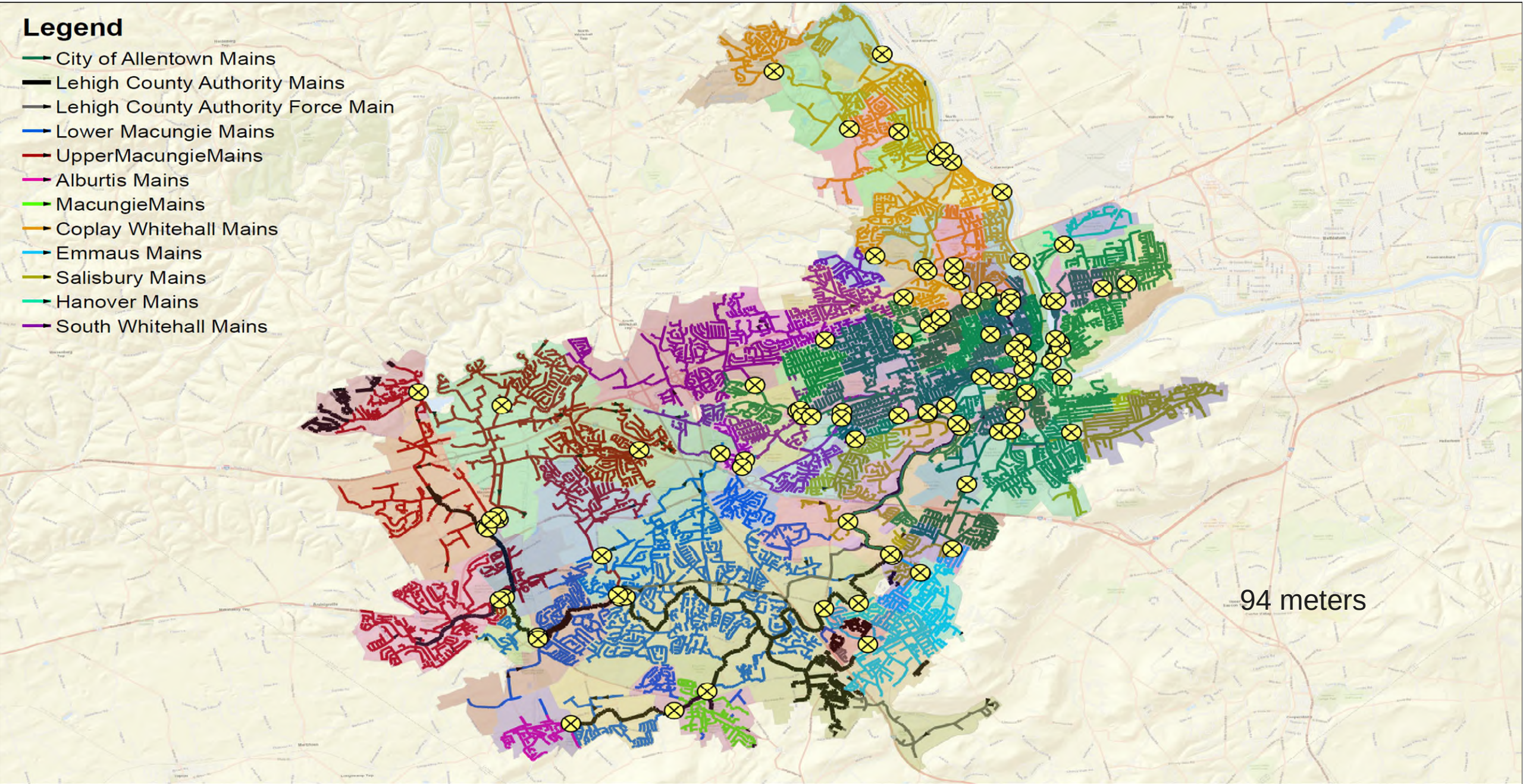


APPENDIX 9

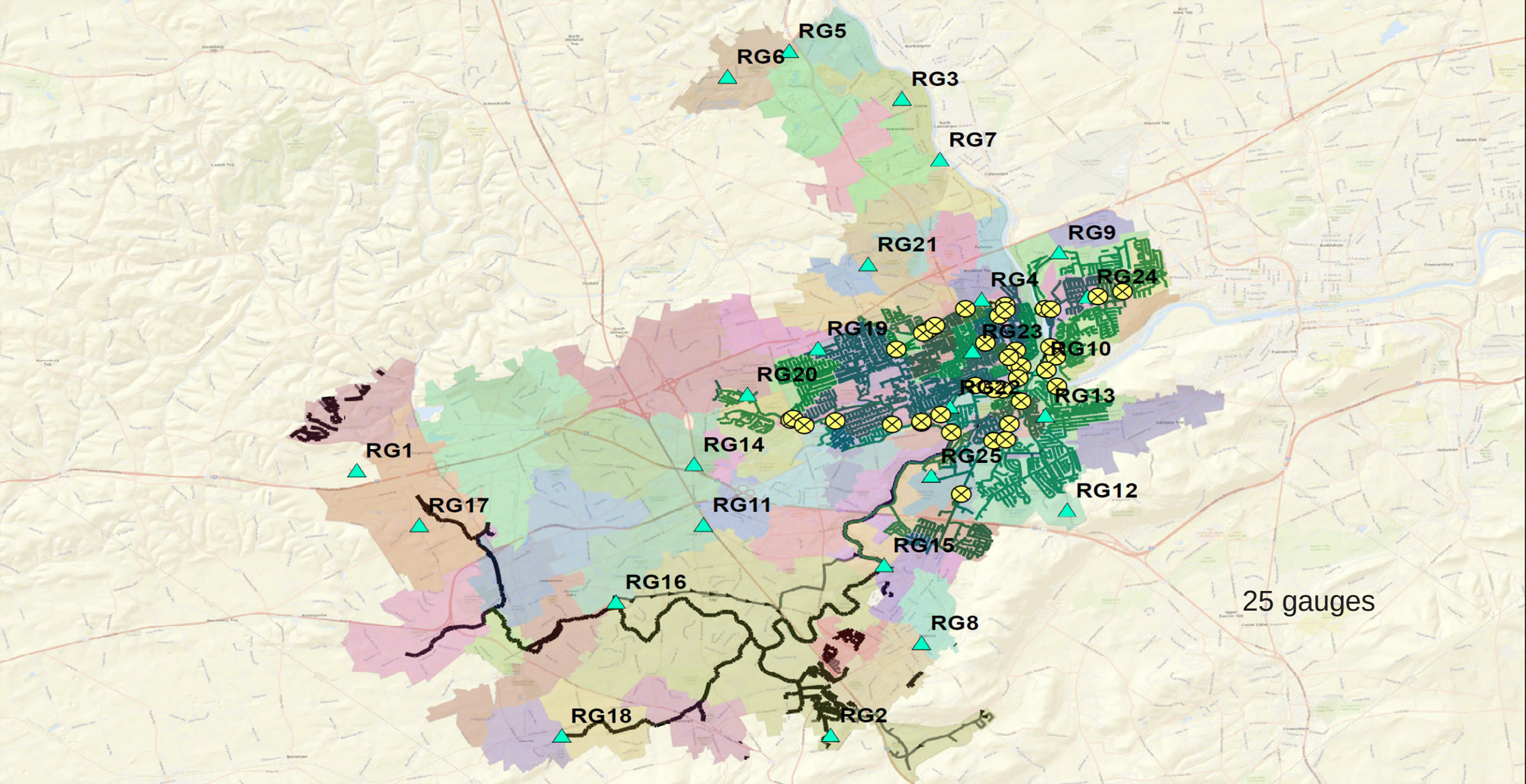
Source Reduction Plan Baseline Flow Study

