

## **APPENDIX A**

### **PROJECTED FUTURE DEVELOPMENT**

1. Table A-1 - Projected Development Acreages, Populations, and Flows - Year 2025
2. Table A-2 - Projected Development Acreages, Populations, and Flows - Year 2045

TABLE A-1

CITY OF LANCASTER  
 LONG TERM CONTROL PLAN - ADDENDUM  
 PROJECTED DEVELOPMENT ACRES, POPULATIONS, AND FLOWS  
 YEAR 2025

Estimated Year 2025 Development	URBAN/TCF Area	URBAN/TCF Acres	URBAN/TCF Flow	Area	Acres	Development	Developed Average	Projected Population	Projected Water Usage			Projected Sanitary Flow <sup>2</sup>	
									Average Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)	
Commercial	C-1	243	63,740	C-1	334	25%	84	n/a	83,500	150,300	83,500	292,250	
	C-2	152	45,554	C-2	159	29%	46	n/a	45,554	81,996	45,554	159,437	
	C-3	107	48,238	C-3	86	41%	35	n/a	35,088	63,158	35,088	122,808	
	C-4	68	30,542	C-4	68	45%	31	n/a	30,542	54,975	30,542	106,897	
	C-5	556	63,629	C-5	711	10%	69	n/a	68,612	123,501	68,612	240,140	
	C-6	219	63,773	C-6	266	25%	66	n/a	65,729	118,311	65,729	230,050	
	C-7	66	35,265	C-7	67	50%	34	n/a	33,500	60,300	33,500	117,250	
	C-8	281	42,205	C-8	281	15%	42	n/a	42,150	75,870	42,150	147,525	
	C-9	87	39,071	C-9	101	45%	45	n/a	45,450	81,810	45,450	159,075	
	RC-16	177	132,864	C-10	114	30%	34	n/a	34,200	61,560	34,200	119,700	
	RC-16			C-11	151	30%	45	n/a	45,300	81,540	45,300	158,550	
Greenfield Twp	RC-13	130	400,000	C-12	170	30%	51	n/a	51,000	91,800	51,000	178,500	
Greenfield Twp				C-13	1012	20%	202	n/a	202,400	364,320	202,400	708,400	
Greenfield Twp				C-14	108	25%	27	n/a	26,938	48,489	26,938	94,284	
Greenfield Twp				C-15	851	5%	43	n/a	42,550	76,590	42,550	148,925	
				C-16	305	30%	92	n/a	91,500	164,700	91,500	320,250	
				C-17	406	9%	35	n/a	34,529	62,151	34,529	120,850	
				C-18	10	30%	3	n/a	3,135	5,642	3,135	10,971	
				C-19	85	5%	4	n/a	4,250	7,650	4,250	14,875	
Subtotal			985,925		5,285		986	n/a	985,925	1,774,665	985,925	3,450,738	
Residential	SF-1	107	48,042	SF-1	107	45%	48	480	48,042	86,475	48,042	168,146	
Single Family	SF-2	653	130,772	SF-2	654	15%	98	981	98,123	176,621	98,123	343,430	
	SF-3	159	23,788	SF-3	159	10%	16	159	15,859	28,546	15,859	55,506	
Knox Acres	SF-4	56	17,841	SF-4	5	—	—	n/a	11,600	20,880	11,600	12,539	
	SF-4			SF-4	31	10%	3	31	3,100	5,580	3,100	10,850	
	SF-5	378	131,366	SF-5	378	20%	76	756	75,600	136,080	75,600	264,600	
	RC-15	160	66,832	SF-6	67	31%	21	205	20,536	36,964	20,536	71,874	
				SF-7	100	20%	20	199	19,925	35,865	19,925	69,737	
				SF-8	52	20%	10	104	10,441	18,794	10,441	36,545	
Greenfield Twp	SF-9	252		SF-9	252	10%	25	252	25,200	45,360	25,200	88,200	
Greenfield Twp	SF-10	1160		SF-10	1160	10%	116	n/a	116,000	208,800	116,000	406,000	
	SF-11	553		SF-11	553	30%	166	n/a	165,815	298,468	165,815	580,354	
	SF-12	126	152,899	SF-12	126	50%	63	630	63,000	113,400	63,000	220,500	
	RC-12	160	119,688	SF-13	345	35%	121	1207	120,750	217,350	120,750	422,625	
	RC-10	106	37,230	SF-14	138	5%	7	69	6,900	12,420	6,900	24,150	
	RC-9	567	193,560	SF-15	634	5%	32	317	31,700	57,060	31,700	110,950	
				SF-16	1093	15%	164	1639	163,950	295,110	163,950	573,825	

