An overview for the Forest Sector Workgroup

Forest Land Conversion Patterns in Washington State

May 28, 2008

Ara Erickson, College of Forest Resource, University of Washington

Table H1. Forest Carbon Flux Estimates for Washington (MMtCO2e)

	Westside			Eastside			
	National Forest	Non-National Forest	Westside Total	National Forest	Non-National Forest	Eastside Total	**WA State Total**
Live Tree	-6.10	-5.98	-12.08	-5.29	5.31	0.01	-12.06
Standing dead	0.88	-0.38	0.50	-0.48	0.00	-0.48	0.02
Understory	-0.10	0.05	-0.05	-0.21	-0.14	-0.36	-0.41
Down dead	-0.79	-0.89	-1.68	-0.61	0.56	-0.04	-1.72
Forest floor	-0.07	-2.30	-2.37	-0.01	-0.35	-0.36	-2.73
Soil organic C	-3.02	-1.10	-4.12	-2.27	-1.39	-3.66	-7.79
HWP	na	na	na	na	na	na	-11.73
Total Forest C Flux (not including soil carbon)							**-28.63**

Negative values indicate sequestration; positive values indicate emissions

Totals may not sum exactly due to independent rounding.

Data source: Jim Smith, USFS, personal communications with S. Roe, CCS, October 2006 and February 2007 and with K. Bickel June 2007.

Table H2. Forest Area Data (hectares) for 1991 and 2005 used to estimate Forest Carbon Stocks

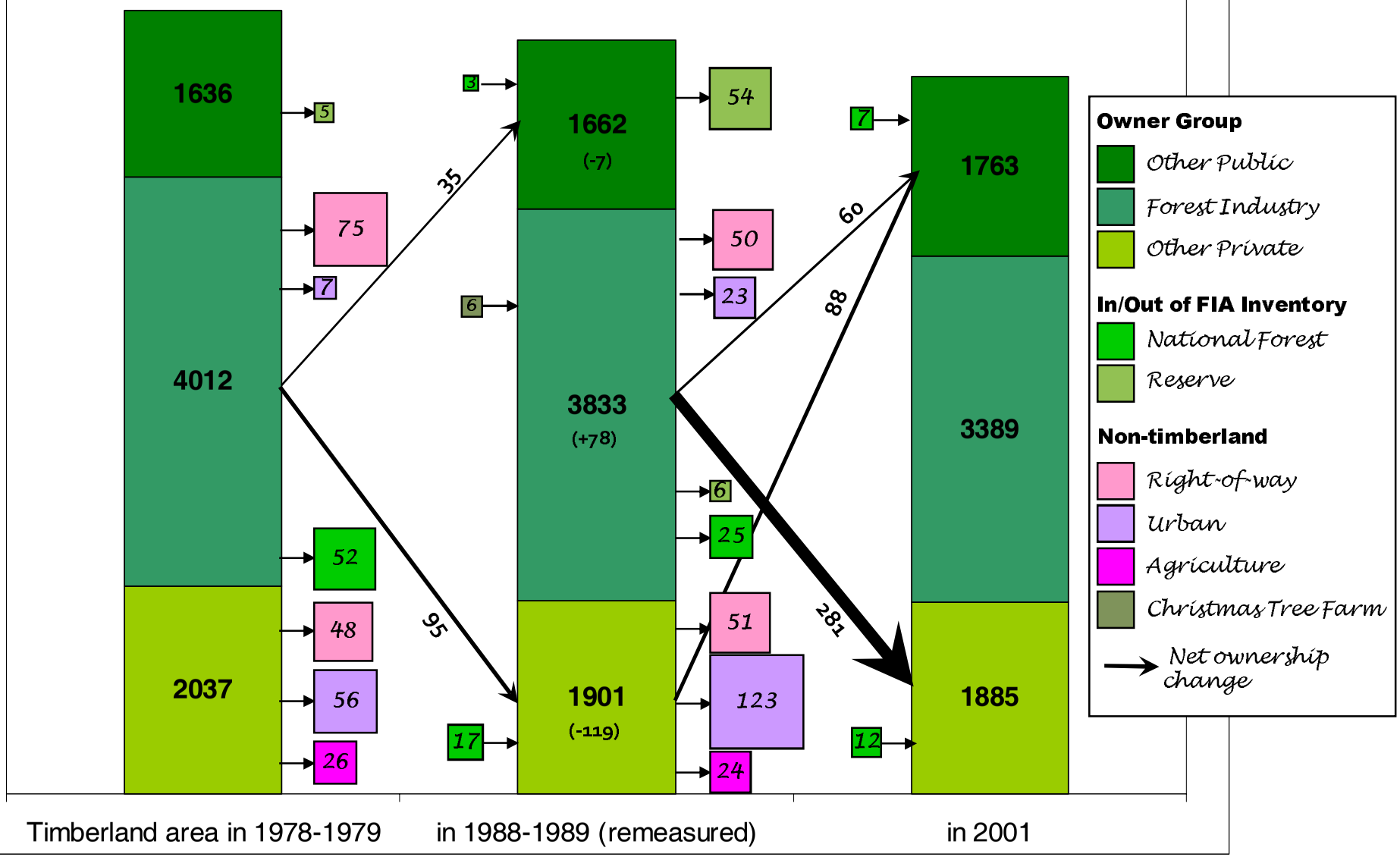
	Westside			Eastside			
	National Forest	Non-National Forest	Westside Total	National Forest	Non-National Forest	Eastside Total	**WA State Total**
1991	1,371,667	3,588,209	4,959,876	1,831,120	2,025,402	3,856,522	8,816,398
2005	1,412,367	3,536,270	4,948,637	1,933,292	2,069,372	4,002,664	8,951,301
Change in Area	40,700	-51,939	-11,239	102,172	43,970	146,142	134,903