Legend

- City of Allentown Mains
- Lehigh County Authority Mains
- Lehigh County Authority Force Main
- Lower Macungie Mains
- UpperMacungieMains
- Alburtis Mains
- MacungieMains
- Coplay Whitehall Mains
- Emmaus Mains
- Salisbury Mains
- Hanover Mains
- South Whitehall Mains



94 meters



Statistics by Basin

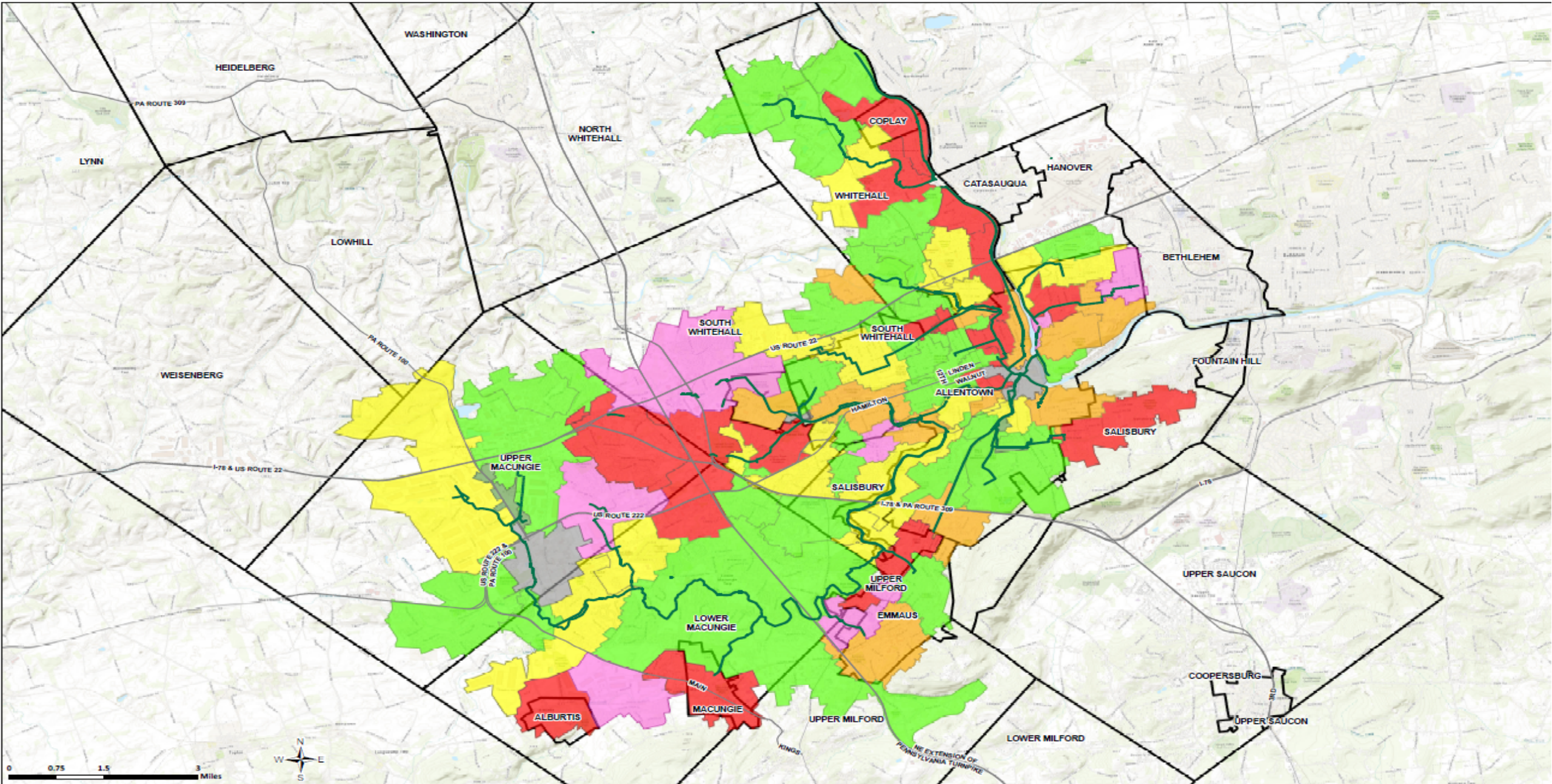
Meter	Hanover TL_Net	Ritter Elementary	Irving Park_Net	Bradford	ALBERT_Net	EASTSIDE	EAST MAPLE	UNION 1_Net	SUMNER 1_Net	SUMNER 2_Net	North 12th	North 11th	SUMNER 3_Net	North 6th 2_Net	SUMNER 4_Net	SUMNER 5_Net	GORDAN	GREEN	AMERICAN_ Net	LINDEN	UNION 2_Net	BASIN STREET 1	INDUSTRIAL	Tioga_Net	Trout Creek Park	JUNIATA_N et	BASIN STREET 2_Net	LITTLE CEDAR CREEK_Net	Cedarcrest Blvd
Signatory	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City	City+ST	City	City	City	City	City	City	City
Parcels	426	1,223	584	627	263	582	1,707	832	3,154	329	1,935	516	412	443	752	432	57,915	447	1,876	630	204	1,365	825	227	3,108	780	849	388	1,095
Basin Length (LF)	48,683	59,725	25,186	36,318	9,059	11,651	64,042	41,990	124,566	14,633	48,091	10,369	23,509	12,585	19,914	18,509	57,915	10,851	49,094	27,721	11,428	63,689	55,875	26,815	#####	32,229	39,222	40,306	75,410
Total Miles/ Percent of Signatory System	3.2%	4.0%	1.7%	2.4%	0.6%	0.8%	4.3%	2.8%	8.3%	1.0%	3.2%	0.7%	1.6%	0.8%	1.3%	1.2%	3.8%	0.7%	3.3%	1.8%	0.8%	4.2%	3.7%	1.8%	9.4%	2.1%	2.6%	2.7%	5.0%
Dry Weather GPD/EDU	347	268	299	296	440	548	260	235	205	322	177	232	641	501	170	377	242	412	127	241	378	310	218	273	364	603	676	1598	201
Average Dry Weather Flow, DWF (MGD)	0.772	0.328	0.175	0.72	0.116	0.319	0.443	0.195	0.647	0.106	0.343	0.12	0.264	0.222	0.128	0.163	0.63	0.184	0.239	0.304	0.077	0.424	0.327	0.88	1.293	0.47	0.676	0.62	0.22
Baseline Infiltration % <i>adjusted for data issues</i>	65%	36%	65%	44%	65%	51%	30%	35%	40%	40%	61%	38%	38%	60%	57%	55%	39%	33%	33%	31%	31%	46%	19%	40%	58%	51%	53%	76%	18%
Average Peaking Factor <i>adjusted for data issues</i>	5.0	12.7	6.0	7.5	27.6	3.0	6.8	6.0	4.1	3.4	2.3	2.3	6.7	7.0	5.1	7.7	2.4	2.2	7.5	3.2	8.0	5.5	5.1	2.9	4.0	3.4	4.6	6.0	4.5
Length Normalized RDII (GPD/LF)	4.3	8.7	5.3	2.8	53.4	7.1	5.2	2.3	2.6	6.6	1.3	1.9	4.8	28.3	6.2	18.4	1.6	1.6	5.1	2.5	52	5.4	5.6	15.8	4.7	8.5	19.8	10.1	2.1

