150400010801	Rocky Canyon	100	0	0	0	0	0	0
150400010802	Rocky Canyon-Sapillo Creek	98	0.1	0.1	0.1	0.1	0	0
150400010803	Lake Roberts-Sapillo Creek	98	1.3	0	1.3	0	0	0
150400010804	Copperas Creek-Sapillo Creek	96	2.9	<0.1	2.9	<0.1	0	0
150400010805	Sheep Corral Canyon-Sapillo Creek	100	7.6	7.6	7.6	7.6	0	0
<i>1504000109</i>	<i>Sapillo Creek-Gila River</i>	96	<i>75.2</i>	<i>72.2</i>	<i><0.1</i>	<i><0.1</i>	<i>75.2</i>	<i>72.2</i>
150400010901	Sapillo Creek-Gila River	100	16.4	16.4	<0.1	0	16.4	16.4
150400010902	Hells Canyon-Gila River	100	9.2	9.2	0	0	9.2	9.2
150400010903	Turkey Creek	100	16.9	16.6	0	0	16.9	16.6
150400010904	Upper Mogollon Creek	100	13.4	13.4	0	0	13.4	13.4

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			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150400010905	Middle Mogollon Creek	88	3.3	2.2	0	0	3.3	2.2
150400010906	Lower Mogollon Creek	75	0	0	0	0	0	0
150400010907	Mogollon Creek-Gila River	98	15.9	14.4	0	0	15.9	14.4
15040002	Upper Gila-Mangas	15	200.8	20.6	93.9	9.3	106.9	11.3
<i>1504000201</i>	<i>Bear Creek</i>	63	30.4	8.3	30.4	8.3	0	0
150400020101	Upper Bear Creek	88	11.0	8.1	11.0	8.1	0	0
150400020102	Middle Bear Creek	74	5.1	0.2	5.1	0.2	0	0
150400020103	Lower Bear Creek	27	14.4	0	14.4	0	0	0
<i>1504000202</i>	<i>Duck Creek</i>	12	0	0	0	0	0	0
150400020201	Headwaters Buckhorn Wash	21	0	0	0	0	0	0
150400020203	Sacaton Creek	30	0	0	0	0	0	0
150400020204	Headwaters Duck Creek	10	0	0	0	0	0	0
<i>1504000203</i>	<i>Mangas Creek</i>	39	24.9	1.0	18.5	0.9	6.4	0.1
150400020301	Willow Creek-Mangas Creek	41	7.9	0	7.9	0	0	0
150400020302	McKeefer Canyon-Mangas Creek	31	3.4	0.1	3.4	0.1	0	0
150400020303	Ash Spring Canyon-Mangas Creek	55	3.4	0.8	3.4	0.8	0	0
150400020304	Schoolhouse Canyon-Mangas Creek	30	10.2	0.1	3.8	0	6.4	0.1
<i>1504000204</i>	<i>Sycamore Creek-Upper Gila River</i>	3	8.4	1.0	0.1	0	8.3	1.0
150400020401	Bear Creek-Upper Gila River	12	8.4	1.0	0.1	0	8.3	1.0
<i>1504000205</i>	<i>Blue Creek</i>	4	28.7	0	28.7	0	<0.1	0
150400020501	Cherry Creek-Blue Creek	9	11.0	0	11.0	0	0	0
<i>1504000206</i>	<i>Blue Creek-Upper Gila River</i>	25	28.8	10.2	0	0	28.8	10.2
150400020601	Bear Canyon-Upper Gila River	88	9.0	7.5	0	0	9.0	7.5

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			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150400020602	Swan Canyon	56	0.4	0	0	0	0.4	0
150400020603	Swan Canyon-Upper Gila River	29	8.0	2.7	0	0	8.0	2.7
150400020607	Corral Canyon	3	0	0	0	0	0	0
<i>1504000208</i>	<i>Apache Creek-Gila River</i>	5	28.2	0	0	0	28.2	0
150400020804	Apache Creek	31	0	0	0	0	0	0
15040003	<i>Animas Valley</i>	4	52.0	1.2	9.0	1.2	0	0
<i>1504000302</i>	<i>Headwaters Burro Cienega</i>	16	5.6	1.2	5.6	1.2	0	0
150400030201	Hall Draw-Burro Cienega	56	5.6	1.2	5.6	1.2	0	0
150400030203	Ninety-six Creek	12	0	0	0	0	0	0
<i>1504000303</i>	<i>Outlet Burro Cienega</i>	<1	3.4	0	3.4	0	0	0
150400030305	Jones Canyon-Burro Cienega	<1	2.1	0	2.1	0	0	0
150400030307	Walker Canyon	1	1.3	0	1.3	0	0	0
<i>1504000304</i>	<i>Lordsburg Draw</i>	19	0	0	0	0	0	0
150400030401	Gold Hill Canyon-Lordsburg Draw	21	0	0	0	0	0	0
150400030402	Hoodoo Canyon-Lordsburg Draw	13	0	0	0	0	0	0
150400030403	Headwaters Thompson Canyon	80	0	0	0	0	0	0
150400030404	Outlet Thompson Canyon	21	0	0	0	0	0	0
150400030405	Thompson Canyon-Lordsburg Draw	20	0	0	0	0	0	0
15040004	<i>San Francisco</i>	61	654.4	202.6	460.5	123.4	193.9	79.2
<i>1504000401</i>	<i>Headwaters Tularosa River</i>	94	28.7	9.1	26.5	8.7	2.2	0.4
150400040101	Sand Flat Canyon	91	0	0	0	0	0	0
150400040102	Canon Del Buey	100	<0.1	<0.1	<0.1	<0.1	0	0
150400040103	Negro Canyon-Tularosa River	94	11.5	7.0	11.5	7.0	0	0

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			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150400040104	Whiskey Creek	93	0	0	0	0	0	0
150400040105	Hardcastle Canyon	95	0	0	0	0	0	0
150400040106	Apache Creek	91	8.7	1.3	8.7	1.3	0	0
150400040107	Apache Creek-Tularosa River	94	6.3	0.4	6.3	0.4	<0.1	<0.1
150400040108	Cold Springs Canyon-Tularosa River	96	2.1	0.4	0	0	2.1	0.4
<i>1504000402</i>	<i>Outlet Tularosa River</i>	<i>98</i>	<i>55.0</i>	<i>41.1</i>	<i>8.3</i>	<i>7.9</i>	<i>46.7</i>	<i>33.2</i>
150400040201	Long Canyon-Tularosa River	96	6.2	3.7	0	0	6.2	3.7
150400040202	Headwaters North Fork Negrito Creek	99	0	0	0	0	0	0
150400040203	South Fork Negrito Creek	99	14.4	13.7	0	0	14.4	13.7
150400040204	Outlet North Fork Negrito Creek	99	28.3	7.9	28.3	7.9	<0.1	<0.1
150400040205	Sign Camp Canyon	100	0	0	0	0	0	0
150400040206	Negrito Creek	99	12.4	10.5	<0.1	<0.1	12.4	10.5
150400040207	Negrito Creek-Tularosa River	95	13.6	5.2	0	0	13.6	5.2
<i>1504000403</i>	<i>Centerfire Creek-San Francisco River</i>	<i>78</i>	<i>133.3</i>	<i>53.2</i>	<i>83.2</i>	<i>25.6</i>	<i>50.1</i>	<i>27.6</i>
150400040302	Trout Creek	60	15.3	13.6	15.3	13.6	<0.1	<0.1
150400040303	Stone Creek-San Francisco River	61	20.8	5.1	12.2	0	8.6	5.1
150400040304	Spur Draw	82	<0.1	0	0	0	<0.1	0
150400040305	SA Creek	97	13.6	11.9	13.6	11.9	<0.1	0
150400040306	Headwaters Centerfire Creek	95	11.1	7.7	0	0	11.1	7.7
150400040307	Outlet Centerfire Creek	87	4.9	0.3	0	0	4.9	0.3
150400040308	Big Canyon-San Francisco River	95	6.1	4.2	0	0	6.4	4.2
150400040309	Starkweather Canyon	96	<0.1	0	0	0	<0.1	0
150400040310	Largo Canyon	97	0	0	0	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Assessed Stream Miles		Miles Meeting All Water Quality Standards		Impaired Miles [303(d) listed]	
			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
150400040311	Cienega Canyon-San Francisco River	91	19.9	10.4	0	0	19.9	10.4
<i>1504000404</i>	<i>Deep Creek-San Francisco River</i>	98	<i>27.6</i>	<i>20.6</i>	<i>21.0</i>	<i>17.6</i>	6.6	3.0
150400040401	Headwaters Saliz Canyon	100	0	0	0	0	0	0
150400040402	Outlet Saliz Canyon	98	<0.1	<0.1	<0.1	<0.1	0	0
150400040403	Saliz Canyon-San Francisco River	96	14.8	11.0	8.2	8.0	6.6	3.0
150400040404	Devils Creek	100	0	0	0	0	0	0
150400040405	Deep Creek	96	0	0	0	0	0	0
150400040406	Devils Creek-San Francisco River	97	12.8	9.6	12.8	9.6	0	0
<i>1504000405</i>	<i>Upper Blue River</i>	<i>14</i>	<i>176.1</i>	<i>9.1</i>	<i>167.0</i>	<i>9.1</i>	<i>0</i>	<i>0</i>
150400040502	Dry Blue Creek	76	9.2	8.7	0	0	0	0
150400040503	Campbell Blue Creek	2	0	0	0	0	0	0
150400040504	Centerfire Creek-Blue River	14	37.8	0.4	37.8	0.4	0	0
150400040506	Steeple Canyon-Blue River	15	36.6	0	36.6	0	0	0
<i>1504000406</i>	<i>Pueblo Creek-San Francisco River</i>	<i>88</i>	<i>70.3</i>	<i>47.6</i>	<i>50.2</i>	<i>37.4</i>	<i>20.1</i>	<i>10.2</i>
150400040601	Upper Pueblo Creek	100	0	0	0	0	0	0
150400040602	Lower Pueblo Creek	95	0	0	0	0	0	0
150400040603	Keller Canyon	56	0	0	0	0	0	0
150400040604	Vigil Canyon	78	0	0	0	0	0	0
150400040605	Mineral Creek	92	29.4	22.3	29.4	22.3	<0.1	0
150400040606	Wendy Flat-San Francisco River	89	8.0	1.8	1.5	0	6.5	1.8
150400040607	Whitewater Creek	95	19.4	15.1	19.4	15.1	<0.1	0
150400040608	South Dugway Creek-San Francisco River	94	32.9	23.5	19.4	15.1	13.5	8.4

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Assessed Stream Miles		Miles Meeting All Water Quality Standards		Impaired Miles [303(d) listed]	
			Total HUC	Gila NF HUC	Total HUC	Gila NF HUC	Total HUC	Gila NF HUC
1504000407	Lower Blue River	<1	33.4	0	8.1	0	25.3	0
150400040704	Little Blue Creek	1	5	0	0	0	0	0
1504000408	Mule Creek-San Francisco River	50	98.4	22.2	87.1	17.2	11.3	5.0
150400040801	Little Dry Creek	45	0	0	0	0	0	0
150400040802	Big Dry Creek	98	0	0	0	0	0	0
150400040803	Pine Cienega Creek	50	<0.1	0	0	0	<0.1	0
150400040804	Upper Mule Creek	67	1.8	0	0	0	1.8	0
150400040805	Lower Mule Creek	48	8.6	4.2	0	0	8.6	4.2
150400040806	Citizen Canyon	62	0	0	0	0	0	0
150400040807	Big Pine Canyon-San Francisco River	99	18.4	17.9	17.6	17.2	0.8	0.7
150400040808	Harden Cienega Creek	35	0	0	0	0	0	0
150400040809	Coal Creek	10	0.6	0	0.6	0	0	0
150400040811	Coalson Creek-San Francisco River	<1	68.8	0	68.8	0	0	0

¹ Stream miles do not include miles through reservoirs or lakes

²All 0 values indicate there are no impaired stream miles or waterbodies present

Table D6. Causes of water quality impairment by subbasin

Watershed Name	Total Impaired Stream Miles	Impaired Stream Miles by Cause of Impairment																			
		Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		<i>E. coli</i> bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
<i>Plains of San Agustin Subbasin</i>																					
Nester Draw	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Y Canyon	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Patterson Lake	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Elephant Butte Reservoir Subbasin</i>																					
Headwaters Alamosa Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Caballo Subbasin</i>																					
Cuchillo Negro Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
		Palomas Creek-Rio Grande	14.7	-	-	-	-	-	-	-	-	14.7	0	-	-	-	-	-	-	-	-
Percha Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caballo Reservoir	33.6	-	-	16.2	10.8	-	-	-	-	6.6	0	-	-	-	-	-	-	-	-	-	-
<i>El Paso-Las Cruces Subbasin</i>																					
Cuervo Arroyo-Rio Grande	11.9	-	-	-	-	-	-	-	-	-	-	11.9	0	-	-	-	-	-	-	-	-
<i>Mimbres Subbasin</i>																					
Gallinas Canyon-Mimbres River	47.4	-	-	-	-	-	-	-	-	-	-	11.9	0	8.7	11.9	21.6	5.6	-	-	-	-

