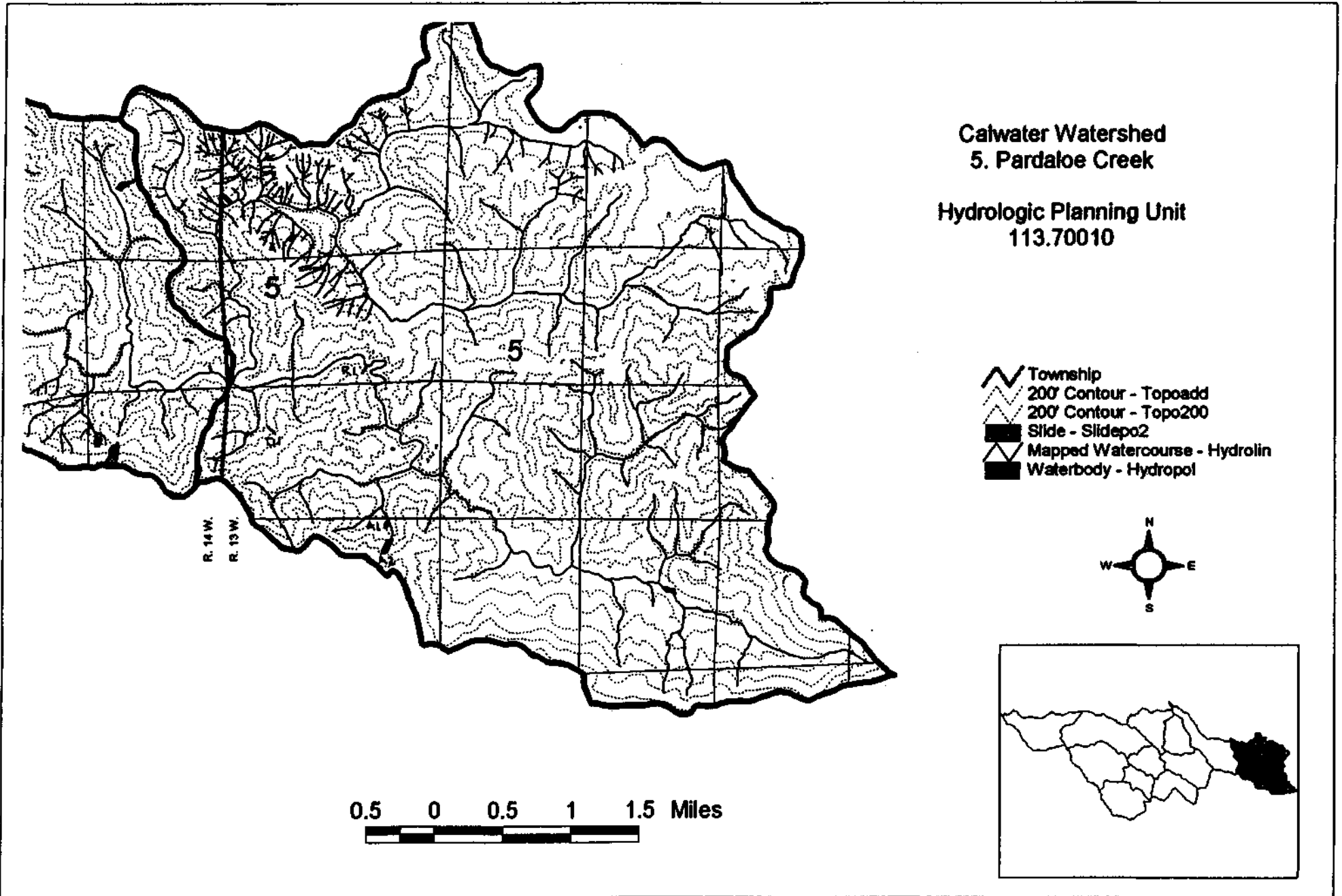


APPENDIX A.

LOCATION AND VOLUMES OF MASS WASTING SITES

Garcia Watershed - Basins



**GARCIA RIVER WATERSHED ASSESSMENT
 APPENDIX A - MASS WASTING INVENTORY DATA
 Calwater Watershed 5 - Pardaloe Creek**

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
78	T12N	R13W	7	R	1	5	SR	D	Y	4	R	c		L	
78	T12N	R13W	19	A	2	5	SR	D	Y	1	N	P		L	
78	T12N	R13W	19	A	1	5	SR	D	Y	1	N	P		M	

Garcia Watershed - Basins

Note: see map 3/4 for
headwaters of Lamour Creek
(no slides)

T. 13 N.

T. 12 N.

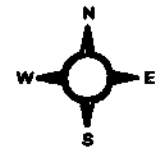
R. 14 W.

R. 13 W.

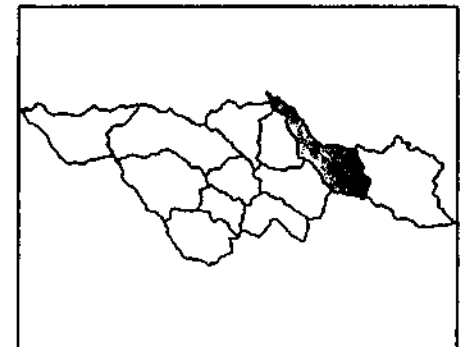
Calwater Watershed
2. Lamour Creek

Hydrologic Planning Unit
113.70011

- Township
- 200' Contour - Topoadd
- 200' Contour - Topo200
- Slide - Slidepo2
- Mapped Watercourse - Hydrolin
- Waterbody - Hydropol



0.5 0 0.5 1 1.5 2 Miles



**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 2 - Larmour Cr.**

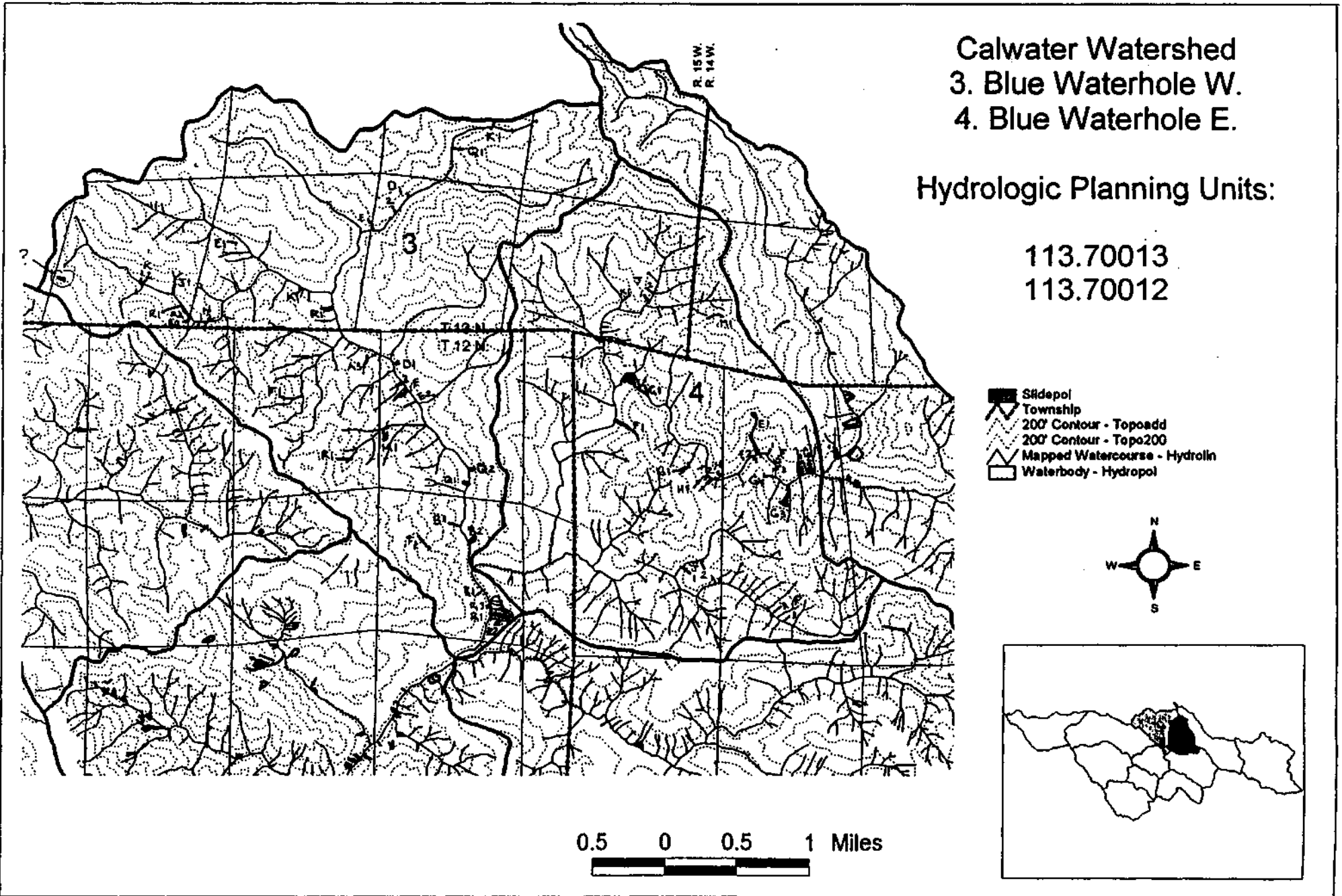
Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T13N	R14W	31	K	1	2	DF	P	Y	2	R	C	S		
65	T12N	R14W	3	M	1	2	LPD	D	Y	4	H/IG	C	XL	XL	L
65	T12N	R14W	3	M	2	2	SR	D	Y	4	H/IG	P	XL	L	
65	T12N	R14W	3	M	3	2	SR	D	Y	4	N/IG	C	XL	M	
65	T12N	R14W	3	M	4	2	SR	P	N		R	C	M	S	
65	T12N	R14W	3	Q	1	2	SR	D	Y	2	H	C	XL	XL	
65	T12N	R14W	3	Q	2	2	SR	D	Y	2	H	P	XL	L	
65	T12N	R14W	4	E	2	2	SR	D	Y	4	N	D	M	M	M
65	T12N	R14W	4	J	1	2	SR	D	Y	4	H	C	S		
65	T12N	R14W	4	J	2	2	SR	D	Y	4	H	C	S		
65	T12N	R14W	5	H	1	2	SR	D	Y	2	N/IG	C	L		L
65	T12N	R14W	5	H	2	2	SR	Q	Y	4	H	P	M	L	
78	T12N	R14W	3	M	5	2	DF	Q	Y	4	R	C		L	
78	T12N	R14W	4	J	3	2	DF	P	Y	4	R	P		L	
78	T12N	R14W	3	K	1	2	LPD	P	N		H	P		L	
78	T12N	R14W	4	D	1	2	LPD	D	Y	3	N	D		XL	XL
78	T12N	R14W	1	M	1	2	SR	P	N		N	D		L	
78	T12N	R14W	11	D	2	2	SR	D	Y	4	N	C		L	L
78	T12N	R14W	12	K	1	2	SR	D	Y	1	N	P		L	
78	T12N	R14W	13	E	1	2	SR	D	Y	1	N	C		L	
78	T12N	R14W	14	c	2	2	SR	P	Y	1	R	C		L	L
78	T12N	R14W	4	D	2	2	SR	P	Y	3	R	P		L	
78	T12N	R14W	4	E	1	2	SR	D	Y	4	N	P		M	M
78	T12N	R14W	11	D		2	SR	D	Y	4	N	C		M	
78	T12N	R14W	11	D		2	SR	D	Y	4	N	C		M	
78	T12N	R14W	11	D		2	SR	D	Y	4	N	C		M	L
78	T12N	R14W	11	N		2	SR	P	N		R	C		M	
78	T12N	R14W	14	C		2	SR	P	Y	1	N	C		S	
78	T12N	R14W	12	R		2	SR	D	Y	4	R	P		S	
78	T13N	R14W	31	R		2	SR	D	Y	3	N	P		S	
78	T12K	R14W	13	E		2	SR	D	N		R	P		XL	
96	T12N	R14W	3	M		2	LPD	P	Y	4	H	c			L
96	T12N	R14W	4	B		2	LPD	D	Y	2	R	c			L
96	T12N	R14W	3	L		2	SR	D	Y	4	N	D			L
96	T12N	R14W	10	F		2	SR	P	N		R	C			M
96	T13N	R14W	31	K		2	SR	D	Y	2	R	D			M
96	T12N	R14W	2	Q		2	SR	D	Y	4	R	P			S
96	T12N	R14W	3	M		2	SR	D	N		R	P			S
96	T12N	R14W	4	F		2	SR	D	Y	4	N	P			S
96	T12N	R14W	11	D		2	SR	D	Y	4	R	C			S
96	T13N	R14W	31	G		2	SR	D	Y	2	N	P			S
96	T13N	R14W	31	K	2	2	SR	D	Y	2	N	P			S
96	T12N	R14W	4	J	4	2	SR	D	Y	4	N	C			XL

Garcia Watershed - Basins

Calwater Watershed
3. Blue Waterhole W.
4. Blue Waterhole E.

