

Table ES-1: Water Impact Fee CIP Projects

Project Number	Description of Project	Percent Utilization			Costs Based on 2020 Dollars	
		2020*	2030	10-Year 2020-2030	Capital Cost	10-Year 2020-2030
Existing Projects						
A	Water Master Plan	0%	50%	50%	\$575,000	\$287,500
B	Water Impact Fee	0%	100%	100%	\$30,000	\$30,000
Existing Total					\$605,000	\$317,500
Proposed Projects						
2	Bolton Boone Pump Station and EST	30%	75%	45%	\$9,160,000	\$4,122,000
3	20-inch Transmission Main for Bolton Boone Zone	30%	75%	45%	\$2,652,000	\$1,193,400
11	12-inch Belt Line Road Waterline Improvements	40%	70%	30%	\$1,376,000	\$412,800
12	18-inch Spinner Road Waterline Improvements	25%	45%	20%	\$4,759,000	\$951,800
13	24-inch Silver Creek Waterline Improvements	30%	35%	5%	\$121,000	\$6,050
14	12-inch Eagle Drive Waterline Improvements	30%	45%	15%	\$3,498,000	\$524,700
20	New Briarwood Pump Station and Southwest Zone Elevated Storage Tank	30%	50%	20%	\$9,324,000	\$1,864,800
21	Southwest Zone Waterline Improvements	15%	65%	50%	\$5,777,000	\$2,888,500
24	12-inch I-35 Frontage Waterline Improvements	15%	20%	5%	\$4,191,000	\$209,550
25	12-inch Parks Waterline Improvements	10%	20%	10%	\$1,676,000	\$167,600
26	Assorted 12-inch Waterline Improvements	20%	30%	10%	\$1,227,000	\$122,700
27	12-inch Hampton Road Waterline Improvements	60%	100%	40%	\$1,727,000	\$690,800
Proposed Project Sub-Total					\$45,488,000	\$13,154,700
Total Water Capital Improvements Cost					\$46,093,000	\$13,472,200

*Utilization in 2020 on proposed projects indicates a portion of the project that will be used to address deficiencies within the existing system and therefore not eligible for impact fee cost recovery for future growth.

Table ES-2: Wastewater Impact Fee CIP Projects

Project Number	Description of Project	Percent Utilization			Cost Based on 2020 Dollars	
		2020 ¹	2030	10-Year 2020-2030	Capital Cost ²	10-Year 2020-2030
Existing Projects						
A	Wastewater Impact Fee	0%	100%	100%	\$30,000	\$30,000
Existing Total					\$30,000	\$30,000
Proposed Projects						
1	Basin A 12-inch Replacement from MH 1188 to MH 1193	85%	95%	10%	\$353,827	\$35,383
2	Basin A 18-inch Replacement from MH 1198 to MH 1242	85%	95%	10%	\$271,537	\$27,154
3	Basin B 15-inch Replacement from MH 1486 to MH 2064	75%	90%	15%	\$592,328	\$88,849
4	Basin B 15-inch Replacement from MH 2064 to MH 2050	75%	90%	15%	\$816,891	\$122,534
5	Basin B 18-inch Replacement from MH 2050 to MH 2134	75%	90%	15%	\$800,731	\$120,110
6	Basin C 12-inch Replacement from MH 1157 to MH 2247	80%	100%	20%	\$269,333	\$53,867
7	Basin C 15-inch Replacement from MH 2247 to MH 2251	80%	100%	20%	\$473,090	\$94,618
8	Basin C 18-inch Replacement from MH 2251 to MH 2305	80%	100%	20%	\$1,366,508	\$273,302
9	Basin D 15-inch Replacement from MH 2441S to MH 2441Q	80%	90%	10%	\$1,111,728	\$111,173
10	Basin G 21-inch Replacement from MH 410 to MH 418A	70%	85%	15%	\$933,088	\$139,963
11	Basin G 24-inch Replacement from MH 418A to MH 868	70%	85%	15%	\$1,452,993	\$217,949
12	Basin H 12-inch Replacement from MH 980 to MH 980D	70%	85%	15%	\$288,851	\$43,328
13	Basin H 15-inch Replacement	70%	85%	15%	\$660,041	\$99,006
14	Basin H 18-inch Replacement from MH 1016 to MH 924	70%	85%	15%	\$927,529	\$139,129
15	Basin O 10-inch Replacement	75%	90%	15%	\$276,364	\$41,455
16	Basin O 12-inch Replacement	75%	90%	15%	\$234,906	\$35,236
17	Basin O 15-inch Replacement	75%	90%	15%	\$778,638	\$116,796
18	Bee Branch Basin 12-inch Replacements	70%	85%	15%	\$795,496	\$119,324
19	Bee Branch Basin 15-inch Replacement from MH 1894 to MH 1899	70%	85%	15%	\$154,491	\$23,174
20	Bee Branch Basin 18-inch Replacement from MH 1900 to MH 1916	70%	85%	15%	\$892,096	\$133,814

