

FLINT WATER SYSTEM OPTIONS

DWSD OPTION: Continue to purchase water from DWSD. Some blending with River Water.

Potential Positives:

- Purchases from DWSD are the cheapest option at the onset.
- In the event that the City experiences unexpected growth, DWSD could provide more water above current projections. The maximum MGD DWSD can provide needs to be determined.
- If the City buys water from DWSD, could the City use KWA as a backup?
- A plan to address water loss within the system needs to be developed.
- Requires no bonding by the City.
- Use of the 72" Line will lower water rates.
- No duplication of service lines.
- Flint could try to negotiate better terms with DWSD.

Potential Negatives:

- DWSD is the most expensive option by 2042.
- Not a member of the Board of Directors.
- It is unclear what the current rate Flint is paying to DWSD for water? It is also unclear how many MGD is Flint currently purchasing?
- Flint needs to determine the amount of water that the system is currently losing (estimated at 25%). How losses impact current or future purchases from DWSD needs to be determined.
 - *Flint may have begun a water meter replacement program to begin to identify some of these losses.*
- A projected cost and funding for system repairs to reduce water loss needs to be prepared.
- Overall expenditures required to cover the outlined options are going to require water rates to rise almost annually. An analysis of what rates might look like and what the capacity of the public to pay these rates might be should be performed.
- The December 21st letter from DWSD to Flint outlines some different options for Flint than what was presented by TYJT. What are the potential impacts?

- *TYIT reported that the 18 MGD options are the same but that attachments referenced in the December 21st letter were not transmitted to them, so analysis is incomplete.*
- The projected cost to acquire the 72" Line from DWSD \$4.7-million. The December 21st Letter discusses a "lease" of this line. If this is a true lease or a lease-to-own situation must be clarified.
 - *TYIT has confirmed the cost at \$4.7-million.*
- The projected lifespan, annual maintenance costs, and replacement costs of this line must be determined. The ability for Flint to maintain this line must be determined.
 - *TYIT has provided some information on this.*
- If decline continues in Flint, there could be operational and financial impacts. What this would do to water purchases and debt payments should be determined.

KWA OPTION: Purchase Lake Huron water through the KWA Authority..

Potential Positives:

- Lower costs than DWSD in 2042.
- Excellent water quality. Requires less treatment.
- Has a management position in the authority.
- Bonding can be done through the County..
- In the event that the City experiences unexpected growth, KWA could provide more water above current projections. The maximum MGD KWA can provide needs to be determined.
- Could the City partner with KWA to increase the size of their water plant and purchase 100% of water from them and mothball the Water Plant?
- If the City buys water from KWA, could the City use DWSD as a backup?
 - *TYIT states that the MDEQ will require Flint to have a redundant water supply.*
- Could KWA purchase or lease Flint's water plant for redundancy?
- Flint could try to negotiate better terms with KWA..
- Allows cooperation with other communities via KWA.

Potential Negatives:

- Most expensive option at the onset.
- Need to determine who maintains the supply line into Flint.
- Requires 2 bond issues.
- Flint needs to determine the amount of water that the system is currently losing (estimated at 25%). How losses impact current or future purchases from KWA needs to be determined.
 - *Flint may have begun a water meter replacement program to begin to identify some of these losses.*
- A projected cost and funding for system repairs to reduce water loss needs to be prepared.
- Overall expenditures required to cover the outlined options are going to require water rates to rise almost annually. An analysis of what rates might look like and what the capacity of the public to pay these rates might be should be performed.

- If decline continues in Flint, there could be operational and financial impacts. What this would do to water purchases and debt payments should be determined.
- Flint is only a minority partner in the authority.
- Unclear on true costs of this option because KWA and TVJT differ on cost center inclusion in calculations.

FLINT WATER PLANT OPTION: Utilize Water Plant for 100% of needs.

Potential Positives:

- Cheapest option in 2042.
- Water source is the river; not required to purchase water.
- Could use KWA or DWSD as back-up.
- What is the budget surplus of the City's Water Fund? Are any funds available for additional repairs, staffing, capital improvements, etc.?
- What is the current maximum production capability of the Flint Water Plant?

Potential Negatives:

- River water requires more treatment.
- Is the City's current repair/maintenance budget for the water system sufficient?
- How old is the Flint Water Plant? What is its projected lifespan?
- What is the current annual cost to run the plant?
- How large is the current staff at the Water Plant? What staffing level would be required to run the plant at full capacity?
- Does the Water Plant have the capacity to provide more MGD if Flint experiences growth?
- Given the current financial situation, does the City have the ability to sell \$85.5-million bonds necessary to make the improvements being proposed for the Water Plant?
- If decline continues in Flint, there could be operational and financial impacts. What this would do to water purchases and debt payments should be determined.
- Is there sufficient river water available over the next 30-years to supply Flint's needs?
- Limited ability to sell water to others: Surrounded by KWA and DWSD.
- Hard to compete against KWA's new infrastructure.
- How will OPEB liability be addressed?



STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

ANALYSIS REPORT

TO: Edward Koryzno, Administrator, Office of Fiscal Responsibility
FROM: Eric Cline, Unit Operations Specialist
SUBJECT: Updated Flint Water System Status Assessment
DATE: February 15, 2013

Analysis Summary

On November 26, 2012, the Department of Treasury commissioned the firm of Tucker, Young, Jackson & Tull, Inc. (TYJT) to analyze options for the City of Flint to either remain a customer of the Detroit Water & Sewer Department (DWSD) or to join the Karegnondi Water Authority (KWA) in Genesee County. The overarching purpose of this study was to provide objective analyses to the State Treasurer and to Flint's Emergency Financial Manager (EFM) in order to secure potable drinking water for the City for the foreseeable future. The Office of Fiscal Responsibility (OFR) has been the lead office representing Treasury in this project.

On January 14, 2013, the State Treasurer requested responses to three questions: 1) Show the different, projected construction costs provided by TYJT and by the City of Flint/KWA. If these costs are different, explain why Treasury believes that the projects provided by Flint/KWA are acceptable; 2) identify the construction contingencies included in the TYJT and Flint/KWA projections; and 3) identify the options Flint will utilize in the event of a construction cost overrun or a delay in construction by KWA.

This has been a very difficult project to analyze because of the number of proposals to consider, differences of opinion about the conclusions of various engineering analyses that have been conducted, the fact that the analyses are comparing an existing, operational water system with one that has not yet been designed, and conditions within the City of Flint that make it difficult to assess their true water needs.

However, despite these difficulties, I believe that KWA presents the best future option to provide potable water for the City of Flint in the future. Long-term, KWA appears to be the cheaper option; the quality of water will almost certainly improve; Genesee County appears willing to assist the City securing the financial resources for their portion of the project; this project could signify the beginning of better collaboration between the City of Flint and Genesee County; the KWA project has both political and popular support.

The following details how this recommendation was arrived at:

Background:

On December 21, 2012, staff from TYJT met with representatives from the Department of Treasury and the City of Flint to provide a preliminary report on their findings. At this meeting, TYJT outlined 5 options that they had analyzed. These options were: 1) 100% water provision by the City of Flint Water Plant from its water source of the Flint River; 2) 100% provision of untreated Lake Huron Water by KWA (which would require treatment by the Flint Water Plant); 3) Effective 100% provision of treated drinking water by DWSD; 4) Provision of variable amounts of water from DWSD through the existing Potter & Baxter mains (this option called for Flint to treat and *blend* river water into DWSD water in order to reach their daily needs); and 5) Provision of variable amounts of water from DWSD through the 72" Inlay City main (this option also called for Flint to treat and *blend* river water into DWSD water in order to reach their daily needs). Each of the blending options looked at Flint purchasing 4, 8, or 12 Million Gallons per Day (MGD) from DWSD and blending the balance in river water to achieve their maximum daily water needs of 18 MGD. The Inlay City option also provided for DWSD to sell the 72" main to the City of Flint, which would then become the operational and maintenance responsibility of Flint.

From the presentation of the preliminary report on December 21 to the submission of the final report to the State by TYJT on January 29, 2013, a number of developments occurred that made analysis and arriving at a final decision very difficult. They were:

- DWSD provided the City of Flint with at least two modified proposals to consider.
- TYJT and Rowe Professional Services Company (Rowe), the principal engineering firm for KWA (and Genesee County and the City of Flint), began disputing the others' conclusions and estimates regarding the construction of the KWA pipeline.
- The Flint EFM also disputed several of TYJT's conclusions. At a January 10, 2013, meeting with Treasury, the EFM also eliminated the 100% Water Plant option, using the Flint River as a 100% water source (which was cheapest option, as determined by TYJT).
- At a January 10, 2013 meeting, Flint officials eliminated all of the DWSD Inlay City options (which were the cheapest DWSD options) over concerns of owning and maintaining the 72" water main. They also eliminated consideration of any of the blending options originally proposed to DWSD, in part over concerns of added costs to soften the water. This effectively left the only options remaining under consideration by Flint to be the 100% DWSD option (which TYJT estimated to be more expensive than either of the KWA cost options) or joining KWA.

I believe that TYJT's analysis was hampered by the very short timeframe in which they attempted to conduct this analysis; which, may have led to being more conservative in some of their estimates. I believe that some of the comparable systems used in their analysis may not have been the best options but given that KWA is still in the design phase, may represent the best selection of comparable. I also believe, for whatever reasons, that all of the information (from both DWSD and KWA) TYJT needed to effectively analyze these options was not provided to them.

Projected Construction Costs:

Based upon the provided construction estimates, TYJT estimates the KWA construction costs at \$357.6-million. KWA estimates construction costs at \$272.4-million. TYJT states in their final report that they received "limited information" from KWA, which might have resulted in more conservative estimates.

The primary differences between the two estimates center around 1) the cost of constructing the pumping stations; 2) land acquisition costs; 3) contingency costs (discussed below); 4) the provision of

construction management services; 5) design costs; and 6) redundant power at the pumping stations. Cost estimates were reasonably similar by both firms in other areas except for those noted above.

The cost of constructing the pumping stations is the biggest difference between the two estimates (\$24.6-million vs. \$54.5-million). TYJT stated that they believe KWA had not designed the pumping stations to the point where more accurate numbers could be achieved. TYJT also stated that their estimates were based on construction costs for a similar project in SE Michigan. KWA maintains that construction costs in Genesee County are much lower than in SE Michigan and that they have extensive experience in construction projects that will help keep costs in-line. KWA has also stated that the construction of the transmission pipeline will be done by multiple contractors in order to save time and allow more Michigan contractors to bid on the project.

TYJT added \$1.2-million to their estimates for land and easement acquisition. KWA has stated that they have already secured nearly all of the land and easement accesses needed for this project. It is likely that TYJT was unaware of this when they developed their estimates.

TYJT also added 5% (\$14.4-million) to their estimated base cost for construction management services. TYJT has stated that KWA has not taken these costs into account. KWA maintains that they have accounted for them and these costs will not be that high.

Nearly \$18-million was added to TYJT's estimates for design costs and legal work for the design of both the pumping stations and the transmission pipeline. KWA maintains that they have accounted for these expenses.

TYJT also included \$1.3-million in new costs for standby power at the pumping stations. KWA has made no provisions for redundant power at the pumping facilities. TYJT included the provision of redundant power in their estimates and notes that this is an industry standard. KWA officials have stated that the new water plant will have redundant power but that the pumping stations will not. The stated reasons for not including redundant power were cost containment, that Flint can use the Flint River as a backup water supply in the event of an extended power outage and that the KWA systems' water storage capacity will allow for 7 days of reserve supply. KWA has also stated that they will look at installing standby power later but can utilize portable generators at the pumping stations, if necessary.

If the additional costs are not included, then the TYJT and the KWA estimates are within 5% of each other. This may/may not be acceptable differences, but I believe the only way to verify the accuracy of either estimate would be to utilize a third engineering firm to independently review both TYJT and KWA's estimates.

Project Contingency:

Construction contingency costs, also known as Engineering, Land, Administration, and Contingency costs (ELAC) are summarized in an attached chart developed by Rowe for the City of Flint. KWA/Rowe estimates total construction at \$272.4-million, with \$53.2-million (25%) for ELAC contingencies. County Water and Sewer Administrator John O'Brien clarified at a January 28, 2013 meeting that there is a 15% contingency for unforeseen issues and 10% "extra." TYJT estimates total construction at \$357.6-million, with \$107.3-million (30%) for ELAC contingencies.

TYJT stated that they believe that 25% ELAC for a project of this scope that is (at the time of the final report) less than 15% designed is insufficient; hence the more conservative estimate. The 5% difference in ELAC costs adds nearly \$40-million to the TYJT estimate.

Construction Cost Overrun/Construction Delay Options:

The OFR is not aware of any contingency plans developed by either KWA or the City of Flint to address construction cost overruns or significant construction delays. The final TYJT Water Supply Assessment Report does reference an October 31, 2012 letter from KWA to EFM Kurtz in which KWA anticipates a "worse-case scenario" of a 15% cost overrun and a one-year operational delay. KWA projects, under this scenario, that water from DWSD would be cheaper than KWA until 2020 as opposed to 2016; reducing projected cumulative savings from \$19-million to \$3.9-million by Year 8 (2020).

County Drain Commissioner Jeff Wright stated at a January 28 meeting that, if necessary, KWA has the authority to borrow more funds to complete the project in the event that delays or cost overruns necessitate the borrowing of more funds. However, Mr. O'Brien also stated that the January 28 meeting that KWA expects to purchase an insurance policy to insure against delays to the project. Drain Commission Wright also indicated that if construction bids come in significantly higher than estimated that KWA will likely reassess its approach to this project.

Conclusions:

It is likely that TYJT's estimates are overly conservative. Their own analysis concludes that KWA's projections are cheaper than their estimate of the KWA project. Even with a 15% cost overrun and a one-year delay (Worst-case scenario), KWA's estimate is still lower than TYJT. All estimates for KWA are cheaper than the 100% DWSD option (all other DWSD options were eliminated from consideration by the EFM).

That is not to say that the KWA estimates are without fault. KWA is a new venture and the "unknowns" exist at the initial phases of the project. KWA has the potential to be the cheaper, long-term cost for the City of Flint after the bond debt for construction is retired. Significant construction delays and/or cost overruns could greatly add to the cost of this project, which could add to the financial burden on Flint.

Realistically, the true cost for this project will likely be in the middle of the two estimates. The bids for construction of the KWA lake water intake will be opened on February 26, 2013. Comparison of the bids and the estimates for intake construction could be an indicator of the more valid estimate.

There are also some additional factors that are outside of the three questions asked by the State Treasurer that influence a final recommendation on this project. The first is DWSD. DWSD is a "known" entity and the system is already in-place and in operation. DWSD may also be the cheaper option in the short term. However, selecting them requires a 30-year commitment and the unknown aspect of future rate increases is very concerning to Flint officials. All estimates show KWA being cheaper to Flint than DWSD after capital costs are retired. There also appears to be considerable local resistance to continuing a relationship with DWSD.

The upfront costs and the premium water charges assessed by DWSD while KWA is being constructed are of great concern to City officials. Flint officials have indicated that approximately \$3.5-million in capital upgrades is needed for the Water Plant if the KWA option is selected. However, at a January 28, 2013 meeting, County Drain Commissioner Wright indicated that Genesee County will permit Flint to participate in its revenue bond sale for KWA for Flint's 30% share of capacity in the KWA System and for plant upgrades. Given Flint's current financial situation, were this participation to occur, it will be a positive development for the City because it is likely Flint would have a very difficult time issuing bonds on the strength of its own credit rating. The Drain Commissioner also indicated a willingness to discuss how KWA might mitigate the \$7- to \$8-million cost of the "premium" rate that would be charged to the City of Flint by DWSD for the City to purchase water while KWA was being constructed.

