Section 5

EXISTING SEWER SYSTEM

5-1 General Description

The existing sewer collection system in Old Model Colony, shown in Figure 5-1, is made up of a network of gravity sewers, pump stations, and force mains. The gravity system consists of approximately 365.7 miles (1,931,134 ft) of pipe and 7,582 manholes and cleanouts. The system also includes three pump stations and 11,588 feet of associated forcemains. The total existing average sewer load for Old Model Colony is estimated at 18.75 mgd. With an existing population of 174,536 persons, this is equivalent to approximately 107 gpd/person.

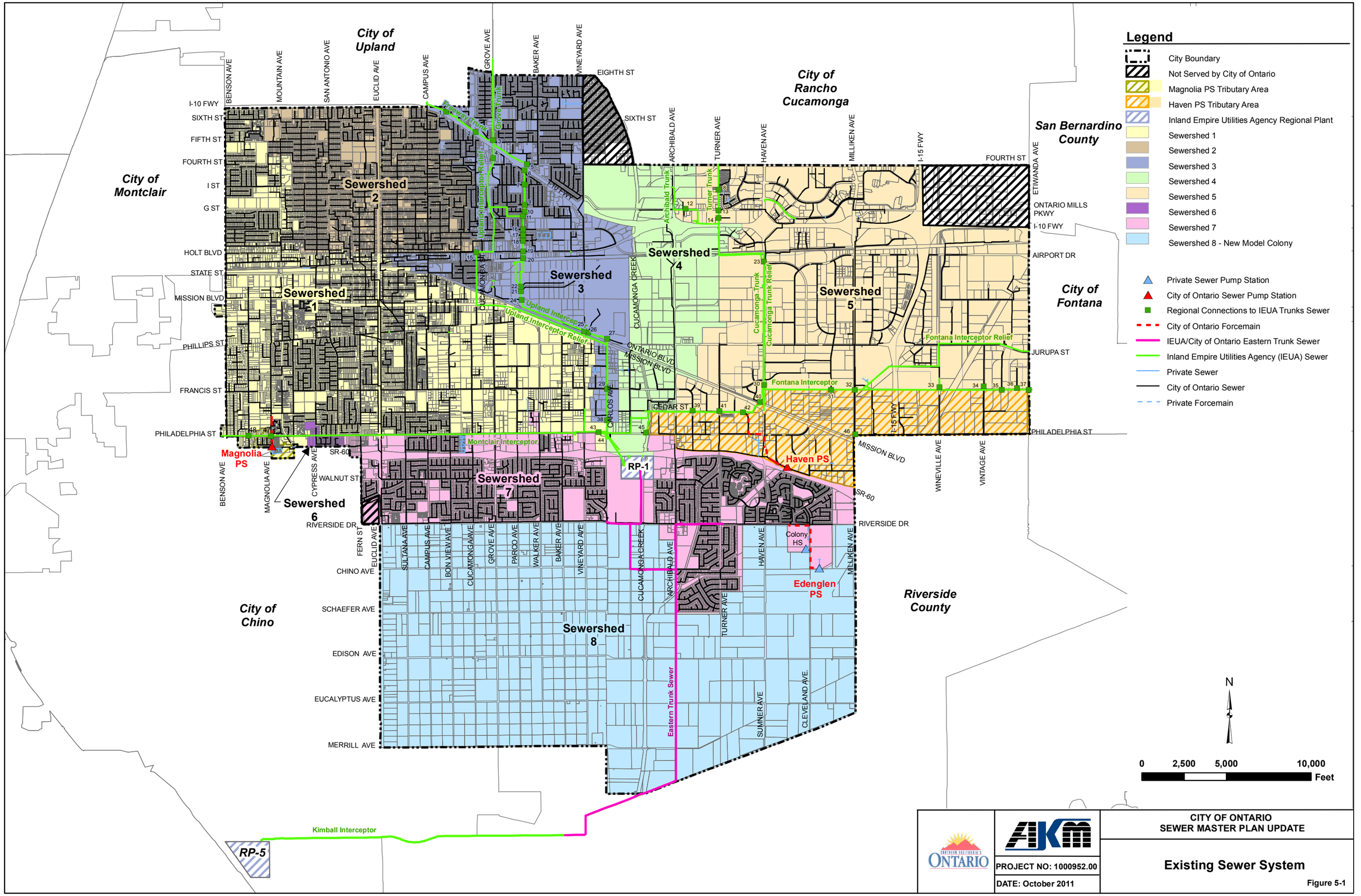
The general direction of flow is from north to south and east to west. The majority of the local sewers tie into one of the Inland Empire Utilities Agency (IEUA) trunk sewers crossing through the City. The sewage is then transported to IEUA's Regional Plant No.1 (RP-1) or Regional Plant No.5 (RP-5) for treatment.

Currently, the sewer system in New Model Colony consists of the RP-1 Outfall and the Eastern Trunk Sewer (ETS) which are joint use facilities. IEUA uses the RP-1 Outfall as a sewer bypass for RP-1. IEUA will ultimately be able to discharge an average flow of 20 mgd to the RP-1 Outfall. There will be a distribution box located at the intersection of Chino Avenue and Ontario Avenue. At this point, the average flow to the east is limited to 9 mgd. The remaining flow (11 mgd average) will be diverted west to the future Western Trunk Sewer, which will terminate at IEUA's Kimball Interceptor Sewer at the intersection of Euclid Avenue and Kimball Avenue.

IEUA and the City have agreed to temporarily divert the Whispering Lakes Pump Station flow east to the RP-1 Outfall line during the interim phases of the New Model Colony development. The diversion sewer ties into the RP-1 Outfall at the intersection of Riverside Drive and Ontario Avenue. The Whispering Lakes Pump Station flow is temporarily a part of IEUA's average daily flow capacity of 9 mgd that is conveyed to the ETS. Ultimately, the Whispering Lakes Pump Station flow will be diverted to the west following development of the western portion of New Model Colony and construction of the Western Trunk Sewer (WTS).

The existing sewers are primarily constructed of vitrified clay pipe with sizes ranging from 4-inches to 42-inches in diameter. Approximately 75 percent of the pipes are 8-inches in diameter. Figure 5-2 shows the length of gravity sewers (feet) in the existing system by pipe size. The majority of the sewer system was constructed between 1950 and 1990 as shown on Figure 5-3. Some of the collection system was constructed as early as 1895.

The RP-1 Outfall (Bypass Sewer) and the Eastern Trunk Sewer are joint facilities, owned by the City and IEUA. The total length of these facilities is 27,160 feet. The pipe sizes range from 33 inches to 48 inches in diameter.



CITY OF ONTARIO
SEWER MASTER PLAN UPDATE

PROJECT NO: 1000952.00

DATE: October 2011

Existing Sewer System

Figure 5-1

Figure 5-2
Total Length of Gravity Sewer by Size (feet)

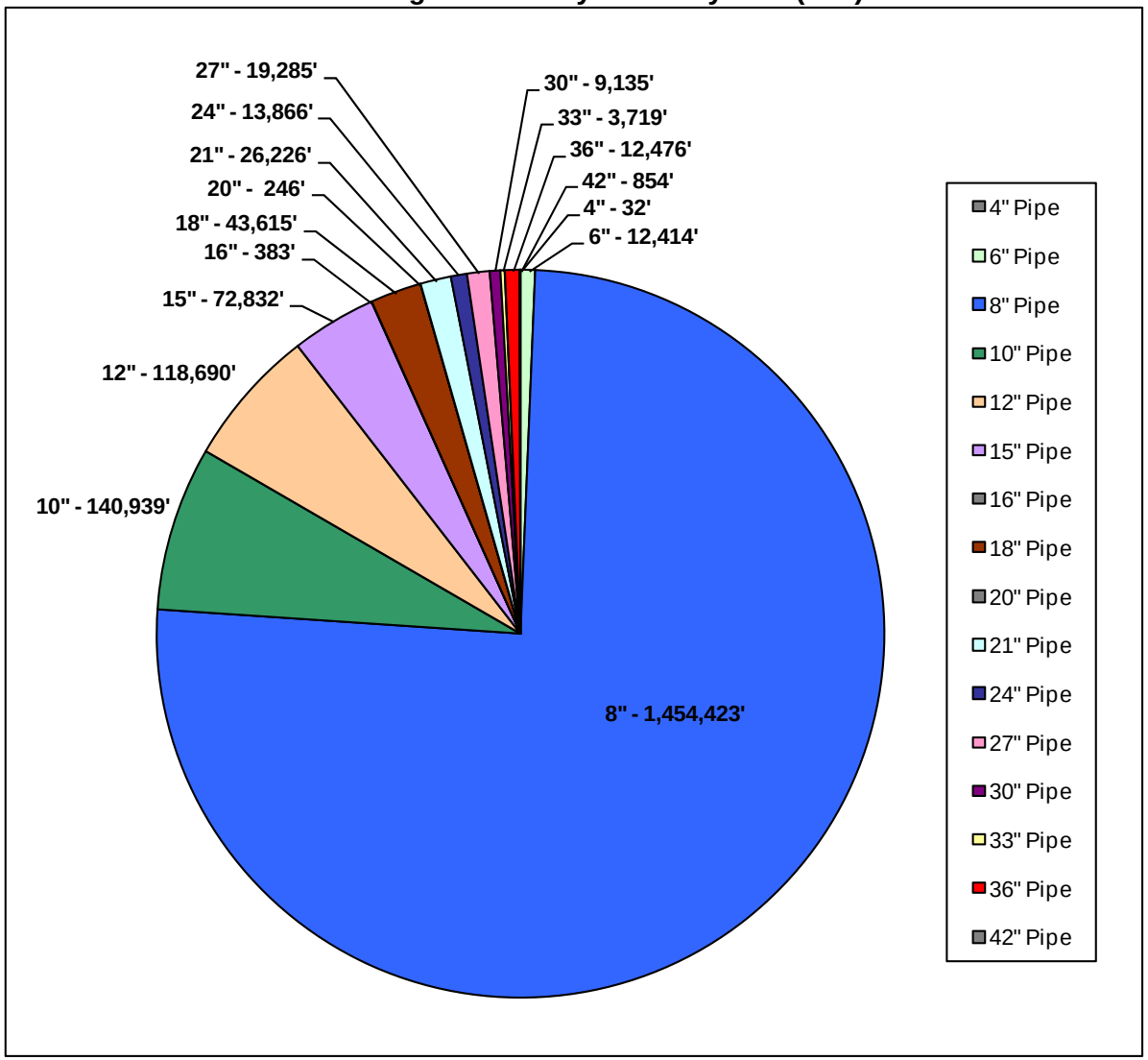
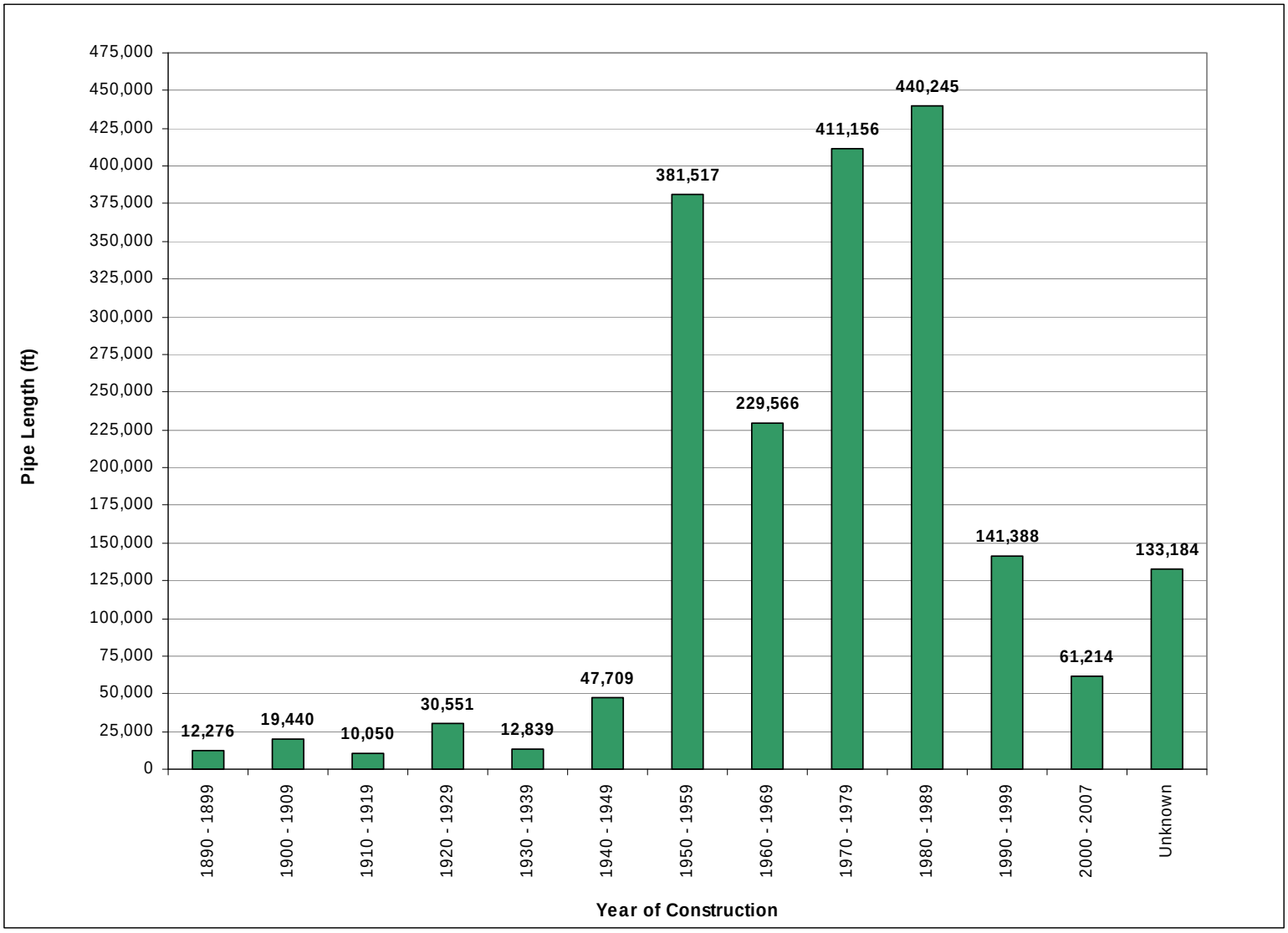


