

Design / Plant	Statup	Design	Data*		Year	Year	Year	
Component	1991	2010	2006		2017	2025	2040	
Flow, mgd								
Average Annual	3.9	5.4	3.8	4.13	4.5	5.0	5.5	
Maximum Month	5.4	7.4	5.93	5.65	5.7	6.3	7.1	
Peak Day	9.8	13.6	13.0	12.75	13.6	15.0	16.7	
Nitrification								
Xb, mg/L Biomass								
@ design avg flow	3155	3274	3171	0	3242	3283	4313	
@ design max month flow	3575	3706	3593	0	3641	3685	4572	
@ peak flow	2609	2751	2723	0	2794	2839	3416	
Flowrate to anoxic tank, mgd								
@ design avg flow	24	33	24	26	28	31	34	
@ design max month flow	33	45	36	35	35	39	43	
@ peak flow	59	79	76	75	80	88	97	
Nox feed lb/d								
@ design avg flow	812	1110	791	857	934	1030	1141	
@ design max month flow	1110	1498	1214	1159	1175	1295	1433	
@ peak flow	1953	2652	2543	2498	2655	2924	3228	
Anoxic Size, gal								
@ design avg flow	325,000	450,000	316,667	343,857	375,097	414,289	460,000	
@ design max month flow	450,000	616,667	494,167	470,833	479,064	529,119	587,500	
@ peak flow	816,667	1,133,333	1,083,333	1,062,500	1,134,804	1,253,375	1,391,667	
F/Mb, lb/lb*d								
@ design avg flow	0.46	0.47	0.46	#DIV/0!	0.47	0.48	0.70	
@ design max month flow	0.52	0.55	0.53	#DIV/0!	0.53	0.54	0.79	
@ peak flow	0.39	0.41	0.41	#DIV/0!	0.41	0.42	0.50	
NO_reduced, lb/d (capacity)								
@ design avg flow	905	1,300	886	0	1,073	1,200	1,750	
@ design max month flow	1,419	2,016	1,567	0	1,539	1,720	2,370	
@ peak flow	1,880	2,751	2,602	0	2,798	3,140	4,195	
							195,833	
	(3)	195,833	gal anoxic tanks for 2040 design					

Typical Values	Primary	flow %
TSSo=	230 mg/L	rectangular 0.79813813
BODo=	0 mg/L	circular 0.25186187
Ks=	60 mg/L BOD	
kd=	0.088 d^-1	
μm=	3.5 d^-1	
NO3-N=	4 mg/L	
SDNR=	0.11	
HRT_anox=	2 hrs	
Y=	0.6 mg VSS/ mg BOD	
k=	5 mg BOD/ mgVSS*d	
So=	mg/L BOD	USE →
Xe_pri=	mg/L TSS	USE →
Xo,i=	25 mg/L nbVSS	
fd=	0.15 mg/L	
TKN=	38 mg/L	Assuming
Ne=	1 mg/L NH4-N	Assuming
DO=	2 mg/L	MIN
Ks=	60 mg/L BOD	
kd=	0.1 d^-1	
Y=	0.6 mg VSS/ mg BOD	
Kn=	0.49 mg/L	
ko=	0.5 mg/L	
kdn=	0.058 g VSS/ gVSS*d	
μ_mn=	0.44 day^-1	
FS=	1.5	
Yn=	0.12 g VSS/gNH4-N	
Xo,i=	25 mg/L nbVSS	
sBODe=	3 mg/L	
MLSS=	3500 mg/L	

120	129	121	0	124	127	130	250
156	169	157	0	158	162	166	300
86	94	92	0	94	96	99	141
88	93	#REF!	88		89	92	94
95	103	#REF!	96		96	99	102
112	123	#REF!	121		123	127	131
Nox_ITERATION							
28.9	28.6	29.0	28.9		28.9	28.8	28.8
28.6	28.3	28.5	28.6		28.5	28.5	28.4
27.9	27.4	27.5	27.5		27.4	27.3	27.2
Internal Recycle Ratio, IR							
5	5	5	5		5	5	5
5	5	5	5		5	5	5
5	5	5	5		5	5	5

Complete -Mix Activation Sludge Process Design for BOD Removal with Nitrification (Metcalf & Eddy Ch. 8 Sections 4,5)								
Px,bio, lb VSS/day								
@ design avg flow	2262	3282	2219	884		2701	3032	5384
@ design max month flow	3713	5384	4110	1210		4067	4578	7949
@ peak flow	4651	6787	6423	2732		6903	7749	10746
Nox, mg/L								
@ design avg flow	28.6	28.2	28.6	33.9		28.4	28.2	23.0
@ design max month flow	27.1	26.5	27.0	33.9		26.8	26.6	20.8
@ peak flow	30.2	29.8	29.9	33.9		29.7	29.6	27.7
Px,VSS, lb/d								
@ design avg flow	3076	4408	3011	1744		3639	4069	6535
@ design max month flow	4839	6927	5346	2388		5265	5902	9419
@ peak flow	6694	9623	9134	5390		9742	10885	14228
Px,TSS, lb/d								
@ design avg flow	3475	4987	3403	1900		4116	4604	7485
@ design max month flow	5495	7877	6071	2602		5983	6710	10822
@ peak flow	7515	10820	10267	5872		10961	12253	16125
MLVSS, lb								
@ design avg flow	26215	37574	25665	14868		31021	34682	55700
@ design max month flow	41249	59041	45568	20359		44879	50305	80286
@ peak flow	57057	82021	77851	45942		83042	92781	121277
MLSS, lb								
@ design avg flow	29618	42511	29002	16198		35084	39243	63798
@ design max month flow	46835	67139	51749	22179		50996	57191	92243
@ peak flow	64052	92230	87513	50051		93425	104437	137441
Tank Size, gal needed								
@ design avg flow	1015465	1457506	994353	555360		1202863	1345484	2187371
@ design max month flow	1605779	2301898	1774254	760437		1748417	1960833	3162611
@ peak flow	2196077	3162187	3000434	1716031		3203151	3580712	4712263

