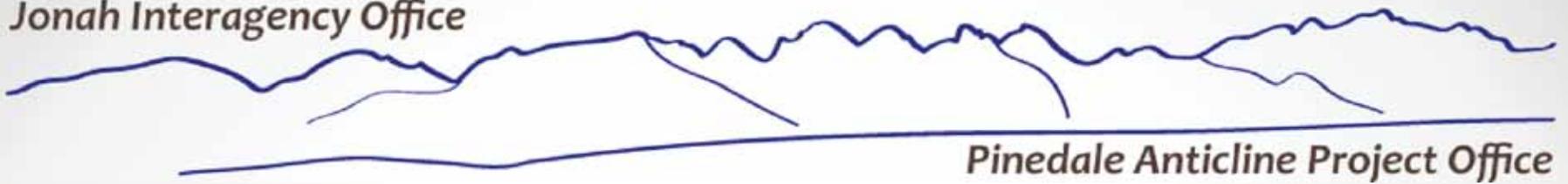


Jonah Interagency Office



Pinedale Anticline Project Office

Sage-Grouse

2011 Monitoring Update

Pinedale Anticline Project Office

Therese Hartman

Wyoming Game and Fish Department



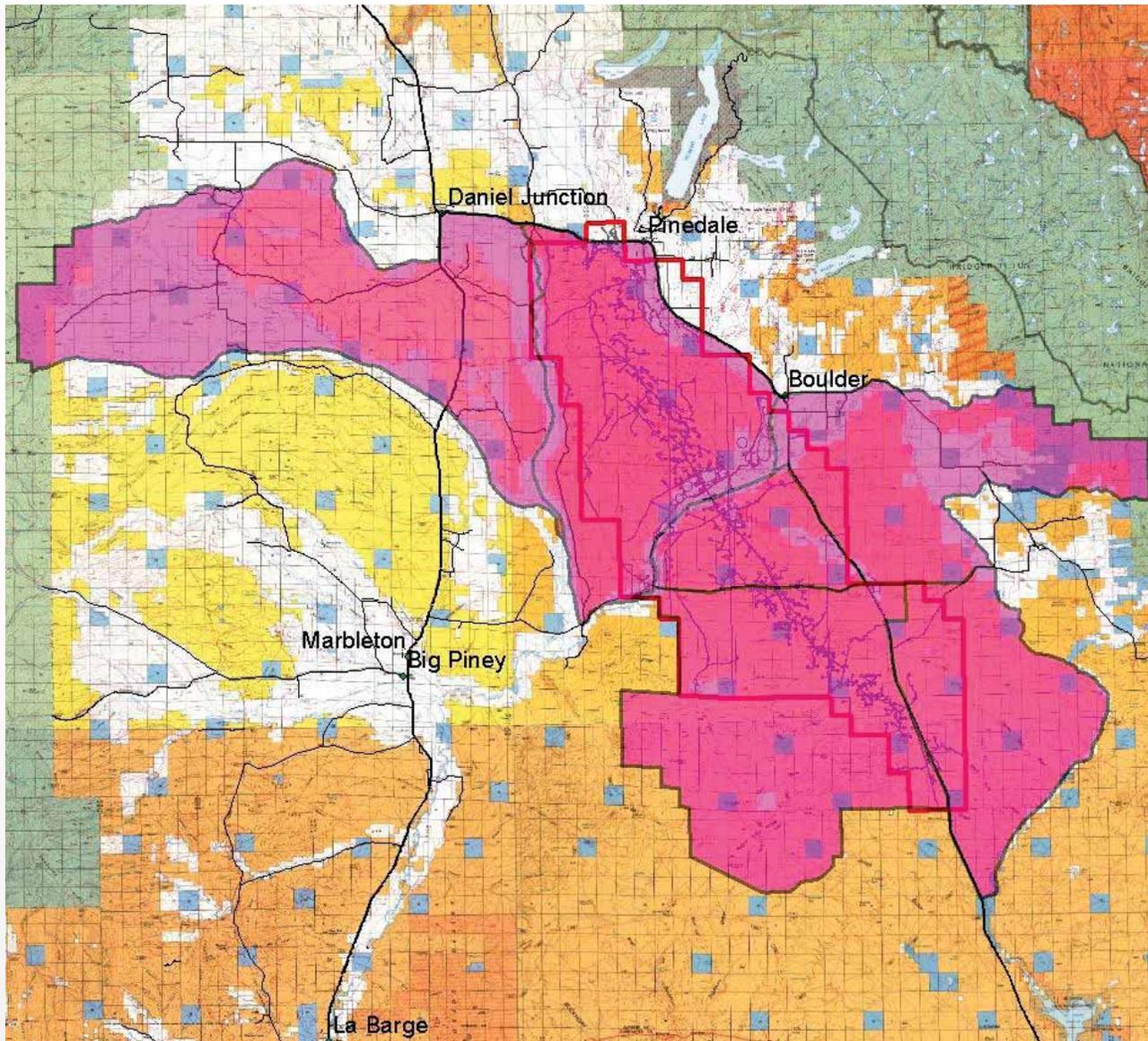
Record of Decision

Monitoring Requirements

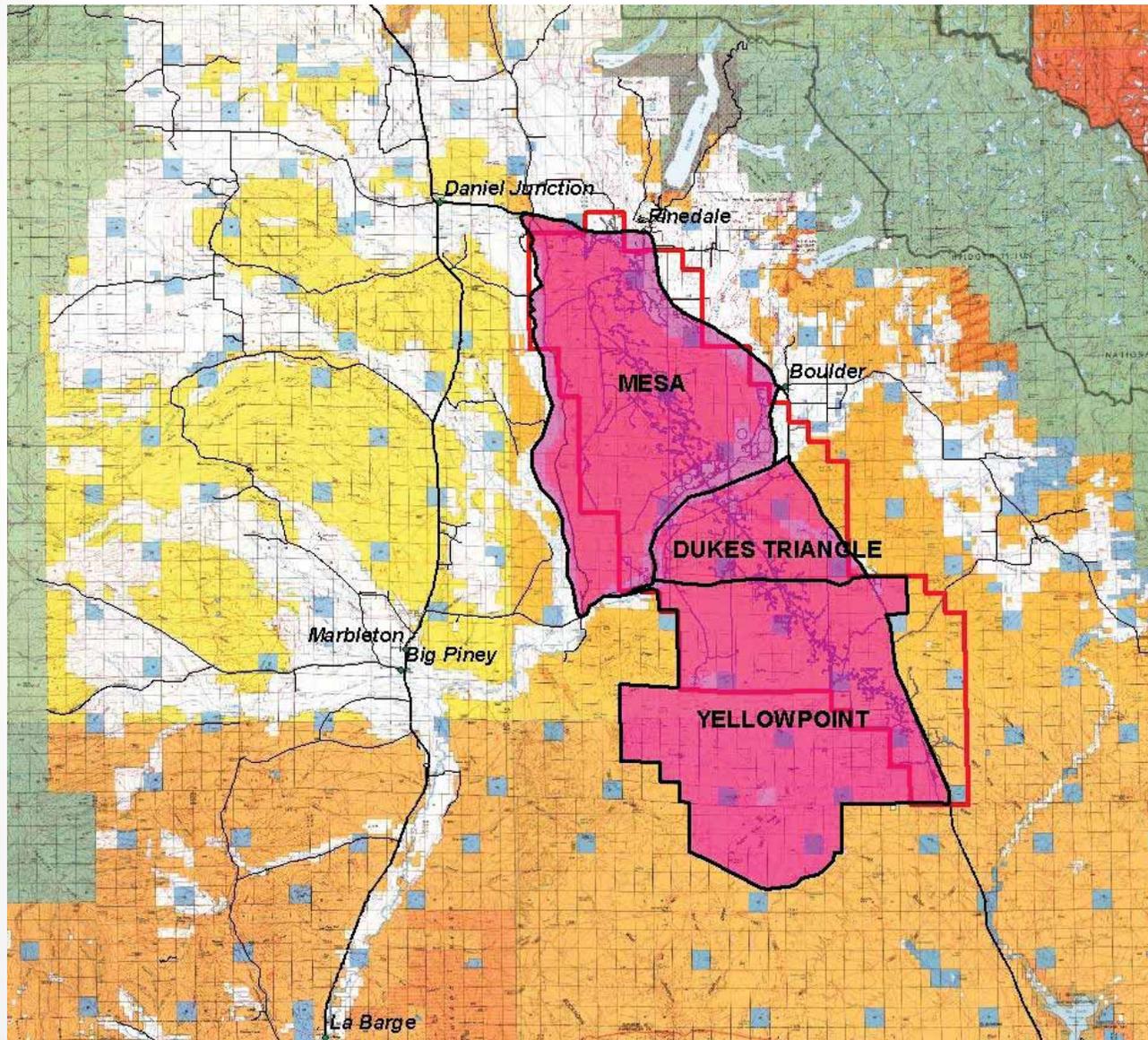
Criteria to be monitored

- Number of active leks in identified lek complexes
 - *Total number of active leks in all treatment complexes combined or*
 - *Number of active leks in a single complex*
- Peak numbers of males attending lek complexes
- **Nesting success and habitat selection**
- Winter concentration area use
- Noise levels

