Section 3

Other Problematic Highway Corridors for Unstable Slopes

In general, the most problematic unstable slope areas within the State of Washington are located along highways that traverse the Cascade Mountains, the lower and middle Columbia River, and the Washington coast.

Interstate 5

Unstable Slopes between MP 0 and MP 276

Interstate 5 from the Oregon State border to the Canadian border is a critical multi-lane highway facility that carries an average of over 100,000 vehicles a day, including a large volume of trucks. The average daily traffic along the corridor increases in the urban centers, with a maximum in the Seattle area of over 250,000 vehicles a day.

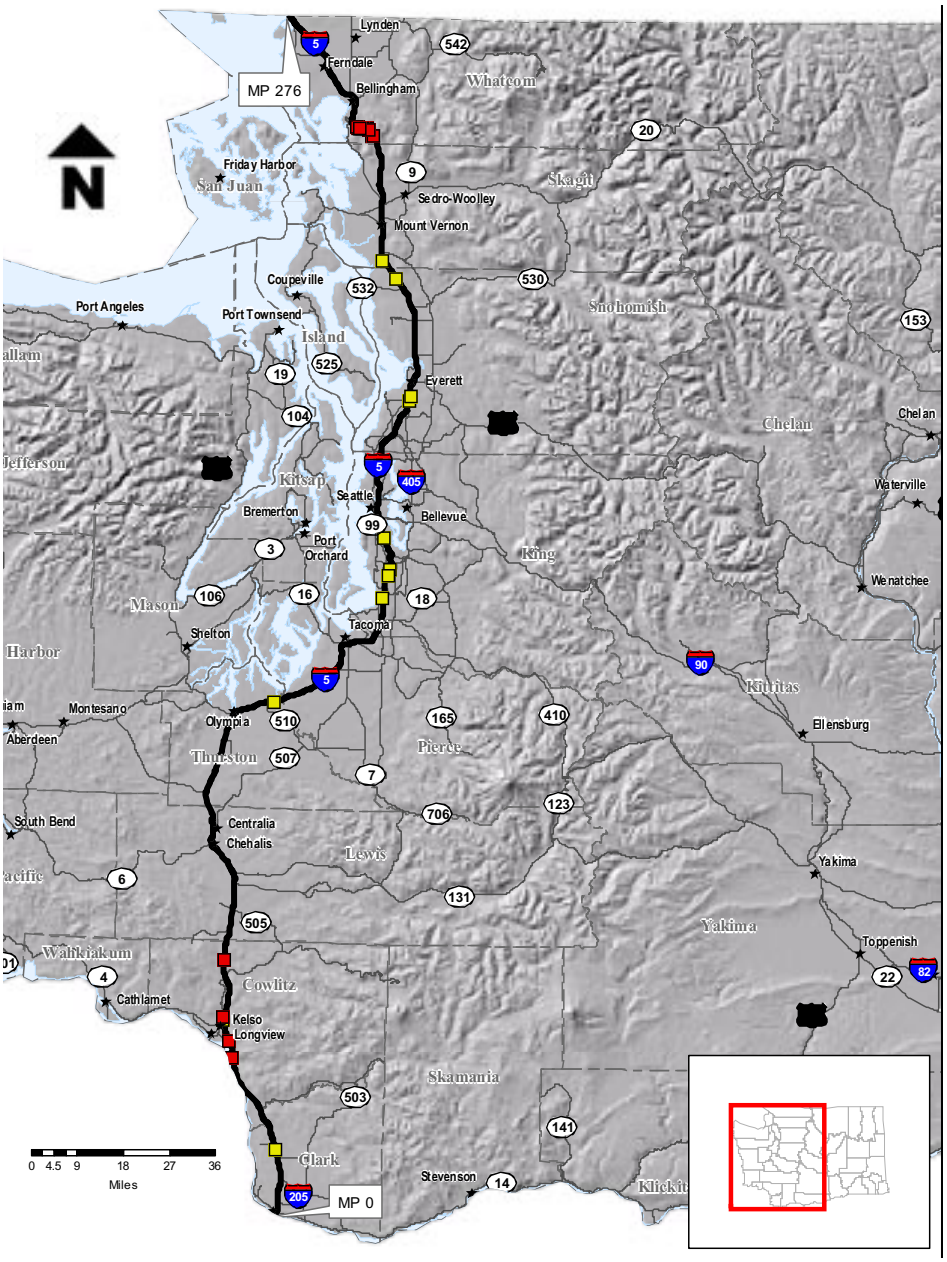
Thirty-three unstable slopes have been identified and numerically rated along the corridor between MP 0 and MP 276. Eighteen of these slopes are identified as rockfall areas and fifteen are landslides/debris flows. Along the corridor, the rock fall areas are located in Cowlitz County and Whatcom County, and the

Interstate 5

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



landslide/debris flows are typically located in the central portion of the glaciated Puget Sound region. Of these identified unstable slopes fifteen have been mitigated, at a total cost of about $5.5 million expended since 1995 in the Unstable Slopes Preservation Sub-program (P3). Thirteen of the mitigated slopes were rock fall areas, eleven in the Bellingham area that were mitigated under one contract in 1998.

Interstate 5

Unstable Slopes MP 0 to MP 276

WSDOT Southwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
13.19	13.23	Landslide	147		2/12/99	X		
33.65	34.18	Rockfall	432	•	9/9/95	X		
36.8	36.95	Rockfall	225		5/16/02		X	
41.3	41.35	Landslide	291		8/11/00		X	
41.87	41.97	Rockfall	327		1/16/98	X		
53.3	53.45	Rockfall	99		1/16/98			X
113.43	113.44	Landslide	69		10/18/95			X

WSDOT Olympic Region

147.45	147.53	Landslide	261		5/20/02		X	

WSDOT Northwest Region

147.45	147.53	Landslide	261		5/20/02		X	
152.08	152.15	Settlement	333		5/20/02			Programmed
153.3	153.5	Debris Flow	357	•	1/25/96	X		
160.07	160.16	Landslide	249		5/17/02		X	
162.85	164.15	Landslide	357	•	1/25/96			X
189.9	189.95	Settlement	225		5/17/02		X	
190.7	190.85	Landslide	339		1/25/96			Inactive
190.89	190.95	Settlement	267		1/25/96		X	
215.05	215.06	Erosion	129		1/25/96			X
215.06	215.07	Erosion	117		1/25/96			X
219.5	219.51	Settlement	153		1/25/96			X
244.55	244.6	Rockfall	165		1/25/96			X
244.65	244.75	Rockfall	363	•	1/25/96	X		
244.75	244.8	Rockfall	237		1/25/96	X		
246.2	246.25	Rockfall	267		1/25/96	X		
246.69	246.77	Rockfall	219		5/5/00			X
247.45	247.55	Rockfall	327		1/25/96	X		
247.85	247.95	Rockfall	291		1/25/96	X		
247.85	248.26	Landslide	195		1/25/96			X
247.95	248.05	Rockfall	417	•	1/25/96	X		
248.05	248.2	Rockfall	273		5/5/00	X		
248.2	248.4	Rockfall	363	•	1/25/96	X		
248.26	248.43	Rockfall	243		1/25/96	X		
248.4	248.5	Rockfall	351	•	1/25/96	X		
248.65	248.68	Rockfall	147		1/25/96			X
248.7	248.9	Rockfall	249		1/25/96	X		

US Highway 2

Unstable Slopes between MP 15 and MP 147

US Highway 2 is a multi-lane facility between MP 15 and MP 148 that carries an average of 7500 vehicles per day, with 10 to 12 % being trucks.

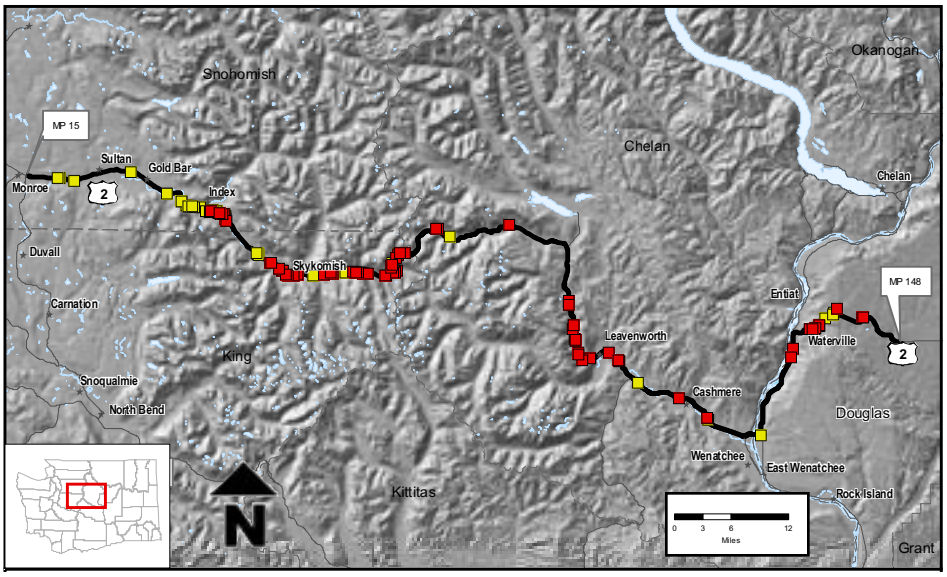
One hundred twenty-seven known unstable slopes have been identified and numerically rated along this corridor. Seventy-nine are identified as rockfall areas and forty-eight are identified as landslides/debris flows. Of these identified unstable slopes thirty have been mitigated, with a total cost of about $11.25 million expended since 1995 in the Unstable Slopes Preservation Sub-program (P3).