Hydrologic Planning Units:

113.70013
113.70012



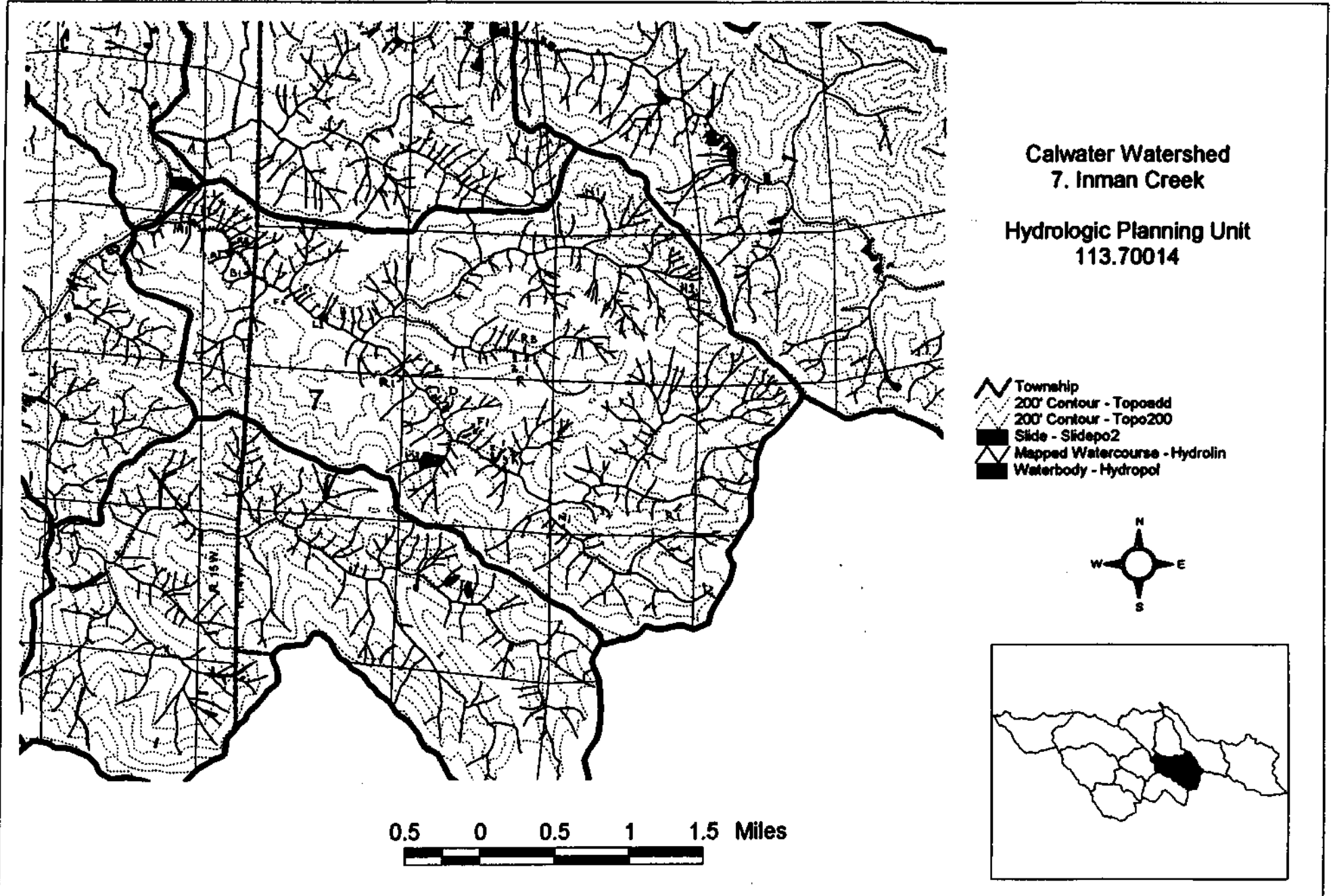
GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 4 - Blue Waterhole E.

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T12N	R14W	5	E	1	4	DF	D	Y	4	H?	C	L		
65	T12N	R14W	6	F	1	4	DF	P	Y	4	R	C	L		
65	T12N	R14W	5	E	2	4	SR	D	Y	4	R	P/C	M		
65	T12N	R14W	5	P	1	4	SR	D	Y	4	R	C	M		
65	T12N	R14W	6	H	1	4	SR	D	Y	4	R	C	S		
65	T12N	R14W	6	H	2	4	SR	D	Y	4	R	C	M	M	
65	T12N	R14W	6	J	1	4	SR	D	Y	2	R	D	L		
65	T12N	R14W	6	J	2	4	SR	D	Y	2	R	D	M		
65	T13N	R15W	36	J	1	4	SR	D	Y	2	H	P	L		
65	T13N	R15W	36	K	1	4	SR	Q	Y	2	R	C	M		
78	T12N	R14W	5	G	3	4	DF	P	Y	4	R	P		M	
78	T12N	R14W	6	a	1	4	DF	P	Y	2	R	C		L	
78	T12N	R14W	5	G	1	4	LPD	D	Y	4	N	P		XL	XL
78	T12N	R14W	5	0	2	4	LPD	D	Y	4	N	P		XL	XL
78	T12N	R14W	6	c	1	4	LPD	P	Y	4	H	C		XL	XL
78	T12N	R14W	6	H	3	4	SR	P	N		H	P		M	
78	T12N	R14W	5	0	4	4	SR	D	Y	4	R	C		XL	
96	T12N	R14W	5	F	2	4	SR	D	Y	4	R	C			S
96	T12N	R14W	5	P	2	4	SR	D	Y	2	R	D			L
96	T13N	R14W	31	M	1	4	SR	D	Y	1	N	P			L
96	T12N	R14W	5	F	3	4	SR	D	Y	4	R	D			M
96	T12K	R14W	6	G	2	4	SR	D	Y	4	N	C			M
96	T13N	R15W	36	J	2	4	SR	P	Y	2	R	C			M
96	T12N	R14W	5	F	1	4	SR	D	Y	4	R	C			M

**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 3 - Blue Waterhole W.**

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T13N	R15W	33	J	1	3	DF	D	Y	2	R	C	L		
65	T13N	R15W	33	R	1	3	DF	P	Y	2	H	C	L		
65	T12N	R15W	2	B	1	3	LPD	D	Y	4	R	P	XL		
65	T12N	R15W	11	R	1	3	LPD	D	Y	4	H	P	XL	XL	XL
65	T12N	R15W	2	D	1	3	SR	D	Y	4	R	P	M		
65	T12N	R15W	3	R	1	3	SR	D	Y	2	H	P	M	S	
65	T12N	R15W	11	B	1	3	SR	P	Y	4	R	P	M		
65	T12N	R15W	11	B	2	3	SR	P	Y	4	H/IG	P	XL	L	
65	T12N	R15W	11	K	1	3	SR	D	N		R	P	S		
65	T13N	R15W	33	R	2	3	SR	D	Y	2	R	P	M	M	
65	T13N	R15W	34	E	1	3	SR	D	N		H	D	L		
65	T13N	R15W	34	N	1	3	SR	D	Y	2	R	D	L	L	
65	T13N	R15W	34	N	2	3	SR	D	Y	2	R	D	M	M	
65	T13N	R15W	34	R	1	3	SR	D	Y	4	R	C	L	M	M
78	T12N	R15W	11	R	2	3	DF	Q	Y	4	N	P		M	
78	T12N	R15W	2	E	2	3	SR	D	Y	3	R	C		L	
78	T12N	R15W	3	A	1	3	SR	D	N		R	P		M	
78	T12N	R15W	11	R	3	3	SR	D	Y	4	R	P		M	
78	T12N	R15W	2	M	1	3	SR	D	Y	2	H	D		XL	
96	T12N	R15W	3	F	1	3	SR	Q	Y	1	H	C			L
96	T13N	R15W	26	K	1	3	SR	D	Y	2	R	C			L
96	T13N	R15W	26	Q	1	3	SR	D	Y	2		P			L
96	T13N	R15W	33	R	3	3	SR	D	Y	3	N	P			L
96	T12N	R15W	2	E	3	3	SR	P	Y	3	N	C			M
96	T12N	R15W	11	F	1	3	SR	D	N		N	P			M
96	T13N	R15W	34	K	1	3	SR	P	Y	3	N	C			M
96	T13M	R15W	35	D	1	3	SR	D	Y	3	R	P			M
96	T13N	R15W	35	D	2	3	SR	D	Y	3	R	P			M
96	T13N	R15W	35	E	1	3	SR	P	Y	3	R	D			M
96	T12N	R15W	2	Q	2	3	SR	D	Y	3	R	C			S
96	T13N	R15W	33	K	1	3	SR	D	Y	3	N	P			S
96	T13N	R15W	33	K	2	3	SR	D	Y	3	N	P			S

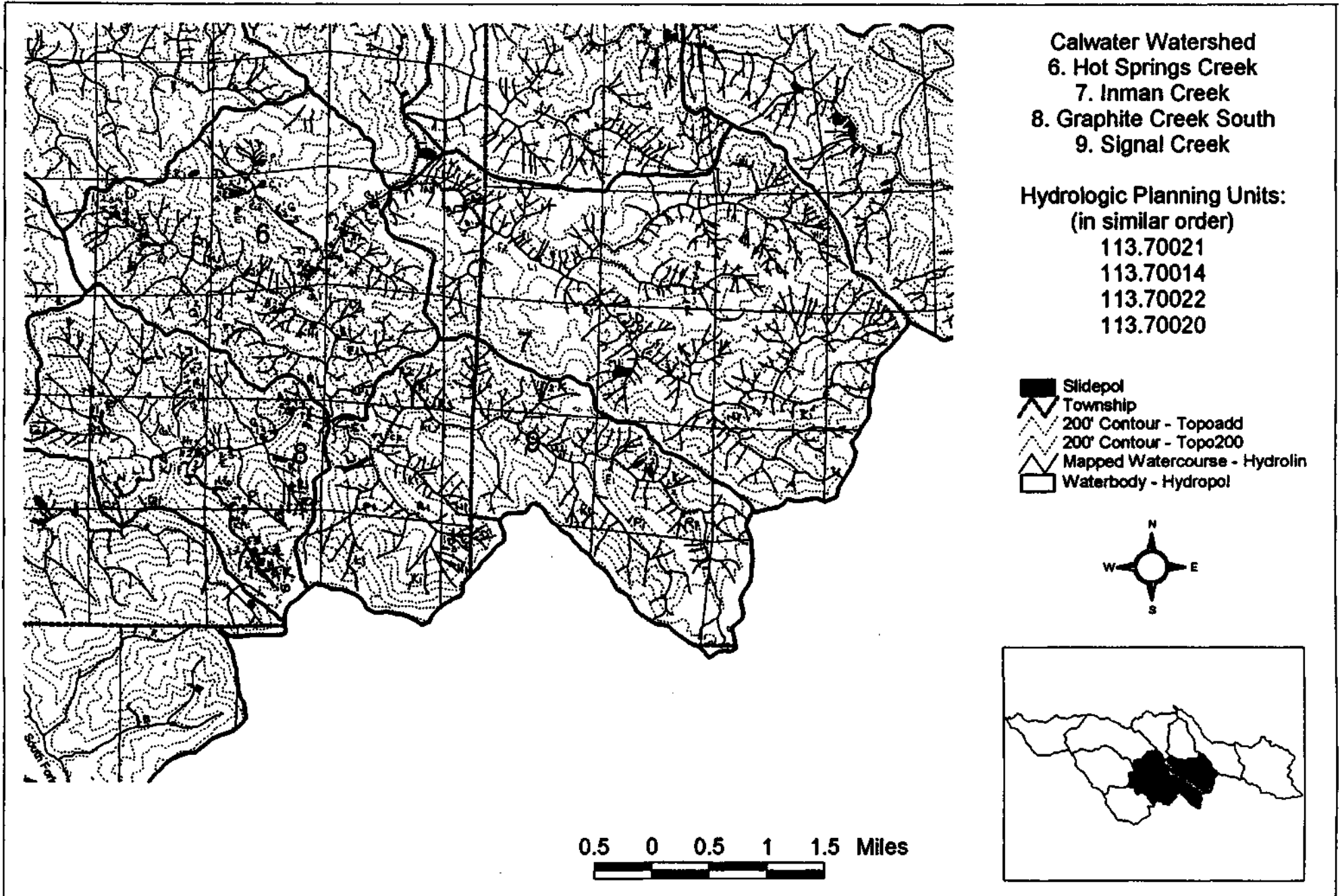
Garcia Watershed - Basins



**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 7 - Inman Creek**

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T12N	R14W	4	N	1	7	SR	D	Y	1	H	P	L		
65	T12N	R14W	7	F	1	7	SR	D	Y	3	R	C	S		
65	T12N	R14W	8	R	1	7	SR	P	Y	2	R	P	M	S	
65	T12N	R15W	13	A	1	7	SR	D	Y	3	R	C	M		
65	T12N	R15W	14	A	1	7	SR	D	Y	4	R	P	S	M	M
78	T12N	R14W	8	R	2	7	DF	D	Y	2	R	P		M	
78	T12N	R14W	9	H	1	7	SR	D	Y	2	R	D		M	
78	T12N	R15W	13	A	2	7	SR	D	Y	4	R	P		M	
78	T12N	R15W	13	B	1	7	SR	D	Y	3	R	P		M	
78	T12N	R14W	16	R	1	7	SR	D	Y	1	H	P		S	
78	T12N	R15W	14	A	2	7	SR	D	Y	4	R	C		S	
96	T12N	R14W	17	M	1	7	LPD	D	Y	2	R	C			XL
96	T12N	R14W	7	L	1	7	SR	D	Y	4	R	C			L
96	T12N	R14W	17	K	2	7	SR	D	Y	4	R	C			L
96	T12N	R14W	17	K	3	7	SR	D	Y	4	R	P			L
96	T12N	R14W	7	R	1	7	SR	D	N		H	P			M
96	T12N	R14W	8	R	3	7	SR	D	Y	2	H	D			M
96	T12N	R14W	17	D	2	7	SR	D	Y	4	R	C			M
96	T12N	R14W	17	F	1	7	SR	D	N		R	P			M
96	T12N	R14W	17	K	1	7	SR	D	Y	4	R	C			M
96	T12N	R14W	7	F	2	7	SR	P	Y	4	R	C			S
96	T12N	R14W	16	N	1	7	SR	D	Y	3	R	P			S
96	T12N	R14W	17	D	1	7	SR	D	Y	4	R	D			S

Garcia Watershed - Basins



**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 9 - Signal Creek**

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T12N	R15W	26	L	1	9	DF	D	Y	4	R	C	L	L	
65	T12N	R15W	35	L	1	9	DF	P	Y	2	R	C	L		
65	T12N	R15W	36	D	1	9	DF	D	Y	2	R	C	M	L	
65	T12N	R14W	19	R	1	9	SR	D	N		R	C	L		
65	T12N	R14W	20	B	1	9	SR	P	N		N	D	L	L	
65	T12N	R15W	25	N	1	9	SR	D	Y	1	R	D	L		
65	T12N	R15W	26	A	1	9	SR	D	Y	3	R	C	S		
65	T12N	R15W	26	F	1	9	SR	P	Y	3	R	P	S		
65	T12N	R15W	26	K	1	9	SR	D	Y	2	R	D	S		
65	T12N	R15W	26	P	1	9	SR	P	Y	2	R	C	M		
65	T12N	R15W	26	R	1	9	SR	D	Y	3	R	D	S		
65	T12N	R15W	36	H	1	9	SR	D	Y	1	R	C	L		
78	T12N	R15W	23	R	1	9	DF	Q	Y	4	R	C		L	
78	T12N	R15W	35	K	1	9	SR	P	Y	1	R	C		M	
78	T12N	R15W	36	D	2	9	SR	D	K		R	C		M	
78	T12N	R15W	36	D	3	9	SR	D	Y	2	R	C		M	
78	T12N	R14W	30	D	1	9	SR	D	Y	1	R	P		S	
78	T12N	R15W	26	E	1	9	SR	D	Y	4	R	P		S	
78	T12N	R15W	26	F	2	9	SR	D	Y	4	R	C		S	
96	T12N	R14W	18	K	1	9	DF	Q	N		H	P			S
96	T12N	R14W	18	K	2	9	DF	Q	N		H	P			S
96	T12N	R14W	20	F	1	9	SR	D	N		H	C			L
96	T12N	R14W	20	F	2	9	SR	D	N		H	D			L
96	T12N	R14W	19	H	1	9	SR	D	Y	3	R	P			S
96	T12N	R14W	20	P	1	9	SR	D	N		H	D			S
96	T12N	R14W	20	R	1	9	SR	D	Y	3	R	C			S
96	T12N	R15W	23	R	2	9	SR	D	N		N	D			S
96	T12N	R15W	23	R	3	9	SR	D	N		R	D			S
96	T12N	R14W	29	A	1	9	SR	D	N		R	C			S