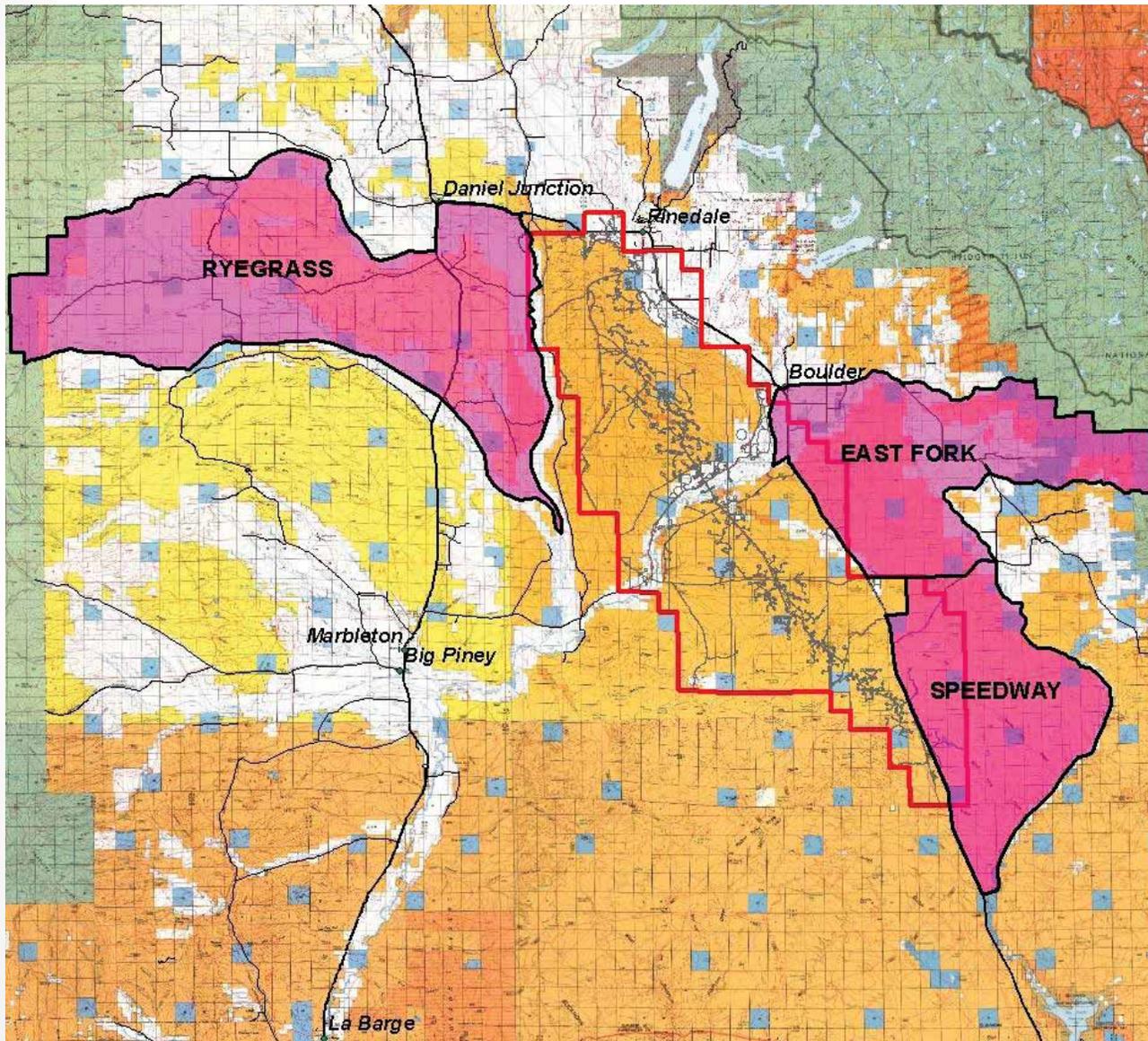
Area Complexes Monitored



Treatment Areas



Reference Areas