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
		Headwaters San Vincente Draw	1.9	-	-	-	-	-	-	-	-	-	-	-	-	1.9	0	-	-	-	-
Outlet San Vincente Draw	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lampbright Draw	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lampbright Draw-Mimbres River	20.9	-	-	-	-	5.9	1.7	-	-	-	-	13.3	0	-	-	13.3	0	-	-	-	-
Macho Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upper Seventysix Draw	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
Cow Spring Draw-Seventysix Draw	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Little Colorado Headwaters Subbasin</i>																					
Coyote Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Carrizo Wash Subbasin</i>																					
Rito Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upper Largo Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agua Fria Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LA Draw-Cienega Amarilla	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
		<i>Upper Gila Subbasin</i>																			
Railroad Canyon ¹	<0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1*	0	-	-	-	-
Corduoy Canyon	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beaver Creek	24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.2	2.4	-	-	-	-
Headwaters East Fork Gila River	43.2	-	-	3.0	6.4	-	-	-	-	-	-	-	-	2.9	19.5	4.3	29.5	-	-	-	-
Middle Fork Gila River	64.4	1.4	5.8	-	-	-	-	-	-	-	-	-	-	1.0	13.1	2.1	48.2	-	-	-	-
West Fork Gila River	36.4	-	-	0	<0.1	-	-	-	-	-	-	-	-	-	-	4.4	32.0	-	-	-	-

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
		Outlet East Fork Gila River	41.8	-	-	2.7	14.0	-	-	-	-	-	-	-	-	-	-	0.1	25.0	-	-
Sapillo Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sapillo Creek-Gila River	75.2	1.1	15.6	-	-	-	-	-	-	-	-	-	-	-	-	1.9	56.6	-	-	-	-
<i>Upper Gila Subbasin</i>																					
Bear Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duck Creek	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mangas Creek	6.4	-	-	-	-	-	-	-	-	-	-	-	-	6.3	0.1	6.3	0.1	-	-	-	-
Sycamore Creek-Upper Gila River	15.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.9	1.0	-	-	-	-

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
		Blue Creek	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0	-	-	-
Blue Creek-Upper Gila River	28.8	-	-	-	-	-	-	-	-	-	-	-	9.4	10.2	18.6	10.2	-	-	-	-	
Apache Creek-Gila River	28.2	-	-	-	-	-	-	-	-	-	28.2	0	-	-	-	-	6.6	0	-	-	
<i>Animas Valley Subbasin</i>																					
Headwaters Burro Cienega	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Outlet Burro Cienega	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lordsburg Draw	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		E. coli bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
		<i>San Francisco Subbasin</i>																			
Headwaters Tularosa River	2.2	-	-	-	-	-	-	-	-	-	-	1.8	0.4	-	-	1.8	0.4	1.8	0.4	-	-
Outlet Tularosa River	46.7	-	-	-	-	-	-	-	-	-	-	11.6	22.7	-	-	13.5	33.2	10.9	8.9	-	-
Centerfire Creek-San Francisco River	50.6	-	-	5.4	9.3	-	-	8.1	8.0	-	-	17.6	18.3	8.1	8.0	19.2	30.6	13.8	18.3	8.1	8.0
Deep Creek-San Francisco River	6.6	-	-	-	-	-	-	-	-	-	-	3.6	3.0	-	-	-	-	-	-	-	-
Upper Blue River	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Impaired Stream Miles by Cause of Impairment

Watershed Name	Total Impaired Stream Miles	Aluminum		Benthic Macroinvertebrate Community		Cadmium and Lead		Conductance		Dissolved Oxygen		<i>E. coli</i> bacteria		Nutrients and Eutrophication		Temperature		Turbidity or Suspended Sediment Concentration		Sediment	
		Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF	Off Gila NF	On Gila NF
Pueblo Creek-San Francisco River	20.1	-	-	4.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	8.9
Lower Blue River	25.3	-	-	-	-	-	-	-	-	-	-	25.3	0	-	-	-	-	-	-	-	-
Mule Creek-San Francisco River	11.3	-	-	0.1	0.7	-	-	-	-	6.3	4.2	-	-	-	-	-	-	-	-	-	-
Total	658.1	2.5	21.4	31.7	42.5	5.9	1.7	8.1	8.0	27.6	4.2	113.3	44.4	38.3	62.8	144.2	232.6	33.1	27.6	13.6	16.9

Table D7. The extent and distribution of springs and seeps and non-riverine wetlands by subbasin, watershed and subwatershed

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
13020208	Plains of San Agustin	11	83	14	17	18	0	0
1302020804	Nester Draw	3	32	0	0	0	0	0
130202080401	Bear Canyon	38	5	0	0	0	0	0
130202080404	Headwaters Nester Draw	3	6	0	0	0	0	0
1302020806	Y Canyon	53	3	2	67	0	0	0
130202080601	La Jolla Canyon	99	3	2	67	0	0	0
130202080603	Y Canyon	42	0	0	0	0	0	0
1302020807	Patterson Lake	38	30	12	40	18	0	0
130202080701	Alamocito Creek	37	14	3	21	0	0	0
130202080703	West Pasture Springs	1	3	0	0	0	0	0
130202080704	Patterson Canyon	66	5	5	100	18	0	0
130202080705	Dark Canyon	42	1	0	0	0	0	0
130202080706	Patterson Lake	40	2	0	0	0	0	0
130202080707	Long Canyon	96	2	2	100	0	0	0
130202080708	T H Canyon	30	2	2	100	0	0	0
13020211	Elephant Butte Reservoir	3	115	0	0	11,787	0	0
1302021106	Headwaters Alamosa Creek	16	19	0	0	0	0	0
130202110603	Little Pigeon Canyon-Alamosa Creek	21	0	0	0	0	0	0
130202110606	Wahoo Canyon-Alamosa Creek	52	0	0	0	0	0	0
130202110607	Sim Yaten Canyon-Alamosa Creek	16	0	0	0	0	0	0
130202110608	Wildhorse Canyon	37	0	0	0	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
13030101	Caballo	27	133	82	62	4,062	90	2
<i>1303010101</i>	<i>Cuchillo Negro Creek</i>	32	33	21	64	7	0	0
130301010101	Turkey Creek	85	8	8	100	0	0	0
130301010102	Poverty Creek	48	1	0	0	0	0	0
130301010103	Chloride Creek	76	5	5	100	0	0	0
130301010104	South Fork Cuchillo Negro Creek	71	5	5	100	0	0	0
130301010105	Monument Creek	30	5	1	20	0	0	0
130301010106	Monument Creek-Cuchillo Negro Creek	20	5	2	40	0	0	0
<i>1303010102</i>	<i>Palomas Creek-Rio Grande</i>	<i>25</i>	<i>40</i>	<i>22</i>	<i>55</i>	<i>1,548</i>	<i>21</i>	<i>1</i>
130301010204	Mud Spring Canyon	100	3	3	100	0	0	100
130301010205	Circle Seven Creek	96	1	1	100	19	19	100
130301010206	North Fork Palomas Creek	56	15	13	87	0	0	0
130301010207	South Fork Palomas Creek	57	7	5	71	2	2	100
<i>1303010103</i>	<i>Percha Creek</i>	<i>32</i>	<i>25</i>	<i>18</i>	<i>72</i>	<i>85</i>	<i>0</i>	<i>0</i>
130301010301	South Percha Creek	53	15	14	93	22	0	0
130301010302	North Percha Creek	54	5	4	80	37	0	0
<i>1303010104</i>	<i>Caballo Reservoir</i>	<i>21</i>	<i>35</i>	<i>21</i>	<i>60</i>	<i>2,423</i>	<i>68</i>	<i>3</i>
130301010401	North Seco Canyon	76	4	4	100	8	8	100
130301010403	Seco Creek	10	5	2	40	8	1	11
130301010404	Holden Prong	100	3	3	100	1	1	100
130301010405	Cave Creek	22	8	6	75	0	0	100
130301010406	Headwaters Los Animas Creek	65	8	6	75	61	59	96

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
13030102	El Paso-Las Cruces	1	58	25	43	1,310	0	0
1303010202	Cuervo Arroyo_Rio Grande	17	39	25	64	195	0	0
130301020201	Trujillo Canyon Creek	33	16	15	94	23	0	0
130301020203	Headwaters Tierra Blanca Creek	98	6	6	100	0	0	0
130301020204	Outlet Tierra Blanca Creek	15	5	2	40	26	0	0
130301020207	Jaralosa Creek	13	4	0	0	3	0	0
130301020208	Headwaters Berenda Creek	37	4	2	50	2	0	0
13030202	Mimbres	5	164	102	62	1,408	39	3
1303020201	Gallinas Canyon-Mimbres River	74	67	64	96	468	39	8
130302020101	Powderhorn Canyon-Mimbres River	99	10	10	100	39	39	100
130302020102	Allie Canyon-Mimbres River	97	20	19	95	0	0	0
130302020103	Sheppard Canyon-Mimbres River	81	10	8	80	59	0	0
130302020104	Noonday Canyon	78	7	7	100	11	0	0
130302020105	Noonday Canyon-Mimbres River	44	5	5	100	138	0	0
130302020106	Gallinas Canyon	73	15	15	100	21	0	0
1303020202	Headwaters San Vicente Draw	18	29	23	79	0	0	0
130302020201	Rio de Arenas	6	2	0	0	0	0	0
130302020203	Pipeline Draw-San Vicente Draw	16	3	2	67	0	0	0
130302020204	Cameron Creek	54	22	21	95	0	0	0
130302020205	Cameron Creek-San Vicente Draw	<1	2	0	0	0	0	0
1303020203	Outlet San Vicente Draw	1	9	1	11	0	0	0
130302020302	Headwaters Whitewater Creek	3	6	1	17	0	0	0
130302020305	Antelope Draw-San Vicente Draw	2	2	0	0	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
1303020204	Lampbright Draw	3	5	0	0	0	0	0
130302020401	Headwaters Lampbright Draw	9	3	0	0	0	0	0
1303020205	Lampbright Draw-Mimbres River	17	19	12	63	896	0	0
130302020501	Gavilan Arroyo	40	5	4	80	20	0	0
130302020502	Gavilan Arroyo-Mimbres River	39	11	8	73	188	0	0
1303020208	Macho Creek	2	13	0	0	37	0	0
130302020801	Upper Macho Creek	10	13	0	0	37	0	0
1303020213	Upper Seventysix Draw	1	3	2	67	0	0	0
130302021301	Whiterock Canyon	5	3	2	67	0	0	0
1303020214	Cow Spring Draw-Seventysix Draw	2	1	0	0	0	0	0
130302021402	Headwaters Cow Spring Draw	14	1	0	0	0	0	0
15020001	Little Colorado Headwaters	3	168	5	3	1,016	0	0
1502000103	Coyote Creek	9	16	5	31	52	0	1
150200010301	Hay Vega	39	3	1	33	0	0	0
150200010302	Canovas Creek-Coyote Creek	33	7	4	57	30	0	1
15020003	Carrizo Wash	14	118	54	46	285	0	0
1502000301	Rito Creek	13	35	21	60	107	0	0
150200030101	Upper Mangas Creek	58	18	15	83	0	0	0
150200030102	Middle Mangas Creek	17	6	0	0%	0	0	0
150200030103	Lower Mangas Creek	7	1	0	0%	0	0	0
150200030109	Escondido Creek	47	6	6	100%	0	0	0
1502000302	Upper Largo Creek	76	16	9	56%	7	0	0
150200030201	El Caso Spring Canyon	100	5	3	60%	0	0	0

