Olszewski, Rosemarie (DEQ)

From:	Stibitz, Brom (DTMB)
Sent:	Thursday, March 21, 2013 5:00 PM
To:	Wyant, Dan (DEQ)
Cc:	Dillon, Andy (Treasury)
Subject:	FW: Flint Scenarios
Attachments:	Flint Scenarios FY 2013-14.pdf; Recent DWSD Flint Supply Cost Options.pdf; TYJT Recommendaton DWSD vs Flint.pdf; flint water supply assessment final report 2-6-13.pdf

Andy asked that I pass this information along to you.

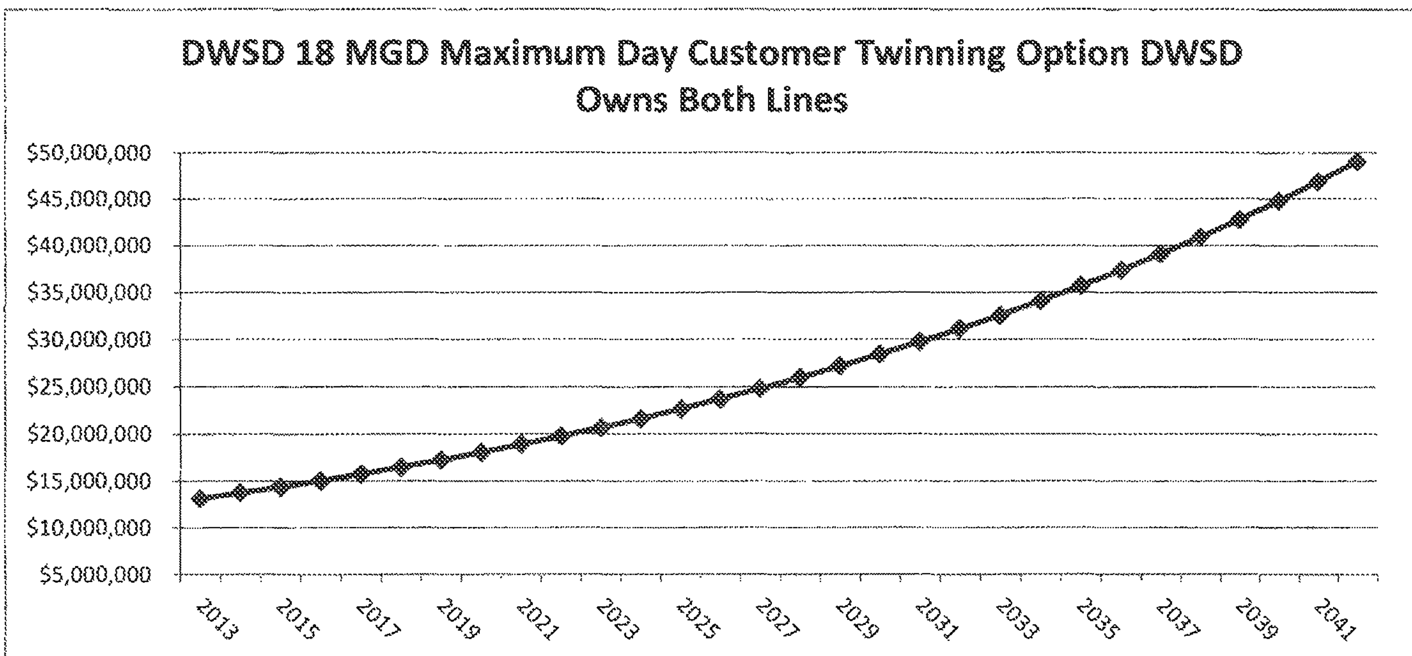
Summary of FY 2013-14 DWSD Cost Allocations to Flint Under Various Scenarios
Flint Only