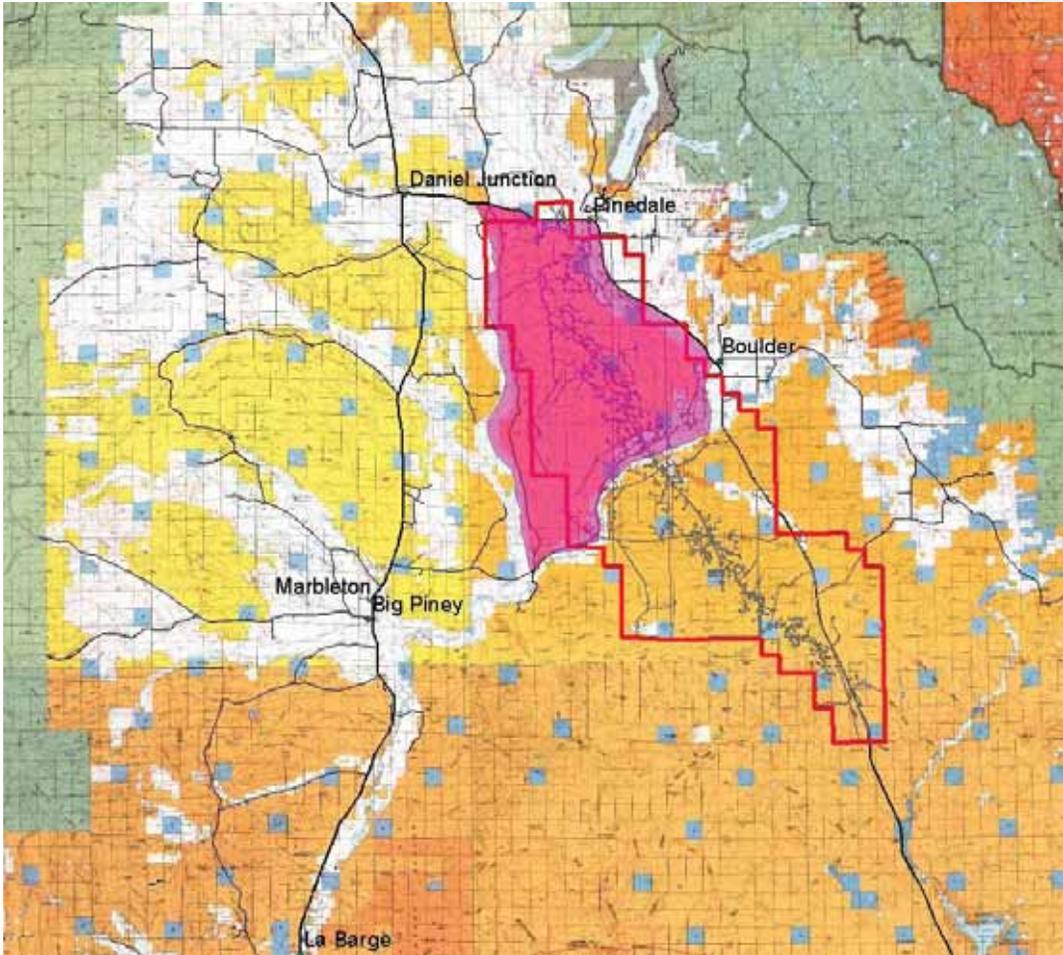
Number of Active Leks in Identified Complexes