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150200030202	Sawmill Canyon-Largo Creek	91	8	5	63%	7	0	0
150200030203	Paradise Canyon-Largo Creek	85	0	0	0%	0	0	0
150200030204	Rito Creek-Largo Creek	35	3	1	33%	0	0	0
<i>1502000305</i>	<i>Agua Fria Creek</i>	<i>35</i>	<i>29</i>	<i>21</i>	<i>72%</i>	<i>5</i>	<i>0</i>	<i>0</i>
150200030501	Harris Creek-Agua Fria Creek	90	10	7	70%	1	0	0
150200030502	Demetrio Creek	59	5	4	80%	0	0	0
150200030503	Demetrio Creek-Agua Fria Creek	37	0	0	0%	0	0	0
150200030504	Gatlin Lake	73	12	9	75%	0	0	0
150200030505	Mangitas Creek	41	1	0	0%	0	0	0
150200030506	Cerro La Mula	10	1	1	100%	4	0	0
150200030507	Cerro La Mula-Agua Fria Creek	2	0	0	0%	0	0	0
<i>1502000307</i>	<i>LA Draw-Cienega Amarilla</i>	<i>5</i>	<i>16</i>	<i>3</i>	<i>19%</i>	<i>34</i>	<i>0</i>	<i>0</i>
150200030703	Cow Springs Draw	25	8	3	38%	0	0	0
15040001	Upper Gila	84	196	184	94%	1,914	1,791	94
<i>1504000101</i>	<i>Railroad Canyon</i>	<i>16</i>	<i>10</i>	<i>8</i>	<i>80%</i>	<i>0</i>	<i>0</i>	<i>0</i>
150400010101	Upper Railroad Canyon	4	1	0	0%	0	0	0
150400010102	Middle Railroad Canyon	41	3	2	67%	0	0	0
150400010103	Lower Railroad Canyon	7	2	2	100%	0	0	0
<i>1504000102</i>	<i>Corduroy Draw</i>	<i>61</i>	<i>10</i>	<i>8</i>	<i>100%</i>	<i>0</i>	<i>0</i>	<i>0</i>
150400010201	Upper Corduroy Draw	22	1	0	60%	0	0	0
150400010202	South Water Canyon	79	3	2	100%	0	0	0
150400010203	Middle Corduroy Draw	49	2	2	0%	0	0	0
150400010204	Lower Corduroy Draw	96	4	4	50%	0	0	0
<i>1504000103</i>	<i>Beaver Creek</i>	<i>54</i>	<i>5</i>	<i>3</i>	<i>60%</i>	<i>0</i>	<i>0</i>	<i>0</i>

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400010301	Horse Camp Canyon	73	2	2	100%	0	0	0
150400010302	Coyote Canyon	1	0	0	0%	0	0	0
150400010303	O Bar O Canyon	46	1	0	0%	0	0	0
150400010304	Houghton Canyon	92	0	0	0%	0	0	0
150400010305	Houghton Canyon-Beaver Creek	79	2	1	50%	0	0	0
<i>1504000104</i>	<i>Headwaters East Fork Gila River</i>	<i>99</i>	<i>32</i>	<i>30</i>	<i>94%</i>	<i>153</i>	<i>140</i>	<i>91</i>
150400010401	150400010401 Hoyt Creek	99	8	8	100%	0	0	0
150400010402	Taylor Creek	99	8	6	75%	0	0	0
150400010403	Taylor Creek-Beaver Creek	99	2	2	100	0	0	0
150400010404	Headwaters Diamond Creek	100	5	5	100	1	1	100
150400010405	South Diamond Creek	100	2	2	100	3	3	100
150400010406	Outlet Diamond Creek	100	1	1	100	44	44	100
150400010407	Diamond Creek-East Fork Gila River	99	6	6	100	105	92	87
<i>1504000105</i>	<i>Middle Fork Gila River</i>	<i>100</i>	<i>26</i>	<i>24</i>	<i>92</i>	<i>716</i>	<i>705</i>	<i>98</i>
150400010501	T Bar Canyon	100	0	0	0	0	0	0
150400010502	Gilita Creek	100	4	4	100	21	21	100
150400010503	Snow Canyon	100	6	6	100	8	8	100
150400010504	Canyon Creek	99	3	3	100	6	6	100
150400010505	Canyon Creek-Middle Fork Gila River	100	1	1	100	263	263	100
150400010506	Indian Creek Canyon	99	3	2	67	9	9	96
150400010507	Indian Creek Canyon-Middle Fork Gila River	100	3	3	100	98	98	100

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			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400010508	Big Bear Canyon-Middle Fork Gila River	99	6	5	83	310	300	97
<i>1504000106</i>	<i>West Fork Gila River</i>	99	23	21	91	312	275	88
150400010601	White Creek	100	6	6	100	11	11	100
150400010602	Headwaters West Fork Gila River	100	2	2	100	15	15	100
150400010603	Little Creek	100	3	3	100	2	2	94
150400010604	Outlet West Fork Gila River	96	12	10	83	284	247	87
<i>1504000107</i>	<i>Outlet East Fork Gila River</i>	99	19	18	95	413	384	93
150400010701	Tom Moore Canyon	100	0	0	0	1	1	100
150400010702	Headwaters Black Canyon	100	4	4	100	7	7	100
150400010703	Apache Creek	100	1	1	100	1	1	100
150400010704	Outlet Black Canyon	100	2	2	100	29	29	100
150400010705	Black Canyon-East Fork Gila River	97	12	11	92	376	346	92
<i>1504000108</i>	<i>Sapillo Creek</i>	98	25	24	96	19	19	100
150400010801	Rocky Canyon	100	6	6	10	10	10	100
150400010802	Rocky Canyon-Sapillo Creek	98	4	4	100	8	8	100
150400010803	Lake Roberts-Sapillo Creek	98	7	6	86	0	0	100
150400010804	Copperas Creek-Sapillo Creek	96	8	8	100	1	1	100
150400010805	Sheep Corral Canyon-Sapillo Creek	100	0	0	0	1	1	100
<i>1504000109</i>	<i>Sapillo Creek-Gila River</i>	96	56	56	100	301	269	89
150400010901	Sapillo Creek-Gila River	100	9	9	100	88	88	100
150400010902	Hells Canyon-Gila River	100	5	5	100	59	59	100
150400010903	Turkey Creek	100	2	2	100	9	7	75
150400010904	Upper Mogollon Creek	100	3	3	100	1	1	100

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			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400010905	Middle Mogollon Creek	88	11	11	100	0	0	100
150400010906	Lower Mogollon Creek	75	23	23	100	6	0	3
150400010907	Mogollon Creek-Gila River	98	3	3	100	138	114	83
15040002	Upper Gila-Mangas	15	235	114	49	1,941	308	16
<i>1504000201</i>	<i>Bear Creek</i>	63	56	46	82	1	0	0
150400020101	Upper Bear Creek	88	23	21	91	0	0	0
150400020102	Middle Bear Creek	74	18	14	78	0	0	0
150400020103	Lower Bear Creek	27	15	11	73	1	0	0
<i>1504000202</i>	<i>Duck Creek</i>	12	4	4	100	3	0	0
150400020201	Headwaters Buckhorn Wash	21	0	0	0	0	0	0
150400020203	Sacaton Creek	30	4	4	100	0	0	100
150400020204	Headwaters Duck Creek	10	0	0	0	0	0	0
<i>1504000203</i>	<i>Mangas Creek</i>	39	32	21	66	5	0	0
150400020301	Willow Creek-Mangas Creek	41	11	8	73	0	0	0
150400020302	McKeefer Canyon-Mangas Creek	31	4	4	100	0	0	0
150400020303	Ash Spring Canyon-Mangas Creek	55	9	6	67	0	0	0
150400020304	Schoolhouse Canyon-Mangas Creek	30	8	3	38	5	0	0
<i>1504000204</i>	<i>Sycamore Creek-Upper Gila River</i>	3	8	3	38	709	41	6
150400020401	Bear Creek-Upper Gila River	12	4	3	75	436	41	9
<i>1504000205</i>	<i>Blue Creek</i>	4	7	0	0	3	0	0
150400020501	Cherry Creek-Blue Creek	9	6	0	0	0	0	0
<i>1504000206</i>	<i>Blue Creek-Upper Gila River</i>	25	56	26	46	742	267	36
150400020601	Bear Canyon-Upper Gila River	88	20	20	100	326	264	81

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400020602	Swan Canyon	56	5	3	60	4	0	0
150400020603	Swan Canyon-Upper Gila River	29	14	3	21	62	3	5
150400020607	Corral Canyon	3	0	0	0	1	0	0
<i>1504000208</i>	<i>Apache Creek-Gila River</i>	<i>5</i>	<i>62</i>	<i>14</i>	<i>23</i>	<i>252</i>	<i>0</i>	<i>0</i>
150400020804	Apache Creek	31	19	14	74	0	0	0
15040003	Animas Valley	4	29	19	66	2	0	0
<i>1504000302</i>	<i>Headwaters Burro Cienega</i>	<i>16</i>	<i>2</i>	<i>1</i>	<i>50</i>	<i>0</i>	<i>0</i>	<i>0</i>
150400030201	Hall Draw-Burro Cienega	56	1	1	100	0	0	0
150400030203	Ninety-six Creek	12	0	0	0	0	0	0
<i>1504000303</i>	<i>Outlet Burro Cienega</i>	<i><1</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
150400030305	Jones Canyon-Burro Cienega	<1	0	0	0	0	0	0
150400030307	Walker Canyon	1	0	0	0	0	0	0
<i>1504000304</i>	<i>Lordsburg Draw</i>	<i>19</i>	<i>20</i>	<i>18</i>	<i>90</i>	<i>0</i>	<i>0</i>	<i>0</i>
150400030401	Gold Hill Canyon-Lordsburg Draw	21	3	3	100	0	0	0
150400030402	Hoodoo Canyon-Lordsburg Draw	13	4	4	100	0	0	0
150400030403	Headwaters Thompson Canyon	80	9	8	89	0	0	0
150400030404	Outlet Thompson Canyon	21	1	1	100	0	0	0
150400030405	Thompson Canyon-Lordsburg Draw	20	3	2	67	0	0	0
15040004	San Francisco	61	912	319	35	2,836	490	17
<i>1504000401</i>	<i>Headwaters Tularosa River</i>	<i>94</i>	<i>68</i>	<i>51</i>	<i>75</i>	<i>351</i>	<i>29</i>	<i>8</i>
150400040101	Sand Flat Canyon	91	2	2	100	3	0	0
150400040102	Canon Del Buey	100	3	1	33	0	0	0
150400040103	Negro Canyon-Tularosa River	94	6	5	83	11	0	0

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			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400040104	Whiskey Creek	93	17	8	47	0	0	0
150400040105	Hardcastle Canyon	95	8	4	50	0	0	0
150400040106	Apache Creek	91	12	11	92	17	12	70
150400040107	Apache Creek-Tularosa River	94	4	4	100	298	8	3
150400040108	Cold Springs Canyon-Tularosa River	96	16	16	100	21	9	40
<i>1504000402</i>	<i>Outlet Tularosa River</i>	<i>98</i>	<i>44</i>	<i>42</i>	<i>95</i>	<i>133</i>	<i>37</i>	<i>28</i>
150400040201	Long Canyon-Tularosa River	96	8	8	100	25	11	42
150400040202	Headwaters North Fork Negrito Creek	99	10	9	90	0	0	0
150400040203	South Fork Negrito Creek	99	5	5	100	0	0	0
150400040204	Outlet North Fork Negrito Creek	99	2	2	100	0	0	0
150400040205	Sign Camp Canyon	100	10	10	100	0	0	0
150400040206	Negrito Creek	99	3	3	100	1	0	22
150400040207	Negrito Creek-Tularosa River	95	6	5	83	107	27	25
<i>1504000403</i>	<i>Centerfire Creek-San Francisco River</i>	<i>78</i>	<i>185</i>	<i>84</i>	<i>45</i>	<i>537</i>	<i>91</i>	<i>17</i>
150400040302	Trout Creek	60	17	6	35	1	0	0
150400040303	Stone Creek-San Francisco River	61	25	11	44	72	3	4
150400040304	Spur Draw	82	3	3	100	0	0	0
150400040305	SA Creek	97	12	12	100	0	0	0
150400040306	Headwaters Centerfire Creek	95	3	3	100	35	1	3
150400040307	Outlet Centerfire Creek	87	11	9	82	50	4	9
150400040308	Big Canyon-San Francisco River	95	5	4	80	116	5	4
150400040309	Starkweather Canyon	96	11	10	91	5	0	0
150400040310	Largo Canyon	97	9	8	89	0	0	0

