

APPENDIX A

WASTEWATER FLOW RATE ESTIMATES (2005–2055)

Peak Flow Estimates

Year	Population			Daily Sewage Volume			Peaking Factor			Peak Hour Sewage Flows			Peak Sewage + I&I Flow		Design Peak Flow
	Comox (3.0%)	Courtenay (3.5%)	Total	Comox m ³ /day	Courtenay m ³ /day	Total m ³ /day	Comox	Courtenay	Total	Comox L/s	Courtenay L/s	Total L/s	Comox L/s	Courtenay L/s	Total L/s
2004	12,000	21,500	33,500	4,400	7,800	12,200	2.88	2.62	2.43	146	237	343	234	344	539
2005	12,360	22,253	34,613	4,500	7,800	12,300	2.86	2.61	2.42	149	235	344	237	343	540
2006	12,731	23,031	35,762	4,520	8,176	12,696	2.85	2.59	2.40	149	245	353	237	353	549
2007	13,113	23,837	36,950	4,655	8,462	13,117	2.84	2.58	2.39	153	252	363	241	360	558
2008	13,506	24,672	38,178	4,795	8,759	13,553	2.82	2.56	2.38	157	260	373	245	367	568
2009	13,911	25,535	39,446	4,938	9,065	14,003	2.81	2.55	2.36	161	267	383	249	375	578
2010	14,329	26,429	40,758	5,087	9,382	14,469	2.80	2.53	2.35	165	275	393	253	383	589
2011	14,758	27,354	42,112	5,239	9,711	14,950	2.79	2.52	2.33	169	283	404	257	391	600
2012	15,201	28,311	43,512	5,396	10,050	15,447	2.77	2.50	2.32	173	291	415	261	399	611
2013	15,657	29,302	44,959	5,558	10,402	15,960	2.76	2.49	2.31	178	299	426	265	407	622
2014	16,127	30,328	46,455	5,725	10,766	16,492	2.75	2.47	2.29	182	308	438	270	416	634
2015	16,611	31,389	48,000	5,897	11,143	17,040	2.73	2.46	2.28	187	317	450	275	425	645
2016	17,109	32,488	49,597	6,074	11,533	17,607	2.72	2.44	2.27	191	326	462	279	434	658
2017	17,622	33,625	51,247	6,256	11,937	18,193	2.71	2.43	2.25	196	336	475	284	443	670
2018	18,151	34,802	52,953	6,444	12,355	18,798	2.69	2.41	2.24	201	345	488	289	453	683
2019	18,696	36,020	54,716	6,637	12,787	19,424	2.68	2.40	2.23	206	355	501	294	463	697
2020	19,256	37,281	56,537	6,836	13,235	20,071	2.67	2.39	2.22	211	365	515	299	473	710
2021	19,834	38,586	58,420	7,041	13,698	20,739	2.66	2.37	2.20	216	376	529	304	484	724
2022	20,429	39,936	60,365	7,252	14,177	21,430	2.64	2.36	2.19	222	387	543	310	494	739
2023	21,042	41,334	62,376	7,470	14,674	22,143	2.63	2.34	2.18	227	398	558	315	505	753
2024	21,673	42,780	64,453	7,694	15,187	22,881	2.62	2.33	2.16	233	409	573	321	517	769
2025	22,324	44,278	66,602	7,925	15,719	23,644	2.60	2.31	2.15	239	421	589	327	529	784
2026	22,993	45,827	68,820	8,163	16,269	24,431	2.59	2.30	2.14	245	433	605	333	541	800
2027	23,683	47,431	71,114	8,407	16,838	25,245	2.58	2.29	2.13	251	445	621	339	553	817
2028	24,394	49,092	73,486	8,660	17,428	26,088	2.57	2.27	2.11	257	458	638	345	566	834
2029	25,125	50,810	75,935	8,919	18,038	26,957	2.55	2.26	2.10	264	471	656	352	579	851
2030	25,879	52,588	78,467	9,187	18,669	27,856	2.54	2.24	2.09	270	485	673	358	593	869
2031	26,655	54,429	81,084	9,463	19,322	28,785	2.53	2.23	2.08	277	499	692	365	606	887
2032	27,455	56,334	83,789	9,747	19,999	29,745	2.52	2.22	2.06	284	513	711	372	621	906
2033	28,279	58,305	86,584	10,039	20,698	30,737	2.50	2.20	2.05	291	528	730	379	635	926
2034	29,127	60,346	89,473	10,340	21,423	31,763	2.49	2.19	2.04	298	543	750	386	651	946
2035	30,001	62,458	92,459	10,650	22,173	32,823	2.48	2.18	2.03	305	558	771	393	666	966
2036	30,901	64,644	95,545	10,970	22,949	33,918	2.46	2.16	2.02	313	574	792	401	682	987
2037	31,828	66,907	98,735	11,299	23,752	35,051	2.45	2.15	2.00	321	591	813	409	699	1,009
2038	32,783	69,248	102,031	11,638	24,583	36,221	2.44	2.14	1.99	329	608	835	417	715	1,031
2039	33,766	71,672	105,438	11,987	25,444	37,430	2.43	2.12	1.98	337	625	858	425	733	1,054
2040	34,779	74,181	108,960	12,347	26,334	38,681	2.41	2.11	1.97	345	643	882	433	751	1,077
2041	35,823	76,777	112,600	12,717	27,256	39,973	2.40	2.10	1.96	354	662	906	442	769	1,102
2042	36,897	79,464	116,361	13,098	28,210	41,308	2.39	2.08	1.95	362	680	931	450	788	1,126
2043	38,004	82,245	120,249	13,491	29,197	42,688	2.38	2.07	1.94	371	700	956	459	808	1,152
2044	39,144	85,124	124,268	13,896	30,219	44,115	2.36	2.06	1.92	380	720	983	468	828	1,178
2045	40,319	88,103	128,422	14,313	31,277	45,590	2.35	2.05	1.91	390	741	1,009	478	848	1,205
2046	41,528	91,187	132,715	14,742	32,371	47,114	2.34	2.03	1.90	399	762	1,037	487	869	1,233
2047	42,774	94,379	137,153	15,185	33,505	48,689	2.33	2.02	1.89	409	784	1,066	497	891	1,261
2048	44,057	97,682	141,739	15,640	34,677	50,317	2.32	2.01	1.88	419	806	1,095	507	914	1,291
2049	45,379	101,101	146,480	16,110	35,891	52,000	2.30	2.00	1.87	430	829	1,125	518	937	1,321
2050	46,741	104,639	151,380	16,593	37,147	53,740	2.29	1.98	1.86	440	853	1,156	528	961	1,352
2051	48,143	108,302	156,445	17,091	38,447	55,538	2.28	1.97	1.85	451	877	1,188	539	985	1,384
2052	49,587	112,092	161,679	17,603	39,793	57,396	2.27	1.96	1.84	462	903	1,221	550	1,010	1,416
2053	51,075	116,015	167,090	18,132	41,185	59,317	2.26	1.95	1.83	473	928	1,254	561	1,036	1,450
2054	52,607	120,076	172,683	18,675	42,627	61,302	2.24	1.94	1.82	485	955	1,289	573	1,063	1,485
2055	54,185	124,279	178,464	19,236	44,119	63,355	2.23	1.92	1.81	497	983	1,325	585	1,090	1,520