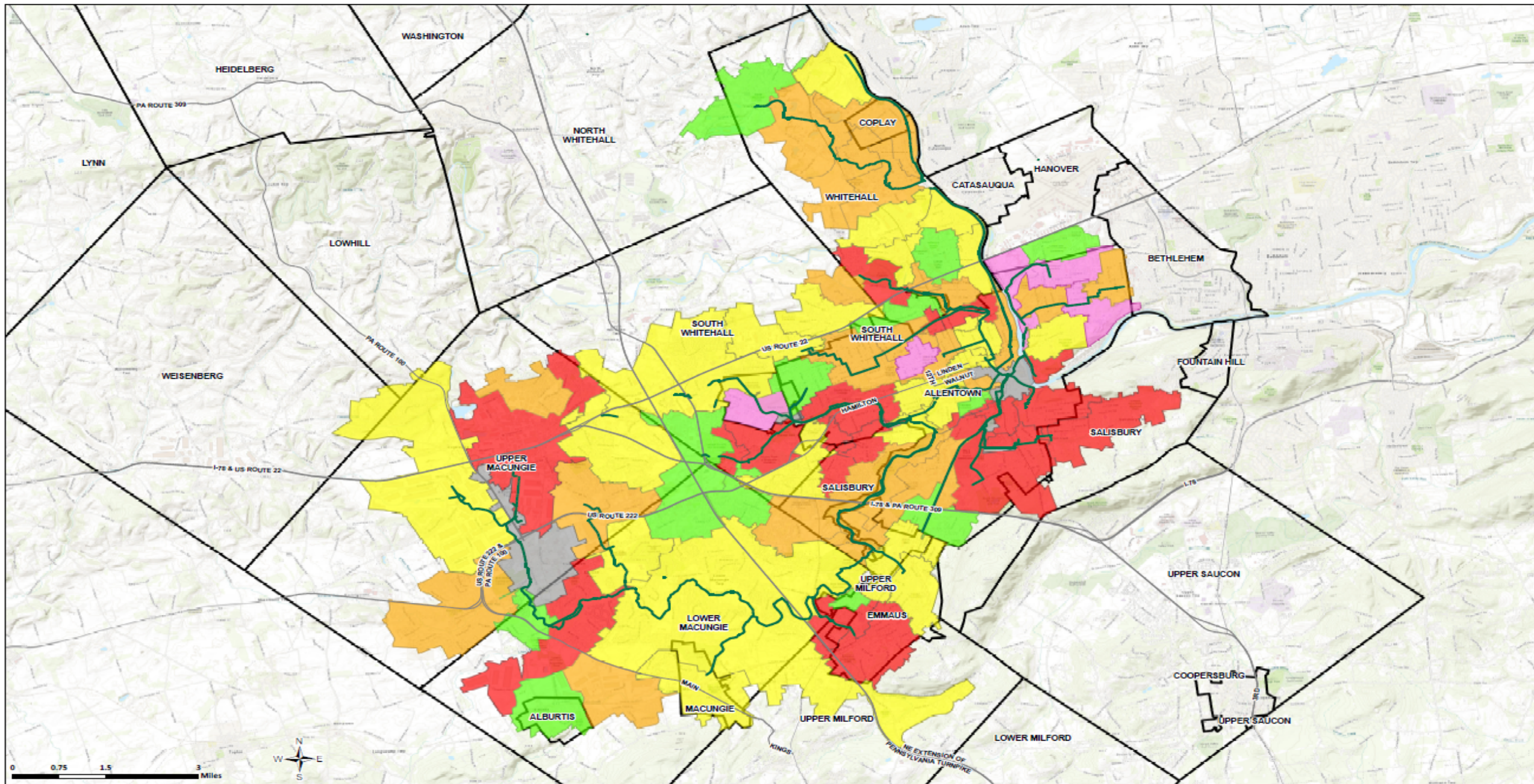
Statistics by Basin

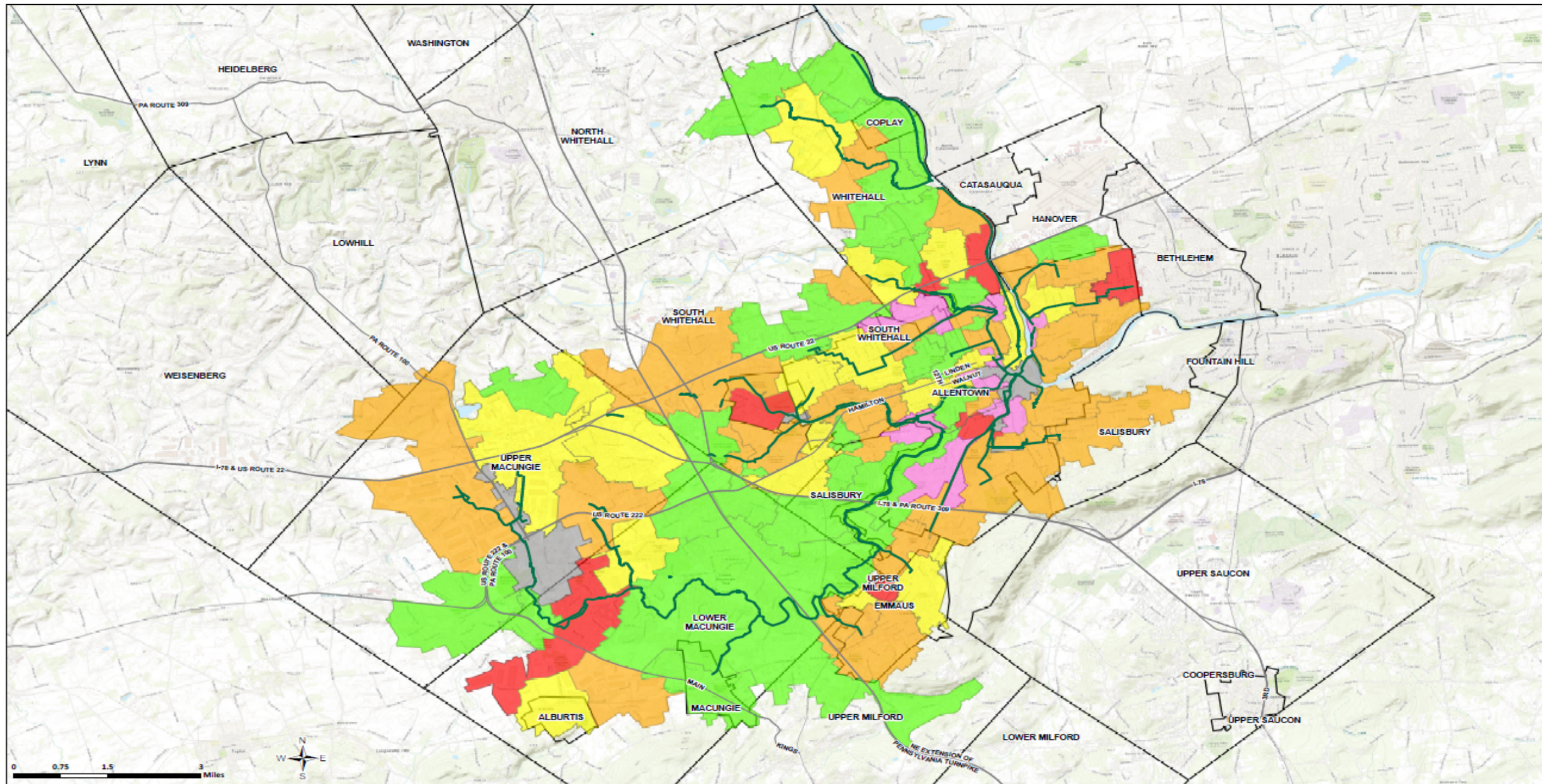
Meter	Park Blvd	ST. ELMO_Net	MLK2_Net	MLK3_Net	MLK1	FOUNTAIN PARK_Net	LEHIGH	PPS+U613	LITTLE LEHIGH_Net	CEDAR CREEK RI_Net	US Dorney	SW51	SW52	SW53	SW54	SW55	SW56	Hanover	ST10	ST1 Surrogate	ST8	U_26_84 (ST6)	PPS+U613	Eberhart North_Net	C-3.115	MacArthur 1_Net	Hokendaug ua Park_Net	Eberhart West_Net	Saylor Park	LR6-a
Signatory	City	City	City+ST	City+ST	City	City	City	City	City	SWT	SWT	SWT	SWT	SWT	SWT	SWT	SWT	HT	ST	ST	ST	ST	ST	CWSA	CSWA	CSWA	CSWA	CSWA	CSWA	CSWA
Parcels	287	1,241	462	157	1,978	426	353	1,055	251	-	1,302	667	1,025	1,311	2,418	800	487	237	1,687	566	390	1,001	1,055	1,535	1,454	623	831	672	701	745
Basin Length (LF)	15,894	83,039	35,573	20,987	59,512	30,066	8,685	44,778	20,278	15,526	55,608	44,592	65,448	72,963	168,942	71,764	31,158	20,384	104,982	32,860	40,862	34,414	48,511	73,780	83,665	42,100	56,778	46,901	40,493	53,472
Total Miles/ Percent of Signatory System	1.1%	5.5%	2.4%	1.4%	4.0%	2.0%	0.6%		1.3%	3.0%	10.6%	8.5%	12.5%	14.0%	32.3%	13.7%	6.0%	49.5%	28.8%	9.0%	11.2%	9.4%		10.6%	12.0%	6.0%	8.1%	6.7%	5.8%	7.7%
Dry Weather GPD/EDU	488	338	303	4346	278	1408	227		1673	4350	243	281	165	188	298	338	381	277	539	264	649	258		148	128	431	339	199	168	327
Average Dry Weather Flow, DWF (MGD)	0.14	0.42	0.14	0.682	0.55	0.6	0.08		0.42	0.065	0.28	0.19	0.17	0.246	0.72	0.27	0.442	0.066	0.637	0.15	0.253	0.661		0.228	0.186	0.262	0.282	0.134	0.118	0.243
Baseline Infiltration % adjusted for data issues	47%	47%	47%	30%	31%	25%	13%	35%	35%	100%	50%	46%	29%	30%	25%	26%	44%	17%	51%	47%	36%	32%	35%	35%	18%	43%	41%	41%	27%	27%
Average Peaking Factor adjusted for data issues	4.0	6.0	13.4	5.8	3.4	5.0	5.2	5.0	7.7	5.0	4.5	8.0	4.3	4.0	16.0	4.3	5.2	3.8	10.0	2.1	4.0	10.0	5.0	6.3	2.9	2.2	4.6	10.0	3.8	2.9
Length Normalized RDII (GPD/LF)		4.7	7.3	36	3.8		7.9		49.4		2.0	6.7	1.4	1.9	6.2	2.7	7.2	1.2	4.8	1	1.4	4.5		1.5	0.7	2.2	4.1	1.3	1.2	1.3