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			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
150400040311	Cienega Canyon-San Francisco River	91	20	18	90	258	78	30
<i>1504000404</i>	<i>Deep Creek-San Francisco River</i>	<i>98</i>	<i>39</i>	<i>38</i>	<i>97</i>	<i>120</i>	<i>86</i>	<i>72</i>
150400040401	Headwaters Saliz Canyon	100	18	18	100	0	0	100
150400040402	Outlet Saliz Canyon	98	0	0	0	1	1	100
150400040403	Saliz Canyon-San Francisco River	96	5	4	80	44	36	81
150400040404	Devils Creek	100	0	0	0	0	0	0
150400040405	Deep Creek	96	16	16	100	0	0	0
150400040406	Devils Creek-San Francisco River	97	0	0	0	74	49	66
<i>1504000405</i>	<i>Upper Blue River</i>	<i>14</i>	<i>128</i>	<i>4</i>	<i>3</i>	<i>607</i>	<i>0</i>	<i>0</i>
150400040502	Dry Blue Creek	76	17	2	12	0	0	0
150400040503	Campbell Blue Creek	2	10	0	0	138	0	0
150400040504	Centerfire Creek-Blue River	14	8	1	13	141	0	0
150400040506	Steeple Canyon-Blue River	15	20	1	5	215	0	0
<i>1504000406</i>	<i>Pueblo Creek-San Francisco River</i>	<i>88</i>	<i>52</i>	<i>44</i>	<i>85</i>	<i>245</i>	<i>175</i>	<i>71</i>
150400040601	Upper Pueblo Creek	100	7	7	100	24	24	100
150400040602	Lower Pueblo Creek	95	8	8	100	126	126	100
150400040603	Keller Canyon	56	4	1	25	0	0	100
150400040604	Vigil Canyon	78	5	2	40	3	0	0
150400040605	Mineral Creek	92	6	5	83	0	0	0
150400040606	Wendy Flat-San Francisco River	89	0	0	0	38	7	19
150400040607	Whitewater Creek	95	11	10	91	0	0	100
150400040608	South Dugway Creek-San Francisco River	94	11	11	100	54	17	32

Hydrologic Unit Code (HUC)	Subbasin (HUC8, 4th Code), Watershed (HUC10, 5th Code) & Subwatershed (HUC12, 6th Code) Name	Gila NF HUC %	Springs and Seeps (Number)			Non-Riverine Wetlands (Acres)		
			Total HUC	Gila NF HUC	Gila NF % HUC	Total HUC	Gila NF HUC	Gila NF % HUC
1504000407	Lower Blue River	<1	215	0	0	240	0	0
150400040704	Little Blue Creek	1	18	0	0	0	0	0
1504000408	Mule Creek-San Francisco River	50	118	56	47	402	71	18
150400040801	Little Dry Creek	45	4	3	75	0	0	0
150400040802	Big Dry Creek	98	6	6	100	1	1	100
150400040803	Pine Cienega Creek	50	2	2	100	0	0	0
150400040804	Upper Mule Creek	67	11	9	82	0	0	0
150400040805	Lower Mule Creek	48	1	1	100	0	0	0
150400040806	Citizen Canyon	62	22	4	18	20	0	0
150400040807	Big Pine Canyon-San Francisco River	99	32	30	94	72	70	98
150400040808	Harden Cienega Creek	35	1	0	0	17	0	0
150400040809	Coal Creek	10	2	1	50	0	0	0
150400040811	Coalson Creek-San Francisco River	<1	31	0	0	186	0	0

Table D8. Average annual precipitation by subbasin and watershed

Watershed Name	Watershed Area			Average Annual Precipitation (inches)		
	Total (acres)	Gila NF (acres)	% Gila NF	Watershed Average	Gila NF Watershed Average	Percent of Average on Gila NF
<i>Plains of San Agustin Subbasin</i>			11	15.0	17.6	13
Nester Draw	169,190	5,328	3	15.6	19.7	4
Patterson Lake	207,398	78,514	38	15.2	17.4	44
Y Canyon	97,476	52,140	38	17.0	17.7	60
<i>Elephant Butte Reservoir Subbasin¹</i>			3	40,451	3	13.0
Headwaters Alamosa Creek	257,399	40,451	16	16.1	17.4	17
<i>Caballo Subbasin</i>			27	14.8	20.3	37
Caballo Reservoir	247,026	52,993	21	15.2	23.4	34
Cuchillo Negro Creek	236,142	76,046	32	14.5	17.8	41
Palomas Creek-Rio Grande	234,606	57,833	25	13.5	17.9	33
Percha Creek	77,379	24,763	32	18.1	25.5	48
<i>El Paso-Las Cruces Subbasin</i>			1	10.9	21.4	5
Cuervo Arroyo-Rio Grande	226,938	37,572	17	14.2	21.4	26
<i>Mimbres Subbasin¹</i>			5	13.1	24.0	14
Cow Spring Draw-Seventysix Draw	184,549	3,070	2	12.1	19.5	3
Gallinas Canyon-Mimbres River	205,881	151,448	74	23.2	24.9	80
Headwaters San Vicente Draw	144,197	26,072	18	17.5	21.2	25
Lampbright Draw	92,105	2,351	3	16.0	21.2	4
Lampbright Draw-Mimbres River	124,477	20,713	17	16.5	23.0	23
Macho Creek	213,735	3,641	2	12.4	20.3	3
Outlet San Vicente Draw	160,634	1,684	1	15.1	21.5	2

Watershed Name	Watershed Area			Average Annual Precipitation (inches)		
	Total (acres)	Gila NF (acres)	% Gila NF	Watershed Average	Gila NF Watershed Average	Percent of Average on Gila NF
Upper Seventysix Draw	114,409	1,313	1	12.5	19.0	2
<i>Little Colorado Headwaters Subbasin</i>			3	17.9	20.5	3
Coyote Creek	147,501	13,510	9	14.5	20.5	13
<i>Carrizo Wash Subbasin</i>			14	13.3	16.4	18
Agua Fria Creek	218,968	76,850	35	14.9	16.7	41
LA Draw-Cienega Amarilla	160,256	7,918	5	14.0	22.0	8
Rito Creek	279,878	37,218	13	14.2	15.7	16
Upper Largo Creek	98,300	75,156	76	15.2	15.8	85
<i>Upper Gila Subbasin</i>			84	20.6	21.2	89
Beaver Creek	147,638	79,799	54	17.8	18.0	67
Corduoy Draw	111,118	68,279	61	17.4	18.2	66
Headwaters East Fork Gila River	193,943	192,473	99	21.1	21.1	99
Middle Fork Gila River	218,844	218,128	>99	21.7	21.7	99
Outlet East Fork Gila River	104,412	103,887	99	21.8	21.8	99
Railroad Canyon	89,105	14,046	16	17.0	17.0	16
Sapillo Creek	110,693	108,907	98	22.4	22.4	99
Sapillo Creek-Gila River	189,860	181,341	96	22.5	22.6	97
West Fork Gila River	103,948	102,439	99	21.6	21.6	>99
<i>Upper Gila-Mangas Subbasin</i>			15	15.8	19.0	19
Apache Creek-Gila River	237,306	12,270	5	14.8	18.8	7
Bear Creek	103,985	65,069	63	20.2	21.6	70
Blue Creek	88,931	3,428	4	16.4	20.0	5
Blue Creek-Upper Gila River	186,504	46,732	25	14.9	16.1	28

Watershed Name	Watershed Area			Average Annual Precipitation (inches)		
	Total (acres)	Gila NF (acres)	% Gila NF	Watershed Average	Gila NF Watershed Average	Percent of Average on Gila NF
Duck Creek	144,993	16,862	12	18.1	22.3	15
Mangas Creek	130,597	50,698	39	17.3	17.4	42
Sycamore Creek- Upper Gila River	121,829	3,601	3	16.8	17.9	4
<i>Animas Valley Subbasin</i>			4	13.6	16.6	5
Headwaters Burro Cienega	109,203	17,666	16	14.2	17.0	20
Lordsburg Draw	221,184	41,617	19	13.8	16.4	23
Outlet Burro Cienega	179,037	291	<1	13.2	16.3	<1
<i>San Francisco Subbasin</i>			61	20.7	20.6	64
Centerfire Creek-San Francisco River	267,108	207,266	78	20.5	19.8	81
Deep Creek-San Francisco River	153,321	149,537	98	21.1	21.1	98
Headwaters Tularosa River	225,391	211,838	94	17.3	17.3	94
Lower Blue River	198,105	277	<1	20.3	23.8	<1
Mule Creek-San Francisco River	244,422	121,064	50	19.8	20.8	53
Outlet Tularosa River	184,206	180,493	98	22.9	22.9	98
Pueblo Creek-San Francisco River	226,379	198,993	88	22.4	22.4	92
Upper Blue River	198,049	27,915	14	23.4	21.8	13
Subbasin Totals			17	14.5	20.4	24
Watershed Totals	8,388,553	3,271,497	39	17.3	20.4	46

¹PRISM does not cover Mexico; precipitation values reflect only the portion of the subbasin within the United States

Appendix E. Economic Contribution Analysis Methods and Data

The economic contribution analysis uses IMPLAN Professional Version 3.0 with 2014 data. IMPLAN is an input-output model that uses linkages in a regional economy to estimate the economic impact of an event or policy change. The economic contribution analysis also uses Apeleia, a Forest Service tool that serves as an interface with IMPLAN. Apeleia translates resource inputs (e.g., AUMs and recreation visits) into economically-meaningful units for consistency with IMPLAN.

Recreation

The recreation section of the economic contribution analysis uses visit estimates from the third round of the National Visitor Use Monitoring program (NVUM) survey for the Gila NF. These data were collected in fiscal year 2011. The NVUM data are the best available information on recreational use of National Forest System (NFS) lands. The total number of recreation visits are from round 3 (FY11) data, however, segment shares were not reported in the Gila NF's round 3 NVUM report. Therefore, round 2 (FY06) segment shares are combined with round 3 (FY11) local and non-local visitation data to estimate segment shares. The segment shares used in the economic contribution analysis are listed in Table E1.

Table E1. Visitation by type on the Gila NF

Visit Type	Number of Visits	Share
Local Day	237,470	46%
Local Overnight - on NF	36,750	7%
Local Overnight - off NF	8,480	2%
Non-Local Day	69,390	14%
Non-Local Overnight - on NF	55,510	11%
Non-Local Overnight - off NF	37,010	7%
Non-primary	69,390	13%
<i>Total</i>	514,000	100%

The segment shares are necessary for the economic contribution analysis because visitor spending varies between local and non-local visitors as well as between day and overnight use. Forest Service visitor expenditure estimates are from White et al 2013.

Average visitor spending (per trip) in 2014 dollars is:

- Local day visitors: \$36.54
- Local overnight visitors, lodging on public land: \$179.82
- Local overnight visitors, lodging off public land: \$235.72
- Non-local day visitors: \$69.34
- Non-local overnight visitors, lodging on public land: \$258.35
- Non-local overnight visitors, lodging off public: \$569.08

Dollar values were converted from their original 2009 dollars to 2014 dollars using the Bureau of Labor Statistics' consumer price index calculator (BLS 2014).

Grazing

Livestock grazing data were retrieved from the Forest Service’s Natural Resource Manager (NRM) database. Three-year averages of animal unit months (AUMs), by livestock category, were used to minimize the effect of short-term variations in authorized livestock grazing use. Table E2 contains the livestock grazing data used in the economic contribution analysis.

Table E2. Annual number of Animal Unit Months on the Gila NF

Year	Authorized Cattle AUMs	Authorized Horse & Burro AUMs	Authorized Sheep & Goat AUMs
2015	227,903	3,217	0
2014	213,317	3,657	0
2013	247,378	3,861	0

Note: from NRM’s RMSTR11L report on 12/4/15.

To estimate the economic contributions of livestock grazing on the Gila National Forest, we follow the methodology developed and used by the BLM as part of the annual Department of the Interior economic report (DOI 2014). This method uses data from the Census of Agriculture, American Community Survey, and IMPLAN to improve the accuracy of employment and income estimates. In particular, this method enables the consideration of unpaid family labor, which would not be included in a typical IMPLAN analysis. See DOI 2014 for additional details on the methodology.

Minerals

Minerals data are compiled by the Forest Service’s Washington Office – Ecosystem Management Coordination group. The most recent data are from fiscal year 2013. Three-year averages are used to minimize the effect of short-term variations in mineral removal. Therefore, the economic contribution analysis uses the average of 2011 – 2013 mineral removal.

Table E3. Mineral removal on the Gila NF

Mineral	Units	2013	2012	2011
Crushed stone	Short tons	6,171	9,923	32,822
Construction sand and gravel	Short tons	93	745	273

Mineral price data are from the U.S. Geological Survey (USGS). The USGS annually updates commodity price statistics. In 2014, a metric ton of crushed stone was \$10.15 (a metric ton is equivalent to 1.1 short tons). A short ton of construction sand and gravel as \$7.70 (USGS 2015). Due to small quantities of minerals removed from the Gila National Forest, these activities do not result in measurable economic contributions.

Timber

Forest Service timber harvest data are contained in cut and sold reports, which are updated quarterly. The economic contribution analysis used the average timber harvest between 2013 and 2015, by timber class. Table E4 displays the timber data used in the Gila NF's economic contribution analysis.