		Revenue	Rates and Charges		
		Requirement	Fixed	Commodity	*Avg Unit Cost*
1	**Status Quo *(Flint Portion)***	12,574,900	379,304	13.01	*20.39*
2	**Suggested Cct *(Flint Portion)***	11,281,100	351,661	12.06	*19.27*
3	Change	(1,293,800)	(27,643)	(0.95)	*(1.12)*
4	% Change	-10.3%	-7.3%	-7.3%	*-5.5%*
5	**Max Day Only**	9,904,300	294,542	10.87	*16.91*
6	Change	(1,376,800)	(57,119)	(1.19)	*(2.36)*
7	% Change	-13.9%	-19.4%	-10.9%	*-14.0%*
8	**Add CTA Line to BP**	10,093,100	310,271	10.87	*17.23*
9	Change	188,800	15,729	0.00	*0.32*
10	% Change	1.9%	5.1%	0.0%	*1.9%*
11	**CTA to BP / Flint only to FWTP**	12,446,300	506,371	10.87	*21.25*
12	Change	2,353,200	196,100	0.00	*4.02*
13	% Change	18.9%	38.7%	0.0%	*18.9%*
14	**Add CTA Line to FWTP**	10,191,200	318,450	10.87	*17.40*
15	Change	(2,255,100)	(187,921)	0.00	*(3.85)*
16	% Change	-22.1%	-59.0%	0.0%	*-22.1%*
17	**CTA to FWTP / Buy existing 72**	10,009,600	303,315	10.87	*17.08*
18	Change	(181,600)	(15,135)	0.00	*(0.32)*
19	% Change	-1.8%	-5.0%	0.0%	*-1.9%*
20	Cumulative Change	(2,565,300)	(75,989)	(2.14)	*(3.31)*
21	Cumulative % Change	-20.4%	-20.0%	-16.4%	-16.2%

		Assumptions				
					DWSD Investment	
		Avg Day	Max Day	Peak Hour	CTA	Flint Only
		mgd	*mgd*	*mgd*	*$*	*$*
1	**Status Quo**	24.6	45.6	47.7	0	0
2	**Suggested Contract**	23.4	40.6	42.4	0	0
3	**Max Day Only**	12.0	18.0	18.0	0	0
4	**Add CTA Line to BP**	12.0	18.0	18.0	62,290,800	0
5	**CTA to BP / Flint only to FWTP**	12.0	18.0	18.0	62,290,800	32,391,300
6	**Add CTA Line to FWTP**	12.0	18.0	18.0	94,682,100	0
7	**CTA to FWTP / Buy existing 72**	12.0	18.0	18.0	94,682,100	(2,500,000)