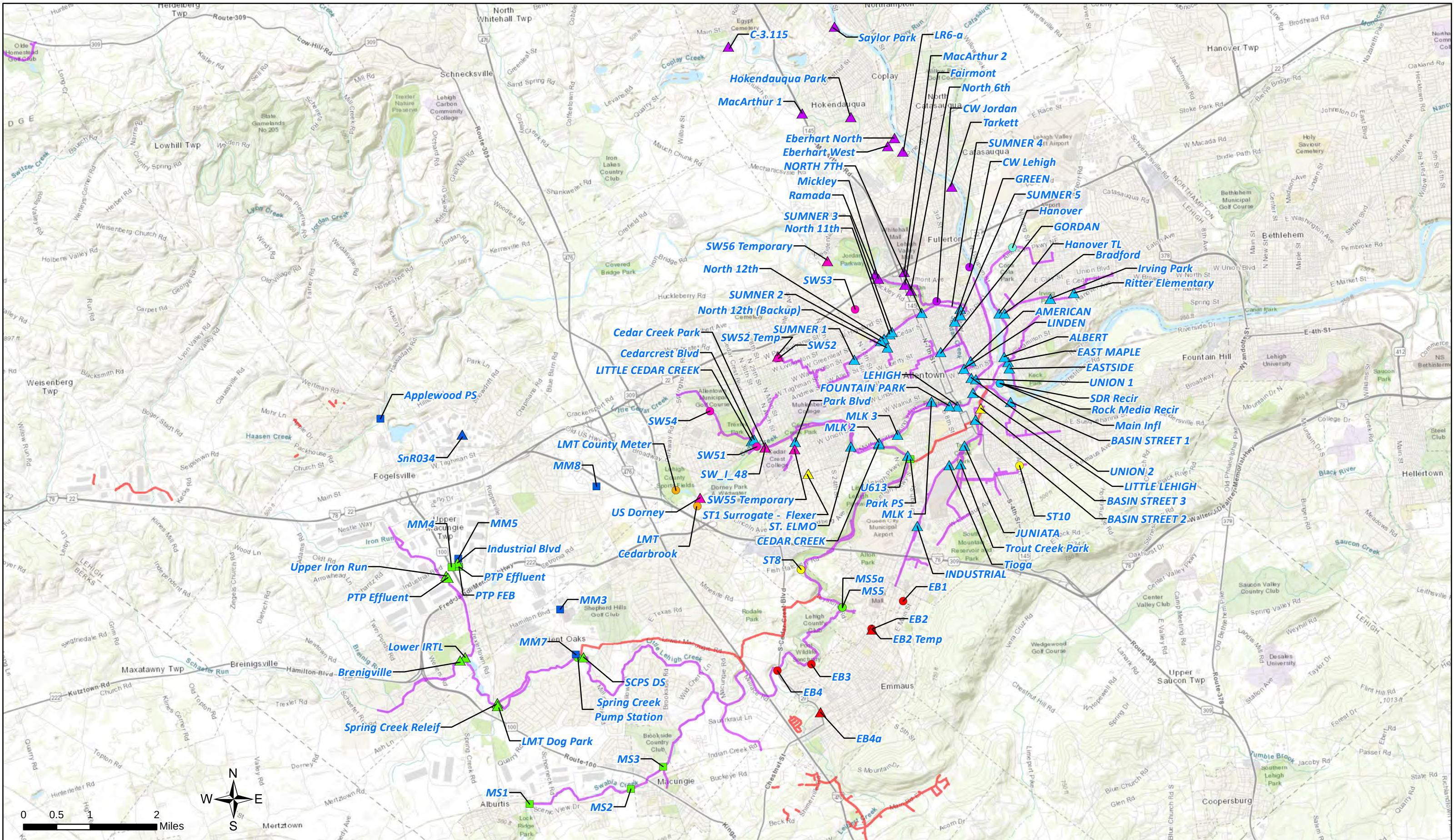
Statistics by Basin

Meter	Tarkett_Net	CW Lehigh_Net	Ramada	Mickley_Ne t	MacArthur 2	Fairmont_N et	North 6th_Net	CW Jordan_Net	EB1	EB2_Net	EB2a	EB3	EB4a	EB4	MM8	MM3 aka Phase 3_Net	MM7 aka Mill Creek_Net	SnR034	Industrial Blvd_Net	Upper Iron Run_Net	Breinigsville	MS1	MS3_Net	MS2/MS2 Temp_Net	LMT County	LMT Cedarbrook	LMT Dog Park + Spring Creek Relief	Spring Creek PS + SCPS DS_Net	MS5 Total_Net
Signatory	CSWA	CSWA	CSWA	CSWA	CSWA	CSWA	CSWA	CSWA	EB	EB	EB	EB	EB	EB	UMT	UMT	UMT	UMT	UMT	UMT	UMT	Alburtis	Macungie	LMT	LMT	LMT	LMT	LMT	LMT
Parcels	757	708	646	647	864	87	966	633	253	337	1,310	227	1,937	367	1,751	945	1,375	521	4,362	9,513	2,325	995	1,311	778	713	663	503	1,547	5,070
Basin Length (LF)	47,775	43,946	32,089	29,896	40,047	8,191	47,742	49,937	11,444	17,737	68,562	15,447	99,644	45,240	150,953	87,238	61,397	52,256	125,630	95,666	147,759	48,046	91,552	52,177	59,949	48,183	31,619	116,879	457,785
Total Miles/ Percent of Signatory System	6.9%	6.3%	4.6%	4.3%	5.7%	1.2%	6.9%	7.2%	4.4%	6.9%	26.5%	6.0%	38.5%	17.5%	21.3%	12.3%	8.7%	7.4%	17.8%	13.5%	20.9%	104.6%	157.6%	7.7%	8.8%	7.1%	4.6%	17.2%	67.2%
