

ORDER #18-114
CERTIFICATE FOR ORDER

THE STATE OF TEXAS
COUNTY OF WALLER
BROOKSHIRE MUNICIPAL WATER DISTRICT

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We, the undersigned officers of the Board of Directors (the "Board") of Brookshire Municipal Water District (the "District"), hereby certify as follows:

The Board convened in regular session, open to the public, on Monday, November 5, 2018, at 6:00 p.m., at 4004 6th Street, Brookshire, Texas, and the roll was called of the members of the Board, to-wit:

Edith Penrice-Kelley	President
Albert Wilkins	Vice President
Havanaugh "Kirk" Glover	Secretary
Stephanie Harris-Green	Investment Officer
Vanessa Johnson	Assistant Secretary

All members of the Board were present, except the following: Vanessa Johnson, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

ORDER ADOPTING AMENDED LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN AND IMPACT FEES

was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Order be adopted; and, after due discussion, such motion, carrying with it the adoption of said Order, prevailed and carried by the following vote:

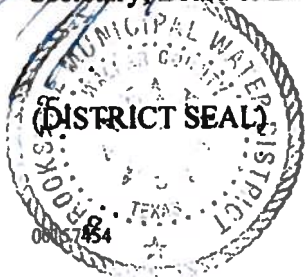
AYES: 3 NOES: 1

A true, full, and correct copy of the aforesaid Order adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Order has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Order; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Order would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time, place and purpose of such meeting was given as required by Chapter 551, Government Code and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 5th day of November, 2018.


Secretary, Board of Directors


President, Board of Directors



2018

**CAPITAL IMPROVEMENTS PLAN
AND
IMPACT FEE CALCULATION**

BROOKSHIRE MUNICIPAL WATER DISTRICT

AUGUST 9, 2018

**CLAY & LEYENDECKER, INC.
ENGINEERS
TEXAS FIRM REGISTRATION NO. 2309**



H. M. Clay Jr.
8.9.2018

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**BROOKSHIRE MUNICIPAL WATER DISTRICT
CAPITAL IMPROVEMENTS PLAN
AND
IMPACT FEE CALCULATION**

Preface. Preparation of this report has been authorized by the Board of Directors of the Brookshire Municipal Water District for consideration by its Capital Improvements Advisory Committee. It documents the procedures relating to the possible adoption of revised Water and Wastewater Impact Fees, also called Capital Recovery Fees.

The process of calculating and adopting impact fees is governed by Texas Local Government Code Chapter 395. The statute also mandates the formation of a Capital Improvements Advisory Committee and lists the requirements for a public input process. The Brookshire Municipal Water District appointed the Advisory Committee on July 9, 2018.

1. **Existing Capital Improvements.** This section includes a description of the existing capital improvements within the service area and the costs to upgrade, update, improve, expand, or replace the improvements to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards.
 - a. **Water Plants.**
 - 1) **Connection Count and Equivalent Service Units.** The Texas Commission on Environmental Quality (TCEQ) sets minimum standards for public drinking water systems. Their criteria are based on the number of connections within the water systems. In general, each water meter is considered to be one connection; however, each multi-family unit, such as an apartment unit, is counted as one connection, regardless of the size of the dwelling or whether the multi-family complex is served by a single connection (master meter) or individual connections and meters for each unit. After adjusting for the varying water usage by non-residential users, Brookshire MWD presently includes approximately 1920 connections.
 - 2) **Existing Facilities.** The District operates three water production plants. Two of them (Plants No. 1 and No. 2) each include two wells, storage, and high service pumping facilities. The third plant

consists only of a well and pressure tank. The existing capacity of the major components and regulatory requirements are shown in Table 1.

Water Plant No. 3 is not connected with Plants No. 1 and 2, and at present it only serves the Love's truck stop east of Brookshire. None of the land around the truck stop is within Brookshire MWD. Therefore, Water Plant No. 3 is not included in the following table or in the subsequent calculations.

CAPACITY OF <u>EXISTING WATERWORKS</u> FACILITIES (Based on 1920 connections)					
	<u>Existing</u> Plant No. 1	<u>Existing</u> Plant No. 2	<u>Existing</u> Total	<u>TCEQ</u> <u>Minimum</u> <u>Required</u> <u>Per</u> <u>Conn.</u> ⁽¹⁾	<u>Minimum</u> <u>Required</u> <u>Total</u>
Water Wells – gpm ⁽⁵⁾	0 & 300	450 & 550	1300	0.6 ⁽¹⁾	1152
Ground Storage – gallons	200,000	572,000	772,000	-----	-----
Elevated Storage – gallons	75,000	200,000	275,000	100	192,000
Total Storage – gallons	275,000	772,000	1,047,000	200	384,000
Pump Stations	1	1	2	-----	-----
High Service (Booster) Pumps – gpm. ⁽⁵⁾	500 & 500	1200 & 1200	2200 ⁽²⁾	----- ⁽²⁾	836
Auxiliary Power	Yes ⁽³⁾	Yes ⁽⁴⁾	---	Not Req'd	Not Req'd
Year Built (approx.)	1950, 1956	1982, 2013			
¹ Based on TCEQ "Rules and Regulations for Public Water System". ² Must deliver peak hourly flow, estimated at peak day multiplied by 125% = 963,000 gpd x 1.25 = 836 gpm, with the largest pump not included. ³ Generator can operate all pumps. ⁴ Generator operates only Well No. 3 ⁵ Gallons per minute.					

