

64 Nutrient and Suspended-Sediment Transport and Trends, Columbia River and Puget Sound Basins, 1993–2003

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.

[Abbreviations: TN, total nitrogen; lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Water year 2000 (lb)		Calendar year 2002 (lb)		Catchment point-source TN load as a percentage of in-stream load
				Estimated annual instream load	Estimated annual total catchment point-source load	Estimated annual nitrogen load from fertilizer and manure	Estimated annual nitrogen load from atmospheric deposition	
Total nitrogen								
1	10729		Owyhee River at Hwy 201 Bridge (Owyhee), OR	634,000	NA	NA	NA	NA
2	MAL113		North Fork Malheur River approximately 2 miles upstream of Beulah Reservoir, OR	NA	NA	367,000	88,500	NA
3	MAL144		Malheur River at Ford south of Vale 1.1 miles upstream of Bully Creek, OR	NA	NA	13,000,000	1,150,000	NA
4	10386	X	Middle Fork Willamette River at Jasper Bridge, OR	NA	NA	934,000	541,000	NA
5	10663		Mohawk River at Hill Road, OR	NA	NA	428,000	84,100	NA
6	10376		McKenzie River at Coburg Road, OR	NA	NA	NA	NA	NA
7	10355	X	Willamette River at Hwy 99E (Harrisburg), OR	5,770,000	1,920,000	6,720,000	1,440,000	33.2
8	11140	X	Long Tom River at Stow Pit Road (Monroe), OR	1,110,000	0	6,380,000	226,000	.00
9	12657		McKenzie River at Hwy 126 downstream Clear Lake, OR	NA	NA	16,700	38,700	NA
10	10508	X	Deschutes River at Lower Bridge, OR	447,000	0	2,360,000	650,000	.00
11	10350	X	Willamette River at Albany (Eastbound Hwy 20 Bridge), OR	14,000,000	2,220,000	46,000,000	2,240,000	15.9
12	11490		Powder River at Hwy 7 (in Baker City), OR	78,000	0	1,110,000	93,400	.00
13	11478	X	John Day River at Service Creek, OR	912,000	0	5,640,000	1,490,000	.00
14	10555	X	Willamette River at Marion Street (Salem), OR	24,100,000	3,110,000	91,400,000	3,610,000	12.9
15	14200400	X	Little Abiqua Creek near Scotts Mills, OR	47,000	0	23,100	6,620	.00
16	14201300	X	Zollner Creek near Mt. Angel, OR	486,000	0	1,820,000	11,000	.00
17	10640		Pudding River at Hwy 211 (Woodburn), OR	43,000,000	123,000	23,600,000	211,000	2.87
18	13070		Clackamas River at Mciver Park. (Upper Boat Ramp), OR	NA	NA	372,000	587,000	NA
19	3701002	X	Tualatin River at Weiss Bridge, OR	6,060,000	1,780,000	20,600,000	603,000	29.3
20	3840012		Fanno Creek at Durham Road, OR	NA	NA	400,000	28,900	NA
21	14206950		Fanno Creek near Durham, OR	NA	NA	400,000	28,900	NA
22	3701715		Tualatin River at Cherry Grove, OR	NA	NA	37,400	28,400	NA
23	11321	X	Johnson Creek at SE 17th Avenue (Portland), OR	476,000	0	1,410,000	52,600	.00
24	3701333		Tualatin River at Farmington Bridge Road, OR	3,840,000	1,010,000	15,000,000	473,000	26.3
25	3701612	X	Tualatin River at Springhill Road Bridge (Dilley), OR	512,000	0	2,200,000	98,300	.00
26	11386		John Day River at Hwy 206, OR	NA	NA	NA	NA	NA
27	3805048		Scoggins Creek below Hagg Lake at Stimson Bridge, OR	68,400	0	101,000	31,200	.00
28	3701391		Tualatin River at Rood Bridge Road, OR	2,630,000	1,520,000	12,400,000	392,000	5.77
29	3701528		Tualatin River at Golf Course Road, OR	934,000	0	3,770,000	171,000	.00
30	3810015		Gales Creekk at New Hwy 47, OR	308,000	0	766,000	60,400	.00
31	10611	X	Willamette River at Hawthorne Bridge (Portland), OR	55,500,000	8,900,000	201,000,000	6,650,000	16.1
32	3820012		Rock Creek at Hwy 8, OR	NA	NA	1,850,000	68,100	NA
33	14211720	X	Willamette River at Portland, OR	58,600,000	8,900,000	201,000,000	6,650,000	15.2
34	3850006		Dawson Creekk at Brookwood, OR	14,600	0	203,000	3,330	.00
35	3824020		Bronson Creek at Bronson Park Downstream of Sunset Hwy, OR	7,350	0	78,800	3,650	.00
36	3824072		Bronson Creek at Saltzman, OR	2,750	0	54,200	1,880	.00
37	10332	X	Willamette River at SP&S Railroad Bridge, OR	57,400,000	NA	NA	NA	NA
38	14128910		Columbia River at Warrendale, OR	155,000,000	14,500,000	1,260,000,000	122,000,000	9.31
39	10411	X	Deschutes River at Deschutes River Park, OR	3,870,000	0	33,200,000	4,680,000	.00