Recommendation:

A recommendation is being made to support the City of Flint joining KWA. Given, the conservatism of TYJT's estimates and the fact that all KWA estimates are cheaper than the 100% DWSD option, KWA appears to be the logical choice. EFM Kurtz has stated that he believes the KWA option is the cheaper alternative over time. There appears to be public support for the KWA project and EFM Kurtz has also stated that he believes that the Flint Mayor and City Council will support the KWA Project.

Also, the potential inclusion of Flint in the issuance of revenue bonds by Genesee County and the potential for KWA to assist the City in mitigating some of the DWSD premium charges could greatly reduce Flint's financial concerns.

There also appears to be good cooperation between City and County officials in discussing this project and this level of engagement and dialogue between city and county officials because of this project could continue to grow and lead to additional areas of cooperation and collaboration.

If further analysis on this issue is needed, please let me know.

Copy: Randall Byrne, State Administrative Manager, Office of Fiscal Responsibility

Attachment:

S:\DPR\Cities\City of Flint\KWA Water Authority\UPDATED FLINT DWSD KWA ASSESSMENT, Version VII.02-13-11.doc

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STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

ANALYSIS REPORT

TO: Edward Koryzno, Administrator, Office of Fiscal Responsibility
FROM: Eric Cline, Unit Operations Specialist
SUBJECT: Updated Flint Water System Status Assessment
DATE: February 21, 2013

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This has been a very difficult project to analyze because of the number of proposals to consider, differences of opinion about the conclusions of various engineering analyses that have been conducted, the fact that the analyses are comparing an existing, operational water system with one that has not yet been designed, and conditions within the City of Flint that make it difficult to assess their true water needs.

However, despite these difficulties, I believe that KWA presents the best future option to provide potable water for the City of Flint in the future. Long-term, KWA appears to be the cheaper option; the quality of water will almost certainly improve; Genesee County appears willing to assist the City in securing the financial resources for their portion of the project; this project could signify the beginning of better collaboration between the City of Flint and Genesee County; the KWA project has both political and popular support.

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- At a January 10, 2013 meeting, Flint officials eliminated all of the DWSD Inlay City options (which were the cheapest DWSD options) over concerns of owning and maintaining the 72" water main. They also eliminated consideration of any of the blending options originally proposed to DWSD, in part over concerns of added costs to soften the water. This effectively left the only options remaining under consideration by Flint to be the 100% DWSD option (which TYJT estimated to be more expensive than either of the KWA cost options) or joining KWA.

I believe that TYJT's analysis was hampered by the very short timeframe in which they attempted to conduct this analysis; which, may have led to being more conservative in some of their estimates. I believe that some of the comparable systems used in their analysis may not have been the best options but given that KWA is still in the design phase, may represent the best selection of comparable. I also believe, for whatever reasons, that all of the information (from both DWSD and KWA) TYJT needed to effectively analyze these options was not provided to them.

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construction management services; 5) design costs; and 6) redundant power at the pumping stations. Cost estimates were reasonably similar by both firms in other areas except for those noted above.

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TYJT stated that they believe that 25% ELAC for a project of this scope that is (at the time of the final report) less than 15% designed is insufficient; hence the more conservative estimate. The 5% difference in ELAC costs adds nearly \$40 million to the TYJT estimate.

Construction Cost Overrun/Construction Delay Options:

The OFR is not aware of any contingency plans developed by either KWA or the City of Flint to address construction cost overruns or significant construction delays. The final TYJT Water Supply Assessment Report does reference an October 31, 2012 letter from KWA to EFM Kurtz in which KWA anticipates a "worst-case scenario" of a 15% cost overrun and a one-year operational delay. KWA projects, under this scenario, that water from DWSD would be cheaper than KWA until 2020 as opposed to 2016; reducing projected cumulative savings from \$19-million to \$3.9-million by Year 8 (2020).

County Drain Commissioner Jeff Wright stated at a January 28 meeting that, if necessary, KWA has the authority to borrow more funds to complete the project in the event that delays or cost overruns necessitate the borrowing of more funds. However, Mr. O'Brien also stated that the January 28 meeting that KWA expects to purchase insurance policies to insure against delays to the project. It has been suggested that a one-year delay in completion could increase project costs by as much as \$20-million. Further discussion with Mr. O'Brien reveals that KWA is looking into purchasing a "wrap-around" policy against construction delays and a builders' risk policy; the costs of which are still being determined by KWA. Drain Commission Wright also indicated at the January 28 meeting that if construction bids come in significantly higher than estimated that KWA will likely reassess its approach to this project.

Conclusions:

It is likely that TYJT's estimates are overly conservative. Their own analysis concludes that KWA's projections are cheaper than their estimate of the KWA project. Even with a 15% cost overrun and a one-year delay (Worst-case scenario), KWA's estimate is still lower than TYJT. All estimates for KWA are cheaper than the 100% DWSD option (all other DWSD options were eliminated from consideration by the EFM).

That is not to say that the KWA estimates are without fault, KWA is a new venture and the "unknowns" exist at the initial phases of the project. KWA has the potential to be the cheaper, long-term cost for the City of Flint after the bond debt for construction is retired. Significant construction delays and/or cost overruns could greatly add to the cost of this project, which could add to the financial burden on Flint.

Realistically, the true cost for this project will likely be in the middle of the two estimates. The bids for construction of the KWA lake water intake will be opened on February 26, 2013, with the expectation of presenting a recommendation for bid award on March 20. Comparison of the bids and the estimates for intake construction could be an indicator of the more valid estimate.

There are also some additional factors that are outside of the three questions asked by the State Treasurer that influence a final recommendation on this project. The first is DWSD, DWSD is a "known" entity and the system is already in-place and in operation. DWSD may also be the cheaper option in the short term. However, selecting DWSD requires a 30-year commitment and the unknown aspect of future rate increases is very concerning to Flint officials. EFM Kurtz has stated that the City has experienced rate volatility over the history of its relationship with DWSD. According to the EFM, the average historical annual rate increase for the City is 6.7%, but over the past 10-years the average annual rate increase has been 10.5%.

All estimates show KWA being cheaper to Flint than DWSD after capital costs are retired. There also appears to be considerable local resistance to continuing a relationship with DWSD.

The upfront costs and the premium water charges assessed by DWSD while KWA is being constructed are of great concern to City officials. Flint officials have indicated that approximately \$3.5-million in capital upgrades is needed for the Water Plant if the KWA option is selected. However, at a January 28,

2013 meeting, County Drain Commissioner Wright indicated that Genesee County will permit Flint to participate in its revenue bond sale for KWA for Flint's 30% share of capacity in the KWA System and for plant upgrades. Given Flint's current financial situation, were this participation to occur, it will be a positive development for the City because it is likely Flint would have a very difficult time issuing bonds on the strength of its own credit rating. The Drain Commissioner also indicated a willingness to discuss how KWA might mitigate the \$5- to \$6-million cost of the "premium" rate that would be charged to the City of Flint by DWSD for the City to purchase water while KWA was being constructed.

On February 4, 2013, a proposal was received from EFM Kurtz that outlined a two-phased approach to resolve the cost of this premium charge. First, the City will transfer six miles of 72" water main owned by the City that extends into Genesee County in lieu of the \$2.3-million up-front payment the City would have to make for construction of the KWA system. The second phase involves KWA entering into negotiations with DWSD to purchase their 72" water main that runs from Inlay City to Genesee County and agreeing to purchase water from DWSD for redundant purposes in-exchange for DWSD eliminating the 15% premium rate to Flint during the three-year KWA construction period.

Recommendation:

A recommendation is being made to support the City of Flint joining KWA. Given, the conservatism of TYJT's estimates and the fact that all KWA estimates are cheaper than the 100% DWSD option, KWA appears to be the logical choice. EFM Kurtz has stated that he believes the KWA option is the cheaper alternative over time. There appears to be public support for the KWA project and EFM Kurtz has also stated that he believes that the Flint Mayor and City Council will support the KWA Project.

Also, the potential inclusion of Flint in the issuance of revenue bonds by Genesee County and the potential for KWA to assist the City in mitigating some of the DWSD premium charges could greatly reduce Flint's financial concerns.

There also appears to be good cooperation between City and County officials in discussing this project and this level of engagement and dialogue between city and county officials because of this project could continue to grow and lead to additional areas of cooperation and collaboration.

If further analysis on this issue is needed, please let me know.

Copy: Randall Byrne, State Administrative Manager, Office of Fiscal Responsibility

Attachment

S:\OFR\Cities\City of Flint\KWA Water Authority\UPDATED FLINT DWSD KWA ASSESSMENT Version VIII 02-21-13.doc

Byrne, Randall (Treasury)

From: Cline, Richard (Treasury)
Sent: Thursday, March 21, 2013 5:01 PM
To: Koryzno, Edward (Treasury); Stibitz, Brom (DTMB)
Cc: Byrne, Randall (Treasury)
Subject: RE: KWA Analysis

Importance: High

No basic assumptions were used. I reviewed the data to attempt to determine the best option.

Certain constraints focused the analysis in certain ways. The Flint EFM eliminated the use of the Flint River and all of the blending options. This decision eliminated all DWSD options with the exception of purchasing 100% of water from DWSD. The Treasurer asked some very specific questions that were addressed in my report. All of this is outlined in my report.

No other assumptions were utilized.

In the interest of time, this is a quick answer. If more discussion is needed, please let me know.

Eric Cline | Unit Operations Specialist - Office of Fiscal Responsibility
 State of Michigan | Michigan Department of Treasury
 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
 (517) 335-2078 | cliner1@michigan.gov

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From: Koryzno, Edward (Treasury)
Sent: Thursday, March 21, 2013 4:32 PM
To: Cline, Richard (Treasury)
Cc: Byrne, Randall (Treasury)
Subject: KWA Analysis

Brom asked if there were certain assumptions you used when you prepared this report and, if so, what were they? I could not remember.

Edward B. Koryzno, Jr. | Administrator - Office of Fiscal Responsibility
 State of Michigan | 430 W. Allegan Street, 1st Floor | Lansing, MI 48922
 (517) 373-4415 | (517) 373-0633 (fax)
KoryznoE@michigan.gov



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Thank you

Lamphier, Wendy (Treasury)

From: Lamphier, Wendy (Treasury) on behalf of Dillon, Andy (Treasury)
Sent: Wednesday, October 07, 2015 4:44 PM
To: Robert, Carla M. (Treasury)
Subject: FW: ODWMA Response - Flint KWA-DWSD Report
Attachments: deq-wb-dwehs-wwciu-gcdcqwpermitresponsepubliccomment_290345_7.pdf; Rowe Review of Tucker Young Report.pdf

Importance: High

From: Wyant, Dan (DEQ)
Sent: Wednesday, March 27, 2013 2:13 PM
To: Dillon, Andy (Treasury) <DillonA2@michigan.gov>
Subject: FW: ODWMA Response - Flint KWA-DWSD Report
Importance: High

Andy,

Attached is staff feedback. I will be getting additional feedback in the morning. All indications are that we are supportive of KWA and its cost benefits compared to DWSD options. If that is not the answer you want tomorrow – then we should discuss.

Dan Wyant, Director
 Department of Environmental Quality
 517-373-7917

From: Busch, Stephen (DEQ)
Sent: Wednesday, March 27, 2013 1:39 PM
To: Thelen, Mary Beth (DEQ); Wyant, Dan (DEQ); Sygo, Jim (DEQ)
Cc: Willard, Veronica (DEQ); Benzie, Richard (DEQ); Prysby, M. (DEQ); Creal, William (DEQ)
Subject: ODWMA Response - Flint KWA-DWSD Report
Importance: High

email &
2 attachments

Donaldson, Kristina

Director Wyant, and Deputy Director Sygo,

Addendums to ODWMA comments provided yesterday regarding the City of Flint water system and comments on the reports from Tucker, Young, Jackson, Tull, Inc. (TYJT) can be found below in red. Additional comments are as follows:

With regards to regulatory authority for DEQ to allow or prevent the breakup of water utilities, and State vs. local decisions about cost effectiveness, it is important to note that when the DEQ permitted the water withdrawal for KWA (permit 2009-001) part of the decision making process (copy attached) included reasonable use and the balance of Economic Development, Social Development, and Environmental Protection. As part of the public participation process general comments were received (pages 6 & 7) regarding impacts on DWSD and rates to remaining customers. The Department's response to those comments stated:

"The DEQ is specifically precluded from using part 327 to "...diminish or create any existing authority of municipalities to require persons to connect to municipal water supply systems as authorized by law" (MCL 324.32726)."

And

"It is appropriately an issue for water service contract negotiations between the regional water system and its customers. To do otherwise invites unwanted intervention of the state into local decision making."

ODWMA cannot on its own assess an actual dollar value to any regional benefit for the City of Flint to remain a full customer of DWSD, but the following should be included in any additional analysis:

- The cost estimates provided in the TYJT report show a cost difference between full KWA and full DWSD participation of \$172 million over 30 years.
- The formation of KWA would itself be considered one of the largest regional drinking water authorities in the State in terms of capacity, and as such any regional benefits provided by DWSD may only be marginal in comparison.

Finally, we have additional questions for TYJT regarding the various DWSD supply options and the considerations they made in the operations of the Flint WTP. These considerations will have an impact on the cost estimates for DWSD options.

We look forward to further discussion of these comments during our meetings tomorrow, and please let us know if you have any additional questions for us between now and then.

Stephen Busch, P.E.
Lansing and Jackson District Supervisor
Office of Drinking Water and Municipal Assistance
MDEQ
517-643-2314

From: Busch, Stephen (DEQ)
Sent: Tuesday, March 26, 2013 3:58 PM
To: Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Sygo, Jim (DEQ)
Cc: Willard, Veronica (DEQ); Shekter Smith, Liane (DEQ)
Subject: RE: Flint Draft Response

I will provide additional follow up by tomorrow (Wed.) afternoon to my previous email below based on our discussion and the conference call with Andy Dillon earlier today.

Stephen Busch, P.E.
Lansing and Jackson District Supervisor
Office of Drinking Water and Municipal Assistance
MDEQ
517-643-2314

From: Busch, Stephen (DEQ)
Sent: Tuesday, March 26, 2013 12:37 PM
To: Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Sygo, Jim (DEQ)
Cc: Willard, Veronica (DEQ); Shekter Smith, Liane (DEQ)
Subject: Flint Draft Response

Director Wyant,

In preparation for our call today with Treasurer Dillon's office, ODWMA has developed the following for consideration. We can provide any additional info you require during the meeting.

