



WATER AND WASTEWATER IMPACT FEE STUDY

JANUARY 2023

ADICO CONSULTING ENGINEERS
2114 EL DORADO BLVD, SUITE 400
FRIENDSWOOD, TX 77546

LAND USE ASSUMPTIONS SUMMARY

The updated LUA are summarized as follows:

- a. Based on a 2.7% population growth rate, projected population for 2023 is 19,664 and projected 2033 population is 25,667.
- b. The projected ESU growth rate for the 10-year planning period (2023-2033) for purposes of this update report is 2.69%, or 250 ESU's per year. This results in a total new ESU's for the 10-year planning period of 2500 connections.
- c. Based on population projections and projected connections for the period 2023-2033, a "population per equivalent meter" of 2.4 persons per connection was determined.
- d. Ultimate connections are projected to be 13,782 based on available developable areas.
- e. Ultimate population is projected to be 33,077 based on 2.4 persons per connection and 13,782 ultimate connections.
- f. The following table summarizes projected population and connection growth for 2023, 2033 and ultimate development.

TABLE 3.6 POPULATION PROJECTIONS SUMMARY

YEAR	CONNECTIONS 2.69% GROWTH	POPULATION
2023	9,206	19,664
2033	11,706	25,667
Ultimate	13,782	33,077

PROJECTED DEVELOPMENT AND ESTIMATED WATER USE

DEVELOPMENT AREA NO.	PROJECT DEVELOPMENT TYPE	GROSS ACREAGE	ESTIMATED ACREAGE DEVELOPED WITH WATER SERVICE	ESTIMATED EQUIVALENT CONNECTIONS PER ACRE	ESTIMATED NUMBER OF NEW CONNECTIONS	ESTIMATED DAILY WATER USAGE (GPD)
1	Commercial	241.8	181.3	2	363	127,050
2	Commercial	81.3	61.0	2	123	43,050
3	Commercial	10.4	7.8	2	16	5,600
4	Commercial	7.0	5.2	2	11	3,850
5	Commercial	26.1	19.6	2	40	14,000
6	Commercial	19.3	14.5	2	29	10,150
7	Commercial	11.4	8.6	2	18	6,300
8	Commercial	3.5	2.6	2	6	2,100
9	Commercial	10.8	8.1	2	17	5,950
10	Commercial	18.1	13.6	2	28	9,800
11	Commercial	16.3	12.2	2	25	8,750
12	Commercial	3.5	2.6	2	6	2,100
13	Mixed	463.3	347.5	2	695	243,250
14	Commercial	54.1	40.5	2	82	28,700
15	Commercial	88.1	66.1	2	133	46,550
16*	Residential	76.9	57.7	4.7	267	93,450
17*	Residential	48.9	36.6	4.1	150	52,500
18*	Residential	57.9	43.5	3.9	168	58,800
19*	Residential	105.8	79.3	3.7	290	101,500
20	Residential	16.4	12.3	4	50	17,500
21*	Residential	136.1	102.1	1.9	185	64,750
22	Residential	47.9	35.9	4	144	50,400
23	Residential	57.9	43.4	4	174	60,900
24*	Residential (Multi)	25.28	19.0	24	456	159,600
	Commercial	7	5.3	2	11	3,850
	Arena					
25	University of Houston	450.0	337.5	1.5	507	177,450
26*	CRV/Motco Tract				384	134,400
TOTAL					4378	1,532,300

Number of Existing Equivalent Connections: 8,956

Number of Projected New Connections from Development Tracts: 4,378

Projected Infill Developments (5%): 448

Projected Ultimate Total Connections: 13,782

* Known Lots/Requested Connections

CAPITAL IMPROVEMENT PROJECTS

WASTEWATER PROJECTS				
CAPITAL IMPROVEMENT PROJECT NO.	PROJECT NAME	PROJECT COST	PERCENT RELATED TO GROWTH	PROJECT COST APPLICABLE TO IMPACT FEES
1	University of Houston Tract Development	\$2,033,100	100%	\$2,033,100
2	Lift Station #16 Upgrade	\$506,250	100%	\$506,250
3	Influent Lift Station Modification	\$1,687,500	15%	\$253,125
4	Wastewater Treatment Capacity to Serve 10 Year Projected Growth <i>(Basis – 315 gallons per day per new connection at estimated \$16.00 per gallon treatment cost)</i>	\$15,498,000	100%	\$15,498,000
WASTEWATER TOTAL		\$19,724,850		\$18,290,475
WATER PROJECTS				
CAPITAL IMPROVEMENT PROJECT NO.	PROJECT NAME	PROJECT COST	PERCENT RELATED TO GROWTH	PROJECT COST APPLICABLE TO IMPACT FEES
1	University of Houston Tract Water Distribution System	\$491,400	100%	\$491,400
2	Elevated Storage Tank at Takepoint #2	\$5,400,000	100%	\$5,400,000
3	12" Water Distribution Line, Cedar to Magnolia (Phase 1)	\$912,308	50%	\$456,154
4	12" Water Distribution Line, Stonewall to IH 45 (Phase 2)	\$3,197,738	75%	\$2,398,304
5	12" Water Distribution Line, Westward to Newman (Phase 3)	\$3,404,728	75%	\$2,553,546
6	12" Water Distribution Line, 12th to Stubbs (Phase 4)	\$3,145,275	5%	\$157,264
7	12" Water Distribution Line, 12th Street to Highway 146	\$653,144	100%	\$653,144
8	Water Supply Capacity Purchase from GCWA to Service 10 Year Growth <i>(Basis – 2023 Purchase of GCWA Mackey Plant surface water capacity)</i>	\$2,017,811	100%	\$2,017,811
WATER TOTAL		\$19,222,404		\$14,127,623
TOTALS		\$38,947,254		\$32,418,098