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Catchment				
				Fertilizer and manure nitrogen load as a percentage of instream load	Atmospheric nitrogen deposition as a percentage of instream load	Point-source loads (percentage)		
						Fertilizer and manure nitrogen application	Atmospheric nitrogen deposition	Total land-applied nitrogen
Total nitrogen—Continued								
1	10729		Owyhee River at Hwy 201 Bridge (Owyhee), OR	NA	NA	NA	NA	NA
2	MAL113		North Fork Malheur River approximately 2 miles upstream of Beulah Reservoir, OR	NA	NA	NA	NA	NA
3	MAL144		Malheur River at Ford south of Vale 1.1 miles upstream of Bully Creek, OR	NA	NA	NA	NA	NA
4	10386	X	Middle Fork Willamette River at Jasper Bridge, OR	NA	NA	NA	NA	NA
5	10663		Mohawk River at Hill Road, OR	NA	NA	NA	NA	NA
6	10376		McKenzie River at Coburg Road, OR	NA	NA	NA	NA	NA
7	10355	X	Willamette River at Hwy 99E (Harrisburg), OR	116	25.0	28.5	133	23.5
8	11140	X	Long Tom River at Stow Pit Road (Monroe), OR	575	20.3	.00	.00	.00
9	12657		McKenzie R. at Hwy 126 downstream Clear Lake, OR	NA	NA	NA	NA	NA
10	10508	X	Deschutes River at Lower Bridge, OR	528	146	.00	.00	.00
11	10350	X	Willamette River at Albany (Eastbound Hwy 20 Bridge), OR	329	16.0	4.83	99.1	4.60
12	11490		Powder River at Hwy.7 (in Baker City), OR	1,423	120	.00	.00	.00
13	11478	X	John Day River at Service Creek, OR	618	163	.00	.00	.00
14	10555	X	Willamette River at Marion Street (Salem), OR	379	15.0	3.40	86.1	3.27
15	14200400	X	Little Abiqua Creek near Scotts Mills, OR	49.1	14.1	.00	.00	.00
16	14201300	X	Zollner Creek near Mt. Angel, OR	374	2.27	.00	.00	.00
17	10640		Pudding River at Hwy. 211 (Woodburn), OR	54.9	4.90	.52	58.3	.52
18	13070		Clackamas River at Mciver Park (Upper Boat Ramp), OR	NA	NA	NA	NA	NA
19	3701002	X	Tualatin River at Weiss Bridge, OR	340	9.95	8.61	295	8.36
20	3840012		Fanno Creek at Durham Road, OR	NA	NA	NA	NA	NA
21	14206950		Fanno Creek near Durham, OR	NA	NA	NA	NA	NA
22	3701715		Tualatin River at Cherry Grove, OR	NA	NA	NA	NA	NA
23	11321	X	Johnson Creek at SE 17th Avenue (Portland), OR	296	11.0	.00	.00	.00
24	3701333		Tualatin River at Farmington Bridge Road, OR	391	12.3	6.75	214	6.54
25	3701612	X	Tualatin River at Springhill Road Bridge (Dilley), OR	430	19.2	.00	.00	.00
26	11386		John Day River at Hwy 206, OR	NA	NA	NA	NA	NA
27	3805048		Scoggins Creek below Hagg Lake at Stimson Bridge, OR	148	45.6	.00	.00	.00
28	3701391		Tualatin River at Rood Bridge Road, OR	471	14.9	1.22	388	1.18
29	3701528		Tualatin River at Golf Course Road, OR	404	18.3	.00	.00	.00
30	3810015		Gales Creek at New Hwy 47, OR	249	19.6	.00	.00	.00
31	10611	X	Willamette River at Hawthorne Bridge (Portland), OR	362	12.0	4.42	134	4.28
32	3820012		Rock Creek at Hwy 8, OR	NA	NA	NA	NA	NA
33	14211720	X	Willamette River at Portland, OR	343	11.3	4.42	134	4.28
34	3850006		Dawson Creek at Brookwood, OR	1,390	22.9	.00	.00	.00
35	3824020		Bronson Creek at Bronson Park downstream of Sunset Hwy, OR	1,072	49.7	.00	.00	.00
36	3824072		Bronson Creek at Saltzman, OR	1,971	68.3	.00	.00	.00
37	10332	X	Willamette River at SP&S Railroad Bridge, OR	NA	NA	NA	NA	NA
38	14128910		Columbia River at Warrendale, OR	813	78.5	1.15	11.9	1.05
39	10411	X	Deschutes River at Deschutes River Park, OR	858	121	.00	.00	.00

