

# Water and Sewer Utility Analysis

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# Qualifying Statements

1. Analysis represents a snapshot in time / not a future projection
  - a. Data used are for the MUD fiscal years ending 2020
2. The analysis is based on existing MUD operations and existing debt.
3. The levies for debt and operations are for fiscal year 2020 / have not been adjusted to reflect any future changes
  - a. Consolidated MUD Debt could potentially be refinanced
4. Current water and sewer rates are included in this analysis
  - a. A future study of water and sewer rates should be considered at consolidation.
  - b. Purpose of future rate study / to establish uniform residential and commercial rates based on the cost of service to the utility user groups
5. The Township does not have the authority to take a unilateral action to abolish the MUDs and assume utility operations
  - a. Can only be considered by the city's governing body

# Purpose of Presentation

- Review MUD recommendation /Incorporation Study
- High Level review of MUD operations
- Municipal Utility options following incorporation
- Review of Comparable cities

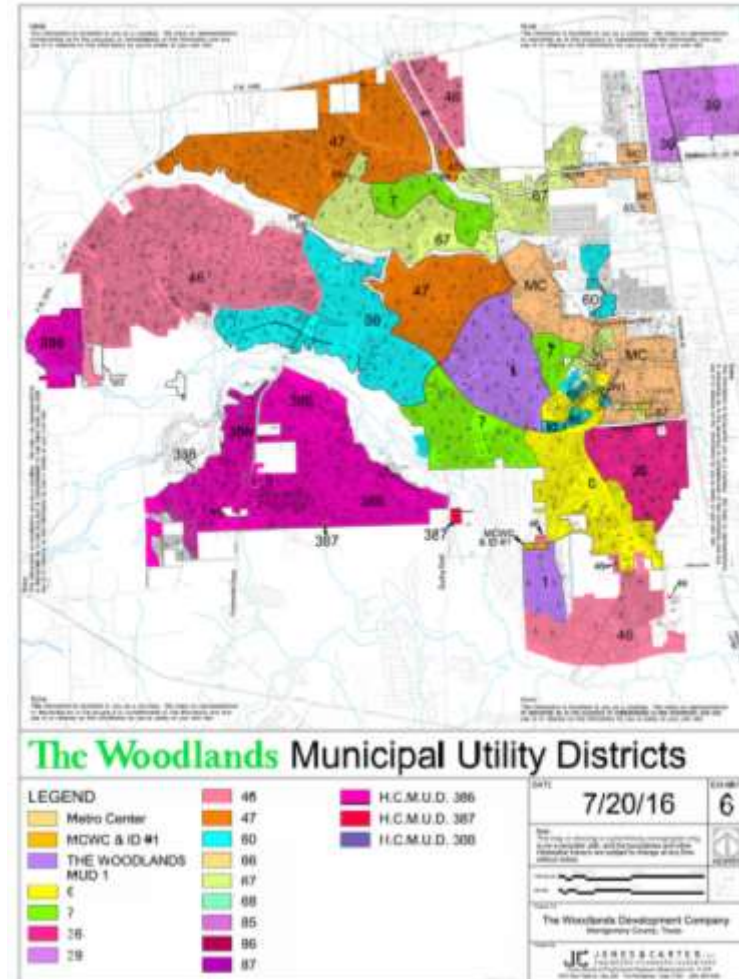
# Incorporation Study – MUD

## Recommendations

- 2018 HR Green recommendation
  - Continue MUD operations / avoid consolidation
  - Reason / assumption of MUD debt by city will cause residents in some MUDs to pay higher taxes after incorporation than in other MUDs
- Board direction to Novak
  - Exclude the MUDs from the incorporation financial model.
- Additional analysis / Stifel
  - Completed / February, 2020
  - Impact of refinancing outstanding MUD GO Debt
  - Amortize over a 20 to 30 year period
  - Potential for initial reduction in debt service
  - Incorporation Task Force requested that this analysis be updated / the Novak firm is following up on this matter