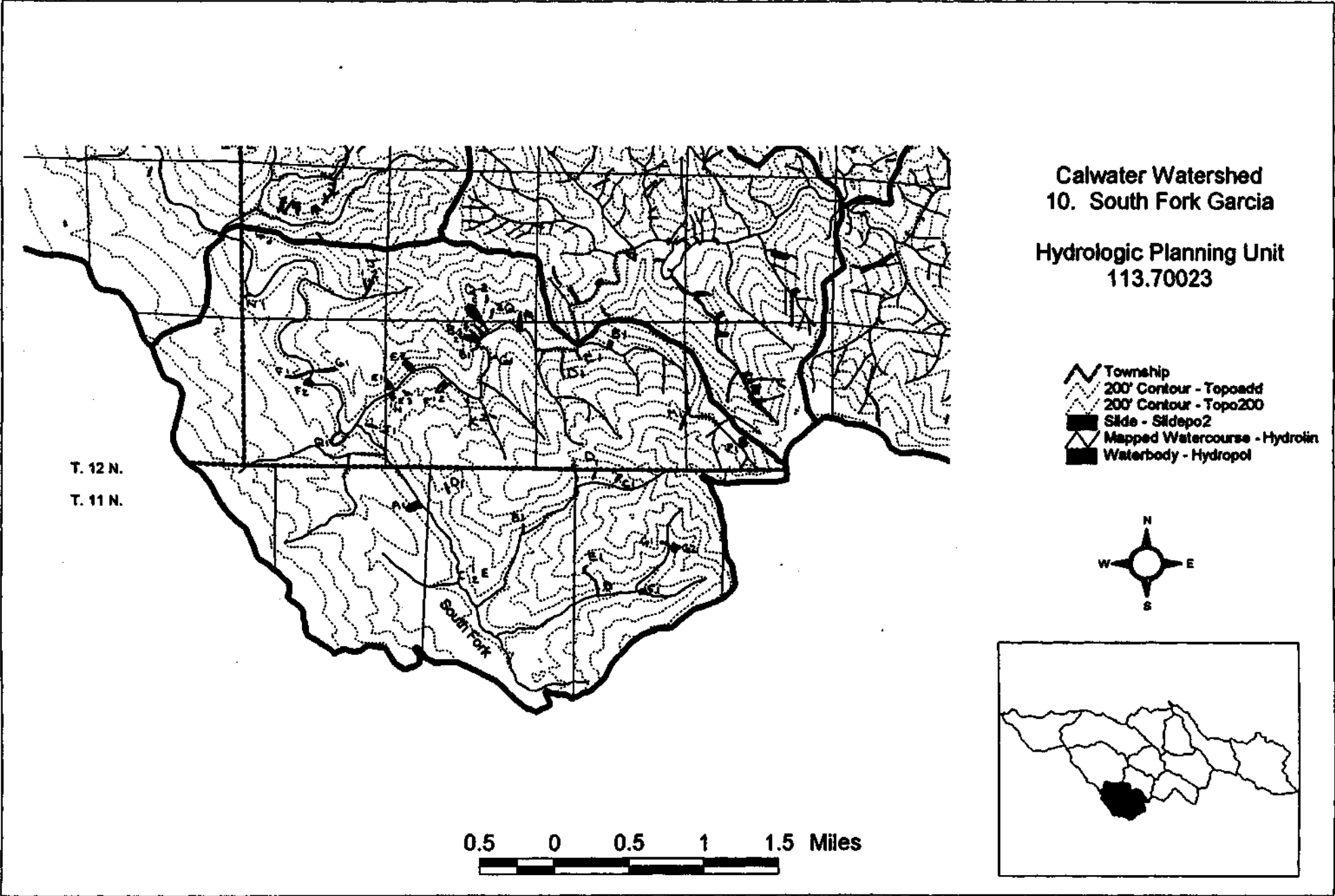
**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 6 - Hot Springs Creek**

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T12N	R15W	16	J	1	6	DF	P	Y	2	R	C	L	L	
65	T12N	R15W	16	L	1	6	DF	P	Y	2	R	C	L		
65	T12N	R15W	14	M	5	6	SR	P	Y	2	H	P	S		
65	T12N	R15W	14	M	2	6	SR	D	Y	5	R	P	S	M	
65	T12N	R15W	14	N	1	6	SR	P	N		H/R	P	L		
65	T12N	R15W	14	N	2	6	SR	D	Y	5	R	P	M		
65	T12N	R15W	15	C	1	6	SR	D	Y	3	R	C	L	M	
65	T12N	R15W	15	C	2	6	SR	D	Y	3	R	C	L	XL	M
65	T12N	R15W	15	D	1	6	SR	D	Y	3	H	P	L	S	
65	T12N	R15W	15	D	2	6	SR	D	Y	2	H/R	D/P	L	L	
65	T12N	R15W	15	D	3	6	SR	D	Y	2	R	P	M	M	
65	T12N	R15W	15	D	4	6	SR	D	Y	2	R	P	M	M	
65	T12N	R15W	15	D	5	6	SR	D	Y	1	R	C	M	S	
65	T12N	R15W	15	J	1	6	SR	D	N		R	C	M		
65	T12N	R15W	15	R	1	6	SR	D	Y	5	R	C	L	L	L
65	T12N	R15W	15	R	2	6	SR	D	Y	5	H	P	S	S	S
65	T12N	R15W	15	R	3	6	SR	D	Y	5	H	P	M	M	M
65	T12N	R15W	15	R	4	6	SR	D	Y	5	H	P	M	M	M
65	T12N	R15W	16	D	5	6	SR	P	Y	2	H/IG	P	M	L	
65	T12N	R15W	16	K	1	6	SR	P	Y	3	H	C	M		
65	T12N	R15W	22	B	1	6	SR	D	Y	5	R	C	S		
65	T12N	R15W	22	B	2	6	SR	D	Y	5	R	C	M		M
65	T12N	R15W	22	F	1	6	SR	P	Y	2	R	C	M		
65	T12N	R15W	22	H	1	6	SR	D	Y	5	R	P	L		
65	T12N	R15W	23	E	1	6	SR	D	Y	5	R	C	L		XL
78	T12N	R15W	14	M	3	6	DF	D	Y	5	R	D		M	
78	T12N	R15W	14	G	1	6	LPD	P	Y	5	R	C		L	L
78	T12N	R15W	16	F	1	6	LPD	P	Y	1	H	C		M	M
78	T12N	R15W	10	P	1	6	SR	D	Y	2	R	C		L	L
78	T12N	R15W	15	G	1	6	SR	D	Y	3	H	P		L	
78	T12N	R15W	22	A	1	6	SR	D	Y	5	H	P		L	
78	T12N	R15W	14	F	1	6	SR	D	Y	5	R	D		M	
78	T12N	R15W	14	M	1	6	SR	D	Y	5	R	D		M	
78	T12N	R15W	14	M	1	6	SR	D	Y	5	R	D		M	
78	T12N	R15W	15	M	1	6	SR	D	Y	3	H	P		M	M
78	T12N	R15W	16	D	2	6	SR	D	Y	1	H	P		M	
78	T12N	R15W	16	D	6	6	SR	D	Y	1	H	P		M	M
78	T12N	R15W	16	L	2	6	SR	D	Y	2	H	P		M	
78	T12N	R15W	15	G	2	6	SR	D	Y	3	R	P		S	
78	T12N	R15W	16	D	1	6	SR	P	Y	1	H	P		S	
78	T12N	R15W	16	D	3	6	SR	D	Y	1	H	P		S	
78	T12N	R15W	16	D	4	6	SR	D	Y	1	H	P		S	
78	T12N	R15W	16	D	7	6	SR	D	Y	1	H	P		S	
78	T12N	R15W	23	P	1	6	SR	P	N		R	C		S	
96	T12N	R15W	15	D	6	6	SR	P	Y	1	N	D			L
96	T12N	R15W	16	F	2	6	SR	D	Y	1	H	P			L
96	T12N	R15W	23	D	1	6	SR	P	N		R	C			L
96	T12N	R15W	15	E	1	6	SR	P	N		V	P			M
96	T12N	R15W	15	0	3	6	SR	D	Y	2	N	C			M
96	T12N	R15W	22	R	1	6	SR	P	Y	5	N	P			S
96	T12N	R15W	23	F	1	6	SR	P	Y	2	R	C			S
96	T12N	R15W	9	R	1	6	SR	P	N		N	C			XL

**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 8 - Graphite Creek South**

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T12N	R15W	27	0	1	8	DF	D	Y	5	R	D	M	M	M
65	T12N	R15W	28	M	1	8	DF	D	Y	5	R	P	S		
65	T12N	R15W	28	N	1	8	DF	D	N		R	P	M	M	
65	T12N	R15W	29	G	1	8	DF	D	Y	2	R	C	L		
65	T12N	R15W	34	K	1	8	DF	P	Y	5	R	C	XL		
65	T12N	R15W	34	L	2	8	DF	Q	Y	2	R	C	M		
65	T12N	R15W	21	L	1	8	SR	D	Y	2	R	C	L		
65	T12N	R15W	21	J	1	8	SR	D	Y	2	R	C	S		
65	T12N	R15W	27	A	1	8	SR	D	Y	5	R	C	XL	XL	
65	T12N	R15W	27	A	2	8	SR	D	Y	5	R	C	L	M	
65	T12N	R15W	27	B	1	8	SR	D	Y	5	R	C	M	M	
65	T12N	R15W	27	B	2	8	SR	D	Y	5	R	C	M	S	
65	T12N	R15W	27	B	3	8	SR	D	Y	5	R	C	M	M	
65	T12N	R15W	27	B	4	8	SR	D	Y	5	R	C	S		
65	T12N	R15W	27	N	6	8	SR	D	Y	5	R	C/P	L	L	
65	T12N	R15W	27	P	5	8	SR	D	Y	2	R	P	L	L	
65	T12N	R15W	27	R	1	8	SR	D	Y	1	H	P	L	M	
65	T12N	R15W	28	A	1	8	SR	P	Y	2	R	D	S		
65	T12N	R15W	28	G	1	8	SR	D	Y	2	R	C	L		
65	T12N	R15W	28	J	1	8	SR	D	Y	5	H	P	M		
65	T12N	R15W	34	c	4	8	SR	D	Y	2	R	P	M	S	
65	T12N	R15W	34	K	3	8	SR	D	Y	2	R	D	M		
65	T12N	R15W	28	J	2	8	SR	D	Y	5	R	P	S		
78	T12N	R15W	27	K	1	8	DF	D	N		R	C		L	M
78	T12N	R15W	27	Q	2	8	DF	D	Y	1	R	P		L	
78	T12N	R15W	28	D	1	8	DF	P	Y	2	H	P		XL	
78	T12N	R15W	28	D	2	8	DF	D	Y	2	H	P		XL	
78	T12N	R15W	34	F	8	8	DF	D	Y	2	R	C		L	M
78	T12N	R15W	34	K	10	8	DF	P	Y	2	R	C		L	
78	T12N	R15W	28	H	2	8	SR	D	N		R	P		L	
78	T12N	R15W	27	B	2	8	SR	D	Y	5	R	P		M	M
78	T12N	R15W	27	G	2	8	SR	D	Y	5	H	D		M	
78	T12N	R15W	27	P	7	8	SR	D	Y	2	H	P		M	L
78	T12N	R15W	27	Q	1	8	SR	D	Y	2	R	P		M	
78	T12N	R15W	27	R	1	8	SR	D	Y	1	R	P		M	
78	T12N	R15W	28	Q	1	8	SR	D	N		R	C		M	
78	T12N	R15W	34	0	1	8	SR	D	N		R	C		M	
78	T12N	R15W	28	H	1	8	SR	D	Y	5	H	C		S	
78	T12N	R15W	33	C	2	8	SR	D	N		H	P		S	
78	T12N	R15W	34	K	9	8	SR	P	Y	2	R	C		S	
96	T12N	R15W	28	H	3	8	SR	D	Y	5	R	D			L
96	T12N	R15W	21	R	1	8	SR	P	N		R	C			M
96	T12N	R15W	28	D	3	8	SR	P	Y	2	R	C			M
96	T12N	R15W	28	L	1	8	SR	D	Y	5	R	C			M
96	T12N	R15W	21	7	2	8	SR	P	N		R	C			S
96	T12N	R15W	21	N	1	8	SR	D	N		R	C			S
96	T12N	R15W	27	B	3	8	SR	D	Y	5	N	C			S
96	T12N	R15W	28	A	2	8	SR	D	N		H	C			S
96	T12N	R15W	28	K	1	8	SR	Q	Y	5	N	P			XL
96	T12N	R15W	34	K	11	8	SR	D	N		R	P			XL