Comparing the "Existing Total" to the "Minimum Required Total" in Table 1 above shows that the existing major components of Brookshire's water plant are adequate to meet existing needs.

a) Water Wells. The principal requirement for a municipal well system is that the wells furnish ample quantities of water during periods of maximum demand, which may continue for several consecutive days or even weeks. The Texas

Commission on Environmental Quality (TCEQ) requires that the District's total well capacity be at least 0.6 gallons per minute per connection. For a total 1920 connections this requirement amounts to 1152 gallons per minute (gpm). At present, Brookshire's production with all wells operable is approximately 1300 gpm.

- b) Ground Storage. The purpose of ground storage is to provide a large supply of water that the high service pumps may draw upon during periods of heavy demand or during a serious fire or water well breakdown. The TCEQ requirement is that the water system provides 200 gallons of total storage per connection served (including elevated storage). However, fire protection and emergency considerations are other important factors in evaluating the need for ground storage facilities. The present ground storage tank capacity is 772,000 gallons.
- c) Elevated Storage. The function of elevated storage is to provide a pressurized water supply during power failures and provide for short term surges of demand. The District has existing elevated storage capacity of 275,000 gallons.
- d) Total Water Storage. The maximum water demand must be satisfied by a combination of ground storage flow (provided by the high service pumps) plus elevated storage flow. For the current situation, the existing combination of ground and elevated tanks (1,047,000 gallons) is calculated to be sufficient for the existing customers.
- e) High Service Pumps. High service (or booster) pumps must be capable of providing firefighting requirements and simultaneously service the maximum daily demand. TNRCC criteria require 2.0 gpm per connection or a minimum of 1000 gallons per minute with the capability of delivering peak hourly flow. For Brookshire's current demand, the peak hourly requirement was estimated to be 836 gpm by the state inspector. The existing high service pumps have a total capacity of 2200 gpm with one of the larger pumps out of service.

b. Wastewater Treatment Plant.

- 1) Existing Facilities. Brookshire's wastewater treatment system consists of a single plant located east of the developed part of the City. The original wastewater treatment plant was put into operation in the early 1950's with an initial capacity of approximately 0.100 million gallons per day (MGD). Its permitted capacity has been increased in increments to the current value of 0.970 MGD.

The plant employs the activated sludge treatment process. Operating experience has shown that the plant normally can meet its permit requirement except during some wet weather events, when excessive rainwater enters the collection system. The repairs involved in reducing the rainwater inflow have been an ongoing process, which is funded from the District's operating budget.

The District's operating permit from TCEQ limits the capacity of the plant that is usable before expansion is necessary. When measured flow for the highest three consecutive months exceeds seventy-five percent of the permitted value, a permittee must begin engineering and financial planning for plant expansion. Seventy-five percent of the permitted flow is 0.727 MGD. When the three-month flow reaches 90 percent, the permittee must begin implementation. The effect of this regulation is that the flows for the three highest consecutive months (rather than the actual average flow) are compared to 90 percent of the permitted flow (rather than 100 percent) in determining when plant expansion is necessary. Ninety percent of the permitted flow is 0.873 MGD. In the past the flow has reached approximately 0.500 MGD for three consecutive months.

At this time the existing wastewater treatment plant appears adequate to serve the District's current needs and usage, and no capital expenditures for stricter safety, efficiency, environmental, or regulatory standards appear to be necessary beyond the operating budget.

2. Total Capacity, Current Usage, and Commitments of Capacity.

a. Water Plants.