# Review of MUD Operations

- Fiscal Years Ending 2020
- Eleven MUDs
- Boundaries entirely within Woodlands
- Elected / 5 Directors
- Provide direct water and sewer services to customers
- Do not own treatment, distribution and collection facilities.
- Owned by SJRA and HMC MUD 387



# MUD Consolidated Summary

- General Fund Revenue of \$63.8 million
- User Fee Charges of \$48.9 million
- Tax Levies – Debt Service of \$27.4 million
- Tax Levies – Operations of \$12.5 million
- Consolidated outstanding debt of \$285.8 million
- Consolidated unrestricted Reserves of \$50 million
- Five user fee structures for residential customers
- Approximately 37,000 single family customers

# Options / Following incorporation

- Status quo
- Consolidation / Unilateral action by governing body
  - Abolish MUDs and assume utility operations
- “Negotiated” Interlocal agreement for utility operations
  - Would require approval of all MUDs

# Unilateral Action by city governing body

- Following incorporation
- Could abolish the MUDs and assume assets, liabilities and debt
- New governing body has right / not obligation
- Action can be taken at any time



# City utility departments

- Cities typically provide water and sewer utility services through a central utility
- User charges pay for cost of operations / including debt
- Utility debt is typically supported by user fees
- Peer cities fund their utility services through user charges
- Funding utility costs through a property tax levy creates some equity issues
  - The user pays the cost of service based on the value of their home versus a volume use charge

# MUD Outstanding Debt

- Development of Woodlands MUDs - over a 40 + year time span
- Older MUDs have paid off debt
- Newer MUDs have outstanding debt
- Outstanding debt by MUD ranges from \$0 to \$151.4 million

# MUD Outstanding Debt

<u>Summary of Outstanding MUD Debt</u>						
	MUD	Year of Last	Bonds Authorized	Bonds	Remaining	
	<u>Outstanding Debt</u>	<u>P&amp;I Payment</u>	<u>By Voters</u>	<u>Issued</u>	<u>Bonds Authorized</u>	
					<u>Not Issued</u>	
MUD #1	\$ -		\$ -	\$ -	\$ -	
MUD #6	-		-	-	-	
MUD #7	-		-	-	-	
MUD Metro Center	11,315,000	2034	50,100,000	41,160,000	8,940,000	
MUD #36	-		12,710,000	10,910,000	1,800,000	
MUD #39	11,790,000	2040	33,650,000	27,025,000	6,625,000	
MUD #46	68,400,000	2030	-	-	-	
MUD #47	18,960,000	2030	-	-	-	
MUD #60	10,180,000	2040	50,925,000	44,975,000	5,950,000	
MUD #67	13,760,000	2032	42,880,000	36,330,000	6,550,000	
Montgomery County MUDs	\$ 134,405,000		\$ 190,265,000	\$ 160,400,000	\$ 29,865,000	
HC MUD 386	151,395,000	2045	293,500,000	179,050,000	114,250,000	
Total - All Woodlands MUDs	\$ 285,800,000		\$ 483,765,000	\$ 339,450,000	\$ 144,115,000	

# Tax Levy for Debt Service

- Tax levy is \$27.4 million
- Four MUDs do not have debt service tax levies
- Replacing consolidated MUD levy with user fee
  - Is equivalent of a 56% change in water / sewer charges
- The debt is being paid from a tax levy based on the value of the house and is not part of the user charge