ODWMA has reviewed the materials developed by the consultant Tucker, Young, Jackson, Tull, Inc. (TYJT) for Treasury regarding the City of Flint and potential alternatives for public water supply. Based on our reviews, we have developed the following comments to this point in our analysis:

1. The TYJT report does not contain the full scope of the Karegnondi Water Authority (KWA) raw water supply system. TYJT concerns over raw water supply redundancy and reliability are addressed to the satisfaction of ODWMA under the full KWA proposal. Please note some portions of the overall project are being financed independently by the Genesee County Drain Commission.
2. There are significant differences in contract language between KWA and Detroit Water and Sewerage Department (DWSD) with respect to the contracted maximum day demand capacity.
 - a. Under a KWA contract, a "maximum day" capacity of 18 million gallons per day (MGD) would fully satisfy current demands of the City of Flint, without the need to supplement raw water capacity using the Flint River. (18 MGD, average over a 30 day period).
 - b. Under a DWSD model contract, a "maximum day" capacity, even at 18 MGD, would not satisfy the current demands for the City of Flint. (18 MGD, over any 24 hour period).
3. Restrictions in contracted capacity that would prevent the City of Flint from meeting peak demand requirements present potential limits to economic development within the City of Flint, including possible connection bans and water system extension bans. This information was previously conveyed to the City of Flint by ODWMA staff.
4. All contract options with DWSD that are considered semi-competitive with the KWA contract do not fully supply the City of Flint, and would require the City of Flint to meet a significant, if not majority, of its water demands by treating water from the Flint River. Continuous use of the Flint River at such demand rates would:
 - a. Pose an increased microbial risk to public health (Flint River vs. Lake Huron source water)
 - b. Pose an increased risk of disinfection by-product (carcinogen) exposure to public health (Flint River vs. Lake Huron source water)
 - c. Trigger additional regulatory requirements under the Michigan Safe Drinking Water Act (LTZESWTR)
 - d. Require significant enhancements to treatment at the Flint WTP, beyond those identified in the TYJT report (see item 5 below).
 - e. Water Resource Division is evaluating potential impacts to NPDES wastewater discharge permits in downstream segments of the Flint River, as a result of decreased river baseflow caused by Flint WTP use.
5. The TYJT report does not adequately address increased requirements and costs associated with using the Flint River as a significant source for the Flint WTP, which are not necessary under a Lake Huron source water scenario. This includes:
 - a. The need to provide softening treatment
 - b. Limitations on disposal options for lime softening sludge
 - c. Increased ozone capacity, UV disinfection
 - d. Additional backup power, more power required for Flint River operation
6. The Flint WTP must operate at some minimum level and within a range of flow rates to maintain treatment effectiveness. Currently that minimum level is 9 MGD. This level may be reduced with additional capital costs to modify the WTP, not addressed in the TYJT report.
7. Allowing Flint WTP to blend water with DWSD sets a new precedent that could pose future consequences with other DWSD customers.
8. Costs impacts to remaining DWSD customers would be similar under the proposed scenarios, only retaining 8 MGD of 30+ MGD total Flint/Genesee Co. demands, based on the following:

- a. Genesee County distribution system demands are pulling out of DWSD regardless of the decisions by Flint WTP
 - b. Flint's need to utilize the Flint River as a source
- 9. ODWMA anticipates cost savings under the KWA proposal will be leveraged to provide additional improvements to the City of Flint water distribution system, improving efficiency and providing additional cost benefits. The KWA water withdrawal permit (2009-001) includes the required implementation of conservation measures that would also drive these distribution system improvements.
- 10. Major cost discrepancies in TYIT analysis
 - a. Engineering, Legal, Administration, Contingency – TYIT appears to have effectively double charged for these costs in their KWA estimates without adequate justification
 - b. Pumping facilities – TYIT cost estimate methodology does not appear to address localized market costs and does not distinguish fixed and variable costs in its comparison analysis.
- 11. Remaining DWSD customers in Lapeer County could potentially see water quality impacts as a result of Flint joining KWA, if they remain with DWSD. However, indications to ODWMA are that these communities are currently in final negotiations with KWA for service, which would make this a non-issue.
 - a. City Lapeer
 - b. City of Inlay City

Additional response to the TYIT report has also been provided by Rowe Engineering to Flint EFM, Mr. Ed Kurtz. (Copy Attached)

ODWMA has continued to meet on a regular basis with KWA, Genesee County, and the City of Flint regarding these water supply proposals.

ODWMA will continue to provide any additional detailed analysis requested by Treasury or the DEQ Executive Office

Stephen Busch, P.E.
 Lansing and Jackson District Supervisor
 Office of Drinking Water and Municipal Assistance
 MDEQ
 517-643-2318



ROWE PROFESSIONAL SERVICES COMPANY

Large Firm Resources. Personal Attention.

January 7, 2013

Mr. Edward Kurtz, Emergency Financial Manager
City of Flint
1101 S. Saginaw Street
Flint, MI 48502

Subject: Review of December 21, 2012 Presentation - City of Flint Water Supply Assessment

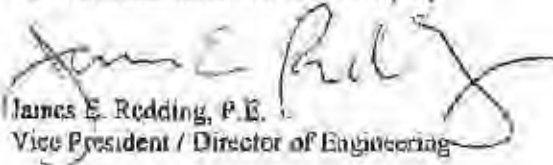
Dear Mr. Kurtz:

As requested, we have reviewed the analysis of water supply alternatives for the City of Flint which was presented to the State Department of Treasury by Tucker, Young, Jackson, and Tull, Inc. (TYJT) on December 21, 2012. Our review is attached and summarizes the primary differences between the TYJT assessment and our previous studies and provides explanations of why we believe there are differences.

We have also reviewed the options for continued DWSD supply included in the TYJT presentation. It is not clear whether these are presented as specific offers on behalf of DWSD or included as examples for analysis, but we have noted some items which we believe should be addressed and considered as those options are compared.

If there are questions, please contact me.

Sincerely,
ROWE Professional Services Company


James E. Redding, P.E.
Vice President / Director of Engineering

Attachment

R:\Projects\2420\05\Docs\Correspondence\On\January 7 Kurtz.docx

Review of TYJT December 21, 2012 Presentation
City of Flint Water Supply Assessment
Prepared by Rowe Professional Services Company

DWSD Supply (Slides 7 through 9)

1. The 8 mgd maximum day supply by DWSD options can result in periods during the summer when most of the water to meet demands will be supplied by the City from the river. To aid in maintaining a consistent water quality, softening of the water from the river should be provided with this option, greatly increasing the City's costs.
2. Upgrades to Flint's WTP and dams will be needed for options requiring blending, since the WTP will be required to provide continuous, reliable service and compliance with recent surface water treatment regulations.
3. The rates for the options analyzed are shown on Slide 9 as "TYJT Estimates". Options and rates shown are different than presented by DWSD previously.

	DWSD 11/29/2012	TYJT Estimates
18 mgd Maximum Day - P&B	\$16.24	\$16.37
12 mgd Maximum Day - P&B	\$16.30	\$16.31
8 mgd Maximum Day - P&B		\$12.58
12 mgd Maximum Day - Inlay	\$14.38	\$14.38
8 mgd Maximum Day - Inlay		\$11.11

4. Since the rates used in the analyses are shown as estimates, are they actual offers or just presented as "what if" scenarios?
5. We assume that the Inlay options are based on transfer of the 72" main through Lapeer County to Flint. The analyses show a capital cost of \$4.7 million; we assume that this is the proposed purchase / lease cost to Flint. This should be clarified along with pertinent details.
6. If the transmission main is transferred to Flint, what are Flint's responsibilities regarding service to the Lapeer County customers? If they remain DWSD customers, then Flint should receive some revenue for the use the main. It does not appear this is included in the TYJT analyses.
7. If the transmission main is transferred to Flint, we assume that the city will be responsible for the maintenance of the 50 year old main. The TYJT analysis did not include this.
8. Do the rates shown include the credit for "reliability" which had been discussed with DWSD?
9. If the point of commerce is changed from Baxter and Potter to Inlay, a new meter pit will be required. The cost of this does not appear to be included in the TYJT cost analyses.

Flint River Supply (Slide 10)

1. If any of the "blending" options are chosen, it will be necessary to upgrade the Flint WTP and dams to provide reliable, continuous service and compliance with recent surface water treatment regulations.

Data Collected (Slide 14)

1. The slide notes that Flint blending is based on DWSD supplying 2/3 and Flint supplying 1/3 of 12 MGD ADD. For the maximum day demand (18 mgd), if DWSD supplies a maximum of 8 mgd, Flint will supply 10 mgd or 56% of the total. However, such a large portion will make it more difficult to blend and achieve consistent water quality. Flint will need to soften water for these options.

Benchmarking Comparisons (Slide 16)

1. The slide subtitles are "KWA O&M Inflation Factor" and "DWSD and Flint Rate Inflation Factor". It seems appropriate to benchmark O&M costs for the KWA, because future costs of service will be dependent on how operating costs are impacted by inflation. For Flint, it does not seem appropriate that "rate inflation" from other utilities be used to determine the impact of inflation on future cost of service. Rates are impacted by inflation, but also by other factors such as debt and customer base. O&M expenses and rates are different and care should be exercised not to mix the two during analyses. The TYIT analyses apply an inflation factor (based on rates from other utilities) to the Flint WTP operating expenses, which does not seem to be consistent.
2. The KWA will supply raw water; SOCWA and YUCA both supply finished water. Regulations impact the O&M for finished water suppliers but should not impact the KWA O&M. The use of data from SOCWA and YUCA does not seem like a comparable comparison with the KWA. Finished water suppliers will have increased costs due to regulatory compliance, which really are not due to "inflation" of the costs of wages, power, chemicals, etc.
3. DWSD has a history of rates to Flint and other suburban wholesale customers. Rates tend to be quite specific to each utility, based on much more than just the costs of operating and maintenance. It appears that DWSD historical rates have not been considered in projecting future DWSD rate increases.

Capital Financing (Slide 17)

1. KWA bonds are planned to be general obligation bonds, backed by member counties.

O&M Inflation Factor (Slide 20)

1. SOCWA and YUCA are finished water suppliers; ever-changing regulatory requirements will impact their operating costs more than a raw water supplier, such as KWA.
2. KWA will be a supplier of raw water. O&M costs should primarily be limited to power and labor, with a little chemical use for zebra mussel control. KWA will not provide treatment of the water.

5. The KWA study assumed power, labor, and chemical costs increase at an annual average of 3%. TYJT indicated this is too low and suggested 5%.
6. Following are examples of historical inflation, which support the 3% as a reasonable assumption for O&M expenses (not rates):
 - a. Labor- GCDC-WWS labor costs have increased at an annual average rate of 2.5% since 2003
 - b. Electricity Rates in Michigan (per U.S. Energy Information Administration) have increased an average of 3.2% since 1999.
 - c. The U.S. Bureau of Labor Statistics indicates that the inflation rate over the last 30 years has been an average of 2.8%.

Finished Water Rate Inflation (Slide 21)

1. TYJT bases their assumptions for rate inflation on a survey of rates from three other water suppliers, but ignored the actual rate history of DWSD. TYJT assumed DWSD rate increases of 4.4% annually (if water is purchased from P&B) and 2.9% annually (if water is purchased from Inlay). Based on the actual charges by DWSD to Flint, DWSD historical rates are as follows:
 - a. 10 year increase in DWSD rates to Flint: 10.5% annually
 - b. Average annual increase through 45 year history: 6.7%
2. Note that for the KWA analyses, an inflation factor has just been applied to power, labor, and chemicals. Although higher prices for labor, power, and chemicals impacts utility rates, rates are impacted by many other factors, many of which are not related to inflation. Rate inflation will likely be different than O&M inflation. Other factors impacting rates:
 - a. Debt - the amount of debt varies widely between utilities
 - b. Number of customers / quantity of water sold - there are many fixed expenses with a utility, that if are distributed amongst more users/more gallons sold will result in lower rates. Conversely, if there are fewer users or less water sold, the rates are higher. Assumptions regarding future water consumption will have a great impact on "rate inflation"
3. Unlike KWA and Flint operating expenses which will increase over time based on inflation, the cost of continued DWSD service should be based on the inflation of DWSD rates, to include the increasing cost of other DWSD expenses such as debt and the impact of reduced customers / demands in addition to increasing O&M expenses.
4. Even though there could be a one-time reduction in DWSD rates through adopting the model contract, limiting peak demands, and/or changing the point of commerce, it doesn't seem reasonable to assume that subsequent annual increases will only average 4.4% through the 30 year period of analysis. This is significantly less than historical performance (yet TYJT suggests that inflation for KWA O&M expenses will increase at almost double the rate of historical indicators).

Capital Financing with Revenue Bonds (Slide 24)

1. Note that the KWA bonds will be general obligation bonds backed by the member counties.
2. The 2009 KWA Study assumed 6%, 25 year financing. The interest rate for planning was reduced in the 2012 Study update to 5%, which is still higher than if bonds were sold today.
3. Financial consultants determined the charges for purchasing capacity in the KWA supply based on the estimated project cost plus appropriate financing costs. Based on 60 units of capacity, \$538,764,000 will be generated for repayment of debt and project costs using the capacity charges in the KWA capacity agreement.

25 years * 60 units * \$355,300 / unit =	\$532,950,000
3 years * 60 units * \$32,300 / unit =	\$ 5,814,000
	\$538,764,000
4. For a KWA project cost of \$272,421,558, total P&I is \$483 million. The difference of \$55,500,000 is available for financing expenses (capitalized interest, bond issuance costs, etc.) and additional contingencies.
5. Bond holder reserve is not a requirement for general obligation bonds.
6. TYJT assumed that 3% interest would be earned on the bond holder reserve during the 25 year bond period. Current interest rates are less than 1% and it seems inappropriate to assume such a high rate will be earned on retained funds.
7. Bondholder reserve, if provided, should be applied against the last couple of P&I payments. The TYJT did not apply it. This will reduce their project costs.

KWA Construction (Slides 26 through 29)

TYJT has indicated that the KWA construction cost estimate is too low. The primary differences in cost estimates for the project appear to be the following components:

1. Pump Stations (Slide 27) – The TYJT estimate for the pump stations is more than double that used by the KWA (\$54,573,314 vs. \$24,618,080). KWA estimates were based on actual construction costs from recent projects completed by Genesee County within the last eight years.
 - a. 32mgd water pump station including two-10 MG ground storage tanks - \$13.4 million
 - b. 80 mgd wastewater pump station, 50 feet deep wetwell – \$8.3 million
 - c. 30 mgd wastewater pump station, 50 feet deep wetwell – \$9.4 million

The KWA budgeted amount seems reasonable for two pumping stations as currently planned and to be constructed in rural areas (not southeast Michigan).

2. Redundant Power – There is no need for redundant power; other provisions will provide reliability of supply.
3. Land – Preliminary engineering has continued so earlier budgets established for planning for land acquisition can be greatly reduced. Options have been obtained on all properties which must be

purchased, so purchase prices are known. It will be necessary to obtain easements for only two miles of pipeline construction. All land costs are now estimated at \$1.25 million.

4. Engineering, Legal, Administration & Contingencies

- a. The October 2012 KWA estimate provided an allowance of 25% of construction cost to cover engineering, legal, administration, and contingencies (ELAC). This was reduced from the 38% allowance used in the 2009 Study because ongoing planning and design have firmed up many of the details of the project, including:
 - i. The intake design has been completed and all regulatory permits obtained.
 - ii. The transmission main route has been determined. Meetings with road agencies have firmed up the requirements for construction and restoration within rights-of-way. Environmental review and permitting are in process.

- b. TYJT costs for Intake Crib, Pump Stations, and Transmission Mains (Slide 30) include a 30% allowance for ELAC. These allowances (from Slides 26 through 28) total \$72,139,566. In addition, Slide 30 provides the following additional ELAC costs in the project total:

Design Engineering / Pump Stations	\$16,939,581
Construction Management	\$14,434,418
Administration	\$ 349,440
Legal	<u>\$ 831,000</u>
Total	\$32,554,431

- c. Combining this with the \$72,139,566 totals \$104,693,997 or 43% of the estimated construction cost. We believe that such a high allowance for ELAC is not appropriate for a project of this magnitude where preliminary engineering and some design have already been completed.