Pacific Northwest Forest Inventory and Analysis

Washington Inventory Results

State:	Washington
Forest Area:	21,798,264 acres
Timberland Area:	16,885,200 acres
Percent Forest:	51%
Volume, Growing Stock:	60,471 million cubic ft
Volume, Sawtimber (Scribner rule):	250,658 million board ft
Net Growth of growing stock (Current Annual):	1,473 million cubic ft
Removals of Growing Stock: (Average Annual)	1,383 million cubic ft
Mortality of Growing Stock (Average Annual):	376 million cubic ft
Total Land Area:	42,699,545 acres
Data Source:	Washington - 2000+2001 periodic data, Integrated Database v. 2.1

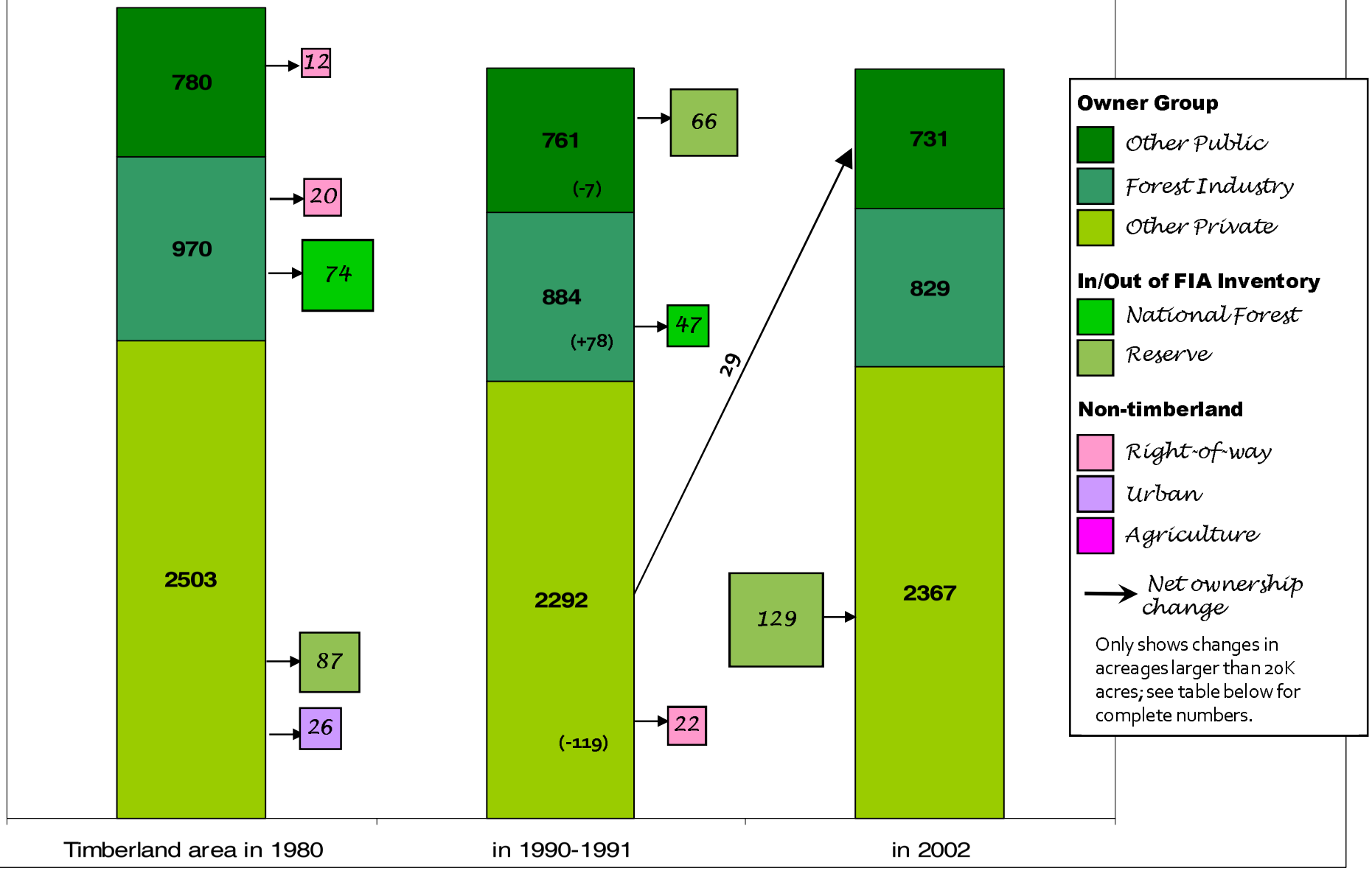
Timberland Ownership and Net Flow – Western Washington