Table ES-2: Wastewater Impact Fee CIP Projects - Continued

Project Number	Description of Project	Percent Utilization			Cost Based on 2020 Dollars	
		2020 ¹	2030	10-Year 2020-2030	Capital Cost ²	10-Year 2020-2030
21	Spring Creek Basin 15-inch Replacement from MH 257 to MH 18	80%	90%	10%	\$351,369	\$35,137
22	Spring Creek Basin 18-inch Replacement	80%	90%	10%	\$1,230,139	\$123,014
23	Heath Creek Basin 10-inch Replacement	70%	85%	15%	\$229,901	\$34,485
24	Heath Creek Basin 12-inch Replacement	75%	90%	15%	\$2,927,568	\$439,135
25	Heath Creek Basin 15-inch Replacement	75%	90%	15%	\$1,445,076	\$216,761
26	Heath Creek Basin 18-inch Replacement	75%	90%	15%	\$1,297,193	\$194,579
27	Heath Creek Basin 21-inch Replacement	75%	90%	15%	\$984,135	\$147,620
28	Heath Creek Basin 24-inch Replacement	75%	90%	15%	\$3,028,900	\$454,335
Proposed Project Sub-Total					\$24,944,747	\$3,681,230
Total Wastewater Capital Improvements Cost					\$24,974,747	\$3,711,230

1 - Utilization in 2020 on Proposed Projects indicates a portion of the project that will be used to address deficiencies within the existing system and therefore not eligible for impact fee cost recovery for future growth.

2 - ENR factor of 149.42% used to inflate projected cost from 2006 WWMP to 2020 dollars on proposed projects only (ENR Construction Cost Index).

- A 20% professional services cost was applied to the total estimated pipe cost. Professional services include survey, deed research, preliminary, and final design of all improvements.

- A 20% contingency was applied to the estimated pipe cost.

Table ES-3: Roadway Impact Fee CIP Projects

Project Num.	Service Area	Roadway Project	Roadway Type	Lane Capacity (veh/hr)	VTM Supply (veh/hr)	VTM Capacity (veh/hr)	Total Project Cost
1	1	Widen 0.54 miles of Daniieldale Rad from 2 to 4 lanes: west City Limit to Westmoreland Road	DA	665	723	723	\$4,631,134
2	1	Widen 0.49 miles of Daniieldale Road from 2 to 4 lanes: Westmoreland Road to Old Hickory Trail	DA	665	652	652	\$3,723,204
3	1	Widen 0.5 miles of Wintergreen Road from 2 to 4 lanes: Tenmile Creek to Westmoreland Road	DA	665	665	665	\$5,924,261
4	1	Widen 1 miles of Wintergreen Road from 2 to 4 lanes: Westmoreland Road to Hampton Road	DA	665	1,330	1,330	\$8,017,147
5	1	Widen 0.96 miles of Wintergreen Road from 4 to 6 lanes: Polk Street to IH35	DA	665	1,277	1,277	\$10,131,231
6	1/2	Widen 0.92 miles of Pleasant Run Road from 2 to 4 lanes: Duncanville Road to Cockrell Hill Road	DA	665	1,224	1,224	\$4,085,955
7	1/2	Widen 0.79 miles of Pleasant Run Road from 2 to 4 lanes: Cockrell Hill Road to Westmoreland Rd	DA	665	1,051	1,051	\$3,236,477
8	1/2	Widen 1.01 miles of Pleasant Run Road from 4 to 6 lanes: Polk Street to IH35	DA	665	1,343	1,343	\$5,044,626
9	1	Widen 0.62 miles of Polk Street from 4 to 6 lanes: Centre Park Blvd to Daniieldale Road	DA	665	825	825	\$6,394,249
10	2	Build 0.52 miles of Parkerville Road to 4 lanes: Duncanville Road to 700' west of Keswick Drive	DA	665	1,383	1,383	\$2,020,748
11	2	Widen 0.43 miles of Parkerville Road from 2 to 4 lanes: 700' west of Keswick Dr to Cockrell Hill Rd	DA	665	572	572	\$3,562,790
12	2	Widen 0.96 miles of Parkerville Road from 2 to 4 lanes: Cockrell Hill Road to Westmoreland Road	DA	665	1,277	1,277	\$7,690,192
13	2	Widen 1 miles of Parkerville Road from 2 to 4 lanes: Westmoreland Road to Hampton Road	DA	665	1,330	1,330	\$7,490,790
14	2	Widen 0.95 miles of Parkerville Road from 2 to 4 lanes: Hampton Road to Polk Street	DA	665	1,264	1,264	\$7,143,842
15	2	Recoupment of project to widen 0.98 miles of Parkerville Road from 2 to 6 lanes: Polk St to IH35	DA	665	2,607	2,607	\$10,411,418
16	2	Widen 0.46 miles of Cockrell Hill Road from 2 to 4 lanes: south City limit to Parkerville Road	DA	665	612	612	\$3,680,945
17	2	Recoupment of project to widen 1 miles of Cockrell Hill Road from 2 to 6 lanes: Parkerville Road to Belt Line Road	DA	665	2,660	2,660	\$10,638,696
18	2	Recoupment of project to widen 1 miles of Cockrell Hill Road from 2 to 6 lanes: Belt Line Road to Pleasant Run Road	DA	665	2,660	2,660	\$10,643,814
19	2	Widen 1 miles of Westmoreland Road from 2 to 4 lanes: Parkerville Road to Belt Line Road	DA	665	1,330	1,330	\$7,988,873
20	2	Widen 0.66 miles of Hampton Road from 2 to 4 lanes: south City limit to Parkerville Road	DA	665	878	878	\$5,255,269
21	2	Widen 0.66 miles of Uhl Road from 2 to 4 lanes: south City limit to Parkerville Road	DA	665	878	878	\$5,149,547

¹DA=Divided Arterial