Cost Comparison (Slide 30)

1. The TYJT pump station price is too high based on costs of similar projects; costs used by KWA are based on costs of recent local projects. The KWA estimate is believed to be sufficient for the proposed pumping stations.
2. Redundant power is not required; this does not need to be included in the TYJT estimate.
3. Land for LHPS – actual price is \$360,000
4. Design Engineering / PS and Transmission – KWA included engineering in the 25% ELAC allowance included in the \$207,752,895 estimated cost of transmission mains; TYJT included engineering in their 30% ELAC allowance included in the \$218,811,559 estimated cost. By adding \$16,939,581 for design engineering, \$14,434,609 for construction administration, \$349,440 for administration, and \$831,000; it seems that ELAC is being “double-counted”. The TYJT 43% allowance for ELAC seems unwarranted for a project with a great deal of preliminary and design engineering completed. The 25% KWA allowance is believed to be sufficient.
5. Easements and land (other than LHPS) should total \$1,140,000, based on current options and specific needs for easements.

Other Considerations – Redundancy / Reliability (Slide 33)

1. Unfunded Mandates/ Future Regulations
 - a. The proposed KWA supply will deliver raw water; it is not anticipated to be affected by future changes to regulations. Regulations will impact the City of Flint with respect to treatment and/or distribution of finished water. The City will be subject to these requirements with any of the DWSD blending options, just as they will be responsible for them if supplied by KWA. Some compliance costs may actually be less with the higher quality Lake Huron water rather than Flint River water as the source.
2. State Goals
 - a. The TYJT presentation indicates that creation of a new raw water supply is contrary to the governor's goals as suggested. However, the development of a new raw water supply provides new opportunities. Communities in Sanilac, St. Clair, and Lapeer counties will have the option to join a regional water supply and replace their small local supplies where limited supplier and high concentrations of arsenic have been a concern. The new water supply also provides great economic development opportunities. The raw water supplied by KWA will make a new commodity, raw water, available to the region. A large, low-cost supply of raw water can be a valuable resource for industries and agribusinesses. The development of a new water supply will also create construction jobs through the short term period of building the new water supply and subsequently over a longer period as new businesses and industries are developed in the area.
 - b. The City of Flint and area communities will benefit as permanent jobs are created for operating and maintaining the local treatment facilities.
3. Redundancy
 - a. We agree that the KWA and DWSD options are similar with respect to redundancy. Both provide the primary water supply; customers are responsible for their backup supply.

Other Considerations – Cost Slide 34

1. TYJT indicates that the DWSD 8 mgd supply option is the least cost alternative.
 - a. The TYJT analysis does not include the cost of needed upgrades to the City's WTP or increased operating costs in their analysis. During summer months, water from the river will need to be softened before blending. More than half of the water supplied will be provided from the river. When the cost of upgrades to the WTP and the increased operating costs (for softening) are added to the TYJT analysis, the KWA option is less than the DWSD 8 mgd option.
2. For any of the DWSD "blending" options, upgrades will need to be made at the WTP to provide for continuous, reliable operation and compliance with new surface water treatment rules. Increased capital and operating costs for treating water from the river should be added to the TYJT costs for comparison with the other options.
3. Water from the river will require greater effort to treat than water from Lake Huron (more chemicals, power, and residuals). The TYJT analysis shows about the same O&M costs for the Flint WTP, regardless of water source. It seems that the WTP O&M costs for the KWA options should be reduced to reflect the savings from treating Lake Huron water.

4. The TYIT presentation noted that the KWA analysis did not include allowances for mechanical and process improvements within the planning period. The KWA will supply raw water. The facilities consist of pipe, pumps, and a tank. There are no treatment facilities which would be susceptible to future regulatory changes. The only improvements that seem likely would be the need to provide additional capacity. Capacity expansion is planned to be financed through capacity charges to new users.
5. The provision for redundant connections between the City's water system and the GCDC system was included in the most recent water supply agreement between the two, in 2011. Although not a KWA cost, the cost of the redundant connections should be considered with all options.
6. The \$2.3 million budgeted for land by KWA was intended to cover all land requirements. Since the October update, options have been obtained on all land to be purchased and the locations of easements needed has been finalized. Total land costs are now estimated to be about \$1.5 million.
7. The 2004 study included a 47% allowance for engineering, legal, administration, and contingencies (ELAC). The 2009 study reduced the allowance for ELAC to 37% because many of the details since the 2004 conceptual study had been better defined. For the October 2012 update, the allowance for ELAC was reduced to 25% because continued planning and preliminary engineering further addressed details from the earlier concepts.
 - a. The detailed design (plans and specifications) and permitting have been completed.
 - b. The transmission main route has been finalized. Meetings with road agencies have established requirements for construction and restoration within road rights-of-way. Environmental permitting is in process. The primary remaining unknown is pipe sizing, which is largely dependent on Flint's participation.

It is our experience that the 25% ELAC allowance is appropriate for a project of this magnitude at this stage in the planning / design stage. The 43% ELAC allowance recommended by TYIT is excessive for a project in the design phase.

8. Flint's WTP as a backup to the KWA will be less difficult to provide for than the current arrangement as a backup to DWSD. We believe there is potential for challenges with chemistry and treatment for the proposed DWSD blending options, too.
9. It doesn't seem that oversizing the KWA capacity is a good solution for the city's water loss problems, if that is what is being suggested.
10. Yes, it would be nice if the KWA system could be constructed to firmly determine its cost and time to complete before making a decision about water supply alternatives. However, a decision is needed regarding Flint's participation so that the sizing and design can be completed, before it can be built.

Project Costs - TYJT Slides 26 through 30

	KWA	TYIT
Intake and Crib Construction	\$22,076,850	\$22,076,850
ELAC	\$5,519,213	\$5,519,213
Property	\$2,300,000	\$2,300,000
Pumping Stations Construction	\$24,618,080	\$54,573,314
Land		\$75,000
ELAC	\$6,154,520	\$16,394,494
Transmission Mains Construction	\$166,202,316	\$167,419,530
ELAC	\$41,550,579	\$50,225,859
Easements		\$1,166,170
Engineering		
Design Engineering		\$16,939,581
Construction Management		\$14,434,609
Administration		\$349,440
Legal / Easements / Contracts		\$831,000
Power	\$4,000,000	\$4,000,000
Redundant Power		\$1,273,200
Total Construction	\$212,897,240	\$244,069,694
Total ELAC	\$53,224,313	\$104,694,196
Total Land / Property / Easements	\$2,300,000	\$3,541,170
Total Power	\$4,000,000	\$4,000,000
Total Redundant Power	\$0	\$1,273,200
Total	\$272,421,558	\$357,578,260
ELAC as % of Construction	25.0%	29.3%

Option	TYJT Total Cost	TYJT minus additional costs of river treatment	TYJT minus additional costs of river treatment plus redundant Filtr-GCDC connections	TYJT minus additional costs of river treatment plus redundant connections less KWA reserve	TYJT minus additional costs of river treatment plus redundant connections less TYJT financing	TYJT plus Filtr-WTP	Adjusted Total Cost	Ranking
1 Filtr WTP Only	\$590,441,893						\$590,441,893	3
2 DWSD 8 MGD Max Day at Inlay	\$621,211,298					\$771,289,948	\$771,289,948	8
3 KWA 10/31/12 Update	\$649,775,166	\$538,615,996	\$654,555,960				\$554,555,960	1
4 DWSD 8 MGD Max Day at P&B	\$657,167,877					\$807,246,527	\$807,246,527	6
5 KWA-1	\$707,279,715	\$592,120,545	\$612,060,509		\$572,731,459		\$572,731,459	2
6 DWSD 12 MGD Max Day at Inlay	\$707,994,386					\$858,073,036	\$858,073,036	8
7 DWSD 12 MGD Max Day at P&B	\$742,168,081					\$892,246,731	\$892,246,731	9
8 KWA -2	\$766,784,313	\$651,625,143	\$671,565,107	\$654,766,341			\$654,766,341	4
9 DWSD 18 MGD Max Day at P&B	\$791,202,885					\$812,337,848	\$812,337,848	7

Options for Water Supply	TYJT Projected 30 Year Total Cost	30 Year T&M Reduction for Existing Lake Huron Water	25 Year Bond Cost for Redundant Connections	Eliminate KWA Reserve	Use KWA 25 Year Capital Charge \$35,200 / MGD	25 Year Bond Cost for Filtr WTP Upgrade	Adjusted 30 Year Total Cost	Rank (1-10) (1-10) (1-10)
1 Filtr WTP Only	\$590,441,893		Included				\$590,441,893	3
2 DWSD 8 MGD Max Day at Inlay	\$621,211,298		Note 1			\$150,078,650	\$771,289,948	5
3 KWA 10/31/12 Update	\$649,775,166	-\$115,159,170	\$21,134,963				\$555,750,960	1
4 DWSD 8 MGD Max Day at P&B	\$657,167,877		Note 1			\$150,078,650	\$807,246,527	6
5 KWA-1	\$707,279,715	-\$115,159,170	\$21,134,963		-\$30,329,050		\$577,926,459	2
6 DWSD 12 MGD Max Day at Inlay	\$707,994,386		Note 1			\$150,078,650	\$858,073,036	8
7 DWSD 12 MGD Max Day at P&B	\$742,168,081		Note 1			\$150,078,650	\$892,246,731	9
8 KWA -2	\$766,784,313	-\$115,159,170	\$21,134,963	-\$16,858,266			\$655,901,341	4
9 DWSD 18 MGD Max Day at P&B	\$791,202,885		\$21,134,963				\$812,337,848	7

Representative Genesee County Water and Wastewater Projects

Project	Description	All Engineering Fees	Engineer's Estimate	Bid Price	Final Construction Cost	Engineering & Contingency %
Fox Pump Station	30 mgd wastewater pump station & forcemain	\$1,829,259		\$12,394,273	\$12,074,225	
		15.2%				
NEES Project	60" Relief Sewer - included tunneled sections		\$54,707,212	\$55,985,672	\$69,999,429	
					28.0%	
North Water Loop	23 miles 36" and 48" transmission main, pump station, & 20 MG Reservoir	\$4,102,510	\$29,200,000	\$23,570,110	\$25,798,529	2.4%
		15.9%			-11.6%	
Henderson Road PS	32 MGD Water Pump Station & Two 10 MG Tanks		\$12,046,368	\$12,846,077	\$13,517,582	
					12.2%	
Pump Station #1	80 MGD wastewater pump station	\$1,735,063	\$10,169,000	\$8,225,400	\$8,292,277	-2.4%
		20.9%			-19.2%	

Notes:

Engineering Fees include all planning, soils investigation, design, construction inspection & testing, and construction management costs.

Engineering Fees % is based on final construction cost.

Engineering and Contingency % is based on engineering fees + amount final construction cost exceeds estimate.

Final Construction Cost % is based on difference between final construction cost and engineer's estimate.

NEES Project Contractor went out of business during project - increasing cost to finish project.

Projects constructed within last ten years.

**GENESEE COUNTY DRAIN COMMISSION
APPLICATION FOR A WATER WITHDRAWAL FROM LAKE HURON**

**PERMIT DECISION
And
RESPONSE TO PUBLIC COMMENTS**

August 28, 2009

**Michigan Department of Environmental Quality
Constitution Hall, 525 West Allegan
P.O. Box 30273
Lansing, Michigan 48909-7773**

EXECUTIVE SUMMARY

GENESEE COUNTY DRAIN COMMISSION APPLICATION FOR A WATER WITHDRAWAL FROM LAKE HURON

On February 12, 2009, the Department of Environmental Quality (DEQ) received from the Genesee County Drain Commission (GCDC) a permit application submitted under Section 32723 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The permit application included a request that the DEQ begin the required evaluation and public notice under Part 327, Great Lakes Preservation, of NREPA for a proposed water withdrawal from Lake Huron.

Section 32723(4) of Part 327 requires that the DEQ provide for a public comment period of not less than 45 days before a permit application is acted upon. The DEQ invited public comment on the permit application via press release, public notice and website posting. The DEQ issued the press release on the permit application on May 27, 2009, and posted the public notice on the DEQ internet website the following day. A copy of the public notice was transmitted to the GCDC on May 28, 2009 for posting at the entrance to their premises and at the shoreline parcel where a "shore well and pumping station" are to be constructed. The press release and public notice announced the public comment period and requested that comment be submitted to the DEQ by July 15, 2009.

After considering the information submitted relevant to the factors used in determining the acceptability of a permit application and the comments received, the DEQ determined that the proposed GCDC withdrawal is in compliance with the applicable standards and should be issued.

On August 28, 2009, the DEQ rendered a decision in favor of issuing the permit concluding the GCDC proposed withdrawal would not likely cause an adverse resource impact and that all other factors in rendering a permit decision had been met.

This document includes the basis of decision for issuance of a permit to the GCDC for the future withdrawal of 85 MGD from Lake Huron. Responses are provided to comments received on the permit application during the public comment period that including concerns relating to the permit process, the environmental impact of the proposed water withdrawal, the legality of the proposed water use, and the applicability of laws and regulations to the proposed withdrawal.

Many of the early comments were critical of the public notice and comment period duration regarding the permit application. The DEQ is limited in its ability to provide public comment by a Part 327 statutorily required time frame for responding to the permit application. The DEQ recognizes that this is the first application for a permit to withdraw water from a Great Lake that is subject to the standards of Part 327, the Great Lakes Charter process, the standards-of-decision in the Great Lakes-St. Lawrence River Basin Water Resources Compact, and the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement. Therefore, the DEQ reviewed additional comments received after the public comment period for consideration in application and functionality of the administrative process on this and future permit applications.

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I. BACKGROUND

Proposed Withdrawal

The proposed 85 million gallons per day (MGD) water withdrawal is from a Lake Huron water intake. The permit applicant, Genesee County Drain Commission (GCDC), proposes to use the withdrawal water for a community public water supply system, to be owned and operated by a collection of municipalities organized as the Karegnondi Water Authority (KWA). The proposed withdrawal will be via a Lake Huron water intake located approximately 3.5 miles offshore and a shore well and pumping facilities located in the south of section 31 and 32, Worth Township, T.9N, R.17E, Sanilac County, Michigan. The maximum proposed withdrawal of 85 MGD, corresponds to a maximum pumping rate of ~59,000 gallons per minute (gpm).

Public water supply is a use that the DEQ estimates to be 10 percent consumptive. While 90 percent of the water will remain in the Lake Huron watershed, the consumptive use estimate places the loss from the Great Lakes hydrologic system at 8.5 MGD.

II. STATUTORY STANDARD

A person who proposes to develop a new withdrawal of 2 MGD or more from the waters of the state to supply a common distribution system, is required to obtain a water withdrawal permit prior to making the withdrawal (MCL 324.32723[1]).

Application Submittal

A person proposing a withdrawal from the surface waters of the state is required to apply for a permit by submitting an application for the withdrawal to the DEQ containing the following information (MCL 324.32723[2]):

- Capacity of equipment used to make the withdrawal,
- Location of the withdrawal,
- Withdrawal source,
- Amount and rate of withdrawal,
- Intended maximum monthly and annual volumes and rates, if different from the capacity of equipment used to make the withdrawal,
- Relevant information related to seasonal use,
- Description of how the water will be used and location, amount and rate of return flow,
- Any other information the person would like the DEQ to consider.

The application is required to include an evaluation of existing hydrological and hydrogeological conditions and a detailed description of proposed preventative measures where relevant. In addition, the applicant is required to submit an application fee in the amount of \$2000.00.

Administrative Requirements

MCL 324.32723 requires the department to determine whether a permit application is administratively complete. The DEQ has 30 days to make this determination, unless the applicant is notified of deficiencies in the application requiring additional information. Once an application is determined to be administratively complete, the DEQ is required to provide a public comment period of not less than 45 days and render a decision on the permit application within 120 days from the completeness determination.