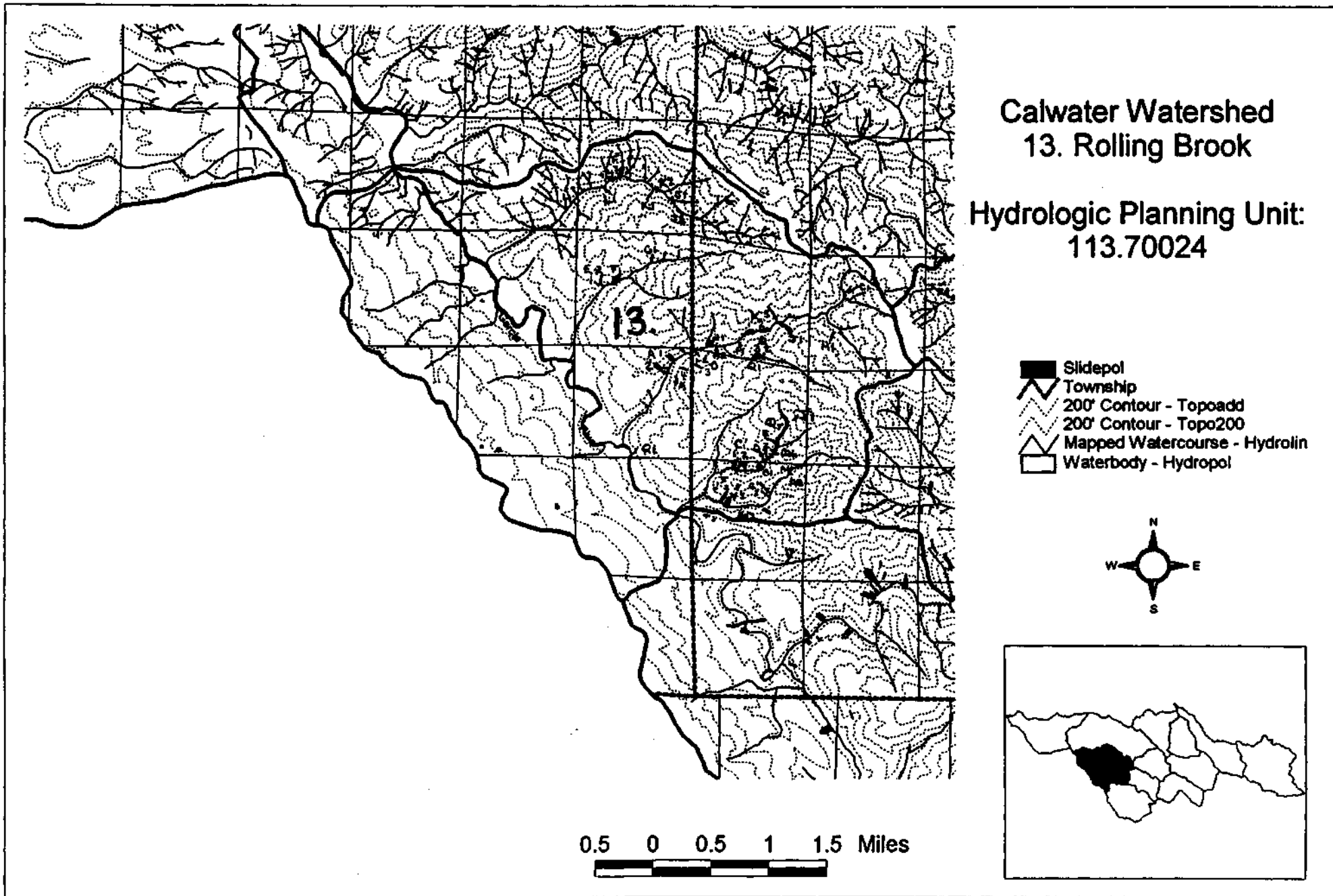
Garcia Watershed - Basins



GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 10 - South Fork Garcia Creek

Photo Yea	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T11N	R15W	3	E	1	10	DF	D	Y	3	H	C	XL		
65	T12N	R15W	32	K	1	10	DF	D	Y	5	R	C	M		
65	T12N	R15W	33	D	1	10	DF	P	Y	5	R	C	M		
65	T12N	R15W	34	M	1	10	DF	D	Y	2	R	C	M		
65	T12N	R15W	31	Q	1	10	LPD	D	Y	5	H	P	XL		
65	T11N	R15W	3	C	1	10	SR	P	N		R	P	S	S	
65	T11N	R15W	4	B	1	10	SR	D	Y	3	R/H	P	M		
65	T11N	R15W	3	J	1	10	SR	D	Y	3	R/IG	P	M		
65	TUN	R15W	5	A	1	10	SR	D	Y	3	H/R	P	M		
65	T12N	R15W	29	Q	1	10	SR	D	Y	5	R	C	L		
65	T12N	R15W	31	F	1	10	SR	D	Y	5	R	C	M		
65	T12N	R15W	31	J	1	10	SR	D	N	5	R	D	S		
65	T12N	R15W	32	A	1	10	SR	D	N		H	C	M	M	
65	T12N	R15W	32	B	1	10	SR	D	Y	5	H	C	S		
65	T12N	R15W	32	B	2	10	SR	D	Y	5	R	C	M	S	
65	T12N	R15W	32	B	3	10	SR	D	Y	5	H	C	S	S	
65	T12N	R15W	32	B	4	10	SR	D	Y	5	H	C	S		
65	T12N	R15W	32	B	5	10	SR	D	Y	5	H	C	S	S	
65	T12N	R15W	32	B	1	10	SR	Q	Y	5	H?	P	M		
65	T12N	R15W	32	B	2	10	SR	D	Y	5	H	C	M		
65	T12N	R15W	32	F	1	10	SR	D	Y	5	R	C	M	L	
65	T12N	R15W	32	F	2	10	SR	D	Y	5	R?	C	L		
65	T12N	R15W	32	N	1	10	SR	D	Y	5	R	P	L		
65	T12N	R15W	32	N	2	10	SR	D	Y	5	R	P	M		
65	T12N	R15W	32	N	3	10	SR	D	N		R	D	M		
65	T12N	R15W	33	C	1	10	SR	D	Y	5	H	C	S		
78	T12N	R15W	31	F	1	10	LPD	D	Y	5	R	C		XL	
78	T11N	R15W	3	D	2	10	SR	D	N		H	P		M	
78	T11N	R15W	4	B	1	10	SR	D	Y	3	R	C		M	
78	T12N	R15W	30	J	2	10	SR	d	Y	1	R	C		M	
78	T12N	R15W	31	G	1	10	SR	P	N		R	C		M	
78	T12N	R15W	33	B	1	10	SR	D	Y	2	H	P		M	M
78	T11N	R15W	3	D	1	10	SR	P	N		R	P		S	
78	T11N	R15W	3	G	1	10	SR	D	Y	2	H	P		S	
78	T12N	R15W	32	K	1	10	SR	P	N		R	P		S	
78	T11N	R15W	4	B	2	10	SR	D	Y	3	R	C		S	
78	T12N	R15W	30	J	1	10	SR	d	Y	1	R	C		S	
96	T12N	R15W	30	N	1	10	DF	D	Y	5	N	C			L
96	T12N	R15W	34	P	1	10	SR	P	N		R	P			L
96	T11N	R15W	3	F	1	10	SR	D	Y	1	R	P			M
96	T11N	R15W	3	G	2	10	SR	D	Y	1	N	D			M
96	T12N	R15W	32	G	1	10	SR	D	Y	5	N	P			M
96	T11N	R15W	4	D	1	10	SR	D	Y	2	R	P			S
96	T12N	R15W	29	Q	2	10	SR	D	Y	1	N	P			S
96	T12N	R15W	29	Q	3	10	SR	D	Y	2	H	P			S

Garcia Watershed - Basins



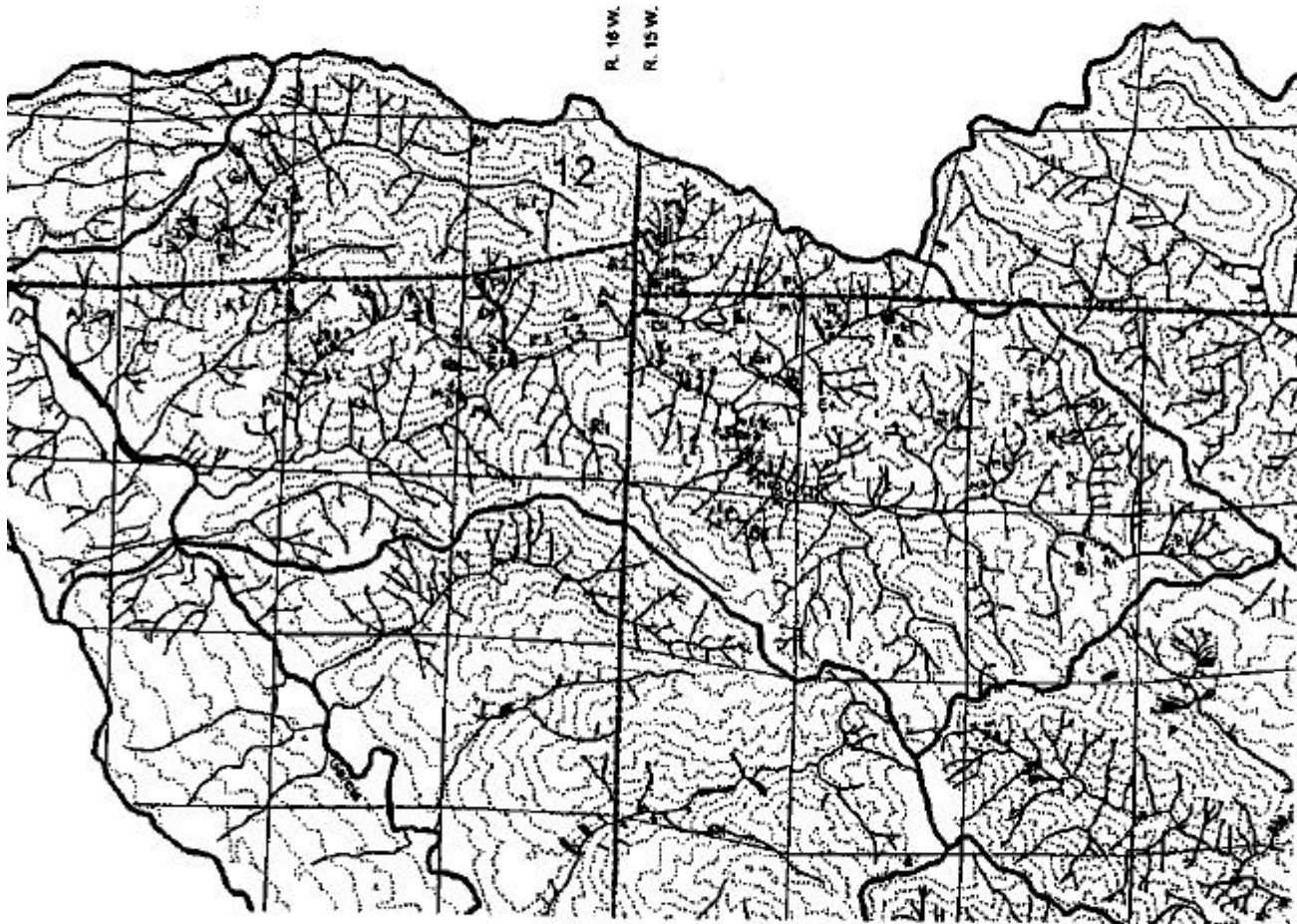
GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 13 - Rolling Brook

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	1996 Size
65	T12N	R15W	19	Q	1	13	DF	P	Y	2	R	C	XL		
65	T12N	R15W	18	J	1	13	SR	D	Y	3	R	C	M	M	
65	T12N	R15W	19	Q	2	13	SR	D	Y	2	R	D	M		
65	T12N	R15W	19	Q	3	13	SR	D	Y	2	R	D	S		
65	T12N	R15W	19	Q	4	13	SR	D	Y	2	R	D	M		
65	T12N	R16W	24	A	4	13	SR	D	N		R	D	S		
65	T12N	R15W	30	A	1	13	SR	D	Y	2	R	C	S		
65	T12N	R15W	30	A	2	13	SR	D	Y	2	R	D	M		
65	T12N	R15W	30	B	1	13	SR	D	Y	2	R	D	M		
65	T12N	R15W	30	C	1	13	SR	D	Y	2	R	P	L	XL	
78	T12N	R16W	12	F	3	13	DF	D	Y	3	R	C		L	
78	T12N	R15W	18	K	1	13	SR	D	Y	3	N	C		L	L
78	T12N	R15W	18	Q	1	13	SR	D	Y	2	R	P		L	
78	T12N	R15W	30	C	2	13	SR	D	Y	2	R	P		L	M
78	T12N	R15W	30	F	3	13	SR	D	Y	3	R	P		L	S
78	T12N	R15W	30	K	1	13	SR	D	N		R	P		L	S
78	T12N	R16W	12	K	1	13	SR	D	Y	2	R	P		L	
78	T12N	R16W	12	L	1	13	SR	D	Y	2	R	D		L	
78	T12N	R16W	13	F	1	13	SR	D	Y	2	R	C		L	M
78	T12N	R16W	24	A	1	13	SR	D	Y	3	N	C		L	M
78	T12N	R15W	18	K	3	13	SR	D	Y	3	N	C		M	
78	T12N	R15W	18	K	2	13	SR	D	Y	4	N	C		M	M
78	T12N	R15W	18	P	1	13	SR	D	Y	3	R	P		M	
78	T12N	R15W	19	Q	5	13	SR	D	Y	2	H	C		M	
78	T12N	R15W	19	Q	6	13	SR	D	Y	2	R	C		M	
78	T12N	R15W	30	F	1	13	SR	D	N		R	D		M	
78	T12N	R15W	30	F	2	13	SR	D	Y	3	R	P		M	L
78	T12N	R16W	12	F	1	13	SR	D	Y	3	N	D		M	M
78	T12N	R16W	12	F	2	13	SR	D	Y	3	H	P		M	XL
78	T12N	R16W	13	E	1	13	SR	P	N		R	P		M	
78	T12N	R16W	13	E	2	13	SR	D	Y	2	N	P		S	
78	T12N	R15W	18	N	1	13	SR	P	Y	3	N	P		S	
78	T12N	R15W	18	N	2	13	SR	D	Y	3	N	P		S	
78	T12N	R15W	18	Q	2	13	SR	D	Y	2	R	P		S	
78	T12N	R15W	19	D	1	13	SR	D	Y	3	R	P		S	
78	T12N	R15W	19	D	2	13	SR	D	Y	3	R	P		S	
78	T12N	R15W	19	J	1	13	SR	D	N		R	C		S	
78	T12N	R16W	24	A	3	13	SR	D	Y	3	R	C		S	
78	T12N	R16W	24	A	2	13	SR	D	Y	3	N	C		XL	
96	T12N	R15W	18	Q	3	13	LPD	P	Y	2	H	P			XL
96	T12N	R15W	19	D	3	13	SR	D	N		R	C			S
96	T12N	R15W	17	C	1	13	SR	P	N		R	C			M
96	T12N	R15W	17	M	1	13	SR	P	N		N	C			M
96	T12M	R15W	30	F	4	13	SR	D	N		R	C			M
96	T12N	R15W	30	G	1	13	SR	D	Y	2	R	C			M
96	T12N	R15W	30	G	2	13	SR	D	Y	2	N	P			M
96	T12N	R16W	12	F	4	13	SR	D	Y	3	H	C			M
96	T12N	R16W	13	G	1	13	SR	D	Y	2	N	C			M
96	T12N	R16W	12	J	1	13	SR	D	Y	3	N	C			S
96	T12N	R16W	12	J	2	13	SR	P	Y	2	N	D			S
96	T12N	R16W	12	K	2	13	SR	D	Y	3	H	D			S
96	T12N	R16W	24	0	1	13	SR	P	N		R	P			S