Dry Weather GPD/EDU	126	179	239	298	204	1006	273	217	268	327	280	220	253	245	213	209	224	239	111	20	347	167	268	166	295	166		160	230
Average Dry Weather Flow, DWF (MGD)	0.096	0.127	0.154	0.193	0.176	0.088	0.264	0.138	0.068	0.107	0.367	0.05	0.5	0.09	0.374	0.198	0.308	0.124	0.484	0.1888	0.806	0.166	0.351	0.129	0.21	0.11		0.248	1.166
Baseline Infiltration % adjusted for data issues	27%	27%	31%	46%	18%	40%	18%	45%	30%	29%	21%	20%	48%	48%	30%	34%	24%	36%	53%	25%	37%	13%	24%	39%	19%	18%	20%	54%	30%
Average Peaking Factor adjusted for data issues	10.0	9.0	2.8	2.4	4.7	5.0	3.4	5.0	6.0	15.1	4.0	8.0	5.4	20.0	9.0	15.0	4.9	2.7	2.4	4.5	2.1	7.0	7.0	12.0	6.2	2.5	4.0	4.5	4.0
Length Normalized RDII (GPD/LF)	4.4	9.7	1.3	2.2	2.2	11.5	15.6	1.2	2.5	8.5	3.6	3.3	4.3	5.6	2.3	6.5	2.5	0.8	3.4	6.5	2	3.7	1.5	4.7	3.1	0.7		9.6	0.6











Lehigh County Authority

 LCA Force Mains	 BOE	 Hanover	 ST
 Interceptor Mains	 CWSA	 LCA	 SWT
 SBM	 Signatory Non SBM	 LMT	 UMT
		 Temporary Meter	

LEHIGH COUNTY AUTHORITY

2021 FCS METER LOCATIONS

LEHIGH COUNTY, PENNSYLVANIA

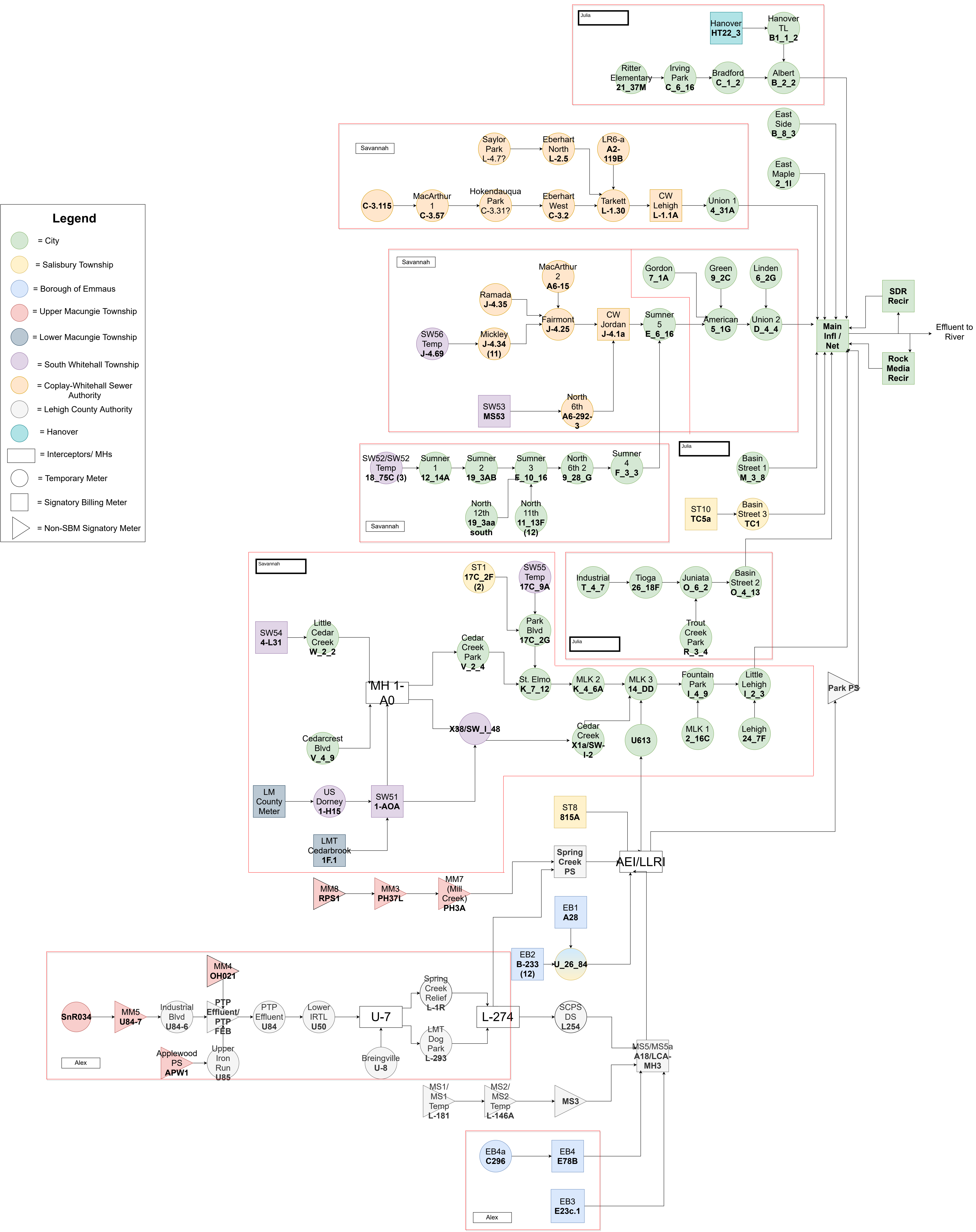
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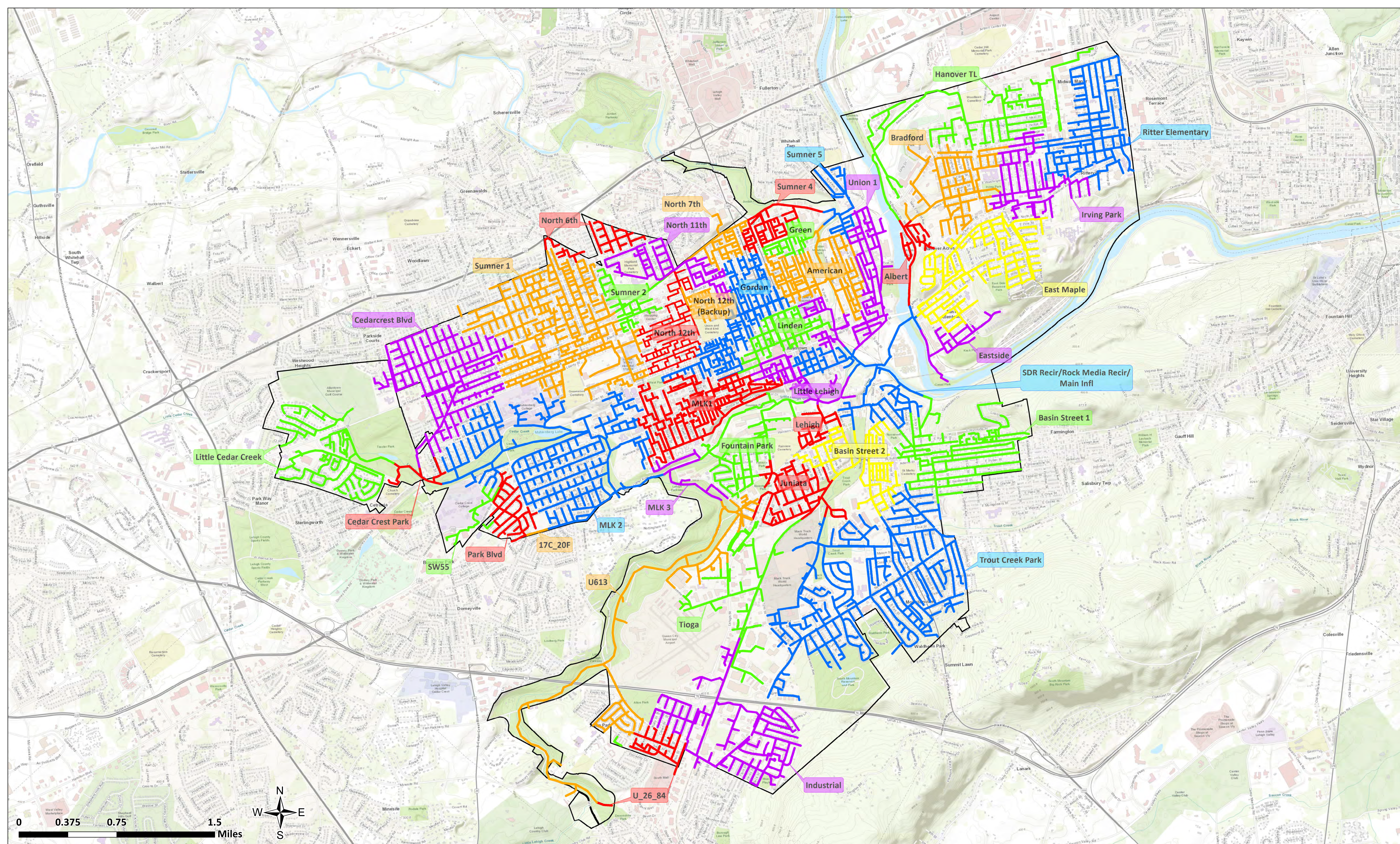
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GIS