	<u>Existing Total Capacity</u>	<u>Current water usage</u>	<u>Commitments</u>
Wells	1300 gpm = 1.87 MGD ⁽¹⁾	0.96 MGD ⁽³⁾	41 esu ⁽⁴⁾
Elevated Storage	0.275 MG ⁽²⁾	0.96 MGD ⁽³⁾	41 esu ⁽⁴⁾
Total Storage	1.047 MG ⁽²⁾	0.96 MGD ⁽³⁾	41 esu ⁽⁴⁾
High Service Pumps	3,400 gpm	0.96 MGD ⁽³⁾	41 esu ⁽⁴⁾

¹ MGD = million gallons per day
² MG = million gallons
³ Estimated peak day
⁴ Prepaid commitment to Royal ISD of 41 equivalent service units (esu)

b. Wastewater Treatment Plant

<u>Existing Total Capacity</u>	<u>Current Capacity Utilization</u>	<u>Commitments</u>
0.970 MGD ⁽¹⁾	0.700 MGD ⁽²⁾	41 esu ⁽³⁾

¹ MGD = million gallons per day
² Projection from current flows plus organic growth within existing customer base.
³ Prepaid commitment to Royal ISD of 41 equivalent service units (esu)

3. Capital Improvements, New Development, and Land Use. This section contains a description of the capital improvements and related costs necessitated by and attributable to new development in the service area, based on land use assumptions.

a. Service Area. The following analysis was prepared on a system-wide basis. The service area is that area which is currently within the boundaries of the District, as required by Chapter 395 of the Texas Local Government Code.

b. Equivalent Service Unit (esu). The basic service unit in this study is a single-family residence. For evaluation of drinking water systems, the Texas Commission on Environmental Quality (TCEQ) requires that each single- and multi-family dwelling unit, regardless of size or number of bedrooms, be considered as one connection when calculating the capacity of a water system. Since TCEQ's regulations control the size and,

consequently, the cost of the water plant components, this study will adopt the same criteria for residential developments. For wastewater, a concentration factor is included, based on the strength, or concentration, of the discharge.

Please see Section 4 of this report for the quantitative definition of "equivalent service unit" used in this report.

- c. Existing Service Units. The District conducted a field survey of connections in 2011. Updating the survey results in the following approximate distribution of connections:

Single-family	900
Multi-family	405
RV Spaces	143
Mobile home spaces.....	283
Hotel rooms	380
Brookwood	20
Commercial connections	210
Empty lots with meter	190

The survey data can be converted to an estimate of existing esu's (based on water use) by adjusting each category by an equivalence factor:

Single-family	900 x 1.00 =	900 esu
Multi-family	405 x 1.00 =	405 esu
RV Spaces	143 x 0.12 =	17 esu
Mobile home spaces	283 x 0.70 =	198 esu
Hotel rooms	380 x 0.20 =	76 esu
Brookwood	20 x 1.00 =	20 esu
Commercial connections.....	210 x 1.35 =	285 esu
Empty lots with meter.....	190 x 0.10 =	<u>19 esu</u>
		1920 esu

The preceding calculation results in an estimate of 1920 existing esu's, based on water use.

- d. New Development Land Use. The "Existing Land Use" map and the "Future Land Use" map at the end of this report were used to estimate the potential new development within the service area. The results are expressed in esu's, based on water use (consumption).

The following major categories of future land use were adopted for this report:

- 1) **Residential.** Includes single-family and multi-family development. Since Brookshire has no zoning, a blended density of eight connections per acre was used. The density estimates are four single-family dwellings per acre and twelve multi-family units per acre, with a ratio of one acres of multi-family for each acre of single family development. The ratio is based on estimated development trends in Brookshire over approximately the last ten years.
- 2) **Commercial.** Includes retail, office, sales, office-warehouse, distribution, and similar enterprises other than industrial land use. A blended density of 2.5 esu's per acre was used. The density estimates are shown below based on estimated current development trends in the Brookshire area:

	A	B	C
	<u>esu/acre</u>	<u>% of New Development</u>	<u>A x B esu/acre</u>
Retail	3.0	10%	0.30
Office	4.3	10%	0.43
Sales	2.0	5%	0.10
Warehouse	2.2	40%	0.88
Distribution	2.2	<u>35%</u>	<u>0.77</u>
Blended Density		100%	2.48

- 3) **Industrial.** Includes manufacturing, assembly, food processing, and similar land uses. An estimated density of 2.4 esu's per acre was used.
 - 4) **Public and Semi-Public.** Includes all publicly-owned facilities. An estimated density of 0.5 esu's per acre was used.
- e. **Projected Service Units.** This section contains an estimate of the total number of projected service units necessitated by and attributable to new development within the service area, based on the land use assumptions.

A "Future Land Use" map is included at the end of this report. The map indicates projected land use for within the service for a future "built out" condition. Future additions of land area to the District are not considered because the governing statute defines the service area as the boundaries

of the agency, plus its extraterritorial jurisdiction, if any. So the service area for the Brookshire MWD is the area within its current boundary.

- 1) **Land Use Assumptions.** The "Future Land Use" Map, at the end of the report, sets out four broad categories of land usage. Two other categories, agriculture and vacant land, constitute a substantial portion of the area today. An "Existing Land Use" Map, also at the end of this report, shows the current situation. The development and build out of the undeveloped area form the basis for projecting the future number of equivalent service units.