TABLE A-1

CITY OF LANCASTER  
 LONG TERM CONTROL PLAN - ADDENDUM  
 PROJECTED DEVELOPMENT ACRES, POPULATIONS, AND FLOWS  
 YEAR 2025

Estimated Year 2025 Development	USP/ITCP Area	USP/ITCP Acres	USP/ITCP Flow	Area	Acres	Development	Developed Average	Projected Population	Projected Water Usage <sup>1</sup>		Projected Sanitary Flow <sup>2</sup>	
									Average Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)
<i>Carpico Drive</i>	RC-8	50	59,153	SF-17	94	20%	19	188	18,800	33,840	18,800	63,800
	RC-8	50		SF-18	19			n/a	10,800	19,440	10,800	11,861
<i>Peters</i>	RC-8	743		RC-8	743	16%	121	1212	121,183	218,130	121,183	424,142
				SF-19	94			n/a	6,800	12,240	6,800	7,467
<i>Kiester Manor</i>	RC-3	98	26,109	SF-19	57	20%	11	114	11,400	20,520	11,400	39,900
	RC-3A	143		SF-20	143	30%	43	429	42,900	77,220	42,900	150,150
	RC-3A	41	21,969	SF-21	41			n/a	21,600	38,880	21,600	24,509
<i>Pleasant Lea</i>	RC-1/1A	80	57,645	SF-21	69	10%	7	69	6,900	12,420	6,900	24,150
	RC-1/1A	162		SF-22	46			n/a	16,800	30,240	16,800	67,700
<i>Lakeside</i>	RC-2/2A	162	47,227	SF-22	16	10%	2	16	1,600	2,880	1,600	5,600
	RC-2/2A	162		SF-23	45			n/a	12,000	21,600	12,000	29,700
	RC-3	195	68,353	SF-23	164	10%	16	164	16,400	29,520	16,400	57,400
	RC-3	153	46,517	SF-24	321	30%	96	963	96,300	173,340	96,300	337,050
	RC-3	263	99,280	SF-25	60	30%	18	181	18,063	32,513	18,063	63,219
	RC-3	339	1,377,963	SF-26	305	20%	61	610	61,000	109,800	61,000	213,500
<b>Subtotal</b>					<b>8,070</b>		<b>1,379</b>	<b>10,977</b>	<b>1,459,086</b>	<b>2,626,355</b>	<b>1,459,086</b>	<b>5,556,884</b>
<i>Multi Family</i>	MF-1	65	29,088	MF-1	46	40%	18	185	18,467	33,241	18,467	64,635
	MF-2	55	10,599	MF-2	565	15%	84	838	83,846	150,923	83,846	293,461
	MF-3	281	101,811	MF-3	411	20%	82	821	82,125	147,825	82,125	287,437
<i>Greenfield Twp</i>				MF-4	292	25%	73	730	73,000	131,400	73,000	255,500
				MF-5	365	25%	91	n/a	91,250	164,250	91,250	319,375
				MF-6	43	22%	9	94	9,353	16,835	9,353	32,734
				MF-7	11	15%	2	16	1,595	2,871	1,595	5,583
<b>Subtotal</b>		<b>909</b>	<b>241,087</b>		<b>1,732</b>		<b>360</b>	<b>2,684</b>	<b>359,636</b>	<b>647,344</b>	<b>359,636</b>	<b>1,258,725</b>
<i>Estate District</i>	ED-1	132	39,664	ED-1	132	30%	40	397	39,664	71,396	39,664	138,825
<b>Subtotal</b>		<b>132</b>	<b>39,664</b>		<b>132</b>		<b>40</b>	<b>397</b>	<b>39,664</b>	<b>71,396</b>	<b>39,664</b>	<b>138,825</b>
<i>Industrial</i>												
(USP)	I-1	102	59,834	I-1	193	20%	39	n/a	50,186	90,334	50,186	175,650
	I-2	106	67,243	I-2	106	20%	21	n/a	27,666	49,798	27,666	96,830
	I-3	57	37,133	I-3	61	47%	29	n/a	37,112	66,802	37,112	129,893
	I-4	32	20,625	I-4	32	50%	16	n/a	20,625	37,125	20,625	72,187
	I-5	180	116,892	I-5	180	48%	86	n/a	112,437	202,387	112,437	393,530
	I-6	36	21,127	I-6	36	30%	11	n/a	14,085	25,352	14,085	49,296
	I-7	148	86,243	I-7	148	30%	44	n/a	57,696	103,854	57,696	201,938
	I-8	271	168,663	I-8	271	36%	98	n/a	127,709	229,876	127,709	446,981

