

Phase 1 WWTP Improvements (through planning year 2030)

	ERUs	Max Month Flow		Max Month BOD	
		kgal/day	%	lbs/day	%
Bev industry - High Strength	n/a	0	0%	672	34%
Bev industry - Domestic Strength	161	20	3%	163	8%
Residential	700	85	13%	402	20%
Skamania Lodge	485	59	9%	277	14%
Commercial	191	23	4%	109	5%
Infiltration & Inflow	n/a	362	55%	0	0%
Reserve Capacity	n/a	108	16%	377	19%
Total		657	100%	2,000	100%

current estimated is 116 [sampling avg] or 136 [ERU escalation with Backwoods]
current estimated is 116 [sampling avg] or 136 [ERU escalation with Backwoods]

CAPITAL COSTS FOR WWTP IMPROVEMENTS													
ALT 1B: 20% PRETREATMENT		Flow		BOD		Bev Industry		Residential	Skamania Lodge	Commercial	Infiltration & Inflow	Reserve Capacity	Total
		Flow	BOD	Bev Industry High Strength	Bev Industry Domestic Strength								
CITY WWTP - PHASE 1													
headworks	\$ 1,753	\$ 1,753	\$ -	\$ -	\$ 53	\$ 227	\$ 157	\$ 61	\$ 966	\$ 288	\$ 1,753		
secondary treatment	\$ 4,777	\$ 1,194	\$ 3,583	\$ 1,204	\$ 328	\$ 875	\$ 603	\$ 237	\$ 658	\$ 872	\$ 4,777		
disinfection	\$ 946	\$ 946	\$ -	\$ -	\$ 29	\$ 122	\$ 85	\$ 33	\$ 521	\$ 156	\$ 946		
solids handling	\$ 1,129	\$ -	\$ 1,129	\$ 379	\$ 92	\$ 227	\$ 156	\$ 62	\$ -	\$ 213	\$ 1,129		
SUBTOTAL	\$ 8,605	\$ 3,893	\$ 4,712	\$ 1,583	\$ 503	\$ 1,451	\$ 1,002	\$ 393	\$ 2,145	\$ 1,528	\$ 8,605		
support facilities	\$ 3,578	\$ 1,619	\$ 1,959	\$ 658	\$ 209	\$ 603	\$ 417	\$ 163	\$ 892	\$ 635	\$ 3,578		
SUBTOTAL CITY PHASE 1	\$ 12,183	\$ 5,512	\$ 6,671	\$ 2,241	\$ 711	\$ 2,054	\$ 1,419	\$ 557	\$ 3,037	\$ 2,164	\$ 12,183		
CITY WWTP PHASE 2													
secondary treatment	\$ 1,086	\$ -	\$ 1,086	\$ 365	\$ 89	\$ 218	\$ 150	\$ 59	\$ -	\$ 205	\$ 1,086		
solids handling	\$ 1,724	\$ -	\$ 1,724	\$ 579	\$ 141	\$ 347	\$ 239	\$ 94	\$ -	\$ 325	\$ 1,724		
SUBTOTAL CITY PHASE 2	\$ 2,810	\$ -	\$ 2,810	\$ 944	\$ 229	\$ 565	\$ 389	\$ 153	\$ -	\$ 530	\$ 2,810		

ANNUAL O&M COSTS FOR WWTP IMPROVEMENTS													
ALT 1B: 20% PRETREATMENT		Flow		BOD		Bev Industry		Residential	Skamania Lodge	Commercial	Infiltration & Inflow	Reserve Capacity	Total
		Flow	BOD	Bev Industry High Strength	Bev Industry Domestic Strength								
CITY WWTP - PHASE 1													
headworks	\$ 34	\$ 34	\$ -	\$ -	\$ 1	\$ 4	\$ 3	\$ 1	\$ 19	\$ 6	\$ 34		
secondary treatment	\$ 143	\$ 36	\$ 107	\$ 36	\$ 10	\$ 26	\$ 18	\$ 7	\$ 20	\$ 26	\$ 143		
disinfection	\$ 28	\$ 28	\$ -	\$ -	\$ 1	\$ 4	\$ 3	\$ 1	\$ 16	\$ 5	\$ 28		
solids handling	\$ 35	\$ -	\$ 35	\$ 12	\$ 3	\$ 7	\$ 5	\$ 2	\$ -	\$ 7	\$ 35		
SUBTOTAL	\$ 241	\$ 98	\$ 142	\$ 48	\$ 15	\$ 41	\$ 29	\$ 11	\$ 54	\$ 43	\$ 241		
support facilities	\$ 43	\$ 18	\$ 25	\$ 9	\$ 3	\$ 7	\$ 5	\$ 2	\$ 10	\$ 8	\$ 43		
SUBTOTAL CITY PHASE 1	\$ 284	\$ 116	\$ 168	\$ 56	\$ 17	\$ 49	\$ 34	\$ 13	\$ 64	\$ 51	\$ 284		
CITY WWTP PHASE 2													
secondary treatment	\$ 37	\$ -	\$ 37	\$ 13	\$ 3	\$ 8	\$ 5	\$ 2	\$ -	\$ 7	\$ 37		
solids handling	\$ 33	\$ -	\$ 33	\$ 11	\$ 3	\$ 7	\$ 5	\$ 2	\$ -	\$ 6	\$ 33		
SUBTOTAL CITY PHASE 2	\$ 70	\$ -	\$ 70	\$ 24	\$ 6	\$ 14	\$ 10	\$ 4	\$ -	\$ 13	\$ 70		

Notes:

1. All costs are in thousands of dollars.
2. Phase 2 costs included for comparison only. Rate estimates are expected to include only Phase 1 improvements.
3. Cost breakdowns do not consider prior contributions, such as Skamania Lodge's partial funding of the prior WWTP upgrade.