

Victoria Boyne

Subject: FW: HWU Data

From: Simms, Jeffrey [<mailto:jsimms@blm.gov>]
Sent: Monday, June 17, 2013 5:50 PM
To: Angela Barclay
Cc: Marcia Radke
Subject: HWU Data

Angela,

The table you provided to Marcia was compiled in 2011 between June 11 and July 2nd. Here are some of the particulars that may help you:

Wet-dry surveys included information on HWU location and patch size. On June 11, I and 3 others surveyed the reach of Cienega Creek from the road crossing about 1 mile below Pump Canyon to the Narrows (feature on 7.5 minute USGS quad).

On June 11, Marcia Radke and 3 others surveyed Cienega Creek from the confluence with Mattie Canyon to the Crossing mentioned above.

On June 20, I and 3 others surveyed from the beginning of surface water to the confluence with Gardner canyon.

On July 1, John Anderson (BLM botanist) and I surveyed Mattie Canyon from the confluence of Cienega Creek to the spring source about 1 mile upstream. We also surveyed the perennial segment of Cienega Creek above the Confluence with Mattie Canyon to the set of bedrock falls located about 1/2 mile upstream.

On July 2, John Anderson (BLM botanist) and I surveyed Empire Gulch from rattlesnake tank to its confluence with Cienega Creek (about 1 mile).

What was not surveyed was intermittent reaches from Gardner Canyon to the bedrock falls below Forty-nine Wash. Empire Spring was not surveyed as it is visited annually for fish and frog surveys and HWU has never been observed.

The protocol was to walk slowly and record any patches of HWU observed. The size of each patch was then measured and recorded with UTM location. Those folks listed above are very familiar with identification of this species and are not likely to confuse it with other aquatic species.

Hope this helps. Any other questions?

Cheers

Cienega Creek - Reach Head Waters to Confluence with Garc
All GPS locations +/- 20ft accuracy

Location in Channel	Easting - R 12	Northing	Length	Width	Area (sqft)	Area (SqM)	Open to Sun	Under story
	538781	3516016						
east	538962	3517147	13	6.5	84.5	7.9	x	x
east	538963	3517158	9	3	27.0	2.5		x
mid	538966	3517197	9	4.5	40.5	3.8		x
east	538967	3517901	10.5	2	21.0	2.0		x
mid	538968	3517209	26.8	6	160.8	14.9		x
west	538957	3517229	12.1	5	60.5	5.6		x
west	538966	3517290	8	9	72.0	6.7		x
east	538969	3517290	21.2	18.7	396.4	36.8		x
east	538973	3517283	7.3	5	36.5	3.4		x
east	538984	3517322	11.8	5.5	64.9	6.0		x
east	539008	3517406	7.8	2	15.6	1.5		x
east	539008	3517413	13.5	2	27.0	2.5		x
east	539005	3517411	33.8	9	304.2	28.3		x
east	539005	3517424	14.8	3	44.4	4.1		x
mid	539005	3517438	36.7	25.9	950.5	88.4		x
east	539010	3517451	20	20.2	404.0	37.6		x
center	539000	3517477	22.4	46.3	1037.1	96.4		x
east	539007	3517489	98	4	392.0	36.4		x
mid	538963	3517759	51	33.2	1693.2	157.4		x
	538936	3517802						
Totals			413.7	210.8	5832.2	8106.0		
Acres	0.133884298				2.0			

19 Patches Cataloged

Cienega Creek - Reach Confluence w/ Mattie Cyn to Power I
All GPS locations +/- 20ft accuracy

Location in Channel	Easting - R 12	Northing	Length	Width	Area (feet)	Area (Meters)	Open to Sun	Under story
	540308	3524952						
east	540385	3525130	12	10	120.0	11.2	NA	NA
east	540404	3525157	12	10	120.0	11.2	NA	NA
west	540867	3525932	16	10	160.0	14.9	NA	NA
west	540868	3525939	30	5	150.0	13.9	NA	NA