TABLE A-1

CITY OF LANCASTER  
 LONG TERM CONTROL PLAN - ADDENDUM  
 PROJECTED DEVELOPMENT ACREAGES, POPULATIONS, AND FLOWS  
 YEAR 2025

Estimated Year 2025 Development	USDA/TCP Area	USDA/TCP Acres	USDA/TCP Flow	Area	Acres	Development	Developed Acreage	Projected Population	Projected Water Usage <sup>1</sup>		Projected Sanitary Flow <sup>2</sup>	
									Average Water Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)
	I-9	259	50,444	I-9	262	10%	26	n/a	34,060	61,308	34,060	119,210
(L)ICP	I-6	213	136,283	I-10	284	15%	43	n/a	55,383	99,689	55,383	193,839
	I-7	53	17,283	I-11	60	5%	3	n/a	3,900	7,020	3,900	13,650
	I-8	106	54,331	I-12	137	20%	27	n/a	35,345	63,620	35,345	123,706
	I-9	42	14,403	I-13	70	10%	7	n/a	9,064	16,315	9,064	31,723
	I-10	89	28,808	I-14	88	20%	18	n/a	22,942	41,296	22,942	80,298
Rock Mill Ph I				I-15	215	75%	161	n/a	209,625	377,325	209,625	733,688
Subtotal		1,671	631,798		2,143		629	n/a	817,833	1,472,100	817,833	2,862,417
TOTAL					17,363		3,394	14,057	3,662,145	6,591,861	3,662,145	13,267,589

NOTES:

1 Estimated Water Flows:

AVERAGE  
 Residential / Commercial = 1,000 gal/acre/day  
 Industrial = 1,300 gal/acre/day

2 Estimated Sanitary Flows:

PEAKING FACTOR OF 1.8  
 1,800 gal/acre/day  
 2,340 gal/acre/day

PEAKING FACTOR OF 3.5  
 3,500 gal/acre/day  
 4,550 gal/acre/day

3 Projected population does not include Greenfield Township or existing County populations that will be served in the future by Lancaster.

