#13

CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY

WTP #4 COST ANALYSIS

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General Assumptions:

Daily Water Usage (MGD) 50
Annual Water Usage (Gallons) 18,250,000,000
Annual Water Usage (1,000 Gallon Units) 18,250,000

WTP #4 Cost Assumptions: (\$ in Millions) ;

WTP #4 Plant Construction Costs	\$283.1	Online in 2011
Ulirich Raw Water Line to Town Lake	\$10.0	
Bond Funded + 80%	\$234.5	,
Cash Funded - 20%	\$58.6	
Plant/TM O & M Costs per Year	\$5.3	
Debt Service Coverage	1.50x	
Commercial Paper Interest Rate	3.5%	
Revenue Bond Interest Rate	5.5%	

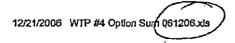
Late Backup

WTP #4 Cost Analysis:	50-Year	50-Year Net Present
(In Millions)	Total Costs	Value (NPV)
O&M	\$269.7	\$130.6
Debt Service	519.4	290.3
CIP Transfers	58.6	52.1
Debt Coverage	1.4_	1.3
Total	\$849.1	\$474.3
Rate Impact:	23.1%	

Cost Comparisons of WTP #4 Deferrat:

Deferral of 1 Year (In Millions)	50-Year Total Costs	Total Costs Variance	50-Year Net Present Value (NPV)	Net Present Value Variance
O&M	\$264.0	(\$5.7)	\$125.7	(\$4.9)
Debt Service	519.5	0.1	281.9	(8.4)
CIP Transfers	58.6	0.0	50,6	(1.5)
Debt Coverage _	2.1_	0.7	1.8	0.6
Total	\$844.2	(\$4.9)	\$460,0	(\$14.3)
Rate Impact:	23.4%	0.4%		

Deferral of 2 Years (In Millions)	50-Year Total Costs	Total Costs Variance	50-Year Net Present Value (NPV)	Net Present Value Variance
O&M	\$258.2	(\$11.5)	\$120.9	(\$9.7)
Debt Service	519.5	0.1	273.7	(16.6)
CIP Transfers	58.6	0.0	49.2	(2.9)
Debt Coverage	2.1	0.7	1.8	0.5
Total	\$838.4	(\$10.7)	\$445.6	. (\$28.7)
Rate impact:		-0.4%	-	



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Dollar Amounts (Based on "2008" Dollars) Summary of Phase 1 + Phase 2 Costs If b	.008" Dollars) 2.2 Costs If built in two 25 MGD phases	2						•
Site	Existing Green WTP Site* SE Krieg	SE Krieg	Govalle WWTP	Private #1	Private #2	(*) Professor (*) march of the foodbase (*) **(*) **(*) **(*) **(*)	Tours I at a Tours	() () () () () () () () () ()
Intake & Pump Station	\$12,000,000	\$12,000,000	\$12,000,000	\$12,000,000	000.000	\$17,000,000	CARGILLARIGIUMINI	- 417 DOD ODD
Raw Water Pipeline	\$4,000,000	\$10,000,000	\$32,000,000	\$35,000,000	\$20,000,000	CON 000 403	_	000,000,014
WTP	\$269,000,000	\$168,000,000	\$166,000,000	\$169,000,000	\$168,000,000	£158 000 000		37,000,000
High Service Pipeline	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,000,000	000,000		000,000,000
Distribution System TMs	\$57,000,000	\$37,000,000	\$30,000,000	\$30,000,000	541.000.000	£17 000 pon		\$4,000,000 \$47,000,000
Total	\$343,000,000	\$228,000,000	\$241,000,000	\$247,000,000	\$241,000,000	\$228,000,000		\$275,000,000
Summary of Phase 1 Costs								S
	Existing Green WTP Site*	SE Kried	Greetle WWTP	Private #1	Drivete #2			(
Intake & Pump Station		\$11,000,000	IΩ	000 000	000	Catalogy Decker Lake (10wh Lake Intake)	ecker Lake (10wn)	ake intake)
Raw Water Pipeline	\$4,000,000	\$10,000,000	\$32,000,000	\$35,000,000	\$20,000,000	416,000,000		000,000,014
WTP	\$220,000,000	\$115,000,000	\$116,000,000	\$116,000,000	£117 000 000	\$44£ 000,000		3/2,000,000
High Service Pipeline	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,000,000	000,000,000		000,000,0115
Distribution System TMs	S	\$1,000,000	\$19,000,000	\$18,000,000	\$14,000,000	247,000,000		000,000
Total	\$238,000,000	\$138,000,000	\$179,000,000	\$181,000,000	\$164,000,000	\$174,000,000		\$221,000,000
Summary of Costs for 50 MGD Built in Ons Phase	in One Phase							Ţ
	Existing Green WTP Site* SE Krieg	SE Krieg	Govalle WWTP	Private #1	Private #7	Catalan (Glass)** Contract at a Contract Contrac	Total	Colorest of the
Intake & Pump Station	\$11,000,000	\$11,000,000	ΙQ	000,000	000 000	£18 DOD DOD	man rawa	E4E DOO OOO
Raw Water Pipeline	\$\$,000,000	\$10,000,000	\$32,000,000	\$35,000,000	\$20,000,000	\$25,000,000		623 000 000
WTP	\$257,000,000	\$158,000,000	\$156,000,000	\$158,000,000	\$156,000,000	\$157,000,000		\$15,000,000 \$15,000,000
High Service Pipeline	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,000,000	\$1,000,000		61,000,000
Distribution System TMs	\$57,000,000	\$36,000,000	\$30,000,000	\$30,000,000	\$40,000,000	\$17,000,000		\$17,000,000
Totel	\$330,000,000	\$216,000,000	\$230,000,000	\$235,000,000	\$229,000,000	\$216,000,000		\$262,000,000