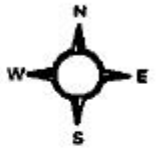
Garcia Watershed - Basins

Calwater Watersh
12 North Fork Garcia

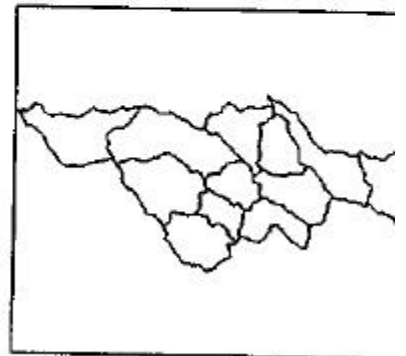
Hydrologic Planning
113.70025



- Slidepol
- Township
- 200' Contour - Topoadd
- 200' Contour - Topo200
- Mapped Watercourse - Hyd
- Waterbody - Hydropol



0.6 0 0.6 1.2 Miles



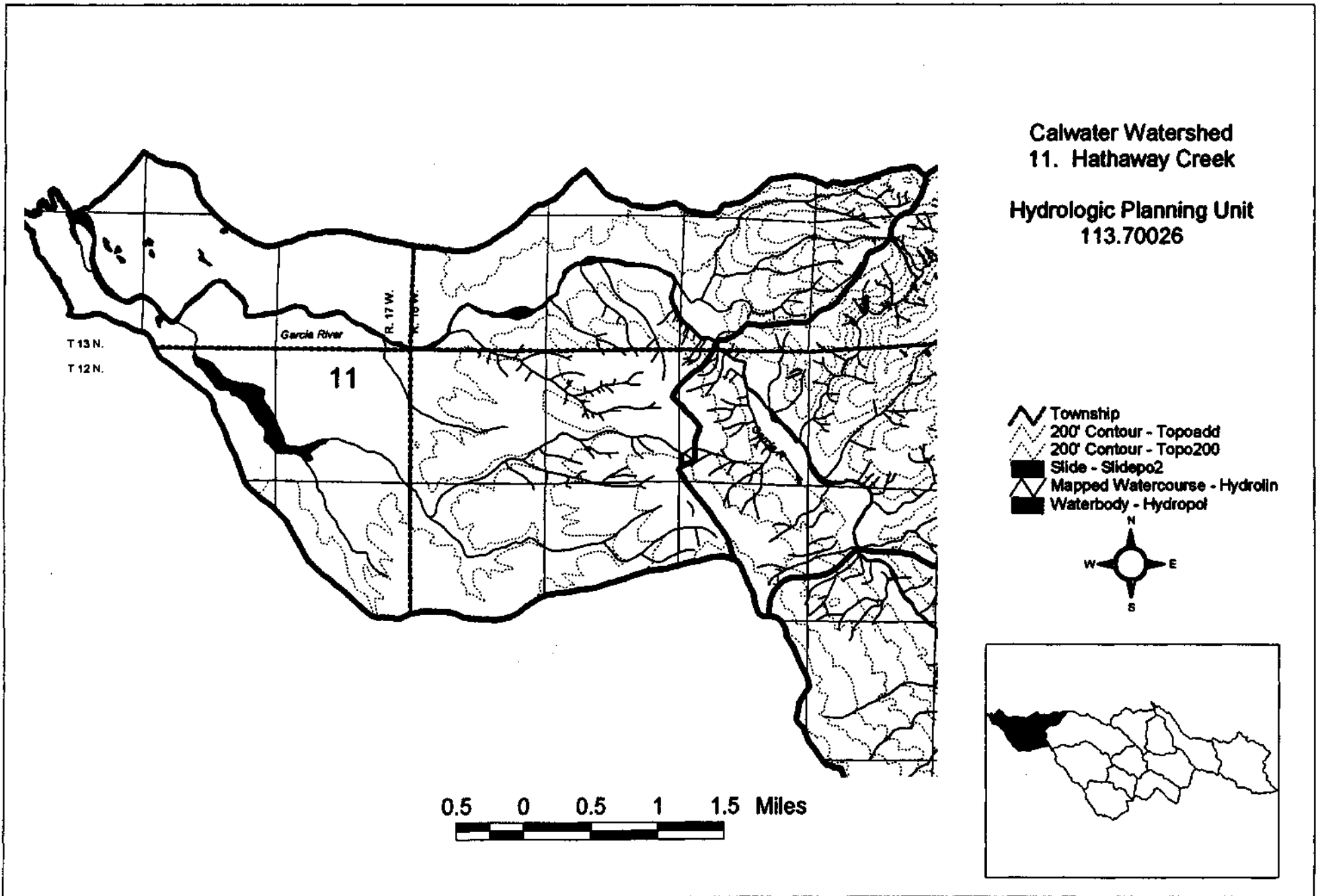
GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 12 - North Fork Garcia River

Photo Year	Township	Range	Section	Init Loc	Feature #	Sub Water	Process	Confidence	Delivery	Stream Or	Land use	Slope Sha	1965 Size	1978 Size	996 Size
65	T12N	R15W	6	R	2	12	DF	D	Y	4	H	P	L		S
65	T12N	R15W	4	F	1	12	SR	D	Y	2	H	P	M		
65	T12N	R15W	4	F	2	12	SR	D	Y	1	H	P	M		
65	T12N	R15W	4	K	1	12	SR	D	Y	2	R	P	M		
65	T12N	R15W	4	K	2	12	SR	D	Y	2	R	P	M		
65	T12N	R15W	4	N	1	12	SR	D	Y	2	H	C	L		
65	T12N	R15W	5	B	1	12	SR	D	Y	2	R	C	XL	XL	
65	T12N	R15W	6	Q	1	12	SR	D	Y	4	H/R/IG	D	S	S	
65	T12N	R15W	6	Q	2	12	SR	P	Y	4	R/IG	C	M		
65	T12N	R15W	6	R	1	12	SR	D	Y	4	R/IG	P	M		
65	T12N	R15W	9	A	1	12	SR	D	Y	3	H	P/C	M		
65	T12N	R15W	10	D	1	12	SR	D	Y	2	H	P/C	L		
78	T12N	R15W	5	D	1	12	DF	P	Y	1	R	C		S	M
78	T12N	R15W	5	E	1	12	DF	P	Y	2	N	C		M	
78	T12N	R15W	6	L	2	12	DF	D	Y	4	R	C		L	
78	T12N	R16W	2	M	1	12	DF	D	Y	2	N	P		L	
78	T12N	R16W	1	F	2	12	LPD	D	Y	4	N	P		M	L
78	T12N	R15W	6	F	2	12	SR	D	Y	4	H	P		S	S
78	T12N	R15W	6	F	3	12	SR	D	Y	4	H	C		L	
78	T12N	R15W	6	F	4	12	SR	D	Y	4	H	C		L	S
78	T12N	R15W	6	H	1	12	SR	D	Y	2	R	C		L	
78	T12N	R15W	6	K	1	12	SR	D	Y	4	R	C		L	M
78	T12N	R15W	6	K	2	12	SR	D	Y	4	R	P		L	L
78	T12N	R16W	1	E	1	12	SR	D	Y	2	R	C		L	
78	T12N	R16W	1	F	1	12	SR	D	Y	4	N	P		L	
78	T12N	R16W	2	L	2	12	SR	D	Y	2	R	D		L	
78	T12N	R16W	2	L	3	12	SR	D	Y	2	H	D		L	L
78	T12N	R16W	3	A	2	12	SR	D	Y	1	R	P		L	
78	T12N	R16W	4	A	1	12	SR	D	N		N	P		L	
78	T12N	R16W	4	A	2	12	SR	D	N		N	P		L	
78	T13N	R16	31	N	2	12	SR	D	Y	2	H	D		L	
78	T13N	R16W	34	J	1	12	SR	D	N		R	P		L	
78	T13N	R16W	34	J	2	12	SR	D	N		R	D		L	
78	T13N	R16W	34	J	4	12	SR	D	N		H	P		L	
78	T13N	R16W	34	L	2	12	SR	D	Y	4	H	P		L	L
78	T12N	R15W	4	G	1	12	SR	P	Y	2	R	C		M	
78	T12N	R15W	5	D	3	12	SR	D	Y	2	R	P		M	
78	T12N	R15W	5	J	1	12	SR	D	Y	2	H	C		M	
78	T12N	R15W	6	A	1	12	SR	D	Y	2	R	P		M	
78	T12N	R15W	6	B	1	12	SR	D	N		R	P		M	
78	T12N	R15W	6	D	1	12	SR	D	Y	2	N	P		M	L
78	T12N	R15W	6	E	1	12	SR	D	Y	4	H	P		M	
78	T12N	R15W	6	F	1	12	SR	D	Y	4	H	P		M	M
78	T12N	R15W	6	L	1	12	SR	P	N	4	R	D		M	
78	T12N	R15W	6	R	3	12	SR	P	Y	4	H	C		M	S
78	T12N	R15W	6	R	4	12	SR	P	Y	4	H	C		M	
78	T12N	R15W	7	C	1	12	SR	D	Y	1	R	C		M	
78	T12N	R16W	1	A	1	12	SR	D	Y	3	N	P		M	
78	T12N	R16W	2	K	1	12	SR	D	Y	2	N	C		M	
78	T12N	R16W	3	A	1	12	SR	D	Y	1	R	P		M	
78	T13N	R15W	31	M	2	12	SR	D	Y	2	H	C		M	
78	T13N	R15W	32	P	1	12	SR	D	Y	2	R	P		M	
78	T13N	R16W	34	K	1	12	SR	D	Y	3	H	P		M	
78	T12N	R16W	3	A	3	12	SR	D	N		R	P		S	
78	T13N	R16W	34	K	2	12	SR	D	Y	3	H	P		S	M
78	T12N	R15W	4	F	3	12	SR	D	N		H	C		S	
78	T12N	R15W	5	D	2	12	SR	D	Y	2	H	P		S	M
78	T12N	R15W	6	E	2	12	SR	D	Y	4	N	P		S	
78	T12N	R15W	7	C	2	12	SR	D	N		R	P		S	
78	T12N	R16W	1	M	1	12	SR	D	Y	4	R	D		S	
78	T13N	R15	31	N	1	12	SR	D	Y	2	N	P		S	
78	T13N	R15W	31	M	1	12	SR	P	Y	2	R	C		S	
78	T13N	R16W	35	N	1	12	SR	D	Y	1	H	P		S	S
78	T12N	R16W	2	L	1	12	SR	D	Y	2	H	D		XL	
78	T13N	R16W	34	J	3	12	SR	D	N		R	D		XL	
8	T13N	R16W	34	L	1	12	SR	D	Y	3	H	C		XL	
78	T13N	R16W	34	L	3	12	SR	D	Y	5	H	P		XL	

**GARCIA RIVER WATERSHED ASSESSMENT
APPENDIX A - MASS WASTING INVENTORY DATA
Calwater Watershed 12 - North Fork Garcia River**

96	T12N	R16W	1	A	2	12	DF	D	Y	4	N	P			L
96	T12N	R16W	1	D	1	12	DF	D	Y	4	R	C			L
96	T13N	R16W	34	G	1	12	DF	D	Y	2	R	C			
96	T12N	R15W	6	K	3	12	LPD	P	N		N	P			L
96	T12N	R15W	5	B	2	12	SR	D	Y	2	R	C			L
96	T12N	R15W	9	B	1	12	SR	D	Y	3	N	C			L
96	T12N	R16W	1	D	2	12	SR	D	Y	1	R	P			L
96	T12N	R16W	1	E	2	12	SR	D			R	D			L
96	T12N	R16W	2	A	1	12	SR	D	Y	1	R	C			L
96	T12N	R16W	2	A	2	12	SR	D	N		R	D			L
96	T12N	R16W	2	B	2	12	SR	D	Y	2	R	C			L
96	T12N	R16W	2	L	4	12	SR	D	Y	2	H	D			L
96	T12N	R15W	6	Q	3	12	SR	D	Y	1	R	P			M
96	T12N	R15W	7	B	1	12	SR	D	Y	2	N	P			M
96	T12N	R16W	1	F	2	12	SR	D	Y	2	H	P			M
96	T12N	R16W	1	G	1	12	SR	D	Y	4	N	P			M
96	T12N	R16W	2	L	5	12	SR	D	Y	2	H	D			M
96	T13N	R15W	31	M	3	12	SR	Q	Y	2	R	D			M
96	T12N	R16W	1	M	3	12	SR	D	Y	4	R	C			M
96	T12N	R15W	4	N	2	12	SR	D	Y	3	N	C			S
96	T12N	R16W	1	G	2	12	SR	D	Y	4	N	P			S
96	T12N	R16W	1	M	2	12	SR	D	Y	4	R	C			S
96	T13N	R15W	31	M	4	12	SR	Q	Y	2	R	D			S
96	T13N	R16W	36	L	1	12	SR	D	N		R	D			S
96	T12N	R15W	5	N	1	12	SR	D	Y	3	R	P			
96	T13N	R16W	34	H	1	12	SR	D	Y	2	R	C			
96	T13N	R16W	34	H	2	12	SR	D	Y	2	R	D			

Garcia Watershed - Basins



Appendix B

***MATRIX OF RESOURCE
CONDITION AND SENSITIVITY***

Location				Reported Conditions, cont.					Synthesis			
	watershed		tributaries	shade, canopy	complexity	fine sediment	habitat	comments	fish	Is the land sensitive to use here?	Are the fish sensitive to land use here?	model results
SWRCB no.	CFL name	CDF name		ave = average beneficial value	" + = better, ++ = far better, etc					relative ratings	relative ratings	rel. relief . landslides
1	5	4	1,5,7	1,5	1,5	1,5	1,2,5, 6	1, 2, 5, 9	1,2,5,6	synthesis	synthesis	synthesis
70010	pardaloe	pardaloe	mainstem									underestimate
70010			mill			hi	limited	ok pools	poor, good steelhead, lampreys	yes	yes	
70010			redwood		ok		limited					
70010			monahan									
70010			pardaloe	poor	low	hi	poor	poor pools	good	yes	yes	
70011	1armour	larmour	mainstem			hi		site of falls blasting	good			ok
70011			larmour	poor			limited	falls, no other data		?	no	
70011			grants' camp		ok		limited	small pools				
70011			east end									
70012	blue waterhole e	no name 4	mainstem		ok							ok
70012			stansbury		poor		limited	debris jam	poor / none		no	
70012			whitlow	poor, ave+	poor	hi			coho runs into '70s	yes		
70013	blue waterhole w	no name 3										ok
70013			blue waterhole	ave+	ok	hi	good	boulder cover, low slope	good	yes	yes	