US Highway 2

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



US Highway 2
Unstable Slopes MP 15 to MP 148

WSDOT Northwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
18.5	18.59	Landslide	267		8/13/00			Inactive
18.6	18.61	Debris Flow	153		4/20/00			X
18.67	18.68	Debris flow						Inactive
20.3	20.31	Settlement	141		4/20/00			X
26.5	26.51	Settlement	237		1/22/96	X		
31.01	31.03	Settlement	93		4/21/00			X
31.05	31.07	Settlement	147		4/24/00			X
33.31	33.32	Settlement	141		4/24/00			X
33.36	33.66	Landslide	393	•	4/21/00	X		
33.97	34.02	Landslide	99		5/1/00			X
34.22	34.25	Landslide	177		4/24/00	X		
34.3	34.32	Landslide	153		4/26/00	X		
34.3	34.34	Landslide	153		7/2/96			X
34.41	34.43	Debris Flow	315		4/21/00	X		
34.66	34.67	Landslide	159		4/24/00			X
34.7	34.73	Debris Flow	387	•	5/16/02		X	
35	35.06	Landslide	177		4/21/00			X
35.64	35.75	Landslide	303		4/21/00	X		
36.28	36.3	Settlement	237		5/16/02		X	
36.4	36.49	Settlement	177		4/24/00			X
36.55	36.61	Landslide	201		6/26/00		X	
36.78	36.85	Landslide	375	•	5/13/02			Programmed
36.85	36.9	Rockfall	303		4/24/00	X		
36.9	36.94	Rockfall	171		12/15/00			X
36.94	37.06	Rockfall	231		5/17/02		X	
37.21	37.29	Landslide	177		4/24/00	X		
37.54	37.6	Landslide	303		8/13/00			Inactive
37.95	38	Rockfall	159		4/24/00			X
37.96	38	Rockfall	183		4/24/00			X
38	38.12	Rockfall	165		6/29/00	X		
38.12	38.36	Rockfall	333		4/21/00	X		
38.32	38.36	Rockfall	159		4/24/00			X
38.38	38.4	Rockfall	135		4/24/00			X
38.5	38.55	Debris Flow	225		5/17/02		X	
38.55	38.59	Rockfall	159		4/24/00			X
38.82	38.84	Landslide	75		4/24/00			X
38.88	38.94	Settlement	87		5/1/00	X		
39.02	39.06	Rockfall	81		4/24/00			X
39.02	39.04	Rockfall	81		4/24/00			X
39.22	39.28	Rockfall	195		4/24/00			X
39.24	39.26	Rockfall	105		4/24/00			X
44.14	44.16	Settlement	153		3/18/02			X
44.2	44.21	Landslide	243		5/17/02		X	
44.3	44.31	Settlement	153		4/21/00	X		
44.38	44.39	Settlement	129		4/24/00			X
45.96	45.98	Rockfall	213		6/13/00			X
46.01	46.16	Rockfall	417	•	6/13/00			
47.14	47.22	Rockfall	195		4/24/00			X
47.53	47.59	Rockfall	213		6/13/00			X
47.54	47.58	Rockfall	63		4/24/00			X
48.07	48.18	Rockfall	345		6/13/00			
48.27	48.33	Rockfall	255		5/17/02		X	
48.97	49.05	Rockfall	189		9/20/01			X
49.38	49.42	Rockfall	123		4/25/00			X
51.07	51.08	Settlement	51		4/21/00			Inactive
52.22	52.26	Rockfall	75		8/8/00	X		

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
53	53.05	Rockfall	111		1/22/96			X
53.07	53.17	Rockfall	159		6/16/00			Inactive
53.2	53.21	Settlement	129		8/8/00			X
53.29	53.43	Rockfall	171		8/8/00			X
54.63	54.72	Landslide	87		8/8/00	X		
54.7	54.71	Settlement				X		
55.45	55.47	Rockfall	69		8/8/00			X
55.74	55.78	Rockfall	45		8/8/00			X
55.76	55.77	Debris Flow	327		11/4/02		X	
55.84	55.86	Rockfall	147		8/8/00			X
55.97	56	Rockfall	57		8/8/00			X
56.12	56.15	Rockfall	39		8/3/00			X
56.3	56.39	Rockfall	141		8/3/00			X
56.52	56.61	Rockfall	135		8/3/00			X
56.7	56.74	Settlement				X		

WSDOT North Central Region

57.05	57.25	Rockfall	195		11/4/97			X
59	59.1	Rockfall	249		5/20/02		X	
59.1	59.55	Rockfall	225		5/20/02		X	
59.95	60.1	Rockfall	249		5/20/02		X	
60.15	60.25	Rockfall	195		11/4/97			X
60.55	60.75	Rockfall	183		10/23/97			X
60.75	60.9	Rockfall	243		5/20/02		X	
60.8	60.85	Settlement	99		8/3/00			X
60.9	61.25	Rockfall	321		4/5/01		X	
61.05	61.37	Settlement	183		11/4/97			X
61.45	61.75	Settlement	183		11/4/97			X
61.5	61.57	Rockfall	147		8/2/00			X
61.68	61.79	Rockfall	147		11/4/97			X
61.79	61.9	Rockfall	201		11/4/97			X
61.95	62.35	Settlement	183		8/2/00			X
62.6	63	Rockfall	375	•	10/23/97		X	
63	63.2	Rockfall	393	•	11/4/97		X	
63.1	63.2	Settlement	105		11/4/97			X
63.32	63.75	Rockfall	297		5/20/02		X	
63.9	64.1	Rockfall	369	•	11/4/97		X	
69.02	69.29	Rockfall	297		8/13/00		X	
69.19	69.25	Rockfall	87		11/4/97			X
70.94	70.97	Settlement	249		11/4/97			X
77.9	78.03	Rockfall	147		8/2/00			X
90.8	91	Rockfall	390	•	10/19/93	X		
91.2	91.5	Rockfall	552	•	10/24/97		X	
93.8	94.1	Rockfall	528	•	10/24/97	X		
94.2	94.4	Rockfall	393	•	10/24/97		X	
95.3	95.4	Rockfall	402	•	10/20/93	X		
95.45	95.5	Rockfall	177		10/24/97			X
95.5	95.55	Rockfall	318		10/20/93	X		
96.85	96.95	Rockfall	249		5/20/02		X	
97	97.1	Rockfall	402	•	10/20/93	X		
97.8	98	Rockfall	531	•	10/24/97	X		
98.65	98.7	Rockfall	267		8/13/00		X	
100.95	101.05	Rockfall	309		11/4/97	X		
102.32	102.47	Rockfall	153		11/4/97			X
102.45	102.5	Rockfall	327		11/4/97	X		
105.58	105.7	Landslide	213		10/23/97			X
110.46	110.54	Rockfall	261		10/23/97	X		
114.5	114.6	Rockfall	177		5/3/00			X
114.71	114.75	Settlement	81		11/4/97			X
128.1	128.12	Debris Flow	147		11/4/97			X
137.46	137.55	Rockfall	123		5/3/00		X	

US Highway 2
North Central Region

Unstable Slopes MP 15 to MP 148 *(continued)*

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
142.1	142.2	Rockfall	189		11/3/97			X
142.4	142.47	Rockfall	393	•	6/5/01		X	
142.4	142.62	Rockfall	453	•	8/11/04		X	
142.54	142.59	Landslide	141		12/12/01			X
142.65	142.75	Rockfall	369	•	11/3/97	X		
142.85	142.95	Rockfall	375	•	5/26/04		X	
142.85	143.05	Rockfall	429	•	8/13/00			Inactive
142.95	143.05	Rockfall	375	•	5/26/04		X	
143.28	143.34	Rockfall	243		5/20/02		X	
143.38	143.71	Rockfall	375	•	11/3/97	X		
144.3	144.32	Landslide	243		5/18/00			X
145.3	145.4	Landslide	105		11/3/97			X
145.47	145.58	Settlement	123		12/18/01			X
146.1	146.55	Rockfall	303		11/3/97		X	

State Route 4

Unstable Slopes between MP 0 and MP 62

State Route 4 is a multi-lane facility between MP 0 and MP 62 that carries an average of 6000 vehicles per day, with approximately 12 % being trucks. Along this corridor the peak traffic of more than 30,000 vehicles occurs in the vicinity of Longview.