Number of Active Leaks Within a Single Complex

Mesa

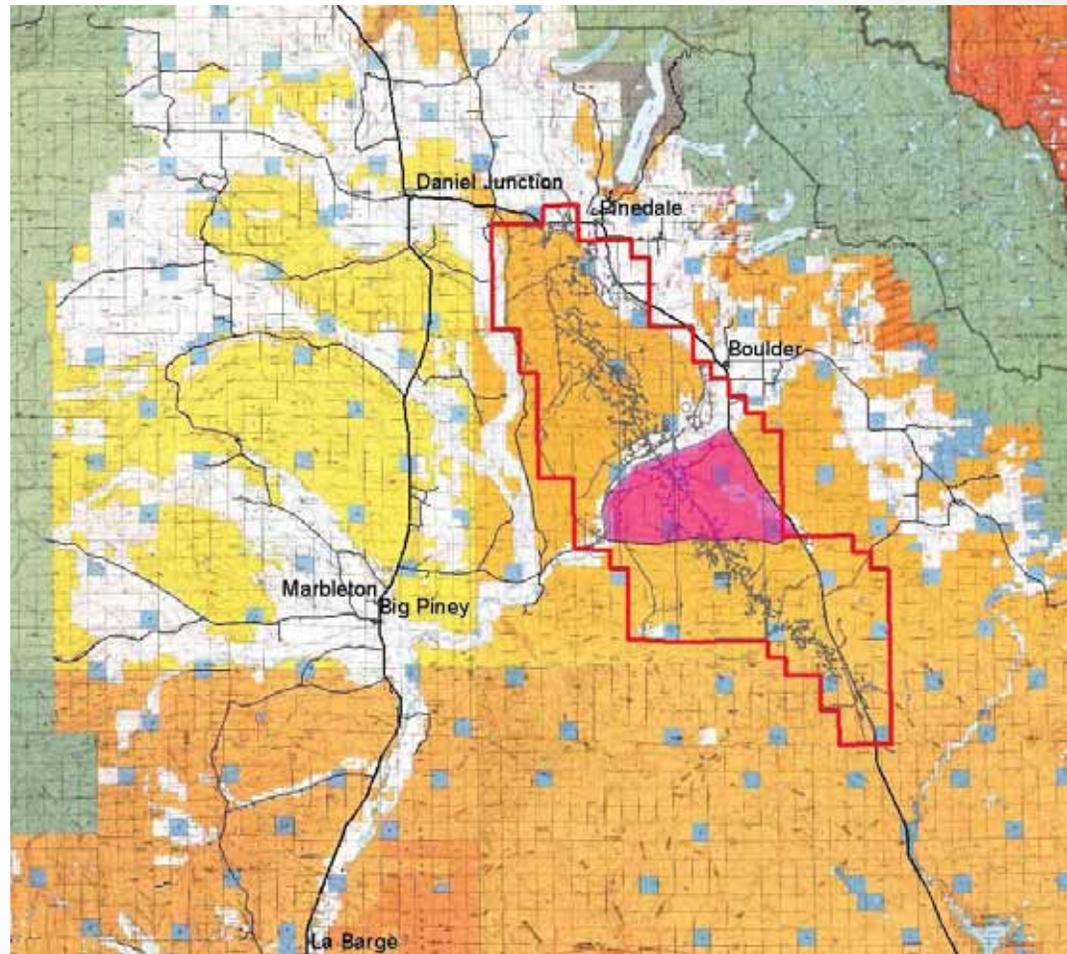
Year	Number of Active Leaks	% CHANGE in active leaks compared to 2007
2007	6	
2008	6	0%
2009	6	0%
2010	6	0%
2011	6	0%