Location				Reported Conditions, cont.					Synthesis			
	watershed		tributaries	shade, canopy	complexity	fine sediment	habitat	comments	fish	Is the land sensitive to use here?	Are the fish sensitive to land use here?	model results
SWRCB no.	CFL name	CDF name		ave = average beneficial value	"+" = better, ++ = far better, etc					relative ratings	relative ratings	rel. relief . landslides
1	5	4	1,5,7	1,5	1,5	1,5	1,2,5, 6	1,2,5,9	1,2,5,6	synthesis	synthesis	synthesis
70014	inman	inman										underestimate
70014			inman	poor, ave+, ave-	ave-	hi, ave+, deep	limited	embeddedness 40-80%, 5-10 ft of stored sed in alluv. reaches, slow recovery	good, few '95, more '96	yes		
70020	signal	signal										
70020			signal	poor, ave++	ave++	ave-	limited	recovery mode, fire in '94	good, fair			
70021	hot springs ck, graphite ck. n	no name 6	mainstem	ave--	poor, ave-	hi, ave+		algae, minor downcutting	fair, fewer than expected			
70021			graphite	ave+			limited	barrier, steep	none			
70021			Caspar	ave+			limited	steep	none			
70022	graphite ck s	no name 8	mainstem	poor, ave--	ave-	ave+	limited	no pools, limited recovery	steelhead likely			ok
70022			beebe	poor, ave+	ok		limited		fair			

	Location				Watershed					Erosion				Reported Conditions				
		watershed		tributaries	land use	mainstem	size	relief	relative relief	landslides	landslides	road erosion	road erosion	annual rainfall	erodibility	erodibility 2	(high) temp	DO
	SWRCB no.	CFL name	CDF name				acres	feet	relief per acre		0-100 low,	100-300 med,	300+ high					
sources:	1	5	4	1,5,7	4	1,4	8	7		3	t/mi2/y	3	t/mi2/y	8	8	6	1,2	1,2
	70023	south fork	south fork	mainstem	timber	lower	5595	2090	0.37	m	218	1	45	55	l-h	m-h-x	75	
	70023			south fork													63	
	70023			fleming														
	70024	rolling brook	rolling brook	mainstem	timber	lower	7999	2224	0.28	m	148	m	114	55	m-h	m-h	63	
	70024			rolling brook													65, >64	
	70024			hutton gulch													61	
	70024			mill ck													61	
	70024			lee													59	

Location				Reported Conditions, cont.					Synthesis			
	watershed		tributaries	shade, canopy	complexity	fine sediment	habitat	comments	fish	Is the land sensitive to use here?	Are the fish sensitive to land use here?	model results
SWRCB no.	CFL name	CDF name		ave = average beneficial value	"+ = better, ++ = far better, etc					relative ratings	relative ratings	rel. relief . landslides
1	5	4	1,5,7	1,5	1,5	1,5	1,2,5, 6	1, 2, 5, 9	1,2,5,6	synthesis	synthesis	synthesis
7002 3	south fork	south fork	mainstem		1	hi						overestimate
7002 3			south fork	good	good	low, hi	declined	underground flows, decline in habitat quality, sediment in storage in S Fk, San Andreas Fault	fair	yes	yes	
7002 3			fleming	good	good	low	limited					
7002 4	rolling brook	rolling brook	mainstem									underestimate ?
7002 4			rolling brook		fair		limited		fair, coho present	yes	yes	
7002 4			hutton gulch	no openings	poor	hi				yes		
7002 4			mill ck		hi				good	?	?	
7002 4			lee				limited		fair			

	Location				Watershed Characteristics					Erosion				Reported Conditions				
	SWRCB no.	watershed	tributaries		land use	mainstem	size	relief	relative relief	landslides	landslides	road erosion	road erosion	annual rainfall	erodibility	erodibility 2	(high) temp	DO
	CFL name	CDF name				acres	feet	relief per acre		0-100 low,	100-300 med,	300+ high						
sources :	1	5	4	1,5,7	4	1,4	8	7		3	t/mi2/y	3	t/mi2/y	8	8	6	1.2	1,2
	7002 5	north fork	north fork	mainstem	timber	lower	1037 3	2265	0.22	m	148	h	472	50	l-h	m-h	70	low?
	7002 5			olsen ck													good	
	7002 5			John olsen ck													good	
	7002 5			alder ck														
	7002 5			north fork													good	
	7002 6	Hathaway ck.	hathaway ck.	mainstem	agri-timber	estuary	7847	1700	0.22	1	0	m	154	45	1-m		72	low
	7002 6			bentonite														
	7002 6			allen gulch														
	7002 6			hathaway													56	

Location				Reported Conditions, cont.					Synthesis			
SWRCB no.	CFL name	CDF name	tributaries	shade, canopy	complexity	fine sediment	habitat	comments	fish	Is the land sensitive to use here?	Are the fish sensitive to land use here?	model results
				ave = average beneficial value	"+" = better, ++ = far better, etc					relative ratings	relative ratings	rel. relief . landslides
1	5	4	1,5,7	1.5	1,5	1,5	1,2,5,6	1,2,5,9	1,2,5,6	synthesis	synthesis	synthesis
70025	north fork	north fork	mainstem						poor			underestimate
70025			olsen ck	ave++	low, ave+	hi, ave-	limited	severely affected by harvest, well along the road to recovery, sediment 20+ ft	none, many	yes	no	
70025			john olsen ck	good, ave++	med, ave+	hi, ave-			many			
70025			alder ck	ave++	ave+	hi, ave-	limited		good			
70025			north fork	ave++	poor, ave+	hi, ave-	poor	severe reduction, good pop below falls	good	yes	yes	
70026	hathaway ck.	hathaway ck.	mainstem		low	hi						underestimate
70026			bentonite	good	poor	hi	poor	believed used	fair	yes	yes	
70026			allen gulch			hi			fair / none			
70026			hathaway	good		hi	good	once plentiful	poor	yes	yes	

Key

1. Manglesdorf, A. 1997. Garcia River Watershed Assessment. Limiting Factors. DRAFT. NCRWQCB (sic)
2. Monschke, J. and Caldon, D. 1992. Garcia River Watershed Enhancement Plan. MCRCD.
3. O'Conner, M. 1997. Level 1 Erosion Assessment of the Garcia River Watershed. FSW, MCRC (in this study)
4. NRCS / CDF 1997. Soil Resource Assessment and Soil Survey of Mendocino County. Prepared for this study, with Soil Descriptions from *Eastern 1/2 of County.
5. Coastal Forestlands, Ltd. 1997. Sustained Yield Plan. DRAFT
6. Louisiana Pacific. 1997. Sustained Yield Plan.
7. USGS. 1977, 1991. Topographic maps. 1:24,000.
8. CDF. 1997. Coast Cascade Region GIS Data.

APPENDIX C

INVENTORY HISTORY IN THE GARCIA RIVER WATERSHED

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross-sections	longitudinal profiles	bankful width	bankful depth
70010 Pardaloe	Pardaloe Creek	Late summer flows measured (WEP). Flow estimated by % area above Eureka Br. at bankful discharge. (LFA)	from topos	MCRCD did x-secs at restoration sites			
	Box Canyon Ck.						
	Monahan Ck.						
	Newton Ck.						
	Unnamed						
	Mill Creek		from topos				
	North Mill		from topos				
	Sled Creek		from topos				
	Redwood Creek		from topos				
	Cabin Creek		from topos				
70011 Larmour	mainstem Garcia from Mill to Larmour Creek	1948 F&G est. of flow. Flow estimated by % area above Eureka Br. at bankful discharge. (LFA)	from topos				
	Larmour		from topos, GWAG observations				
	Grant's Camp	F&G 1967 stream survey estimate.	F&G 1967 stream survey description.			F&G 1967 stream survey estimate.	
	East End						

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70010 Pardaloe	Pardaloe Creek				WEP 1992, habitat typing iden. 2 dom. substrate size classes and % exposed sub. F&G 1994 stream survey of 102 meters, estimated. % sub. composition	
	Box Canyon Ck.					
	Monahan Ck.					
	Newton Ck.					
	Unnamed					
	Mill Creek				F&G 1994 stream survey, 126 meter reach.	
	North Mill					
	Sled Creek					
	Redwood Creek				1994 consultant for Mailliard particle size dist. (McNeil)	
	Cabin Creek					
70011 Larmour	mainstem Garcia from Mill to Larmour Creek		from 1952 & 1988 aerial photos		no data	aerial photos of 1952 showed lots of sediment
	Larmour	from topos				
	Grant's Camp		F&G 1967 stream survey estimate.		F&G 1967 stream survey.	
	East End					

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70010 Pardaloe	Pardaloe Creek	WEP 1992 Hab. typing				WEP hab. typing (Flosi & Reynolds) Lower 4.1 miles. F&G Stream Survey, 1994. No known continuous monitoring of temp. MCWA (1997)
	Box Canyon Ck.					
	Monahan Ck.					
	Newton Ck.					
	Unnamed					
	Mill Creek					F&G 1994 Stream Survey. Mailliard consultant 1994, hobos. MCWA (1997)
	North Mill					
	Sled Creek					
	Redwood Creek		1994 consultant for Mailliard particle size dist, (McNeil)			F&G 1994 Stream Survey. Mailliard consultant 1994, hobos.
	Cabin Creek					
70011 Larmour	mainstem Garcia from Mill to Larmour Creek					1948 F&G survey from Zeni Ranch to Garcia Falls; CFL hobo in summer 1995, MCWA 1997.
	Larmour					GWAG observations of canopy 1997
	Grant's Camp					F&G 1967 stream survey.
	East End					

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spaw ning substrate	carcasses	habitat types & distributions
70010 Pardaloe	Pardaloe Creek		WEP 1992, Direct Underwater Observation Method, (Hankin and Reeves,) and ocular est., river mile (MA Salmon Trollers survey 1995-96.	WEP observations 1992. Salmon Trollers survey, 1995-96.		WEP 1992, Hab. typing, tower 4.1 miles. F&G Stream Survey, 1994.
	Box Canyon Ck.					WEP 1992, Hab. typing in tower reaches
	Monahan Ck.					
	Newton Ck.					
	Unnamed					
	Mill Creek		F&G 1994 Stream Survey, electro-shock fish and amphibians.	Salmon Trollers winters 1995-96, 1996-97.	Salmon Trollers winters 1995-96, 1996-97.	F&G 1994 Stream Survey.
	North Mill					
	Sled Creek					
	Redwood Creek		Mailliard consultant 1994, fish and amphibs.			
	Cabin Creek					
70011 Larmour	mainstem Garcia from Mill to Larmour Creek		1948 F&G survey from Zeni Ranch to Garcia Falls; 1993 field notes from F&G.; 1987 F&G population study (elect) .25 miles from East End Ck.	1993 field notes from F&G.;		no data for this reach, 1948 F&G stream survey from Zeni Ranch to Garcia Falls est. good spawning areas. One pool measured CFL 1995.
	Larmour					
	Grant's Camp		F&G 1967 stream survey noted frogs and newts.			
	East End					

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70010 Pardaloe	Pardaloe Creek		WEP 1992, Hab. typing, lower 4.1 miles. F&G Stream Survey, 1994.		WEP, Hab. typing (Flosi & Reynolds) Lower 4.1 miles.
	Box Canyon Ck.				
	Monahan Ck.				
	Newton Ck.				
	Unnamed				
	Mill Creek		F&G 1994 Stream Survey.		
	North Mill				
	Sled Creek				
	Redwood Creek				
	Cabin Creek				
70011 Larmour	mainstem Garcia from Mill to Larmour Creek		CFL 1995 describes cover in hobo pool		
	Larmour	GWAG observations of canopy 1997			GWAG observations of 75 foot falls 1997
	Grant's Camp		F&G 1967 stream survey.	F&G 1967 stream survey.	F&G 1967 stream survey.
	East End				

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross-sections	longitudinal profiles	bankful width	bankful depth
70012 Stansbury Creek, Whitlow Creek, Garcia River	mainstem Garcia from Larmour to Blue Waterhole	Flow estimated by % area above Eureka Br. at bankful discharge.(LFA)	from topos	MCRCD 1995 established x-secs to monitor restoration work of New Growth Forestry.		F&G1946 stream survey observations.	
	Stansbury		from topos				
	Whitlow		from topos	GWAG notes creek w/wide, flat channel w/ vertical, unprotected banks.			
70013 Blue Waterhole Creek	mainstem Garcia		(CFL) With clinometer at 100 ft. intervals along sample reaches and averaged.			(CFL) bankful channel width at 3 prominent riffles w/ a surveying tape	(CFL) Average of 10 equally spaced depths across bankful channel at 3 riffles w/ stadia rod.
	Blue Waterhole Creek	GWAG noted good summer flows 1997. Flow estimated by % area above Eureka Br. at bankful discharge.(LFA) F&G 1987 stream survey estimate.	from topos and CDF GIS	MCRCD x-secs to monitor New Growth Forestry restoration sites.		F&G 1987 stream survey observations and estimates.	

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70012 Stansbury Creek, Whitlow Creek, Garcia River	mainstem Garcia from Larmour to Blue Waterhole		1952 and 1988 aerial photo measurements.		F&G 1948 stream survey observations.	1952 aerial photos.
	Stansbury				GWAG info of rock gorge.	
	Whitlow				CFL consultant 1996 noted .5 miles of creek w/ heavy impact by recent sediment. (THP MEN).; GWAG noted 1997, high fines.	
70013 Blue Waterhole Creek	mainstem Garcia	Measured out from bankful at 3 riffles (same spot as bankful and pebble cts.). averaged from 3 sites for overall v.w. for reach.				
	Blue Waterhole Creek		F&G 1967 stream survey observations and estimates.		F&G 1967 stream survey observations. NCRWQCB & CDF study measured RASI, D50 and V*.	

SWRCB no., Subwatershed	monitoring reach	embeddedne ss	pebble counts	woody debris	pools	temperature
70012 Stansbury Creek, Whitlow Creek, Garcia River	mainstem Garcia from Larmour to Blue Waterhole					FrOG 1995 w/ hobo.
	Stansbury					
	Whitlow				GWAG notes lack of pools 1997.	
70013 Blue Waterhole Creek	mainstem Garcia		Wolman pebble cts. in 3 potential spawning riffles. 100 particles. Several indices of substrate size calculated and averaged for reach.	(CFL) Inventories within bankful channel for entire reach, as per Bilby and Ward (1989).	3 pools/reach residual depth, residual length, and residual width. $V = (1/12\pi) \times (l, w, d)$	
	Blue Waterhole Creek				F&G 1967 stream survey observations and estimates NCRWQCB & CDF study measured pools/1000m, max pool depth.	F&G stream survey 1967 Aug. temp. FrOG 19931 station; 1994, 3; 1995, 4 stations. Summer temps. CFL consultant 1995.