S= 4.4 mg/L BOD
 μ_N= 0.18
 SRT= 5.68
 SRT_{FS}= 8.5
 pH= 6 to 8
 Res Alk = 75 mg/L
 X_r= 7500 mg/L Assuming
 R= 0.88
 T= 12 °C
 0.2

(3) ~670,000 gal aeration tanks for Nitrification								
F/M								
@ design avg flow	0.15	0.15	0.15	0.00		0.15	0.16	0.20
@ design max month flow	0.17	0.17	0.17	0.00		0.17	0.17	0.22
@ peak flow	0.12	0.13	0.13	0.00		0.13	0.13	0.16
Y_obs, g TSS/g BOD								
@ design avg flow	0.92	0.89	0.92	-12.56		0.90	0.88	0.66
@ design max month flow	0.81	0.78	0.80	-12.56		0.79	0.78	0.62
@ peak flow	1.13	1.07	1.08	-12.56		1.05	1.03	0.85
Y_obs, g VSS/g BOD								
@ design avg flow	0.82	0.79	0.81	-11.12		0.79	0.78	0.59
@ design max month flow	0.72	0.69	0.71	-11.12		0.70	0.69	0.55
@ peak flow	1.00	0.95	0.96	-11.12		0.93	0.92	0.75
O2 demand, lb/hr								
@ design avg flow	191	269	186	152		223	248	343
@ design max month flow	284	398	313	208		306	341	473
@ peak flow	445	629	599	469		633	704	853
SOTR								
@ design avg flow	13325	18798	13017	10596		15588	17331	23923
@ design max month flow	19799	27816	21815	14509		21340	23770	33043
@ peak flow	31085	43911	41824	32741		44217	49126	59517
SCFM Available								
@ design avg flow	1773	2501	1732	1410		2074	2306	3183
@ design max month flow	2634	3700	2902	1930		2839	3162	4396
@ peak flow	4135	5842	5564	4356		5882	6536	7918
Alkalinity Used mg/L								
@ design avg flow	205	202	204	242		202	201	164
@ design max month flow	193	189	193	242		191	190	148
@ peak flow	215	213	213	242		212	211	198
Alkalinity Needed lb/day CaCO3								
@ design avg flow	6647	9076	6465	8327		7595	8347	7539
@ design max month flow	8706	11678	9534	11401		9172	10056	8710
@ peak flow	17590	24125	23116	25729		24065	26472	27558
	-36.17	-37.53	-36.36	0.00		-37.17	-37.64	-49.45
	-40.98	-42.47	-41.19	0.00		-41.73	-42.24	-52.40
	-29.89	-31.50	-31.18	0.00		-32.00	-32.51	-39.12
Sludge produced, lb/d VSS								
@ design avg flow	3076	4408	3011	1744		3639	4069	6535
@ design max month flow	4839	6927	5346	2388		5265	5902	9419
@ peak flow	6694	9623	9134	5390		9742	10885	14228
Sludge produced, lb/d TSS								
@ design avg flow	3475	4987	3403	1900		4116	4604	7485
@ design max month flow	5495	7877	6071	2602		5983	6710	10822
@ peak flow	7515	10820	10267	5872		10961	12253	16125