Figure 5-3
Total Length of Gravity Sewer by Year of Construction



5-2 Regional Facilities and Points of Connection

The Inland Empire Utilities Agency (IEUA) is the regional agency that provides wastewater collection, treatment and disposal to the west end of San Bernardino County. Its 242 square mile service area includes the Cities of Upland, Montclair, Ontario, Fontana, Chino, Chino Hills, Rancho Cucamonga, and unincorporated areas of San Bernardino County. IEUA's wastewater collection system accepts flows from the collection systems operated by contracting agencies and conveys this wastewater to one of its nearby regional plants for treatment and disposal.

Several regional trunk sewers collect most of the sewage generated in the service area and transport it to IEUA's Regional Plant No.1 for treatment. RP-1 is located south of the Pomona Freeway (SR-60) and west of Cucamonga Creek, as shown on Figure 5-4. It has been in operation since 1948. It has a current capacity of 44 million gallons per day. RP-1 also serves the Cities of Rancho Cucamonga, Upland, Montclair, Fontana, and portions of unincorporated San Bernardino County.

IEUA began operation of Regional Plant No.5 in March 2004. RP-5 is located in the City of Chino at the southeast corner of Kimball Avenue and El Prado Road, as shown on Figure 5-4. It has an ultimate capacity of 60 million gallons per day. Sewage generated in New Model Colony, as well as the flow diverted from the Old Model Colony lift station tributary areas is treated at RP-5.

IEUA had originally planned to bypass an average flow of up to 20 mgd from RP-1 to RP-5 via the NMC sewer system and Kimball Interceptor Sewer on Kimball Avenue. The first NMC sewer constructed (Eastern Trunk Sewer) was designed to carry 9 mgd of bypass flow from RP-1. Currently, IEUA does not expect to pursue the remaining 11 mgd bypass capacity in the NMC sewer system.

There are 47 existing regional connection locations where the OMC facilities connect to IEUA trunk sewers. These locations are listed in Table 5-1.

Table 5-1
Regional Connection Locations

	Regional Connec-tion ID	Manhole ID	Dia (ft)	Rim Elev (ft)	Invert Elev (ft)	Depth (ft)	Year Installed	Existing Flows		Ultimate Flows		Location	Connects to
								Average (mgd)	Peak (mgd)	Average (mgd)	Peak (mgd)		
1		F14119	5.0	1134.40	1125.91	8.49	1957	0.0099	0.0286	0.0267	0.0713	Hope Ave, north of I-10 Fwy	18" Sewer
2	O-45	G15120	6.0	1105.40	1097.56	7.84	1991	0.0043	0.0134	0.0322	0.0848	North of I-10 Fwy at extension to Cucamonga Ave	8" Sewer
3		G15140	4.0	1091.60	1082.32	9.28	1963	0.1406	0.3291	0.2774	0.6147	Grove Ave at Fifth St	24" Sewer
4		H15109	4.0	-	1065.08	-	1956	0.0696	0.1723	0.0836	0.2040	Grove Ave, north of Fourth St	30" Sewer
5	O-05	H16121	4.0	1055.80	1043.94	11.86	1957	0.2307	0.5189	0.4214	0.9030	Fourth St at I-10 Fwy	21" Sewer
6	O-06	H16128	4.0	1050.20	1037.52	12.68	1956	0.0013	0.0043	0.0027	0.0086	South of I-10 Fwy at extension of Imperial Ave	21" Sewer
7	O-08	H16158	4.0	1034.60	1022.32	12.28	1956	0.0237	0.0640	0.0205	0.0559	I St at Imperial Ave	21" Sewer
8	O-35	H20125	5.0	1009.20	995.35	13.85	1989	0.1905	0.4351	0.0910	0.2205	Turner Ave, south of Fourth St	24" Sewer
9	O-07	I16124	4.0	1015.67	1004.27	11.40	1962	0.0219	0.0593	0.0208	0.0568	Imperial Ave, north of G St	21" Sewer
10	O-09	I16143	4.0	-	997.89	-	1956	0.0062	0.0186	0.0076	0.0223	Imperial Ave at F St	21" Sewer
11		I16151	4.0	1008.61	994.03	14.58	1956	0.0049	0.0151	0.0032	0.0103	Imperial Ave at Flora St	21" Sewer
12	O-24	I19107	4.0	988.63	978.12	10.51	1987	0.0497	0.1265	0.2265	0.5101	Inland Empire Blvd, east of Archibald Ave	10" Sewer
13	O-23	I20136	5.0	994.80	981.50	13.30	1985	0.1564	0.3628	0.3161	0.6931	Turner Ave at Inland Empire Blvd	24" Sewer
14		I20139	4.0	990.20	975.10	15.10	-	0.0187	0.0514	0.0601	0.1506	Turner Ave, north I-10 Fwy	24" Sewer
15		J15175	5.0	984.25	964.35	19.30	2006	2.0191	3.8175	2.3642	4.4139	Holt Blvd at Cucamonga Ave	30" Sewer
16		J16108	4.0	994.80	982.93	11.87	1956	0.1715	0.3949	0.1485	0.3460	Imperial Ave at D St	21" Sewer
17	O-28	J16116	4.0	990.20	978.58	11.62	1956	0.0087	0.0254	0.0076	0.0224	Imperial Ave at Elma Ct	21" Sewer
18	O-29	J16122	4.0	986.40	974.24	12.16	1956	0.0426	0.1096	0.0318	0.0837	Imperial Ave at Nocta St	21" Sewer
19	O-12	J16133	5.0	975.40	963.00	12.40	1956	0.2307	0.5189	0.3873	0.8357	Imperial Ave at Holt Blvd	21" Sewer
20	O-11	K16101	4.0	971.40	957.16	14.24	1956	0.0104	0.0300	0.0219	0.0595	North side of Southern Pacific Railroad at extension of Imperial Ave	21" Sewer
21		K16130	4.0	946.00	927.82	18.18	2002	0.9725	1.9494	1.4055	2.7355	Airport	27" Sewer
22		K16132	4.0	946.83	927.82	19.01	2002	0.0000	0.0000	0.0000	0.0000	Airport	20" Sewer
23		K21103	4.0	955.00	944.67	10.33	1985	1.0229	2.0421	2.7067	4.9988	Haven Ave at Airport Dr	27" Sewer
24	O-13	L16120	4.0	936.20	923.22	12.98	1999	0.3630	0.7873	0.5655	1.1837	Easement north of Ontario Blvd, east of Mildred Ave	27" Sewer
25	O-15	M17109	5.0	907.28	895.13	12.15	1956	0.0180	0.0496	0.0158	0.0441	Vineyard Ave, north of Union Pacific Railroad	30" Sewer
26	O-17	M17113	4.0	905.20	893.48	11.72	1956	0.0765	0.1879	0.0172	0.0476	West of Vineyard Ave, north of Union Pacific Railroad	30" Sewer