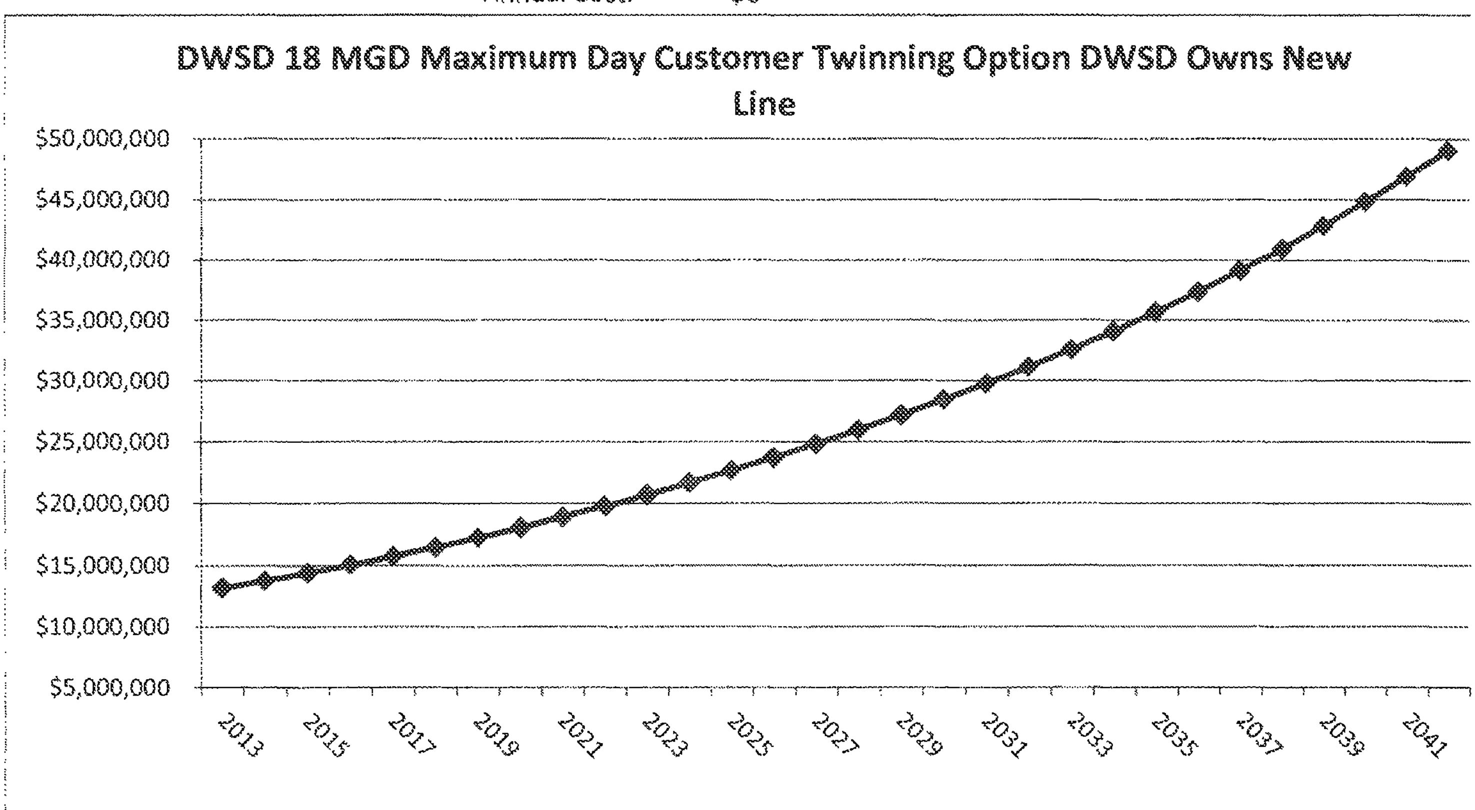
DWSD Worksheet : 18 MGD Maximum Day Customer with Model Contra