VSS/TSS	0.89
MLVSS	3097.858587

AOTR/SOTR= 0.34
0.31

Blowers cannot provide this much air with 2 on and 1 standby

**WWTP
Effluent
Avg.
Monthly
Flow**

Year	MGD	Influent						Effluent			
		BOD ₅ (mg/L)	BOD ₅ (lb/d)	CBOD ₅ (mg/L)	CBOD ₅ (lb/d)	TSS (mg/L)	TSS (lb/d)	CBOD ₅ (mg/L)	CBOD ₅ (lb/d)	TSS (mg/L)	TSS (lb/d)
Jan-98	5.26	159	6,975	142	6,229	136	5,966	8	351	14	614
Feb-98	3.94	183	6,013	165	5,422	165	5,422	5	164	7	230
Mar-98	3.8	219	6,941	185	5,863	169	5,356	6	190	10	317
Apr-98	3.54	250	7,381	211	6,229	192	5,669	10	295	25	738
May-98	3.41	285	8,105	215	6,114	250	7,110	8	228	18	512
Jun-98	3.32	241	6,673	205	5,676	218	6,036	8	222	14	388
Jul-98	3.26	233	6,335	205	5,574	216	5,873	7	190	12	326
Aug-98	3.22	235	6,311	191	5,129	225	6,042	7	188	13	349
Sep-98	3.18	250	6,630	209	5,543	229	6,073	11	292	16	424
Oct-98	3.39	236	6,672	195	5,513	217	6,135	10	283	16	452
Nov-98	4.52	214	8,067	188	7,087	198	7,464	12	452	13	490
Dec-98	5.24	185	8,085	166	7,254	158	6,905	10	437	13	568
Jan-99	4.9	173	7,070	161	6,579	160	6,539	13	531	17	695
Feb-99	5.93	146	7,221	136	6,726	129	6,380	13	643	19	940
Mar-99	4.45	177	6,569	158	5,864	165	6,124	10	371	14	520
Apr-99	3.78	213	6,715	176	5,548	189	5,958	11	347	12	378
May-99	3.52	218	6,400	183	5,372	214	6,282	9	264	8	235
Jun-99	3.49	211	6,141	168	4,890	227	6,607	8	233	9	262
Jul-99	3.42	225	6,418	186	5,305	225	6,418	13	371	21	599
Aug-99	3.32	247	6,839	224	6,202	225	6,230	7	194	10	277
Sep-99	3.27	272	7,418	229	6,245	230	6,273	8	218	13	355
Oct-99	3.45	270	7,769	236	6,790	252	7,251	10	288	15	432
Nov-99	4.73	231	9,113	199	7,850	187	7,377	13	513	18	710
Dec-99	4.4	213	7,816	182	6,679	175	6,422	10	367	19	697
Jan-00	4.18	215	7,495	195	6,798	175	6,101	10	349	18	628
Feb-00	3.87	214	6,907	209	6,746	179	5,777	11	355	15	484
Mar-00	4.01	199	6,655	191	6,388	180	6,020	13	435	15	502
Apr-00	3.55	225	6,662	191	5,655	198	5,862	13	385	18	533
May-00	3.38	247	6,963	215	6,061	216	6,089	14	395	16	451
Jun-00	3.39	256	7,238	213	6,022	229	6,474	11	311	14	396
Jul-00	3.24	257	6,945	222	5,999	225	6,080	7	189	10	270
Aug-00	3.31	269	7,426	248	6,846	232	6,404	8	221	11	304
Sep-00	3.26	260	7,069	238	6,471	231	6,281	9	245	14	381
Oct-00	3.28	248	6,784	227	6,210	216	5,909	9	246	12	328
Nov-00	3.26	250	6,797	227	6,172	195	5,302	10	272	15	408
Dec-00	3.3	253	6,963	231	6,358	206	5,670	21	578	21	578
1-Jan	3.32	233	6,451	217	6,008	194	5,372	15	415	18	498
1-Feb	3.27	226	6,163	213	5,809	187	5,100	13	355	16	436
1-Mar	3.23	233	6,277	217	5,846	199	5,361	14	377	17	458
1-Apr	3.32	235	6,507	221	6,119	202	5,593	12	332	14	388
1-May	3.14	258	6,756	247	6,468	229	5,997	13	340	16	419
1-Jun	3.32	231	6,396	224	6,202	225	6,230	9	249	14	388
1-Jul	3.24	243	6,566	217	5,864	224	6,053	8	216	12	324
1-Aug	3.2	241	6,432	220	5,871	218	5,818	10	267	15	400
1-Sep	2.98	253	6,288	222	5,517	222	5,517	15	373	19	472
1-Oct	3.08	259	6,653	240	6,165	225	5,780	15	385	21	539
1-Nov	4.22	218	7,672	196	6,898	199	7,004	9	317	15	528
1-Dec	5.04	159	6,683	161	6,767	151	6,347	10	420	15	631
2-Jan	4.4	196	7,192	177	6,495	169	6,202	11	404	18	661
2-Feb	5.19	182	7,878	153	6,623	168	7,272	14	606	15	649
2-Mar		192		170		186		10		14	
2-Apr		211		161		203		8		15	
2-May		232		163		235		8		15	
2-Jun		255		225		239		11		18	
2-Jul		263		252		254		12		16	
2-Aug		265		253		250		12		17	
2-Sep		270		250		249		11		16	
2-Oct	3.59	280	8,383	251	7,515	245	7,335	13	389	19	569
2-Nov	3.67	276	8,448	256	7,836	235	7,193	12	367	18	551
2-Dec	3.99	277	9,218	250	8,319	231	7,687	12	399	18	599
3-Jan	4.67	207	8,062	203	7,906	178	6,933	15	584	20	779
3-Feb	4.19	228	7,967	220	7,688	194	6,779	12	419	18	629
3-Mar	4.81	226	9,066	215	8,625	184	7,381	8	321	12	481
3-Apr	4.2	246	8,617	232	8,126	213	7,461	12	420	17	595
3-May	3.81	268	8,516	251	7,976	233	7,404	10	318	16	508
3-Jun	3.65	272	8,280	249	7,580	259	7,884	12	365	18	548
3-Jul	3.61	276	8,310	259	7,798	262	7,888	9	271	13	391

MAX MONTH

**WWTP
Effluent
Avg.
Monthly
Flow**

Year	MGD	Influent						Effluent			
		BOD ₅ (mg/L)	BOD ₅ (lb/d)	CBOD ₅ (mg/L)	CBOD ₅ (lb/d)	TSS (mg/L)	TSS (lb/d)	CBOD ₅ (mg/L)	CBOD ₅ (lb/d)	TSS (mg/L)	TSS (lb/d)
3-Aug	3.66	253	7,723	239	7,295	254	7,753	9	275	14	427
3-Sep	3.7	294	9,096	260	8,569	259	8,071	10	309	13	401
3-Oct	4.2	273	9,207	268	8,933	237	7,919	11	385	17	595
3-Nov	4.77	261	9,350	239	9,227	208	8,075	7	278	14	557
3-Dec	4.69	223	8,735	222	8,695	189	7,355	9	367	15	584
AVG	3.83	235	7330	210	6618	209	6471	11	341	15	489
MAX	5.93	294	9350	268	9227	262	8075	21	643	25	940
MIN	2.98	146	6013	136	4890	129	5100	5	164	7	230
STDEV	0.67	32	918	32	1016	31	785	3	106	3	142
STDEV, %	17%	14%	13%	15%	15%	15%	12%	25%	31%	21%	29%
Range	4.50	267	8248	242	7634	240	7256	13	447	19	631
	3.16	202	6413	178	5601	178	5687	8	234	12	347