The DEQ received the original permit application from the GCDC on February 12, 2009. The information was submitted in accordance with Part 327, and "proposals subject to prior notice and consultation" of The Great Lakes Charter, Principles for the Management of Great Lakes Water Resources (The Charter). On March 4, 2009 the DEQ requested additional information to better fulfill the information requirements of The Charter essential to the administrative

process. Upon receipt of the additional information the DEQ sent a letter to the GCDC dated April 24, 2009 notifying them of the completeness of the application package.

The DEQ invited public comment on the permit application via press release, public notice and website posting. The press release was issued on May 27, 2009, and the posting of the public notice on the DEQ internet website on May 28, 2009. The GCDC was provided a copy of the public notice on May 28, 2009 for posting at the entrance to their premises and at the shoreline parcel where the proposed shore well and pumping station are to be constructed. The press release and public notice announced the 45-day public comment period and requested that comments be submitted to the DEQ by July 15, 2009.

The consumptive use estimate of 8.5 MGD exceeds the 5 MGD threshold established in the Charter for proposed withdrawals requiring Prior Notice and Consultation with the other Great Lakes states and provinces. In the spirit of the companion legislation adopted by the state of Michigan in conjunction with the Great Lakes-St. Lawrence River Basin Water Resources Compact (Compact), and pursuant to the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (Agreement), the DEQ's Office of the Great Lakes provided notice of the proposed withdrawal on May 26, 2009. The complete application packet was transmitted to the other Great Lakes states, the Canadian provinces of Ontario and Quebec, and the Great Lakes first nation and federally recognized tribes, with a request that comments be provided by July 20, 2009 in order for the DEQ to meet the statutory obligations of Part 327.

Conditions Required for Issuance of a Permit

The DEQ is required to issue a permit for a water withdrawal if all of the following conditions are met (MCL 324.32723[8]):

- All water withdrawn, less any consumptive use, is returned to the source watershed;
- The withdrawal is implemented to insure there is no individual or cumulative adverse resource impact (ARI). Cumulative impacts are to be evaluated based upon available information gathered by the DEQ;
- The withdrawal will be implemented in compliance with all applicable local, state, and federal laws, as well as all legally binding regional interstate and international agreements;
- The proposed use is reasonable;
- The permit applicant certifies compliance with the environmentally sound and economically feasible water conservation measures for the applicable water use sector; and
- The proposed withdrawal does not violate public or private rights and limitations imposed by Michigan water law or other common law duties.

Parallel requirements for approval are spelled out in Section 4.11, Decision Making Standard, of the Compact. Section 4.11(5) of the Compact provides greater specificity on reasonable use conditions and requires the parties to consider efficient use of the water; efficient use of existing water supplies; the balance between economic and social development and environmental protection as they relate to other planned withdrawals and uses sharing the same source; supply potential; the degree and duration of likely adverse impacts and the restoration of hydrologic conditions.

III. DECISION MAKING PROCESS

Consumptive Use Considerations

The consumptive use calculation was based upon a consumptive use coefficient of 10 percent. The DEQ relied primarily upon the United State Geological Survey publication "Consumptive Water-Use Coefficients for the Great Lakes Basin and Climatically Similar Areas," Scientific Investigation Report 2007-5197. There is a relatively narrow range of coefficients for public water supplies in comparison with many of the other types of uses. Further, it is generally conceded the range is 10 to 15 percent as identified in Table 3-1, Consumptive-use coefficient used by Great Lakes jurisdictions, by water use category of the report. Upon review of the aforementioned report, the DEQ ultimately decided that 10 percent was the best estimate of consumptive use. This is the published value for the public water supply sector in Table 3-2, Total water use by category for the Great Lakes Basin, by year, from the Great Lakes Commission annual reports, 1996-2002. Based upon the 10 percent coefficient for consumptive use, the proposed withdrawal is projected to have a maximum consumptive use of 8.5 MGD.

Adverse Resource Impacts

Section 32721(1) of Part 327 prohibits a person from making a "...new or increased large quantity withdrawal from the waters of the state that causes an adverse resource impact." Section 32701(1)(a)(vii) defines an adverse resource impact (ARI) for a surface water body as "decreasing the level of a lake or pond with a surface area of 5 acres or more through a direct withdrawal from the lake or pond in a manner that would impair or destroy the lake or pond or the uses made of the lake or pond, including the ability of the lake or pond to support characteristic fish populations, or such that the ability of the lake or pond to support characteristic fish populations is functionally impaired." For flowing streams and rivers an ARI is defined as decreasing the flow by part of the index flow such that the ability of the stream to support the characteristic fish population is functionally impaired.

Part 327 establishes specific flow reduction as constituting an ARI for some stream types. No specific flow reductions are established for the Great Lakes or their connecting channels. In that case, a comparison of the proposed withdrawal to the water availability from the GL or connecting channel from which the withdrawal originates is one means of assessing the likelihood of an ARI. The proposed withdrawal of 85 MGD corresponds to a daily withdrawal of 1.136×10^7 cubic feet per day (ft^3/day) or 4.148×10^9 cubic feet per year (ft^3/year). The area of Lake Huron and Lake Michigan, which hydraulically act as a single source at the same elevation, possess a combined surface area of 45,300 square miles, or $1.263 \times 10^{12} \text{ ft}^2$. Based upon a consumptive use of 10 percent a withdrawal of 4.148×10^9 cubic feet per year (ft^3/year) would result in a projected loss of water from the Great Lakes Basin of $4.148 \times 10^9 \text{ ft}^3/\text{year}$. Assuming no recharge to lakes Michigan and Huron the consumptive use loss is projected to cause a reduction in lake levels of 0.0003284 feet (0.004 inches or 0.01 centimeter). Accordingly, the DEQ concludes the impact of the proposed 85 MGD withdrawal on lake levels and the corresponding impact to the characteristic fish population would not result in an ARI as defined in Part 327.

A comparison of the proposed withdrawal to flows immediately down stream of the proposed intake in the St. Clair River provides another reasonable measure of water availability and the potential for impact. The United States Geological Survey has published average flows for the St. Clair River in excess of 183,000 cubic feet per second, corresponding to a daily flow of ~118,268 MGD. When consideration is given to return flows and consumptive use, the water theoretically lost from Lake Huron of 8.5 MGD corresponds to 0.0072 percent of the total flow.

The DEQ concludes from this comparison that the proposed withdrawal would be insufficient to cause an ARI as defined in Part 327.

Applicable Local, State and Federal Laws

To be approved, the proposed withdrawal must be in compliance with all applicable local, state, and federal laws as well as legally binding interstate and international agreements, including the boundary waters treaty of 1909. Section 32726 governing local ordinances, specifically prohibits a local unit of government from enacting, or enforcing an ordinance that regulates a large quantity withdrawal. The information contained within the permit application indicates the withdrawal would be implemented in compliance with applicable state and federal laws (Part 327) and applicable international agreements. The Boundary Waters Treaty of 1909 was agreed to by the U.S. and Canada to provide a mechanism for the resolution of disputes over waters bordering the two countries and to insure the waters of the Great Lakes remain navigable. Nothing related to the GCDC proposed withdrawal volumes would be in violation of the treaty.

Reasonable Use

Part 327 requires that a proposed use be reasonable. As noted above the specific criteria for consideration the efficient use of the water and the efficient use of existing water supplies; a consideration of the balance between economic development, social development and environmental protect, supply potential; the degree and duration of likely adverse impacts and the restoration of hydrologic conditions. These considerations are consistent with Michigan's test for determining a reasonable use as set forth in Michigan Citizen for Water Conservation V. Nestle Waters of North America, Inc. [Michigan Citizens for Water Conservation v Nestlé Waters N America Inc, 269 Mich App 25; 709 NW2d 174 (2005)]. The considerations are addressed as follows:

Efficient Use of the Water: This requirement is directly tied to the user's commitment to Environmentally Sound and Economically Feasible Water Conservation Measures. (Conservation Measures) In the application the GCDC identified the Conservation Measures applicable to the public water supply sector that they are currently employing. A more comprehensive discussion is provided in the section entitled Conservation Measures on page 6.

Efficient Use of Existing Water Supplies: The language of the Compact specifies efficient use as a consideration when an increased withdrawal is proposed. The Compact language is intended to assure that water from various sources is being efficiently used by a large quantity user before they are granted approval for an increased withdrawal. Since the GCDC proposal is for a new withdrawal, this criterion does not apply.

Balance between Economic Development, Social Development and Environmental Protection: Reasonableness of a water use as it relates to the balance between economic development, social development and environmental protection is an important consideration in the acceptability of a proposed withdrawal.

Creation of a water authority and construction of the pipeline and treatment plants would enhance economic development in a variety of ways. During the 5-year construction period there project would provide an estimated \$100 million in skilled trades work, \$200 million in manufacturing of pipe and other equipment and 30 million in engineering and design services. Once on line the new pipeline and associated facilities is estimated to create over 50 new jobs necessary to the operation and maintenance treatment facilities, the Great Lakes intake, pipeline, and pump stations. Improving system reliability, as discussed below will also encourage economic development in the affected communities.

From a social standpoint, the proposed withdrawal and related facilities would benefit the area by enhancing the health, safety and security of area residents. The DEQ, Water Bureau (WB)

has identified deficiencies in the GCDC system primarily related to reliability. Significant effort will be placed on improving current system reliability in the design of system components associated with the proposed withdrawal. These efforts will meet with the requirements of the Safe Drinking Water Act. With the construction of new facilities the GCDC would also be improving system reliability for surrounding public water supply systems by offering emergency inter-connects and entering into mutual aid agreements.

Lastly, given the net effect of the withdrawal on the water resources as described above, these economic and social benefits to the area would be obtained without a perceptible impact on the environment.

Supply Potential: Supply potential consideration requires the DEQ look at the impact of the withdrawal on the quantity, quality, reliability, and safe yield of hydrologically interconnected water sources. The proposed withdrawal does not present any known or anticipated threat to the quantity or quality of Lake Huron as a water source. Also, the proposed withdrawal would have no impact on the reliability or the safe yield of the source as it relates to others using Lake Huron or hydrologically connected sources, such as the St. Clair/Detroit river systems.

Degree and Duration of Likely Adverse Impacts: The DEQ concluded the proposed withdrawal would not cause an ARI.

Restoration of Hydrologic Conditions: The water withdrawn by the GCDC, less consumptive use, would all be returned to the source watershed via treated wastewater discharges to the Flint River. The consumptive use losses for inside Great Lakes Basin uses are considered reasonable. Under Part 327 the restoration of hydrologic conditions does not apply to the proposed withdrawal.

Conservation Measures

For permit applications received on or after January 1, 2009, the applicant must self-certify that they are in compliance with Conservation Measures. More specifically they must certify that they are in compliance with the Conservation Measures developed by the applicable water user's sector or developed for the water use associated with that specific withdrawal (MCL 324.32723[6(e)]).

The GCDC has certified that they are in compliance with the accepted practices as developed and submitted to the DEQ for the public water supply sector by the Michigan Section of the American Water Works Association and set a goal of a less than 5 percent system wide water loss. GCDC further certifies to the promotion of educational programs related to lawn sprinkling and other outside uses, and the implementation of programs to promote water re-use and other water conservation measures by commercial and industrial facilities. The GCDC also practices "flat rate water billing," meaning large users do not pay proportionally less as their water use goes up. All water uses served by the GCDC are metered and billing is commensurate with the metered water usage. Lastly, the GCDC employs a local ordinance restricting outdoor water use during periods of peak use.

Public or Private Rights, Limitations and Common Law

The issuance of a permit on the proposed withdrawal must not violate public or private rights or interfere with limitations imposed on the use of the resource by Michigan water law or other common law decisions. Specifically, the DEQ must ascertain if the issuance of the permit would interfere with the principle that certain natural resources, which in this case is Lake Huron, are preserved for public use, and that the state is required to maintain the resource for the public's reasonable use. The issuance of a permit for the proposed withdrawal would not interfere with the public's access to Lake Huron, the public interest in Lake Huron as a natural resource, or maintenance of Lake Huron for drinking and recreational purposes.

VI. PUBLIC PARTICIPATION PROCESS

The DEQ invited public comment on the permit application via press release, public notice and website posting. The press release was issued on May 27, 2009, and the posting of the public notice on the DEQ internet website on May 28, 2009. The web posting included the permit application packet for the proposed withdrawal and the public notice announcement. The press release and public notice announced the public comment period and requested comments be submitted to the DEQ by July 15, 2009.

The Office of the Great Lakes provided notice of the proposed withdrawal on May 26, 2009, to the other Great Lakes states, provinces and federally recognized tribes and first nations. The notice included a request that comments be provided by July 20, 2009.

The remainder of this document summarizes the comments received based on the proposed 85 MGD withdrawal by the GCDC and the DEQ response to the comments on the basis of applicable rule, policy, and procedure in administration of the permit application and review process under Part 327, Great Lakes Preservation, of NREPA.

General Comments

Many of the comments were specific to ongoing negotiations between the GCDC and the City of Detroit relative to the continued provisions for water supply service from the Detroit Water and Sewer Department (DWSD).

It was expressed by some commenters that the GCDC proposal underestimates the reliability of the DWSD public water supply system noting that DWSD possesses sufficient capacity and has an approved proposal to provide the GCDC the desired redundancy. Conversely, it was claimed the request for redundancy was made in 1985 with reciprocal commitment to construct the necessary infrastructure over the past 30 years.

A comment was made that constructing a new intake does not appropriately address deficiencies in either the GCDC or DWSD systems. As an example, there was a reference to ongoing system losses for the GCDC and DWSD of 5 percent versus 20 percent of water pumped.

Multiple comments were received with regards to the impact on water rates for DWSD customers if the KWA member municipalities were to withdraw from the DWSD system. Rate increases for the remaining DWSD customers was estimated at approximately 6 percent. A counter argument was made that the loss of a customer should not affect remaining customer rates as costs are presumably based on "cost of service."

There was a claim that the cost of the intake structure, transmission line, and separate treatment facilities for the KWA would be much greater than provided in the preliminary estimates. Conversely, The GCDC claims that all potential KWA members are aware of the cost estimates. The intake and pipeline costs are estimated at 75 percent of costs, including plans for redundancy while the treatment costs will be 25 percent of costs. GCDC also noted that separate studies on the cost of various water supply alternatives should have no bearing on the permit decision.

Response to Comments: The DEQ does not consider any comments on the relative position of the DWSD and GCDC water supply system to be legally relevant to a decision as to whether or not a permit should be issued to the GCDC for the proposed 85 MGD withdrawal from Lake Huron. Part 327 specifically requires the DEQ to issue a permit if on the basis of the submitted material the proposed water withdrawal meets the decision making criteria. The DEQ is specifically precluded from using part 327 to "...diminish or create any existing authority of municipalities to require persons to connect to municipal water supply systems as authorized by law" (MCL 324.32726).

Any addition or loss of a major customer of a regional public water system has the likelihood of affecting water rates – clearly a major addition or loss affects both the revenues and costs of operation. Water rates and the basis for establishing water rates are not an issue under Part 327. It is appropriately an issue for water service contract negotiations between the regional water system and its customers. To do otherwise invites unwanted intervention of the state into local decision making. There is nothing in Part 327 or any provisions of the Agreement and Compact that would either mandate connection to a regional water system or bind a customer permanently to a regional water system.

Applicability of Law and Regulations

Comments criticized the GDC's application under Part 327. As a community public water supply the commenter believes the application would have been more appropriately made under the Michigan Safe Drinking Water Act, Act 399, as amended and rules. A submittal of plans and specifications under Act 399 would have provided greater clarity as to the reasonableness of the water use and the applicant's intent relative to applicable Conservation Measures.