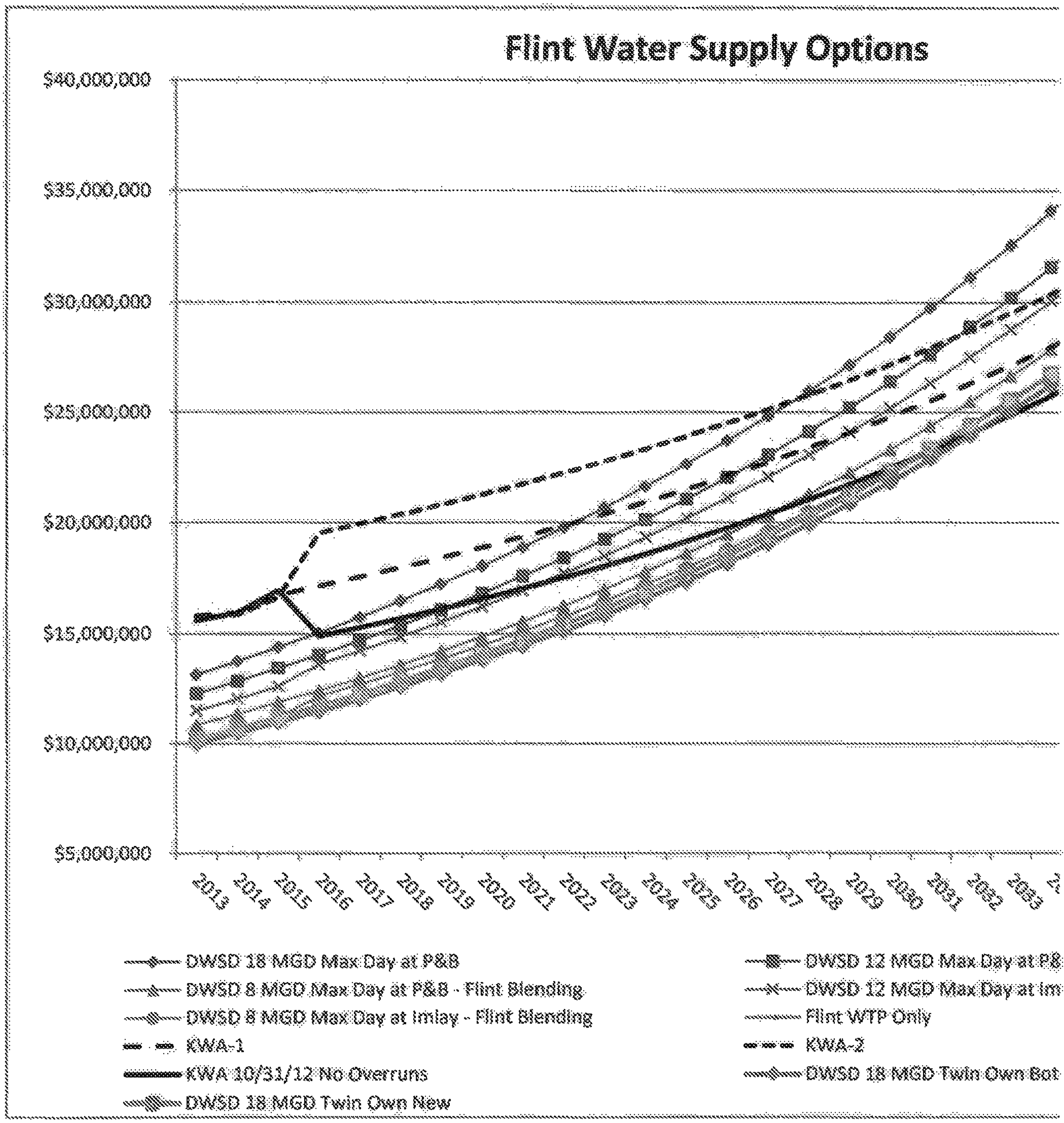
Capacity				
Flint ADD:	0.00 MGD		-	MCF/Day
DWSD ADD:	12 MGD		1,604	MCF/Day
Annual Volume				
Flint:	- MCF			
DWSD:	585,561 MCF			
2013 Cost of Supply				
Flint WTP O&M:	-	/MCF	$ -	/Yr
DWSD:	$ 17.08	/MCF	$ 10,001,390	/Yr
Escalation/Inflation Rate				
Flint:	4.51%	/Yr		
DWSD:	4.7%	/Yr		
Capital Expenditure				
Amount:	$ -			
Reserve:	$ -	0%	Reserve Rate:	0.00%
Amount plus Reserve:	$ -			
Revenue Bond Rate:	5%			
Number of Years:	25			
Annual Cost:	$0			



DWSD Worksheet : 18 MGD Maximum Day Customer with Model Con

Capacity				
Flint ADD:	0.00	MGD	-	MCF/Day
DWSD ADD:	12	MGD	1,604	MCF/Day
Annual Volume				
Flint:	-	MCF		
DWSD:	585,561	MCF		
2013 Cost of Supply				
Flint WTP O&M:	-	/MCF	$ -	/Yr
DWSD:	$ 17.40	/MCF	$ 10,188,770	/Yr
Escalation/Inflation Rate				
Flint:	4.51%	/Yr		
DWSD:	4.7%	/Yr		
Capital Expenditure				
Amount:	$ -			
Reserve:	$ -	0%	Reserve Rate:	0.00%
Amount plus Reserve:	$ -			
Revenue Bond Rate:	5%			
Number of Years:	25			
Annual Cost:	$0			