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Water year 2000 (lb)		Calendar year 2002 (lb)		Catchment point-source TN load as a percentage of in-stream load
				Estimated annual instream load	Estimated annual total catchment point-source load	Estimated annual nitrogen load from fertilizer and manure	Estimated annual nitrogen load from atmospheric deposition	
Total nitrogen—Continued								
40	10616	X	Columbia River at Marker #47 (upstream of Willamette River), OR	167,000,000	NA	NA	NA	NA
41	10406		Umatilla River at Hwy 11 (Pendleton), OR	280,000	0	1,110,000	121,000	0.00
42	12012	X	Hood River at footbridge downstream of I-84, OR	NA	NA	NA	NA	NA
43	11489	X	Umatilla River at Westland Road (Hermiston), OR	1,460,000	NA	NA	NA	NA
44	14246900	X	Columbia River at Beaver Army Terminal near Quincy, OR	209,000,000	24,700,000	1,270,000,000	127,000,000	11.8
45	27D090		East Fork Lewis River near Dollar Corner, WA	675,000	0	208,000	152,000	.00
46	32A070	X	Walla Walla River near Touchet, WA	889,000	759,000	26,800,000	807,000	85.4
47	13353200		Snake River at Burbank, WA	62,700,000	5,000,000	692,000,000	50,600,000	7.98
48	37A090	X	Yakima River at Kiona, WA	7,100,000	1,740,000	62,100,000	4,420,000	24.4
49	12510500		Yakima River at Kiona, WA	7,690,000	1,740,000	62,100,000	4,420,000	22.6
50	12505450		Granger Drain at Granger, WA	299,000	0	2,930,000	39,900	.00
51	12472900	X	Columbia River at Vernita Bridge near Priest Rapids Dam, WA	52,900,000	3,500,000	165,000,000	21,100,000	6.63
52	13351000	X	Palouse River at Hooper, WA	6,790,000	239,000	39,400,000	1,740,000	3.52
53	34A070	X	Palouse River at Hooper, WA	6,690,000	239,000	39,400,000	1,740,000	3.58
54	41A070	X	Crab Creek near Beverly, WA	NA	NA	9,680,000	255,000	NA
55	12471400		Lind Coulee Wasteway at SR 17 near Warden, WA	996,000	0	18,500,000	482,000	.00
56	13A060	X	Deschutes River at E. Street Bridge, WA	633,000	0	1,040,000	76,000	.00
57	10A070	X	Puyallup River at Meridian Street, WA	2,380,000	146,000	2,580,000	760,000	6.12
58	12108500		Newaukum Creek near Black Diamond, WA	NA	NA	812,000	22,700	NA
59	12464770		Crab Creek at Rocky Ford Road near Ritzville, WA	320,000	0	5,400,000	324,000	.00
60	12061500		Skokomish River near Potlatch, WA	NA	NA	109,000	76,100	NA
61	16A070	X	Skokomish River near Potlatch, WA	234,000	0	109,000	76,100	.00
62	12112600		Big Soos Creek above hatchery near Auburn, WA	NA	NA	414,000	54,900	NA
63	09A190	X	Green River at Kanaskat, WA	387,000	0	46,700	206,000	.00
64	45A070	X	Wenatchee River at Wenatchee, WA	1,020,000	550	2,150,000	1,280,000	.05
65	12113375		Springbrook Creek at Tukwila, WA	NA	NA	105,000	16,000	NA
66	09A080	X	Green River at Tukwila, WA	1,410,000	0	2,500,000	402,000	.00
67	12113390		Duwamish River at golf course at Tukwila, WA	1,900,000	54,300	2,460,000	389,000	2.85
68	12056500		North Fork Skokomish River below Staircase Rapids near Hoodport, WA	NA	NA	14,200	32,100	NA
69	46A070		Entiat River near Entiat, WA	115,000	0	233,000	404,000	.00
70	45A110	X	Wenatchee River near Leavenworth, WA	595,000	0	157,000	664,000	.00
71	16C090	X	Duckabush River near Brinnon, WA	44,200	0	35,800	38,500	.00
72	12128000		Thorton Creek near Seattle, WA	33,900	0	97,900	9,370	.00
73	54A120	X	Spokane River at Riverside State Park, WA	7,900,000	2,590,000	15,000,000	3,570,000	32.8
74	07D050	X	Snoqualmie River near Monroe, WA	2,950,000	0	1,820,000	635,000	.00
75	07C070	X	Skykomish River at Monroe, WA	1,690,000	0	683,000	757,000	.00
76	07A090	X	Snohomish River at Snohomish, WA	6,960,000	0	4,320,000	1,650,000	.00
77	53A070	X	Columbia River at Grand Coulee, WA	40,600,000	2,690,000	30,100,000	8,260,000	6.62
78	48A070	X	Methow River near Pateros, WA	402,000	0	1,690,000	1,800,000	.00
79	49A070	X	Okanogan River at Malott, WA	1,020,000	199,000	3,710,000	1,620,000	19.5
80	48A140	X	Methow River at Twisp, WA	307,000	0	1,020,000	1,340,000	.00
81	03A060	X	Skagit River near Mount Vernon, WA	5,730,000	158,000	4,340,000	2,400,000	2.76
82	03B050		Samish River near Burlington, WA	557,000	0	507,000	86,300	0.00
83	12213140		Nooksack River at Brennan, WA	NA	NA	9,720,000	794,000	NA
84	01A050	X	Nooksack River at Brennan, WA	4,540,000	54,300	9,570,000	748,000	1.20