City of Lynnwood

Wastewater Treatment Plant Discharge Monitoring Report Summary

Date	Max Flow	Min Flow	Avg Flow	Max Ph	Min Ph	Avg Ph	Max BOD5		Min BOD5		Avg BOD5		Max CBOD5		Min CBOD5		Avg CBOD5		Max SS		Min SS		Avg SS	
	mgd	mgd	mgd	d	d	d	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.	mg/L	lbs.
Apr-08	6.5	3.88	4.43	7.6	7.3	7.4	265	9433	170	6763	215	8090	234	8999	160	6123	202	7590	291	8791	207	6370	251	8052
May-08	4.18	3.16	3.75	7.6	7.1	7.3	300	9196	185	5693	252	8105	281	8825	176	5416	242	7755	8825	8791	207	6370	251	8052
Jun-08	7.55	3.38	4.04	7.5	7.1	7.3	376	11460	182	7334	260	8770	341	10767	171	6802	242	8160	266	13412	195	6944	243	8335
Jul-08	3.99	3.3	3.61	7.5	6.8	7.3	412	11854	181	5422	247	7467	286	8802	178	5064	230	6958	370	12312	222	6795	276	8366
Aug-08	4.64	3.51	3.83	7.5	7	7.3	308	10177	211	6388	274	8849	285	9752	188	5692	245	7918	327	11493	248	7765	284	9190
Sep-08	4.28	3.22	3.71	7.5	7.3	7.4	289	9388	217	6526	255	7900	269	8682	192	5797	230	7143	300	9352	243	7610	269	8379
Oct-08	4.37	3.04	3.74	7.6	7.3	7.4	318	10423	184	6046	258	8038	280	8929	175	5350	234	7302	317	10463	222	6313	261	8156
Nov-08	5.78	3.18	4.08	7.6	7	7.4	287	10891	165	6322	219	7372	264	10018	160	5954	205	6928	277	10123	195	6224	227	7684
Dec-08	6.4	3.44	4.38	7.5	7.2	7.3	338	11558	139	5755	223	7972	256	8754	139	5353	207	7391	286	9541	124	6254	214	7564
Jan-09	7.56	3.43	4.78	7.5	6.7	7.2	261	9491	128	6573	200	7733	255	10187	121	6071	192	7443	251	11917	127	6280	192	7500
Feb-09	4.02	3.22	3.73	7.6	7.2	7.4	467	14216	183	5708	255	8007	333	10137	170	5303	238	7479	431	13120	192	6245	246	7741
Mar-09	6.08	3.49	4.3	7.6	7.2	7.3	265	9061	143	5403	213	7593	250	8111	147	5554	204	7285	255	8498	139	5894	201	7184
Apr-09	8.58	3.53	4.42	7.6	7	7.3	254	8601	94	6285	206	7259	246	8184	100	4760	197	6931	270	8839	122	6418	214	7555
May-09	4.72	3.41	3.91	7.5	7.1	7.3	297	10220	202	6722	255	8443	278	8729	168	5517	222	7349	304	9964	212	6854	249	8260
Jun-09	4.1	3.23	3.65	7.5	6.9	7.2	404	12096	232	7113	288	8799	337	10090	202	5913	251	7655	370	10779	234	6915	270	8225
Jul-09	3.68	2.96	3.38	7.4	6.9	7.2	390	11319	257	7255	299	8580	306	9392	217	6334	268	7676	388	11908	240	6805	280	8024
Aug-09	3.67	3.09	3.38	7.4	6.9	7.2	348	9578	219	6100	275	7809	344	9468	164	4473	256	7266	359	10509	233	6141	275	7803
Sep-09	3.84	3	3.4	7.4	7.1	7.3	414	12119	184	5954	275	8022	384	11214	172	5467	253	7388	448	13114	214	5954	261	7560
Oct-09	5.07	2.9	3.64	7.5	7.2	7.3	384	10056	190	5451	256	7623	339	8878	168	4935	229	6809	372	11138	184	5678	260	7757
Nov-09	9.17	3.39	5.3	7.4	7.2	7.3	294	10019	76	5096	183	7596	244	9483	73	4895	165	6879	261	10325	69	4627	175	7271
Dec-09	5.29	3.42	4.22	7.5	7.2	7.3	270	8871	125	4848	216	7634	255	8792	106	4111	204	7198	247	8338	101	3917	188	6635
Jan-10	7.94	4.08	5.3	7.5	7.2	7.3	293	11290	115	5043	182	7980	263	10134	108	4571	167	7314	216	9078	93	3918	158	6952
Feb-10	5.05	3.91	4.31	7.5	7.2	7.4	264	9007	176	6400	214	7587	241	8503	163	5835	202	7157	238	8050	169	6289	200	7091
Mar-10	5.32	3.65	4.19	7.4	7	7.2	285	9959	192	6301	235	8147	271	9086	152	5084	214	7429	340	12590	162	5553	223	7712
Apr-10	4.9	3.58	4.14	7.3	6.9	7.2	338	11783	206	7628	260	8976	323	11086	162	5999	238	8197	285	9281	196	6996	228	7852
May-10	4.4	3.19	3.77	7.3	6.9	7.1	367	11478	240	7090	284	8881	338	10571	185	5323	253	7899	294	8852	201	6388	241	7501
Jun-10	4.51	3.56	3.94	7.4	6.9	7.2	303	9173	175	6305	242	7851	274	8432	128	4409	202	6519	260	9591	187	6213	226	7383
Aug-10	3.75	3.1	3.44	7.4	7.2	7.3	320	9901	213	5911	270	7758	286	8849	159	4177	216	6214	316	9468	183	5220	258	7414
Sep-10	4.07	3.34	3.61	7.4	7.2	7.3	307	9653	181	5298	245	7409	279	7981	158	4742	216	6522	289	8718	211	6177	244	7375
Oct-10	5.26	3.29	3.68	7.6	7.2	7.3	315	10967	196	5885	251	7735	274	10660	160	4804	222	6860	284	9739	184	5279	235	7235
Nov-10	4.74	3.53	3.97	7.6	7.2	7.4	284	9196	202	6244	236	7816	262	8544	176	5509	208	6885	355	12177	192	5989	228	7562
Dec-10	12.75	3.73	5.37	7.6	7.2	7.3	252	14993	120	6153	189	8180	247	14674	114	5097	172	7502	230	12122	114	5240	170	7336
Jan-11	7.01	3.78	5.07	7.4	7.2	7.3	237	9553	144	5567	190	7810	214	8935	130	5344	177	7293	227	9120	102	5572	172	7034
Feb-11	6.57	3.8	4.3	7.5	7.1	7.3	279	10029	150	5855	210	7582	255	9479	154	5879	199	7176	230	9699	164	6414	198	7144
Mar-11	12.01	3.96	5.65	7.6	7	7.3	244	10958	46	2586	173	7573	236	10707	38	2136	161	7059	229	10373	78	6489	172	7559
Average			4.13								237	7970					216	7272					230	7670
MAX	12.75		5.65				467	14993			299	8976	384	14674			268	8197	8825	13412			284	9190
MIN		2.9	3.38						46	2586	173	7259			38	2136	161	6214			69	3917	158	6635
STDEV			0.61								33	464					28	442					36	508
STDEV, %			15%								14%	6%					13%	6%					16%	7%
Range			3.52								204	7506					188	6830					194	7162
			4.73								271	8433					244	7714					265	8178

*July 2010 data not considered

Jul-10	4.01	2.78	3.56	7.4	7	7.3	2787	80655	214	6372	378	11240	273	8265	184	5325	228	6879	312	9602	203	5762	238	7173
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**City of Lynnwood
Wastewater Treatment Plant Influent Monitoring Summary**