3 people per household  
 3.33 homes per acre  
 10 people per acre

TABLE A-2

CITY OF LANCASTER  
 LONG TERM CONTROL PLAN - ADDENDUM  
 PROJECTED DEVELOPMENT ACREAGES, POPULATIONS, AND FLOWS  
 YEAR 2045

Estimated Year Development	USP/LTCP Area Acres	USP/LTCP Flow gpd	Area	Acres	Development	Developed Average	Projected Population	Projected Water Usage <sup>1</sup>		Projected Sanitary Flow <sup>2</sup>	
								Average Water Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)
Commercial											
	C-1	63,740	C-1	334	50%	167	n/a	167,000	300,600	167,000	584,500
	C-2	45,538	C-2	159	57%	91	n/a	91,107	163,993	91,107	318,875
	C-3	46,238	C-3	86	82%	70	n/a	70,176	126,317	70,176	245,616
	C-4	30,542	C-4	68	90%	61	n/a	61,084	109,951	61,084	213,793
	C-5	63,626	C-5	711	19%	137	n/a	137,223	247,001	137,223	480,281
	C-6	63,626	C-6	266	49%	131	n/a	131,457	236,623	131,457	460,100
	C-7	33,205	C-7	67	100%	67	n/a	67,000	120,600	67,000	234,500
	C-8	42,205	C-8	281	30%	84	n/a	84,300	151,740	84,300	295,050
	C-9	39,021	C-9	101	90%	91	n/a	90,900	163,620	90,900	318,150
	C-10	152,868	C-10	114	60%	68	n/a	68,400	123,120	68,400	239,400
	C-11		C-11	151	60%	91	n/a	90,600	163,080	90,600	317,100
	C-12		C-12	170	60%	102	n/a	102,000	183,600	102,000	357,000
	C-13	406,000	C-13	1012	40%	405	n/a	404,800	728,640	404,800	1,416,800
	C-14		C-14	108	50%	54	n/a	53,877	96,978	53,877	188,569
	C-15		C-15	851	10%	85	n/a	85,100	153,180	85,100	297,850
	C-16		C-16	305	60%	183	n/a	183,000	329,400	183,000	640,500
	C-17		C-17	406	17%	69	n/a	69,057	124,303	69,057	241,700
	C-18		C-18	10	60%	6	n/a	6,269	11,285	6,269	21,942
	C-19		C-19	85	10%	9	n/a	8,500	15,300	8,500	29,750
				5,285		1,972	n/a	1,971,850	3,549,330	1,971,850	6,901,475
<b>Subtotal</b>		<b>963,642</b>									
Residential											
Single Family	SF-1	43,042	SF-1	107	90%	96	961	96,083	172,950	96,083	336,292
	SF-2	130,102	SF-2	654	30%	196	1962	196,246	353,242	196,246	686,860
	SF-3	23,788	SF-3	159	20%	32	317	31,718	57,092	31,718	111,012
Knox Acres	SF-4	17,841	SF-4	5	---	---	n/a	11,600	20,880	11,600	12,539
	SF-4		SF-4	31	20%	6	62	6,200	11,160	6,200	21,700
	SF-5	131,266	SF-5	378	40%	151	1512	151,200	272,160	151,200	529,200
	SF-6	65,482	SF-6	67	61%	41	411	41,071	73,928	41,071	143,749
	SF-7		SF-7	100	40%	40	398	39,850	71,729	39,850	139,474
	SF-8		SF-8	52	40%	21	209	20,883	37,589	20,883	73,090
	SF-9		SF-9	252	20%	50	504	50,400	90,720	50,400	176,400
Greenfield Twp	SF-10		SF-10	1160	20%	232	n/a	232,000	417,600	232,000	812,000

TABLE A-2

CITY OF LANCASTER  
 LONG TERM CONTROL PLAN - ADDENDUM  
 PROJECTED DEVELOPMENT ACREAGES, POPULATIONS, AND FLOWS  
 YEAR 2045