The maps show the following areas within the service area:

<u>Land Use</u>	<u>Current</u>	<u>At full Development</u>	<u>Additional</u>
Agriculture & Vacant	840 acres	0	---
Residential	1086 acres	1228 acres	142 acres
Commercial	217 acres	863 acres	646 acres
Industrial	248 acres	296 acres	48 acres
Public or Semi-Public	37 acres	47 acres	<u>10 acres</u>
			846 acres

Since Brookshire is not a zoned city at this time, frequently there is a mixture of land uses within a given area. The maps indicate the predominate usage.

- 2) **Equivalent Service Unit.** For purposes of this report, one "equivalent service unit" (esu) is defined as a single-family residential dwelling. Please see Section 4 on Page 9 of this report for a quantitative definition.
- 3) **Service Unit Density.** Even in the highest density locations, a substantial area is not used for structures. Streets, parking, driveways, walkways, utility easements, drainage easements, ponds, open space, and setbacks all act to reduce the density. The following density, expressed in esu's per acre, were estimated in the previous subsection of this report.

<u>Land Use</u>	<u>Density</u>
Vacant	0 esu's/acre
Agricultural	0 esu's/acre
Residential	9.0 esu's per acre
Commercial	2.5 esu's per acre
Industrial	2.4 esu's per acre
Public or Semi-Public	0.5 esu's per acre

- 4) Service Unit Projections. The total number of projected new service units necessitated by and attributable to full development of the service area is shown below.

<u>Land Use</u>	<u>Additional Area</u>	<u>Service Unit Density</u>	<u>New esu's Projected</u>
Residential	142 acres	8 per acre	1136
Commercial	646 acres	2.5 per acre	1615
Industrial	48 acres	2.4 per acre	115
Public or Semi-Public	10 acres	0.5 per acre	<u>5</u>
			2871

- f. New Capacity Requirements. The previous section of this report quantified the additional water and sanitary sewer requirement of the service area to be 2871 esu's at full development.

- 1) Water Plants. In order to serve the projected 2871 new esu's, the following additional major water plant components will be required:

<u>Component</u>	<u>Criteria ⁽¹⁾ (per esu)</u>	<u>New Capacity Required</u>
Wells	0.6 gpm	1722 gpm
Elevated Storage	100 gallons	278,000 gallons
Total Storage	200 gallons	556,000 gallons
Service Pumps	⁽³⁾	1300 gpm

⁽¹⁾ Based on TCEQ "Rules and Regulations for Public Water Systems".
⁽²⁾ gpm = gallons per minute
⁽³⁾ Must deliver peak hourly flow, estimated at peak daily flow multiplied by 125%

- 2) Wastewater Treatment. In order to serve a projected increase of 2871 esu's, additional wastewater treatment capacity of 0.7 MGD (million gallons per day) will be required. That is based on a mean daily sewage flow of 240 gallons per day per esu.

g. Cost of Capital Improvements

- 1) Cost Estimates and Scale. Cost estimates in this report are expressed in 2018 dollars.

One difficulty in planning the financing of facility improvements lies in the matter of scale. It is not economical to do capacity expansions in small increments. Attempting to do so would raise the capital cost per gallon of water produced, and consequently the impact fee per esu would also increase. The result is that a substantial accumulation of impact fees must be collected before any expansion can be undertaken. Eventually, if the District has no surplus capacity, then no new development can be permitted, and no impact fees will be collected. Fortunately, at this time the District has available capacity to serve new development. But if that capacity is used up without collecting impact fees to replace it, then the District will not have the funds to construct additional capacity beyond that point. So further development would not be possible, unless it was funded by some other means, such as tax bonds.

- 2) Costs of New Water Plant Facilities. The following cost estimates are for the water plant facilities necessary to accommodate new development within the service area.

ESTIMATED COSTS OF NEW WATER PLANT EXPANSION		
Component	Total Capacity	Estimated Cost
Two Wells & Site ⁽¹⁾	1722 gpm	\$1,500,000.00
Elevated Storage	278,000 gallons	1,400,000.00
Ground Storage	556,000 gallons	500,000.00
High Service Pumping Station ⁽²⁾	1,300 gpm	<u>1,200,000.00</u>
Total for Water Plant Improvements		\$4,600,000.00
⁽¹⁾ Includes site and pipeline to site		
⁽²⁾ Includes piping, electrical and other site development costs		

- 3) Costs of New Wastewater Treatment Plant Facilities. It was previously shown that additional permitted wastewater treatment discharge of 0.7 MGD will be needed to accommodate the estimated full development of the service area. This need will

require an expansion of the plant capacity and site, the cost of which is estimated below.