Table E4. Timber harvested on the Gila NF

Timber Class	2015	2014	2013
Softwood Sawtimber (CCF)	18,534	2,375	4,616
Softwood Pulp (CCF)	8,885	44	132
Hardwood Sawtimber (CCF)	N/A	N/A	N/A
Hardwood Pulp (CCF)	N/A	N/A	N/A
Poles/Latillas (CCF)	2,961	170	119
Posts/Vigas (CCF)	437	4,201	5,627
Fuelwood (CCF)	7,147	6,146	6,266
All products by bushel (limbs, boughs, needles)	130	41	308
Pinyon nuts (Lbs.)	1,500	750	0
Plants (each)	136	253	129

In addition to harvest volumes, information on who removes the timber and how it is processed are inputs to the economic contribution analysis. Tables E5 and E6 provide this information for the Gila National Forest.

Table E5. Percent of timber products harvested

Description	Types of Products Shipped	% Distribution by Sector of Timber Harvested in Study Area for each Product					
		Softwood Sawtimber	Softwood Pulp	Poles	Posts	Fuelwood	All Other Products
Logging Camps and Logging Contractors (How much is removed by those outside of the study area? This number should equal the percent removed by all contractors minus share removed by those outside the study area.)	logs/pulp exported out of area, untreated posts/poles	99.9%	100%	0%	0%	0%	0%
Households (How much is removed by those households in the study area? This number should equal the percent removed by all households minus share removed by those outside the study area.)	personal use	.1%	0%	100%	100%	100%	100%

Table E6. Types of products shipped from harvested timber

Description	Types of Products Shipped	% Distribution by Sector of Timber Processed in the Study Area for each Product					
		Softwood					All
		Sawtimber	Pulp	Poles	Posts	Fuelwood	Other Products
Sawmills and Planing Mills, General	lumber/cants, bolts, woodchips	100				0	0
Wood Preservation	all treated pdts			0	0	0	0
Reconstituted Wood Products	particleboard, fiberboard, hardboard, OSB		0			0	0
Veneer and Plywood	veneer, plywood	0				0	0
Engineered Wood Members	trusses, arches	0				0	0
Wood Windows and Doors		0				0	0
Cut Stock	molding, doors, shutters	0				0	0
Other millwork, including flooring	furniture/flooring dimension stock, handle blanks	0				0	0
Wood Containers	wood boxes, flats, baskets, casks, crates and pallets	0				0	0
Prefabricated Wood Buildings	residential/ farm bldgs, sections, & panels	0				0	0
Miscellaneous Wood Product Manufacturing	wood dowels, wood handles, toothpicks	0				0	0
Pulp Mills	pulp only		0			0	0
Paper and Paperboard Mills	paper of all types		0			0	0
Paperboard Container Manufacturing	paper boxes, containers, cartons, tubes		0			0	0

Payments to States and Counties

The Gila National Forest makes payments to states and counties through two chief mechanisms – Payments-in-Lieu-of-Taxes (PILT) and the Secure Rural Schools (SRS) program. Table E7 displays payments by program and county between 2013 and 2015. SRS data for 2015 were not available at the time of this analysis, therefore, only 2013 and 2014 data are displayed.

The Department of the Interior compiles PILT information (DOI 2015). The Forest Service compiles SRS data (USFS 2015). The SRS figures presented here include Titles I, II, and III funding from ASR 18-01. The Catron County figures include both the proclaimed Gila National Forest and Apache National Forest, which is administered in New Mexico by the Gila National Forest.

Table E7. Amount of annual payments by county and type

	2015	2014	2013
PILT	Catron County: \$619,691 Grant County: \$2,078,740 Hidalgo County: \$745,488 Sierra County: \$1,205,512 Total: \$4,649,431	Catron County: \$636,506 Grant County: \$2,061,555 Hidalgo County: \$768,743 Sierra County: \$1,203,605 Total: \$4,670,409	Catron County: \$593,448 Grant County: \$1,837,491 Hidalgo County: \$703,549 Sierra County: \$1,056,769 Total: \$4,191,257
SRS	Catron County: ND Grant County: ND Hidalgo County: ND Sierra County: ND Total:	Catron County: \$2,107,965.31 Grant County: \$796,473.35 Hidalgo County: \$5,184.47 Sierra County: \$313,147.03 Total: \$3,222,770.16	Catron County: \$2,283,200.24 Grant County: \$822,643.85 Hidalgo County: \$6,770.79 Sierra County: \$344,739.29 Total: \$3,457,354.17

PILT and SRS funds are distributed to the schools and general government sectors in IMPLAN to calculate the employment and income contributions.

Forest Service Expenditures

The Forest Service spends budget allocations on employee and contractor salaries, goods, and services needed to manage national forests. Table E8 provides information on the number of employees (both full-time equivalents and other than full-time equivalents) in 2015 as well as salary and non-salary expenditures between 2013 and 2015.

Table E8. Number of employees and expenditures (salary and non-salary) on the Gila NF

	2015	2014	2013
# FTEs	148		
# other than FTE	70		
Salary expenditures	\$13,631,134	\$12,693,355	\$12,580,947
Non-salary expenditures	\$ 7,386,329	\$ 7,013,031	\$ 6,817,892

The economic contributions of these expenditures are modeled in IMPLAN using both a range of household spending patterns and government spending.

Appendix F. Mineral Withdrawals

Table F1. List of mineral withdrawals on the Gila National Forest

Name	Number	Acres	District	Legal
Antelope AS	PLO 2830 NM 094303	30	7	S34, T17S R13W
Apache Adm. Site #1	NM 43867	40	3	S28, T5S R17W
Apache Adm. Site #2	PLO 2830 NM 094303	20	4	S36, T11S R18W
Bearwallow Lookout Adm. Site	PLO 1890 NM 023643	20	4	S11, T10S R18W
Beaverhead Adm. Airstrip	PLO 2830 NM 094303	160	2	S25, 26, T10S R13W
Beaverhead Adm. Site	PLO 1413 NM 024939	34.39	2	S7, Lots 3,4, T10S, R12W S12, T10S R13W
Beaverhead Work Center	PLO 2830 NM 094303	100	2	S19, T10S R12W
Ben Lilly Monument & Recreation Area	PLO 1119 NM 012318	40	7	S24, T16S R14W
Ben Lilly Recreation Area	PLO 1119 NM 012318	80	7	S33, 34, T10S, R17W
Black Mountain Adm. Site	PLO 4643 NM 0556981	20	2	S6, T11S R13W
Black Range Adm. Site	PLO 1413 NM 024939	145.33	2	Lots 8-11, T16S R8W
Bob Cat Adm. Site	PLO 1230 NM 016370	20	7	S7, T7S R12W
Bursum Campground	PLO 4643 NM 0556981	40	4	S2, T11S R18W
Cat Springs Lookout	PLO 1230 NM 016370	80	3	S16, 21, T3S, R15W
Cherry Creek Recreation Area	PLO 1038 NM 015227	152.5	7	S8, 17, 18, T16S R13W
Copperas-Cliff Dwellings Roadside Zone	PLO 4643 NM 0556981		5	S8, 16, 17, 20, 21, 28, 32, 33, T13S R13W S4, 5, 8, 9, 20, 29, 32, T14S R13W S25, 25, 36, T12S R14W
Cottonwood Canyon	PLO 1230			S10, T8S

Name	Number	Acres	District	Legal
Forest Camp	NM 016370	40	6	R20W
Eagle Peak Lookout	PLO 1230 NM 016370	40	6	S22, T7S R17W
East Fork Recreation Area	PLO 4643 NM 0556981	60	5	S8, T13S R13W
El Caso Lookout	PLO 1230 NM 016370	40	3	S27, T2S R16W
Emory Pass Recreation Area	PLO 1890 NM 023643	20	2	S15, T16S R9W
Escudillo Ranger Station Administrative Site	PLO 1230 NM 016370	120	3	S26, T4S R21W
Forks Recreation Area	PLO 4643 NM 0556981	100	5	S8, T13S R13W
Fort Bayard Adm. Site	PLO 1290 NM 021067	155.7	7	Tracts A & B, T17S R13W
Fox Mountain Lookout	PLO 1230 NM 016370	40	3	S3, T3S R18W
Gila River Bird Area	PLO 5513 NM 12720	2495.93	7	S9, 10, 16, 17, 21, 27, 28, 32, 33, T17S R17W
Gila Riverside Streamside Zone	PLO 4643 NM 0556981	291	7	S25, T12S R14W S4, 8, 17, 20, T13S R13W
Glenwood Ranger Station Adm. Site #31	SO 11/26/1906 PLO 1119 NM 012318 PLO 1393	114.73	4	S26, 27, 34, T11S R20W
Granite Peak Adm. Site	PLO 2830 NM 094303	40	5	S10, T13S R15W
Grapevine Recreation Area	PLO 4643 NM 0556981	20	5	S8, T13S R13W
Grouse Mountain Adm. Site	PLO 2830 NM 094303	20	4	S20, 21, T11S R18W
Hillsboro Lookout	PLO 2830 NM 094303	25	2	S4, T16S R9W
Hinkle Park Adm. Site	PLO 1230 NM 016370	40	4	S5, 8, T8S R21W
Hood Adm. Site & Addition	PLO 3768 NM 46841	450.08	6	S11, T7S R19W
Holt Adm. Site	PLO 2830 NM 094303	20	4	S2, T12S R19W
Hwy 12, Roadside Zone	PLO 1230 NM 016370	1014	3 & 6	S34-36, T4S R16W S3, 4, 9, T5S R16W S2, 10,11, T6S R18W S36, T6S R19W S1,3,4,8,11, 17, 18, T7S R19W

Name	Number	Acres	District	Legal
				S27-30, T4S R15W S25, T4S R16W S7, T5S R16W S13, 14, 21, 22, 28, 31-33, T5S R17W
Hwy 180, Roadside Zone	PLO 1230 NM 016370	3 & 6	3, 4, 6	S13, 24, 25, T6S R21W S34, T7S R20W S5-7, 17, 18 20, 29, 32, T9S R20W S31, 32, T6S R20W S5, 6, 8-11, 13, 14, 24- 26, 35, T7S R20W S21, 22, 28, 32, 33, T8S R20W
Hwy 32, Roadside Zone	PLO 1230 NM 0163370	3 & 6	3, 6	S16, 21, 28, 33, T1S R17W S13, 24, 25, 36, T3S R18W S1,12, 13, 23, 25, T4S R18W S5, 8, T5S R17W S17, 20, 21, T5S R17W
Indian Creek Recreation Area	PLO 1119 NM 012318	160	6	S28, 29, 32, T10S R17W
Iron Creek Recreation Area	PLO 1119 NM 012318	130	7	S17-20, T16S R9W
Jewett Ranger Station Adm. Site	PLO 1230 NM 016370	80	3	S8, T4S R17W
John Kerr Lookout	PLO 1230 NM 016370	100	6	S10, T6S R16W
Kingston Recreation Area	PLO 1038 NM 015227	16	2	S18, T16S R8W
Lake Roberts Recreation Area	PLO 4643 NM 0556981	718.56	5	S35, T14S, R13W S1, 2, T15S R13W
Little Walnut Picnic Ground Recreation Area	PLO 1119 NM 012318	160	7	S3, 10, T17S R14W
Lookout Mountain Adm. Site	PLO 2830 NM 094303	20	2	S18, T11S, R9W
Luna Ranger Station #1	SO 11/26/1907	37.5	3	S32, T5S R20W
Luna Ranger Station #2	SO 11/26/1906 PLO 1230 NM 46826	160	3	S32, T5S R20W
Mangas Mountain Lookout	PLO 1230 NM 016370	40	3	S16, T3S, R14W
Mangas Ranger Station	PLO 1230			