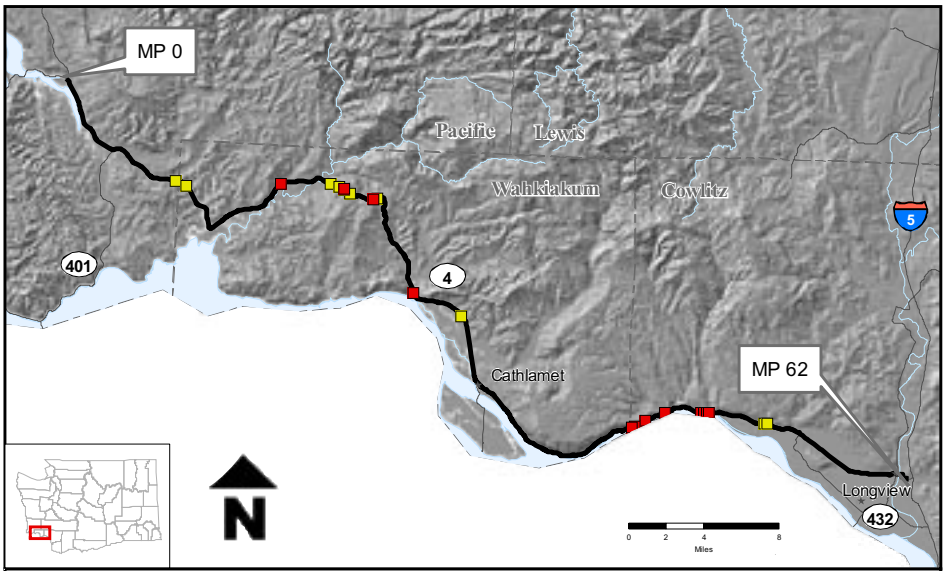
There are twenty-five known unstable slopes that have been identified and numerically rated along this corridor. Fourteen are rockfall areas and eleven are landslides/debris flows. Of these identified unstable slopes seven have been mitigated, with a total cost of $5.4 million expended since 1995 on the Unstable Slope Preservation Sub-program (P3).

State Route 4

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



State Route 4
Unstable Slopes MP 0 to MP 62

WSDOT Southwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
9.4	9.5	Landslide	267		7/11/00			X
16.9	16.95	Rockfall	201		5/4/00			X
19.8	20.1	Erosion	171		5/4/00			X
20.3	20.37	Landslide	105		1/16/98			X
20.58	20.77	Rockfall	249		5/15/02		X	
20.62	20.68	Settlement	99		1/16/98			X
21.01	21.08	Landslide	363	•	12/1/97		X	
22.32	22.39	Rockfall	315		12/1/97		X	
22.56	22.61	Landslide	195		12/17/03			X
28.59	28.75	Rockfall	177		5/4/00			X
31.58	31.63	Landslide	225		1/24/05	X		
45.8	45.92	Rockfall	207		12/4/97			X
45.92	45.95	Rockfall	405	•	5/17/02			Programmed
46.6	47.65	Rockfall	393	•	1/29/98	X		
47.7	47.83	Rockfall	177		5/4/00	X		
49.75	49.84	Rockfall	357	•	5/16/00	X		
49.84	49.91	Rockfall	201		6/28/01	X		
49.91	50.03	Rockfall	231		7/17/00	X		
50.03	50.05	Debris Flow	231		12/11/03	X		
50.05	50.09	Rockfall	327		12/15/03			X
50.09	50.2	Rockfall	273		12/15/03			X
50.2	50.26	Rockfall	267		12/15/03			X
53.26	53.29	Settlement	183		5/4/00			X
53.43	53.45	Settlement	99		5/4/00			X

US Highway 12

Unstable Slopes between MP 138 and MP 184

US Highway 12 is a multi-lane facility between MP 138 and MP 184 that carries an average of 1750 vehicles per day, with approximately 17% being trucks.

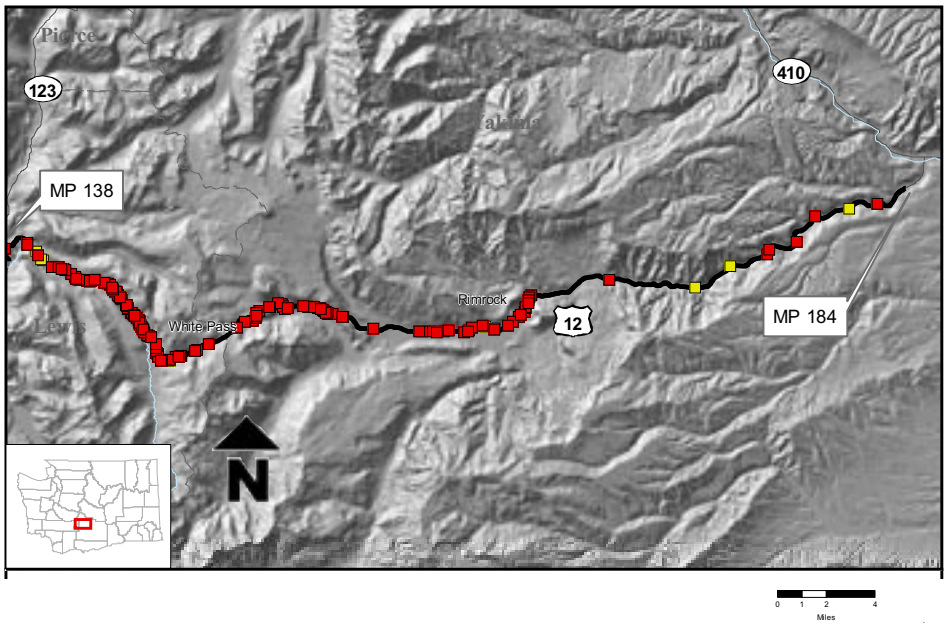
There are a total of one hundred fifty-three known unstable slopes that have been identified and numerically rated along this corridor. One hundred nineteen are rockfall areas and thirty-four are landslides/debris flows. Of these identified unstable slopes twelve have been mitigated, with a total of cost of $3,631,194 expended since 1995. Due to the large number of rockfall areas located along the White Pass corridor, a rockfall corridor study was completed in 2003.

US Highway 12

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



US Highway 12
Unstable Slopes MP 138 to MP 184

WSDOT Southwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
139.87	139.92	Rockfall	117		12/18/03			X
140.41	140.5	Rockfall	147		10/8/99			X
140.59	140.64	Rockfall	165		12/18/03			X
140.78	140.8	Settlement	159		12/18/03			X
140.8	140.86	Landslide	213		12/22/03			X
140.9	140.93	Landslide	195		12/22/03			X
141.61	141.66	Rockfall	225		12/16/03		X	
141.76	141.92	Rockfall	375	•	9/24/97			Inactive
141.76	141.81	Rockfall	303		12/16/03		X	
141.81	141.84	Rockfall	195		12/16/03		X	
141.84	141.93	Rockfall	399	•	12/16/03		X	
142.23	142.28	Rockfall	171		12/22/03			X
142.36	142.5	Rockfall	171		12/22/03			X
142.51	142.56	Rockfall	153		12/22/03			X
142.62	142.67	Landslide	165		12/22/03			X
142.79	142.8	Settlement	183		12/22/03			X
142.8	142.88	Rockfall	321		7/17/02	X		
142.99	143.12	Rockfall	447	•	12/16/03		X	
143	143.1	Rockfall	243		12/16/03		X	
143.11	143.13	Settlement	81		12/22/03			X
143.12	143.27	Rockfall	417	•	12/16/03		X	
143.25	143.28	Rockfall	243		12/16/03		X	
143.27	143.28	Settlement	183		12/22/03			X
143.28	143.33	Rockfall	141		12/22/03			X
143.35	143.39	Settlement	189		12/22/03			X
143.55	143.62	Rockfall	243		12/16/03		X	
143.68	143.71	Rockfall	99		8/8/00	X		
143.87	143.9	Landslide	291		12/22/03			X
144.08	144.22	Rockfall	348		9/24/97			Inactive
144.13	144.21	Rockfall	303		12/16/03		X	
144.21	144.27	Rockfall	303		12/16/03		X	
144.27	144.35	Settlement	249		12/22/03		X	
144.34	144.53	Rockfall	243		8/11/99			Inactive
144.36	144.41	Rockfall	375	•	12/16/03		X	
144.41	144.46	Rockfall	267		12/16/03		X	
144.51	144.57	Rockfall	189		12/22/03			X
144.57	144.64	Landslide	267		12/22/03			X
144.65	144.7	Rockfall	309		12/16/03		X	
144.7	144.74	Rockfall	195		1/7/04			X
144.74	145.02	Rockfall	249		12/16/03		X	
144.75	144.77	Landslide	129		12/22/03			X
145.05	145.23	Landslide	225		8/8/00			Inactive
145.05	145.12	Landslide	201		12/22/03			X
145.12	145.19	Rockfall	213		12/16/03		X	
145.19	145.24	Rockfall	267		12/16/03		X	
145.42	145.43	Landslide	183		12/22/03			X
145.43	145.54	Rockfall	243		8/8/00			Inactive
145.45	145.55	Rockfall	249		12/16/03		X	
145.52	145.65	Landslide	249		12/22/03			X
145.59	145.61	Rockfall	207		12/16/03		X	
145.61	145.73	Rockfall	459	•	12/16/03			Programmed
145.63	145.65	Rockfall	171		12/23/03			X
145.73	145.76	Rockfall	225		12/16/03		X	
145.82	145.93	Rockfall	225		12/16/03	X		
145.99	146.22	Rockfall	237		8/9/00			Inactive
146.02	146.07	Rockfall	267		12/16/03		X	

