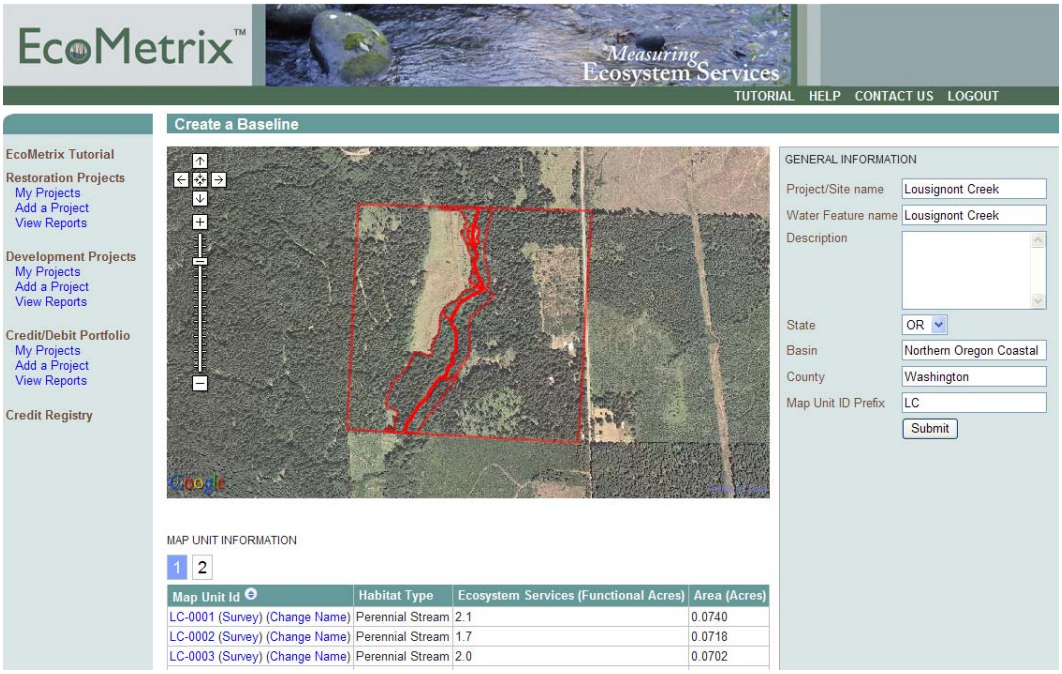
Measuring StreamBank® projects with EcoMetrix

This summer Parametrix applied its EcoMetrix credit calculation software to four StreamBank projects to measure the ecological gains these projects produced. Below are the baseline measurements that were calculated for each site:

Stream	3rd field basin	Size	Functions Score	Score/acre
Lousignont	North Coast	17.1	311.5	18.2
Owens	Willamette	2.7	26.0	9.6
Winchuck	South Coast	39.8	301.2	7.6
Holcomb	Willamette	.22	1.2	5.5

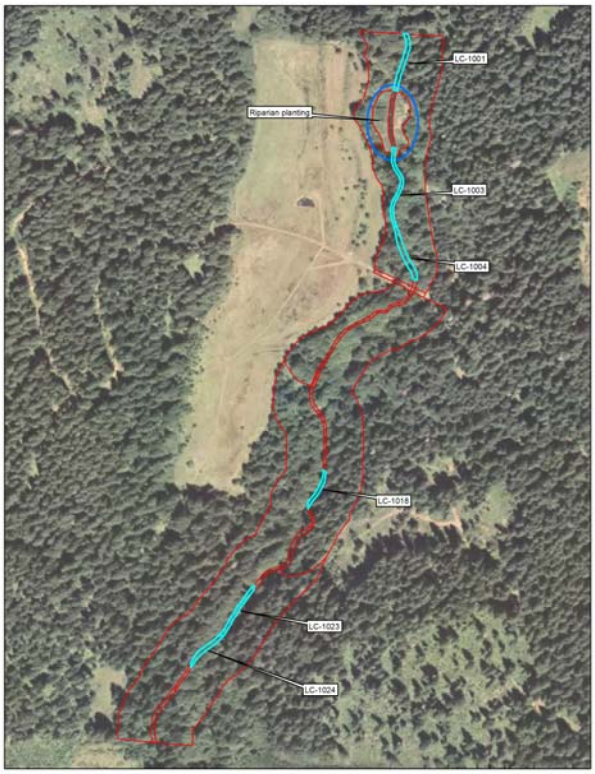
The scores were calculated by measuring six distinct stream functions: aquatic connectivity, aquatic cover, bank stability, habitat formation, streambed stability, and temperature regulation. EcoMetrix calculated the value for each function from data collected through on-site surveys. Notice in the Lousignont Creek project (pictured below) the property is separated into “map units” -- each of which is scored for the specific functions it is contributing to the overall system.



The Lousignont Creek project is the first to be completed. The calculation of ecological gains resulting from this restoration (see back of page) revealed that the stream was already functioning at a high level, but that the uplift could still have benefited from an alternative set of locations for the large wood placement.

Next Parametrix will return to the other three sites for a second survey to measure their change in functions. The difference between the new score and the original baseline score will show the uplift provided by the restoration. This measurement of change could also form the basis for determining a credit total that could be used as an offset in an ecosystem services marketplace much like the carbon credit markets operating today.

Parametrix will present the rest of the scoring at Oregon Solution’s next SteamBank meeting.



Overall Site

Area (ac):	17.14
Baseline:	311.50
Restored:	315.64
Change:	**4.15**

Project Work

Area (ac):	0.8416
Baseline:	15.32
Restored:	19.47
Change:	**4.15**

Map Unit	Description	Area (acres)	MFP	Temp Regulation	Habitat Form	Aquatic Connect	Bank Stability	Aquatic Cover	Streambed Stability
LC-0001	Perennial Stream	0.0740	2.78	5.00	6.50	10		6.50	9.56
LC-1001	Perennial Stream	0.0740	2.86	5.00	7.00	10		6.67	10
LC-0003	Perennial Stream	0.0703	2.37	3.00	5.50	10		5.17	10
LC-1003	Perennial Stream	0.0703	2.41	3.00	6.25	10		5.00	10
LC-0004	Perennial Stream	0.0798	2.66	5.00	4.50	10		5.00	8.89
LC-1004	Perennial Stream	0.0798	2.87	5.00	5.50	10		5.50	10
LC-0018	Perennial Stream	0.0381	1.33	5.00	5.25	10		4.67	9.89
LC-1018	Perennial Stream	0.0381	1.40	5.00	6.50	10		5.17	10
LC-0023	Perennial Stream	0.0588	1.60	5.00	3.25	10		2.33	6.67
LC-1023	Perennial Stream	0.0588	2.06	5.00	5.50	10		4.83	9.67
LC-0024	Perennial Stream	0.0512	1.38	5.00	2.75	10		3.00	6.11
LC-1024	Perennial Stream	0.0512	1.85	5.00	5.50	10		5.83	9.78
LC-0037	Herbaceous/grassland	0.2351	1.61	1.33	0		5.50	0	
LC-1037	Mixed stand	0.2351	3.02	1.33	4.50		4.50	2.50	
LC-0038	Mixed grass/shrub	0.2343	1.60	1.33	0		5.50	0	
LC-1038	Mixed stand	0.2343	3.01	1.33	4.50		4.50	2.50	

MFP – Measure of Functional Performance