Flint Water Supply Options
$40,000,000
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
DWSD 18 MGD Max Day at P&B
DWSD 12 MGD Max Day at P8
DWSD 8 MGD Max Day at P&B - Flint Blending
DWSD 12 MGD Max Day at Im
DWSD 8 MGD Max Day at Imlay - Flint Blending
Flint WTP Only
KWA-1
KWA-2
KWA 10/31/12 No Overruns
DWSD 18 MGD Twin Own Bot
DWSD 18 MGD Twin Own New

STATE OF MICHIGAN CONTRACT NO. 271N3200089

CITY OF FLINT WATER SUPPLY ASSESSMENT

At the request of the Treasurer, Tucker, Young, Jackson, Tull, Inc. (TYJT) makes the following recommendation to the Department of Treasury concerning Flint's water supply alternatives. Based on the financial analysis performed of the various options presented by DWSD to continue treated water service to Flint compared to Flint being supplied by the new KWA untreated water system, TYJT believes that several of the options presented by DWSD are lower in cost currently and over the long run than the one offered by KWA. TYJT also believes that DWSD's most recent offer (subsequent to the submittal of our report) to build a smaller parallel water main from Imlay to Flint, funded by the entire DWSD base of customers, is the best solution offering the least cost alternative and the required redundancy by MDEQ.

Furthermore, since a majority of the KWA system has not been designed and none of the system has been constructed, there is an additional risk that the cost of the KWA system may actually be higher than estimated due to potential construction delays and unforeseen conditions. This risk to Flint could be substantial since the city is responsible for 30 percent of the KWA design and construction costs while still having to purchase water from DWSD during the construction period.

Finally, there are other issues that were identified in our report that may result in risks to Flint if it were to join KWA that should be considered by the Treasury in determining how Flint's potable water should be supplied. These issues are related to redundancy and reliability, other items affecting cost, and Flint's desire to control its own destiny related to its water supply. These are described further below.

- DWSD's supply to Flint is via a 72-inch water main from Imlay City. This main also supplies Imlay City, Mayfield and the Greater Lapeer County Utilities Authority (GLCUA). The volume of water contained within the 72-inch main is approximately 30 million gallons. If Genesee and Flint move to KWA then the three remaining communities' consumption would most likely not be large enough to maintain fresh water in DWSD's pipeline (due to loss of chlorine residual). DWSD may consider shutting down the 72-inch line completely due to the water quality concerns, which would then create an additional burden for Imlay, Mayfield and GLCUA to finance treated water supplies.
- The KWA supply option is counter to the Treasury's Competitive Grant Assistance Program (Formerly EVIP Grant). This program has been put in place to allow for communities to consolidate their services and save money. Two existing customers of DWSD (Flint and Genesee County) along with the potential of others customers (GLCUA, Mayfield, Imlay City) separating from another water system is in contradiction to the program.
- There is a concern over the ability of smaller systems (KWA) over larger systems (DWSD) to pay for future unfunded mandates and regulations. Obviously, identifying regulation requirements over 30 years is hard to determine. However, it is widely accepted that a large system has greater ability to respond to unfunded mandates because the cost can be distributed over a large customer base.
- Although Flint will be responsible for 30 percent of the construction cost, they will only have a minority vote on the KWA board. Furthermore, there are other communities (Lapeer County, the City of Lapeer, and Sanilac County) that sit on the board and vote. However, they are not purchasing water nor contributing to the construction costs. Their position on the KWA Board will not provide them an ability to "control their own destiny," as they have stated to the Treasury.