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
146.08	146.16	Rockfall	267		12/16/03		X	
146.11	146.15	Landslide	177		12/23/03			X
146.21	146.27	Landslide	213		12/23/03			X
146.23	146.25	Rockfall	147		12/23/03			X
146.28	146.52	Rockfall	303		8/25/00			Inactive
146.3	146.46	Rockfall	327		12/16/03		X	
146.36	146.47	Landslide	375	•	12/23/03		X	
146.46	146.56	Rockfall	243		12/16/03		X	
146.61	146.89	Rockfall	357	•	5/15/02			Inactive
146.62	146.69	Rockfall	243		12/16/03		X	
146.71	146.87	Rockfall	321		12/16/03		X	
147.12	147.15	Landslide	153		12/23/03			X
147.14	147.22	Rockfall	303		12/16/03		X	
147.15	147.7	Rockfall	303		9/24/97			Inactive
147.29	147.36	Rockfall	213		12/16/03		X	
147.39	147.44	Landslide	141		12/23/03			X
147.44	147.51	Rockfall	231		12/16/03		X	
147.51	147.55	Rockfall	291		12/16/03		X	
147.56	147.61	Landslide	195		12/23/03			X
147.6	147.69	Debris Flow	363	•	12/23/03			X
147.77	147.88	Rockfall	297		1/12/04		X	
147.88	147.93	Landslide	171		12/23/03			X
147.91	147.97	Rockfall	171		12/23/03			X
148.09	148.21	Rockfall	303		1/12/04		X	
148.25	148.32	Landslide	291		12/29/03			X
148.32	148.41	Rockfall	249		12/16/03		X	
148.65	148.71	Landslide	249		12/16/03	X		
148.7	148.82	Rockfall	243		12/16/03		X	
148.71	148.89	Rockfall	219		8/9/00			Inactive
148.82	148.89	Rockfall	147		12/23/03			X
148.98	149.11	Rockfall	219		12/16/03		X	
149.19	149.22	Rockfall	177		12/23/03		X	
149.46	149.51	Rockfall	219		12/16/03	X		
149.56	149.62	Rockfall	147		12/23/03			X
150.11	150.15	Rockfall	141		12/23/03			X
151.76	151.88	Rockfall	267		12/16/03		X	
152.32	152.49	Rockfall	153		12/23/03			X
152.36	152.81	Rockfall	303		1/17/96			Inactive
152.49	152.56	Rockfall	201		12/16/03		X	
152.56	152.7	Rockfall	297		12/16/03		X	
152.7	152.79	Rockfall	249		12/16/03		X	
153.19	153.23	Rockfall	201		9/24/97			X
153.31	153.33	Rockfall	153		12/23/03			X
153.35	153.39	Rockfall	195		12/24/03			X
154.06	154.22	Rockfall	303		1/17/96	X		
154.25	154.34	Rockfall	396	•	9/3/01	X		
154.34	154.38	Rockfall	351	•	12/16/03		X	
154.38	154.45	Rockfall	369	•	9/24/97	X		
154.49	154.58	Rockfall	351	•	1/17/96	X		
154.62	155.26	Rockfall	273		8/9/00		X	
155.08	155.1	Debris Flow	183		2/4/03	X		
155.27	155.45	Rockfall	267		5/24/00	X		
155.45	155.52	Rockfall	105		12/24/03		X	
155.53	155.61	Rockfall	321		12/16/03		X	
155.58	155.68	Rockfall	345		9/24/97		X	
155.61	155.66	Rockfall	333		12/16/03		X	
155.66	155.71	Rockfall	327		12/16/03		X	
155.68	155.71	Rockfall	354	•	11/1/93	X		
155.76	155.86	Rockfall	297		8/9/00			Inactive
155.76	155.8	Rockfall	153		12/24/03			X
155.8	155.89	Rockfall	177		12/24/03			X
155.91	155.97	Rockfall	195		12/24/03			X

US Highway 12
Southwest Region

Unstable Slopes MP 138 to MP 184 *(continued)*

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
155.97	156.12	Landslide	315		12/24/03			X
155.99	156.05	Rockfall	123		12/24/03			X
156.28	156.39	Landslide	243		12/24/03		X	
156.32	156.56	Rockfall	327		12/16/03		X	
156.55	156.68	Rockfall	297		8/9/00			Inactive
156.62	156.67	Rockfall	249		12/16/03		X	
156.67	156.72	Rockfall	249		12/16/03		X	
158.1	158.19	Rockfall	141		12/24/03			X
160.07	160.12	Rockfall	171		12/29/03			X
160.19	160.22	Rockfall	63		12/29/03			X
160.58	160.61	Rockfall	141		12/29/03			X
160.8	160.87	Rockfall	243		12/16/03		X	
161.11	161.16	Rockfall	141		12/29/03			X
161.29	161.33	Rockfall	345		12/16/03		X	
161.29	161.33	Rockfall	237		12/16/03		X	
161.93	162.05	Rockfall	417	•	12/16/03		X	
162.12	162.22	Rockfall	375	•	12/16/03		X	
162.15	162.18	Rockfall	75		1/7/04			X
162.34	162.41	Rockfall	291		12/16/03		X	
162.77	162.82	Rockfall	81		12/29/03			X
163.25	163.3	Settlement	183		12/29/03			X
163.64	163.77	Rockfall	345		12/16/03		X	
163.65	163.73	Settlement	183		12/29/03			X
163.91	164.01	Rockfall	195		12/29/03			X
164.48	164.52	Rockfall	129		12/29/03			X
164.55	164.86	Rockfall	471	•	12/16/03		X	
164.97	165.02	Rockfall	393	•	12/16/03		X	
164.98	165.2	Rockfall	507	•	9/24/97			Inactive
165.02	165.2	Rockfall	459	•	12/16/03		X	
165.2	165.31	Rockfall	399	•	12/18/01		X	
165.32	165.37	Rockfall	399	•	12/16/03		X	
165.32	165.37	Rockfall	399	•	12/16/03		X	
165.48	165.51	Rockfall	279		12/16/03		X	
165.58	165.64	Rockfall	267		12/16/03		X	
165.64	165.75	Rockfall	321		12/16/03		X	

WSDOT South Central Region

169.38	169.59	Rockfall	231		5/14/02		X	
173	173.3	Erosion	255		5/14/02		X	
174.8	174.9	Erosion	213		12/11/97			X
176.46	176.53	Rockfall	249		5/14/02		X	
176.68	176.78	Rockfall	315		12/11/97		X	
178.05	178.33	Rockfall	261		8/13/00		X	
179.59	179.73	Rockfall	231		5/14/02		X	
181.15	181.3	Erosion	198		12/11/97			X
182.53	182.8	Rockfall	297		12/11/97		X	

State Route 14

Unstable Slopes between MP 24 and MP 154

State Route 14 is a multi-lane facility between MP 19 and MP 180 that carries an average of 3,500 vehicles per day, approximately 27 to 37% being trucks.

There are eighty-two known unstable slopes that have been identified and numerically rated along this corridor. Sixty-seven are identified as rockfall areas and fifteen are landslides/debris flows. Of these identified unstable slopes four have been mitigated, with a total cost of $1,455,769 expended since 1995.

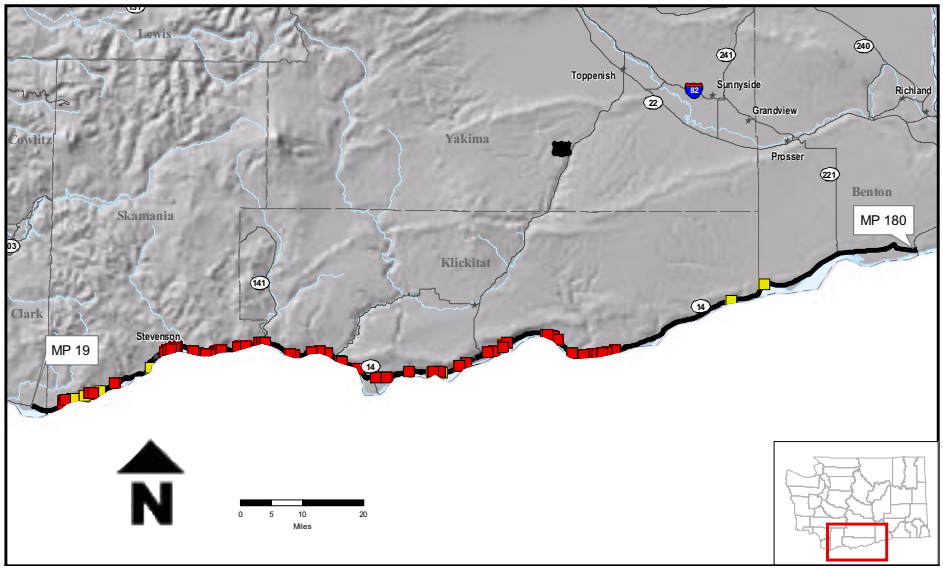
The unstable slopes in this corridor have been reviewed and numerically rated since 1993. A corridor study was completed in 1999. An interdisciplinary team was formed, and the WSDOT Columbia River Gorge project office has been working for many years with the Columbia River Gorge Commission to come to agreement with mitigation of the unstable slopes in this corridor. An Environmental Assessment was completed this past year (2005).