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Catchment				
				Fertilizer and manure nitrogen load as a percentage of instream load	Atmospheric nitrogen deposition as a percentage of instream load	Point-source loads (percentage)		
						Fertilizer and manure nitrogen application	Atmospheric nitrogen deposition	Total land-applied nitrogen
Total nitrogen—Continued								
40	10616	X	Columbia River at Marker #47 (upstream of Willamette River), OR	NA	NA	NA	NA	NA
41	10406		Umatilla River at Hwy 11 (Pendleton), OR	396	43.3	0.00	0.00	0.00
42	12012	X	Hood River at footbridge downstream of I-84, OR	NA	NA	NA	NA	NA
43	11489	X	Umatilla River at Westland Road (Hermiston), OR	NA	NA	NA	NA	NA
44	14246900	X	Columbia River at Beaver Army Terminal near Quincy, OR	608	60.4	1.94	19.4	1.76
45	27D090		East Fork Lewis River near Dollar Corner, WA	30.8	22.5	.00	.00	.00
46	32A070	X	Walla Walla River near Touchet, WA	3,015	90.7	2.83	94.1	2.75
47	13353200		Snake River at Burbank, WA	1,104	80.8	.72	9.88	.67
48	37A090	X	Yakima River at Kiona, WA	875	62.2	2.79	39.4	2.61
49	12510500		Yakima River at Kiona, WA	808	57.5	2.79	39.4	2.61
50	12505450		Granger Drain at Granger, WA	980	13.4	.00	.00	.00
51	12472900	X	Columbia River at Vernita Bridge near Priest Rapids Dam, WA	312	40.0	2.13	16.6	1.88
52	13351000	X	Palouse River at Hooper, WA	580	25.6	.61	13.7	.58
53	34A070	X	Palouse River at Hooper, WA	589	26.0	.61	13.7	.58
54	41A070	X	Crab Creek near Beverly, WA	NA	NA	NA	NA	NA
55	12471400		Lind Coulee Wasteway at SR 17 near Warden, WA	1,857	48.4	.00	.00	.00
56	13A060	X	Deschutes River at E. Street Bridge, WA	164	12.0	.00	.00	.00
57	10A070	X	Puyallup River at Meridian Street, WA	108	32.1	5.65	19.2	4.36
58	12108500		Newaukum Creek near Black Diamond, WA	NA	NA	NA	NA	NA
59	12464770		Crab Creek at Rocky Ford Road near Ritzville, WA	1,688	102	.00	.00	.00
60	12061500		Skokomish River near Potlatch, WA	NA	NA	NA	NA	NA
61	16A070	X	Skokomish River near Potlatch, WA	46.6	32.6	.00	.00	.00
62	12112600		Big Soos Creek above hatchery near Auburn, WA	NA	NA	NA	NA	NA
63	09A190	X	Green River at Kanaskat, WA	12.1	53.2	.00	.00	.00
64	45A070	X	Wenatchee River at Wenatchee, WA	211	126	.03	.04	.02
65	12113375		Springbrook Creek at Tukwila, WA	NA	NA	NA	NA	NA
66	09A080	X	Green River at Tukwila, WA	177	28.5	.00	.00	.00
67	12113390		Duwamish River at golf course at Tukwila, WA	129	20.4	2.21	14.0	1.92
68	12056500		North Fork Skokomish River below Staircase Rapids near Hoodport, WA	NA	NA	NA	NA	NA
69	46A070		Entiat River near Entiat, WA	203	351	.00	.00	.00
70	45A110	X	Wenatchee River near Leavenworth, WA	26.4	112	.00	.00	.00
71	16C090	X	Duckabush River near Brinnon, WA	81.0	87.1	.00	.00	.00
72	12128000		Thorton Creek near Seattle, WA	289	27.6	.00	.00	.00
73	54A120	X	Spokane River at Riverside State Park, WA	190	45.2	17.3	72.5	14.0
74	07D050	X	Snoqualmie River near Monroe, WA	61.7	21.5	.00	.00	.00
75	07C070	X	Skykomish River at Monroe, WA	40.4	44.9	.00	.00	.00
76	07A090	X	Snohomish River at Snohomish, WA	62.1	23.7	.00	.00	.00
77	53A070	X	Columbia River at Grand Coulee, WA	74.1	20.3	8.93	32.6	7.01
78	48A070	X	Methow River near Pateros, WA	420	448	.00	.00	.00
79	49A070	X	Okanogan River at Malott, WA	364	159	5.36	12.3	3.73
80	48A140	X	Methow River at Twisp, WA	332	436	.00	.00	.00
81	03A060	X	Skagit River near Mount Vernon, WA	75.7	41.9	3.65	6.58	2.35
82	03B050		Samish River near Burlington, WA	91.0	15.5	0.00	0.00	0.00
83	12213140		Nooksack River at Brennan, WA	NA	NA	NA	NA	NA
84	01A050	X	Nooksack River at Brennan, WA	211	16.5	.57	7.26	.53

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Water year 2000 (lb)		Calendar year 2002 (lb)		Catchment point-source TN load as a percentage of in-stream load
				Estimated annual instream load	Estimated annual total catchment point-source load	Estimated annual nitrogen load from fertilizer and manure	Estimated annual nitrogen load from atmospheric deposition	
Total nitrogen—Continued								
85	12210700		Nooksack River at North Cedarville, WA	NA	NA	1,050,000	604,000	NA
86	12400520		Columbia River at Northport, WA	27,700,000	NA	NA	NA	NA
87	61A070	X	Columbia River at Northport, WA	29,400,000	NA	NA	NA	NA
88	12212100		Fistrap Creek at Flynn Road at Lynden, WA	NA	NA	1,190,000	37,000	NA
89	13092747	X	Rock Creek above Hwy 30/93 crossing at Twin Falls, ID	501,000	0	4,030,000	151,000	.00
90	13094000		Snake River near Buhl, ID	15,500,000	1,280,000	318,000,000	20,600,000	8.30
91	13154500	X	Snake River at King Hill, ID	30,100,000	1,580,000	396,000,000	24,200,000	5.26
92	13203510		Boise River below Diversion Dam near Boise, ID	613,000	0	2,530,000	966,000	.00
93	13206000	X	Boise River at Glenwood, ID	746,000	295,000	3,300,000	985,000	39.6
94	13238322		North Fork Payette River below Fisher Creek near McCall, ID	103,000	0	11,800	36,700	.00
95	12414900		St. Maries River near Santa, ID	NA	NA	115,000	192,000	NA
96	12414500		St. Joe River at Calder, ID	NA	NA	15,100	735,000	NA
97	12413470	X	South Fork Coeur d'Alene River near Pinehurst, ID	347,000	104,000	37,900	205,000	30.0
98	12413000		North Fork Coeur d'Alene River at Enaville, ID	NA	NA	18,000	657,000	NA
99	12419000	X	Spokane River near Post Falls, ID	2,420,000	483,000	3,890,000	2,810,000	20.0
100	13010065		Snake River at Flagg Ranch, WY	413,000	0	60,700	326,000	.00