est	540844	3526075	6	1	60.0	0.6	NA	NA
west	540855	3526112	13	2	26.0	2.4	NA	NA
east	540869	3526153	10	2	20.0	1.9	NA	NA
-	541249	3526481	3	6	18.0	1.7	NA	NA
east	541375	3526878	4	6	24.0	2.2	NA	NA
-	541373	3526880	1	4	4.0	0.4	NA	NA
west	541372	3526880	8	8	64.0	5.9	NA	NA
-	541372	3526878	2	2	4.0	0.4	NA	NA
east&west	541365	3526895	5	6	30.0	2.8	NA	NA
west	541363	3526901	18	3	54.0	5.0	NA	NA
west	541365	3526905	45	6	270.0	25.1	NA	NA
west	541375	3526927	20	2	40.0	3.7	NA	NA
west	543190	3526942	1	6	6.0	0.6	NA	NA
east	541405	3526948	25	3	75.0	7.0	NA	NA
west	541417	3526968	15	3	45.0	4.2	NA	NA
east	541419	3526963	8	8	64.0	5.9	NA	NA
west	541420	3526965	12	12	144.0	13.4	NA	NA
mid	541430	3526983	18	18	324.0	30.1	NA	NA
mid	541430	3526985	12	2	24.0	2.2	NA	NA
east	541431	3526985	12	12	144.0	13.4	NA	NA
west	541431	3526988	6	4	24.0	2.2	NA	NA
west	541446	3527018	20	3	60.0	5.6	NA	NA
east	541453	3527020	6	4	24.0	2.2	NA	NA
east	541457	3527030	10	1	10.0	0.9	NA	NA
east&west	541515	3527110	20	4	80.0	7.4	NA	NA
east	541534	3527125	3	4	12.0	1.1	NA	NA
-	541551	3527140	6	1	6.0	0.6	NA	NA
east&west	541556	3527148	60	30	1800.0	167.3	NA	NA
east&west	541557	3527179	20	2	40.0	3.7	NA	NA
west	541553	3527183	10	1	10.0	0.9	NA	NA
east	541546	3527215	12	18	216.0	20.1	NA	NA
west	541519	3527240	10	6	60.0	5.6	NA	NA
east&west	541515	3527247	4	1	4.0	0.4	NA	NA
west	541501	3527259	4	8	32.0	3.0	NA	NA
east	541487	3527282	15	2	30.0	2.8	NA	NA
west	541481	3527290	2	30	60.0	5.6	NA	NA
west	541506	3527338	25	1	25.0	2.3	NA	NA
west	541528	3527341	35	3	105.0	9.8	NA	NA
east	541544	3527333	10	18	180.0	16.7	NA	NA
west	541589	3527344	5	8	40.0	3.7	NA	NA
west	541607	3527346	8	3	24.0	2.2	NA	NA
east&west	541618	3527349	15	9	135.0	12.5	NA	NA
east	541624	3527349	10	1	135.0	12.5	NA	NA
east	541632	3527351	20	2	40.0	3.7	NA	NA
east&west	541637	3527356	12	2	24.0	2.2	NA	NA
west	541650	3527356	4	6	24.0	2.2	NA	NA
west	541672	3527366	5	10	50.0	4.6	NA	NA

east	541724	3527380	15	1	15.0	1.4	NA	NA
west	541755	3527385	20	8	160.0	14.9	NA	NA
east	541759	3527385	20	2	40.0	3.7	NA	NA
east	541781	3527389	15	4	60.0	5.6	NA	NA
east	541838	3527398	12	1	12.0	1.1	NA	NA
east	541852	3527398	20	8	160.0	14.9	NA	NA
east	541868	3527406	3	1	3.0	0.3	NA	NA
mid	541911	3527457	6	3	18.0	1.7	NA	NA
east	541913	3527461	15	30	450.0	41.8	NA	NA
east	541950	3527502	8	6	48.0	4.5	NA	NA
	541957	3527513						

61 Patches recorded

Totals					6206.0	571.8		
Acres	0.142470156							

Cienega Creek - Reach: Narrows Powerlines Road to Narrows

All GPS locations +/- < 20ft accuracy

Location in Channel	Easting - R 12	Northing	Length	Width	Area (feet)	Area (Meters)	Open to Sun	Under story
	541965	3527533	28.6	2	57.2	17.4		
	542003	3527565	18.9	4	75.6	23.0		
	541973	3527706	5.9	3	17.7	5.4		
	541878	3527711	57.8	5	289.0	88.1		
	541872	3527705	3	2	6.0	1.8		
	541840	3527708	9.7	4	38.8	11.8		
	541827	3527715	17.4	4	69.6	21.2		
	541811	3527724	111.8	6	670.8	204.5		
	541730	3527730	298.5	4	1194.0	364.0		
	541751	3527755	4.8	3	14.4	4.4		
	542191	3527755	211.6	2	423.2	129.0		
	542264	3527772	7.2	3	21.6	6.6		
	542302	3527775	14.3	3	42.9	13.1		
	542370	3527762	11	3	33.0	10.1		
	542624	3527887	24	12.3	295.2	90.0		
	542636	3527894	11.2	0.5	5.6	1.7		
	542809	3528386						

Totals					3254.6	992.3		
Acres	0.074715335				0.0			

16 Patches recorded

Lower Empire Gulch (Rattle !)

All GPS locations +/- < 20ft accuracy

Location in Channel	Easting - R 12	Northing	Length	Width	Area (feet)	Area (Meters)	Open to Sun	Under story
	537920	3517951						
w	5438703	3518778	3.7	1.6	5.92			x
	538814	3519314						
Totals Acres			3.7	1.6	5.9			
	1 Patch Recorded							

Mattie Canyon from spring to confluence 7/02,
All GPS locations +/- < 20ft accuracy

Location in Channel	Easting - R 12	Northing	Length	Width	Area (feet)	Area (Meters)	Open to Sun	Under story
	539913	3523500						
	539938	3523519	58.3	5.5	320.65			x
	539965	3523524	9.2	3.5	32.2		x	
	539967	3523524	4.5	2.6	11.7		x	
Totals Acres	540285	3524734				364.6		
	0.008370064 3 Patches Recorded							

Grand Totals - 100 patches 1/3 (0.34) acres

	Acres
	0.13
	0.14
	0.07
total	0.34

Iner Cyn 6/20/2011

Notes

Start of Survey
1/2 of patch in sunlight
Willow overstory
Willow overstory
Willow overstory
Willow overstory
Willow overstory
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Willow overstory
End of Survey

Line Rd 6/20/2011

Notes

Start of Survey

End of Survey

rows 6/11/2011

Notes

Start of Survey - No patch channel locations recorded

Bank damage from livestock

under mesquit - not willow

Growing out a vertical bank created by deer grass roots-Mixed with
spikerush

End of survey at narrows

Snake tank to Confluence) 7/01/2011

Notes

Start of Survey - Stock Tank
Empire Gulch just below old road crossing
End of survey at Confluence

/2011

Notes

Start of Survey - Spring Source

End of survey - confluence w/ CC