ESTIMATED COSTS OF WASTEWATER TREATMENT EXPANSION	
0.7 MGD Expansion	\$5,600,000.00

4. Quantity of Consumption and Discharge. The following levels of water consumption and wastewater discharge represent one equivalent service unit (esu) for the new development areas included in this report:

Water. 1 esu = 300 gallons per day (gpd)

Wastewater. 1 esu = 240 gallons per day (gpd), with a 5-day B.O.D. and TSS up to 200 mg/l each, Oil & Grease concentration up to 100 mg/l, Ammonia (NH₃-N) up to 25 mg/l, and other characteristics of Normal Domestic Sewage as defined in the "Order Regulating the Introduction of Wastewater into the Sanitary Sewer System of the District", current edition, as adopted and amended by the Brookshire Municipal Water District.

The Table at the end of this report shows the level of water consumption and wastewater discharge for a variety of common types of land uses. In general, the data was adapted from the City of Houston, Planning and Development Services Division, "Discharge Criteria Sheet". Water consumption and wastewater discharge for a single-family home are considered to constitute one (1.00) esu. The table also establishes the ratio of an equivalent service unit to the various type of land uses.

5. Projected Five-Year Demand. This section contains the projected demand for facility expansions required by new esu's over a five-year period.

A five-year period was selected because the land use projections are required to be reviewed and, if necessary, reworked at five-year intervals. Also, the changing nature and rate of development in the area makes forecasting difficult.

The past five years have been a period of accelerating, but still limited growth for the area within the District's boundaries. However, the last several years have witnessed large-scale commercial development in the area east of the District. It appears that the recent trend will be more representative of the future, and the projections herein are based on that concept.

The following table is a projection of anticipated five-year development, using an initial growth rate of two percent, and increasing as shown in the table.

PROJECTED FIVE-YEAR DEMAND										
Year	Growth Rate	Residential (8.0 esu/acre)		Commercial (2.5 esu/acre)		Industrial (2.4 esu/acre)		Public, etc. (0.5 esu/acre)		Total esu's
		Acres	esu's	Acres	esu's	Acres	esu's	Acres	esu's	
2019	2 %	7	56	32	80	3	7	1	1	144
2020	3 %	7	56	33	82	3	7	1	1	146
2021	3 %	8	64	34	85	3	7	1	0	156
2022	3 %	8	64	35	88	3	7	1	1	160
2023	4 %	8	64	36	90	3	7	1	0	161
Grand Total										767

The projected five-year demand is 767 service units. The built-out demand was projected previously to be 2871 new esu's. So the five-year projection represents 27 percent of the built-out condition. Applying that percentage to the built-out costs results in the following cost estimate for the five-year projection:

Water:	27 % x \$4,600,000.00 =	\$1,242,000.00
Sanitary Sewer:	27 % x \$5,600,000.00 =	1,512,000.00
Total:	\$2,754,000.00

6. **Credits.** The District will give the following credits to certain payors of the impact fees.
- a. **Change in Land Use.** Where a new structure replaces an older structure which has had water and/or sanitary sewer service, a credit may be given in calculating the impact fee. The credit will reflect the previous land use. However, the credit will not exceed the calculated impact fee for the new structure.
 - b. **Ad Valorem Tax.** A credit will be given for the portion of ad valorem tax paid by new service units during the period that is used for the payment of the improvements. A similar credit would be given for utility service revenues if any of the District's revenues were used for the capital improvements that are the subject of this report; however, no revenues are used for that purpose. Therefore, the credit will only apply to the wastewater plant bond issue of 2013, in the principal amount of \$815,000.00, which is supported by ad valorem tax. Total debt service

requirements amount to \$1,272,905.00, according to the Official Statement for the bond issue.

The total cost of necessary wastewater treatment plant improvements was shown to be \$5,600,000.00, of which the \$1,272,905.00 in bond payments represents 22.73 percent. So a credit of 22.73 percent should be deducted from the sanitary sewer impact fee that is charged to all entities that are subject to the ad valorem tax.

7. **Maximum Impact fee per Equivalent Service Unit.** Section 395.014.(b) of the Texas Local Government Code sets out the formula for computing the impact fee. The maximum impact fee per service unit is calculated by dividing the costs of the part of the capital Improvements necessitated by and attributable to the projected new service units in Section 5 of this report by the projected new service units described in that section:

Maximum Water Impact Fee =
 $\$1,242,000.00 / 767 \text{ esu's} = \$1,619.00 \text{ per esu}$
 Maximum Sanitary Sewer Impact Fee =
 $\$1,512,000.00 / 767 \text{ esu's} = \$1,971.00 \text{ per esu}$
 (not including effect of the tax credit).
 Credit for ad valorem taxpayers =
 $\$1,971.00 \times 22.73\% = \448.00 per esu

Most entities will be ad valorem tax payers, and will be eligible for the tax credit. The maximum impact fee is shown in the table for both types of entities.