Map index No.	Site No.	Trend site	Site name	Catchment				
				Fertilizer and manure nitrogen load as a percentage of instream load	Atmospheric nitrogen deposition as a percentage of instream load	Point-source loads (percentage)		
						Fertilizer and manure nitrogen application	Atmospheric nitrogen deposition	Total land-applied nitrogen
Total nitrogen—Continued								
85	12210700		Nooksack River at North Cedarville, WA	NA	NA	NA	NA	NA
86	12400520		Columbia River at Northport, WA	NA	NA	NA	NA	NA
87	61A070	X	Columbia River at Northport, WA	NA	NA	NA	NA	NA
88	12212100		Fistrap Creek at Flynn Road at Lynden, WA	NA	NA	NA	NA	NA
89	13092747	X	Rock Creek above Hwy. 30/93 crossing at Twin Falls, ID	804	30.2	.00	.00	.00
90	13094000		Snake River near Buhl, ID	2,052	133	.40	6.21	.38
91	13154500	X	Snake River at King Hill, ID	1,316	80.3	.40	6.53	.38
92	13203510		Boise River below Diversion Dam near Boise, ID	413	158	.00	.00	.00
93	13206000	X	Boise River at Glenwood, ID	442	132	8.95	29.9	6.89
94	13238322		North Fork Payette River below Fisher Creek near McCall, ID	11.5	35.7	.00	.00	.00
95	12414900		St. Maries River near Santa, ID	NA	NA	NA	NA	NA
96	12414500		St. Joe River at Calder, ID	NA	NA	NA	NA	NA
97	12413470	X	South Fork Coeur d'Alene River near Pinehurst, ID	10.9	59.1	275	50.7	42.9
98	12413000		North Fork Coeur d'Alene River at Enaville, ID	NA	NA	NA	NA	NA
99	12419000	X	Spokane River near Post Falls, ID	161	116	12.4	17.2	7.21
100	13010065		Snake River at Flagg Ranch, WY	14.7	78.9	.00	.00	.00

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available-to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Water year 2000 (lb)		Calendar year 2002 (lb)
				Estimated annual instream load	Estimated annual total catchment point-source load	Phosphorus from fertilizer and manure
Total phosphorus						
1	10729		Owyhee River at Hwy 201 Bridge (Owyhee)	70,500	NA	NA
2	MAL113		North Fork Malheur River approximately 2 miles upstream of Beulah Reservoir	25,200	0	112,000
3	MAL144		Malheur River at Ford south of Vale 1.1 miles upstream of Bully Creek	144,000	0	2,700,000
4	10386	X	Middle Fork Willamette at Jasper Bridge	271,000	0	155,000
5	10663		Mohawk River at Hill Road	35,300	0	66,500
6	10376		McKenzie River at Coburg Road	440,000	NA	NA
7	10355	X	Willamette River at Hwy 99E (Harrisburg)	1,460,000	449,000	984,000
8	11140	X	Long Tom River at Stow Pit Road (Monroe)	124,000	0	866,000
9	12657		McKenzie R. at Hwy 126 downstream Clear Lake	38,100	0	4,300
10	10508	X	Deschutes River at Lower Bridge	187,000	0	494,000
11	10350	X	Willamette River at Albany (Eastbound Hwy 20 Bridge)	2,250,000	1,090,000	5,800,000
12	11490		Powder River at Hwy.7 (in Baker City)	12,600	0	302,000
13	11478	X	John Day River at Service Creek	224,000	0	1,600,000
14	10555	X	Willamette River at Marion Street (Salem)	3,420,000	1,330,000	11,200,000
15	14200400	X	Little Abiqua Creek near Scotts Mills, OR	1,660	0	2,790
16	14201300	X	Zollner Creek near Mt. Angel, OR	13,200	0	205,000
17	10640		Pudding River at Hwy 211 (Woodburn)	210,000	53,700	2,660,000
18	13070		Clackamas River at Mciver Park (upper boat ramp)	164,000	0	64,400
19	3701002	X	Tualatin River at Weiss Bridge	426,000	96,700	2,390,000
20	3840012		Fanno Creek at Durham Road	NA	NA	45,200
21	14206950		Fanno Creek near Durham, OR	NA	NA	45,200
22	3701715		Tualatin River at Cherry Grove	14,100	0	4,480
23	11321	X	Johnson Creek at SE 17th Ave (Portland)	17,100	0	170,000
24	3701333		Tualatin River at Farmington Bridge Road	360,000	64,100	1,720,000
25	3701612	X	Tualatin River at Springhill Road Bridge (Dilley)	46,500	0	261,000
26	11386		John Day River at Hwy 206	296,000	NA	NA
27	3805048		Scoggins Creek below Hagg Lake at Stimson Bridge	5,430	0	12,100
28	3701391		Tualatin River at Rood Bridge Road	174,000	11,300	1,440,000
29	3701528		Tualatin River at Golf Course Road	84,700	0	438,000
30	3810015		Gales Creekk at New Hwy 47	40,900	0	85,200
31	10611	X	Willamette River at Hawthorne Bridge (Portland)	6,030,000	2,510,000	24,700,000
32	3820012		Rock Creek at Hwy 8	NA	NA	209,000
33	14211720	X	Willamette River at Portland, OR	5,980,000	2,510,000	24,700,000
34	3850006		Dawson Creekk at Brookwood	1,380	0	23,400
35	3824020		Bronson Creek at Bronson Park downstream of Sunset Hwy	712	0	8,850
36	3824072		Bronson Creek at Saltzman	269	0	6,070
37	10332	X	Willamette River at SP&S Railroad Bridge	6,610,000	NA	NA
38	14128910		Columbia River at Warrendale, OR	11,100,000	2,850,000	253,000,000
39	10411	X	Deschutes River at Deschutes River Park	1,160,000	0	5,810,000
40	10616	X	Columbia River at Marker #47 (upstream of Willamette River)	16,000,000	NA	NA
41	10406		Umatilla River at Hwy 11 (Pendleton)	53,600	0	164,000