# Tax Levy for Debt Service

	<u><b>Change in Water / Sewer Charges Needed</b></u>					
	<u><b>to Replace The MUD Tax Levy for Debt Service</b></u>					
						Increase in Water / Sewer Charges to Replace MUD
	Water Charges	Sewer Charges	Total Water / Sewer Charges	MUD Tax Levy Debt Service (Exhibit 4)		<u>Debt Service Tax Levy</u>
MUD #1	\$ 2,105,497	\$ 774,959	\$ 2,880,456	-		0%
MUD #6	1,569,889	774,523	\$ 2,344,412	-		0%
MUD #7	2,098,613	911,998	\$ 3,010,611	-		0%
MUD Metro Center	3,014,892	1,583,863	\$ 4,598,755	1,906,450		41%
MUD #36	1,270,425	601,131	\$ 1,871,556	-		0%
MUD #39	1,097,712	481,271	\$ 1,578,983	1,456,466		92%
MUD #46	7,725,908	2,524,395	\$ 10,250,303	7,100,521		69%
MUD #47	5,320,192	1,948,135	\$ 7,268,327	3,362,585		46%
MUD #60	3,398,083	1,176,544	\$ 4,574,627	1,908,998		42%
MUD #67	2,646,745	1,165,921	\$ 3,812,666	1,754,628		46%
			\$ -			
Montgomery County MUDs	\$ 30,247,956	\$ 11,942,740	\$ 42,190,696	\$ 17,489,648		41%
HC MUD #386	5,676,922	1,097,827	\$ 6,774,749	9,919,248		146%
Total - All Woodlands MUDs	\$ 35,924,878	\$ 13,040,567	\$ 48,965,445	\$ 27,408,896		56%

# Tax Levy for Operations

- \$12.6 million
- Equal to 26% of water / sewer utility user charges
- A portion of the operating cost is being paid from a tax levy based on the value of the house and is not part of the user charge

# Tax Levy for Operations

	<b><u>Change in Water / Sewer Charges Needed</u></b>					Increase in Water / Sewer Charges to Replace MUD <u>Operations Tax Levy</u>
	<b><u>to Replace The MUD Tax Levy for Operations</u></b>					
	Water Charges	Sewer Charges	Total Water / Sewer Charges	MUDs / Operations Tax Levy (Exhibit 4)		
MUD #1	\$ 2,105,497	\$ 774,959	\$ 2,880,456	705,468	24%	
MUD #6	1,569,889	774,523	\$ 2,344,412	709,182	30%	
MUD #7	2,098,613	911,998	\$ 3,010,611	1,086,634	36%	
MUD Metro Center	3,014,892	1,583,863	\$ 4,598,755	544,700	12%	
MUD #36	1,270,425	601,131	\$ 1,871,556	178,161	10%	
MUD #39	1,097,712	481,271	\$ 1,578,983	532,170	34%	
MUD #46	7,725,908	2,524,395	\$ 10,250,303	345,795	3%	
MUD #47	5,320,192	1,948,135	\$ 7,268,327	2,129,637	29%	
MUD #60	3,398,083	1,176,544	\$ 4,574,627	890,866	19%	
MUD #67	<u>2,646,745</u>	<u>1,165,921</u>	<u>\$ 3,812,666</u>	<u>740,843</u>	19%	
			\$ -			
Montgomery County MUDs	\$ 30,247,956	\$ 11,942,740	\$ 42,190,696	\$ 7,863,456	19%	
HC MUD #386	<u>5,676,922</u>	<u>1,097,827</u>	<u>\$ 6,774,749</u>	<u>4,809,332</u>	71%	
Total - All Woodlands MUDs	<u>\$ 35,924,878</u>	<u>\$ 13,040,567</u>	<u>\$ 48,965,445</u>	<u>\$ 12,672,789</u>	26%	

# MUD Operations

- 10 MUDs in Montgomery County
- MUD 386 in Harris and Montgomery Counties
- Woodlands Water – management for Woodlands MUDs



# Water and Sewer Rates

- Each MUD establishes user rates for their district
- 10k monthly residential user
  - MC MUDs \$96.00 to \$104.50
  - MUD 386 \$56.80 to \$74.36