Number of Active Leaks Within a Single Complex

Duke's Triangle

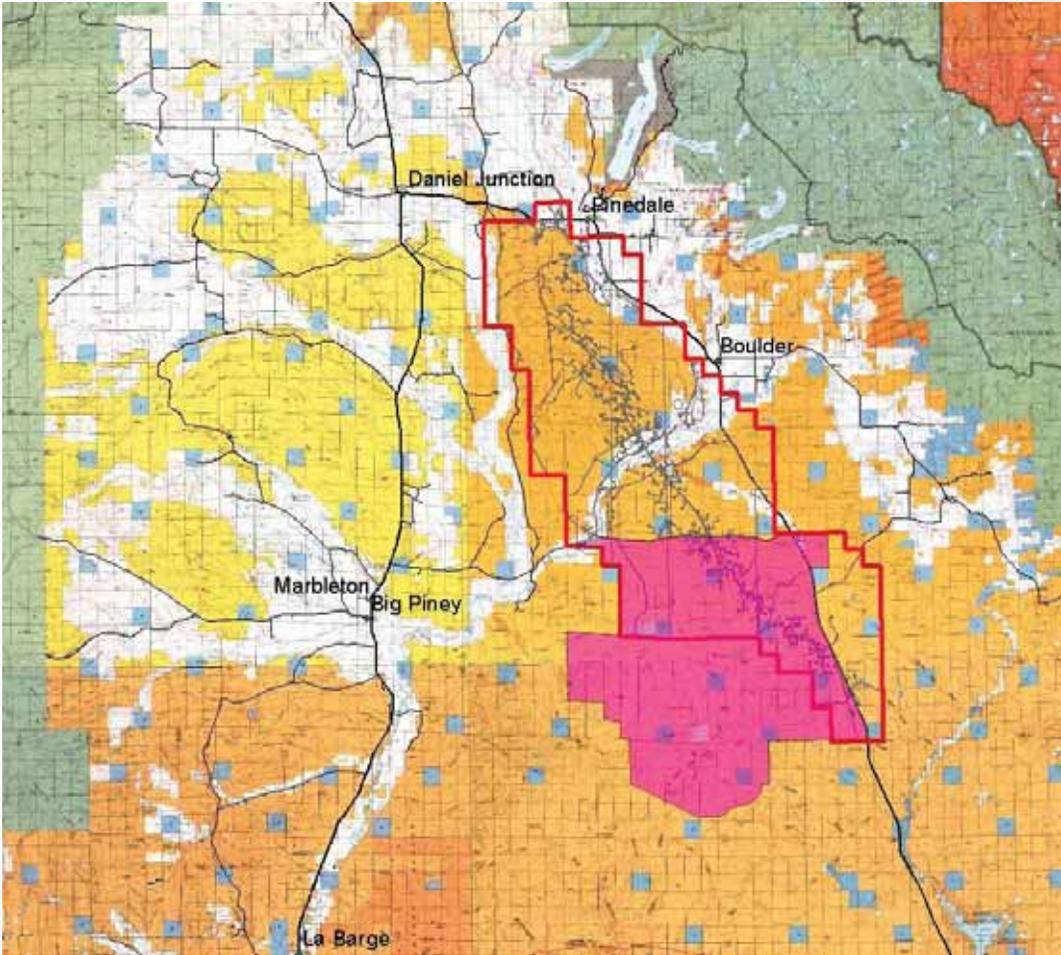
Year	Number of Active Leaks	% CHANGE in active leaks compared to 2007
2007	2	
2008	3	50%
2009	1	-50%
2010	2	0%
2011	2	0%