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Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Catchment		
				Point-source load as a percentage of instream load	Fertilizer and manure phosphorus load as a percentage of instream TN load	Point-source load as percentage of fertilizer and manure phosphorus application
Total phosphorus						
1	10729		Owyhee River at Hwy 201 Bridge (Owyhee)	NA	NA	NA
2	MAL113		North Fork Malheur River approximately 2 miles upstream of Beulah Reservoir	0.00	444	0.00
3	MAL144		Malheur River at Ford south of Vale 1.1 miles upstream of Bully Creek	.00	1,875	.00
4	10386	X	Middle Fork Willamette at Jasper Bridge	.00	57.2	.00
5	10663		Mohawk River at Hill Road	.00	188	.00
6	10376		McKenzie River at Coburg Road	NA	NA	NA
7	10355	X	Willamette River at Hwy 99E (Harrisburg)	30.8	67.4	45.6
8	11140	X	Long Tom River at Stow Pit Road (Monroe)	.00	698	.00
9	12657		McKenzie R. at Hwy 126 downstream Clear Lake	.00	11.3	.00
10	10508	X	Deschutes River at Lower Bridge	.00	264	.00
11	10350	X	Willamette River at Albany (Eastbound Hwy 20 Bridge)	48.4	258	18.7
12	11490		Powder River at Hwy 7 (in Baker City)	.00	2,397	.00
13	11478	X	John Day River at Service Creek	.00	714.3	.00
14	10555	X	Willamette River at Marion Street (Salem)	38.9	327	11.9
15	14200400	X	Little Abiqua Creek near Scotts Mills, OR	.00	168	.00
16	14201300	X	Zollner Creek near Mt. Angel, OR	.00	1,553	.00
17	10640		Pudding River at Hwy. 211 (Woodburn)	25.5	1,267	2.01
18	13070		Clackamas River at Mciver Park (upper boat ramp)	.00	39.3	.00
19	3701002	X	Tualatin River at Weiss Bridge	22.7	561	4.04
20	3840012		Fanno Creek at Durham Road	NA	NA	NA
21	14206950		Fanno Creek near Durham, OR	NA	NA	NA
22	3701715		Tualatin River at Cherry Grove	.00	31.8	.00
23	11321	X	Johnson Creek at SE 17th Ave (Portland)	.00	994	.00
24	3701333		Tualatin River at Farmington Bridge Road	17.8	478	3.72
25	3701612	X	Tualatin River at Springhill Road Bridge (Dilley)	.00	561	.00
26	11386		John Day River at Hwy 206	NA	NA	NA
27	3805048		Scoggins Creek below Hagg Lake at Stimson Bridge	.00	223	.00
28	3701391		Tualatin River at Rood Bridge Road	6.54	828	.79
29	3701528		Tualatin River at Golf Course Road	.00	517	.00
30	3810015		Gales Creekk at New Hwy 47	.00	208	.00
31	10611	X	Willamette River at Hawthorne Bridge (Portland)	41.7	410	10.2
32	3820012		Rock Creek at Hwy 8	NA	NA	NA
33	14211720	X	Willamette River at Portland, OR	42.1	413	10.2
34	3850006		Dawson Creekk at Brookwood	.00	1,696	.00
35	3824020		Bronson Creek at Bronson Park downstream of Sunset Hwy	.00	1,243	.00
36	3824072		Bronson Creek at Saltzman	.00	2,254	.00
37	10332	X	Willamette River at SP&S Railroad Bridge	NA	NA	NA
38	14128910		Columbia River at Warrendale, OR	25.7	2,279	1.13
39	10411	X	Deschutes River at Deschutes River Park	.00	501	.00
40	10616	X	Columbia River at Marker #47 (upstream of Willamette River)	NA	NA	NA
41	10406		Umatilla River at Hwy 11 (Pendleton)	.00	306	.00