State Route 14

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



State Route 14
Unstable Slopes MP 19 to MP 180

WSDOT Southwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
25	25.2	Rockfall	369	•	12/2/97		X	
25.4	25.41	Debris Flow	279		8/11/00		X	
25.46	25.5	Rockfall	225		8/25/00		X	
25.58	25.59	Debris Flow	279		8/11/00		X	
25.84	25.93	Rockfall	345		12/2/97		X	
27.04	27.09	Landslide	195		12/2/97			X
27.34	27.39	Landslide	219		12/2/97		X	
29.25	29.29	Erosion	165		12/2/97			X
30.2	30.34	Rockfall	279		12/2/97		X	
30.22	30.27	Settlement	117		12/2/97			X
30.37	30.46	Landslide	345		12/2/97		X	
30.9	31.1	Rockfall	219		12/2/97		X	
31.95	32.1	Settlement	153		12/2/97			X
34.85	34.91	Rockfall	201		12/2/97			X
41.75	42	Erosion	171		12/2/97			X
45.75	45.85	Rockfall	165		12/2/97			X
46.2	46.25	Rockfall	207		12/2/97			X
46.34	46.56	Rockfall	309		12/2/97		X	
46.9	46.91	Rockfall	363	•	3/24/04	X		
47.55	47.6	Erosion	147		12/2/97			X
47.83	47.87	Rockfall	165		2/5/02			X
47.9	48	Rockfall	219		5/15/02		X	
48.04	48.09	Rockfall	165		2/5/02			X
51	51.6	Rockfall	387	•	10/27/93	X		
51.9	51.95	Rockfall	141		12/2/97			X
53.28	53.6	Rockfall	267		12/2/97		X	
53.8	54.1	Rockfall	453	•	5/23/00		X	
54.6	54.67	Rockfall	237		2/12/03		X	
54.7	54.77	Rockfall	237		12/2/97		X	
54.8	54.97	Rockfall	249		12/2/97		X	
55.05	55.35	Rockfall	327		12/2/97		X	
55.6	55.66	Rockfall	285		12/2/97		X	
55.88	55.96	Rockfall	375	•	12/2/97		X	
58.84	58.93	Rockfall	315		12/2/97		X	
59.07	59.14	Rockfall	261		12/2/97		X	
60.2	60.23	Rockfall	207		12/2/97			X
62.5	63	Rockfall	501	•	12/2/97		X	
63.05	63.2	Rockfall	429	•	12/2/97		X	
63.55	63.6	Rockfall	381	•	1/12/96		X	
68.1	68.3	Rockfall	201		6/1/00			X
68.75	69.1	Rockfall	429	•	12/2/97		X	
71.88	71.92	Rockfall	129		10/7/03			X
73.18	73.87	Rockfall	303		5/23/00		X	
74.53	74.72	Rockfall	153		12/2/97			X
76.94	77.04	Rockfall	435	•	6/15/04		X	
76.94	77.24	Rockfall	579	•	12/2/97			Inactive
77.04	77.06	Rockfall	357	•	6/15/04		X	
77.06	77.18	Rockfall	435	•	6/15/04		X	
77.18	77.24	Rockfall	318		6/15/04		X	
77.31	77.67	Rockfall	525	•	12/2/97		X	
80.22	80.34	Rockfall	153		7/12/00			X
83.8	84	Rockfall	165		12/20/01			X
85.8	86.1	Rockfall	303		12/2/97		X	
89.51	91.65	Rockfall	213		12/2/97			X
93.27	93.35	Erosion	165		12/20/01			X
93.4	93.5	Rockfall	159		12/2/97			X

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
95.15	95.25	Erosion	201		12/2/97			X
98.35	99	Rockfall	201		12/2/97			X
99.57	100.6	Rockfall	201		12/2/97			X
103.57	103.7	Rockfall	57		12/2/97			X
104.7	104.85	Rockfall	147		12/2/97			X
106.26	106.46	Rockfall	225		8/23/00	X		
106.46	106.65	Rockfall	279		8/24/00	X		
106.72	106.82	Erosion	123		12/2/97			X
107.4	107.7	Rockfall	135		12/2/97			X
114.1	114.15	Rockfall	141		12/2/97			X
114.3	114.4	Rockfall	45		12/2/97			X
115	115.3	Rockfall	65		12/2/97			X
115.4	115.8	Rockfall	153		12/2/97			X
116.2	116.7	Rockfall	141		12/2/97			X
119.45	119.8	Rockfall	135		12/2/97			X
120	120.65	Rockfall	135		12/2/97			X
121.4	121.6	Rockfall	147		12/2/97			X
121.8	122.5	Rockfall	135		12/2/97			X
122.9	123.6	Rockfall	447	•	12/2/97		X	
123.7	124.2	Rockfall	147		12/2/97			X
124.4	124.9	Rockfall	135		12/2/97			X
125.3	125.9	Rockfall	147		12/2/97			X
126.5	126.8	Rockfall	135		12/2/97			X
147.55	147.68	Landslide	225		11/8/04			X

WSDOT South Central Region

153.94	154.02	Landslide	189		5/12/05		X	

State Route 20

Unstable Slopes between MP 120 and MP 170

State Route 20 is a multi-lane facility between MP 120 and MP 170 that carries an average of 1,000 vehicles per day, with 4 to 14% being trucks. Because of the low ADT along this corridor the highway is a secondary facility, and because the highway is closed during the winter months, unstable slopes do not prioritize very high for unstable slope mitigation.

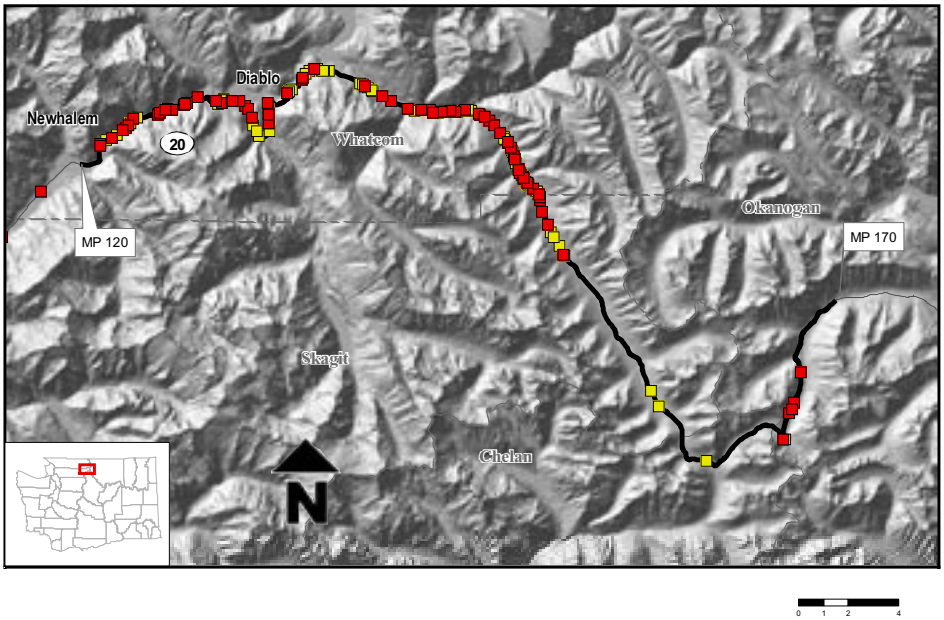
There are one hundred fifty-three known unstable slopes that have been identified and numerically rated along this corridor. Seventy-five are rockfall areas and seventy-eight are landslides/debris flows. Of these identified unstable slopes one has been mitigated, with Emergency Repair funding in 2003-2004.

State Route 20

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



State Route 20
Unstable Slopes MP 120 to MP 170

WSDOT Northwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
121.15	121.2	Rockfall	264		10/24/89			X
121.42	121.43	Debris Flow	345		6/21/01			X
121.7	121.77	Rockfall	525	•	5/31/01	X		
121.92	122	Debris Flow	471	•	6/21/01			X
122.23	122.25	Rockfall	405	•	6/21/01			X
122.35	122.4	Rockfall	210		10/26/89			X
122.55	122.62	Rockfall	339		5/31/01			X
122.62	122.67	Debris Flow	549	•	6/21/01			X
122.85	122.91	Rockfall	375	•	5/31/01			X
123.06	123.08	Debris Flow	339		6/18/01			X
123.96	124.03	Rockfall	321		6/18/01			X
124.03	124.06	Debris Flow	453	•	6/18/01			X
124.06	124.24	Rockfall	453	•	6/18/01			X
124.33	124.39	Rockfall	207		6/18/01			X
124.42	124.46	Debris Flow	369	•	6/18/01			X
124.64	124.77	Rockfall	147		6/18/01			X
125.12	125.19	Rockfall	327		6/18/01			X
125.2	125.25	Rockfall	222		10/26/89			X
125.24	125.31	Settlement	141		6/18/01			X
125.33	125.45	Rockfall						X
125.82	125.91	Rockfall	225		5/31/01			X
126.65	126.68	Rockfall	171		6/18/01			X
126.79	126.81	Erosion	63		6/18/01			X
127	127.01	Rockfall						X
127.02	127.08	Rockfall	381	•	5/31/01			X
127.15	127.22	Settlement	177		5/31/01			X
127.18	127.29	Erosion	93		6/18/01			X
127.53	127.74	Rockfall	441	•	6/18/01			X
127.61	127.66	Rockfall	375	•	4/30/01			X
127.87	128.1	Rockfall	147		6/18/01			X
128.18	128.42	Rockfall	399	•	6/18/01			X
128.36	128.39	Rockfall	357	•	5/14/01			X
128.75	128.83	Rockfall	321		6/18/01			X
129.07	129.13	Erosion						X
129.47	129.5	Settlement	75		4/30/01			X
129.57	129.63	Erosion						X
129.65	129.7	Settlement	153		4/30/01			X
130.21	130.25	Debris Flow	339		4/30/01			X
130.49	130.84	Rockfall	375	•	6/18/01			X
130.53	130.62	Rockfall	447	•	6/25/01			X
130.89	131.09	Rockfall	381	•	6/18/01			X
130.91	130.97	Rockfall	303		5/14/01			X
130.92	130.95	Settlement	141		6/18/01			X
131.11	131.19	Settlement						X
131.35	131.45	Rockfall	288		10/26/89			X
132.54	132.57	Settlement						X
132.56	132.75	Rockfall	273		6/18/01			X
132.62	132.67	Settlement						X
132.79	132.81	Settlement	87		6/18/01			X
133.35	133.5	Rockfall	327		6/18/01			X
133.47	133.59	Rockfall	357	•	6/18/01			X
133.69	133.7	Settlement	75		8/15/01			X
133.86	133.89	Settlement						X
133.97	134.13	Rockfall	75		6/5/01			X
134.18	134.2	Settlement						X
134.4	134.41	Settlement						X