Date	Flow	BOD		TSS	
	mgd	mg/L	lbs.	mg/L	lbs.
Apr-08	4.43	215	8090	251	8052
May-08	3.75	252	8105	251	8052
Jun-08	4.04	260	8770	243	8335
Jul-08	3.61	247	7467	276	8366
Aug-08	3.83	274	8849	284	9190
Sep-08	3.71	255	7900	269	8379
Oct-08	3.74	258	8038	261	8156
Nov-08	4.08	219	7372	227	7684
Dec-08	4.38	223	7972	214	7564
Jan-09	4.78	200	7733	192	7500
Feb-09	3.73	255	8007	246	7741
Mar-09	4.3	213	7593	201	7184
Apr-09	4.42	206	7259	214	7555
May-09	3.91	255	8443	249	8260
Jun-09	3.65	288	8799	270	8225
Jul-09	3.38	299	8580	280	8024
Aug-09	3.38	275	7809	275	7803
Sep-09	3.4	275	8022	261	7560
Oct-09	3.64	256	7623	260	7757
Nov-09	5.3	183	7596	175	7271
Dec-09	4.22	216	7634	188	6635
Jan-10	5.3	182	7980	158	6952
Feb-10	4.31	214	7587	200	7091
Mar-10	4.19	235	8147	223	7712
Apr-10	4.14	260	8976	228	7852
May-10	3.77	284	8881	241	7501
Jun-10	3.94	242	7851	226	7383
Aug-10	3.44	270	7758	258	7414
Sep-10	3.61	245	7409	244	7375
Oct-10	3.68	251	7735	235	7235
Nov-10	3.97	236	7816	228	7562
Dec-10	5.37	189	8180	170	7336
Jan-11	5.07	190	7810	172	7034
Feb-11	4.3	210	7582	198	7144
Mar-11	5.65	173	7573	172	7559
Apr-11	4.54	216	8068	205	7660
May-11	4.29	246	8841	229	8237
Jun-11	3.82	264	8353	236	7462
Jul-11	3.53	254	7440	243	7134
Aug-11	3.47	269	7893	262	7678
Sep-11	3.32	267	7385	248	6877
Average	4.08	240	7974	231	7646
MAX	5.65	299	8976	284	9190
MIN	3.32	173	7259	158	6635

*July 2010 not included because of extreme variation in BOD load

Jul-10	3.56	378	11240	238	7173
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City of Lynnwood

Wastewater Treatment Plant Discharge Monitoring Report Summary

Date	Flow	CBOD		TSS	
	mgd	mg/L	lbs.	mg/L	lbs.
Jan-10	5.3	7	316	10	453
Feb-10	4.31	8	283	12	427
Mar-10	4.19	8	281	11	381
Apr-10	4.14	8	262	10	330
May-10	3.77	7	225	13	398
Jun-10	3.94	7	213	14	466
Jul-10	3.56	7	216	12	370
Aug-10	3.44	11	316	15	434
Sep-10	3.61	9	256	15	468
Oct-10	3.68	10	321	18	553
Nov-10	3.97	6	204	10	322
Dec-10	5.37	7	321	11	528
Jan-11	5.07	8	354	13	554
Feb-11	4.3	7	255	12	438
Mar-11	5.65	8	442	11	602
Apr-11	4.54	7	271	10	379
May-11	4.29	8.5	310	17	615
Jun-11	3.82	7.2	227	14.3	452
Jul-11	3.53	7.9	230	13	394
Aug-11	3.47	10	289	17	500
Sep-11	3.32	13.4	372	19.3	535
Average	4.16	8	284	13	457
MAX	5.65	13.4	442	19.3	615
MIN	3.32	6	204	10	322

Appendix G

SEPA Checklist and Determination

DETERMINATION OF NONSIGNIFICANCE
City of Lynnwood Water and Wastewater Comprehensive Plans (2012 Updates)
(File No. 2012ERC0019)

DESCRIPTION OF PROPOSAL:

City of Lynnwood Water and Wastewater Comprehensive Plans (2012ERC0019): This is a proposal for environmental review for the City of Lynnwood Water and Wastewater Comprehensive Plans (2012 Updates), which are required by the State of Washington to ensure that Lynnwood Water and Wastewater Utilities have adequate resources to meet demand of customers. The City Council will approve the final ordinance adopting the updated Plans.

PROPONENT:

City of Lynnwood Public Works
Les Rubstello
Deputy Director Maintenance & Operations
PO Box 5008
Lynnwood, WA 98046

(425) 670-5231

LOCATION OF PROPOSAL:

City-wide

LEAD AGENCY:

City of Lynnwood
Community Development Department
4114 198th Street SW, Suite 7
P.O. Box 5008
Lynnwood, WA 98046

Contact: (425) 670-5410

STAFF CONTACT:

For general information about the SEPA process, additional information about this determination or on the appeal process for this determination, please contact:

Todd Hall, Associate Planner
(425) 670-5407, thall@ci.lynnwood.wa.us

ACTIVITY NUMBERS:

2012ERC0019

SITE DESCRIPTION:

N/A - non-project action.

PERMITS REQUIRED:

Permits required, as known at the time of application:
- N/A - City Council approval

DETERMINATION:

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required

under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. The determination that an environmental impact statement does not have to be filed does not mean there will be no adverse environmental impacts. City of Lynnwood codes governing noise control, land-use performance standards, construction and improvement of streets and roads, drainage control, fire protection and building practices will provide substantial mitigation of the aforementioned impacts.

This Determination of Nonsignificance (DNS) is issued under WAC 197-11-340(2). This determination is issued on the basis of compliance of the proposal with all applicable federal, state and local laws, regulations, and standards and does not modify or waive any such law, regulation or standard. This DNS is issued also on the basis of this proposal complying with all applicable Lynnwood Municipal Code (LMC) regulations and standards of the City.

COMMENT PERIOD:

If there is new information or changes to the proposal after issuance of the DNS and prior to issuance of any required permit or approval indicating that the proposal will have probable significant adverse impacts, a new threshold determination will be required.