Other comments cited the application of requirements in the Compact and expressed the opinion that the GDC proposal did not meet the applicable standards. Most frequently referenced were the standards identified in *Section 4.11, Decision Making Standard* and *Section 4.12, Applicability of the Compact*. Relative to the former, comments suggested the proposed use is not reasonable based on efficient use of existing water supplies, balance between economic and social development, environmental protection, use of same source by multiple users, and the probable degree of adverse impacts. Relative to the latter requirements, it was implied that the Compact provides the Originating Party (i.e. Michigan) with the power to apply a much more stringent standard.

Response to Comments: Part 327 and the companion amendments to Act 399 do not provide any restrictions as to who may apply for a permit to make a large quantity water withdrawal nor specify how one must go about obtaining a permit. GDC stated that they submitted their request for approval through Part 327 in large part to obtain the appropriate authorization of the withdrawal before investing a significant amount of money in developing plans and specification for the water works systems. Conformity with the Decision Making Standard of the Compact is, in part, the basis for the DEQ's decision on the permit application.

New Withdrawal and Consumptive Use

A number of comments focused on the fact that approval of the GDC proposal would not result in a decrease in Detroit's ability to pump water and solicit new customers to maintain their current rate of use. As a result commenters concluded that the GDC proposal should be treated as a new withdrawal. A corollary to this criticism was the observation that the total water withdrawal from the Great Lakes Basin would increase and that approval of the proposal would encourage other users to pursue similar use of Great Lakes waters. Some comments questioned the water use projections by the GDC for the years 2014 to 2039. GDC projected water use to increase by 42 percent. There was also concern that projected demand was 78.7 MGD, yet the request is for 85 MGD. There were requests that the proposed new withdrawal should be considered unacceptable unless the Detroit withdrawal was reduced by a corresponding amount.

Concern was also expressed over an increase in consumptive use. The fact that there would be an increase in use would result in additional consumptive use loss from the Great Lakes Basin. Numerous comments, particularly from other states questioned the use of 10 percent as the consumptive use coefficient indicating it should be higher. USGS publications cite consumptive use on public water supply systems in the range of 10 to 15 percent.

Response to Comments: Comments on the increased use must be addressed within the context of public water supply system operation, in particular when the increase in use is based upon population projections over a period of years. GCD C conducted a study to obtain the projected use of 78.7 MGD by 2039 based upon population and water use trends for the area currently served by the GCD C system. The GCD C explains that the request for 85 MGD provides a slight buffer over that which would be needed to account for water use in KWA member water treatment plants for such things as filter backwash. Additional buffer is provided to account for system losses. The GCD C as previously noted has set a goal of 5 percent for system losses. The DEQ determined the 85 MGD request is appropriate relative to the projected use, system operation and system water losses.

The DEQ has projected an increase in consumptive use of 8.5 MGD because the GCD C proposal is a new withdrawal. The GCD C proposed withdrawal does not affect the baseline capacity of the DWSD system or DWSD's future use of their existing baseline capacity. In the short term, the combined use of water for both the DWSD and GCD C systems will not significantly increase, because GCD C presently receives their water from DWSD. The proposed withdrawal was evaluated by the DEQ on the basis of DWSD maintaining their existing baseline capacity and evaluating the impact of a new 85 MGD withdrawal by GCD C from Lake Huron.

The consumptive use coefficient of 10 percent was obtained from *Table 3-2. Total water use by category for the Great Lakes Basin, by year, from the Great Lakes Commission annual reports, 1998-2002* in the USGS publication Consumptive Water-Use Coefficients for the Great Lakes Basin and Climatically Similar Areas, Scientific Investigations Report 2007-5197. Consumptive use coefficients for public supply over the years cited (1998-2002) were 10 and 11 percent, with 10 percent cited as the consumptive use over the entire period in question. The DEQ deemed this reference to be the most reasonable estimate of consumptive use.

Conservation Measures

There were multiple criticisms of the GCD C's commitment to water conservation. Specifically, that the GCD C identified no measures aimed at water use reduction noting that water conservation on new systems should be aggressive. Comments cited the published water conservation measures applicable to the public water supply sector noting that the GCD C has not made a commitment to each and every conservation measure. Specifically, their description of conservation measures did not include measures that promote water use conservation and the reduction of system leaks. Lastly, none of GCD C proposed wholesale or municipal customers provided information on compliance with Conservation Measures.

Commenters also expressed concern that the conservation measures identified by the GCD C were not consistent with the requirements of the Agreement and/or Compact. Plans for water use reduction or conservation were characterized as inadequate as nothing was mentioned relative to targeting system leaks and the promotion of efficient water use, in particular those leaks mentioned for the Detroit system. It was expressed that no new withdrawals should be approved until Detroit's leak problems are addressed. Some indicate there should be no approval of the withdrawal without a "water master plan" including impacts of current conservation and efficient use measures that have reduced total use and consumption. Commenters questioned whether there would be a continuation of conservation efforts made to date or whether there efforts would be improved upon. It was noted that a projected increase in population does not necessarily correspond to a projected increase in use, if one assumes more efficient use and conservation. Some commented that additional documentation is needed on water conservation measures including clear goals, targets and means of assessment.

Response to Comments: After January 1, 2009 permit applicant's are required to "self-certify" that they are in compliance with conservation measures developed by the applicable water

user's sector or developed for the water use associated with that specific withdrawal. The GCDC certified to the promotion of educational programs related to lawn sprinkling and other outside water uses, implementation of programs to promote water re-use and promotion of other water conservation measures by commercial and industrial facilities, and has set a goal of a less than 5 percent for system wide water losses. The GCDC practices "flat rate water billing," meters all water uses and bills commensurate with the metered water usage. The GCDC employs a local ordinance restriction on outdoor water use during periods of peak use.

The DEQ acknowledges the GCDC has not certified as to employing each and every water conservation measure identified for the public water supply sector, and notes there is not a requirement in Part 327 that they do so. The DEQ does commit to working with public water supplies to further water conservation efforts and will do so with the GCDC. Relative to the GCDC customers, the GCDC is making application on behalf of member communities of the KWA. All KWA members would participate in the implementation of the identified conservation measures. References to fixing deficiencies in the DWSO system are not germane to the GCDC permit application.

Reasonableness of Proposed Withdrawal

A number of comments were received relative to the reasonableness of the proposed withdrawal noting that any proposal must be considered on the basis of its purpose, suitability of use to location, the extent and amount of harm, benefits, necessity and manner of use, and other factors. The Agreement and Compact also require consideration of the economic and social value relative to potential environmental impacts and other factors. Generally, comments on the reasonableness of the proposed withdrawal focused on:

- The environmental harm that might be caused by the return of treated wastewater, and
- The necessity and amount of the withdrawal given the availability of Detroit system.

Specifically, on the issue of return flow there is a concern that points of discharge and downstream segments would be incapable of absorbing the projected 42 percent increase in discharge (based on future growth projection) without adverse impact. Commenter's claim numerous combined sewer overflows have occurred and requested verification that discharges are operating in compliance with existing laws.

Regarding the availability of the Detroit system, many comments made reference to the fact that the efficient use of existing systems is a required demonstration of reasonableness. There were claims the GCDC application should be rejected since the GCDC failed to rule out the option of using the existing DWSO system. Comments indicated that DWSO currently has the capacity to meet the needs of the GCDC and its customer municipalities, is already providing service to the proposed service area, and alleges to having made a commitment to providing reliability.

A few comments related to the economic and social value criteria of the Agreement and Compact, which requires consideration of the balance between economic development and social development and environmental protection on planned withdrawals from the same source.

Response to Comments: There are four wastewater discharges by the City of Flushing, City of Flint, Genesee County's "Ragnone Plant" and the City of Lapeer. The four wastewater treatment plants are in the process of reducing infiltration and inflow from their collection systems. The National Pollutant Discharge Elimination System (NPDES) permits for the Flint and Genesee Ragnone plants discharges require treatment facility and collection system capacity analyses. The City of Lapeer proposes to rehabilitate their plant to increase the treatment capacity and accommodate an increase in population and service area. All are operating and are in compliance with the parameters stipulated by their respective NPDES permits. If the GCDC service area demands increase in the future, or if the service area expands, the DEQ will use the standard NPDES permit review/reissuance cycle (5-years) to

evaluate any impacts from increases in wastewater flow. That process will include public participation.

The efficient use of existing systems is an applicable consideration when a proposal for an increased withdrawal and consumptive use is before the DEQ for approval. That is to say, an existing system must demonstrate that it is not wasteful of its water before a request for an increase in use can be approved. Because this is a new withdrawal the requirement for efficient use of existing systems, specifically the efficient use of a system owned and operated by another party (DWSD), is not germane to the permit decision.

As a consideration on the reasonableness of a water use, social and economic development considerations must be balanced against environmental impact of the proposed withdrawal. The GCDC outlined the potential benefits including enhanced public safety, security and health that would be provided to area communities served by the proposed withdrawal. Many of the social benefits would arise as a direct outcome of the new intake, pipeline, shore well and treatment facilities correcting existing system deficiencies identified by the DEQ. The GCDC projects the proposed construction of facilities would provide a direct infusion of money, jobs and manufacturing opportunities to the area. The DEQ determined there would likely be no ARI to the commonly shared water source as the withdrawal is not of sufficient magnitude to perceptibly lower the levels of Lake Michigan and Lake Huron. Accordingly, the DEQ concludes the GCDC proposal meets the reasonableness criteria relative to social development, economic development, and environmental impact.

Adverse Impact and Requirements for Ecological Improvement

Comments pointed out that the Great Lakes states and provinces have agreed to protect, conserve, restore and improve the Great Lakes resources. Some additional analysis recommended that the DEQ ascertain if there might be a cumulative ARI and questioned why the DEQ has not required the submittal of proposed restorative measures as part of the application packet. Comment pointed out that the application packet included no information as to whether Detroit will reduce its water use, whether GCDC will remain a DWSD customer for backup, and whether DWSD will seek additional customers. Commenters indicated that if there is no net reduction in use cumulative impacts need to be addressed. Some believe what was referred to as a diversion could have a significant impact on the levels of the Great Lakes and set precedent for other large scale diversions. Eleven comments focused solely on the impact the withdrawal would have on lake levels.

Response to Comments: The DEQ has determined there would be no ARI caused by the impact of the proposed withdrawal, and no perceptible impact on the levels of the Great Lakes or connecting channels. Given the likely near term affect of the proposed withdrawal on the volume of the DWSD withdrawal, there is no identifiable issue of cumulative impacts. Part 327, ~~which is~~ the guiding legislation in the issuance of the permit, requires "preventative measures" be submitted as part of a permit application only when necessary to preclude an otherwise prohibited environmental impact. As a proposed new withdrawal, the DEQ evaluated the GCDC withdrawal without assuming there would necessarily be any change to DWSD capacity to withdrawal water from the Great Lakes.

Diversion or Intra-Basin Transfer

A number of comments assumed that the proposed withdrawal constitutes a diversion, or intra-basin transfer, precluding DEQ approval under Part 327, the Agreement and Compact. Comments indicated the need for the GCDC to better identify the current and proposed service area. This was especially true in dealing with service to Shiawassee County as portions of the county are in both the Lake Michigan and Lake Huron watersheds. There was also concern that some of the service area and return flow might be to the St. Clair/Detroit River watershed, or discharged to the Lake Erie watershed resulting in an intra-basin transfer. There was concern

that approval of the withdrawal would set a dangerous precedent for the review of diversion and intra-basin transfers in the future.

Response to Comments: In accordance with Part 327, the Agreement and Compact, the DEQ has determined the proposed withdrawal would not constitute a diversion or intra-basin transfer. Portions of Shiawassee County lie in both the Lake Michigan and Lake Huron watersheds. However, Section 4.12.9 of the Compact states that Lake Michigan and Lake Huron are to be considered a single hydrologic unit and watershed. And therefore the transfer of water between Lake Michigan and Lake Huron watersheds is not considered a diversion under the Compact. None of the proposed service area lies within the watershed of the connecting channel or Lake Erie. Connecting channels are those waters and associated watershed that lie between any two of the Great Lakes. Section 4.12.7 of the Compact treats connecting channels as though they are part of both the Great Lake watersheds above and below the connecting channel.

In summary, within the applicable definitions of Part 327, the Agreement, and Compact the proposed withdrawal would not constitute a diversion or intra-basin transfer. It is a proposal potentially subject to Prior Notice and Consultation under the Charter because it is proposed as an in basin use with the only loss of Great Lakes waters due to the associated consumptive use.

Inadequate Information

A number of comments criticized the adequacy of the submitted information. Some suggested more information was needed on the movement of ground water and surface water to determine if the proposal will result in an intra-basin transfer or cause an adverse impact to the quantity and quality of Great Lakes basin waters. There were claims the proposal did not meet the requirements, spirit or intent of Agreement or Compact. The presumed inadequacy of information led to concern over consumptive use, service area information and water loss. There was also concern over inconsistencies in the information such as references to the new capacity of 85 MGD, a maximum capacity of 110 MGD and a firm capacity of 88 MGD. There were questions as to the relationship between the various cited capacities.

Others acknowledged the effort made to demonstrate consistency with the Agreement and/or Compact while noting information deficiencies. In a few instances commenter's requested information concurrent with a request for extension of the public comment period.

Response to Comments: A permit applicant under Part 327 is required to submit information including pumping capacity; location of withdrawal; withdrawal source; amount and rate of withdrawal; the maximum monthly and annual volumes and rates; relevant information related to seasonal use; a description of how the water will be used; the location, amount and rate of return flow; and an evaluation of existing hydrological and hydrogeological conditions. Other information may be provided at the discretion of the applicant with a description of preventative measures required where relevant.

Due to the magnitude of the withdrawal and its qualifying as a proposal potentially subject to Prior Notice and Consultation under the Charter, the DEQ requested the submittal of additional information. Extensive information was provided to meet information requirements in accordance with the Charter, the Agreement and Compact. The DEQ deemed the information sufficient and notified the GDC of such on April 24, 2009.

Regarding the request for an extension of the public comment period, Part 327 contains a statutory limit on the time the DEQ may give to the consideration of a permit application. Once the applicant is notified of the completeness of application the DEQ has 120 days in which to render a decision. Given the time constraints and the adequacy of the application packet, the DEQ denied requests to grant an extension to the public comment period.

V. Summary of DEQ Position

The DEQ has determined the application for the GDCDC proposed withdrawal of water from Lake Huron was submitted in accordance with the permit requirements of Part 327. Further, the proposed withdrawal is deemed not likely to cause an ARI and, as proposed, meets the intent of the Great Lakes Charter and the decision making standards of the Agreement and Compact. The DEQ based this determination on a review of the information and data pertinent to the factors used in making a decision on a permit application which included a thoughtful consideration of the comments received from the public, the other Great Lakes states, the Canadian provinces of Ontario and Quebec, and federally recognized tribes and first nations on the permit application, as made available for public review.

The authorized withdrawal capacity is 85 million gallons per day (maximum withdrawal in any single day). The DEQ will assure that capacity is not exceeded in the issuance of the required Michigan Safe Drinking Water Act construction permits (1976 P.A. 399, as amended). In addition, the DEQ will require as a condition of this Part 327 authorization that the participating members of the Karegnondi Water Authority be committed to a water conservation/water use efficiency program consistent with the water sector guidelines accepted by the state under Part 327, and posted on the DEQ website.