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available-to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Water year 2000 (lb)		Calendar year 2002 (lb)
				Estimated annual instream load	Estimated annual total catchment point-source load	Phosphorus from fertilizer and manure
Total phosphorus—Continued						
42	12012	X	Hood River at footbridge downstream of I-84	NA	NA	NA
43	11489	X	Umatilla River at Westland Road (Hermiston)	139,000	NA	NA
44	14246900	X	Columbia River at Beaver Army Terminal near Quincy, OR	20,000,000	4,500,000	256,000,000
45	27D090		East Fork Lewis River near Dollar Corner	46,400	0	41,500
46	32A070	X	Walla Walla River near Touchet	182,000	48,000	3,410,000
47	13353200		Snake River at Burbank, WA	4,860,000	1,220,000	159,000,000
48	37A090	X	Yakima River at Kiona	885,000	313,000	9,750,000
49	12510500		Yakima River at Kiona, WA	963,000	313,000	9,750,000
50	12505450		Granger Drain at Granger, WA	23,800	0	458,000
51	12472900	X	Columbia River at Vernita Bridge near Priest Rapids Dam, WA	3,010,000	818,000	23,800,000
52	13351000	X	Palouse River at Hooper, WA	408,000	39,600	5,620,000
53	34A070	X	Palouse River at Hooper	311,000	39,600	5,620,000
54	41A070	X	Crab Creek near Beverly	NA	NA	1,270,000
55	12471400		Lind Coulee Wasteway at SR 17 near Warden, WA	48,300	0	2,340,000
56	13A060	X	Deschutes River at E. Street Bridge	65,300	0	212,000
57	10A070	X	Puyallup River at Meridian Street	1,006,000	34,500	437,000
58	12108500		Newaukum Creek near Black Diamond, WA	NA	NA	132,000
59	12464770		Crab Creek at Rocky Ford Road near Ritzville, WA	16,300	0	699,000
60	12061500		Skokomish River near Potlatch, WA	NA	NA	17,500
61	16A070	X	Skokomish River near Potlatch	145,000	0	17,500
62	12112600		Big Soos Creek above hatchery near Auburn, WA	NA	NA	51,400
63	09A190	X	Green River at Kanaskat	59,400	0	10,700
64	45A070	X	Wenatchee River at Wenatchee	154,000	2,870	241,000
65	12113375		Springbrook Creek at Tukwila, WA	NA	NA	12,000
66	09A080	X	Green River at Tukwila	223,000	0	375,000
67	12113390		Duwamish River at golf course at Tukwila, WA	266,000	12,800	369,000
68	12056500		North Fork Skokomish River below Staircase Rapids near Hoodport, WA	12,000	0	4,000
69	46A070		Entiat River near Entiat	27,100	0	30,400
70	45A110	X	Wenatchee River near Leavenworth	115,000	0	20,700
71	16C090	X	Duckabush River near Brinnon	17,700	0	9,540
72	12128000		Thorton Creek near Seattle, WA	2,280	0	10,900
73	54A120	X	Spokane River at Riverside State Park	685,000	675,000	2,930,000
74	07D050	X	Snoqualmie River near Monroe	287,000	0	311,000
75	07C070	X	Skykomish River at Monroe	194,000	0	143,000
76	07A090	X	Snohomish River at Snohomish	665,000	0	779,000
77	53A070	X	Columbia River at Grand Coulee	3,610,000	690,000	5,660,000
78	48A070	X	Methow River near Pateros, WA	60,600	0	450,000
79	49A070	X	Okanogan River at Malott, WA	241,000	46,800	739,000
80	48A140	X	Methow River at Twisp	56,100	0	272,000
81	03A060	X	Skagit River near Mount Vernon, WA	1,490,000	37,300	709,000
82	03B050		Samish River near Burlington	21,000	0	72,200
83	12213140		Nooksack River at Brenan, WA	NA	NA	1,590,000
84	01A050	X	Nooksack River at Brennan	1,080,000	12,800	1,560,000
85	12210700		Nooksack River at North Cedarville, WA	NA	NA	179,000
86	12400520		Columbia River at Northport, WA	1,150,000	NA	NA