# Water and Sewer Rates

<b><u>Residential MUD Water, Sewer and Surcharge Rates</u></b>						
<b>Summary of Residential Water, Sewer and Surcharges at 10,000 Gallon Usage / Does Not Include Commerical</b>						
	Water Rates	Sewer Rates	Surcharge	Total Monthly	Total Annual	
	<u>(Exhibit 13)</u>	<u>(Exhibit 14)</u>	<u>(Exhibit 13)</u>	<u>Charges</u>	<u>Charges</u>	
MUD #1	\$ 25.20	\$ 48.50	\$ 28.80	\$ 102.50	\$ 1,230	
MUD #6	\$ 25.20	\$ 48.50	\$ 28.80	\$ 102.50	\$ 1,230	
MUD #7	\$ 25.20	\$ 48.50	\$ 28.80	\$ 102.50	\$ 1,230	
MUD Metro Center - no residential	n/a	n/a	n/a	n/a	n/a	
MUD #36	\$ 29.70	\$ 46.00	\$ 28.80	\$ 104.50	\$ 1,254	
MUD #39	\$ 25.20	\$ 48.50	\$ 28.80	\$ 102.50	\$ 1,230	
MUD #46	\$ 26.45	\$ 48.50	\$ 28.80	\$ 103.75	\$ 1,245	
MUD #47	\$ 25.20	\$ 48.50	\$ 28.80	\$ 102.50	\$ 1,230	
MUD #60	\$ 25.20	\$ 42.00	\$ 28.80	\$ 96.00	\$ 1,152	
MUD #67	\$ 25.20	\$ 48.50	\$ 28.80	\$ 102.50	\$ 1,230	
			\$ -			
MUD 386 - Harris County Portion	\$ 12.36	\$ 16.00	\$ 46.00	\$ 74.36	\$ 892	
		\$ -				
MUD 386 - Montgomery County Portion	\$ 13.00	\$ 15.00	\$ 28.80	\$ 56.80	\$ 682	

# MUD Property Tax Rates

- Debt Service tax levy range
  - 0 to 33 cents per \$100 of value
  - 4 MUDs have no debt service levy
- Operations tax levy range
  - 2 cents to 16 cents per \$100 of value
- Total MUD tax levy range
  - 3.5 cents to 49 cents per \$100 of value
  - Total levy for Debt and Operations is \$40.1 million

# MUD Property Tax Rates

	<b><u>MUD Tax Levies for Debt Service and Operations</u></b>						
	Assessed	Debt Service	Debt Service	Operations	Operations	Total	Total
	<u>Property Valuation</u>	<u>Tax Rate</u>	<u>Tax Levy</u>	<u>Tax Rate</u>	<u>Tax Levy</u>	<u>Tax Rate</u>	<u>Tax Levy</u>
MUD #1	\$ 940,623,800	-	\$ -	0.07500	\$ 705,468	0.07500	\$ 705,468
MUD #6	886,476,962	-	-	0.08000	709,182	0.08000	709,182
MUD #7	869,307,336	-	-	0.12500	1,086,634	0.12500	1,086,634
MUD Metro Center	2,723,500,133	0.07000	1,906,450	0.02000	544,700	0.09000	2,451,150
MUD #36	509,032,114	-	-	0.03500	178,161	0.03500	178,161
MUD #39	560,179,375	0.26000	1,456,466	0.09500	532,170	0.35500	1,988,637
MUD #46	3,550,260,413	0.20000	7,100,521	0.00974	345,795	0.20974	7,446,316
MUD #47	2,241,723,506	0.15000	3,362,585	0.09500	2,129,637	0.24500	5,492,223
MUD #60	1,696,886,782	0.11250	1,908,998	0.05250	890,866	0.16500	2,799,863
MUD #67	<u>1,559,669,175</u>	0.11250	<u>1,754,628</u>	0.04750	<u>740,843</u>	0.16000	<u>2,495,471</u>
Montgomery County MUDs	\$ 15,537,659,596		\$ 17,489,648		\$ 7,863,456		\$ 25,353,104
HC MUD 386 / 2020 Fiscal Yr	<u>3,005,832,611</u>	0.33000	<u>9,919,248</u>	0.16000	<u>4,809,332</u>	0.49000	<u>14,728,580</u>
Total - All Woodlands MUD	<u>\$ 18,543,492,207</u>		<u>\$ 27,408,896</u>		<u>\$ 12,672,789</u>		<u>\$ 40,081,684</u>
Average Tax Rate - All MUDs		0.14781		0.06834		0.21615	

# Total Annual Cost of Utility Service (user rates and tax levy)

- 10k user / \$450,000 home value
- MC MUDs - \$1412 to \$2828 annual cost
- HMC MUD386 - \$2887 to \$3097 annual cost