Byrne, Randall (Treasury)

From: Dillon, Andy (Treasury)
Sent: Wednesday, April 17, 2013 10:48 AM
To: Wyant, Dan (DEQ)
Cc: Muchmore, Dennis (GOV); Sibiltz, Brom (DTMB); Roberts, John (DTMB)
Subject: Additional DEQ Responses – KWA

Thanks Dan,

Sent from my iPad

On Apr 17, 2013, at 10:45 AM, "Wyant, Dan (DEQ)" <WyantD@michigan.gov> wrote:

Andy,

More DEQ staff comments attached from this morning. Our analysis has not changed.

Dan Wyant, Director
 Department of Environmental Quality
 517-373-7917

From: Thelen, Mary Beth (DEQ)
Sent: Wednesday, April 17, 2013 10:43 AM
To: Wyant, Dan (DEQ)
Subject: FW: KWA and City of Flint

From: Busch, Stephen (DEQ)
Sent: Wednesday, April 17, 2013 9:51 AM
To: Sygo, Jim (DEQ); Shekter Smith, Liane (DEQ); Thelen, Mary Beth (DEQ)
Cc: Shaler, Karen (DEQ); Benzie, Richard (DEQ); Prysby, Mike (DEQ)
Subject: RE: KWA and City of Flint

Director Wyant, Deputy Director Sygo, and Liane,

A response at this point may be moot as Flint and Genesee Co. already held a press conference yesterday rejecting the DWSD offer.

It is also unclear whether DWSD provided its offer directly to Flint and Genesee Co. by the deadline in Treasurer Dillon's letter. However, Flint and Genesee Co. still took the offer under consideration.

Our office concurs with both Flint and Genesee Co. that the offers provided by DWSD were incomplete.

Of the two scenarios provided by DWSD it appeared that only Scenario 2 was listed as potentially being more cost effective. However, this scenario did not address the following:

1. The DWSD scenarios are based on 40 MGD of service capacity. However, the KWA project is providing 60 MGD of initial capacity with potential expansion to 75 MGD in the future. Therefore, in order for a more direct comparison the DWSD scenario would need to increase capacity to 60 MGD, which would increase fixed rate commodity costs as well as the

capital costs for the Huron Plant that DWSD was planning to allocate to Flint and Genesee Co., presumably by as much as 50%.

2. DWSD proposals cover a 30 year period to 2042, but fail to recognize that after this period bond payments for the KWA project will be complete and result in a significant reduction in costs for the KWA option.
3. While DWSD indicates that Flint and Genesee Co. would be given "broadened representation", it remains unclear exactly what this means in terms of actual control in the decision making process.
4. This scenario continues to rely on a single transmission system and would require the City of Flint to maintain its WTP for emergency purposes and these costs do not appear to be included. In addition, use of the Flint WTP as an emergency backup would leave Genesee Co. without an adequate backup supply to meet their 30 year needs.

Again, without DWSD providing the specific details of these proposals, it is difficult to provide a true comparative analysis, and as such Flint and Genesee Co. appear to be justified in their rejection of these proposals.

Please let me know if you require any further response.

Stephen Busch, P.E.
Lansing and Jackson District Supervisor
Office of Drinking Water and Municipal Assistance
MDEQ
517-643-2314

From: Sygo, Jim (DEQ)
Sent: Tuesday, April 16, 2013 9:59 AM
To: Busch, Stephen (DEQ); Prysby, Mike (DEQ); Benzle, Richard (DEQ)
Cc: Shekter Smith, Liane (DEQ); Shaler, Karen (DEQ); Thelen, Mary Beth (DEQ)
Subject: FW: KWA and City of Flint

Steve, Mike and Richard,

Please take a look at DWSD's last best offer to the City of Flint and provide your collective perspective to the Director through Liane by the end of the week. Copy me in as well. I'll be out of the office but would like to know if you think this is worth considering.

Thank you for your expedited review.

From: Wyant, Dan (DEQ)
Sent: Tuesday, April 16, 2013 6:52 AM
To: Sygo, Jim (DEQ)
Subject: FW: KWA and City of Flint

Jim,

Liane is out of the office today. Can you forward this directly to her staff that worked on this with us.

Dan Wyant, Director
Department of Environmental Quality
517-373-7917

From: Wyant, Dan (DEQ)
 Sent: Tuesday, April 16, 2013 6:51 AM
 To: Sygo, Jim (DEQ); Creal, William (DEQ); Shekter Smith, Liane (DEQ)
 Cc: Anderson, Madhu (DEQ)
 Subject: FW: KWA and City of Flint

Bill and Liane,

Can you have your staff's take a quick look at this and let me know today if they think this changes their thoughts and comments to me last week.

Dan Wyant, Director
 Department of Environmental Quality
 517-373-7917

From: Dillon, Andy (Treasury)
 Sent: Monday, April 15, 2013 7:55 PM
 To: Wyant, Dan (DEQ); Dennis Muchmore; Roberts, John (GOV)
 Cc: Stibitz, Broni (Treasury); Saxton, Thomas (Treasury)
 Subject: Fwd: KWA and City of Flint

FYI

Dan, any thoughts re the attached?

We gave dwsd until today to put best offer on table. Flint is to get back to us tmrw. I want to make sure their expected rejection is made in good faith.

Sent from my iPad

Begin forwarded message

From: "Debra Ragland" <dragland@dwsd.org>
 To: "ekurtz@cityofflint.com" <ekurtz@cityofflint.com>
 Cc: "jwright@co.genesee.mi.us" <jwright@co.genesee.mi.us>, "Dillon, Andy (Treasury)" <DillonA2@michigan.gov>, "James Fausone" <fausone@dwsd.org>, "orrk@detroitmi.gov" <orrk@detroitmi.gov>, "Sue McCormick" <mccormick@dwsd.org>
 Subject: KWA and City of Flint

Please see attached on behalf of Sue F. McCormick.

Faxed copy forwarded to Mayor Dayne Walling and Jeff Wright.

08/06/07 05:11



STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SHYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

April 11, 2013

Dear Mr. Kurtz:

Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of \$50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Kalamazoo Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,


Andy Dillon
State Treasurer



**CITY OF FLINT
OFFICE OF EMERGENCY MANAGER
EDWARD J. KURTZ**

ELECTRONIC LETTER

April 16, 2013

Andy Dillon
State Treasurer
P. O. Box 30716
Lansing, MI 48909

Dear Treasurer Dillon:

Flint, Genesee County and KWA received an eight page letter from Detroit Water and Sewerage Department (DWSD) offering a framework for a long-term agreement with our region. Two scenarios were presented;

Scenario 1: Water from the Lake Huron Plant.

This offer was dismissed immediately because Flint would still be responsible for their share of the KWA water pipeline delivery system estimated to be \$79 million. In addition Flint would not be able to operate the Flint Water Plant in which we have invested over \$40 million per MDEQ mandates over the past ten years. Finally, although DWSD shows this as an option and supplied a per month cost projection for the first year, no total costs over the life of the contract were provided.

Scenario 2: "Full Service" Water Supply

This offer was also rejected. DWSD would supply water to Flint/Genesee the same way they currently are today. They would change the method of calculating our bill. The offer would provide a \$1.00 per ccf reduction on our usage for the first year, providing a 50 year contract is signed.

After review of the offer, Flint/Genesee has the following concerns:

Andy Dillon, State Treasurer
April 16, 2013
Page 2

1. DWSD's offer is a framework subject to negotiations and is not a firm offer.
2. DWSD's offer is based on 40.6 mgd, the KWA plan is based on 60 mgd. Flint/Genesee last summer hit the peak of 40.8 mgd and this DWSD offer provides no room for growth. Growth would result in penalties or added cost.
3. DWSD's offer does not include a guaranteed rate for years two through thirty, nor does it provide a maximum annual increase.
4. DWSD's offer does not provide a redundant supply for GCDG.
5. DWSD's offer does not allow for the use of Flint's existing water plant.
6. The offer indicates that the total cost to Flint over the life of the contract would be \$567,990,665. No indication of what annual rate of increase was used in this projection. Flint can only assume it is 4.4% based on the Tucker Young report. It is also based on 40.6 mgds. KWA's proposal is for \$649,775,166 based on 60mgds (33% more). Based on 60 mgds DWSD's proposal would be \$868,950,738.

On a final note, Flint/Genesee has great concern over the accuracy of the figures provided by DWSD. Attachment 1 indicates that our joint annual cost to DWSD is \$50 million; actual cost is less than \$25 million. Attachment 2 indicates \$800 million in savings over the next 30 years. That is greater than the total cost we would pay DWSD.

Therefore, I will sign the resolution to join KWA at the close of business today.

Sincerely,



Edward J. Kurtz
Emergency Manager

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
OFFICE OF THE DIRECTOR

735 RANDOLPH STREET
DETROIT, MICHIGAN 48226
WWW.DETROITMI.GOV

April 17, 2013

Via Certified Mail and Electronic Delivery

Ms. Inez M. Brown
City Clerk
City of Flint
2nd Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502

Dear Ms. Brown:

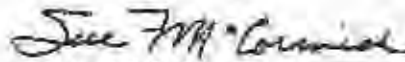
**Regarding: Termination of Contract for the Provision of Water Services
by the City of Detroit, Water and Sewerage Department**

On December 20, 1965, the City of Detroit, through its Board of Water Commissioners, (DWSD) and the City of Flint, Michigan (Flint) entered into a contract for the provision of DWSD treated water to Flint and the distribution by Flint of that water to other Genesee County communities. Section 18 of that Agreement¹ provides:

18. The Board [DWSD] shall supply and sell water to the City [Flint] from the water system of the City of Detroit, and the City shall receive and purchase such water in accordance with the terms of this Agreement for an indefinite period of time but at least for a period of thirty-five (35) years from the date hereof. This Agreement may be terminated by either party after expiration of said 35-year period, upon one year's written notice served upon the other party by delivering the same to the Secretary of the Board or to the Clerk of the City as the case may be, or at any time upon mutual consent of both parties.

Please take notice that pursuant to this section, 18, of the above-referenced Agreement, DWSD is terminating this Agreement one year from today's date (April 17, 2014).

Sincerely yours,


Sue F. McCormick
Director

¹ Although the Agreement between DWSD has been subsequently amended, Section 18 remains unchanged and in full effect.

2013 APR 18 AM 11:33
CITY CLERK'S OFFICE
CITY OF FLINT



STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

SUMMARY REPORT

TO: Brom Stibitz, Senior Policy Advisor, Department of Treasury
FROM: Eric Cline, Unit Operations Specialist
SUBJECT: Flint Water System Summary
DATE: April 18, 2013

Summary

In November 2012 the Department of Treasury commissioned the firm of Tucker, Young, Jackson & Tull, Inc. (TYJT) to analyze options for the City of Flint to either remain a customer of the Detroit Water & Sewer Department (DWSD) or to join the Karegnondi Water Authority (KWA) in Genesee County. The purpose of this study was to provide objective analyses to the State Treasurer and Flint's Emergency Financial Manager (EFM) in order to secure future potable drinking water for the City.

In December 2012, staff from TYJT met with representatives from the Department of Treasury and the City of Flint to provide a preliminary report on their findings. At this meeting, five options were presented: These options ranged from the Flint Water Plant providing 100% water, to 100% provision of untreated Lake Huron Water by KWA, to 100% provision of treated drinking water by DWSD, or provision of variable amounts of water from DWSD using a combination of blended DWSD water and Flint River water.

From the presentation of the preliminary report in December 2012 to the submission of the final report by TYJT in January 2013, a number of developments made arriving at a final decision very difficult.

- DWSD provided the City of Flint with at least two modified proposals to consider.
- A debate ensued between TYJT and KWA's principal engineering firm regarding the others' conclusion and estimates for construction of the KWA pipeline.
- The Flint EFM eliminated all options except the 100% DWSD option or joining KWA.

In January 2013, the OFR provided a comprehensive report to the State Treasurer analyzing three questions: 1) The projected construction costs and why Treasury believed the projections provided by Flint/KWA were acceptable; 2) identification of the construction contingencies; and 3) Identification of the options Flint will utilize in the event of a construction cost overrun or a delay in construction. At the end of this report, the OFR recommended to the State Treasurer that KWA presented the best future option for future potable water. The OFR also concluded that KWA appeared to be the cheaper option; the quality of water would improve; Genesee County appeared willing to assist the City in securing the financing for their portion of the project; the KWA project could signify the beginning of better collaboration between the City of Flint and Genesee County; and the KWA project had both political and popular support.

Between January and April, intense scrutiny of the various proposals was undertaken by Treasury and Flint officials. Treasury officials met with officials from Genesee County to gain a better understanding of the KWA project. In February 2013, Genesee County opened bids for construction of the Lake Huron intakes. This bid opening represented the first meaningful step toward commencing construction of the KWA system. The bid was \$3-million less than projected.

In March 2013, Treasury was notified that DWSD had contacted Flint to negotiate with the City to retain them as a customer. On April 13, 2013, the State Treasurer authorized the Flint EFM to join KWA, pending review of any final offer from DWSD. A final offer was received from DWSD on April 15, 2013.

DWSD's final offer provided two options. The first option was for a "supply only" rate schedule. Only water treatment costs would be recovered and DWSD would absorb all other delivery costs. Capital and operating revenue charges would be calculated based upon KWA's usage relative to the entire demand upon DWSD's Lake Huron WTP. KWA would also have the ability to construct and own its own transmission lines.

The second option was a "full service" rate option. DWSD would provide all production and transmission services. Transmission rates would be calculated only on those costs necessary to supply KWA and no additional transmission rates would be charged. Capital and operating revenue charges would be calculated based upon KWA's usage relative to the entire demand upon the Lake Huron WTP.

Independent analyses of DWSD's final offer by the OFR, the Flint EFM, and the Department of Environmental Quality (DEQ) generally reached the same conclusions:

- DWSD's offer was a framework subject to negotiations and was not a firm offer.
- The offer provided by DWSD was incomplete.
- DWSD's offer did not include a guaranteed rate beyond year one, nor did it limit maximum annual rate increases.
- The DWSD scenarios were based on 40 MGD of service capacity. However, the KWA project provides 60 MGD of initial capacity with potential expansion to 75 MGD.
- DWSD indicates that Flint/ Genesee County would be given "broadened representation," it is unclear exactly what this means in terms of actual control in the decision making processes.
- The DWSD offer relies on a single transmission system and would require the City of Flint to maintain its WTP for emergency purposes. In addition, it would leave Genesee County without an adequate backup supply to meet their needs.
- DWSD's offer included an attachment that listed the rank-ordered options (from cheapest to most expensive). DWSD Scenario 2 is listed as the least expensive option (but it is unclear how the total cost of this option was arrived at). DWSD Scenario 1 was not listed.
- DWSD provided a summary table of their unit costs but how these figures are arrived at was not clear, so analysis proved difficult.

Without specific details from DWSD on this proposal, a true comparative analysis is difficult to provide. As such the Flint EFM rejected the DWSD proposal and agreed to join KWA.

If further information on this issue is needed, please let me know.

Copy: Roger Fraser, Deputy State Treasurer; Bureau of Local Government Services
Edward Koryzno, Administrator; Office of Fiscal Responsibility
Randall Byrne, State Administrative Manager; Office of Fiscal Responsibility

Byrne, Randall (Treasury)

From: Stibitz, Brom (DTMB)
Sent: Thursday, April 18, 2013 9:15 AM
To: Cline, Richard (Treasury)
Cc: Koryzno, Edward (Treasury)
Subject: KWA Info
Attachments: Additional DEQ Responses – KWA; DEQ Position – KWA; KWA Indication from Kurtz

Eric,

Attached is some followup information from DEQ, which indicates their continuing support of KWA even after the most recent offer from DWSD. Also, Flint's letter lays out their reasoning for rejecting. Can you please include some of this content in the memo?