The lead agency will not act on this proposal for 15 days from the date of issue. Comments must be submitted by **November 28, 2012 to the staff contact listed above**. This DNS becomes final at **4:00 PM on November 28, 2012**, unless the determination is withdrawn or amended by the City's SEPA Responsible Official (below).

APPEAL:

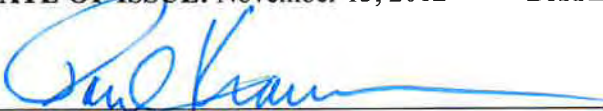
You may appeal this determination by submitting a letter stating the basis for the appeal to the City of Lynnwood Community Development Department at 4114 198th St SW, Suite 7, P.O. Box 5008 Lynnwood, WA 98046-5008. An appeal may be submitted only after the close of the comment period but no later than **4:00 PM on December 12, 2012**, which is 14 days from the end of the comment period. If you choose to appeal, you should be prepared to make specific factual objections to this determination. The fee for an appeal is as set forth in LMC 3.104.

Contact the City of Lynnwood Department of Community Development staff contact listed above to read or ask about the procedures for SEPA appeals.

RESPONSIBLE OFFICIAL: COMMUNITY DEVELOPMENT DIRECTOR

DATE OF ISSUE: November 13, 2012

DATE OF SIGNATURE: November 9, 2012



Paul Krauss, AICP

VOLUNTARY OFFERS AND APPLICABLE DOCUMENTS:

This threshold determination was reached on the basis of the plans, supporting documents, calculations and agreements contained in the voluntary submittals associated with activity number(s) 2012ERC0019 and SEPA review. Specifically:

1. Environmental Checklist prepared by Les Rubstello, City of Lynnwood Public Works, dated October 3, 2012.

2. Draft Water and Wastewater Comprehensive Plans, submitted September 25, 2012.

The voluntary offers and environmental documents listed above were considered and evaluated as part of this threshold determination.

DISCLAIMER:

The determination that an environmental impact statement does not have to be filed does not mean there will be no adverse environmental impacts. City of Lynnwood codes governing traffic control, land-use performance standards, construction and improvement of streets and roads, drainage control, environmental protection, fire protection and building practices will provide substantial mitigation of the aforementioned impacts.

The issuance of this DNS should not be interpreted as acceptance or approval of this proposal as presented. The City of Lynnwood reserves the right to deny or approve said proposal subject to conditions if it is determined to be in the best interests of the City and/or necessary for the general health, safety and welfare of the public to do so.

Individual projects allowed under non-project actions will be reviewed in advance of planned construction to determine if SEPA review is required. Projects requiring SEPA review will be evaluated to identify any probable adverse environmental impacts and identify measures necessary to mitigate those impacts.

DISTRIBUTION LIST:

This DNS and SEPA checklist were distributed to the following:

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Applicant | <input checked="" type="checkbox"/> Alderwood Water | <input checked="" type="checkbox"/> City of Bothell |
| <input type="checkbox"/> Parties of Record | <input checked="" type="checkbox"/> Community Transit | <input checked="" type="checkbox"/> City of Brier |
| | <input checked="" type="checkbox"/> Edmonds School District #15 | <input checked="" type="checkbox"/> City of Edmonds |
| <input checked="" type="checkbox"/> Public Works – A. Kay | <input checked="" type="checkbox"/> Fire District #1 | <input checked="" type="checkbox"/> City of Everett |
| <input checked="" type="checkbox"/> Building – J. Watkins | <input checked="" type="checkbox"/> Frontier Engineering | <input checked="" type="checkbox"/> City of Mill Creek |
| | <input checked="" type="checkbox"/> Sno. Co. PDS | <input checked="" type="checkbox"/> City of Mountlake Terrace |
| <input checked="" type="checkbox"/> Dept. of Ecology | <input checked="" type="checkbox"/> Sno. Co. Public Works | <input checked="" type="checkbox"/> City of Mukilteo |
| <input checked="" type="checkbox"/> Dept. of Fish & Wildlife | <input checked="" type="checkbox"/> Sno. PUD #1 | |
| <input checked="" type="checkbox"/> Dept. of Nat. Resources | | <input checked="" type="checkbox"/> Army Corps |
| <input checked="" type="checkbox"/> Puget Sound Clean Air | <input checked="" type="checkbox"/> Muckleshoot Tribe | |
| <input checked="" type="checkbox"/> WSDOT | <input checked="" type="checkbox"/> Tulalip Tribe | |

Other:

PUBLISHING:

Everett Herald – November 13, 2012

TO BE COMPLETED BY APPLICANT (EVALUATION FOR AGENCY USE ONLY)**A. BACKGROUND**

1. Name of proposed project, if applicable: City of Lynnwood Water and Wastewater Comprehensive Plans (2012 Updates)
2. Date checklist prepared: 10/3/12
3. Agency requesting checklist: **City of Lynnwood**
4. Proposed timing or schedule (including phasing, if applicable):
Anticipate adoption by Lynnwood City Council in November, 2012.
5. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain:
These are guidance documents which include recommendations for action, including further studies, changes in maintenance and operations, and capital projects. The plans will lead to further activity.
6. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. If yes, explain.
These Plans contain a chapter on operating the Water and Wastewater Utilities in a sustainable fashion.
7. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
N/A
8. List any government approvals or permits that will be needed for your proposal, if known.
These documents include recommendations for projects which may require additional approvals or permits. Those approvals and permits will be addressed and applied for, if necessary, as part of the planning phase for those individual projects.

9. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

The Plans (the Water Comprehensive Plan is a required document by the Washington State Department of Health) purpose is a self-examination to make sure that the Lynnwood Water and Wastewater Utilities have the resources to meet the demand of their customers.

The Plans include descriptions of the existing drinking water and wastewater systems, including both physical and personnel assets, and the current demand that those assets are trying to meet. The systems are modeled in a software application in an attempt to identify any system shortcomings. Then, projections of population and employment growth are entered into the model to identify future shortcomings. Finally, the identified shortcomings are used to create a list of capital projects that are necessary to be accomplished to be able to continue to meet demand.

10. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Entire City of Lynnwood.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- A. General description of the site (check one):

Flat Rolling Hilly Steep slopes Mountainous
 Other: As these plans will apply City-wide, the general description will vary depending on location.