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Lehigh County Authority 2021 FCS Meters





LEHIGH COUNTY AUTHORITY
CITY OF ALLENTOWN
SEWER BASINS
LEHIGH COUNTY, PENNSYLVANIA

Remarks:
Basin colors are for differentiation purposes only.

LEHIGH COUNTY AUTHORITY
GIS

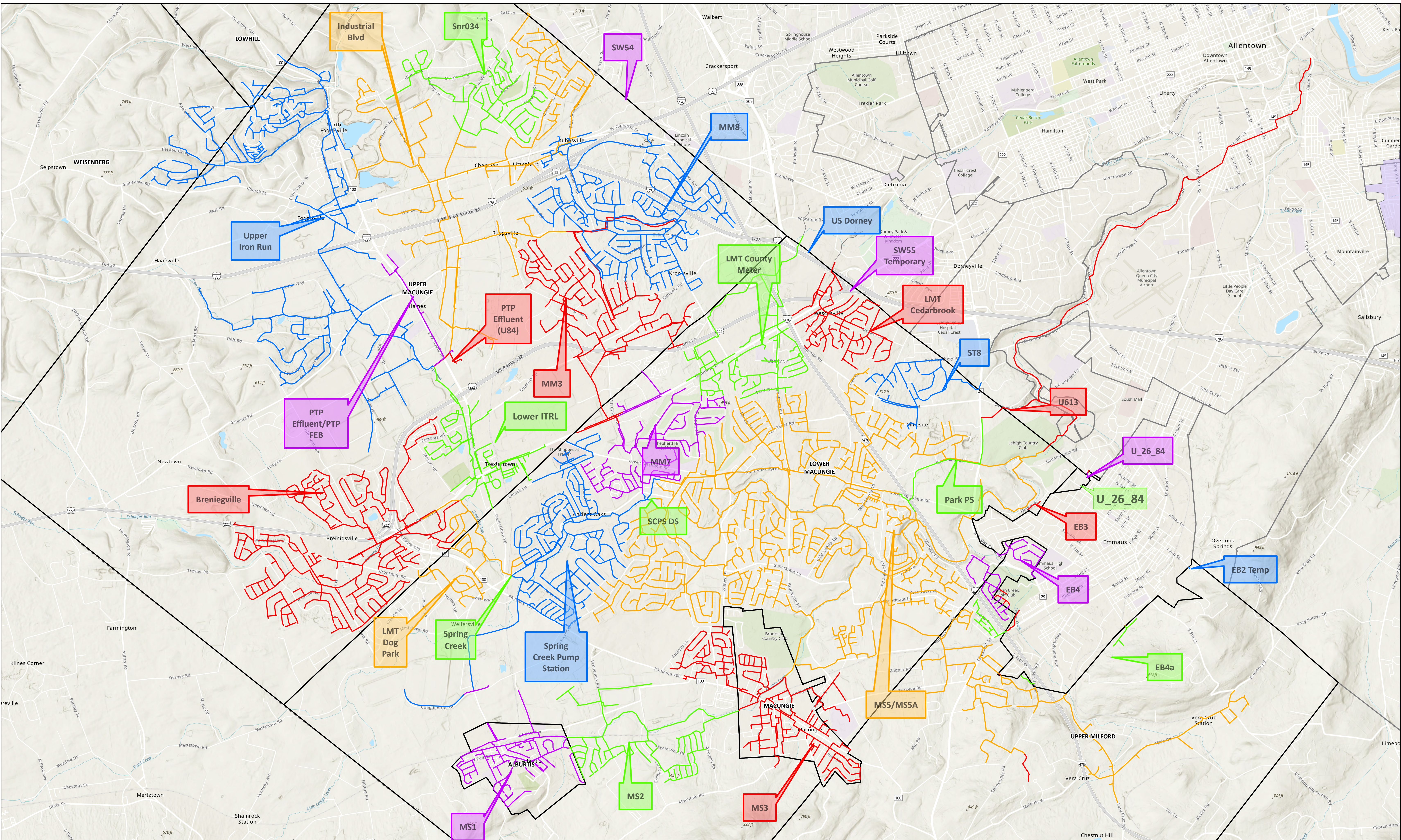
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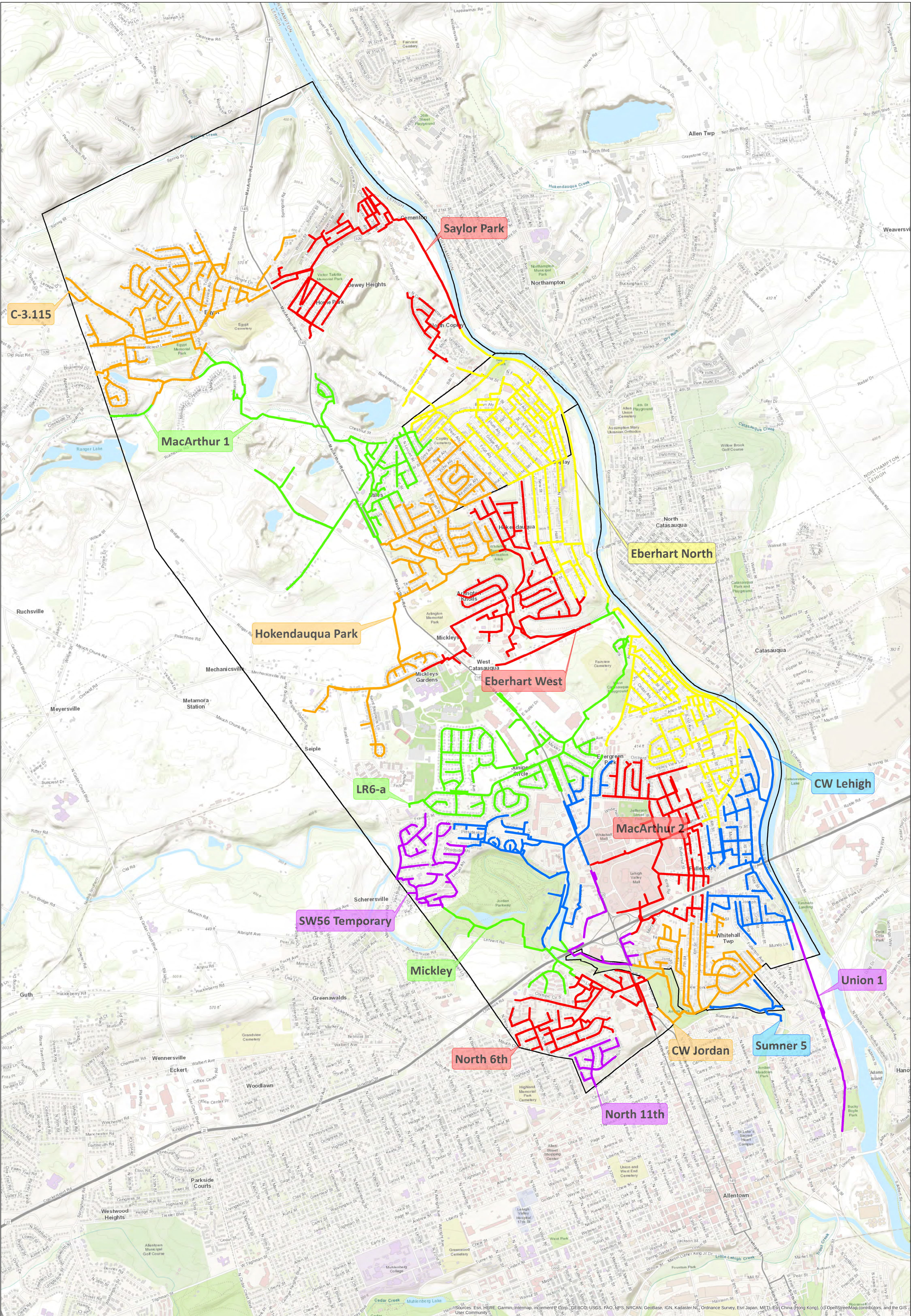