Table 5-1 (continued)
Regional Connection Locations

	Regional Connec-tion ID	Manhole ID	Dia (ft)	Rim Elev (ft)	Invert Elev (ft)	Depth (ft)	Year Installed	Existing Flows		Ultimate Flows		Location	Connects to
								Average (mgd)	Peak (mgd)	Average (mgd)	Peak (mgd)		
27	O-16	M17117	4.0	897.40	883.50	13.90	1956	0.0174	0.0481	0.0199	0.0545	North of Union Pacific Railroad at extension of Carlos Ave	30" Sewer
28		M25IEUA	-	-	-	-	-	0.5515	1.1568	1.4409	2.7988	Vintage Ave, south of Jurupa St	-
29	O-18	N17135	4.0	863.00	852.04	10.96	1956	0.0382	0.0993	0.1670	0.3855	Carlos Ave at Francis St	30" Sewer
30	O-33	N21131	5.0	864.60	852.23	12.37	1992	0.6195	1.2874	2.2137	4.1547	Haven Ave, south of Francis St	30" Sewer
31	O-30	N22129	5.0	870.36	848.04	22.32	1985	0.0179	0.0495	0.0829	0.2024	Easement south of Francis St at extension of Dupont Ave	39" Sewer
32	O-26	N22130	6.0	877.15	849.28	27.87	1986	0.0266	0.0711	0.0989	0.2381	Milliken Ave, south of Francis St	39" Sewer
33		N24114	4.0	877.30	866.42	10.88	1986	0.0423	0.1089	0.1154	0.2743	Wineville Ave, north of Francis St	10" Sewer
34		N25111	5.0	873.42	864.40	9.02	1986	0.1557	0.3614	0.1445	0.3375	Vintage Ave, north of Francis St	36" Sewer
35	O-37	N25116	4.0	-	-	-	1986	0.0319	0.0841	0.0772	0.1895	Francis St at Champagne Ave	33" Sewer
36		N26116	6.0	874.53	865.89	8.64	1986	0.0056	0.0169	0.0441	0.1132	Chablis Ave at Francis St	33" Sewer
37	O-34	N26120	4.0	876.47	863.48	12.99	1986	0.0936	0.2262	0.0662	0.1644	Etiwanda Ave at Marlay Ave	33" Sewer
38		O17145	5.0	848.20	838.79	9.41	1987	0.0125	0.0354	0.0534	0.1350	Carlos Ave, south of Cedar St	15" Sewer
39	O-42	O19119	4.0	836.22	828.26	7.96	1988	0.0138	0.0388	0.0756	0.1859	Business Pw at Cedar St	18" Sewer
40		O20110	4.0	859.00	846.16	12.84	1993	0.0158	0.0440	0.1634	0.3777	North side of Southern Pacific Railroad, west of Haven Ave	18" Sewer
41	O-43	O20119	4.0	838.70	829.66	9.04	1988	0.1162	0.2762	0.5655	1.1837	Turner Ave at Cedar St	18" Sewer
42		O20137	4.0	846.20	-	-	1989	0.4006	0.8620	1.8986	3.6073	Cedar St, east of Sterling Ave	54" Sewer
43		P17113	4.0	-	826.85	-	1991	4.4615	7.9168	6.2141	10.7384	Philadelphia St, east of Vineyard Ave	42" Sewer
44		P18110	4.0	836.70	829.19	7.51	-	0.0032	0.0101	0.0285	0.0757	Philadelphia St at Cucomonga Creek	8" Sewer
45		P22103	4.0	-	-	-	-	0.0519	0.1316	0.1761	0.4046	Philadelphia St at Milliken Ave	24" Sewer
46		PH07	4.0	837.80	815.72	22.08	-	0.1301	0.3063	0.1746	0.4014	Philadelphia St at Magnolia Ave	30" Sewer
47		PH10	4.0	835.00	814.49	20.51	-	0.0442	0.1134	0.0516	0.1309	Philadelphia St at Oaks Ave	30" Sewer
							Total	**12.7143**		**23.1337**			

5-3 Sewersheds

For this study, the City has been divided into eight major sewersheds, as shown on Figure 5-1. Descriptions of each sewershed are as follows:

Sewershed 1

Sewershed 1 covers of approximately 6,500 acres located in the west portion of OMC. It is generally located west of Euclid Avenue, Mission Boulevard, and Carlos Avenue; and north of Philadelphia Street. Sewage is collected by the City's system and generally flows from north to south towards IEUA's Montclair Interceptor on Philadelphia Street. The flow is then conveyed east on Philadelphia Street to RP-1 for treatment.

Sewershed 1 also includes the 45 acre area tributary to Magnolia Pump Station, located on Magnolia Avenue south of Philadelphia Street.

A portion of Sewershed 1, north of Holt Boulevard and east of Mountain Avenue, will ultimately become a part of Sewershed 2 when the Holt Boulevard Sewer (Phase B) is put into operation. The flow generated in this area will be diverted to the new Holt Boulevard Sewer and conveyed east to the IEUA Upland Interceptor Relief at the intersection of Holt Boulevard and Cucamonga Street.

Sewershed 2

Sewershed 2 covers approximately 2,028 acres north of Holt Boulevard and east of Mountain Avenue. The sewage generated in this area is tributary to the recently constructed Holt Boulevard Sewer (Phase A & B). The flow direction is generally north to south towards Holt Boulevard. The Holt Boulevard Sewer then conveys the flow east to the IEUA Upland Interceptor Relief at the intersection of Holt Boulevard and Cucamonga Street. The IEUA trunk sewer continues south on Cucamonga Street to Mission Boulevard, then east to Carlos Avenue and south to RP-1.

Sewershed 3

Sewershed 3 covers approximately 3,070 acres located in the north central portion of OMC, generally east of Sewersheds 1 and 2, and west of Vineyard Avenue and Cucamonga Creek. Sewage is collected by the City's system and generally flows from north to south towards the IEUA Upland Interceptor on Ontario Boulevard. The IEUA Upland Interceptor in Ontario Boulevard and the Upland Interceptor Relief in Mission Boulevard combine into one 33-inch trunk sewer at the intersection of Mission Boulevard and Carlos Avenue, which carries flows south to RP-1 for treatment.

Sewershed 4

Sewershed 4 is located in the central portion of OMC and consists of about 1,800 acres. It is generally located east of Vineyard Avenue/Cucamonga Creek and west of Turner Avenue. Sewage is conveyed south towards RP-1, located just south of the Pomona Freeway west of Cucamonga Creek.

Sewershed 5

Sewershed 5 is the largest sewershed, covering about 7,040 acres. It is located in the eastern portion of OMC, generally east of Turner Avenue and north of Pomona Freeway/Philadelphia Street. It consists primarily of industrial and commercial land uses. Sewage is collected by the

City's system and transported to IEUA's Turner Trunk, Archibald Trunk, Cucamonga Trunk, Cucamonga Trunk Relief, and the Fontana Interceptor. The flow is ultimately treated at the RP-1 facility.

Sewershed 5 also includes the area tributary (1,580 acres) to Haven Pump Station, located just north of the Pomona Freeway (SR-60) and east of Haven Avenue. Ultimately, the sewage tributary to Haven Pump Station will be diverted south through the New Model Colony sewer system to IEUA's Kimball Interceptor Sewer. The pump station will be eliminated when the New Model Colony trunk sewer on Haven Avenue is constructed.

Sewershed 6

Sewershed 6 is 44 acres of land tributary to the City of Chino's sewer system. This sewershed is located in the southwest portion of OMC in the vicinity of Cypress Avenue and Philadelphia Street. A sewer agreement between the Cities of Ontario and Chino was signed in December 1981 (see Appendix D). In this agreement, the City of Chino agreed to provide sewer collection service for up to 202 dwelling units in this area. Sewer service for any additional units requires an amendment to this original agreement. Currently, service fees from the existing units in Sewershed 6 are collected by the City of Ontario. The City of Chino bills Ontario for the service at their current equivalent dwelling unit rate.

Sewershed 7

Sewershed 7 is comprised of the southern portion of OMC, generally south of Philadelphia Street west of Carlos Avenue and south of the Pomona Freeway east of Carlos Avenue. It is approximately 3,430 acres of primarily low density residential land. Previously, this area was served by four pump stations that pumped the tributary area sewage to RP-1 for treatment. These pump stations were eliminated with the construction of the Eastern Trunk Sewer in New Model Colony. Sewer diversion pipelines were constructed to carry the tributary flows from the site of the abandoned pump stations to the Eastern Trunk Sewer.

Sewershed 8

Sewershed 8 is the NMC area, which is approximately 13 square miles. The existing landuse is primarily agriculture with supporting single family residential. Currently, sewer service in the NMC is accomplished through septic tanks and subsurface disposal fields. A sewer collection system will be constructed as new development progresses.

Development of NMC has begun with the construction of the Brookfield Homes Development, Edenglen, located southwest of the intersection of Riverside Drive and Mill Creek Avenue. Currently, Edenglen is considered part of Sewershed 7. There is a temporary lift station located on the southerly portion of the property that collects sewage and pumps it north to the existing sewer system in Riverside Drive. In the future, the sewage generated in Edenglen will flow by gravity through New Model Colony to the Eastern Trunk Sewer.

5-4 Inverted Siphons

The City's existing sewer collection system includes inverted siphons at nine locations. Each was constructed to go under a major flood control channel or a conflicting utility. The primary concern with each siphon is the fact that grease and debris can often build up in the siphon requiring frequent maintenance to prevent sewer spills. The existing siphon locations and descriptions are listed in Table 5-2, and shown on Figure 5-4.

Table 5-2
Existing Siphons

Site	Pipe ID	U/S MH ID	D/S MH ID	Location	Purpose of Siphon	Dia (in)	Length (ft)	Year Installed	Mat	U/S Invert (ft)	D/S Invert	Plan No.
1	J23IS1008	J23103	J23104	New Guasti Road, east of Milliken Ave	Crossing under 64" RCP Storm Drain	6	59	1986	DIP	969.94	969.72	S10966
	J23IS1007	J23103	J23104			6	59	1986	DIP	969.94	969.72	S10966
2	N14IS1090	N14160	N14159	Francis St at Bon View Ave	Crossing under 12" and 18" Sewer Forcemain	24	21	1991	VCP	863.45	862.95	S10028
	N14IS1089	N14160	N14159			24	21	1991	VCP	863.45	862.95	S10028
3	N16IS1036	N16118	N16117	Francis St at West Cucamonga Channel	Crossing under West Cucamonga Channel	24	156	1991	VCP	852.14	851.47	S10023
	N16IS1035	N16118	N16117			15	156	1991	VCP	852.14	851.47	S10023
4	P17IS1012	O17156	P17102	Vineyard Ave, north of Philadelphia St	Crossing under 36" Steel Casing	18	176	1991	VCP	831.51	829.40	S10016
	P17IS1011	O17156	P17102			24	176	1991	VCP	831.51	829.40	S10016
5	P18CL1059	P18132	P18131	South of Philadelphia St west of Haven Ave	Crossing under Concrete Rectangular Storm Drain (b=43'-4"; d=10'-1" to 11'-8")	8	186	2001	VCP	828.11	825.32	1-201-40
	P18CL1062	P18132	P18131			18	186	2001	VCP	828.11	825.32	1-201-40
	P18CL1063	P18132	P18131			24	186	2001	VCP	828.11	825.32	1-201-40
6	J17CL1063	J17155	J17156	Intersection of Vineyard Ave and Holt Blvd	Crossing under 96" RCP Storm Drain	6	59	1983	DIP	955.83	954.47	D10802
	J17CL1063	J17155	J17156			12	59	1983	DIP	955.83	954.47	D10802
7	O18CL1012	O18103	O18102	2200 S Hellman behind Maglite	Crossing under Cucamonga Creek	18	177	1965	ACP	839.23	838.94	S11357
8	P20CL1039	P20127	P20126	60 Frwy and Turner	Unknown	10	70	1988	DIP	105.73	105.60	S11129
	P20CL1038	P20127	P20126			16	70	1988	DIP	105.73	105.60	S11129
9	R18CL1056	R18113	R18116	2400 E Riverside Dr	Unknown	10	257	1988	VCP	Unknown		S11082

Legend

- City Boundary
- Not Served by City of Ontario
- Magnolia PS Tributary Area
- Haven PS Tributary Area
- New Model Colony
- Inland Empire Utilities Agency
- Regional Plant No. 1
- City of Ontario Sewer
- City of Ontario Forcemain
- City of Ontario Sewer Pump Station
- IEUA/City of Ontario Eastern Trunk Sewer
- Private Forcemain
- Private Sewer Pump Station
- I181025 Siphon Location with Pipe ID
- G11158 Split Manhole Location with ID
- Flow Direction at Split Manhole
- Plug Location

Note: If plug is not shown, pipe is open but may serve as an overflow.