Number of Active Leaks Within a Single Complex

Yellow Point

Year	Number of Active Leaks	% CHANGE in active leaks compared to 2007
2007	8	
2008	7	-12.5%
2009	6	-25%
2010	6	-25%
2011	6	-25%



Treatment Area

Total Number of All Active Leaks

	Number of Active Leaks	% CHANGE in active leaks compared to 2007
2007	16	
2008	16	0%
2009	13	-18.75%
2010	14	-12.5%
2011	14	-12.5%

New Lek Searches



Peak Number of Males Attending a Lek



Ryegrass Complex – Reference Area

	Complex Annual Total	2 year average	% CHG male attendance (current year compared to previous 2-yr average)
2003	51		
2004	101	76	
2005	340	220.5	347.4%
2006	368	354	66.9%
2007	644	506	81.9%
2008	556	600	9.9%
2009	705	630.5	17.5%
2010	527	616	-16.4%
2011	555		-9.9%

Ryegrass Complex – Reference Area

	Complex Annual Total	2 year average	% Change in male attendance (current year compared to previous 2-yr average)
2003	51		
2004	101	76	
2005	340	220.5	347.4%
2006	368	354	66.9%
2007	644	506	81.9%
2008	556	600	9.9%
2009	705	630.5	17.5%
2010	527	616	-16.4%
2011	555		-9.9%

Speedway Complex – Reference Area

	Complex Annual Total	2 year average	% Change in male attendance (current year compared to previous 2-yr average)
2003	362		
2004	443	502.5	
2005	682	562.5	69.4%
2006	882	782	56.8%
2007	934	908	19.4%
2008	797	865.5	-12.2%
2009	611	704	-29.4%
2010	467	539	-33.7%
2011	350		-35.1%

East Fork Complex –Reference Area

	Complex Annual Total	2 year average	% Change in male attendance (current year compared to previous 2-yr average)
2003	149		
2004	155	152	
2005	183	169	20.4%
2006	226	204.5	33.7%
2007	274	250	34.0%
2008	251	262.5	4%
2009	213	232	-19%
2010	142	177.5	-39%
2011	NA		NA%

Mesa Complex – Treatment Area

	Complex Annual Total	2 year average	% Change in male attendance (current year compared to previous 2-yr average)
2003	270		
2004	193	231.5	
2005	391	292	69%
2006	576	483.5	97%
2007	579	577.5	20%
2008	490	534.5	-15%
2009	472	481	-12%
2010	329	400.5	-32%
2011	337		-16%

Dukes Triangle Complex Treatment Area

	Complex Annual Total	2 year average	% Change in male attendance (current year compared to previous 2-yr average)
2003	53		
2004	34	43.5	
2005	39	36.5	-10%
2006	38	33.5	-23%
2007	34	31	.01%
2008	38	36	23%
2009	13	25.5	-64%
2010	48	30.5	88%
2011	27		-11%