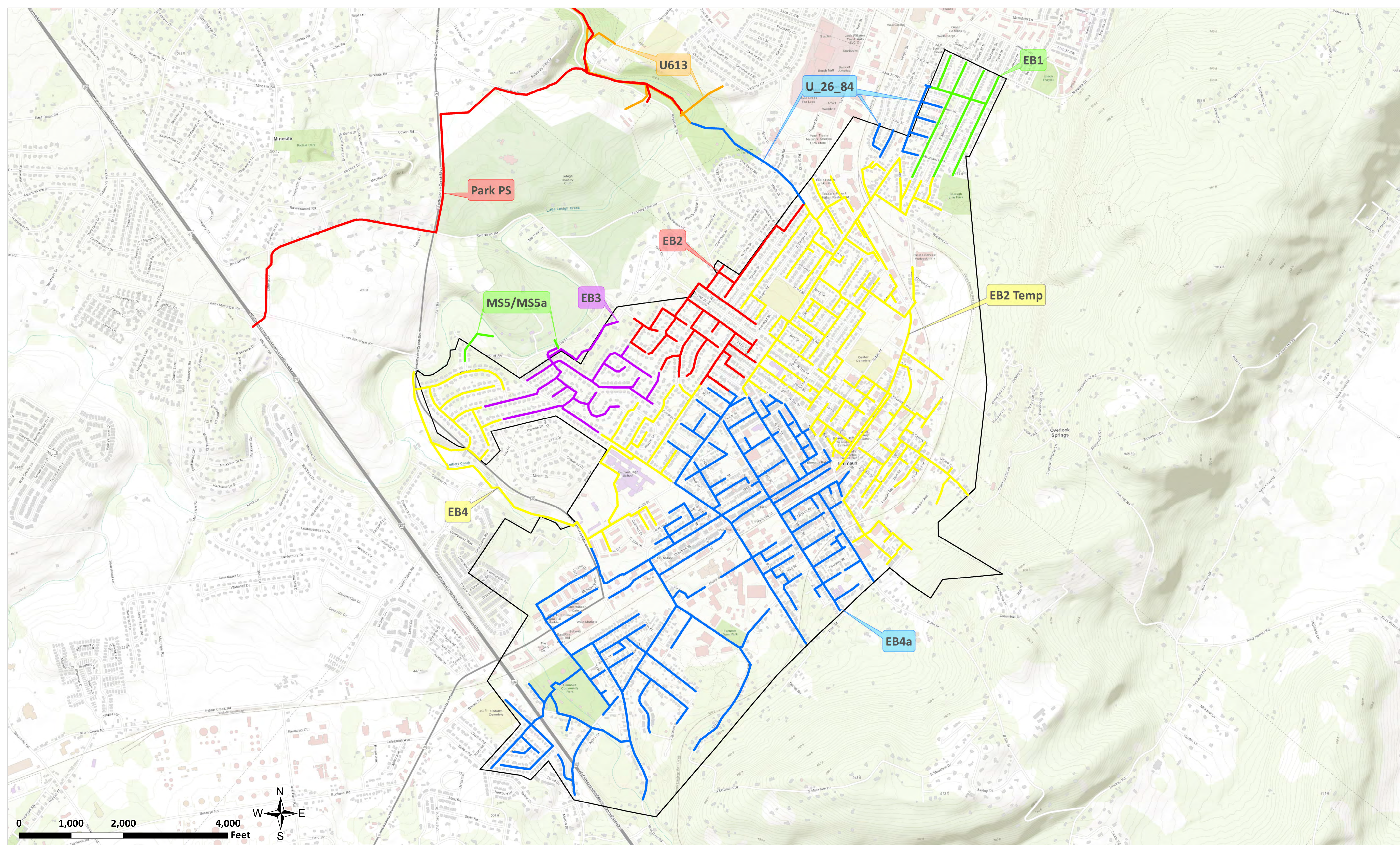
LEHIGH COUNTY AUTHORITY
LCA Sewer Basins
LEHIGH COUNTY, PENNSYLVANIA

Remarks:
Basin colors are for differentiation purposes only.