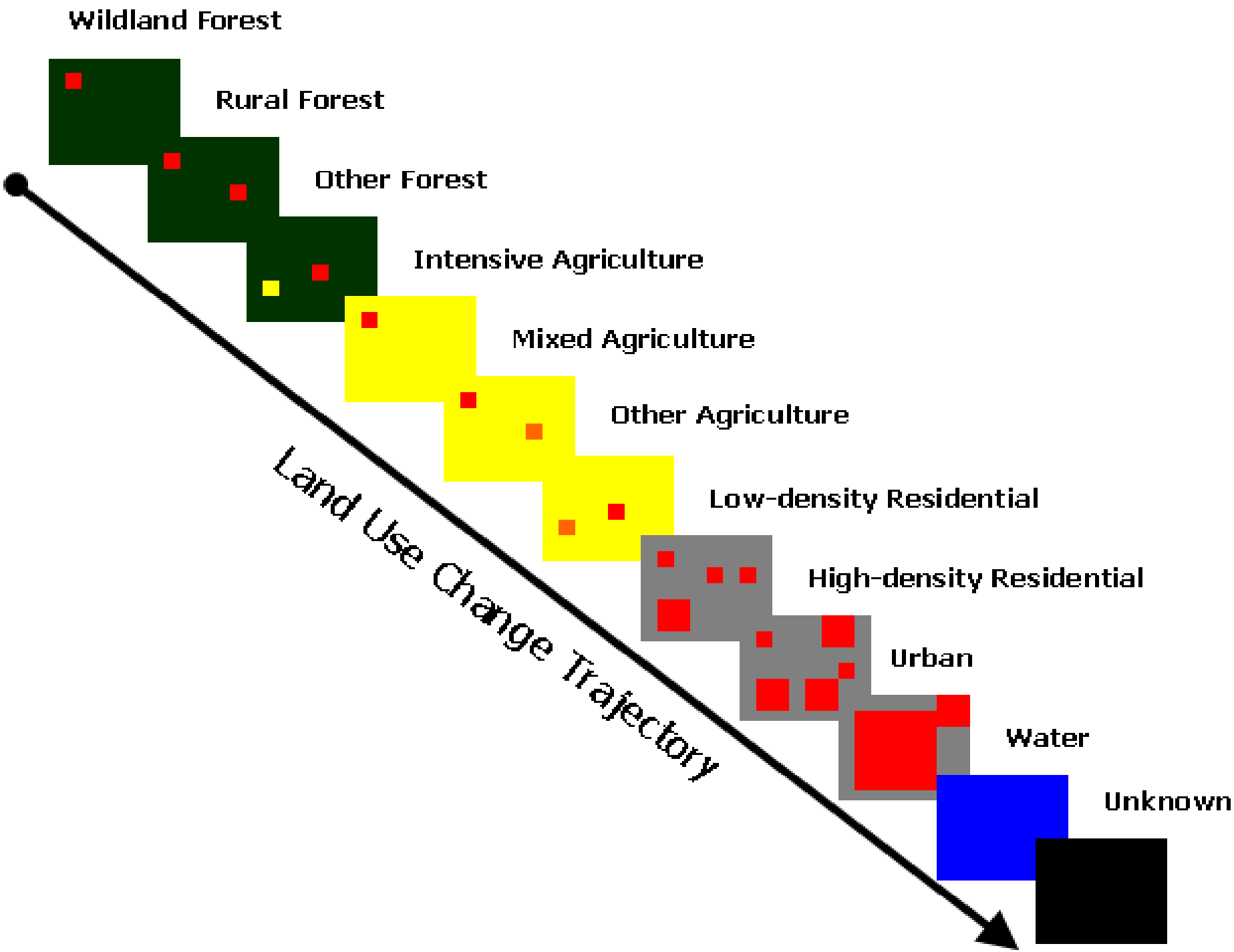
Timberland Ownership and Net Flow – Eastern Washington

(based on data from PNW-RB-218 and PNW-RB-251)