Yellow Point Complex – Treatment Area

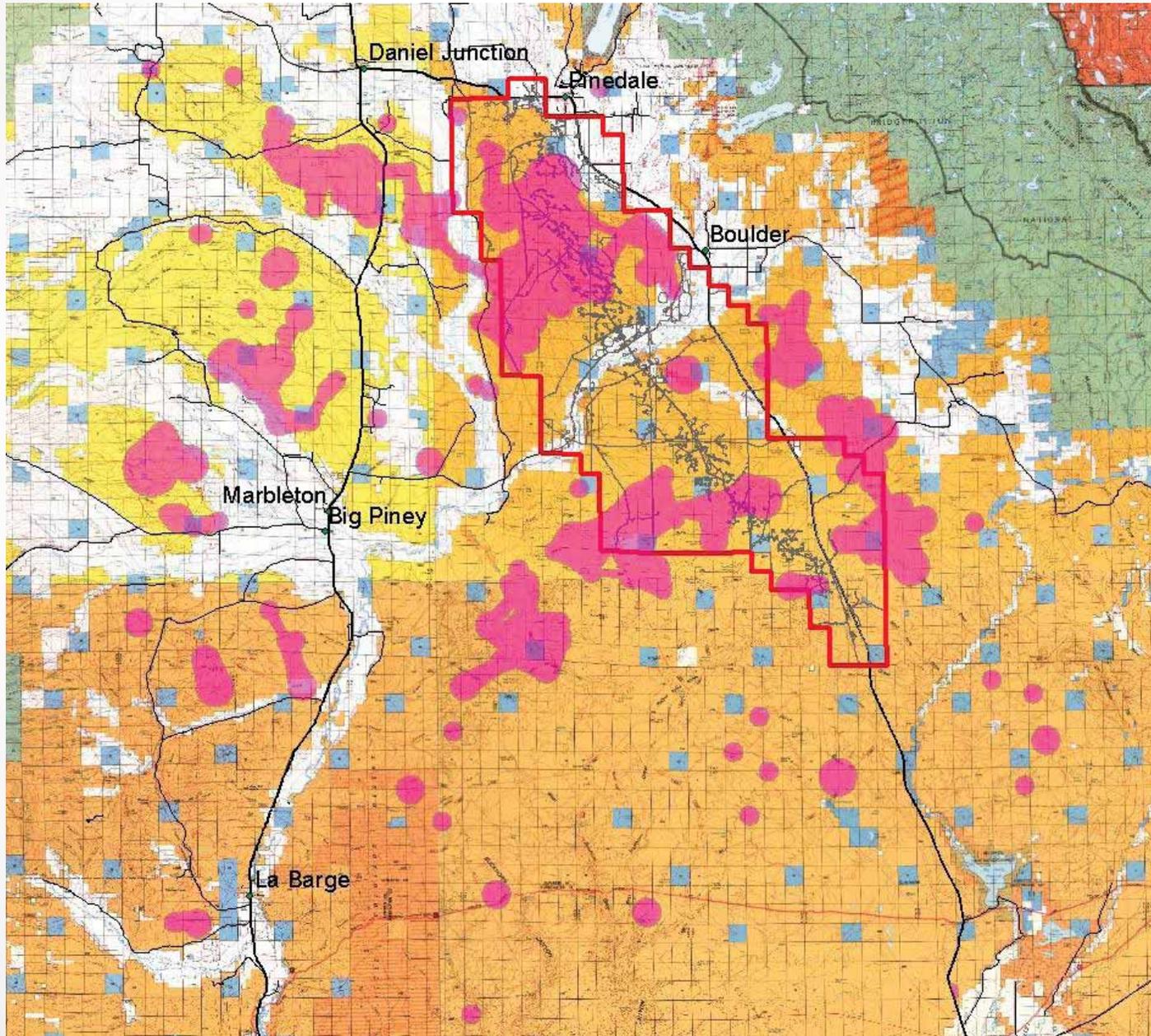
	Complex Annual Total	2 year average	% Change in male attendance (current year compared to previous 2-yr average)
2003	123		
2004	79	101	
2005	145	112	44%
2006	236	190.5	1%
2007	286	261	50%
2008	220	253	-16%
2009	172	193	-32%
2010	167	169.5	-15%
2011	119		-30%

The diagram shows a step-down from the 2010 2-year average of 169.5 to the 2011 Complex Annual Total of 119. This change is associated with a percentage change of -30% for 2011, which is a significant decrease from the -15% change in 2010.

Male Lek Attendance Comparison

Treatment Area	% Change in male attendance	Reference Area	% Change in male attendance
Mesa	-16	Ryegrass	-9.9
Dukes Triangle	-11	East Fork	NA
Yellow point	-30	Speedway	-35.1

Winter Concentration Areas



Noise Monitoring



Jonah Interagency Office

Pinedale Anticline Project Office

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