# Total Annual Cost of Utility Service (user rates and tax levy)

<b><u>Annual Residential User Charge and Tax Levy Cost</u></b>					
<b>For a Customer Using 10,000 Gallons a Month with a \$450,000 Home</b>					
	Annual Residential	MUD Tax Rate	MUD Tax Rate		Total Est. Annual
	Utility Use Fees - 10,000	<b>Debt Service</b>	<b>Operations</b>		Cost For MUD
	<u>Gallon use per mth.</u>	<u>\$450,000 Home</u>	<u>\$450,000 Home</u>		<u>Utility Service</u>
	(Exhibit 15)	(Exhibit 16)	(Exhibit 16)		
MUD #1	\$ 1,230	\$ -	\$ 338		\$ 1,568
MUD #6	\$ 1,230	\$ -	\$ 360		\$ 1,590
MUD #7	\$ 1,230	\$ -	\$ 563		\$ 1,793
MUD Metro Center (no residential)	n/a	n/a	n/a		n/a
MUD #36	\$ 1,254	\$ -	\$ 158		\$ 1,412
MUD #39	\$ 1,230	\$ 1,170	\$ 428		\$ 2,828
MUD #46	\$ 1,245	\$ 900	\$ 44		\$ 2,189
MUD #47	\$ 1,230	\$ 675	\$ 428		\$ 2,333
MUD #60	\$ 1,152	\$ 506	\$ 236		\$ 1,895
MUD #67	\$ 1,230	\$ 506	\$ 214		\$ 1,950
MUD 386 - Harris County Portion	\$ 892	\$ 1,485	\$ 720		\$ 3,097
MUD 386 - Montgomery County Portion	\$ 682	\$ 1,485	\$ 720		\$ 2,887

# MUD Administrative Costs

- Significant reduction at consolidation
- Changing from 11 government operations to a single city utility

# MUD Administrative Costs - \$1.6 million

<b><i>MUD Administrative Expenses</i></b>									
	<u>Auditing</u>	<u>Legal</u>	<u>Directors Fees</u>	<u>Regulatory Assessment</u>	<u>Bank Charges</u>	<u>Insurance</u>	<u>Appraisal District</u>	<u>Property Tax Admin.</u>	<u>MUD Election Costs</u>
MUD #1	\$ 6,300	\$ 19,921	\$ 10,050	\$ 19,321	\$ 4,838	\$ 3,420	\$ 5,898	\$ 14,771	(note I)
MUD #6	3,300	20,295	11,400	17,051	2,678	3,229	5,968	12,859	(note I)
MUD #7	4,650	17,407	14,250	22,094	3,328	3,229	9,094	20,086	(note I)
MUD Metro Center	5,500	22,860	10,200	24,336		3,229	21,595	22,774	(note I)
MUD #36	3,525	24,836	18,300	12,805	3,357	3,229	1,485	8,755	(note I)
MUD #39	3,750	20,702	12,900	9,856	2,651	3,229	16,644	17,963	(note I)
MUD #46	7,700	23,491	10,950	60,376	7,340	3,229	62,277	78,100	(note I)
MUD #47	7,700	26,575	13,950	47,307	5,405	4,304	45,867	62,852	(note I)
MUD #60	5,725	20,600	16,800	29,132	4,263	3,511	23,404	34,417	(note I)
MUD #67	4,650	17,718	12,450	26,599	3,295	3,229	20,808	26,402	(note I)
Montgomery County MUDs	\$ 52,800	\$ 214,405	\$ 131,250	\$ 268,877	\$ 37,155	\$ 33,838	\$ 213,040	\$ 298,979	
HC MUD 386	11,500	143,631	17,278	(see note I)	(see note I)	9,085	105,100	77,394	(note I)
<b>Total - All Woodlands MUD</b>	<b>\$ 64,300</b>	<b>\$ 358,036</b>	<b>\$ 148,528</b>	<b>\$ 268,877</b>	<b>\$ 37,155</b>	<b>\$ 42,923</b>	<b>\$ 318,140</b>	<b>\$ 376,373</b>	
Note I - Breakdown of expense data not included in the audit reports									