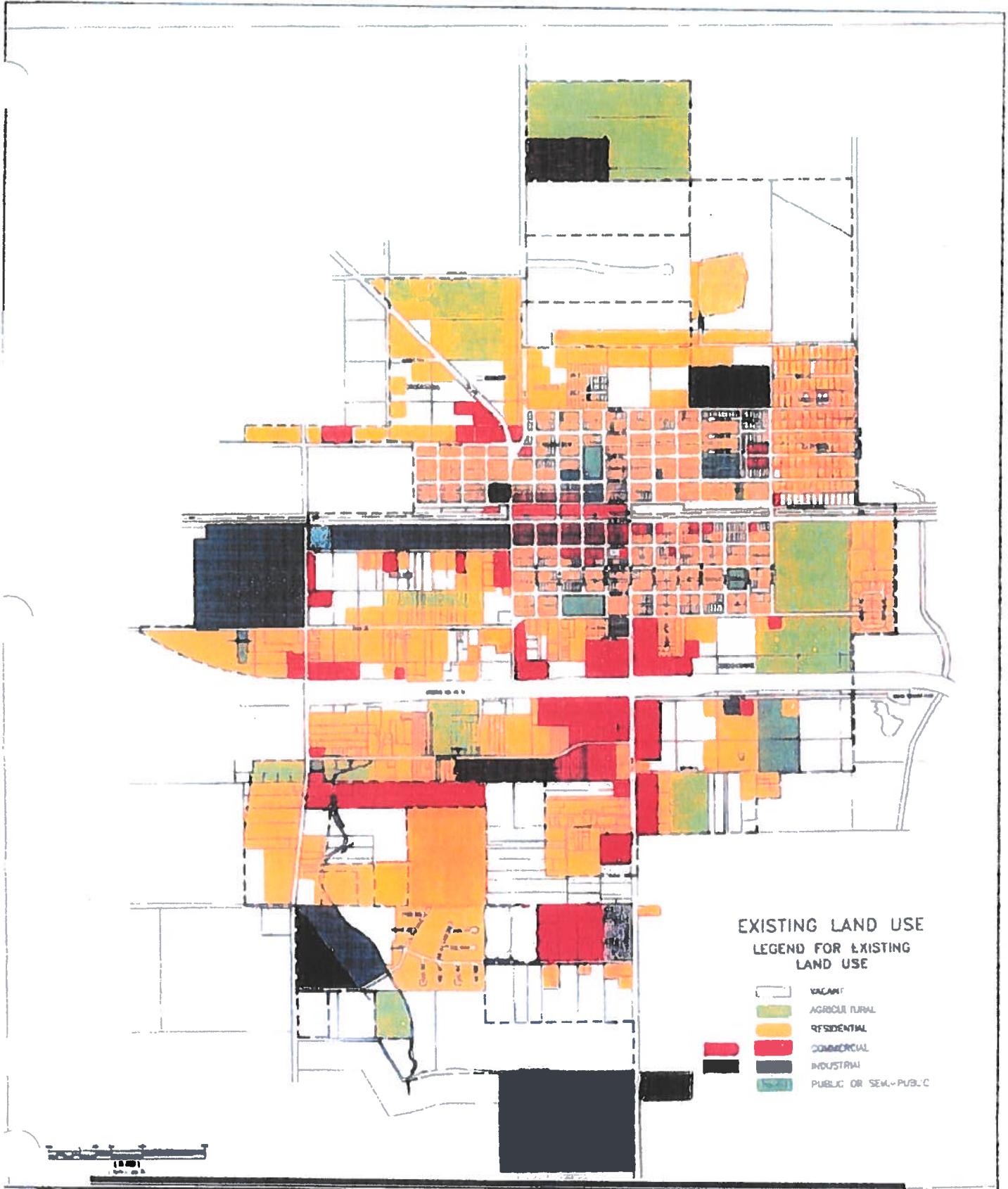
MAXIMUM IMPACT FEE PER ESU		
	Non-Ad Valorem Taxpayer	Ad Valorem Taxpayer
Water	\$1,619.00	\$1,619.00
Wastewater	\$1,971.00	\$1,523.00
Total	\$3,590.00	\$3,142.00