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawning substrate	carcasses	habitat types & distributions
70012 Stansbury Creek, Whitlow Creek, Garcia River	mainstem Garcia from Larmour to Blue Waterhole		1948 F&G stream survey noted fish.			
	Stansbury		Steelhead seen in 1995 (GWAG).	GWAG noted no spawning in 1993-94.		
	Whitlow		CFL consultant THP 1996 noted number of Juvenile fish, no redds.	CFL consultant THP 1996 noted number of juvenile fish, no redd.		No data, CFL consultant notes lack of LWD, sinuosity and good pool/riffle ratio. THP 1996
70013 Blue Waterhole Creek	mainstem Garcia					
	Blue Waterhole Creek		F&G stream survey 1967 observed fish and amphibs.			F&G 1967 stream survey observations and estimates. NCRWQCB & CDF study measured LWD volume/1000m. GWAG noted boulder cover 1997.

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70012 Stansbury Creek, Whitlow Creek, Garcia River	mainstem Garcia from Larmour to Blue Waterhole				
	Stansbury	GWAG notes good canopy from mouth to upper fork.			GWAG note of logjam barrier .5 mile up from mouth. Passage opened 1992 by blasting of Garcia Falls.
	Whitlow	GWAG notes moderate at best, (max 65%), 1997.	CFL THP 1996 states cover is simplistic, lacks pool forming elements.		no known barriers (LFA).
70013 Blue Waterhole Creek	mainstem Garcia	(CFL) % closure visually est. above bankful at 100 ft. intervals (decid. & everg.), averaged for reach.			
	Blue Waterhole Creek	GWAG noted 1997 poor cover w/ good volunteer revegetation efforts.		F&G stream survey 1967 observed abundant food.	GWAG noted barriers, rock barriers, falls and landing site blocks.

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross- sections	longitudinal profiles	bankful width	bankful depth
70014 Inman Creek	Inman Creek	Flow estimated by % area above Eureka Br. at bankful discharge (LFA). GWAG 1997 estimated summer flows a 1.5 cfs and winter flows at 26-32 cfs.	from topos; (CFL) 3 sites with clinometer at 100 ft. intervals along sample reaches and averaged.			(CFL) bankful channel width at 3 prominent riffles w/ a surveying tape	(CFL) Average of 10 equally spaced depths across bankful channel at 3 riffles w/ stadia rod.
	North Fork Inman		from topos				
	Pepperwood Creek		from topos				
70020 Signal Creek	Signal Creek	Flow estimated by % area above Eureka Br. at bankful discharge.(LFA)	(CFL) 3 sites with clinometer at 100 ft. intervals along sample reaches and averaged. From topos (LFA). L-P Channel Network map of source/response reaches.			(CFL) bankful channel width at 3 prominent riffles w/ a surveying tape	(CFL) Average of 10 equally spaced depths across bankful channel at 3 riffles w/ stadia rod.

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70014 Inman Creek	Inman Creek	Measured out from bankful at 3 riffles (same as bankful and pebble cts.). averaged from 3 sites for overall v.w. for reach.	GWAG observations.		1994 (CFL) Particle size distribution (4 McNeil samples) at 2 stations at pool/riffle crests. 1995 (CFL) McNeil sample at mouth. CFL THP 1996 observations. GWAG notes, 1997. New Growth Forestry reported substrate conditions 1990.	
	North Fork Inman					
	Pepperwood Creek					
70020 Signal Creek	Signal Creek	Measured out from bankful at 3 riffles (same as bankful and pebble cts.). averaged from 3 sites for overall v.w. for reach.	L-P's Channel sensitivity map; SYP 1997. GWAG notes. Aerial photo interp., (LFA)		F&G 1987, 98 meter survey estimated substrate comp. F&G 1995 repeated survey, 108 meters. GWAG 1997 observations.	

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70014 Inman Creek	Inman Creek	CFL THP 1996 observations and #s. (checked embed.?)	Wolman pebble cts. in 3 potential spawning riffles. 100 particles. Several indices of substrate size calculated and averaged for reach.	CFL Inventories within bankful channel for entire reach, as per Bilby and Ward (1989). Mendocino Watershed Service, inc. observed lack of woody debris 1995. CFL THP 1996 observations of woody debris. GWAG notes that woody debris is low.	3 pools/reach residual depth, residual length, and residual width. $V=(1/12\pi) \times (l,w,d)$; CFL THP 1996 observations of pool abundance.	1994 & 1995 CFL consultant collected summer temps at mouth.
	North Fork Inman					
	Pepperwood Creek					
70020 Signal Creek	Signal Creek		Wolman pebble cts. in 3 potential spawning riffles. 100 particles. Several indices of substrate size calculated and averaged for reach.	(CFL) Inventories within bankful channel for entire reach, as per Bilby and Ward (1989). GWAG 1997 woody debris observations. Mendocino Watershed Services installed woody debris before 1995.	3 pods/reach residual depth, residual length, and residual width. $V=(1/12\pi) \times (l,w,d)$	F&G 1987 stream survey estimated temp. F&G 1995 repeated survey.

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawning substrate	carcasses	habitat types & distributions
70014 Inman Creek	Inman Creek		F&G 1987 fish pop. survey. CFL 1994 consultant conducted fish pop. survey. L-P 1995 conducted fish pop. survey. Salmon Trollers 1995-96 conducted spawning survey.	Salmon Trollers 1995-96 conducted redd survey.	Salmon Trollers 1995-96 conducted carcass survey.	New Growth Forestry for restoration grant reported habitat conditions 1990. GWAG notes that spawning habitat is okay.
	North Fork Inman					CFL THP 1996 observations of adequate habitat for salmonids..
	Pepperwood Creek					WEP 1992, Hab. typing in lower reaches.
70020 Signal Creek	Signal Creek		F&G 1987, 98 meter survey counted fish. F&G 1995 repeated fish count survey, 108 meters. Salmon Trollers Assoc. spawning survey 1995-96. Repeated survey 1996-97. CFL observations 1992.	Salmon Trollers Assoc. spawning survey counted redds 1995-96. Repeated survey 1996-97. CFL observations 1992. GWAG notes.	Salmon Trollers Assoc. spawning survey counted redds 1995-96. Repeated survey 1996-97.	F&G 1987, 98 meter survey estimated nab. types F&G 1995 repeated survey, 108 meters. GWAG 1997 spawning nab. observations.

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70014 Inman Creek	Inman Creek	(CFL)% closure visually est. above bankful at 100 ft. intervals (decid. & everg.), averaged for reach. New Growth Forestry for restoration grant reported canopy conditions 1990.	GWAG notes that woody debris is low. CFL THP 1996 observed amount of cover.	CFL THP 1996 consultant observations.	New Growth Forestry for restoration grant reported barriers 1990.
	North Fork Inman				New Growth Forestry for restoration grant reported barriers 1990.
	Pepperwood Creek				New Growth Forestry for restoration grant reported barriers 1990.
70020 Signal Creek	Signal Creek	(CFL)% closure visually est. above bankful at 100 ft. intervals (decid. & everg.), averaged for reach.	F&G 1987, 98 meter survey estimated instream objects F&G 1995 repeated survey, 108 meters. GWAG 1997 cover observations.		GWAG notes on steep bedrock falls.

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross- sections	longitudinal profiles	bankful width	bankful depth
70021 Casper Ck, Graphite Ck., Garcia River	mainstem Garcia	Flow estimated by % area above Eureka Br. at bankful discharge.(LFA) L-P reports mean annual volume runoff.	CDF GIS; L-P SYP Channel Network Map 1997. (CFL) With clinometer at 100 ft. intervals along sample reaches and averaged.			(CFL) bankful channel width at 3 prominent riffles w/ a surveying tape. GWAG notes that channel is very wide.	(CFL) Average of 10 equally spaced depths across bankful channel at 3 riffles w/ stadia rod.
	Casper Creek		CDF GIS; L-P SYP Channel Network Map 1997.				
	Graphite Creek		CDF GIS; L-P SYP Channel Network Map 1997. 1968 aerial photos show lg. drop-off at mouth.				

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70021 Casper Ck, Graphite Ck., Garcia River	mainstem Garcia	Measured out from bankful at 3 riffles (same spot as bankful and pebble cts.) averaged from 3 sites for overall v.w. for reach.	1852 and 1988 aerial photos. L-P Channel Sensitivity map.		CFL consultant collected particle size dist. data downstream from Blue Waterhole Creek 1995. L-P SYP 1997 Channel Substrate Predicted Particle Size map.	
	Casper Creek		L-P SYP 1997 Channel Sensitivity map from slope and confinement) method unknown. (LFA)		L-P SYP 1997 Channel Substrate Predicted Particle Size map.	
	Graphite Creek		L-P SYP 1997 Channel Sensitivity map from slope and confinement; method unknown. (LFA)		L-P SYP 1997 Channel Substrate Predicted Particle Size map. GWAG notes.	

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70021 Casper Ck, Graphite Ck., Garcia River	mainstem Garcia		Wolman pebble cts. in 3 potential spawning riffles. 100 particles. Several indices of substrate size calculated and averaged for reach.	(CFL) Inventories within bankful channel for entire reach, as per Bilby and Ward (1989).	3 pools/reach residual depth, residual length, and residual width. $V=(1/12\pi) \times (l,w,d)$	GWAG notes warm temps, tots of algal growth.
	Casper Creek					L-P conducted pop. distrib. survey in 1995 & 96, incld. temp.
	Graphite Creek					

Appendix C: Inventory History in the Garcia River Watershed

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawning substrate	carcasses	habitat types & distributions
70021 Casper Ck, Graphite Ck., Garcia River	mainstem Garcia		F&G 1987 conducted electro. pop. survey. GWAG observations.	GWAG observations.		
	Casper Creek		L-P conducted pop. dist.. survey in 1995 & 96, incl. fish and amphib counts.			L-P conducted pop. distrib. survey in 1995 & 96, incl. nab. types.
	Graphite Creek		Salmon Trollers conducted survey from Dec 1996-Jan. 1997, 1 mile. Repeated from Feb- April, 1997, 0.3 miles.	Salmon Trollers conducted survey from Dec 1996-Jan. 1997, 1 mile. Repeated from Feb-April, 1997, 0.3 miles.	Salmon Trollers conducted survey from Dec 1996-Jan. 1997, 1 mile. Repeated from Feb- April, 1997, 0.3 miles.	

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70021 Casper Ck, Graphite Ck., Garcia River	mainstem Garcia	(CFL) % closure visually est. above bankful at 100 ft. intervals (decid. & everg.), averaged for reach.			
	Casper Creek				
	Graphite Creek		GWAG notes.		1988 aerial photos note lg. drop-off at mouth. GWAG notes barrier where road crosses stream.

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross- sections	longitudinal profiles	bankful width	bankful depth
70022 Beebe Creek, Garcia River	mainstem Garcia		CDF GIS. L-P SYP Channel Network Map 1997. CFL; with clinometer at 100 ft. intervals along sample reaches and averaged.			(CFL) bankful channel width at 3 prominent riffles w/ a surveying tape. GWAG notes mainstem wide with shallow pools.	(CFL) Average of 10 equally spaced depths across bankful channel at 3 riffles w/ stadia rod.
	Beebe Creek	F&G 1989 stream survey estimated flow over log.	From topos LFA; L-P SYP Channel Network Map 1997.				

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70022 Beebe Creek, Garcia River	mainstem Garcia	Measured out from bankful at 3 riffles (same spot as bankful and pebble cts.). averaged from 3 sites for overall v.w. for reach.	Aerial photos 1952 & 1988. LFA. L-P SYP 1997 Channel Sensitivity map from slope and confinement; method unknown. (LFA)		L-P SYP 1997 Channel Substrate Predicted Particle Size map. .	
	Beebe Creek		L-P SYP 1997 Channel Sensitivity map from slope and confinement; method unknown. (LFA)		F&G stream survey 1989. L-P SYP 1997 Channel Substrate Predicted Particle Size map. GWAG observations.	

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70022 Beebe Creek, Garcia River	mainstem Garcia		Wolman pebble cts. in 3 potential spawning riffles. 100 particles. Several indices of substrate size calculated and averaged for reach.	(CFL) Inventories within bankful channel for entire reach, as per Bilby and Ward (1989).	3 pools/reach residual depth, residual length, and residual width. $V=(1/12\pi) \times (l, w, d)$	FrOG collected near Hot Springs Camp Aug.-Oct. 1994. GWAG notes mainstem wide with warm temps.
	Beebe Creek					

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawning substrate	carcasses	habitat types & distributions
70022 Beebe Creek, Garcia River	mainstem Garcia					GWAG notes mainstem wide with shallow pools.
	Beebe Creek		F&G 1969 pop. survey using Smith-Root Type VII electrofisher.			F&G 1989 fish pop. stream survey of 100 ft. w/ hab. types.

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70022 Beebe Creek, Garcia River	mainstem Garcia	(CFL) % closure visually est. above bankful at 100 ft. intervals (decid. & everg.), averaged for reach.	GWAG notes mainstem wide with shallow pools.		
	Beebe Creek		F&G 1989 fish pop. stream survey of 100 ft. noting cover.	F&G 1989 stream survey reported insects.	GWAG observations of bedrock barrier near Garcia Haul Road.

Appendix C: Inventory History in the Garcia River Watershed

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross- sections	longitudinal profiles	bankful width	bankful depth
70023 South Fork	mainstem Garcia	F&G 1967 stream survey w/ summer flows and winter predictions.	CDF GIS. L-P Channel Network map in SYP, 1997.			GWAG notes wide channel.	
	South Fork	F&G stream surveys Aug. 1987, Oct. 1988, 89,91,92. GWAG notes 1997.	CDF GIS (source??). L-P Channel Network map in SYP, 1997. GWAG notes.			F&G 1987-92. L-P SYP 1998.	
	Fleming Creek	F&G stream surveys measured flow in Aug. 1987 & Oct. 1989, 90, Nov. 1991 & Oct. 1992.	From topos. L-P SYP Channel Network Map 1997.			F&G 1987-89 & 1991 -92 stream surveys.	
	Little South Fork						

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70023 South Fork	mainstem Garcia		1952 & 1988 aerial photos. L-P Channel Sensitivity Map SYP 1997.		L-P SYP 1997 Channel Substrate Predicted Particle Size model.	GWAG notes braided/aggraded sediment load.
	South Fork		L-P Channel Sensitivity Map SYP 1997.		F&G stream surveys 1887-89 & 1991-92, est. sub. comp. L-P Channel substrate Predicted Particle Size map.	
	Fleming Creek		GWAG notes upper reaches well confined. L-P SYP 1997 reports.		F&G stream surveys 1887-89 & 1991-92, est. sub. comp. L-P Channel substrate Predicted Particle Size map. F&G McNeil samples at mouth in late 1980's.	GWAG notes high instream-stored sediment.
	Little South Fork					

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70023 South Fork	mainstem Garcia					FrOG hobo temps on mainstem above S.Fork.1995. CFL consultant 1995 installed hobo.
	South Fork			L-P 1995 stream survey.	L-P 1995 stream survey pool depths. Salmon Trollers 1989- 90 spawning survey, mean pool depth.	Salmon Trollers winter spawning survey 1989-90. FrOG hobo temp at mouth 1995-96. L-P 1994-95 stowaways at mouth. GWAG notes.
	Fleming Creek					GWAG notes good canopy, prob. good temps.
	Little South Fork					

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawning substrate	carcasses	habitat types & distributions
70023 South Fork	mainstem Garcia		F&G 1967 stream survey reported poor spawning hab. due to high winter flows. GWAG notes spawning downstream of mouth of S. Fork.			F&G 1967 stream survey. GWAG notes nice bedrock pools.
	South Fork		F&G stream surveys 1987-89 and 1991-92 counted fish/m2. F&G 1988 planted Noyo River coho. Salmon Trollers spawning survey 1989-90, 90-91 & 96-97. L-P 1994-96 pop dist #s at 3 locs on S. Fork. GWAG notes 1997 of abundant steelhead and hist coho.	Salmon Trollers spawning survey 1989-90, 1990-91 1996-97. F&G stream surveys est. spawning substrate/hab. & 1991-92.	Salmon Trollers spawning survey 1989-90, 1990-91 1996-97.	F&G stream surveys 1987 89 and 1991 -1992. L-P 1995 stream survey.
	Fleming Creek		F&G stream surveys 1987-89 & 1991-92 counted fish/m2. L-P 1994-96 pop dist. #s	F&G stream surveys est. spawning substrate/hab. 1987-89 & 1991-92.		F&G stream surveys 1987 89 & 1991-92.
	Little South Fork		GWAG notes 1997 of abundant steelhead and hist. coho.			