- City of Monclair Sewer
- City of Upland Sewer
- Cucamonga County Water District Sewer
- C.V. Water District
- Inland Empire Utilities Agency Sewer
- IEUA Non-Reclaimable Wastewater System
- Metropolitan Water District Sewer
- Private Sewer
- Sunkist Sewer

City of Upland

City of Montclair

City of Rancho Cucamonga

City of Fontana

City of Chino

Riverside County

Ontario International Airport

Landfill

New Model Colony

BENSON AVE · MOUNTAIN AVE · SAN ANTONIO AVE · EUCLID AVE · CAMPUS AVE · GROVE AVE · BAKER AVE · VINEYARD AVE · ARCHIBALD AVE · TURNER AVE · HAVEN AVE · MILLIKEN AVE · I-15 FWY · ETIWANDA AVE

I-10 FWY · SIXTH ST · FIFTH ST · FOURTH ST · I ST · G ST · HOLT BLVD · STATE ST · MISSION BLVD · PHILLIPS ST · FRANCIS ST · PHILADELPHIA ST · WALNUT ST · RIVERSIDE DR · SR-60 · ONTARIO MILLS PKWY · AIRPORT DR · JURUPA ST · MISSION BLVD

Freeway Trunk · Grove Trunk · Upland Interceptor Relief · Upland Interceptor · Archibald Trunk · Turner Trunk · Cucamonga Trunk · Cucamonga Trunk Relief · Fontana Interceptor Relief · Fontana Interceptor · Monclair Interceptor · CUCAMONGA CREEK · DEVILS HOLE · MISSION BLVD

MAGNOLIA PS · HAVEN PS · EDENGLEN PS · COLONY HIGH SCHOOL · RP-1

N

0 1,200 2,400 4,800 Feet

ONTARIO CALIFORNIA	AKM	CITY OF ONTARIO SEWER MASTER PLAN UPDATE
	PROJECT NO: 1000952.00	Siphon and Split Manhole Locations
	DATE: October 2011	Figure 5-4

5-5 Flow Splits

Multiple flow splits exist within the existing sewer collection system. Field investigations were conducted at the "major" flow splits, which are identified as those located on a main trunk sewer with larger tributary areas. Flow splits that occur at the top of sewersheds are not considered "major". Details of the "major" flow splits and the results of the field investigations are listed in Table 5-3. Flow split locations are shown on Figure 5-4.

Table 5-3
Flow Splits

No.	Manhole ID	Plan No.	Location	Flow Direction from Split Manhole	Field Comments
1	G11158	S-12470	Intersection of Mountain Ave and Princeton St	East	Pipe is plugged to the south (8" outlet).
2	G15140	S-13691	Intersection of Grove Ave and Fifth St	Southeast	Inaccessible due to busy intersection. Diverted southeast to new IEUA Upland Interceptor. Outlet/pipe to south is abandoned per City's 2007 GIS.
3	H15163	S-12203	Calvaras Ave north of "I" St	Southeast	The elevation to the southerly pipe seems to be a little bit higher and therefore it serves as an overflow pipe. Lines are parallel.
4	H16115	S-16115	Intersection of "B" St and Fourth St	South and Southeast	Inaccessible due to busy intersection. Plan shows that the sewer splits into parallel lines (8" & 8") right before entering IEUA sewer.
5	I14170	S-10264	Intersection of Monterey St and Orion St	South	Higher elevation on the east outlet.
6	I15172	S-11568	Easement south of Flora St, east of Grove Ave	East	Pipe is plugged to the west.
7	I15180	S-11411	"E" St west of Virginia Ave	East	There is a bridge blocking the flow to the south.
8	I15182	S-11411	"E" St west of Virginia Ave	East and West	Full flow for a shallow pipe.
9	J10141	S-13096	Benson Ave north of Stoneridge St	South	Pipe is plugged to east
10	J11132	S-10635	Hollowell St east of Mountain Ave	West	Flow is blocked to the south.
11	J14117	S-10261	Campus Ave at easement north of Nocta St	South	Much higher invert elevation on the west outlet.
12	J14152	S-10256	Monterey Ave at easement south of Nocta St	West	Higher invert elevation on the east outlet.
13	J15121	S-13122	Between "D" St and Elma St, west of Virginia Ave	East and West	On private property. Majority of the flow goes to the west.
14	J15137	S-13121	Intersection of Nocta St and Virginia Ave	East and West	Majority of flow goes to the west.
15	J15155	S-11005	Holt Blvd btw Bon View Ave and Cucamonga Ave	West and South	Large flow from north entering manhole. Flow splits between the south and west outlets.
16	K12110	S-13485	Brooks St west of Cypress Ave	South	
17	K12125	S-10753	Alley south of Holt Blvd, west of Cypress Ave	East and South	
18	K13124	S-10657	Main St west of Sultana Ave	East	Higher invert elevation on the south outlet.
19	K14126	S-11571, S-11335, S-10656	Intersection of State St and Campus Ave	East	No flow to the south.
20	K15120	S-10949	Intersection of Garfield Ave and Main St	South	There are two lines exiting manhole to the south and end up converging again to the same sewer downstream

Table 5-3 (Continued)
Flow Splits

No.	Manhole ID	Plan No.	Location	Flow Direction from Split Manhole	Field Comments
21	L13107	S-11313	Alley north of California St, east of Euclid Ave	East and South	
22	L13115	S-11313	Intersection of California St and Euclid Ave	West	Inaccessible in field. Operations crew says that the southeast outlet is plugged.
23	L13122	S-10772	Intersection of California St and Palm Ave	East and South	High flows.
24	L13131	No plans	Mission Blvd east of Euclid Ave	East and South	Primarily flows to the south.
25	L13159	S-10410	Easement between Maitland St and Ralston St, east of Plum Ave	East	There is a lot of flow from the northwest and very little from the west. The outlet to the southeast is plugged.
26	L13171	S-10410	Easement between Ralston St and Belmont St, east of Plum Ave	East	The outlet to the southeast is plugged.
27	L25107	S-10520, S-10549	Intersection of Santa Ana St and Vintage Ave	East	There is a bridge that blocks the south outlet.
28	M13101	S-12679	Belmont St west of Sultana Ave	East	There is no flow to the south east.
29	M13131	S-13111	Intersection of Phillips St and Fern Ave	Southeast	The outlet is plugged to the south.
30	M13134	S-12206	Euclid Ave south of Acacia St	South	There is a bridge blocking flow to the east.
31	M13144	S-13111	Intersection of Euclid Ave and Acacia St	South	Flow is plugged on the east.
32	M14100	S-12404	Intersection of Belmont St and Bon View Ave	South and West	Flow is normally suppsed to go both south and west. However, the west outlet was plugged with grease in the field.
33	M22132	S-10006, S-10830	Intersection of Milliken Ave and Jurupa St	West	Pipe is plugged to the south. Difficult to access sight.
34	N15142	S-10770, S-10027	Intersection of Francis St and Cucamonga Ave	East	No flow to the south.
35	Q19131	S-12048, S-11956	Intersection of Woodlark Dr and Walnut St	Southwest	Field crew says that line to the south east does not exist.
36	R13107	S-12125, S-12130, S-11234	Blue Jay Wy east of Fern Ave	South	Pump Station is eliminated. All flow goes to the south.
37	R18118	S-11422	Riverside Dr west of Colonial Ave	West	The south line appears to be plugged. Parallel pipes to west.
38	R19165	S-11832	Riverside Dr east of Archibald Ave	Southeast	Pump station is eliminated. All flow goes to the southeast and is carried west in Riverside Dr. sewer (Eastern Trunk Sewer through New Model Colony).

5-6 Septic Tanks

There are about 206 existing septic tanks in the OMC per City records. These locations are shown on Figure 5-5 and listed in Table 5-4. The comment column of Table 5-4 provides an initial recommendation for connecting the parcel with a septic tank to the existing sewer system. These comments are based on a master plan level study. It was beyond the scope of work to conduct a study for each individual site. Future work to determine the feasibility of connecting these parcels to the sewer system may include field investigations, site surveys, and review of existing utility plans.