- B. What is the steepest slope on the site (approximate percent slope)?

As these plans will apply City-wide, the slope will vary depending on location.

- C. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
As these plans will apply City-wide, the soil types will vary depending on location. In general, most of the City of Lynnwood is Alderwood Gravelly Loam.
- D. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
As these plans will apply City-wide, the soil conditions will vary depending on location. Some locations do have unstable soils. Any impacts will be mitigated, as needed, on a project-by-project basis.
- E. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
None of the recommended projects in these plans call for any significant filling.
- F. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
These documents include recommendations for projects, and maintenance and operations activities which will require some clearing during construction, and some mild erosion. All projects will be required to have an erosion control plan, using Best Management Practices (BMPs), to minimize erosion. Those plans will be assembled as part of the planning phase for those individual projects.
- G. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
N/A
- H. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.
Any impacts would be identified on a project by project basis, and would be addressed and mitigated at that time, if necessary.

2. Air

- A. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

None.

- B. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None.

- C. Proposed measures to reduce or control emissions or other impacts to air, if any.

None.

3. Water

A. Surface

- i. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names, If appropriate, state what stream or river it flows into.

Streams include:

- * Scriber Creek
- * Swamp Creek
- * Tunnel Creek
- * Golde Creek
- * Poplar Creek
- * Hall Creek
- * Perrinville Creek
- * Lund's Gulch Creek

Lakes include:

- * Hall Lake
- * Scriber Lake

The City of Lynnwood is located in Water Resource Inventory Area (WRIA) 8. All surface water drains to the north end of Lake Washington, with the exception of two minor drainage areas. Both Perrinville Creek, and Lund's Gulch Creek drain directly into the Puget Sound.

- ii. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes. Each recommended project will have its' own plan, to be drawn up during the planning phase.

- iii. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None of the recommended projects in these plans call for any significant filling.

- iv. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

None of the recommended projects in these plans call for any water withdrawal or diversions.

- v. Does the proposal lie within a 100-year floodplain? If yes, note location on the site plan.

Some of the recommended projects will lie within the 100-year floodplain.

- vi. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

B. Ground

- i. Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No.

- ii. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None.

- iii. Water Runoff (including storm water):

- (1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The projects in these plans should add no impervious surface and any runoff during construction will be addressed by project specific erosion control plans.

- (2) Could waste materials enter ground or surface waters? If so, generally describe.
Only with the failure of protection systems.

- iv. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any.
All projects will be required to have an erosion control plan, using Best Management Practices (BMPs), to minimize erosion. Those plans will be assembled as part of the planning phase for those individual projects.

4. Plants

A. Check types of vegetation found on the site:

- i. Deciduous trees: Alder Maple Aspen
 Other:

- ii. Evergreen trees: Fir Cedar Pine
 Other:

iii. Shrubs:

iv. Grass:

v. Pasture:

vi. Crop or grain:

- vii. Wet soil plants: Cattail Buttercup Bulrush Skunk cabbage
 Other:

viii. Water plants: Water lily Eelgrass Milfoil

Other:

ix. Other types of vegetation:

B. What kind and amount of vegetation will be removed or altered?

Water and wastewater projects take place almost exclusively within city street right of way.

C. List threatened or endangered species known to be on or near the site.

None.

D. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

None.

5. Animals

A. Check any birds and animals which have been observed on or near the site or are known to be on or near the site:

i. Birds: Hawk Heron Eagle Songbirds

Other:

ii. Mammals: Deer Bear Elk Beaver

Other:

iii. Fish: Bass Salmon Trout Herring Shellfish

Other:

B. List any threatened or endangered species known to be on or near the site.

None.

C. Is the site part of a migration route? If so, explain.

None.

D. Proposed measures to preserve or enhance wildlife, if any.

None.

6. Energy and Natural Resources

- A. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity is used to pump water from City of Everett reservoirs to Alderwood Water District reservoirs, from which it flows by gravity through the Lynnwood system, except for a small area near the Lynnwood reservoirs where pressure is boosted by small electric pumps.

The wastewater system uses electricity at six different lift stations to help convey wastewater to the treatment plant. The treatment plant uses electricity in pumps, compressors, and blowers, as well as burning diesel fuel in the wastewater sludge incinerator.

- B. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

- C. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None.

7. Environmental Health

- A. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, which could occur as a result of this proposal? If so, describe.

Construction equipment is a source for potential gasoline and diesel spills.

- i. Describe special emergency services that might be required.

Absorption of spilled fuel, clean-up and disposal of absorbant.

- ii. Proposed measures to reduce or control environmental health hazards, if any:

All Utility vehicles, and City Contractor vehicles are required to carry a spill containment kit, which includes instructions for spill response.

B. Noise

- i. What types of noise exist in the area, which may affect your project (for example, traffic, aircraft, equipment, operation, other)?

N/A

- ii. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

These documents include recommendations for projects, and maintenance and operations activities which will include temporary noise impacts. Those impacts will be addressed and mitigated if necessary as part of the planning phase for those individual projects.

- iii. Proposed measures to reduce or control noise impacts, if any.

None.

8. Land and Shoreline Use

- A. What is the current use of the site and adjacent properties?

All sites identified for projects or maintenance and operation activities are either in the public right-of-way or utility-owned open space.

- B. Has the site been used for agriculture? If so, describe.

No.

- C. Describe any structures on the site.

None.

- D. Will any structures be demolished? If so, what?

N/A

- E. What is the current zoning classification of the site?

Zoning varies. All sites identified for projects or maintenance and operation activities are either in the public right-of-way or utility-owned property, which is zoned Public Use.

F. What is the current comprehensive plan designation of the site?

All sites identified for projects or maintenance and operation activities are either in the public right-of-way or utility-owned property, which is zoned Public Use.

G. If applicable, what is the current shoreline master program designation of the site?

The wastewater treatment plant has the only shoreline within the City of Lynnwood, as it is on the shore of Puget Sound just south of Brown's Point.

H. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No.

I. Approximately how many people would reside or work in the completed project?

The City's Water and Wastewater Utilities serve the entire City, which is approximately 36,000 people.