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70023 South Fork	mainstem Garcia		GWAG notes 1997 simple channel, little cover.		
	South Fork	F&G stream surveys 1987 89, 1991-92.	F&G stream surveys 1987 89 and 1991 -92. L-P 1995 stream survey.		GWAG notes sediment barriers where water flows underground in late summer.
	Fleming Creek	F&G stream surveys 1987 89, 1991-92.	F&G stream surveys 1987 89 & 1991-92.		GWAG notes culvert which blocks fish passage.
	Little South Fork				

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross-sections	longitudinal profiles	bankful width	bankful depth
70024 Rolling Brook	mainstem Garcia	MCWA 1996-97.	CDF GIS	2 x-secs at Eureka Hill Bridge, (Jackson, 1996)			
	Mill Creek	GWAG notes subsurface flows during summer due to sediment delta at mouth. F&G 1967 stream survey.	CDF GIS. L-P Channel Sensitivity map and Channel Network map, SYP 1997.			F&G 1967 stream survey.	
	Rolling Brook	F&G 1967 est. at mouth. F&G 1987 measured summer flow.	CDF GIS. L-P Channel Sensitivity map and Channel Network map, SYP 1997.			F&G 1987 stream survey. F&G 1987. L-P 1995 habitat survey.	F&G 1967 stream survey.
	Lee Creek	F&G 1989 stream survey. L-P 1996 pop. dist. survey.	CDF GIS. L-P Channel Sensitivity map and Channel Network map, SYP 1997.			F&G 1989 stream survey.	
	Hutton Gulch	F&G 1987 stream survey estimates. Save Our Salmon memo 1986 observation of underground flow. CDF confirms.	CDF GIS. L-P Channel Sensitivity map and Channel Network map, SYP 1997. GWAG notes.			F&G 1967 stream survey.	

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70024 Rolling Brook	mainstem Garcia				Oct. 1992, USGS measured surface bed material along transect. Dec 1992-Feb 1993 USGS measured particle dist. of bedload.	USGS Dec 1992-May 1993 measured suspended sediment from Eureka Hill Bridge (PWA gravel management report).
	Mill Creek		F&G 1967 stream survey. L-P Channel Sensitivity map, SYP 1997.		F&G 1967 stream survey. L-P Channel Substrate Predicted Particle Size map, SYP 1997.	GWAG notes subsurface flows due to sediment delta mouth.
	Rolling Brook		F&G 1967 stream survey notes. L-P Channel Sensitivity Map, SYP 1997.		F&G stream survey in 1967 & 1987. L-P 1995 hab. typing est. subsurface fines. L-P Channel Substrate Predicted Particle Size map, SYP 1997.	GWAG notes subsurface flows due to sediment delta mouth.
	Lee Creek		L-P Channel Sensitivity Map SYP 1997.		F&G 1989 stream survey. L-P SYP 1997 Channel Substrate Predicted Particle Size model.	
	Hutton Gulch		L-P Channel Sensitivity Map SYP 1997. GWAG notes.		F&G 1967 stream survey. F&G 1978 THP review. 1986 Save Our Salmon memo. CDF memo 1987. L-P SYP 1997 Channel Substrate Predicted Particle Size model. GWAG notes	

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70024 Rolling Brook	mainstem Garcia					
	Mill Creek				F&G 1967 stream survey notes.	F&G 1967 stream survey notes. FrOG at mouth since 1995.
	Rolling Brook	L-P 1995 hab. typing est. pool tail embedd.				F&G 1967 and 1987 measured temp. FrOG at mouth since 1994. L-P 1995 summer temps.
	Lee Creek				F&G 1989 stream survey.	F&G 1989 stream survey. FrOG summer temps since 1994.
	Hutton Gulch				F&G 1967 stream survey predicting.	F&G 1967 stream survey. F&G 1977. FrOG from mouth in 1995.

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawning substrate	carcasses	habitat types & distributions
70024 Rolling Brook	mainstem Garcia					
	Mill Creek		L-P pop. dist. survey by electroshock, 1996. F&G 1967 stream survey counted fish.	F&G 1967 stream survey notes.		F&G 1967 stream survey notes. L-P pop. dist. survey 1996.
	Rolling Brook		F&G 1967 notes, F&G 1987 electrofished. L-P 1994-96 electrofished. GWAG notes.	F&G 1967 stream survey notes spawning gravels.		F&G 1967 stream survey notes nab. types and spawning gravels. F&G 1987 nab. types. L-P 1995 hab. typing one one reach. GWAG notes instream structures in lower 1 mile.
	Lee Creek		F&G 1989 stream survey observations. L-P 1996 pop. dist. survey. GWAG notes hist, coho migrations.			F&G 199 (sic) stream survey. GWAG notes instream structures.
	Hutton Gulch		F&G 1967 stream survey observations. GWAG notes 1997. Save Our Salmon raised salmonids in ponds at mouth in 1970s&80s.			F&G 1967 stream survey.

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/ food supply	barriers
70024 Rolling Brook	mainstem Garcia				
	Mill Creek		F&G 1967 stream survey notes.	F&G 1967 stream survey notes.	F&G 1967 stream survey noted log jam barrier to migration and gradient in 2nd and 3rd tribs.
	Rolling Brook		F&G stream survey 1967, 1987. L-P habitat typing 1995.	F&G 1967 notes.	F&G 1967 notes.
	Lee Creek		F&G 1989 stream survey.		
	Hutton Gulch		F&G 1967 stream survey.		F&G 1967 stream survey noted steep gradient. F&G, CDF and Save Our Salmon all note subsurface flows.

SWRCB no., Subwatershed	monitoring reach	flow	channel gradient	cross-sections	longitudinal profiles	bankful width	bankful depth
70025 North Fork	North Fork	Late summer flows measured (WEP 1992). 0.5 miles up from mouth water goes sub-surface in summer** (LFA, 1997).	(CFL) 3 sites with clinometer at 100ft. intervals along sample reaches and averaged, from topos, (LFA, 1997)	CFL (1989-96).		(CFL) bankful channel width at 3 prominent riffles w/ a surveying tape	(CFL) Average of 10 equally spaced depths across bankful channel at 3 riffles w/ stadia rod.
	Alder Creek						
	Olsen Gulch		CDF GIS (LFA 1997).	MCRCO 1995.		F&G 1967.	F&G 1967.
	John Olsen Creek	GWAG (LFA 1997).	GWAG (LFA 1997).				
	Garcia River	discharge at bankful higher than expected (Cafferata), steep hydrographs. MCWA, (1996-97)	CDF GIS (LFA 1997).	3 x-secs at Connor Hole (MCWA, RCD WA 1991; Jackson, 1997), MCWA 1996-97.		GWAG notes wide channel (LFA, 1997), Jackson, (1997).	Jackson 1997 (LFA, 1997)
70026 Hathaway Creek	Hathaway Creek	F&G survey 1986.	CDF GIS (LFA 1997).				
	Allen Gulch		LFA 1997.				
	lower 7 miles & estuary	Late summer flows measured by Pygmy flowmeter (WEP 1992). Discharge at bankful higher than expected (Cafferata), steep hydrographs.	CDF GIS (LFA 1997).	40 x-secs (WEP 1992). 2 x-secs on Kendall property, (MCWA, RCD WA 1991; Jackson, 1996).	Done for WEP 1992, from topos.	WEP, 1992. Leopold & McBain 1996.	WEP, 1992. Leopold & McBain 1996.

SWRCB no., Subwatershed	monitoring reach	valley width	confinement	turbidity	substrate composition	sediment
70025 North Fork	North Fork	Measured out from bankful at 3 riffles (same as bankful and pebble cts.). averaged from 3 sites for overall v.w. for reach.	Very confined ** (LFA, 1997).	CFL (199?).	1967 F&G survey. CDF memo 1989 (LFA, 1997). McNeil samples (CFL, 1989-1995; G-P 1994).	McNeil samples (CFL, 1997; G-P 1994)
	Alder Creek					high sediment in creek "(LFA).
	Olsen Gulch		F&G 1967.		1967 F&G survey.	lots of sediment instream** (LFA, 1997).
	John Olsen Creek		GWAG (LFA 1997).		GWAG (LFA 1997).	
	Garcia River		RWCQB, EPA(LFA, 1997), Jackson (1997).		Jackson (1997).	
70026 Hathaway Creek	Hathaway Creek		LFA (1997).		F&G survey 1986.	
	Allen Gulch		Flooded at mouth channel confined ((LFA, 1997).			
	lower 7 miles & estuary	WEP, 1992. Leopold & McBain 1996.	WEP, 1992. Leopold & McBain 1996.		WEP 1992 pebble counts, AT&T sed. sampling (Pacific Watersheds Assoc., 1994), P. Williams 1996.	Sediment strata trenches at 4 estuary sites and one adjoining field. AT&T sed. sampling (Pacific Watersheds Assoc., 1994)

SWRCB no., Subwatershed	monitoring reach	embeddedness	pebble counts	woody debris	pools	temperature
70025 North Fork	North Fork		(CFL 1997) Wolman pebble cts. in 3 potential spawning riffles. 100 particles. Several indices of substrate size calculated and averaged for reach.	(CFL) Inventories within bankful channel for entire reach, as per Bilby and Ward (1989). (LFA, 1997).	3 pools/reach residual depth, residual length, and residual width. $V=(1/12\pi) \times (l,w,d)$) Good pools upstream (LFA, 1997)	G-P 1994.
	Alder Creek					
	Olsen Gulch			Sections w/ good LWD** (LFA, 1997).	Sections w/ good pools" (LFA, 1997).	F&G, 1967.
	John Olsen Creek					GWAG (LFA 1997).
	Garcia River					USGS (1964-79)
70026 Hathaway Creek	Hathaway Creek					FrOG (??)
	Allen Gulch					
	lower 7 miles & estuary	WEP Habitat Typing 1992	WEP 1992 pebble counts		Pool depth Improving, pool bottoms may be low In DO (LFA, 1997)	Habitat typing recorded late summer temps, for river mile .86-8.31, (WEP 1992), FrOG 1994-97. MCWA, 1997.

SWRCB no., Subwatershed	monitoring reach	dissolved oxygen	fish	redds/spawnin g substrate	carcasses	habitat types & distributions
70025 North Fork	North Fork		WEP 1992, Direct Underwater Observation Method, (Hankin and Reeves,) and ocular est. river mile 0.5-5.9. F&G 1967. G-P 1994.	G-P (1994).	G-P (1994).	MCRC D WEP 1992 Hab. typing, river mile .5-5.05; CDF&G (1967, 1983), CFL 1997
	Alder Creek		F&G survey**(LFA).			
	Olsen Gulch	RWQCB 1989-90, MCWA 1996	F&G 1967 (LFA, 1997).			F&G 1967. Monschke 1995 (LFA, 1997).
	John Olsen Creek		no modern fish data	Silted gravels, ok for spawning?**(LFA, 1997).		GWAG (LFA 1997).
	Garcia River	MCWA 1996	1952 F&G study, active spawning. Cressey 1993 electrofished.	potential spawning and rearing habitat		F&G 1953, P. Williams 1996.
70026 Hathaway Creek	Hathaway Creek		F&G survey 1986			F&G survey 1986.
	Allen Gulch		no modern fish sightings (LFA, 1997).			
	lower 7 miles & estuary	MCWA 1997, Water Quality tests by NCRWQCB 1989-90.	WEP 1992, Direct Underwater Observation Method, and ocular est. Three sites in estuary seined. P. Williams & Assoc. (1996), F&G 1953.			Habitat typing, river mite .86-8.31, RCD for WEP (1992). F&G 1987, P. Williams & Assoc. (1996).

SWRCB no., Subwatershed	monitoring reach	canopy	instream cover	invertebrates/food supply	barriers
70025 North Fork	North Fork	(CFL) % closure visually est. above bankful at 100 ft. intervals (decid. & everg.), averaged for reach. Good alder canopy** (LFA, 1997).		F&G 1967.	F&G, log Jam barriers. (1967). Waterfall 2-4 miles from mouth (LFA, 1997).
	Alder Creek				mouth perched above NF forming barrier** (LFA, 1997).
	Olsen Gulch		F&G 1967.	F&G 1967 (LFA, 1997).	F&G 1967 (LFA, 1997)
	John Olsen Creek	GWAG (LFA 1997).			
	Garcia River				
70026 Hathaway Creek	Hathaway Creek	F&G 1986.	F&G survey 1986.		
	Allen Gulch				
	lower 7 miles & estuary		F&G 1987, P. Williams & Assoc. (1996).	AT&T bentonite spill survey, Huffman & Assoc. (1992).	Habitat typing river mile .86-8.31 identified barriers, (WEP 1992)

key

AW - Adopt-a-Watershed

CDF - Calif. Dept. of Forestry and Fire Protection

CDFG - Calif. Dept. of Fish and Game

CFL - Coastal Forestlands, Ltd.

FrOG - Friends of the Garcia River

G-P - Georgia Pacific

L-P - Louisiana-Pacific

MCRCD - Mendocino County Resource Conservation District

MCWA - Mendocino County Water Agency