Legend

- City Boundary
- Not Served by City of Ontario
- Old Model Colony Sewer Service Area
- New Model Colony
- Septic Tank Locations
- Inland Empire Utilities Agency Regional Wastewater Treatment Plant No. 1
- City of Ontario Sewer
- City of Ontario Forcemain
- City of Ontario Sewer Pump Station
- IEUA/City of Ontario Eastern Trunk Sewer
- Private Forcemain
- Private Sewer Pump Station
- Inland Empire Utilities Agency Sewer
- Private Sewer

City of Upland
City of Montclair
City of Rancho Cucamonga
City of Fontana
City of Chino
Riverside County
Ontario International Airport
New Model Colony
Landfill
RP-1
Magnolia PS
Haven PS
Edenglen PS
Colony HS

BENSON AVE
MOUNTAIN AVE
SAN ANTONIO AVE
EUCLID AVE
CAMPUS AVE
GROVE AVE
BAKER AVE
VINEYARD AVE
ARCHIBALD AVE
TURNER AVE
HAVEN AVE
MILLIKEN AVE
I-15 FWY
ETIWANDA AVE
I-10 FWY
AIRPORT DR
JURUPA ST
PHILADELPHIA ST
WINEVILLE AVE
VINTAGE AVE
MISSION BLVD
SR-60
RIVERSIDE DR
WALNUT ST
CYPRESS AVE
MAGNOLIA AVE
FERN ST
SULTANA AVE
BON VIEW AVE
CUCAMONGA AVE
PARCO AVE
WALKER AVE
CUCAMONGA CREEK
ONTARIO MILLS PKWY
I-10 FWY
SIXTH ST
FIFTH ST
FOURTH ST
I ST
G ST
HOLT BLVD
STATE ST
MISSION BLVD
PHILLIPS ST
FRANCIS ST
PHILADELPHIA ST
EIGHTH ST

Freeway Trunk
Grove Trunk
Upland Interceptor Relief
Archibald Trunk
Turner Trunk
Cucamonga Trunk
Cucamonga Trunk Relief
Upland Interceptor
Upland Interceptor Relief
Fontana Interceptor Relief
Fontana Interceptor
Montclair Interceptor

N

0 1,700 3,400 6,800 Feet

CITY OF ONTARIO
SEWER MASTER PLAN UPDATE

PROJECT NO: 100952.00
DATE: October 2011

OMC Septic Tank Locations

Figure 5-5

Table 5-4
Septic Tanks

	Parcel No.	Address				Area (Ac)	Existing Land Use	Comments
1	11032230	2445	E	GUASTI	RD	1.68	INF	Requires about 260' of sewer lateral to tie to MH J18106; flat grade
2	11321105	1241	E	AIRPORT	DR	0.85	IND	Nearest City MH is K15125 in State St; Further investigation needed
3	11321116	1215	E	AIRPORT	DR	0.14	IND	Nearest City MH is K15125 in State St; Further investigation needed
4	11321119	1225	E	AIRPORT	DR	0.15	MFR	Nearest City MH is K15125 in State St; Further investigation needed
5	11321133	1215	E	AIRPORT	DR	0.86	IND	Nearest City MH is K15125 in State St; Further investigation needed
6	11322120	1236	E	AIRPORT	DR	0.47	COM	Nearest City MH is K15125 in State St; Further investigation needed
7	11322123	1218	E	AIRPORT	DR	1.64	IND	Nearest City MH is K15125 in State St; Further investigation needed
8	11326107	0	E	AIRPORT		20.30	ARPT	Requires about 500' of sewer lateral to tie to MH M18102; 7 ft drop; s=0.0140
9	11333102	1240	E	ONTARIO	BL	0.41	VACANT	Possibly tie to IEUA sewer on Mission Boulevard
10	11333103	1250	E	ONTARIO	BL	0.64	IND	Possibly tie to IEUA sewer on Mission Boulevard
11	11333201	915	S	GROVE	AV	1.86	COM	Possibly tie to IEUA sewer on Mission Boulevard
12	11334302	905	S	PEACH	AV	0.68	SFR	Requires about 120' of sewer lateral to tie to MH L15127; 2 ft drop; s=0.0166
13	11334306	1332	E	KERN	ST	0.97	SFR	Requires about 240' of sewer lateral to tie to MH L16108; 2 ft drop; s=0.0083
14	11334307	1028	S	MILDRED	AV	0.66	IND	Tie to sewer in Mildred Avenue
15	11334320	1044	S	MILDRED	AV	0.18	UND	Tie to sewer in Mildred Avenue
16	11334322	1050	S	MILDRED	AV	0.18	SFR	Tie to sewer in Mildred Avenue
17	11334323	1056	S	MILDRED	AV	0.17	UND	Tie to sewer in Mildred Avenue
18	11334326	1337	E	BELMONT	ST	0.30	UND	Tie to sewer in Mildred Avenue
19	11335103	1348	E	BELMONT	ST	0.77	SFR	Tie to sewer in Mildred Avenue
20	11335112	1324	S	MILDRED	AV	0.86	MFR	Tie to sewer in Mildred Avenue
21	11335113	1338	S	MILDRED	AV	0.83	SFR	Tie to sewer in Mildred Avenue
22	21016109	2562	E	FOURTH	ST	0.34	SFR	Possibly tie to CWD sewer in Fourth Street
23	21018134	2814	E	FOURTH	ST	0.89	IND	Possibly tie to CWD sewer in Fourth Street
24	21040102	1011	N	ARCHIBALD	AV	3.42	MFR	Possibly tie to CVWD sewer in Archibald Ave
25	23805229	5355	E	AIRPORT	DR	4.35	COM	Possibly tie to Sewer in Airport Drive at MHJ25107
26	100855113	1337	W	FIFTH	ST	0.23	SFR	Requires about 330' of sewer lateral to tie to MH G101135; flat grade
27	101021101	1302	W	G	ST	9.82	COM	Requires about 350' of sewer lateral to tie to MH I10115; 5 ft drop; s=0.0143
28	101050178	940	W	HOLT	BL	0.35	COM	Tie to existing sewer at MHJ11161
29	101113210	1021	W	HOLT	BL	0.51	COM	GIS shows laterals to existing sewer
30	101113211	1013	W	HOLT	BL	0.28	COM	GIS shows laterals to existing sewer
31	101116105	833	W	STATE	ST	5.88	SFR	Requires about 500' of sewer lateral to tie to MH K12137; flat grade
32	101118213	1056	W	MISSION	BL	0.63	COM	Requires about 400' of sewer lateral to tie to MH L11108; 2 ft drop; s=0.005
33	101120104	501	S	OAKS	AV	0.47	UND	Possibly contruct 580 feet of sewer in Oaks Ave and tie to MH K10118
34	101120106	1341	W	STATE	ST	0.84	VACANT	Possibly contruct 580 feet of sewer in Oaks Ave and tie to MH K10118
35	101120109	1241	W	STATE	ST	5.32	SFR	Requires about 200' of sewer lateral & easement to tie to MH K11135; 5 ft drop; s=0.0200
36	101120111	520	S	MAGNOLIA	AV	2.41	AGR	Tie to sewer in Magnolia Street at MH K11140
37	101120112	531	S	OAKS	AV	1.13	IND	GIS shows lateral to Oaks Street
38	101121107	631	S	OAKS	AV	1.77	COM	Tie to sewer in Oaks Street
39	101122101	604	S	OAKS	AV	0.35	SFR	Tie to sewer in Oaks Street
40	101122102	616	S	OAKS	AV	0.90	SFR	Tie to sewer in Oaks Street
41	101122103	630	S	OAKS	AV	1.27	IND	Tie to sewer in Oaks Street
42	101122105	1428	W	MISSION	BL	0.36	VACANT	Requires about 170' of sewer lateral to tie to MH L10103; 2 ft drop; s=0.0117
43	101138210	1045	W	MISSION	BL	0.42	COM	Requires about 200' of sewer lateral to tie to MH L11500; 1 ft drop; s=0.005
44	101158102	1308	W	PHILLIPS	ST	0.86	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500
45	101158103	1326	W	PHILLIPS	ST	0.96	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500

Table 5-4 (Continued)
Septic Tanks

	Parcel No.	Address				Area (Ac)	Existing Land Use	Comments
46	101158104	1336	W	PHILLIPS	ST	1.37	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500
47	101158114	1224	W	PHILLIPS	ST	0.57	SFR	Requires about 400' of sewer lateral to tie to MH M11140; 4 ft drop; s=0.0100
48	101158115	1250	W	PHILLIPS	ST	6.53	SFR	GIS shows laterals to existing sewer
49	101158202	1345	W	PHILLIPS	ST	0.36	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500
50	101158203	1329	W	PHILLIPS	ST	0.56	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500
51	101158204	1315	W	PHILLIPS	ST	0.46	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500
52	101158205	1307	W	PHILLIPS	ST	0.52	SFR	Possibly contruct 450 feet of sewer in Phillips St and tie to CO M10500
53	101159116	1542	W	PHILLIPS	ST	0.96	SFR	Possibly contruct 500 feet of sewer in Phillips St & Helen Ave and tie to CO M10501
54	101159117	1530	W	PHILLIPS	ST	0.93	SFR	Possibly contruct 500 feet of sewer in Phillips St & Helen Ave and tie to CO M10501
55	101159118	1518	W	PHILLIPS	ST	0.92	SFR	Possibly contruct 500 feet of sewer in Phillips St & Helen Ave and tie to CO M10501
56	101159119	1510	W	PHILLIPS	ST	0.86	SFR	Possibly contruct 500 feet of sewer in Phillips St & Helen Ave and tie to CO M10501
57	101421107	1216	W	FRANCIS	ST	0.43	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
58	101421108	1228	W	FRANCIS	ST	0.43	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
59	101421109	1240	W	FRANCIS	ST	3.19	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
60	101421114	1252	W	FRANCIS	ST	0.59	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
61	101444106	1253	W	FRANCIS	ST	1.76	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
62	101444107	1241	W	FRANCIS	ST	0.91	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
63	101444109	1225	W	FRANCIS	ST	0.47	SFR	Possibly contruct 550 feet of sewer in Francis St and tie to MH N1153
64	101451108	814	W	PHILADELPHIA	ST	0.42	SFR	Tie to sewer in Philadelphia Street at MH P12129
65	101451109	830	W	PHILADELPHIA	ST	0.50	SFR	Tie to sewer in Philadelphia Street at MH P12129
66	101451110	842	W	PHILADELPHIA	ST	1.21	SFR	Tie to sewer in Philadelphia Street at MH P12129
67	101451111	852	W	PHILADELPHIA	ST	0.99	SFR	Tie to sewer in Philadelphia Street at MH P12129
68	101514104	839	W	PHILADELPHIA	ST	1.90	PUBLIC	Tie to sewer in Philadelphia Street at MH P12129
69	101514105	831	W	PHILADELPHIA	ST	2.92	PUBLIC	Tie to sewer in Philadelphia Street at MH P12129
70	101514110	931	W	PHILADELPHIA	ST	0.33	PUBLIC	Tie to sewer in Philadelphia Street at MH P12129
71	104745122	1128	E	FIFTH	ST	0.30	SFR	Requires about 130' of sewer lateral to tie to MH G15145; flat grade
72	104746215	1221	E	FOURTH	ST	0.84	AGR	Possibly contruct 300 feet of sewer in Fourth St and tie to MH H15112; may buck grade
73	104746216	1209	E	FOURTH	ST	0.13	COM	Possibly contruct 300 feet of sewer in Fourth St and tie to MH H15112; may buck grade
74	104746217	1205	E	FOURTH	ST	0.15	SFR	Possibly contruct 300 feet of sewer in Fourth St and tie to MH H15112; may buck grade
75	104749326	829	E	PRINCETON	ST	0.14	SFR	Possibly contruct 500 feet of sewer in Princeton St & Berlyn Ave and tie to MH G14178
76	104749327	823	E	PRINCETON	ST	0.14	SFR	Possibly contruct 500 feet of sewer in Princeton St & Berlyn Ave and tie to MH G14178
77	104749328	811	E	PRINCETON	ST	0.42	UND	Possibly contruct 500 feet of sewer in Princeton St & Berlyn Ave and tie to MH G14178
78	104751221	1125	N	CAMPUS	AV	0.26	SFR	Tie to sewer in Campus Ave
79	104802217	522	W	J	ST	0.13	SFR	Possibly contruct 350 feet of sewer in J St and tie to MH H12179
80	104802218	526	W	J	ST	0.16	SFR	Possibly contruct 350 feet of sewer in J St and tie to MH H12179
81	104802219	528	W	J	ST	0.19	SFR	Possibly contruct 350 feet of sewer in J St and tie to MH H12179
82	104804315	122	W	I	ST	0.28	SFR	Possibly contruct 200 feet of sewer in Bonview Ave and tie to CO L14500
83	104809313	1037	N	CAMPUS	AV	0.15	SFR	Tie to sewer in Campus Ave
84	104829239	804	N	SAN ANTONIO	AV	0.20	SFR	Requires about 150' of sewer lateral to tie to MH I12107; may buck grade