Name	Number	Acres	District	Legal
Adm. Site	NM 016370	40	3	S36, T2S R15W
McKnight Adm. Site	PLO 2830 NM 094303	20	5	S35, T14S, R10W
Mimbres Administrative Site	PLO 1413 NM 024939 PLO 3768	80	5	S7, T16S R11W
Mimbres Summer Home & Recreation Area	PLO 1038 NM 024939	160	5	S31, 32, T15S R11W
Mogollon Baldy Adm. Site	PLO 2830 NM 094303	40	5	S10, T12S, R17W
Negrito Administrative Airstrip	PLO 1413 NM 024939	200	6	S13, T9S R17W
Negrito Tower Picnic Ground & Recreation Area	PLO 1119 NM 012318 PLO 3768	20	6	S2, T10S R17W
Nursery Station #66	SO 1/30/1907 NM 46830	158	7	S2, T11S R19W
O Bar O Administrative Site	PLO 1413 NM 024939	40	6	S2, 3, T11S R15W
Pine Flat Recreation Area	PLO 1119 NM 012318	40	7	S29, T15S R13W
Power Site Classification	No. 327, 8/18/41	771	4	S2-4, 23, 26, 35, T11S R20W
Pueblo Park Forest Camp	PLO 1230 NM 016370	80	4	S24, T8S R21W
Reeds Peak Adm. Site	PLO 2830 NM 094303	40	2	S23, T13S R10W
Reserve Adm. Airstrip	PLO 2830 NM 094303	120	6	S18, T7S R18W S13, T7S R20W
Reserve Ranger Station Adm. Site	PLO 1230 NM 094303 PLO 3768	27.52	6	S11, T7S R19W
Rocky Canyon Recreation Area	PLO 1038 NM 015227	160	5	S7, 8, T14S R11W
Saddle Mountain Lookout	PLO 1230 NM 015227	160	4	S15, 16, T8S R21W
San Carlos Indian Irrigation Project		2382	7	S5-8, 18, T18S R17W
Scorpion Corral Recreation Area	PLO 4643 NM 0556981	120	5	S26, T12S R14W
Signal Peak Adm. Site	PLO 1119 NM 012318	40	7	S15, T18S R13W
Snow Creek Adm. Site	PLO 1119 NM 012318	40	7	S18, T15S R14W
Southwestern Congregational Churches Camp and Recreation Area	PLO 1038 NM 015227	160	5	S36, T15S R12W

Name	Number	Acres	District	Legal
TJ Administrative Site	PLO 2655 NM 070229	107	5	S25, T12S R14W
Tularosa Administrative Camp Site	PLO 1230 NM 016370	120	6	S32, 33, T5S R17W
Upper and Lower Black Canyon Campground Recreational Area	PLO 1119 NM 012318	206.44	5	S7, T13S R11W S12, T12S R12W
Upper End Campground (Lake Roberts RA)	PLO 5511 NM 10953	80	5	S2, T15S R13W
Walnut Creek Administrative Site	PLO 1218 NM 01813	240	7	S10, T17S R14W
White Creek Administrative Site	PLO 1119 NM 012318 PLO 3788	40	5	S1, T12S R16W
Whitewater Forest Camp and Recreation Area	PLO 1119 NM 012318	155.05	4	S4, 5, 6, T11S, R19W
White Water Forest Camp and Extension (Catwalk)	PLO 4643 NM 0556981	751.512	4	S4, 5, 6, T11S R19W
Willow Creek Administrative Site	PLO 1119 NM 012318	110	6	S34, T10S R17W
Willow Creek Recreation Area	PLO 1119 NM 012318	250	6	S26, 34, 35, T10S R17W
Wright's Cabin Forest Camp and Recreation Area	PLO 1119 NM 012318	120	5	S16, T16S R9W
Water Power		28046	4 & 7	S19-21, 25-31, 35, 36, T10S R19W S3-10, 15, T11S R19W S18, 19, 30, 31, 32, T12S R13W S13, 22-26, 36, T12S R14W S3-10, 17-20, 30, 32, 33, T13S R13W S24-27, 33-36, T13S, R14W S3-5, 7-10, 15-21, 28-30, 32, 33 T14S R14W S7, 13-29, T14S R15W S11-16, 19-24, 28, 29, T14S R16W S32, T17S R17W S5-8, 18, T18S R17W

Appendix G. Species Justifications

Species of Conservation Concern – Considered but do not merit inclusion as a species of conservation concern on Gila NF

Information on the 52 species listed below shows that the best available scientific information indicates there is not substantial concern about the species' capability to persist over the long term in the plan area.

Justifications

Amphibians

Arizona Toad (*Anaxyrus microscaphus*) - Within New Mexico, the Arizona Toad is restricted to the Gila, Mimbres, and San Francisco watersheds in the Gila Region of the Mogollon Rim, with disjunct populations in the San Mateo Mountains and the Black Range, approximately 40 miles east and southeast, respectively, of the Gila Region (Degenhardt et al. 1996; Kindscher et al. 2008; Jennings et al. 2010). The species is well distributed on the Gila NF from the Mimbres River Valley, north and west to near Luna, with locally abundant populations. This species typically calls and lays eggs in shallow water at the margins of streams, backwashes, or side pools where water flow is minimal. They have also been observed reproducing in lentic habitats (i.e. stock tanks). They have been found up to 3,166 ft from the nearest aquatic habitat during the non-breeding season, and up to 984 ft during breeding season. Also, they seem to move further away from pond habitat than stream habitat (Ryan et al. 2015). Threats include introgression and hybridization with Woodhouse's toad, changing water levels that dry out aquatic sites, and habitat modification (diversions, impoundments, etc.) (Ryan et al. 2015, NatureServe 2016). This species was found to be highly vulnerable to changing water levels as documented by reproductive failure after both flooding events and drying out of sites (Ryan et al 2015). There is no evidence of hybridization throughout the Gila NF. The long-term trend suggests an approximate decrease of 70% in the number of occupied sites range-wide, but the population is stable on the Gila NF over the course of the 3-year population monitoring from 2013-2015. (Ryan et al. 2015). Since the population on the Gila is stable, they are well distributed, and populations are locally abundant, then this species is not considered at risk for persistence on the Gila NF.

Birds

Northern Goshawk (*Accipiter gentilis*) occurs in ponderosa pine forest to mixed-conifer with aspen ERUs. The species is a forest habitat generalist that uses a wide variety of forest ages, structural conditions, and successional stages that is well distributed across Gila NF north to south, and east to west. Threats include timber harvest practices, uncharacteristic fires, fire suppression, and predation. Current management practices have alleviated threats from timber removal and are designed to help improve habitat through the northern goshawk guidelines. It occurs within ERUs that are highly departed; however, there is approximately 1,478,614 acres of these ERUs present on the Gila NF, most of which contain suitable habitat conditions for the goshawk. Local trends for the species shows that it is stable on Gila NF (USDA FS Gila NF 2012), and relatively stable to increasing in the western United States (Sauer 2014). Although the species occurs in ERUs that are highly departed, there is a large amount of suitable habitat and local trends show that the population is stable to increasing and therefore not considered at risk for persistence on the Forest.

American Peregrine Falcon (*Falco peregrinus anatum*) occurs in rock/talus/scree/cliffs from shrubland to mixed-conifer. This species is relatively well distributed across the Gila NF occupying rough cliff habitat, particularly in wilderness areas. It is protected from most threats through wilderness designations as well as inaccessible cliff habitat. Threats may include environmental toxins, habitat loss through mining or mineral development, human disturbance, and illegal take (falconry) (NatureServe 2016). Wilderness area designations and cliff habitat provide protections from most threats and cliff habitat has not likely departed from reference conditions, plus trend is relatively stable to slightly increasing (NatureServe 2016, Sauer 2014), therefore the species is not considered at risk for persistence on the Forest.

Bald Eagle (*Haliaeetus leucocephalus*) utilizes large trees or cliffs near lakes or reservoirs. Only one nesting pair is known on the Gila NF at Quemado Lake. Prior to this nesting pair, they were only known to be common winter residents on the Gila NF. Threats to the species include biocide contamination, human disturbance, reduced food supply, and illegal shooting. Bald eagles are known to tolerate human disturbance so long as it is not directed at them. They have nested and successfully fledged young at Quemado Lake in spite of human activities, as the District has put use restrictions in the area of the nesting pair during the breeding season. Populations are relatively stable to increasing (IUCN 2016, NatureServe 2016, Sauer 2014), so this species is not considered at risk for persistence on the Forest.

Abert's Towhee (*Melospiza aberti*) occurs in desert woodlands/chaparral. Preferred habitat consists of woodlands and thickets usually along rivers and streams, such as the brushy understory of cottonwood-willow gallery forests and mesquite bosques (Tweit and Finch 1994). ERUs that could provide habitat include Arizona alder-willow, desert willow, sycamore-Fremont cottonwood, Fremont cottonwood-oak, and Fremont cottonwood-shrub. These ERUs are in low to moderate departure. There is no evidence this species has ever been found outside its current range in NM (BISON-M 2016). The species has rarely been found along the Gila River at the Gila Bird Area, which is near the northern limit for this species (BISON-M 2016, Shook 2015). Shook (2015) considers this species to be transient on the Gila NF. Threats to the species include habitat loss, modification, and fragmentation through agricultural development and other human uses. They can be heavily parasitized by brown-headed cowbirds. The Gila Bird Area and Gila River Research Natural Area may offer some protections from management activities and other threats. Trend appears to be relatively stable (NatureServe 2016) to slightly increasing (Sauer 2014) range-wide, and species is considered transient on Gila NF (Shook 2014) therefore not considered to be at risk for persistence on the Forest.

Common Black Hawk (*Buteogallus anthracinus*) occurs in mature, well developed riparian forests near permanent streams, particularly areas with mature cottonwoods. ERUs that could provide habitat include Arizona alder-willow, desert willow, Arizona walnut, sycamore-Fremont cottonwood, Fremont cottonwood-oak, and Fremont cottonwood-shrub. These ERUs are in low to moderate departure. The species is relatively well distributed at lower elevations of the major river systems of the Gila NF including the San Francisco, Gila, and Mimbres River drainages, as well as the east side of the Black Range in Animas and Seco Creeks. Threats include loss of perennial streams and riparian habitat, particularly cottonwood bosques. Many of these areas are already provided protection for the management of threatened and endangered species that often occur within these habitat types. Populations have increased since the 1970s and reproductive success from 2000 to 2011 has increased (Shook and Walkup 2012). Populations appear to be stable to increasing (IUCN 2016, NatureServe 2016, Shook and Walkup 2012). Because of the reasons mentioned above, this species is not considered at risk for persistence on the Gila NF.

Bank Swallow (*Riparia riparia*) occurs in riparian corridors with banks suitable for building burrows. ERUs that could provide habitat include Arizona alder-willow, desert willow, Arizona walnut, sycamore-Fremont cottonwood, Fremont cottonwood-oak, and Fremont cottonwood-shrub. These ERUs are in low to moderate departure. Threats include habitat alteration/elimination from flood and erosion control

projects (riprap), streamflow regulation, and climate change may exclude NM from summer habitation (NatureServe 2016). Populations appear to be slightly increasing in the western US since 1996, but there is no Breeding Bird Survey data specifically for New Mexico (Sauer 2014). These birds are rare transients on the Gila NF (Zimmerman 1995), and are not considered at risk for persistence on the Gila NF.

Bell's Vireo (*Vireo bellii*) occurs in desert shrubland/woodlands in lowland stream courses. ERUs that could provide habitat include Arizona alder-willow, desert willow, Arizona walnut, sycamore-Fremont cottonwood, Fremont cottonwood-oak, and Fremont cottonwood-shrub. These ERUs are in low to moderate departure. This species has been found in the lower Gila and lower San Francisco valleys. Threats include loss or fragmentation of dense shrubby/woody riparian habitats from urbanization, agriculture, grazing, firewood cutting, flood control, and reservoir construction, as well as high rates of brood parasitism and predation (NatureServe 2016). There are currently protections for threatened and endangered species habitat where this species occurs that would also benefit this species which has likely alleviated some threats. Population trend for this species appears stable to slightly increasing (Sauer 2014), and Shook (2015) shows a significant increase of this species in the Gila Bird Area. Therefore, this species is not considered at risk for persistence on the Gila NF.

Blue-throated Hummingbird (*Lampornis clemenciae*) occurs in open stands of creosote and large succulents, as well as within cottonwoods along desert stream courses. ERUs that could provide habitat include semi-desert grassland, Arizona alder-willow, desert willow, Arizona walnut, sycamore-Fremont cottonwood, Fremont cottonwood-oak, and Fremont cottonwood-shrub. These ERUs are in low to moderate departure with the exception of semi-desert grassland that is highly departed from reference conditions. They are rare summer residents of the Gila NF (Zimmerman 1995). No major impacts are documented for this species, but habitat degradation from logging, grazing, mining, water diversion or introduction of non-native plants may affect their habitat. These threats are offset due to the species commonly nesting in altered habitats by placing nests on buildings or other structures (NatureServe 2016). Distribution and abundance on Gila NF is not known. Population trends show relatively stable to increasing range-wide (NatureServe 2016, IUCN 2016), but there is no information available specifically for the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

American goldfinch (*Spinus tristis*), Eastern bluebird (*Sialia sialis*), Elegant trogon (*Trogon elegans*), Ferruginous hawk (*Buteo regalis*), Harris's hawk (*Parabuteo unicinctus*), Lincoln's sparrow (*Melospiza lincolnii*), Northern harrier (*Circus cyaneus*), Savannah sparrow (*Passerculus sandwichensis*), Wilson's warbler (*Wilsonia pusilla*). All of these species inhabit weedy, cultivated lands; grasslands; savannahs; shrublands; or open piñon-juniper woodlands. These species may occupy ERUs ranging from semi-desert grassland up to montane/subalpine grasslands, and all of the woodland ERUs as well. These ERUs are distributed all across the Forest and range from low to highly departed from reference conditions (Upland Vegetation chapter). All species, except for Savannah sparrow and Wilson's warbler, have a stable to increasing trend in New Mexico (Sauer 2014). Savannah sparrow and Wilson's warbler show a slight decreasing trend in New Mexico (Sauer 2014), but have been identified as common transients through the Gila NF (Zimmerman 1995). There is no trend data available for these species specific to the Gila NF. All are identified as either non-breeding residents, vagrant, or transient species on the Gila NF (NatureServe 2016, Zimmerman 1995). In general, these species are mostly observed migrating through or using the Gila NF during the winter and are not normally subject to impacts from management activities. These species are transient or migrants and have been removed from further evaluation.