Thanks,

Brom

Byrne, Randall (Treasury)

From: Cline, Richard (Treasury)
Sent: Thursday, March 21, 2013 5:01 PM
To: Koryzno, Edward (Treasury); Stibitz, Brom (DTMB)
Cc: Byrne, Randall (Treasury)
Subject: RE: KWA Analysis

Importance: High

No basic assumptions were used. I reviewed the data to attempt to determine the best option.

Certain constraints focused the analysis in certain ways. The Flint EFM eliminated the use of the Flint River and all of the blending options. This decision eliminated all DWSD options with the exception of purchasing 100% of water from DWSD. The Treasurer asked some very specific questions that were addressed in my report. All of this is outlined in my report.

No other assumptions were utilized.

In the interest of time, this is a quick answer. If more discussion is needed, please let me know.

Eric Cline | Unit Operations Specialist - Office of Fiscal Responsibility
 State of Michigan | Michigan Department of Treasury
 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
 (517) 335-2078 | cliner1@michigan.gov

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From: Koryzno, Edward (Treasury)
Sent: Thursday, March 21, 2013 4:32 PM
To: Cline, Richard (Treasury)
Cc: Byrne, Randall (Treasury)
Subject: KWA Analysis

Brom asked if there were certain assumptions you used when you prepared this report and, if so, what were they? I could not remember.



Edward B. Koryzno, Jr. | Administrator - Office of Fiscal Responsibility
 State of Michigan | 430 W. Allegan Street, 1st Floor | Lansing, MI 48922
 (517) 373-4415 | (517) 373-0633 (fax)
KoryznoE@michigan.gov



Think Green! Don't print this e-mail unless you need to.

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Thank you

Byrne, Randall (Treasury)

From: Craig, John (DEQ)
Sent: Friday, March 07, 2014 5:13 PM
To: Cline, Richard (Treasury)
Cc: Feighner, Bryce (DEQ); Shekter Smith, Liane (DEQ)
Subject: City of Flint

Mr. Cline,

This is to let you know that we just send the revised draft consent order regarding the City's Bray Road site to Mr. Michael Robinson, Warner Norcross & Judd. As I discussed with you earlier this week, Mr. Robinson is representing the City regarding its Safe Drinking Water Act permit and the environmental issues at the Bray Road site – the site the City intends to use to manage the residuals from its water treatment plant as it moves forward to use the Flint River as source water for the treatment plant. I expect that Mr. Robinson will be contacting the Department of Environmental Quality staff that he has been working with to schedule a meeting to discuss the draft document.

If you require any information regarding the progress of the discussions between the City and DEQ, please do not hesitate to contact me.

Sincerely,

John

John Craig, Chief,
 Enforcement Section*
 Office of Waste Management and Radiological Protection
 Department of Environmental Quality
 Constitution Hall
 525 W. Allegan Street
 P.O. Box 30241
 Lansing, MI 48909
 ☎ Phone: 517-284-5545 | 📠 Facsimile: 517-373-4797 | Internet: www.michigan.gov/deq

* Supporting the Office of Drinking Water and Municipal Assistance | Office of Oil, Gas, and Minerals | Office of Waste Management and Radiological Protection

Byrne, Randall (Treasury)

From: Cline, Richard (Treasury)
Sent: Monday, March 10, 2014 1:12 PM
To: Koryzno, Edward (Treasury); Byrne, Randall (Treasury)
Cc: Dempkowski, Angela (Treasury)
Subject: FW: City of Flint

FYI.

Here is the current status on KWA, as sent by the DEQ.

I will keep you posted as I receive information.

Eric Cline | Unit Operations Specialist – Office of Fiscal Responsibility
 State of Michigan | Michigan Department of Treasury
 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
 (517) 335-2078 | cliner1@michigan.gov

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Sent: Friday, March 07, 2014 5:13 PM
To: Cline, Richard (Treasury)
Cc: Feighner, Bryce (DEQ); Shekter Smith, Liane (DEQ)
Subject: City of Flint

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* Supporting the Office of Drinking Water and Municipal Assistance / Office of Oil, Gas, and Minerals / Office of Waste Management and Radiological Protection



Dayne Walling
Mayor

City of Flint

Utilities Division



Darnell Earley
ICMA-CM, MPA
Emergency Manager

To: Darnell Earley, Emergency Manager
Howard Croft, DPW Director
Jerry Ambrose, Finance Director

From: Daugherty Johnson, Utilities Administrator

RE: Water Plant Upgrade February expenditure request

In accordance with the Water Plant Upgrade plan (Phase II Segments I & II) the following budgeted requisitions will need State Treasury approval. These upgrades will allow for the City to utilize the Flint River as our primary drinking water source until KWA supply is available. These planned expenditures are contained within the FY14 Budget Amendment. These final items are expected to total \$3,982,475.

Item 1 Chemical Systems/Ozone: Design work is completed and ready to bid. Expected total cost is \$700,000.

Item 2 Electrical Upgrades: The purchase of the equipment was approved by the State in November and orders were placed. The installation design is completed and bids are due February 20th. Expected cost is \$1,200,000. The City will need an executed contract by February 28th in order to have the work completed prior to April start up date.

Consumers Energy's portion of the Electrical upgrades is \$225,000. The attached Work Agreement and Purchase Order needs to be executed by Feb. 19th in order to meet the April start up date.

Item 3 Mid-point Chlorination: Design work is completed and ready to bid. The equipment and installation is expected to cost \$445,000. The City will need an executed installation contract and purchase orders by Feb 28th in order to meet the April start up date.

Item 4 Pump Station 4: Design complete, bids opened. We need to issue the PO to order the pump and valve for installation early next fiscal year. Bids came in at \$307,475. Actual expense will be in July.

Item 5 Raw Water Piping Connection: The design work is complete and ready to bid. This work must be completed prior to the April start date because we will be unable to shut down when KWA Raw Water arrives. The expected cost is \$380,000.

Item 6 Lime Softening residuals disposal: Design work is well underway in accordance with the proposed DEQ Consent Order. This work will entail berm construction and drain demolition in the lagoon. It will also require pumping facilities to dewater the lagoon into our Sanitary Sewer. This work is expected to be completed prior to April start up to improve water quality and address environmental concerns. Estimated Cost is \$725,000.

Flint Water Treatment Plant expansion

18-Feb-14

Category	Actual					Budget		
	Item #	Prior expenses	Action Items on list	Future Items	Projected Actual	LAN Budget	Item #	Category
chem storage	1		\$700,000			\$1,180,000	1	chem storage
electrical	2	\$1,800,000	\$1,200,000			\$3,840,000	2	electrical
electrical	2		\$225,000					
clarination	3		\$445,000			\$579,000	3	clarination
pump station #4	4		\$307,000			\$685,000	4	pump station #4
raw water piping	5		\$380,000			\$651,000	5	raw water piping
lime softening	6		\$725,000			\$0		
design			\$0	\$512,800		\$512,800		design
allowances			\$0	\$30,000		\$30,000		allowances
Other								Other
Other								Other
		\$1,800,000	\$3,982,000	\$542,800	\$6,324,800	\$7,467,800		

119-03074

(Bid No. 14-092)

EM SUBMISSION NO.: EME 1982014PRESENTED: 3-13-14

ADOPTED: _____

BY THE EMERGENCY MANAGER:

RESOLUTION TO ZITO CONSTRUCTION FOR INITIAL WATERMAIN CUT-IN @ WATER PLANT

BY THE EMERGENCY MANAGER

RESOLUTION

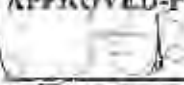
The Department of Purchases and Supplies has solicited a bid for an initial watermain cut-in @ the Water Plant as part of an upgrade project to said facility; and

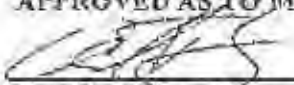
Zito Construction was the sole bidder from eight solicitations for said requirements. The funding for this request will come from the following account number: 591-545,300-801,000; and

IT IS RESOLVED, that the Proper City Official, upon the Emergency Manager's approval, are hereby authorized to enter into a contract with Zito Construction for watermain cut-in at the Water Plant in an amount not to exceed \$676,300.00. (Water Fund)

APPROVED-PURCHASING DEPT:

APPROVED AS TO FINANCE:


 Derrick Jones, Purchasing Manager


 Gerald Ambrose, Finance Director

APPROVED AS TO FORM:

FOR


 Peter M. Badd, City Attorney
EM DISPOSITION:

ENACT _____ REFER TO COUNCIL _____ FAIL _____

Darnell Earley, Emergency Manager

DATED: _____

071013 - BFL

RESOLUTION STAFF REVIEW

DATE:

March 13, 2014

Agenda Item Title:

Water Main Cut-in

Prepared By:

Brent Wright, Water Plant Supervisor

Background/Summary of Proposed Action:

The City of Flint is upgrading its Water Treatment Plant to become our Primary Drinking water source. As part that overall project the Initial Water Main Cut-in and midpoint Chlorination process systems must be completed. This will allow for the use of the River as source water and prepare the connection for the KWA source once completed.

The City did have two pre-conference meeting to discuss the aforementioned projects to encourage maximum participation from the vendor community. The City received one vendor to submit and we are requesting the approval of Zilo Construction to perform the work.

Financial Implications: Funding available for purchase

Budgeted Expenditure? Yes ☒ No ☐ Please explain if no: N/A

Account Nos: 691-645.300-801.000

Pre-encumbered? Yes ☐ No ☐ Requisition # (Various)

Other Implications (i.e., collective bargaining): None

The City is requesting that this request be expedited in order to meet aggressive timeline.

Staff Recommendation: Recommend Approval

Staff Person:



(Dept Head or other authorized staff)

Byrne, Randall (Treasury)

From: Cline, Richard (Treasury)
Sent: Tuesday, March 18, 2014 3:27 PM
To: Dempkowski, Angela (Treasury)
Cc: Byrne, Randall (Treasury)
Subject: Modified - One Resolution for Approval - EME1982014
Attachments: EME1982014.PDF
Importance: High

Angela,

I have reviewed the following resolution:

EME1982014 - Resolution to Zito Construction for Initial Watermain Cut-In @ the Water Plant - \$676,300.00 (Water Fund)

The recommended vendor was the only submission to the City's request for bid. Typically, I have concerns about awarding bids to only one bidder.

However, the City has a very aggressive timeline in order to meet an April completion date before losing service from DWSD. The City also stated that they held multiple meetings to encourage maximum vendor participation, however, this aggressive timeline may have impacted the number of bids received.

This resolution does appear to conform with Section 12 (3) of PA 436 as it exceeds \$50,000 in value and was competitively bid. Also, per the same section, the City is not requesting the State Treasurer to issue an exemption from this section.

The City also appears confident that this contract can execute the requested work.

Given the aggressive timeline, I am, therefore, recommending approval of this resolution.

Eric Cline | Unit Operations Specialist - Office of Fiscal Responsibility
 State of Michigan | Michigan Department of Treasury
 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
 (517) 335-2078 | cliner1@michigan.gov

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From: Dempkowski, Angela (Treasury)
Sent: Tuesday, March 18, 2014 9:43 AM
To: Cline, Richard (Treasury)
Subject: FW: One Resolution for Approval - EME1982014

Angela Dempkowski
 Senior Executive Management Assistant

Michigan Department of Treasury
dempkowski@michigan.gov
(517) 373-4415

From: Maxine Murray [<mailto:mmurray@cityofflint.com>]
Sent: Monday, March 17, 2014 11:37 AM
To: Dempkowski, Angela (Treasury)
Subject: One Resolution for Approval - EME1982014

Good morning Angela,

I am submitting the following resolution for State approval:

EME1982014 - Resolution to Zito Construction for Initial Watermain Cat-In @ the Water Plant - \$676,300.00 (Water Fund)

Please see the attached.

Thank you.

—
Maxine Murray
Executive Assistant to
Mayor Dayne Walling
Darnell Earley, Emergency Manager
1101 S. Saginaw Street
Flint, MI 48502
810.237.2035 Telephone
810.766.7218 Fax

Michigan Department of Treasury
dempkowskia@michigan.gov
(517) 373-4415

From: Maxine Murray [<mailto:mmurray@cityofflint.com>]
Sent: Monday, March 17, 2014 11:37 AM
To: Dempkowski, Angela (Treasury)
Subject: One Resolution for Approval - EME1982014

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Thank you.

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Maxine Murray
Executive Assistant to
Mayor Dayne Walling
Darnell Earley, Emergency Manager
1101 S. Saginaw Street
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Importance: High

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This resolution does appear to conform with Section 12 (3) of PA 436 as it exceeds \$50,000 in value and was competitively bid. Also, per the same section, the City is not requesting the State Treasurer to issue an exemption from this section.

The City also appears confident that this contract can execute the requested work.

Given the aggressive timeline, I am, therefore, recommending approval of this resolution.

Eric Cline | Unit Operations Specialist - Office of Fiscal Responsibility
State of Michigan | Michigan Department of Treasury
 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
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Sent: Tuesday, March 18, 2014 9:43 AM
To: Cline, Richard (Treasury)
Subject: FW: One Resolution for Approval - EME1982014

Angela Dempkowski
 Senior Executive Management Assistant

171-008

(Bid No. 14-092)

EM SUBMISSION NO.: EME 1982014PRESENTED: 3-13-14

ADOPTED: _____

BY THE EMERGENCY MANAGER:

RESOLUTION TO ZITO CONSTRUCTION FOR INITIAL WATERMAIN CUT-IN @ WATER PLANT

BY THE EMERGENCY MANAGER

RESOLUTION

The Department of Purchases and Supplies has solicited a bid for an initial watermain cut-in @ the Water Plant as part of an upgrade project to said facility; and

Zito Construction was the sole bidder from eight solicitations for said requirements. The funding for this request will come from the following account number: 391-545,300-801,000; and

IT IS RESOLVED, that the Proper City Official, upon the Emergency Manager's approval, are hereby authorized to enter into a contract with Zito Construction for watermain cut-in at the Water Plant in an amount not to exceed \$676,300.00. (Water Fund)

APPROVED PURCHASING DEPT:


 Derrick Jones, Purchasing Manager

APPROVED AS TO FINANCE:


 Gerald Ambrose, Finance Director

APPROVED AS TO FORM:


 Peter M. Dade, City Attorney

For

EM DISPOSITION:

ENACT _____ REFER TO COUNCIL _____ FAIL _____

Darnell Earley, Emergency Manager

DATED: _____

071013 - DJJ

RESOLUTION STAFF REVIEW

DATE:

March 13, 2014

Agenda Item Title

Water Main Cut-in

Prepared By:

Brent Wright, Water Plant Supervisor

Background/Summary of Proposed Action:

The City of Flint is upgrading its Water Treatment Plant to become our Primary Drinking water source. As part that overall project the Initial Water Main Cut-in and midpoint Chlorination process systems must be completed. This will allow for the use of the River as source water and prepare the connection for the KWA source once completed

The City did have two pre-conference meeting to discuss the aforementioned projects to encourage maximum participation from the vendor community. The City received one vendor to submit and we are requesting the approval of Zito Construction to perform the work.

Financial Implications: Funding available for purchase

Budgeted Expenditure? Yes ☒ No ☐ Please explain if no: N/A

Account Nos: 591-545.300-801,000

Pre-encumbered? Yes ☐ No ☐ Requisition # (Various)

Other Implications (i.e., collective bargaining): None

The City is requesting that this request be expedited in order to meet aggressive timeline.

Staff Recommendation: Recommend Approval

Staff Person: 

(Dept Head or other authorized staff)