Table 5-4 (Continued)
Septic Tanks

	Parcel No.	Address				Area (Ac)	Existing Land Use	Comments
85	104833208	519	W	FLORA	ST	0.33	MFR	Requires about 200' of sewer lateral to tie to MH I12181; Flat grade
86	104837101	302	E	G	ST	0.09	SFR	Requires about 160' of sewer lateral to tie to MH I13140; 3 ft drop; s=0.019
87	104903103	615	W	MAIN	ST	0.60	COM	Possibly contruct 980 feet of sewer in Main St and tie to sewer in San Antonio Ave; flat grade
88	104903106	545	W	MAIN	ST	1.20	IND	Possibly contruct 980 feet of sewer in Main St and tie to sewer in San Antonio Ave; flat grade
89	104903107	539	W	MAIN	ST	0.31	VACANT	Possibly contruct 980 feet of sewer in Main St and tie to sewer in San Antonio Ave; flat grade
90	104910223	210	S	BON VIEW	AV	0.14	SFR	Requires about 120' of sewer lateral to tie to MH K14112; 2 ft drop; s=0.016
91	104913101	125	S	BON VIEW	AV	0.80	SFR	Requires about 120' of sewer lateral to tie to MH K14112; 2 ft drop; s=0.016
92	104913102	902	E	HOLT	BL	0.80	COM	Tie to sewer in Holt Blvd at MH J14183
93	104915101	214	S	GROVE	AV	0.20	SFR	Nearest City MH is K15125 in State St; Further investigation needed
94	104915102	228	S	GROVE	AV	0.25	SFR	Nearest City MH is K15125 in State St; Further investigation needed
95	104915104	1160	E	MAIN	ST	0.11	SFR	Nearest City MH is K15125 in State St; Further investigation needed
96	104915106	320	S	GROVE	AV	0.13	SFR	Nearest City MH is K15125 in State St; Further investigation needed
97	104915108	1157	E	STATE	ST	0.16	SFR	Nearest City MH is K15125 in State St; Further investigation needed
98	104915109	1157	E	MAIN	ST	0.12	SFR	Nearest City MH is K15125 in State St; Further investigation needed
99	104915113	1153	E	STATE	ST	0.51	SFR	Possibly tie to existing sewer on California Street at MH K15125
100	104915115	1151	E	MAIN	ST	1.02	SFR	Possibly tie to existing sewer on California Street at MH K15125
101	104915138	310	S	GROVE	AV	0.18	SFR	Nearest City MH is K15125 in State St; Further investigation needed
102	104916117	1152	E	STATE	ST	0.15	SFR	Nearest City MH is K15125 in State St; Further investigation needed
103	104916119	408	S	GROVE	AV	0.46	SFR	Nearest City MH is K15125 in State St; Further investigation needed
104	104917206	1125	E	CALIFORNIA	ST	0.80	COM	Possibly tie to existing sewer on California Street
105	104920409	854	E	ONTARIO	BL	0.24	SFR	Requires about 160' of sewer lateral to tie to MH K14146; Requires the grade to be bucked
106	104921201	731	S	TAYLOR	AV	0.18	VACANT	Possibly contruct 900 feet of sewer in Taylor Ave & California St and tie to MH L14113
107	104921203	717	S	TAYLOR	AV	0.33	COM	Possibly contruct 900 feet of sewer in Taylor Ave & California St and tie to MH L14113
108	104921204	713	S	TAYLOR	AV	0.17	SFR	Possibly contruct 900 feet of sewer in Taylor Ave & California St and tie to MH L14113
109	104921205	635	S	TAYLOR	AV	0.17	COM	Possibly contruct 900 feet of sewer in Taylor Ave & California St and tie to MH L14113
110	104921206	635	S	TAYLOR	AV	0.49	COM	Possibly contruct 900 feet of sewer in Taylor Ave & California St and tie to MH L14113
111	104921208	621	S	TAYLOR	AV	0.16	VACANT	Possibly contruct 900 feet of sewer in Taylor Ave & California St and tie to MH L14113
112	104921311	614	S	BON VIEW	AV	0.21	IND	Possibly contruct 200 feet of sewer in Bonview Ave and tie to CO L14500
113	104921312	620	S	BON VIEW	AV	0.17	IND	Possibly contruct 200 feet of sewer in Bonview Ave and tie to CO L14500
114	104921313	628	S	BON VIEW	AV	0.17	IND	Possibly contruct 200 feet of sewer in Bonview Ave and tie to CO L14500
115	104922102	616	E	SUNKIST	ST	0.61	IND	Requires about 80' of sewer lateral to tie to MH L13104; 1 ft drop; s=0.013
116	104928103	633	W	STATE	ST	1.26	IND	Requires about 250' of sewer lateral to tie to sewer in San Antonio Ave; flat grade
117	104929412	507	W	NEVADA	ST	0.07	SFR	Requires about 70' of sewer lateral to tie to MH L12101; 1 ft drop; s=0.0143
118	104932102	645	W	CALIFORNIA	ST	0.22	SFR	Possibly contruct 650 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
119	104932103	627	W	CALIFORNIA	ST	0.31	MFR	Possibly contruct 650 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129

Table 5-4 (Continued)
Septic Tanks

	Parcel No.	Address				Area (Ac)	Existing Land Use	Comments
120	104932104	621	W	CALIFORNIA	ST	0.25	SFR	Possibly contruct 650 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
121	104932106	607	W	CALIFORNIA	ST	0.51	COM	Possibly contruct 650 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
122	104932201	563	W	CALIFORNIA	ST	0.16	MFR	Possibly contruct 470 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
123	104932202	559	W	CALIFORNIA	ST	0.17	SFR	Possibly contruct 470 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
124	104932203	555	W	CALIFORNIA	ST	0.36	COM	Possibly contruct 470 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
125	104932204	545	W	CALIFORNIA	ST	0.18	COM	Possibly contruct 470 feet of sewer in Mission Blvd & Oakland Ave and tie to MH L12129
126	104932206	535	W	CALIFORNIA	ST	0.19	VACANT	Possibly contruct 620 feet of sewer in Mission Blvd & Vine Ave and tie to CO L12504
127	104932207	527	W	CALIFORNIA	ST	0.18	SFR	Possibly contruct 620 feet of sewer in Mission Blvd & Vine Ave and tie to CO L12504
128	104932208	523	W	CALIFORNIA	ST	0.19	SFR	Possibly contruct 620 feet of sewer in Mission Blvd & Vine Ave and tie to CO L12504
129	104932209	519	W	CALIFORNIA	ST	0.19	SFR	Possibly contruct 620 feet of sewer in Mission Blvd & Vine Ave and tie to CO L12504
130	104932210	503	W	CALIFORNIA	ST	0.28	COM	Possibly contruct 620 feet of sewer in Mission Blvd & Vine Ave and tie to CO L12504
131	104932211	810	S	VINE	AV	0.31	COM	Possibly contruct 620 feet of sewer in Mission Blvd & Vine Ave and tie to CO L12504
132	104932404	535	W	CARLTON	ST	0.61	SFR	GIS shows laterals to existing sewer
133	104932405	529	W	CARLTON	ST	0.22	SFR	GIS shows laterals to existing sewer
134	104932406	521	W	CARLTON	ST	0.39	SFR	GIS shows laterals to existing sewer
135	104932414	534	W	MAITLAND	ST	0.40	SFR	GIS shows laterals to existing sewer
136	104932415	546	W	MAITLAND	ST	0.25	SFR	GIS shows laterals to existing sewer
137	104932416	558	W	MAITLAND	ST	0.19	SFR	GIS shows laterals to existing sewer
138	104932417	554	W	MAITLAND	ST	0.18	SFR	GIS shows laterals to existing sewer
139	104932419	524	W	MAITLAND	ST	0.21	SFR	GIS shows laterals to existing sewer
140	104937212	1046	E	CALIFORNIA	ST	0.70	SFR	Possibly tie to existing sewer on California Street
141	104938101	1064	E	CALIFORNIA	ST	0.67	IND	Possibly tie to existing sewer on California Street
142	104938201	1108	E	CALIFORNIA	ST	0.72	SFR	Possibly tie to existing sewer on California Street
143	104938202	1120	E	CALIFORNIA	ST	0.42	UND	Possibly tie to existing sewer on California Street
144	104938203	1124	E	CALIFORNIA	ST	0.45	SFR	Possibly tie to existing sewer on California Street
145	104938204	1128	E	CALIFORNIA	ST	0.51	COM	Possibly tie to existing sewer on California Street
146	104955209	122	W	PHILLIPS	ST	0.33	SFR	Tie to sewer in Phillips Street at MH M13127
147	104955210	130	W	PHILLIPS	ST	0.35	SFR	Tie to sewer in Phillips Street at MH M13127
148	104955211	204	W	PHILLIPS	ST	0.34	SFR	Tie to sewer in Phillips Street at MH M13127
149	104956301	228	W	RALSTON	ST	0.19	SFR	GIS shows laterals to existing sewer
150	104958222	725	W	RALSTON	ST	0.17	SFR	Requires about 250' of sewer lateral to tie to MH L12155; flat grade
151	104959122	1216	S	OAKLAND	AV	0.13	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
152	104959123	1224	S	OAKLAND	AV	0.19	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
153	104959124	1230	S	OAKLAND	AV	0.35	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
154	104959125	604	W	PHILLIPS	ST	0.17	SFR	GIS shows laterals to sewer in Phillips Street
155	104959126	608	W	PHILLIPS	ST	0.17	SFR	GIS shows laterals to sewer in Phillips Street
156	104959127	612	W	PHILLIPS	ST	0.17	SFR	GIS shows laterals to sewer in Phillips Street
157	104959128	618	W	PHILLIPS	ST	0.17	SFR	GIS shows laterals to sewer in Phillips Street
158	104959201	1251	S	OAKLAND	AV	0.09	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
159	104959202	1249	S	OAKLAND	AV	0.11	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St