Marsh wren (*Cistothorus palustris*), Wilson's phalarope (*Phalaropus tricolor*) are species that are strongly associated with herbaceous wetlands as important habitat. Marsh wren is a non-breeding winter resident while Wilson's phalarope is identified as a rare transient through the Gila NF (NatureServe 2016,

Zimmerman 1995). The herbaceous wetland ERU has low departure from reference conditions on the 2,485 acres occurring on the Gila NF. Neither of these species has trend data available for the State of New Mexico, but nationwide they have a stable to increasing trend (Sauer 2014). In general, these species are mostly observed migrating through or using the Gila NF during the winter and are not normally subject to impacts from management activities. These species are transient or migrants and have been removed from further evaluation.

Black swift (*Cypseloides niger*), Osprey (*Pandion haliaetus*), and Ring-necked duck (*Aythya collaris*) are all species that are strongly associated with water as an important part of their habitat. Black swift tend to occupy sites in bare rock or cliffs near waterfalls (NatureServe 2016). This habitat is not likely departed from reference conditions. The Breeding Bird Survey (Sauer 2014) does not have trend data specifically for New Mexico, but shows that this species is declining in all areas nation-wide except for the Northern Rockies region. Osprey and ring-necked duck require larger and deeper bodies of water as part of their habitat. Neither species has trend data specifically for New Mexico, but they both show an upward trend across the western United States (Sauer 2014). All of these species are either transient species or non-breeding residents on the Gila NF (NatureServe 2016, Zimmerman 1995). In general, these species are mostly observed migrating through or using the Gila NF during the winter and are not normally subject to impacts from management activities. These species are transient or migrants and have been removed from further evaluation.

Fish

Desert Sucker (*Catostomus clarkia*) typical habitat consists of small to medium rivers with pools and riffles; individuals occur mainly over bottoms of gravel-rubble with sandy silt in interstices (Sublette et al. 1990). These suckers avoid or are unable to persist in reservoirs and lakes (Minckley and Marsh 2009). In New Mexico threats include stream/river dewatering and invasion of non-native fish, particularly red shiner (NatureServe 2016, IUCN 2016), flathead catfish, and smallmouth bass (J. Monzingo pers. comm. 2016). This species is well distributed and still occurs in most streams it was present in historically in the Gila and San Francisco River drainages. Even though their trend appears to be declining over the last 10 years (Paroz et al. 2006) on the Gila NF, this species was the third most collected fish species during this study. This decline could be attributed to a multitude of factors including prolonged drought, ash flows and increased sediment from wildfires, non-native predatory fish, scouring floods, and flood control structures (Paroz et al. 2006). In New Mexico their trend is categorized as stable (Sublette et al. 1990, NatureServe 2016, IUCN 2016). Although there appears to be a decline in the species over the last 10 years on the Gila NF, this species is ubiquitous in its historic drainages and not considered at risk for persistence on the Forest.

Sonora Sucker (*Catostomus insignis*) is typically found in gravelly or rocky pools of creeks and small to medium rivers (Page and Burr 2011). Threats to this species include alteration of historic flow regimes, reservoir construction, increased sedimentation eliminating pool habitat, nonnative species, post fire effects, and stream diversions (J. Monzingo pers. comm. 2016). This species is well distributed and still occurs in most streams it was present in historically in the Gila and San Francisco River drainages. Even though their trend appears to be declining over the last 10 years (Paroz et al. 2006) on the Gila NF, this species was the second most collected fish species during this study. The short term trend in New Mexico shows a decline of <30% to relatively stable, and long-term decline of <30% to an increase of 25% (NatureServe 2016). Although there appears to be a decline in the species over the last 10 years on the Gila NF, this species is ubiquitous in its historic drainages and not considered at risk for persistence on the Forest.

Rio Grande Cutthroat Trout (*Oncorhynchus clarki virginalis*) occurs only in Animas Creek. The species is currently extirpated from the creek because of the 2013 Silver Fire ash flows and scouring floods, but there

are plans to repatriate the stream in the next few years. Threats generally include reduced streamside cover due to grazing, timber activities, uncharacteristic wildfire, hybridization with non-native salmonids, habitat fragmentation, stream intermittency, and competition. Once the stream is repatriated with this species, most threats will have been largely reduced or eliminated for the species on the Gila NF. Populations should then begin to increase and stabilize once repatriated as there will be no competition or hybridization occurring. Upon repatriation, with most threats reduced or eliminated, this species should not be considered at risk for persistence on the Forest.

Invertebrates

Dashed Ringtail (dragonfly) (*Erpetogomphus heterodon*) occurs in clear, rocky, mountain streams and rivers. Only the adult form of this species has been found in 2 rivers in southwestern New Mexico. It is not known what the larvae look like or any life functions or habitat requirements are for this species (NatureServe 2016). Specific threats are not known, but likely include anything that can destabilize stream flow (NatureServe 2016). Nothing is known about abundance, distribution, or trends for this species on the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Mayfly (*Leucrocuta petersi*) has been found in warm, medium sized rivers. It occurs in rivers with silt covered rocks and sandy bottoms, and is known from the Gila River drainage (NatureServe 2016). Specific threats are not known, but likely anything that can destabilize stream flow (NatureServe 2016). Nothing is known about abundance, distribution, or trends for this species on the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Notodontid Moth (*Oligocentria delicata*) has been historically found in oak/juniper/pine woodlands. This species is a regional endemic species that occurs mostly on the Coronado NF, with a few populations occurring in neighboring New Mexico (NatureServe 2016). There is a historic record of the species occurring in Grant County, but there is no specific location given (Lott and Naberhaus 2015). Nothing is known about abundance, distribution, or trends for this species on the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Arizona Snaketail (dragonfly) (*Ophiogomphus arizonicus*) occurs in pine woodland streams. It has been found in swift mountain streams with silt that provide larval habitat. The species is reasonably widespread and locally common throughout its range (NatureServe 2016). It has been found in the Gila and San Francisco River drainages. Specific threats are not known but may include anything that causes stream destabilization; however, National Forests have some level of protection from threats (NatureServe 2016). Abundance and trend on the Gila NF is not known, but populations range-wide appear to be relatively stable to stable (IUCN 2016, NatureServe 2016), and there is no indication of population decline (IUCN 2016). In summary, range-wide populations appear stable, species is reasonably widespread, they can be locally common, and National Forests have some level of protection from threats. Therefore, this species is not considered to be at risk for persistence on the Gila NF.

Four-spotted Skipperling Skipper (butterfly) (*Piruna polingii*) occurs in moist meadows and streamside in conifer woodlands. ERUs this species may occur in include upper montane conifer/willow, herbaceous wetland, narrowleaf cottonwood/shrub, ponderosa pine forest, mixed-conifer with frequent fire, mixed-conifer with aspen, and spruce-fir forest. Ponderosa pine forest is highly departed, while the rest of the ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). This species has been found from Emory Pass, north and west, to Willow Creek on Reserve RD, and south to the Pinos Altos Range. Threats may include uncharacteristic wildfire or management activities that could dry out sites. The species is not well studied and much is not known about the life functions or habitat requirements including what host plant the larvae use (Zimmerman 2001). Range-wide trend for this species shows a decline of <30% to relatively stable (NatureServe 2016). Nothing is known about

abundance or trends for this species on the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Dry Creek Woodlandsnail (*Ashmunella tetrodon tetrodon*) is found in Dry Creek Canyon in the southwestern portion of the Mogollon Mountains from 6,000-7,000 ft. The species is limited to deep canyons along creek bottoms where deciduous trees produce abundant leaf litter where snails occur under and around stones and logs (Metcalf and Smartt 1997). Threats may include degradation or destruction of riparian vegetation producing deciduous leaves, such as uncharacteristic fire or flood events. Little is known about the distribution of the species as several canyons that may contain habitat have likely not been surveyed. Abundance and trend are unknown on the Gila NF, but trend is likely stable as populations discovered in early 1900s were still found in mid-1990s (Metcalf and Smartt 1997). Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Cross Snaggletooth (snail) (*Gastrocopta quadridens*) is found in western and central parts of the state, Sacramento and Mogollon Mountains, and northward to Utah. Fossils of this species have been found in the Caballo Mountains. This species habitat consists of forest openings comprised of calcareous bedrock (Metcalf and Smartt 1997). Threats may include uncharacteristic wildfire, mineral exploration and development, road construction and maintenance, and climate change. This species appears to be quite abundant along the Sandia Crest and in a few localities in the Capitan Mountains. Distribution, abundance and trend on the Gila NF is unknown but the trend is likely stable as populations discovered in early 1900s were still found in mid-1990s (Metcalf and Smartt 1997). Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Plants

Threadleaf Giant-hyssop (*Agastache rupestris*) occurs on protected north slopes from oak savannah to ponderosa pine (4,500-7,000 ft). ERUs in which this species may occur include piñon-juniper woodland, piñon-juniper grass woodland, ponderosa pine-evergreen oak, ponderosa pine forest, and mixed-conifer with frequent fire. Ponderosa pine forest is highly departed, while the other ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). The species has been collected from between Reserve and Wall Lake, south to Pinos Altos (SEINet 2016). This plant is relatively well distributed on the Gila NF. Threats to the species would likely include uncharacteristic wildfire, but authors make no note of threats or make reference to rarity (NMRPTC 1999). Abundance and trend on the Gila NF are not known. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Villous Groundcover Milkvetch (*Astragalus humistratus* var. *crispulus*) occurs in xeric pine forest on sandy volcanic soils (NMRPTC 1999). ERUs in which this species may occur include Colorado Plateau/Great Basin grassland, juniper-grass woodland, piñon-juniper grass woodland, and ponderosa pine-evergreen oak forest. Colorado Plateau/Great Basin grassland is highly departed, while the other ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). Specimens have been taken from Reserve to Quemado (SEINet 2016). This species is fairly well distributed on the Gila NF, it can occur within several ERUs, often occurs in disturbed areas such as road cuts, and is locally common (NatureServe 2016). Specific threats have not been identified for the species but may include uncharacteristic wildfire or road maintenance activities. There is no known information about abundance or trends of the species on the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Nutriosio Milkvetch (*Astragalus nutriosensis*) occurs on mesa tops at 7000-8000 ft elevation in open grassland or occasionally among piñon pine and juniper, and it occurs in soils that are volcanic silty-clays. The location where the species was found is in the Colorado Plateau/Great Basin grassland ERU, but it may also find suitable habitat where this ERU intercedes with the juniper-grass woodland ERU. The Colorado

Plateau/Great Basin grassland ERU is highly departed, while the juniper-grass woodland ERU is in low (on Forest) to moderate (in context area) departure from reference conditions (Upland Vegetation chapter). There has been only one documented occurrence in 1995 at the extreme NE corner of the Gila NF (SEINet 2016). The most recent description of the species by Isely (1998) does not record the species in NM. This species is a narrow endemic to the Rio Nutrioso drainage in AZ (NMRPTC 1999, NatureServe 2016). This species is not palatable to livestock because it may be poisonous as this is a close relative of *A. mollissimus* var. *mathewsii* which is known to be poisonous. However, it may be subject to weed eradication programs for that reason (NMRPTC 1999). There are no other specific threats documented, and trend and abundance on the Gila NF are unknown. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Mogollon Whitlowgrass (*Draba*) (*Draba mogollonica*) occurs on cool, moist north slopes of montane forests between 5,000-9,000 ft elevation in volcanic soils of the Mogollon Mountains. It occurs from piñon-juniper woodlands all the way up to mixed-conifer with aspen, but is associated with rocky/cliffy habitat which has not likely changed from reference conditions. Much of the area this plant occurs is inaccessible and current land uses pose no threat to the species (NMRPTC 1999). This species is well distributed across the Gila NF, from Reserve, south to Silver City, and from the AZ state line all the way east to the Forest boundary, and further east to the San Mateo Mountains. This plant is often found in large populations throughout its range, and it may be more abundant than is now known because of the relative inaccessibility of its habitat (NMRPTC 1999). Threats to the species may include uncharacteristic wildfire and mineral exploration. The trend of this species on the Gila NF is not known; however, given that this species is well distributed across Gila NF, current land uses pose no threat to species because habitat is relatively inaccessible, and the plant is often found in large populations throughout its range, this species is not considered to be at risk for persistence on the Gila NF.