Estimated Year Development	USDA LCP Area	USDA LCP Acres	USDA LCP Flow	Area	Acres	Development	Developed Average	Projected Population	Projected Water Usage <sup>1</sup>		Projected Sanitary Flow <sup>2</sup>	
									Average Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)
<i>Greenfield Twp</i>	RC-13			SF-11	553	60%	332	n/a	331,631	596,935	331,631	1,160,708
	RC-11	204	152,969	SF-12	126	100%	126	1260	126,000	226,800	126,000	441,000
	RC-12	160	119,668	SF-13	345	70%	242	2415	241,500	434,700	241,500	845,250
	RC-10	106	37,230	SF-14	138	10%	14	138	13,800	24,840	13,800	48,300
	RC-3	567	198,566	SF-15	634	10%	63	634	63,400	114,120	63,400	221,900
				SF-16	1093	30%	328	3279	327,900	590,220	327,900	1,147,650
<i>Carpico Drive</i>	RC-3	530	192,355	SF-17	94	40%	38	376	37,600	67,680	37,600	131,600
	RC-8			SF-18	19	---	---	n/a	10,800	19,440	10,800	11,861
<i>Peters</i>				RC-8	743	33%	242	2424	242,367	436,260	242,367	848,283
				SF-19	94	---	---	n/a	6,800	12,240	6,800	7,467
				SF-19	57	40%	23	228	22,800	41,040	22,800	79,800
<i>Kiestler Manor</i>	RC-3	60	26,109	SF-20	143	60%	86	858	85,800	154,440	85,800	300,300
	RC-3A			SF-21	41	---	---	n/a	21,600	38,880	21,600	24,509
	RC-3A			SF-21	69	20%	14	138	13,800	24,840	13,800	48,300
<i>Pleasant Lea</i>	RC-1/A	30	95,645	SF-22	46	---	---	n/a	16,800	30,240	16,800	67,700
	RC-1/A			SF-22	16	20%	3	32	3,200	5,760	3,200	11,200
<i>Lakeside</i>	RC-2/A	142	47,237	SF-23	45	---	---	n/a	12,000	21,600	12,000	29,700
	RC-2/A			SF-23	164	20%	33	328	32,800	59,040	32,800	114,800
	RC-5	195	68,255	SF-24	321	60%	193	1926	192,600	346,680	192,600	674,100
	RC-6	133	46,530	SF-25	60	60%	36	361	36,125	65,025	36,125	126,438
	RC-7	284	99,380	SF-26	305	40%	122	1220	122,000	219,600	122,000	427,000
<b>Subtotal</b>		<b>3,849</b>	<b>1,523,305</b>		<b>8,070</b>		<b>2,759</b>	<b>21,953</b>	<b>2,838,573</b>	<b>5,109,431</b>	<b>2,838,573</b>	<b>10,811,288</b>
<i>Multi Family</i>	MF-1	65	28,288	MF-1	46	80%	37	369	36,935	66,482	36,935	129,271
	MF-2	355	166,999	MF-2	565	30%	168	1677	167,692	301,846	167,692	586,922
	MF-3	291	101,811	MF-3	411	40%	164	1642	164,250	295,649	164,250	574,873
				MF-4	292	50%	146	1460	146,000	262,800	146,000	511,000
<i>Greenfield Twp</i>				MF-5	365	50%	183	n/a	182,500	328,500	182,500	638,750
	RC-4			MF-6	43	44%	19	187	18,705	33,669	18,705	65,468
				MF-7	11	30%	3	32	3,190	5,742	3,190	11,166
<b>Subtotal</b>		<b>909</b>	<b>241,899</b>		<b>1,732</b>		<b>719</b>	<b>5,368</b>	<b>719,271</b>	<b>1,294,688</b>	<b>719,271</b>	<b>2,517,449</b>

TABLE A-2

CITY OF LANCASTER  
 LONG TERM CONTROL PLAN - ADDENDUM  
 PROJECTED DEVELOPMENT ACREAGES, POPULATIONS, AND FLOWS  
 YEAR 2045

