Appendix D

Analytic Hierarchy Process

Highways East of the Cascades													
Criterion	**FCR**	**TLR**	**UGB**	**RD**	**CWHP**	**MDWR**	**AADT**	**DEVC**	**PWCA**	**MAP**	**WCS**	**Geometric Mean**	**Normalized Value**
FCR	1	1	2	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{7}$	$\frac{1}{2}$	$\frac{1}{7}$	1	0.4741	0.0297
TLR	1	1	2	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{7}$	$\frac{1}{2}$	$\frac{1}{7}$	1	0.4741	0.0297
UGB	$\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{9}$	$\frac{1}{5}$	$\frac{1}{8}$	1	0.3487	0.0219
RD	3	3	3	1	3	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{3}$	5	1.0487	0.0658
CWHP	1	1	1	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{8}$	$\frac{1}{5}$	$\frac{1}{7}$	2	0.4310	0.0270
MDWR	5	5	5	5	5	1	$\frac{1}{2}$	$\frac{1}{3}$	3	$\frac{1}{2}$	6	2.1564	0.1353
AADT	5	5	5	2	5	2	1	$\frac{1}{3}$	3	$\frac{1}{4}$	5	2.0783	0.1304
DEVC	7	7	9	4	8	3	3	1	2	2	8	3.9886	0.2502
PWCA	2	2	5	2	5	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	1	$\frac{1}{3}$	2	1.1997	0.0753
MAP	7	7	8	3	7	2	4	$\frac{1}{2}$	3	1	6	3.3481	0.2100
WCS	1	1	1	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{6}$	1	0.3932	0.0247

Highways West of the Cascades												
Criterion	**FCR**	**TLR**	**UGB**	**RD**	**CWHP**	**AADT**	**DEVC**	**PWCA**	**MAP**	**WCS**	**Geometric Mean**	**Normalized Value**
FCR	1	1	2	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{7}$	$\frac{1}{2}$	$\frac{1}{6}$	1	0.5249	0.0371
TLR	1	1	2	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{7}$	$\frac{1}{2}$	$\frac{1}{6}$	1	0.5249	0.0371
UGB	$\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{9}$	$\frac{1}{5}$	$\frac{1}{7}$	1	0.3736	0.0264
RD	3	3	3	1	3	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	5	1.2889	0.0910
CWHP	1	1	1	$\frac{1}{3}$	1	$\frac{1}{5}$	$\frac{1}{8}$	$\frac{1}{5}$	$\frac{1}{6}$	1	0.4409	0.0311
AADT	5	5	5	2	5	1	$\frac{1}{3}$	3	$\frac{1}{3}$	5	2.1472	0.1516
DEVC	7	7	9	4	8	3	1	2	2	8	4.1038	0.2898
PWCA	2	2	5	2	5	$\frac{1}{3}$	$\frac{1}{2}$	1	$\frac{1}{2}$	2	1.4200	0.1003
MAP	6	6	7	2	6	3	$\frac{1}{2}$	2	1	4	2.8574	0.2018
WCS	1	1	1	$\frac{1}{5}$	1	$\frac{1}{5}$	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	1	0.4782	0.0338

Highways East of the Cascades		
Criterion	Principal Eigenvalue (PE)	PE/ Normalized Value
FCR	0.3334	11.2086
TLR	0.3334	11.2086
UGB	0.2475	11.3146
RD	0.7767	11.8065
CWHP	0.3091	11.4339
MDWR	1.6336	12.0760
AADT	1.5595	11.9612
DEVC	2.9078	11.6212
PWCA	0.9033	12.0033
MAP	2.4789	11.8025
WCS	0.2852	11.5639
Max. PE		12.0760
Consistency Index		0.1076
Random Consistency Index		1.51
Consistency Ratio		0.071

Highways West of the Cascades		
Criterion	Principal Eigenvalue (PE)	PE/ Normalized Value
FCR	0.3777	10.1880
TLR	0.3777	10.1880
UGB	0.2701	10.2390
RD	0.9542	10.4822
CWHP	0.3160	10.1484
AADT	1.6256	10.7198
DEVC	2.9887	10.3122
PWCA	1.0821	10.7905
MAP	2.1357	10.5832
WCS	0.3508	10.3874
Max. PE		10.7905
Consistency Index		0.0878
Random Consistency Index		1.49
Consistency Ratio		0.059