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
134.46	134.49	Settlement						X
134.6	134.62	Settlement						X
134.67	134.68	Settlement						X
136.04	136.06	Settlement	147		6/5/01			X
136.13	136.15	Settlement						X
136.16	136.19	Settlement						X
136.31	136.38	Rockfall	165		5/31/01			X
136.44	136.59	Settlement	303		5/31/01			X
136.62	136.66	Erosion	123		5/31/01			X
136.66	136.73	Settlement	267		5/31/01			X
137.09	137.37	Rockfall	195		5/31/01			X
137.51	137.66	Rockfall	135		5/31/01			X
138.22	138.32	Erosion						X
138.22	139.1	Rockfall						X
138.49	138.55	Erosion	171		6/5/01			X
138.76	138.92	Rockfall	189		6/5/01			X
138.77	138.78	Settlement						X
138.88	138.89	Settlement						X
139.03	139.04	Settlement						X
139.08	139.1	Rockfall	147		6/5/01			X
139.25	139.41	Rockfall	207		6/5/01			X
139.42	139.44	Settlement						X
139.51	139.52	Settlement						X
139.56	139.57	Settlement	135		6/5/01			X
139.59	139.89	Rockfall	339		6/5/01			X
139.75	139.8	Rockfall	264		10/26/89			X
139.95	140.01	Rockfall						X
139.98	139.99	Settlement						X
140.11	140.12	Settlement	177		6/5/01			X
140.13	140.18	Rockfall	129		8/29/01			X
140.2	140.21	Settlement						X
140.28	140.3	Settlement	231		5/31/01			X
140.52	140.67	Rockfall	321		6/5/01			X
140.62	140.64	Settlement						X
140.74	140.76	Settlement	153		5/31/01			X
140.76	140.77	Debris Flow	303		6/5/01			X
141.1	141.15	Rockfall	282		10/26/89			X
141.15	141.2	Rockfall	216		10/26/89			X
141.35	141.44	Rockfall	225		6/5/01			X
141.59	141.79	Rockfall	315		6/5/01			X
141.85	142.05	Rockfall	375	•	8/30/01			X
142.25	142.35	Rockfall	288		10/26/89			X
142.46	142.47	Settlement						X
142.48	142.5	Settlement	153		6/5/01			X
142.54	142.73	Settlement	135		6/5/01			X
142.58	142.64	Debris Flow	429	•	7/10/01			X
142.71	142.79	Rockfall	375	•	7/10/01			X
142.75	142.8	Rockfall	168		10/26/89			X
142.96	143.1	Rockfall	339		7/10/01			X
143	143.01	Settlement						X
143.08	143.09	Settlement						X
143.11	143.15	Settlement	207		7/10/01			X
143.18	143.2	Settlement	129		7/10/01			X
143.32	143.4	Rockfall						X
143.44	143.74	Rockfall	267		7/10/01			X
143.59	143.63	Settlement	225		7/10/01			X
143.87	143.9	Rockfall						X
143.87	143.88	Settlement	117		7/10/01			X
143.88	144.21	Rockfall	375	•	7/10/01			X
143.98	144.07	Settlement	177		7/10/01			X
144	144.15	Rockfall	378	•	10/26/89			X
144.1	144.16	Settlement						X

State Route 20
Northwest Region

Unstable Slopes MP 120 to MP 170 *(continued)*

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
144.25	144.26	Rockfall	93		7/10/01			X
144.3	144.31	Rockfall						X
144.4	144.42	Settlement	147		7/10/01			X
144.46	144.48	Settlement	153		7/10/01			X
144.5	144.6	Rockfall	129		7/10/01			X
144.52	144.53	Debris Flow	432	•	12/28/93			X
144.53	144.65	Erosion						X
144.61	144.67	Settlement	225		7/10/01			X
144.8	144.87	Rockfall	189		7/10/01			X
144.98	145.18	Settlement	231		7/10/01			X
145.01	145.08	Erosion	63		7/10/01			X
145.11	145.18	Settlement						X
145.15	145.23	Rockfall						X
145.25	145.35	Rockfall	186		10/26/89			X
145.28	145.33	Rockfall	225		7/10/01			X
145.4	145.48	Rockfall						X
145.91	146.41	Rockfall	213		7/10/01			X
146.53	146.79	Rockfall	147		7/10/01			X
146.94	146.97	Settlement	159		6/4/01			X
147.17	147.34	Erosion	147		7/10/01			X
147.64	147.65	Landslide	159		7/10/01			X
148.05	148.1	Rockfall	129		7/10/01			X
148.09	148.1	Settlement	69		7/10/01			X

WSDOT North Central Region

154.74	154.85	Erosion	120		9/22/93			X
155.44	155.63	Erosion	126		9/22/93			X
158.8	158.9	Erosion	114		9/22/93			X
162.85	163.3	Rockfall	252		11/3/93			X
163.29	163.35	Erosion	96		9/22/93			X
164.4	164.45	Rockfall	162		11/3/93			X
164.6	164.75	Rockfall	216		11/3/93			X
164.85	164.9	Rockfall	162		11/3/93			X
166.1	166.2	Rockfall	153		1/22/01			X

US Highway 97

Unstable Slopes between MP 0 and MP 264

US Highway 97 is a multi-lane facility from the Columbia River to the Canadian Border from MP 0 to MP 336 that carries an average of 5,000 vehicles per day, with 9 to 24% being trucks. The traffic increases to a peak of 19,000 vehicles per day in the vicinity of Ellensburg (I-90 and SR 82).

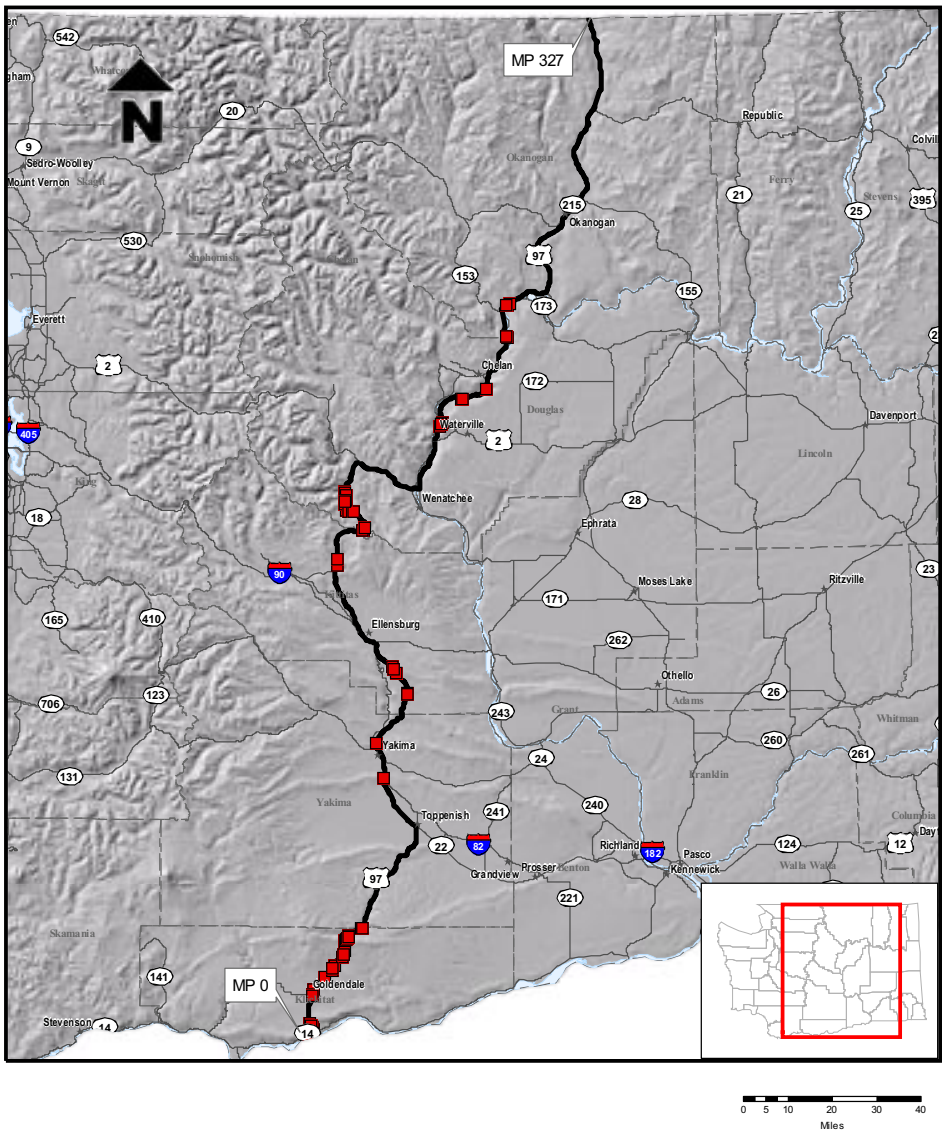
There are seventy-seven known unstable slopes that have been identified and numerically rated along this corridor. Fifty-eight are rockfall areas and nineteen are landslides/debris flows. Of these identified unstable slopes six have been mitigated, with a total cost of $8,426,225 expended since 1995.