Winn Falls Fleabane (*Erigeron scopulinus*) occurs on cliff faces on rhyolitic rock between 5,900 - 9,200 ft. elevation that has not likely changed from reference conditions. The species is well distributed east to west across Gila NF from Hwy 180 to Diamond Peak, and further east to the San Mateo Mountains. Populations of this plant are sporadic and disjunct, but can be locally very abundant, and the cliff habitat that it occupies effectively removes threats to this species (NMRPTC 1999). Threats may include uncharacteristic wildfire and mineral exploration and development. Trend for this species on the Gila NF is unknown. Given that this species is well distributed across Gila NF, current land uses pose no threat to species because habitat is relatively inaccessible, and the plant can be locally abundant, this species is not considered to be at risk for persistence on the Gila NF.

Horned Spurge (*Euphorbia brachycera*) is found from open grasslands into ponderosa pine forests. ERUs this species may occur in include Colorado Plateau/Great Basin grasslands, all the way up in elevation through ponderosa pine forests. These ERUs range from low to high departure from reference conditions (Upland Vegetation chapter). This species is widely distributed across the Gila NF and much of the interior west, and is considered globally secure (G5). There is no known information about threats, trends, abundance, or habitat requirements for this species on the Gila NF, but people may target the species with weed eradication programs as it looks similar to the noxious leafy spurge (*E. esula*). Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

New Mexican Gumweed (*Grindelia arizonica* var. *neomexicana*) occurs on rocky slopes and ledges in piñon-juniper to lower montane coniferous forest, and is considered an endemic species to southwestern New Mexico (NatureServe 2016). ERUs in which this plant may occur include piñon-juniper woodland, ponderosa pine-evergreen oak, ponderosa pine forest, and mixed-conifer with frequent fire. Ponderosa pine forest ERU is highly departed while the other ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). The species is relatively well distributed on the Gila NF from

Quemado Lake, south to Silver City, and east to Emory Pass, occurring in the Pinos Altos Range, Black Range, and Mimbres Mountains. There are no known threats to the species, and abundance and trends are not known on the Gila NF. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Goodding's Bladderpod (*Lesquerella gooddingii*) occurs on rocky slopes and ravines in piñon-juniper and ponderosa pine at elevations between 6,000-7,500 ft., often near streams and springs in Gila conglomerate soils. ERUs in which this species may occur include piñon-juniper grass woodlands, piñon-juniper woodlands, mountain mahogany shrubland, ponderosa pine-evergreen oak, and ponderosa pine forest. Ponderosa pine forest ERU is highly departed while the rest of the ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). The species is relatively well distributed on the Gila NF from the Arizona border near Reserve, east to Poverty Creek on the Black Range. This species is not threatened by prevailing land uses within its range, but it does occur occasionally along highway rights-of-way where some populations could be susceptible to disturbance (NMRPTC 1999). Abundance and trend for this species on the Gila NF are not known. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

White Mountain Groundsel (*Packera cythioides*) occurs in openings on igneous soils in piñon-juniper to upper montane conifer forest between 7,000-9,500 ft. elevation. ERUs in which this species may occur include piñon-juniper grassland, piñon-juniper woodland, ponderosa pine-evergreen oak, ponderosa pine forest, mixed-conifer with frequent fire, and mixed-conifer with aspen. Ponderosa pine forest is highly departed while the other ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). This species is well distributed from Mule Creek near the Arizona border, east through the Black Range, and north into the San Mateo Mountains. Prevailing land uses do not threaten the species, but this species sometimes occupies road cuts where some populations could be impacted by road maintenance operations (NMRPTC 1999). There are no other known threats, but the effects from timber harvest and fire has not been studied (NMRPTC 1999). Abundance and trend for this species on the Gila NF are not known. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Mt. Graham Beardtongue (*Penstemon deaveri*) occurs on rocky slopes from ponderosa pine to above timberline between 7,500-11,000 ft. elevation. ERUs in which this species may occur include ponderosa pine-evergreen oak, ponderosa pine forest, mixed-conifer with frequent fire, mixed-conifer with aspen, and spruce-fir forest. Ponderosa pine forest is highly departed and spruce-fir forest is moderately departed but modelled to be highly departed in the future as much of the spruce-fir forest ERU has burned in wildfires within the last 5 years. Rocky slopes where this species grows may protect it from fire effects. The other ERUs are moderately departed from reference conditions. The species is fairly well distributed on the Gila NF and is found in the Burro Mountains, north to Jewett Gap near Quemado, and east into Arizona. Current land uses apparently pose no threats to the species (NMRPTC 1999). Abundance and trend for this species on the Gila NF are not known. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Silver Mock Orange (*Philadelphus argenteus*) is an upper elevation shrub found on dry, rocky slopes. ERUs in which this species may occur include Madrean piñon -oak woodland, ponderosa pine-evergreen oak, ponderosa pine forest, and mixed-conifer with frequent fire. Ponderosa pine forest is highly departed while the other ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). The species is fairly well distributed on the Gila NF and is found just south of Glenwood RD boundary by Yellowjacket peak, northeast to Wall Lake, and in the Black Range from near Emory Pass, west into Upper Gallinas Canyon. Little known about threats or abundance, and nothing is known about habitat requirements for this species on the Gila NF. This species is globally secure and it is not considered a rare

plant by NMRPTC (1999). Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Wright's Catchfly (campion) (*Silene wrightii*) occurs on cliffs and rocky outcrops in conifer forests between 6,800-8,000 ft. elevation. The cliff habitat in which the species occurs is not likely departed from reference conditions. The species is fairly well distributed on the Gila NF from near the town of Mogollon, east to just north of the town of Kingston on the Black Range. Current land uses apparently pose no threats to this species as the cliff/crevice habitat it occupies offers considerable protection (NMRPTC 1999). Abundance and trend for this species on the Gila NF are not known. Information for this species is lacking to evaluate whether or not the species is at risk for persistence on the Gila NF.

Metcalfe's Groundsel (*Packera neomexicana* var. *metcalfei*) occurs in piñon-juniper woodland and lower montane coniferous forest between 7,000-8,000 ft. elevation. The ERUs in which this species may occur include piñon-juniper woodland, ponderosa pine-evergreen oak, ponderosa pine forest, and mixed-conifer with frequent fire. Ponderosa pine is highly departed while the other ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). The species appears to be fairly well distributed across the Gila NF from near Mangas Mountain on the Quemado RD, south to near Emory Pass, and west to the Arizona state line. There appear to be no significant land use threats to the species or its habitat, and it is quite common within its limited range (NMRPTC 1999). Trend for the species on the Gila NF is not known. There are few external threats impacting its populations and/or their habitat therefore its persistence on the Forest is not considered at risk.

Gila Thistle (*Cirsium gilense*) occurs in moist areas or mountain meadows in montane coniferous forest between 7,000-8,000 ft. elevation. ERUs in which this species may occur include ponderosa pine forest and mixed-conifer with frequent fire. Ponderosa pine forest is highly departed while mixed-conifer with frequent fire is moderately departed from reference conditions (Upland Vegetation chapter). Much of the mixed conifer burned in large wildfires over the last 5 years. This species is found in the Mogollon Mountains on the Gila NF, and nearby in the White Mountains of Arizona. The species is not threatened by prevailing land uses within its range, and it is known to increase with disturbance (NMRPTC 1999). This species occurs within the Whitewater-Baldy Fire perimeter and is not likely impacted or possibly even positively impacted by the fire and experiencing few, if any, alterations to its habitats from direct impacts of the fire or post-fire impacts (Roth 2016). Surveys conducted after the fire by Roth (2016) show that the thistle is distributed throughout the area and is frequently found along roadsides, streams, drainage bottoms, moist north-facing slopes, but also thrives in disturbed and burned areas, regardless of fire severity. The species was previously under-documented and is considered secure despite the disturbances to its habitat (Roth 2016). Trend and abundance appear to be increasing on the Gila NF therefore its persistence on the Forest is not considered at risk.

Mammals

Spotted Bat (*Euderma maculatum*) occurs in cliff habitat from desert to montane coniferous forest. Cliff habitat features are not likely departed from reference conditions. The cliff habitat this species occupies effectively protects it from most threats. The fungal infection known as white-nose syndrome that affects bats is not very likely to affect this species as they are not known to hibernate in groups. Roosting habitat is extensive, remote, and mostly not vulnerable to destruction or excessive disturbance (NatureServe 2016). There are no current threats to cliff and crevice habitat they occupy, although rock climbing may disturb isolated individuals/populations (NatureServe 2016). This bat is fairly well distributed on the Gila NF and has been documented between Lake Roberts and further to the northwest to Willow Creek. Population trend and abundance are not known on the Gila NF, but range-wide trend for this species appears to be relatively stable both short and long-term in terms of distribution and abundance (NatureServe 2016). Since habitat is not likely departed from reference conditions, inaccessible, and

overall population trends are relatively stable, this species is not considered at risk for persistence on the Gila NF.

Hooded Skunk (*Mephitis macroura*) occurs in rock/talus scree, low riparian, desert, low grasslands, and low woodlands. The ERUs in which this species may occupy include Arizona alder-willow, desert willow, Arizona walnut, sycamore-Fremont cottonwood, Fremont cottonwood-oak, Fremont cottonwood-shrub, semi-desert grassland, Madrean piñon-oak woodland, piñon-juniper grass woodland, and mountain mahogany shrubland. Semi-desert grassland is highly departed while the rest of the ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). This species is relatively well distributed and found fairly common on Gila NF. Specimens have been collected from Lilley Park in the Negrito watershed, south to the Burro Mountains, and 7 miles north of Mimbres (BISON-M 2016). This species is listed as an unprotected furbearer in the New Mexico hunting regulations as skunks are not differentiated, so threats likely include shooting, trapping and vehicle collisions. The species thrives in areas where there is human disturbance (IUCN 2016). Animal damage control practices may impact a few individuals, but the number is very low (BISON-M 2016). Population trends show that the species' numbers are increasing (BISON-M 2016). This species is not considered at risk for persistence on the Gila NF.

White-nosed Coati (*Nasua narica*) occurs in riparian areas near croplands/hedgerows, and woodlands. ERUs in which this species may occupy include Arizona alder-willow, desert willow, Arizona walnut, sycamore-Fremont cottonwood, Fremont cottonwood-oak, and Fremont cottonwood-shrub. These ERUs are in low to moderate departure from reference conditions (Upland Vegetation chapter). They are relatively well distributed on the Gila NF and have been found from Cassidy Spring in the geographic center of the Gila NF, west to the San Francisco Valley, and south into the Burro Mountains. Threats include indiscriminant killing through illegal shooting or trapping, even though coatis are classified as protected furbearers and cannot be legally taken in New Mexico which alleviates shooting threats to a certain extent (NMDGF 2016c). Also, vehicle collisions are a possible threat. Distribution has increased on the Gila NF since the 1970s, so it is likely that abundance has also increased. This species is not considered at risk for persistence on the Gila NF.

Arizona gray squirrel (*Sciurus arizonensis arizonensis*) and Rocky Mountain Bighorn Sheep (*Ovis canadensis*) - According to the New Mexico Department of Game and Fish, gray squirrel and Rocky Mountain bighorn sheep are huntable within New Mexico (NMDGF 2016c). However, the New Mexico Comprehensive Wildlife Conservation Strategy specifically states that Arizona gray squirrels are "Not a harvested species". The New Mexico hunting regulations say that gray squirrels are legal to harvest without differentiating that Arizona gray squirrels are not supposed to be harvested. Frey et al. (2008) notes that Arizona gray squirrel occupies mid-elevation riparian areas, distributed well across the Gila NF, and has experienced no expansion or contraction of their distribution. Population trends for Rocky Mountain bighorn sheep within the Gila NF have been decreasing since 2004, but has been on the increase since 2013 with a large jump in the San Francisco population in 2014 (NMDGF 2016b). Rocky Mountain bighorn sheep and Arizona gray squirrel appear to be secure within the Gila NF, and their continued long-term persistence is not at risk because they are managed at numbers that allow them to be a huntable species.

Summary of At-Risk Determinations

At-risk species decisions are based on the best available scientific information. Unfortunately, many species lack specific information on current population status, distribution, or abundance making it difficult to determine risk. Another confounding issue is scale. Although some species information indicate increase or a decline on a large geographic scale (i.e. nationwide or statewide), Forest-wide expertise may not suggest a similar determination. Should any new information become available the plan can be amended to accommodate the new information.