Grand Total: \$1.6 million



# SJRA

- Provides wholesale water and sewer services to Woodlands MUDs
- SJRA owns water and sewer treatment facilities.
  - Three regional wastewater treatment plants
  - Major sewer mains and 30 lift stations
  - Five water plants / water mains
  - Thirty eight water wells / storage facilities
- SJRA finances facilities and charges MUDs
- Principal amount due through 2032 is \$21.8 million
- Groundwater Reduction Plan charge / \$2.88 per 1000 gallons

# Consolidated MUD Unrestricted Reserves - \$50 Million

<b><u>Cash / Unrestricted Fund Balance - General Fund</u></b>			
		<u>GF Cash and Investments</u>	<u>Unrestricted Fund Balance</u>
MUD #1		\$ 4,175,335	\$ 4,022,613
MUD #6		3,014,069	2,838,126
MUD #7		2,955,260	2,740,126
MUD Metro Center		5,370,305	5,398,367
MUD #36		588,169	483,310
MUD #39		2,439,267	2,346,216
MUD #46		7,344,346	6,914,736
MUD #47		5,383,659	4,922,894
MUD #60		4,327,991	3,874,566
MUD #67		4,169,158	3,995,130
Montgomery County MUDs		\$ 39,767,559	\$ 37,536,084
HC MUD#386		13,114,300	12,461,454
Total - All Woodlands MUDs		\$ 52,881,859	\$ 49,997,538

# Harris – Montgomery County MUD 386

- Wholesale services in HC - provided by MUD 387
- Wholesale services in MC portion - provided by SJRA
- HC MUD 387 owns water and sewer facilities
  - Three water plants / water well
  - Ground Storage Tanks / Water mains
  - Wastewater Treatment Plant / sewer line / lift stations
  - Surface water fee / NHCRWA
    - \$4.60 per \$1000 gallons

# Options following incorporation

- Status quo
- Unilateral action by governing body to abolish / city to assume MUD utility operations
  - Potential benefits
    - Operational / administrative savings / one utility
    - Potential debt refinancing benefits
    - Decrease in number of government units
    - Uniform utility user rates
    - Improved planning of community wide projects
    - Option to fund utility capital costs with revenue bonds backed by user fees
    - City oversight / groundwater, subsidence, drainage and flooding issues
  - Potential issue is assumption of outstanding MUD debt
    - Cost of debt is consolidated and shared by all utility users / some users do not currently pay for outstanding debt

# Options following incorporation

- Interlocal agreement with MUDs
  - Would require approval of all MUDs
  - City would assume utility operations
  - User fees to pay for operations
  - MUDs continue levy for debt service
  - Potential benefits
    - One operating city utility
    - Uniform user rates
    - Improved planning for city wide projects
    - City oversight for utilities, drainage, groundwater, other
  - MUDs would continue until debt is paid off

# Review of Comparison Cities / Utility operations

- Cities - Allen, Frisco, Round Rock, Southlake, Sugarland
  - Fund utility operations through user fees and charges / no property tax levy.
  - Issue primarily revenue bond debt for utility capital financing
  - Fund their utility debt service costs through user fees versus a general tax levy.
  - Fund a portion of their storm water operations through assessments (exception is Sugar Land)
  - Fund their garbage and recycling waste collection costs through user fees with the charge shown on the utility bills.
  - Four of the five cities impose an impact fee on new development to fund capital costs

# Residential Solid Waste Charges

- Allen - bills \$15.02 monthly
- Frisco – bills \$16.00 monthly
- Round Rock – bills \$19.37monthly
- Southlake – bills \$16.56 monthly
- Sugar Land - bills \$16.56 monthly
- The Woodlands – paid through Township tax levy

# Storm Water Fees

- Allen - bills \$3.50 monthly
- Frisco - bills \$3.00 to \$9.65 monthly / based on lot size
- Round Rock - bills \$4.75 monthly
- Southlake - bills \$8.00 monthly
- Sugar Land - none



# Other - Commercial Solid Waste / Franchise – License fees

- Franchise provisions established by city ordinance
  - Conroe –3%
  - Houston – 4%
  - Sugarland -5%
  - Round Rock - 10%
  - Missouri City - 5%