US Highway 97

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



US Highway 97
Unstable Slopes MP 0 to MP 336

WSDOT Southwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
0.8	1	Rockfall	147		12/3/97			X
2.3	2.42	Erosion	105		12/3/97			X
2.62	2.73	Erosion	93		12/3/97			X
3.29	3.4	Erosion	153		12/3/97			X
3.61	3.69	Rockfall	153		1/29/02			X
3.78	3.89	Rockfall	291		5/15/02		X	
4	4.2	Rockfall	285		5/15/02			X
4.3	4.54	Erosion	147		12/3/97			X
4.82	5.01	Rockfall	285		5/15/02			X
5.12	5.28	Rockfall	255		5/15/02		X	
5.32	5.57	Rockfall	237		5/15/02		X	
5.8	6	Rockfall	141		12/3/97			X
12.13	12.34	Rockfall	135		12/3/97			X
12.58	12.68	Rockfall	243		12/3/97			Inactive
14.22	14.64	Rockfall	147		12/3/97			X
17.94	18	Rockfall	153		12/3/97			X
20.4	20.6	Rockfall	201		12/3/97			X
20.8	21.1	Rockfall	201		12/3/97			X
21.65	21.81	Rockfall	279		5/16/02		X	
24.4	24.5	Rockfall	117		12/3/97			X
25.1	25.4	Rockfall	159		12/3/97			X
25.95	26.15	Rockfall	213		12/3/97			X
27.2	27.35	Erosion	267		12/3/97			Inactive
27.74	27.9	Erosion	81		12/3/97			X
28.1	28.3	Rockfall	111		12/3/97			X
28.35	28.48	Landslide	429	•	11/14/95	X		
28.5	28.7	Rockfall	207		12/3/97			X
28.9	29.2	Rockfall	207		12/3/97			X
29.3	29.45	Rockfall	279		12/3/97			Inactive
29.5	30.1	Rockfall	273		6/13/00	X		
32.09	32.4	Erosion	141		12/3/97			X
33.1	33.2	Rockfall	135		12/3/97			X
33.3	33.5	Rockfall	315		12/3/97			Programmed

WSDOT South Central Region

75.15	75.16	Rockfall	291		7/22/05			X

WSDOT North Central Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
151.66	151.71	Rockfall	165		11/3/97			X
152.43	152.52	Rockfall	139		11/3/97			X
163.96	164.04	Rockfall	111		10/17/95			X
163.96	164.08	Rockfall	165		11/3/97			X
164.28	164.38	Rockfall	186		11/3/97			X
164.75	164.92	Rockfall	201		11/3/97			X
170.2	170.25	Rockfall	93		11/3/97			X
170.23	174.35	Rockfall	117		10/17/95			X
170.47	170.55	Rockfall	177		11/3/97			X
170.53	170.61	Rockfall	117		10/17/95			X
170.77	170.82	Rockfall	165		11/3/97			X
171.5	171.6	Rockfall	189		11/3/97			X
172.05	172.11	Rockfall	165		11/3/97			X
173.51	173.6	Rockfall	213		11/3/97			X
174.19	174.28	Rockfall	153		11/3/97			X
174.56	174.62	Rockfall	369	•	10/4/05		X	
175.42	175.54	Rockfall	303		11/3/97		X	
175.85	176	Rockfall	273		8/11/04		X	
175.9	176	Landslide	435		5/20/02		X	
176	176.1	Rockfall	153		11/3/97			X
176.8	177	Rockfall	369	•	11/3/97	X		
216.72	216.82	Rockfall	261		8/13/00		X	
217.35	217.45	Rockfall	159		11/3/97			X
217.5	217.6	Rockfall	339		10/23/97	X		
217.67	217.73	Rockfall	162		11/3/97			X
227	227.05	Rockfall	291		8/13/00		X	
227.25	227.41	Rockfall	225		5/20/02		X	
229.08	229.1	Debris Flow	123		11/3/97			X
229.96	229.99	Debris Flow	123		11/3/97			X
231.88	231.9	Debris Flow	117		11/3/97			X
232.97	233	Debris Flow	123		11/3/97			X
233.45	233.7	Rockfall	201		11/3/97			X
236.45	236.55	Settlement	75		11/3/97			X
246.99	247.12	Rockfall	291		5/20/02	X		
247.12	247.23	Rockfall	237		5/20/02		X	
255.2	255.3	Rockfall	45		10/18/95			X
255.6	255.8	Rockfall	33		10/18/95			X
256.1	256.2	Rockfall	39		10/18/95			X
260.6	260.7	Landslide	168		9/23/93			X
260.7	260.8	Erosion	144		9/23/93			X
261.2	261.6	Erosion	111		1/23/03			X
263.5	264	Erosion	111		1/27/03			X
263.5	263.7	Erosion	63		1/27/03			X

US Highway 101

Unstable Slopes between MP 0 and MP 367

US Highway 101 is a multi-lane facility between MP 0 and MP 367 that carries an average of 8,000 vehicles per day, with 7 to 18% being trucks.

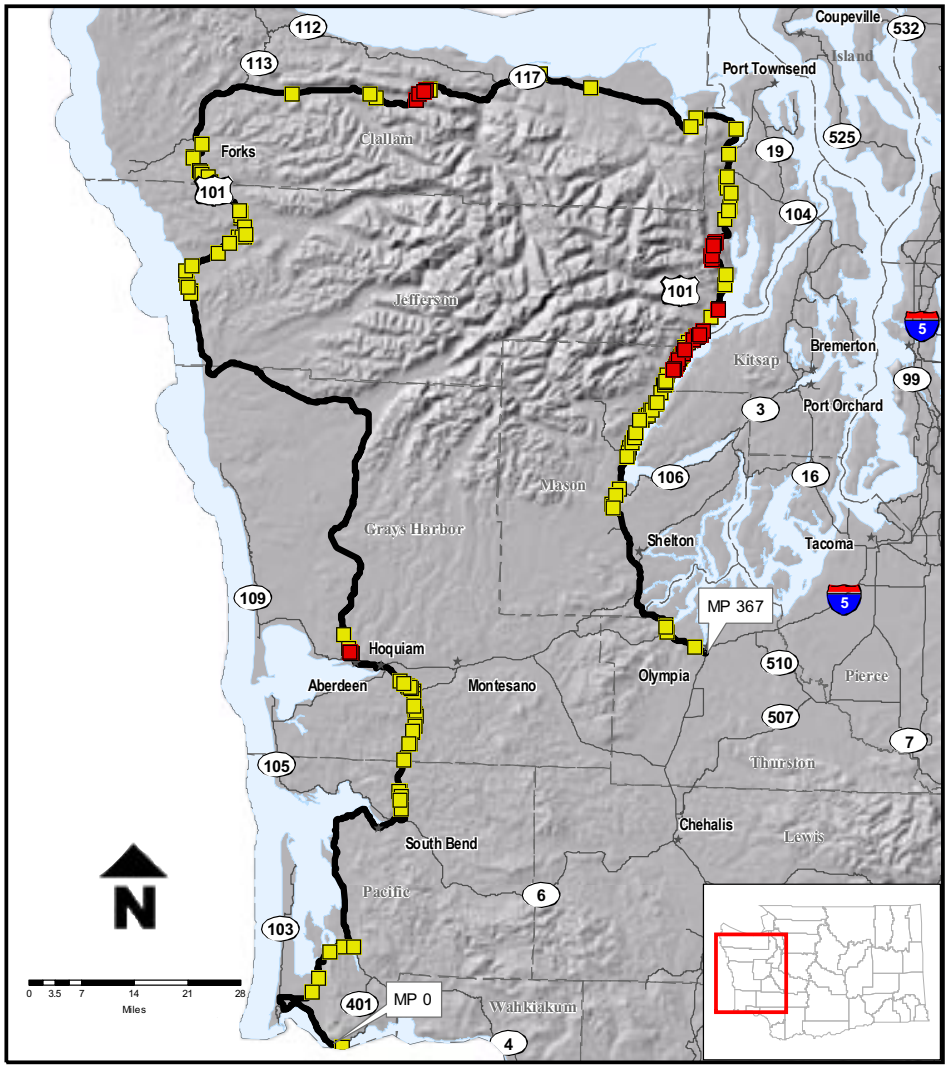
There are one hundred sixty-one unstable slopes that have been rated along this corridor. Twenty-five are rockfall areas and one hundred thirty-six are landslides/debris flows. Specific sections of the corridor have areas of landslides/debris flows. The portion of US101, along the Hood Canal is especially problematic due to many rockfall areas and landslide/debris flow areas that depict the complex geology. Of these identified unstable slopes twenty-two have been mitigated, with a total cost of $28,850,636 expended since 1995.