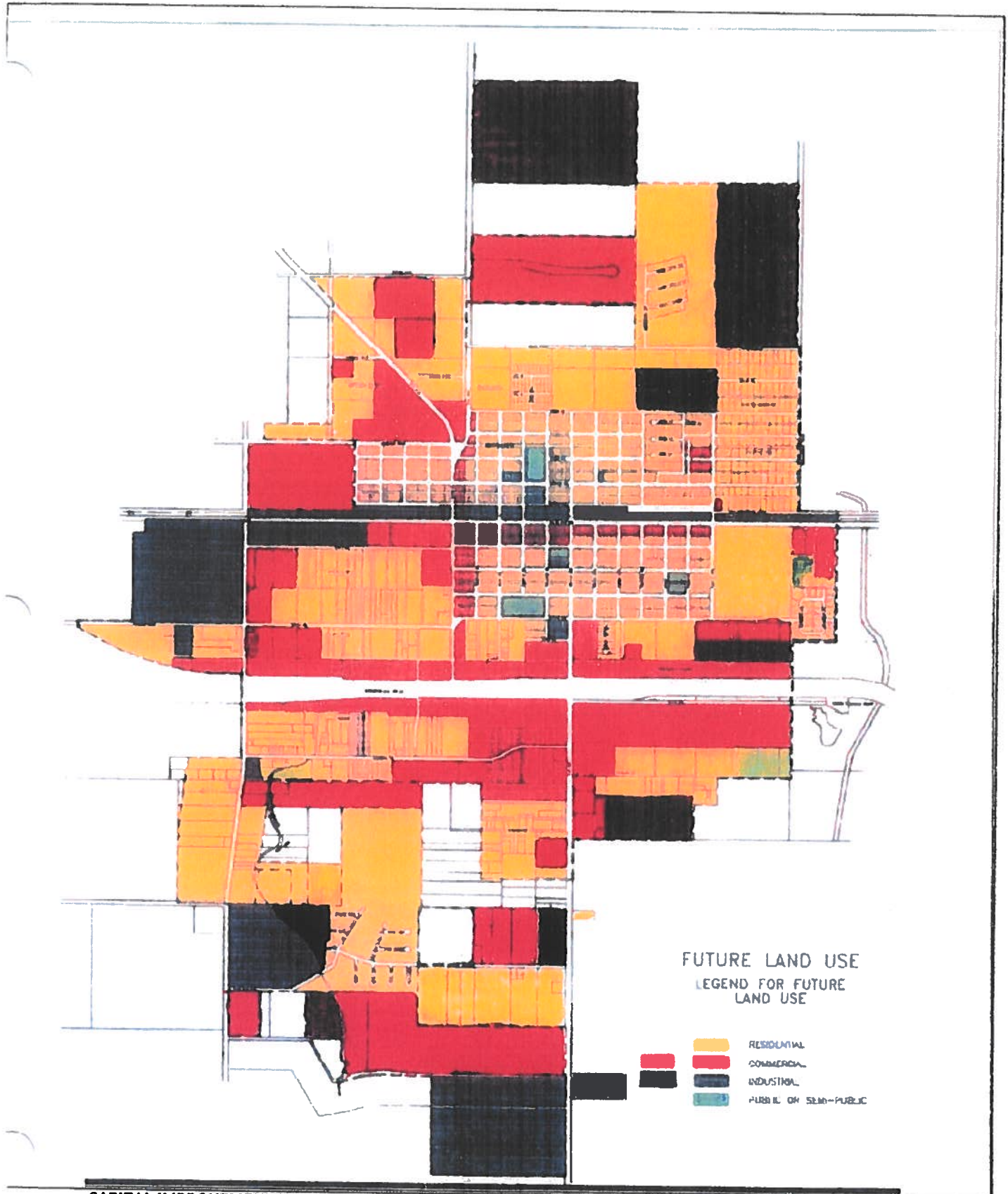
It should be emphasized that the impact fees calculated above only recapture the cost of water and wastewater plants, and that water mains, sewers, or lift stations are not included except those which are located within the plant sites.