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Catchment		
				Point-source load as a percentage of instream load	Fertilizer and manure phosphorus load as a percentage of instream TN load	Point-source load as percentage of fertilizer and manure phosphorus application
Total phosphorus—Continued						
42	12012	X	Hood River at footbridge downstream of I-84	NA	NA	NA
43	11489	X	Umatilla River at Westland Road (Hermiston)	NA	NA	NA
44	14246900	X	Columbia River at Beaver Army Terminal near Quincy, OR	22.5	1,280	1.76
45	27D090		East Fork Lewis River near Dollar Corner	.00	89.4	.00
46	32A070	X	Walla Walla River near Touchet	26.3	1,874	1.41
47	13353200		Snake River at Burbank, WA	25.1	3,272	.77
48	37A090	X	Yakima River at Kiona	35.3	1,102	3.21
49	12510500		Yakima River at Kiona, WA	32.5	1,012	3.21
50	12505450		Granger Drain at Granger, WA	.00	1,924	.00
51	12472900	X	Columbia River at Vernita Bridge near Priest Rapids Dam, WA	27.2	791	3.43
52	13351000	X	Palouse River at Hooper, WA	9.70	1,377	.70
53	34A070	X	Palouse River at Hooper	12.7	1,807	.70
54	41A070	X	Crab Creek near Beverly	NA	NA	NA
55	12471400		Lind Coulee Wasteway at SR 17 near Warden, WA	.00	4,845	.00
56	13A060	X	Deschutes River at E. Street Bridge	.00	325	.00
57	10A070	X	Puyallup River at Meridian Street	3.43	43.4	7.90
58	12108500		Newaukum Creek near Black Diamond, WA	NA	NA	NA
59	12464770		Crab Creek at Rocky Ford Road near Ritzville, WA	.00	4,288	.00
60	12061500		Skokomish River near Potlatch, WA	NA	NA	NA
61	16A070	X	Skokomish River near Potlatch	.00	12.1	.00
62	12112600		Big Soos Creek above hatchery near Auburn, WA	NA	NA	NA
63	09A190	X	Green River at Kanaskat	.00	18.0	.00
64	45A070	X	Wenatchee River at Wenatchee	1.87	156	1.19
65	12113375		Springbrook Creek at Tukwila, WA	NA	NA	NA
66	09A080	X	Green River at Tukwila	.00	168	.00
67	12113390		Duwamish River at golf course at Tukwila, WA	4.81	139	3.44
68	12056500		North Fork Skokomish River below Staircase Rapids near Hoodport, WA	.00	33.3	.00
69	46A070		Entiat River near Entiat	.00	112	.00
70	45A110	X	Wenatchee River near Leavenworth	.00	18.0	.00
71	16C090	X	Duckabush River near Brinnon	.00	53.9	.00
72	12128000		Thorton Creek near Seattle, WA	.00	478	.00
73	54A120	X	Spokane River at Riverside State Park	98.5	428	23.0
74	07D050	X	Snoqualmie River near Monroe	.00	108	.00
75	07C070	X	Skykomish River at Monroe	.00	73.7	.00
76	07A090	X	Snohomish River at Snohomish	.00	117	.00
77	53A070	X	Columbia River at Grand Coulee	19.1	157	12.2
78	48A070	X	Methow River near Pateros, WA	.00	743	.00
79	49A070	X	Okanogan River at Malott, WA	19.4	307	6.33
80	48A140	X	Methow River at Twisp	.00	485	.00
81	03A060	X	Skagit River near Mount Vernon, WA	2.51	47.6	5.27
82	03B050		Samish River near Burlington	.00	344	.00
83	12213140		Nooksack River at Brennan, WA	NA	NA	NA
84	01A050	X	Nooksack River at Brennan	1.19	144	.82
85	12210700		Nooksack River at North Cedarville, WA	NA	NA	NA
86	12400520		Columbia River at Northport, WA	NA	NA	NA

Table 22. Summary of sources and stream annual loads for total nitrogen and total phosphorus in the Columbia River and Puget Sound basins, water year 2000 and calendar year 2002.—Continued

[Abbreviations: lb, pound; ID, Idaho; OR, Oregon; WA, Washington; WY, Wyoming; NA, either an annual instream load was not calculated or no catchment delineation was available to base point-source and nonpoint-source loads]

Map index No.	Site No.	Trend site	Site name	Water year 2000 (lb)		Calendar year 2002 (lb)
				Estimated annual instream load	Estimated annual total catchment point-source load	Phosphorus from fertilizer and manure
Total phosphorus—Continued						
87	61A070	X	Columbia River at Northport	2,400,000	NA	NA
88	12212100		Fishtrap Creek at Flynn Road at Lynden, WA	NA	NA	19,400
89	13092747	X	Rock Creek above Hwy 30/93 crossing at Twin Falls, ID	20,200	0	967,000
90	13094000		Snake River near Buhl, ID	985,000	410,000	79,300,000
91	13154500	X	Snake River at King Hill, ID	1,360,000	534,000	97,000,000
92	13203510		Boise River below Diversion Dam near Boise, ID	45,500	0	721,000
93	13206000	X	Boise River at Glenwood, ID	168,000	57,500	868,000
94	13238322		North Fork Payette River below Fisher Creek near McCall, ID	3,700	0	2,800
95	12414900		St. Maries River near Santa, ID	32,000	0	29,000
96	12414500		St. Joe River at Calder, ID	43,500	0	3,500
97	12413470	X	South Fork Coeur d'Alene River near Pinehurst, ID	40,300	24,500	7,250
98	12413000		North Fork Coeur d'Alene River at Enaville, ID	70,800	0	4,100
99	12419000	X	Spokane River near Post Falls, ID	161,000	96,700	912,000
100	13010065		Snake River at Flagg Ranch, WY	97,400	0	13,800
Total phosphorus—Continued						
Map index No.	Site No.	Trend site	Site name	Catchment		
				Point-source load as a percentage of instream load	Fertilizer and manure phosphorus load as a percentage of instream TN load	Point-source load as percentage of fertilizer and manure phosphorus application
87	61A070	X	Columbia River at Northport	NA	NA	NA
88	12212100		Fishtrap Creek at Flynn Road at Lynden, WA	NA	NA	NA
89	13092747	X	Rock Creek above Hwy 30/93 crossing at Twin Falls, ID	0.00	4,787	0.00
90	13094000		Snake River near Buhl, ID	41.6	8,051	.52
91	13154500	X	Snake River at King Hill, ID	39.4	7,132	.55
92	13203510		Boise River below Diversion Dam near Boise, ID	.00	1,585	.00
93	13206000	X	Boise River at Glenwood, ID	34.3	517	6.63
94	13238322		North Fork Payette River below Fisher Creek near McCall, ID	.00	75.7	.00
95	12414900		St. Maries River near Santa, ID	.00	90.6	.00
96	12414500		St. Joe River at Calder, ID	.00	8.0	.00
97	12413470	X	South Fork Coeur d'Alene River near Pinehurst, ID	60.8	18.0	338
98	12413000		North Fork Coeur d'Alene River at Enaville, ID	.00	5.8	.00
99	12419000	X	Spokane River near Post Falls, ID	60.1	566	10.6
100	13010065		Snake River at Flagg Ranch, WY	.00	14.2	.00