Table 5-4 (Continued)
Septic Tanks

	Parcel No.	Address				Area (Ac)	Existing Land Use	Comments
160	104959203	1239	S	OAKLAND	AV	0.16	MFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
161	104959205	1223	S	OAKLAND	AV	0.15	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
162	104959206	1219	S	OAKLAND	AV	0.19	MFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
163	104959208	1217	S	OAKLAND	AV	0.14	SFR	Nearest City MH is M12127; Possibly build 600 feet sewer in Oakland Ave and Phillips St
164	104959224	520	W	PHILLIPS	ST	0.16	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
165	104959225	524	W	PHILLIPS	ST	0.16	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
166	104959226	530	W	PHILLIPS	ST	0.12	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
167	104959227	1229	S	BONITA	CT	0.31	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
168	104959228	1221	S	BONITA	CT	0.19	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
169	104959229	1211	S	BONITA	CT	0.24	MFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
170	104959230	1226	S	BONITA	CT	0.30	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
171	104959232	538	W	PHILLIPS	ST	0.20	SFR	Nearest City MH is M12127; Possibly construct 860 ft of sewer in Bonita Ct and Phillips St
172	105040129	229	E	GREVILLEA	ST	0.50	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
173	105040130	217	E	GREVILLEA	ST	0.48	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
174	105040131	211	E	GREVILLEA	ST	0.24	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
175	105040132	203	E	GREVILLEA	ST	0.25	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
176	105040133	129	E	GREVILLEA	ST	0.25	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
177	105040134	123	E	GREVILLEA	ST	0.25	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
178	105040204	124	E	GREVILLEA	ST	0.29	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
179	105040205	130	E	GREVILLEA	ST	0.28	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
180	105040206	206	E	GREVILLEA	ST	0.57	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
181	105040207	216	E	GREVILLEA	ST	0.56	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
182	105040208	230	E	GREVILLEA	ST	0.33	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
183	105040209	234	E	GREVILLEA	ST	0.24	SFR	Possibly contruct 650 feet of sewer in Grevillea St and tie to MH O13105; flat grade
184	105046102	1819	S	BON VIEW	AV	0.51	SFR	Requires about 240' of sewer lateral to tie to MH O14103; 2 ft drop; s=0.0083
185	105060108	160	W	PHILADELPHIA	ST	0.40	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
186	105060109	202	W	PHILADELPHIA	ST	0.42	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
187	105060110	208	W	PHILADELPHIA	ST	0.41	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502

Table 5-4 (Continued)
Septic Tanks

	Parcel No.	Address				Area (Ac)	Existing Land Use	Comments
188	105060111	214	W	PHILADELPHIA	ST	0.41	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
189	105060112	220	W	PHILADELPHIA	ST	0.39	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
190	105060113	226	W	PHILADELPHIA	ST	0.41	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
191	105060114	230	W	PHILADELPHIA	ST	0.42	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
192	105060115	304	W	PHILADELPHIA	ST	0.41	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
193	105060116	310	W	PHILADELPHIA	ST	0.42	SFR	Tie to IEUA sewer in Philadelphia St or construct 500 ft of sewer to tie into CO P13502
194	105060118	2151	S	FERN	AV	0.35	SFR	Possibly contruct 420 feet of sewer in Fern Ave and tie to MH P13108
195	105060119	2143	S	FERN	AV	0.32	SFR	Possibly contruct 420 feet of sewer in Fern Ave and tie to MH P13108
196	105060120	2137	S	FERN	AV	0.33	SFR	Possibly contruct 420 feet of sewer in Fern Ave and tie to MH P13108
197	105060121	2129	S	FERN	AV	0.97	SFR	Possibly contruct 420 feet of sewer in Fern Ave and tie to MH P13108
198	105064104	740	W	PHILADELPHIA	ST	0.46	SFR	Possibly tie to CO P12501 in easement west of Hickory Ave
199	105064105	752	W	PHILADELPHIA	ST	0.46	SFR	Requires about 210' of sewer lateral to tie to existing sewer in Cypress Ave; 2 ft drop; s= 0.0095
200	105104103	525	W	PHILADELPHIA	ST	2.33	SFR	Possibly tie to IEUA sewer in Philadelphia St
201	105104104	513	W	PHILADELPHIA	ST	1.17	SFR	Possibly tie to IEUA sewer in Philadelphia St
202	105104105	507	W	PHILADELPHIA	ST	1.16	AGR	Possibly tie to IEUA sewer in Philadelphia St
203	105104127	2233	S	SAN ANTONIO	AV	0.56	SFR	Requires about 240' of sewer lateral to tie to MH P12127; 4 ft drop; s=0.0167
204	105104130	545	W	PHILADELPHIA	ST	0.50	SFR	Possibly tie to IEUA sewer in Philadelphia St
205	105105103	309	W	PHILADELPHIA	ST	0.35	SFR	Tie to sewer in Philadelphia Street at CO P13501
206	105105104	301	W	PHILADELPHIA	ST	0.44	SFR	Tie to sewer in Philadelphia Street at CO P13501

5-7 Sewer Pump Stations

Magnolia Pump Station

The Magnolia Pump Station, located on the east side of Magnolia Avenue near the intersection with Monticello Street, serves a tributary area of approximately 45 gross acres. The tributary area was reduced in 2006 after the completion of two connections that diverted most of the flow to IEUA's Montclair Interceptor on Philadelphia Street. One connection was made at Oaks Avenue and one was made at Magnolia Avenue.

The Magnolia Pump Station is a wet well – dry well facility with two (2) ESSCO pumps rated at 400 GPM, and a total dynamic head of 60 feet. The as-built plans show the low water level at 804.5 feet, and the terminal manhole outlet elevation at 850.59 feet. The force main is 8 inches in diameter, and of epoxy lined asbestos cement. It extends 1,879 feet northerly from the pump station to the terminal manhole (O11123).

The pump station site is shown on Figure 5-6 and its drainage area is shown on Figure 5-7. The existing land uses and average flow estimates are shown in Tables 5-5. The ultimate average, peak dry weather and peak wet weather flows are estimated at 36 gpm, 91 gpm, and 122 gpm, respectively.

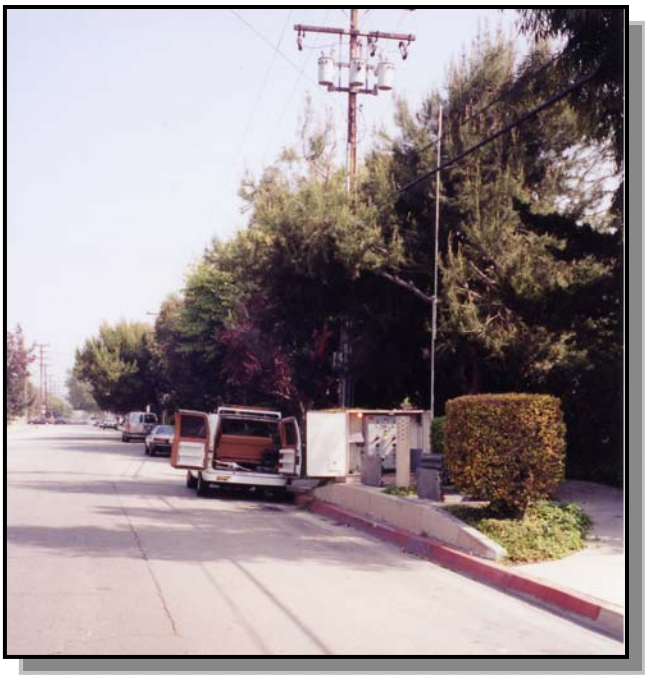


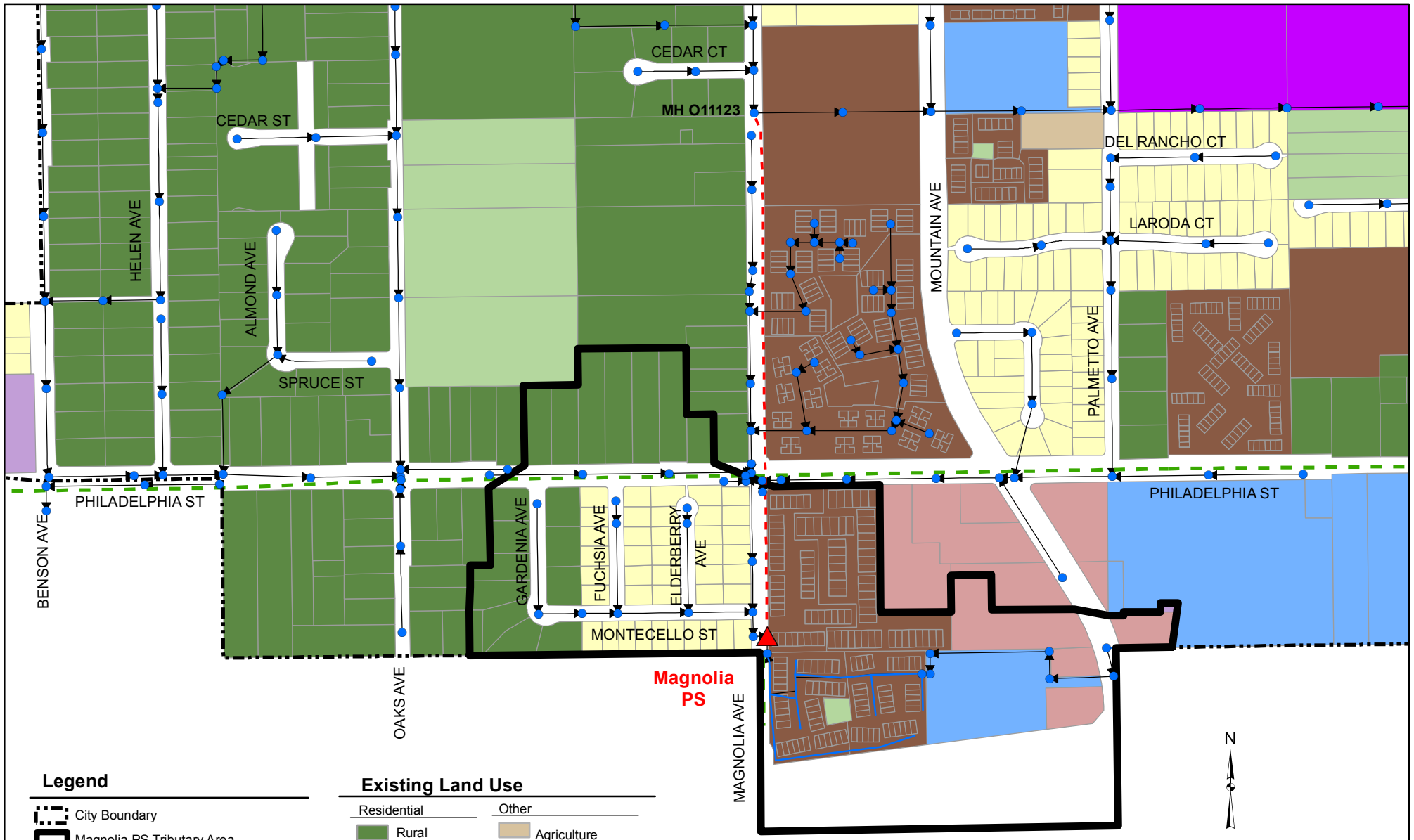
Figure 5-6 – Magnolia Pump Station

The firm capacity of the Magnolia Pump Station is 400 gpm. This is sufficient to pump the existing and ultimate wet weather flows of 115 gpm and 122 gpm, respectively.