J. Approximately how many people would the completed project displace?

None.

K. Proposed measures to avoid or reduce displacement impacts, if any.

N/A

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

No conflicts identified.

9. Housing

A. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

N/A

B. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

- C. Proposed measures to reduce or control housing impacts, if any:

N/A

10. Aesthetics

- A. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No new structures proposed.

- B. What views in the immediate vicinity would be altered or obstructed?

N/A

- C. Proposed measures to reduce or control aesthetic impacts, if any.

N/A

11. Light and Glare

- A. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

- B. Could light or glare from the finished project be a safety hazard or interfere with views?

N/A

- C. What existing off-site sources of light or glare may affect your proposal?

None.

- D. Proposed measures to reduce or control light and glare impacts, if any.

N/A

12. Recreation

- A. What designated and informal recreational opportunities are in the immediate vicinity?

* Lund's Gulch Park (Sno County)

* Messika Trail

- * Portions of the Interurban Trail
- * Scriber Creek Park
- * Mini Park
- * Scriber Lake Park
- * Wilcox Park
- * Gold Park

B. Would the proposed project displace any existing recreational uses? If so, describe.
No.

C. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any.
Any impacts would be identified on a project by project basis, and would be addressed and mitigated at that time, if necessary.

13. Historic and Cultural Preservation

A. Are there any places of objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No historic sites on street right of way.

B. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None.

C. Proposed measures to reduce or control impacts, if any.

N/A

14. Transportation

A. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Almost every street within Lynnwood has a waterline or sewer main under it that may be included within a capital project or maintenance program described in this Plan. Each project and maintenance program will have a customized Traffic Control Plan to minimize the project impact on local traffic.

- B. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Transit operates on many streets within Lynnwood. Each project and maintenance program will have a customized Traffic Control Plan to minimize the project impact on transit service.

- C. How many parking spaces would the completed project have? How many would the project eliminate?
N/A

- D. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No new streets, but some streets will have sections overlaid where waterline or sewer main excavation has taken place.

- E. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- F. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

None.

- G. Proposed measures to reduce or control transportation impacts, if any.

Each project and maintenance program will have a customized Traffic Control Plan to minimize the project impact on local traffic.

15. Public Services

- A. Would the project result in an increased need for public services (for example, fire protection, police protection, health care, schools, other)? If so, generally describe.

Many of the waterline improvement projects in the Plan are to increase the volume of water for fire fighting.

- B. Proposed measures to reduce or control direct impacts on public services, if any.

Accomplish the projects in the Plan.

16. Utilities

- A. Check utilities currently available at the site:

Electricity Natural gas Water Refuse service Telephone
 Sanitary sewer Septic system
 Other:

- B. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity, which might be needed.

City of Lynnwood Water and Wastewater Utilities.

I/We certify that the information provided in this environmental checklist, including all submittals and attachments, is true and correct to the best of my/our knowledge. I understand that the lead agency is relying on them to make its decision.

Signature of Applicant/Agent:

Lester O Rubstello

Date:

10/3/12

Please print name:

LESTER O RUBSTELLO

Supplemental Environmental Checklist for Non-Project Actions

File Name: LYNNWOOD WATER & WASTEWATER COMP PLAN
File Number: 2012 ERC 0019



Instructions for Applicants

Because these questions are very general, it may be helpful to read them in conjunction with the list of elements of the environment.

When answering these questions, be aware of the extent of the proposal or the types of activities likely to result from the proposal, and how the proposal would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Please respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Water: The only possible discharge to water would be by stormwater runoff from sites of utility construction. Air: No increase. Some projects included in these Plans deal with improving the emissions control of the City's wastewater sludge incinerator. Hazardous substances: Construction equipment at sites of utility construction is a source for potential gasoline and diesel spills. Noise: These documents include recommendations for projects, and maintenance and operations activities which will include temporary noise impacts.

Proposed measures to avoid or reduce such increases:

Water: All projects will be required to have an erosion control plan, using Best Management Practices (BMPs), to minimize erosion. Those plans will be assembled as part of the planning phase for those individual projects.

Air: No measures because of no increases. Improvements to incinerator emissions control will improve air quality.

Hazardous Substances: All Utility vehicles, and City Contractor vehicles are required to carry a spill containment kit, which includes instructions for spill response.

Noise: Those impacts will be addressed and mitigated if necessary as part of the planning phase for those individual projects.

2. How would the proposal be likely to affect plants, animals, fish or marine life?

Water and wastewater projects take place almost exclusively within city street right of way, so would not affect plants, animals, fish, or marine life.

Proposed measures to protect or conserve plants, animals, fish or marine life:

No measures because of no impacts.

3. How would the proposal be likely to deplete energy or natural resources?

The flow of water and wastewater through Lynnwood does not change with these Plans, so total energy demand remains constant.

Proposed measures to protect or conserve energy and natural resources:

Some projects include upgrades of components, typically pumps, which newer models tend to be more energy efficient than older ones. Therefore, electrical demand should reduce as a result of the projects in these Plans.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, flood plains, or prime farmlands?

All sites identified for projects or maintenance and operation activities are either in the public right-of-way or utility-owned open space.

Proposed measures to protect such resources or to avoid or reduce impacts:

No measures as no projects are located in these areas.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The wastewater treatment plant has the only shoreline within the City of Lynnwood, as it is on the shore of Puget Sound just south of Brown's Point. None of the projects included within these Plans alter the use of City shorelines.

Proposed measures to avoid or reduce shoreline and land use impacts:

No measures as no changes to shoreline use is proposed.

6. How would the proposal be likely to increase demands on transportation or public service and utilities?

Almost every street within Lynnwood has a waterline or sewer main under it that may be included within a capital project or maintenance program described in these Plans.

Proposed measures to reduce or respond to such demand(s):

Each project and maintenance program will have a customized Traffic Control Plan to minimize the project impact on local traffic.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

No conflicts are expected.

I/We certify that the information provided in this environmental checklist, including all submittals and attachments, is true and correct to the best of my/our knowledge. I understand that the lead agency is relying on them to make its decision.

Signature of Applicant/Agent:



Date: 10/3/12

Please print name:

LESTER O. RUBSTELLO