Thousands of Acres

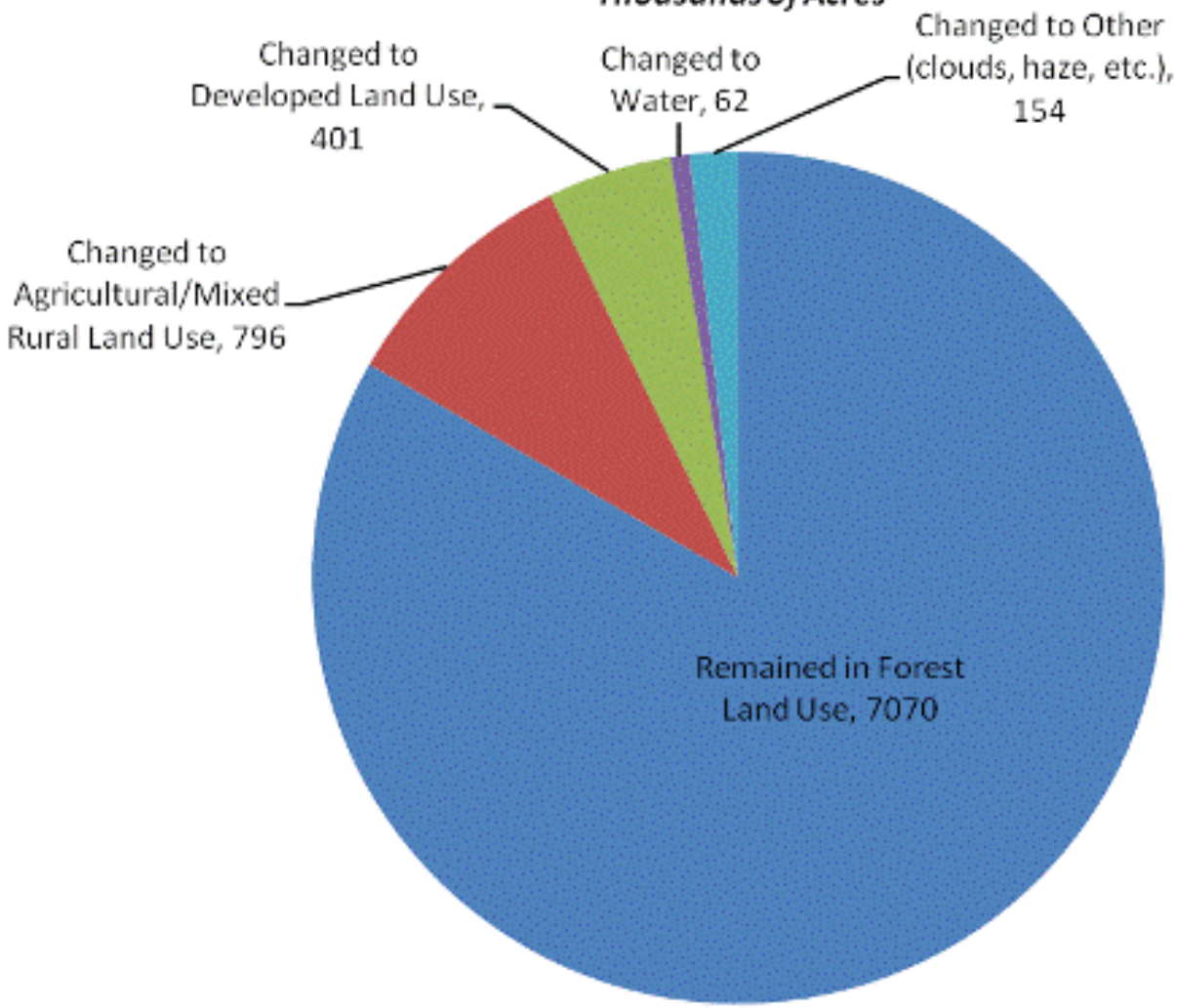


	Land Cover Class/Group	Contiguous Acres	Developed	Developed Clusters	Other
Wildland Forest	Forest (grp)	≥ 640	≤ 5%	≤ 4	
Rural Forest	Forest (grp)	≥ 640	≤ 20%	4 < x < 8	Not Wildland Forest
		< 640	0%		
		> 640	≤ 5%		
Other Forest	Forest (grp)				Not Wildland Forest Not Rural Forest
Intensive Ag	Irrigated or Soil (classes)	< 640	< 1%		
		≥ 640	≤ 5%	≤ 9	
	Mixed (class) or Ag (grp)		< 1%		
Mixed Ag	Ag (grp)	≥ 640	≤ 20%	≤ 12	Not Intensive Ag
Other Ag	Ag (grp)				Not Intensive Ag Not Mixed Ag
Low-density Residential	Forest or Ag (grps)	≥ 40	20% < x < 50%		
High-density Residential	Developed (grp)		< 50%		
		< 40	> 50%		
	Any non-developed group	≥ 40	> 50%		
Urban	Developed (grp)	≥ 40	> 50%		


Wildland Forest
Rural Forest
Other Forest
Intensive Agriculture
Mixed Agriculture
Other Agriculture
Low-density Residential
High-density Residential
Urban
Water
Unknown
Land Use Change Trajectory

Forest Land Use Change in Western Washington 1988-2004

Thousands of Acres



University of Washington, College of Forest Resources, RTI, 2008

Contact

- Ara Erickson
  - arake@u.washington.edu
- Luke Rogers
  - lwrogers@u.washington.edu

College of Forest Resources

Rural Technology Initiative

(206) 543-7418

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