810	CAISUIN GREEN WIP SIGN SE KNEG	COVERIE WWY IT FINANCE #1	FTIVS(B #1	TIVBIO #2	Ö	Decker (River)** Decker Lake (Town Lake totake	And Jake (otake)
Intake & Pump Station	100%		940		100%	142%	142%
Raw Water Pipeline	*07		%0.	350%	200%	250%	720%
WTP	160%		%6	101%	X 56	100%	1001
High Service Pipeline	100%		š	100%	200%	7001	7001
Distribution System TMs	154%	8 8	81%	81%	111%	46%	ARK ARK
Total	150%		%90I	108%	106%	100%	121%

	TOTAL CONTROL OF THE PARTY OF T						
Site	Existing Green WTP Site* SE Kiseg		Govalle WWTP Private #1	Private #2	ā	ker (Rlvar)** D	Decker (River)** Decker (ska (Town ske (niske)
Intake & Pump Station	100%	100 X	100%	7001	200	145%	145%
Raw Water Pipeline	40%		320%	350%	200%	250%	%06Z
WTP			101%	7101	102%	7001	1004
High Service Pipeline	* 001	100%	100%	100%	200%	1004	100%
Distribution System TMs		•	70061	1800%	1400%	1700%	1700%
Total	171%	100%	130%	131%	119%	126%	160%
Summary of Costs for 50 MGD Built	Summary of Costs for 50 MGD Built in One Phase AS PERCENTAGE OF LOWEST COST LOCATION	LOWEST COST LOC	AUCH				
Site	Existing Green WTP Site* SE Krieg	g Govalle WW	Govalle WWTP Private #1	Private #2	Ž	ker (River)** De	Dacker (River)** Decker Lake (Town Lake Intake)
Intake & Dumo Ctation	74004	4000	,000,	4000		C	COLOR PERSON LANGE MARKET

	Town Lake Intake)	145% 145% 145% 100% 47%	121%
	Decker (River)** Decker I ake (Town I ake Intal	145% 250% 89% 100% 47%	100%
		5888	106%
	Private #2	350% 100% 100% 3,001	109%
	Govalle WWTP Private #1	100% 320% 99% 100% 83%	106%
		190% 190% 190% 100% 100%	100%
	Existing Green WTP Site* SE Krieg	100% 40% 163% 100% 156%	153%
The state of the s	Site	intake & Pump Station Raw Water Pipeline WTP High Service Pipeline Distribution System TMs	Total

*A conventional plant will not fit on the limited space at the existing Green WTP Site. Costs for this site are based on membrane softening allowing for buffer zone
Also note: Distribution modeling showed that the existing Green sile would not require major new distribution piping until Phase 2 (expansion beyond 25 MGD).
The lack of Phase 1 cost for this teen is not an error.

** Decker Lake site doss NOT include Phase il Conveyance. This was not modeled or included, Cost here is for niver intake (Town Lake intake resulted in very high raw water line cost). Assumed River intake cost is same as Town Lake intake. The Phase il cost would be high if the water must be brought south to Pleasant Valley Road. Also, assumed \$1 million for mitigation. Raw water line routs is assumed to be approximately straight-line, with \$1 million atlowance for easements. Intake cost is higher because two intakes with be needed; one at the River and one in Decker Lake. The Decker Lake intake is assumed to be slightly less than 50% of the main River intake.

Note: These estimates are planning-tevel only. They are not meant to accurately reflect the eventual cost of each option to a high level of accuracy. Additional information would be needed for such an estimate. These are for comparison purposes only.

Note: The \$137 million has increased to \$138 as we refined the estimates. The additional cost reflects the addition of a powdered activated carbon system at the plant.