The area to the south and west of Magnolia Pump Station is in the City of Chino. Wastewater from this area drains southerly, crosses the Pomona Freeway, and is conveyed to IEUA facilities to the south. If the City of Chino facilities that drain this area have capacity, it may be possible to divert the tributary flows to the City of Chino's system, and eliminate the Magnolia Pump Station.

Table 5–5
Existing Land Use and Estimated Flows to Magnolia Pump Station

Existing Landuse		Density (du/Ac)	Area (Ac)	Calibrated Unit Flow Factor (gpd/Ac)	Total Average Flow (mgd)
Rural Residential	RR	0 - 2	10.2	500	0.0051
Single Family Residential	SFR	2 - 5	6.9	1,200	0.0083
Multi-Family Residential	MFR	11 - 25	10.0	*2,800	0.0279
Commercial	COM	-	3.9	1,000	0.0039
Open Space	OPEN	-	0.2		
Public Facilities	PUBLIC	-	3.5	1,000	0.0035
Streets and ROW		-	10.3	-	-
		Total	**45**	**ADWF**	**0.0487 = 34 gpm**
				PDWF	**0.1241 = 86 gpm**
				PWWF	**0.1663 = 115 gpm**



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Magnolia Pump Station Tributary Area

Figure 5-7

Haven Pump Station

The Haven Pump Station, located on the north side of the Pomona Freeway about 900 feet east of Haven Avenue, serves an area of approximately 1,577 gross acres. It is a submersible pump station with four (4) Fairbanks-Morse pumps rated at 3,400 GPM and 77 feet of total dynamic head. It was constructed in 1988. The pump station has a 315 kW standby generator, and an automatic transfer switch.

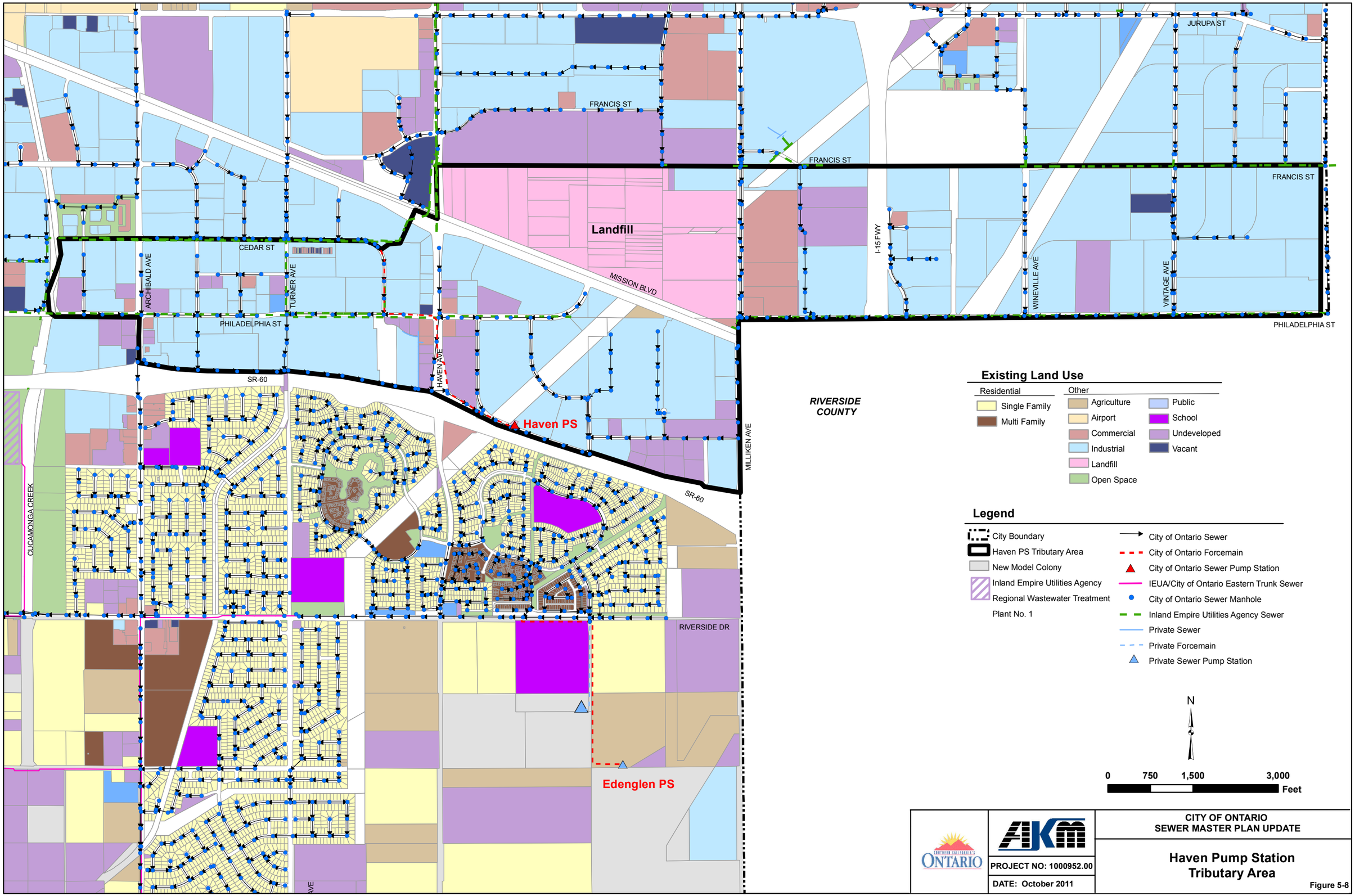
The wet well is 12 feet wide and 25'-4" long. It has an invert of elevation 788.0 feet. The 30-inch diameter VCP influent sewer enters the wet well with an invert elevation of 799.6 feet. The as-built plans show the low and high water elevations at 790.0 feet and 799.0 feet, respectively. The force main is a 24-inch diameter ductile iron pipe, which extends 5,373 feet to a 54-inch diameter IEUA Cucamonga Trunk Sewer on Cedar Street and terminates at an invert elevation of 833.5 feet. The pump station has a 24-inch diameter flow meter on the force main.

The pump station drainage area is shown on Figure 5-8.

The existing land uses and average flow estimates per the developed unit flow factors for this Master Plan are shown in Tables 5-6. The ultimate average, peak dry weather and peak wet weather flows are estimated at 1394 gpm, 2636 gpm, and 3532 gpm, respectively.

Table 5–6
Existing Land Use and Estimated Flows to Haven Pump Station

Existing Landuse		Area (Ac)	Calibrated Unit Flow Factor (gpd/Ac)	Total Average Flow (mgd)
Commercial	COM	59.2	1,000	0.0592
Industrial	IND	924.6	400	0.3698
Open Spaces	OPEN	0.9	200	0.0002
Public Facilities	PUBLIC	1.9	1,000	0.0019
Agriculture	AGR	2.0	-	-
Infrastructure	INF	74.8	-	-
Landfill	LF	206.9	-	-
Streets and ROW		157.0	-	-
Undeveloped	UND	132.8	-	-
Unknown	UNK	9.3	-	-
Vacant	VAC	7.2	-	-
	Total	**1,577**	**ADWF**	**0.4311 = 299 gpm**
			PDWF	**0.9223 = 640 gpm**
			PWWF	**1.2359 = 858 gpm**



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DATE: October 2011

Haven Pump Station Tributary Area

Figure 5-8

The estimated existing average flow of 0.4311 mgd is very similar to what was measured in May 2005 during the preparation of the *New Model Colony Sewer Master Plan Addendum (March 2006).* Flow monitoring was conducted on the influent sewers to Haven Pump Station and resulted in a total average flow of 0.4269 mgd to the pump station.

The existing and ultimate average, as well as the estimated peak dry weather, and peak wet weather flows are significantly lower than the pump station's estimated firm capacity. Therefore, the City can allow development in the Haven Pump Station tributary area. The firm pumping capacity should be determined based upon field measurements. The tributary flows should be monitored as the area develops, in order to ascertain that the peak wet weather flow does not exceed the firm pumping capacity in the future.

The City plans to eliminate the Haven Pump Station and divert the tributary flows south through New Model Colony when the trunk sewer is constructed on Haven Avenue and tied to the existing Eastern Trunk Sewer on Archibald Avenue. The *New Model Colony Sewer Master Plan Addendum (March 2006)* and this New Model Colony sewer system analysis conducted for this Master Plan allows for a total average flow of 2.30 mgd to be diverted from the existing Haven Pump Station tributary area. If the average flow should ever exceed this amount, an analysis of the New Model Colony sewer system would be needed to determine the adequacy of the system downstream.

Edenglen Pump Station

The Edenglen Pump Station is located on the north side of Chino Avenue, east of Mill Creek Avenue. It is a temporary pump station serving the first phase of homes in the Brookfield / Edenglen development. The total service area is approximately 84 gross acres. Ultimately, the flows from this development will be rerouted to the south through the New Model Colony sewer system.

The temporary Edenglen Pump Station is a submersible pump station with two (2) Myers 4RXY submersible pumps with recessed impellers. The pumps are rated at 120 gpm and 98 feet of total dynamic head. It was constructed in 2007. The pump station has a 140 kW standby generator and an automatic transfer switch.

The wet well is an 8'x8' precast concrete, T-Lock lined manhole. It is 34 feet deep with an invert of elevation 737.0 feet. The 8-inch diameter VCP influent sewer enters the wet well with an invert elevation of 747.53 feet. The as-built plans show the low and high water elevations at 739.75 feet and 740.5 feet, respectively.

The forcemain is a 4-inch diameter PVC C-900 pipe, which extends 4,336 feet to a manhole on Riverside Drive, located approximately 1,218 feet west of Mill Creek Avenue. The forcemain terminates at an invert elevation of 790.19 feet. The pumped flow is then conveyed in an 8-inch gravity sewer, approximately 30 feet to the City's trunk sewer in Riverside Drive.

The pump station serves a total of 225 dwelling units with an estimated average flow of 48,000 gpd or 33 gpm (*per City Memorandum "Edenglen Lift Station Capacity" dated May 18, 2010*). The peak

wet weather flow is estimated at 164,000 gpd or 114 gpm. During the pump station start-up testing which was conducted on November 9, 2007, the pump station delivered approximately 180 gpm.