**LEHIGH COUNTY AUTHORITY
ASSET MANAGEMENT**

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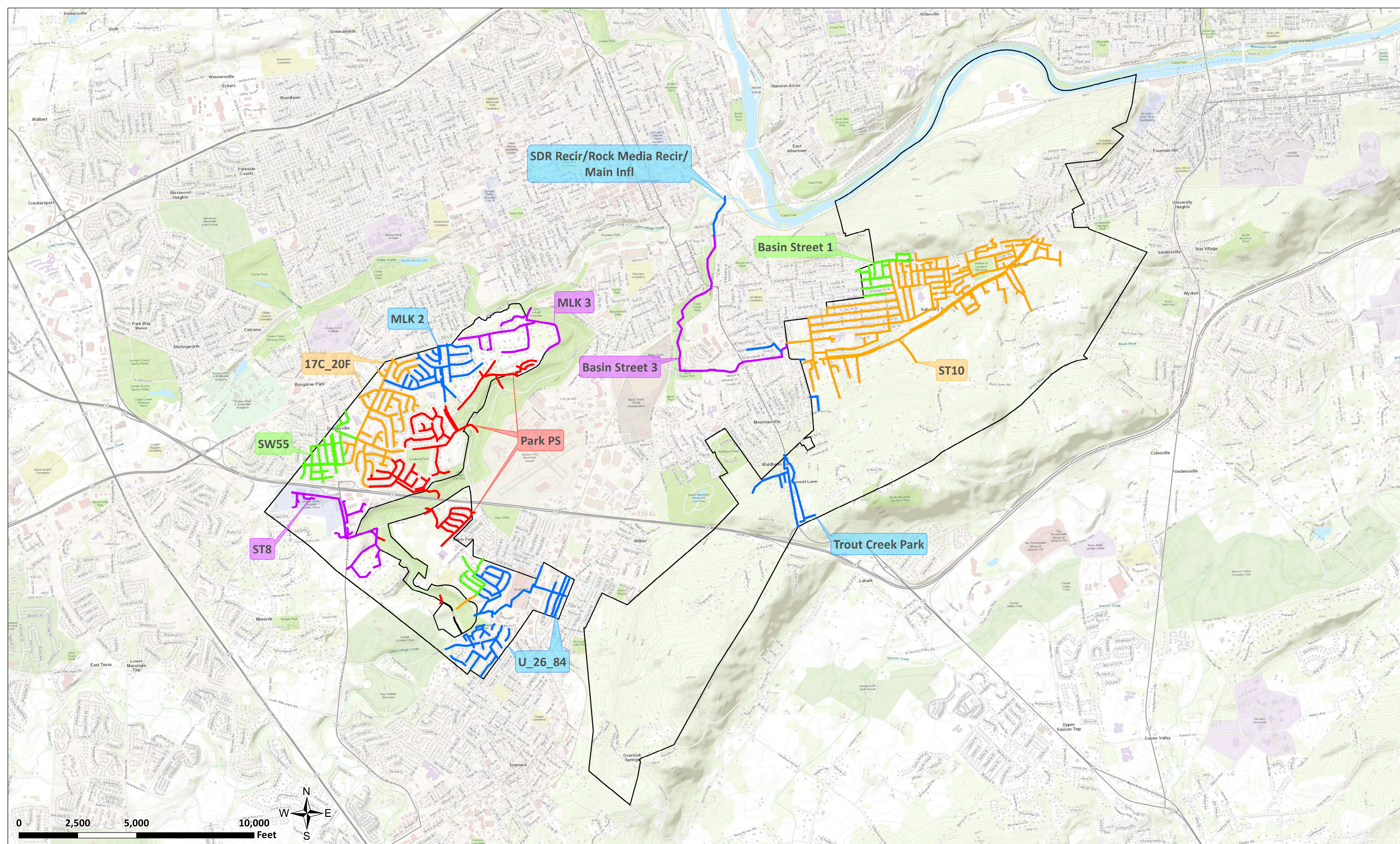
LEHIGH COUNTY AUTHORITY
BOROUGH OF EMMAUS
SEWER BASINS
LEHIGH COUNTY, PENNSYLVANIA

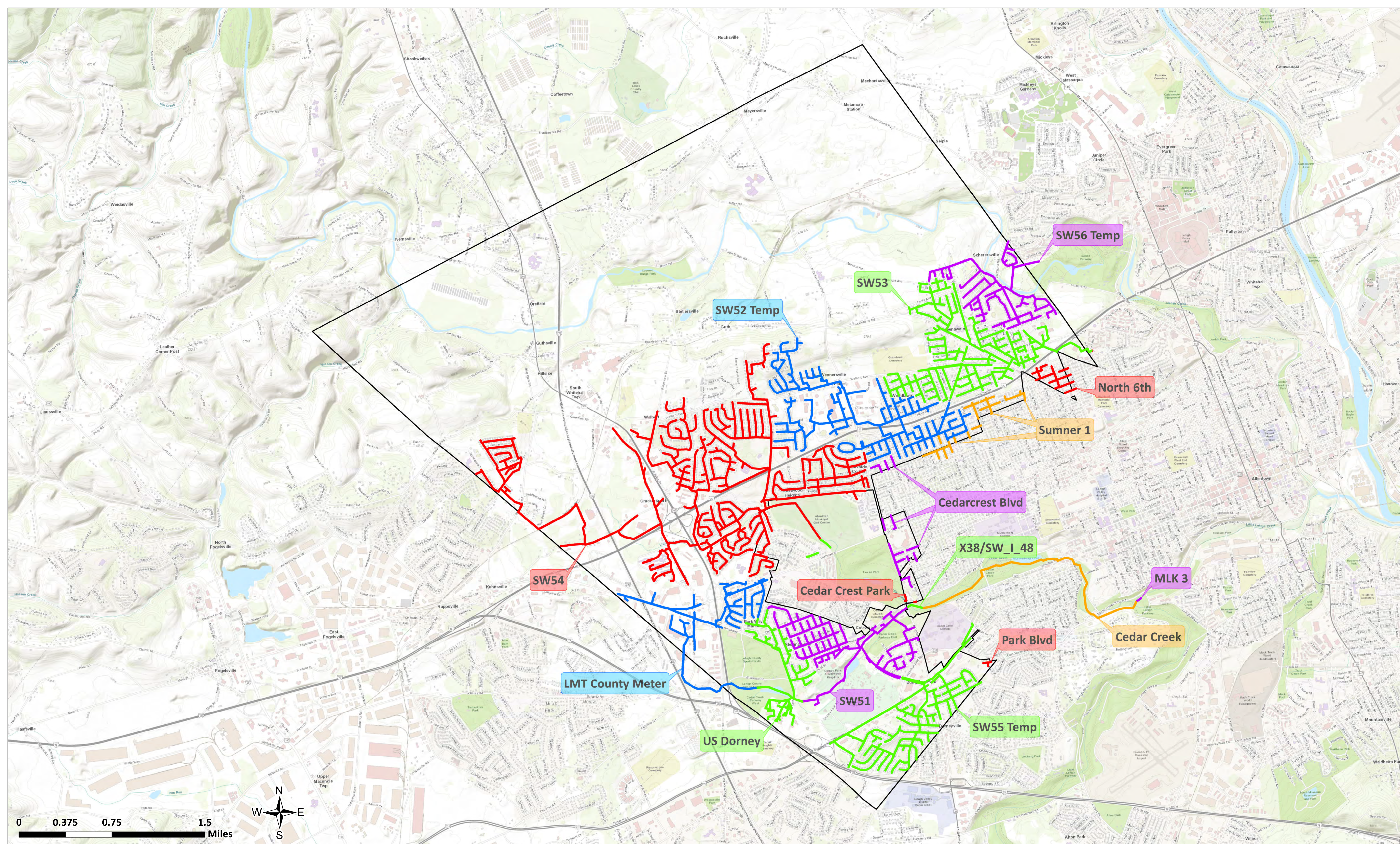
Remarks:
Basin colors are for differentiation purposes only.

LEHIGH COUNTY AUTHORITY
GIS

DATE: 3/8/2022 SCALE: 1:9,000
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LEHIGH COUNTY AUTHORITY
SOUTH WHITEHALL TOWNSHIP
SEWER BASINS
LEHIGH COUNTY, PENNSYLVANIA

Remarks:
Basin colors are for differentiation purposes only.

LEHIGH COUNTY AUTHORITY
GIS

DATE: 3/8/2022

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