Capital Improvements Plan (CIP)
Water Delivery / System Development – UPDATE

Capital Improvements Advisory Committee
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Allocation of Water Delivery / System Development / Pump Stations Value to Impact Fee

Total available capacity for Low Service Area is 62.6 mgd

- $2018\ Capacity = \mathbf{526.8\ mgd}$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ MHD$
- $Existing\ Available\ Capacity = 526.8\ mgd - 467.7\ mgd = 59.1\ mgd$
- $Future\ CIP\ Capacity = 3.5\ mgd$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 59.1\ mgd + 3.5\ mgd = \mathbf{62.6\ mgd}$

Impact fee eligible allocation for Low Service Area is 100%

- $Allocation = \dfrac{Study\ Period\ Demand}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{75.1\ mgd}{62.6\ mgd} = \mathbf{120.0\%}$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

Allocation is based on TCEQ requirements

- TCEQ requires minimum 100 gallons per connection of EST capacity, but WIP may recommend a higher minimum for each service area

- $1\ connection = \mathbf{1.54\ EDUs}$

- $EST\ Capacity\ Requirement = Minimum\ gal/conn * \dfrac{No.EDUs}{1.54}$

- $Study\ Period\ Requirement =$
  $2028\ EST\ Capacity\ Requirement -$
  $2018\ EST\ Capacity\ Requirement$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

High Service Area Study Period Requirement

- $2018 \; EST \; Capacity \; Requirement = \mathbf{345} \frac{gal}{conn} * \frac{23{,}755 \; EDU}{1.54} = \mathbf{5.3 \; MG}$

- $2028 \; EST \; Capacity \; Requirement = \mathbf{298} \frac{gal}{conn} * \frac{30{,}600 \; EDU}{1.54} = \mathbf{5.9 \; MG}$

- $Study \; Period \; Requirement = 5.9 \; MG - 5.3 \; MG = \mathbf{0.6 \; MG}$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

Total available capacity for High Service Area is 5.1 MG

- $2018\ Capacity = 5.4\ MG$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ EST\ Capacity\ Requirement$
- $Existing\ Available\ Capacity = 5.4\ MG - 5.3\ MG = \mathbf{0.1\ MG}$
- $Future\ CIP\ Capacity = 5.0\ MG$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 0.1\ MG + 5.0\ MG = \mathbf{5.1\ MG}$

Impact fee eligible allocation for High Service Area is 11.9%

- $Allocation = \dfrac{Study\ Period\ Requirement}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{0.6\ MG}{5.1\ MG} = \mathbf{11.9\%}$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

Middle Service Area Study Period Requirement

- $2018\ EST\ Capacity\ Requirement = \mathbf{198}\frac{gal}{conn} * \frac{262{,}228\ EDU}{1.54} = \mathbf{33.7\ MG}$

- $2028\ EST\ Capacity\ Requirement = \mathbf{196}\frac{gal}{conn} * \frac{318{,}707\ EDU}{1.54} = \mathbf{40.6\ MG}$

- $Study\ Period\ Requirement = 40.6\ MG - 33.7\ MG = \mathbf{6.9\ MG}$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

Total available capacity for Middle Service Area is 9.9 MG

- $2018\ Capacity = 40.6\ MG$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ EST\ Capacity\ Requirement$
- $Existing\ Available\ Capacity = 40.6\ MG - 33.7\ MG = \mathbf{6.9\ MG}$
- $Future\ CIP\ Capacity = 3.0\ MG$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 6.9\ MG + 3.0\ MG = \mathbf{9.9\ MG}$

Impact fee eligible allocation for Middle Service Area is 69.0%

- $Allocation = \dfrac{Study\ Period\ Requirement}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{6.9\ MG}{9.9\ MG} = \mathbf{69.0\%}$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

Low Service Area Study Period Requirement

- $2018\ EST\ Capacity\ Requirement = \mathbf{144}\frac{gal}{conn} * \frac{488,639\ EDU}{1.54} = \mathbf{45.7\ MG}$

- $2028\ EST\ Capacity\ Requirement = \mathbf{142}\frac{gal}{conn} * \frac{567,086\ EDU}{1.54} = \mathbf{52.3\ MG}$

- $Study\ Period\ Requirement = 52.3\ MG - 45.7\ MG = \mathbf{6.6\ MG}$

Allocation of Water Delivery / System Development / Elevated Storage Tanks Value to Impact Fee

Total available capacity for Low Service Area is 7.0 MG

- $2018\ Capacity = 48.2\ MG$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ EST\ Capacity\ Requirement$
- $Existing\ Available\ Capacity = 48.2\ MG - 45.7\ MG = \mathbf{2.5\ MG}$
- $Future\ CIP\ Capacity = 4.5\ MG$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 2.5\ MG + 4.5\ MG = \mathbf{7.0\ MG}$

Impact fee eligible allocation for Low Service Area is 94.1%

- $Allocation = \dfrac{Study\ Period\ Requirement}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{6.6\ MG}{7.0\ MG} = \mathbf{94.1\%}$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

Allocation is based on TCEQ requirements

- TCEQ requires minimum 200 gallons per connection of storage capacity, but WIP may recommend a higher minimum for each service area