Estimated Year 2045 Development	USP/LTCP Area	USP/LTCP Acres	USP/LTCP Flow	Area	Acres	Development	Developed Average	Projected Population	Projected Water Usage <sup>1</sup>		Projected Sanitary Flow <sup>2</sup>	
									Average Water Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)
Estate District	ED-1	132	39,665	ED-1	132	60%	79	793	79,329	142,791	79,329	277,650
<b>Subtotal</b>		<b>132</b>	<b>39,665</b>		<b>132</b>		<b>79</b>	<b>793</b>	<b>79,329</b>	<b>142,791</b>	<b>79,329</b>	<b>277,650</b>
<b>Industrial</b>												
(USP)		102	59,896	I-1	193	40%	77	n/a	100,371	180,669	100,371	351,300
		106	62,248	I-2	106	40%	43	n/a	55,331	99,596	55,331	193,659
		57	37,135	I-3	61	94%	57	n/a	74,225	133,605	74,225	259,787
		32	20,825	I-4	32	100%	32	n/a	41,249	74,249	41,249	144,373
		180	115,892	I-5	180	96%	173	n/a	224,874	404,773	224,874	787,059
		36	21,127	I-6	36	60%	22	n/a	28,169	50,705	28,169	98,592
		148	86,545	I-7	148	60%	89	n/a	115,393	207,707	115,393	403,875
		246	143,626	I-8	271	73%	196	n/a	255,418	459,752	255,418	893,961
		259	50,444	I-9	262	20%	52	n/a	68,120	122,616	68,120	238,420
(LTCP)		213	138,283	I-10	284	30%	85	n/a	110,765	199,377	110,765	387,678
		53	17,245	I-11	60	10%	6	n/a	7,800	14,040	7,800	27,300
		106	34,574	I-12	137	40%	54	n/a	70,689	127,241	70,689	247,412
		44	14,464	I-13	70	20%	14	n/a	18,128	32,630	18,128	63,447
		80	28,809	I-14	88	40%	35	n/a	45,885	82,592	45,885	160,596
Rock Mill Ph I				I-15	215	100%	215	n/a	279,500	503,100	279,500	978,250
<b>Subtotal</b>		<b>1,691</b>	<b>631,778</b>		<b>2,143</b>		<b>1,151</b>	<b>n/a</b>	<b>1,495,917</b>	<b>2,692,651</b>	<b>1,495,917</b>	<b>5,235,709</b>
<b>TOTAL</b>			<b>3,604,948</b>		<b>17,363</b>		<b>6,680</b>	<b>28,114</b>	<b>7,104,939</b>	<b>12,788,891</b>	<b>7,104,939</b>	<b>25,743,572</b>

NOTES:

1 Estimated Water Flows:

AVERAGE  
 Residential / Commercial =  
 Industrial =

1,000 gal/acre/day  
 1,300 gal/acre/day

PEAKING FACTOR OF 1.8  
 1,800 gal/acre/day  
 2,340 gal/acre/day

2 Estimated Sanitary Flows:

AVERAGE  
 Residential / Commercial =  
 Industrial =

1,000 gal/acre/day  
 1,300 gal/acre/day

PEAKING FACTOR OF 3.5  
 3,500 gal/acre/day  
 4,550 gal/acre/day

**TABLE A-2**

**CITY OF LANCASTER  
LONG TERM CONTROL PLAN - ADDENDUM  
PROJECTED DEVELOPMENT ACREAGES, POPULATIONS, AND FLOWS  
YEAR 2045**

Estimated Year 2045 Development	USP/LTCP Area	USP/LTCP Area	USP/LTCP Area	Area	Acres	Development	Developed Acreage	Projected Population	Projected Water Usage <sup>1</sup>		Projected Sanitary Flow <sup>2</sup>	
									Average Water Flow (gal/day)	Peak Water Flow (gal/day)	Average Sanitary Flow (gal/day)	Peak Sanitary Flow (gal/day)

<sup>3</sup> Projected population does not include Greenfield Township or existing County populations that will be served in the future by Lancaster.

- 3 people per household
- 3.33 homes per acre
- 10 people per acre