LAND USE, WATER USAGE, SEWAGE FLOW & SERVICE UNITS

Land Use	Water Usage ⁽¹⁾⁽²⁾	Water esu's	Sewage Flow	Sewage Concentration ⁽³⁾	Concentration Factor ⁽⁴⁾	Sewage esu's ⁽⁵⁾
Single Family Residence, Townhome, Townhouse, Patio Home, Duplex Unit, Apartment or Condominium	300 gpd/residence	1,000 / residence	240 gpd / residence	200 mg/l	1.00	1.00/residence
Mobile Home	210 gpd/per home	0.70 / home	200 gpd / home	280 mg/l	1.0	0.83/home
Hotel without Kitchensettes	60 gpd / unit (plus Restaurant usage)	0.20 / unit	57 gpd / unit	200 mg/l	1.0	0.24/unit
Hotel with Kitchensettes	80 gpd / unit (plus Restaurant usage)	0.27 / unit	76 gpd / unit	200 mg/l	1.0	0.32/unit
Recreational Vehicle	35 gpd / RV space	0.12 / RV space	33 gpd / RV space	300 mg/l	1.5	0.20 / RV space
Landscape Irrigation - Single Family	0.04 gpd/sf of area	0.00013 / sf of area				
Landscape Irrigation - All others	0.10 gpd / sf of area	0.0003 / sf of area				
Office Space	0.10 gpd / sf	0.0003 / sf				
Medical, Dental, Urgent Care space	0.10 gpd / sf	0.0003 / sf	0.0095 gpd / sf	300 mg/l	1.5	0.0006 / sf
Retail	0.06 gpd / sf	0.0002 / sf	0.057 gpd / sf	300 mg/l	1.5	0.0006 / sf
Convenience Store	0.06 gpd / sf	0.0002 / sf	0.057 gpd / sf	300 mg/l	1.5	0.00036 / sf
Barber Shop, general	140 gpd / chair	0.47 / chair	133 gpd / chair	300 mg/l	1.5	0.83 / chair
Barber Shop, supercuts type	70 gpd / chair	0.23 / chair	66 gpd / chair	300 mg/l	1.5	0.41 / chair
Beauty Shop	140 gpd / bowl	0.47 / bowl	133 gpd / bowl	300 mg/l	1.5	0.83 / bowl
Restaurant - takeout only	0.20 gpd / sf	0.0067 / sf	0.19 gpd / sf	300 mg/l	1.5	0.0012 / sf
Restaurant, fast food	0.75 gpd / sf	0.0025 / sf	0.71 gpd / sf	300 mg/l	1.5	0.0044 / sf
Restaurant, other	1.80 gpd / sf	0.0060 / sf	1.71 gpd / sf	300 mg/l	1.5	0.011 / sf
Health Club	0.36 gpd / sf	0.0012 / sf	0.34 gpd / sf	300 mg/l	1.2	0.0017 / sf
Nursing Home	85 gpd / bed	0.28 / bed	80 gpd / bed	300 mg/l	1.5	0.50 / bed
Church	1.00 gpd / sanctuary seat	0.003 / sanctuary seat	0.98 gpd / sanctuary seat	300 mg/l	1.5	0.006 / sanctuary seat
Washatena	275 gpd / washing machine	0.92 / washing machine	260 gpd / washing machine	200 mg/l	1.0	1.08 / washing machine
Day Care Center	10 gpd / occupant	0.03 / occupant	9.5 gpd / occupant	300 mg/l	1.5	0.06 / occupant
Warehouse	0.03 gpd / sf	0.00010 / sf	0.023 gpd / sf	300 mg/l	1.5	0.00017 / sf
Manufacturing space - no process wastewater	0.05 gpd / sf	0.00017 / sf	0.045 gpd / sf	300 mg/l	1.5	0.00028 / sf
Industrial space - process wastewater discharge ⁽⁶⁾	Calculate using ratio of BOD, TSS load & flow to 200 mg/l, 200 mg/l & 240 gpd, respectively. Other measures of concentration may also be included, depending upon the circumstances.					
Other uses	1.00 esu per 300 gpd of water use and 1.00 esu per 240 gpd of wastewater discharge factored by concentration					

Important Notes:
⁽¹⁾ gpd = gallons per day
⁽²⁾ sf = total square feet of space, including outside walls
⁽³⁾ (BOD plus TSS) / 2. Other measures of concentration may also be included
⁽⁴⁾ Sewage Concentration / 200 mg/l
⁽⁵⁾ (Sewage Flow / 240 gpd) x Concentration Factor
⁽⁶⁾ Also refer to "Order Regulating the Introduction of Wastewater into the Sanitary Sewer System" for other charges and limitations





ORDER# 18-113
CERTIFICATE FOR ORDER

THE STATE OF TEXAS
COUNTY OF WALLER
BROOKSHIRE MUNICIPAL WATER DISTRICT

§
§
§

We, the undersigned officers of the Board of Directors (the "Board") of Brookshire Municipal Water District (the "District"), hereby certify as follows:

The Board convened in special session, open to the public, on Wednesday, September 19, 2018, at 5:30 p.m., at 4004 Gth Street, Brookshire, Texas, and the roll was called of the members of the Board, to-wit:

Edith Penrice-Kelley	President
Albert Wilkins	Vice President
Havanaugh "Kirk" Glover	Secretary
Stephanie Harris-Green	Investment Officer
Vanessa Johnson	Assistant Secretary

All members of the Board were present, except the following: Vanessa Johnson, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

ORDER REVISED DROUGHT CONTINGENCY PLAN

was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Order be adopted; and, after due discussion, such motion, carrying with it the adoption of said Order, prevailed and carried by the following vote:

AYES: _____ NOES: _____

A true, full, and correct copy of the aforesaid Order adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Order has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Order; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Order would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time, place and purpose of such meeting was given as required by Chapter 551, Government Code and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 19th day of September, 2018.

Secretary, Board of Directors

Edith Penrice-Kelley
President, Board of Directors