US Highway 101

- Rockfall
- Landslide/Debris Flows

Source: Unstable Slope Management System (USMS)

Date: 11/23/2005



US Highway 101
Unstable Slopes MP 0 to MP 367

WSDOT Southwest Region

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
18.16	18.2	Landslide	132		3/2/94			X
20.2	20.21	Settlement	30		3/1/94			X
25	25.14	Settlement	102		3/1/94			X
27.65	27.68	Landslide	423		2/18/98	X		
29.2	29.26	Settlement	204		9/13/95			X
60.44	60.48	Settlement	285		5/16/02		X	
61.49	61.53	Landslide	123		6/14/00			X
61.98	62	Landslide	171		6/14/00			X
62.65	62.75	Landslide	237		5/15/02		X	
62.95	63	Landslide	351		7/17/00		X	

WSDOT Olympic Region

67.3	67.5	Settlement	189		5/18/00			X
69.82	69.87	Landslide	429	•	5/4/05			X
70.1	70.15	Debris Flow	186		7/13/94			X
70.2	70.5	Landslide	261		1/31/96	X		
71.8	71.85	Erosion	147		1/31/96			X
71.9	71.95	Settlement	261		5/20/02		X	
71.95	71.98	Landslide	273		8/13/00		X	
72.06	72.08	Landslide	87		12/16/97			X
72.8	72.9	Settlement	384	•	10/11/93		X	
72.9	73.26	Landslide	372	•	10/11/93			Inactive
74.22	74.26	Landslide	111		1/31/96			X
74.67	74.73	Landslide	111		2/15/96			X
75.53	75.68	Erosion	147		11/9/95			X
76.6	76.78	Landslide	384	•	10/14/93	X		
77.28	77.31	Debris Flow	216		10/29/93	X		
77.75	77.81	Landslide	252		10/20/93			Inactive
78.16	78.32	Erosion	189		10/23/95			X
78.39	78.42	Settlement	159		10/23/95			X
78.39	78.41	Debris Flow	177		11/1/01			X
78.44	78.47	Landslide	177		10/23/95			X
78.47	78.5	Landslide	129		10/23/95			X
78.57	78.61	Settlement	81		10/23/95			X
78.9	78.95	Landslide	387	•	2/15/96	X		
79.41	79.44	Settlement	87		10/23/95			X
79.42	79.5	Erosion	141		1/31/96			X
79.51	79.54	Debris Flow	99		10/20/93			X
80.05	80.5	Settlement	207		10/23/95			X
89.06	89.07	Settlement	94		11/9/95			X
89.1	89.22	Rockfall	333		10/14/93	X		
89.3	89.4	Rockfall	357	•	10/14/93	X		
89.89	89.92	Settlement	129		12/8/97			X
91.85	92	Settlement	159		1/31/96			X
162.09	162.11	Erosion	63		11/1/95			X
162.4	162.52	Erosion	141		11/1/95			X
163.12	163.13	Settlement	135		11/1/95			X
163.56	163.57	Settlement	129		11/1/95			X
164.82	164.86	Landslide	195		3/11/03			X
164.95	165.01	Landslide	195		3/11/03			X
166.52	166.55	Settlement	213		11/1/95			X
170.3	170.36	Landslide	351	•	2/15/96	X		
172.5	172.56	Landslide	159		11/1/95			X
173.91	173.97	Landslide	243		4/29/03			X

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
174.84	174.88	Landslide	111		12/4/97			X
174.96	175	Landslide	327		4/27/04		X	
175.28	175.32	Landslide	171		12/4/97			X
176.24	176.27	Settlement	141		11/1/95			X
178.02	178.05	Settlement	213		11/1/95			X
178.28	178.32	Settlement	213		11/1/95			X
178.69	178.75	Landslide	219		5/20/02		X	
179.1	179.13	Settlement	213		11/1/95			X
183.5	183.56	Erosion	135		11/1/95			X
183.84	183.85	Settlement	141		11/1/95			X
184.16	184.35	Landslide	423	•	7/26/04			X
184.4	184.42	Landslide	201		4/28/03			X
184.93	184.94	Settlement	81		11/1/95			X
185.84	185.88	Settlement	164		11/1/95			X
186.91	187.01	Settlement	225		5/20/02		X	
187.25	187.59	Landslide	363	•	4/27/04		X	
187.6	188	Landslide	399	•	4/27/04		X	
189.42	189.52	Landslide	285		5/17/00		X	
189.69	189.71	Landslide	276		10/26/93	X		
192	192.28	Erosion	159		11/1/95			X
210.58	210.68	Settlement	66		11/2/95			X
221.3	221.37	Erosion	153		11/2/95			X
222.34	222.43	Erosion	135		12/13/95			X
228.6	228.7	Rockfall	426	•	3/16/94	X		
229.4	229.6	Rockfall	420	•	3/16/94	X		
230.36	230.52	Rockfall	108		10/26/93			X
230.7	230.9	Rockfall	357	•	3/16/94	X		
231.06	231.12	Landslide	345		2/15/96	X		
231.17	231.2	Landslide	87		10/26/93			X
231.26	231.28	Landslide	177		2/1/96			X
251.1	251.18	Landslide	267		8/13/00		X	
255.98	256.28	Erosion	222		11/2/95			X
271.7	271.75	Erosion	75		11/2/95			X
273.12	273.21	Erosion	75		11/2/95			X
279.3	279.33	Landslide	165		4/27/00			X
283.3	283.33	Landslide						X
286.4	286.52	Settlement	147		12/4/97			X
287.31	287.54	Settlement	201		12/4/97			X
287.97	288.3	Settlement	207		12/4/97			X
288.75	288.9	Settlement	186		5/23/00			X
290.76	290.77	Settlement	57		12/4/97			X
291.2	291.4	Settlement	207		12/4/97			X
292.49	292.58	Debris Flow	135		11/3/95			X
296.83	296.96	Rockfall	201		11/3/95			X
297.05	297.16	Rockfall	117		11/3/95			X
297.42	297.47	Rockfall	69		11/3/95			X
298.69	298.75	Rockfall	141		11/3/95			X
298.9	299.14	Rockfall	81		11/3/95			X
299.37	299.46	Rockfall	213		1/23/98			X
302.38	302.5	Erosion	87		11/3/95			X
303.96	304.06	Erosion	201		11/8/95			X
307.2	307.24	Erosion	75		11/8/95			X
307.39	307.45	Rockfall	177		11/8/95			X
308.87	308.92	Debris Flow	114		11/8/95			X
311.04	311.07	Rockfall	141		11/8/95			X
311.61	311.64	Rockfall	141		11/8/95			X
311.79	311.84	Rockfall	159		11/8/95			X
312.06	312.34	Rockfall	219		5/20/02		X	
312.34	312.47	Debris Flow	249		5/20/02		X	
312.47	312.59	Rockfall	177		11/8/95			X
312.57	312.6	Erosion	105		11/8/95			X
313.16	313.23	Rockfall	177		11/8/95			X

US Highway 101
Olympic Region

Unstable Slopes MP 0 to MP 367 *(continued)*

Milepost		Problem	USMS	Rating	Rating	Status		
Begin	End	Description	Rating	> 350	Date	Mitigated	Concept	Active
313.86	313.88	Landslide	153		1/26/05			X
314.03	314.04	Landslide	150		5/30/00	X		
315.09	315.14	Rockfall	159		11/8/95			X
315.69	315.82	Rockfall						X
315.91	315.97	Erosion	183		11/9/95			X
315.98	316	Landslide	183		5/30/00			X
316.02	316.03	Erosion	213		10/13/95			X
316.51	316.55	Landslide	243		5/22/02		X	
316.7	316.73	Rockfall	135		11/8/95			X
317.06	317.2	Landslide	213		10/13/95	X		
317.23	317.37	Rockfall	159		11/8/95			X
317.67	317.69	Erosion	69		12/8/97			X
317.71	317.77	Erosion	168		11/8/95			X
317.99	318.09	Rockfall	144		11/8/95			X
318.19	318.37	Rockfall	150		11/8/95			X
319.29	319.42	Erosion	153		11/8/95			X
320.5	320.51	Erosion	201		12/10/97			X
320.61	320.65	Erosion	201		12/10/97			X
320.92	320.94	Settlement	147		1/29/02			X
321.01	321.08	Landslide	321		10/13/95	X		
322	322.03	Landslide	456	•	10/4/93	X		
322.03	322.48	Landslide	501	•	2/2/96	X		
323.54	323.72	Erosion	138		6/29/94			X
323.72	323.84	Erosion	138		6/29/94			X
323.85	324.11	Landslide	162		6/29/94			X
324.78	324.8	Erosion	57		12/12/95			X
324.94	325.32	Landslide	162		10/13/95			X
325.63	325.67	Debris Flow	231		5/20/02			Inactive
326	326.4	Landslide	210		10/13/95	X		
326.78	326.84	Landslide	351		5/20/02		X	
327.07	327.08	Settlement	123		12/8/97			X
329.21	329.24	Settlement	195		12/8/97			X
329.29	329.31	Settlement	123		12/8/97			X
330	330.55	Erosion	207		10/13/95			X
330.7	331.5	Erosion	135		10/13/95			X
331.18	331.2	Erosion	141		3/8/05			X
331.5	331.57	Landslide	426	•	10/1/93	X		
332.71	332.9	Erosion	165		10/1/93			X
337.25	338.23	Erosion	147		10/13/95			X
338.23	338.59	Settlement	315		8/11/04			Inactive
339.45	339.9	Erosion	420	•	10/1/93		X	
339.95	340.1	Settlement	123		10/13/95			X
340.05	340.19	Erosion	390	•	10/1/93		X	
340.1	340.16	Settlement	165		10/13/95			X
360.27	360.28	Erosion	39		12/14/95			X
360.57	360.7	Landslide	171		12/14/95			X
361.24	361.28	Landslide				X		
363.82	363.85	Landslide	105		7/23/02	X		