- $1\ connection = \mathbf{1.54\ EDUs}$

- $GST\ Capacity\ Requirement = Minimum\ gal/conn * \dfrac{No.\ EDUs}{1.54}$

- $Study\ Period\ Requirement = 2028\ GST\ Capacity\ Requirement - 2018\ GST\ Capacity\ Requirement$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

High Service Area Study Period Requirement

- $2018\ GST\ Capacity\ Requirement = \mathbf{2}\ \frac{gal}{conn} * \frac{23,755\ EDU}{1.54} = \mathbf{0.03\ MG}$

- $2028\ GST\ Capacity\ Requirement = \mathbf{4}\ \frac{gal}{conn} * \frac{30,600\ EDU}{1.54} = \mathbf{0.08\ MG}$

- $Study\ Period\ Requirement = 0.08\ MG - 0.03\ MG = \mathbf{0.05\ MG}$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

Total available capacity for High Service Area is 10.8 MG

- $2018\ Capacity = 10.8\ MG$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ GST\ Capacity\ Requirement$
- $Existing\ Available\ Capacity = 10.8\ MG - 0.03\ MG = \mathbf{10.8\ MG}$
- $Future\ CIP\ Capacity = 0.0\ MG$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 10.8\ MG + 0.0\ MG = \mathbf{10.8\ MG}$

Impact fee eligible allocation for High Service Area is 0.5%

- $Allocation = \dfrac{Study\ Period\ Requirement}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{0.05\ MG}{10.8\ MG} = \mathbf{0.5\%}$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

Middle Service Area Study Period Requirement

- $2018\ GST\ Capacity\ Requirement = 2\frac{gal}{conn} * \frac{262{,}228\ EDU}{1.54} = \mathbf{0.3\ MG}$

- $2028\ GST\ Capacity\ Requirement = 4\frac{gal}{conn} * \frac{318{,}707\ EDU}{1.54} = \mathbf{0.8\ MG}$

- $Study\ Period\ Requirement = 0.8\ MG - 0.3\ MG = \mathbf{0.5\ MG}$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

Total available capacity for Middle Service Area is 79.7 MG

- $2018\ Capacity = 67.5\ MG$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ GST\ Capacity\ Requirement$
- $Existing\ Available\ Capacity = 67.5\ MG - 0.3\ MG = \mathbf{67.2\ MG}$
- $Future\ CIP\ Capacity = 12.5\ MG$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 67.2\ MG + 12.5\ MG = \mathbf{79.7\ MG}$

Impact fee eligible allocation for Middle Service Area is 0.6%

- $Allocation = \dfrac{Study\ Period\ Requirement}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{0.5\ MG}{79.7\ MG} = \mathbf{0.6\%}$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

Low Service Area Study Period Requirement

- $2018 \; GST \; Capacity \; Requirement = \mathbf{56} \frac{gal}{conn} * \frac{488,639 \; EDU}{1.54} = \mathbf{17.8 \; MG}$

- $2028 \; GST \; Capacity \; Requirement = \mathbf{58} \frac{gal}{conn} * \frac{567,086 \; EDU}{1.54} = \mathbf{21.4 \; MG}$

- $Study \; Period \; Requirement = 21.4 \; MG - 17.8 \; MG = \mathbf{3.6 \; MG}$

Allocation of Water Delivery / System Development / Ground Storage Tanks Value to Impact Fee

Total available capacity for Low Service Area is 83.8 MG

- $2018\ Capacity = 100.6\ MG$
- $Existing\ Available\ Capacity = 2018\ Capacity - 2018\ EST\ Capacity\ Requirement$
- $Existing\ Available\ Capacity = 100.6\ MG - 17.8\ MG = \mathbf{82.8\ MG}$
- $Future\ CIP\ Capacity = 1.0\ MG$
- $Total\ Available\ Capacity = Existing\ Available\ Capacity + Future\ CIP\ Capacity$
- $Total\ Available\ Capacity = 82.8\ MG + 1.0\ MG = \mathbf{83.8\ MG}$

Impact fee eligible allocation for Low Service Area is 4.3%

- $Allocation = \dfrac{Study\ Period\ Requirement}{Total\ Available\ Capacity}$
- $Allocation = \dfrac{3.6\ MG}{83.8\ MG} = \mathbf{4.3\%}$

Water Delivery / System Development CIP – Eligible Value

Component	Service Area	Total Cost	Eligible %	Eligible Cost*
Pump Stations	High	$ 9,658,653	16.0%	$ 1,546,750
	Middle	53,156,107	25.3%	13,427,334
	Low	15,416,184	100%	15,416,184
Ground Storage	High	3,932,000	0.5%	17,802
	Middle	50,764,907	0.6%	310,422
	Low	33,579,280	4.3%	1,437,295
Elevated Storage	High	14,094,838	11.9%	1,679,513
	Middle	14,356,580	69.0%	9,905,187
	Low	20,219,244	94.1%	19,035,339
Well Pumps	All	48,265,475	42.5%	20,490,786
Transmission	High	26,236,448	16.0%	4,201,540
	Middle	102,346,712	25.3%	25,852,975
	Low	13,052,318	100%	13,052,318
TOTAL		**$ 405,078,745**	**31.2%**	**$ 126,373,445**

* Costs shown do not include financing charges.

Questions?