TO: BOARD OF DIRECTORS  
FROM: JAMES (JIM) M. PARKS, EXECUTIVE DIRECTOR  
DATE: APRIL 17, 2014  
SUBJECT: REGULAR MEETING – THURSDAY, APRIL 24, 2014

I. SPECIAL PRESENTATION BY CONGRESSMAN RALPH HALL

Congressman Ralph Hall will be present at the April 24, 2014, Board meeting to make a special presentation.

II. RESOLUTION RECOGNIZING JIM PARKS SERVICE TO NTMWD

Resolution No. 14-3 is included in your packet and will be considered for adoption in recognition of retiring Executive Director Jim Parks’s service to the NTMWD.

III. WATER COMMITTEE MEETING

A Water Committee meeting will be held prior to the Board meeting on Thursday, April 24, 2014, at 2:00 p.m. Directors not on the Water Committee are welcome to attend.

IV. SPECIAL PURPOSE COMMITTEE MEETING

A Special Purpose Committee meeting will be held prior to the Board meeting on Thursday, April 24, 2014, at 3:00 p.m. to discuss the Executive Director transition. Directors not on the Special Purpose Committee are welcome to attend.

V. NTMWD WATER STORAGE FACILITIES REVENUE BONDS (CITY OF ROYSE CITY PROJECT) REDEMPTION PRIOR TO MATURITY

In 2001, the NTMWD issued its Water Storage Facilities Revenue Bonds (City of Royse City Project) in the original principal amount of $1,730,000 to provide water storage facilities for the City of Royse City (the “City”). There is currently $1,000,000 in principal amount of such bonds outstanding and the City would like to redeem all such outstanding bonds. The City will make arrangements for payment of the bonds through the issuance of its own refunding bonds. However, because the bonds were issued in the name of NTMWD, action by the Board of NTMWD is necessary to call such bonds
for redemption. Resolution No. 14-6 calls the bonds for redemption contingent upon payment arrangements being made by the City. Subject to the option given in the contract with the City, title to and operational responsibilities for the facilities will remain with NTMWD. There is no obligation on the part of NTMWD to pay such bonds other than out of funds provided by the City. A copy of Resolution No. 14-6 is included in your packet.

VI. AWWA'S PUBLIC COMMUNICATIONS ACHIEVEMENT AWARD

The NTMWD received Honorable Mention in AWWA's Public Communications Achievement Award category. The NTMWD's Water IQ program addresses the imperative need for water conservation and efficient water-use practices due to regional population growth and historic droughts that North Texas continues to experience. In 2005-2007, North Texas experienced its worst drought in 50 years. With the immediate need to save water in the nine-county area served, NTMWD was the first organization to put the state's recognized water conservation and education campaign, "Water IQ: Know Your Water" into action.

NTMWD has launched a comprehensive public awareness and education campaign targeting audiences identified through marketing research. Now in its ninth year, the NTMWD Water IQ campaign continues to evolve to best reach the targeted audience and is measured and driven by quantitative and qualitative research.

VII. ENCLOSURES

A. AGENDA – REGULAR MEETING – April 24, 2014
B. CONSENT AGENDA ITEM NO. 14-04-01 – Minutes, Regular Meeting, March 27, 2014
C. CONSENT AGENDA ITEM NO. 14-04-02 – Regional Water System, Plano No. 3 Delivery Point Metering Station Upgrade, Project No. 238, Change Order No. 2
D. CONSENT AGENDA ITEM NO. 14-04-03 – Mustang Creek Interceptor System, Forney Parallel Interceptor (Line A), Project No. 255, Change Order No. 1 and Authorization to Make Final Payment
E. CONSENT AGENDA ITEM NO. 14-04-04 – NTMWD Administration Building Structural Improvements, Task No. 1, Project No. 301, Authorization to Make Final Payment
F. CONSENT AGENDA ITEM NO. 14-04-05 – Regional Solid Waste System, Custer Road Transfer Station Tipping Floor Improvements, Project No. 331, Additional Engineering Services
G. CONSENT AGENDA ITEM NO. 14-04-06 – Regional Water System, Electrical Improvements at High Service Pump Station 1-1, Project No. 202, Inspection Services Agreement
H. CONSENT AGENDA ITEM NO. 14-04-07 – Regional Water System, Electrical Improvements at Water Treatment Plant II Chemical Building, Project No. 217, Engineering Services Fee Adjustment
I. CONSENT AGENDA ITEM NO. 14-04-08 – Regional Water System, Water Treatment Plant IV Conversion to Biologically Active Filtration, Project No. 251, Authorization to Make Final Payment
J. CONSENT AGENDA ITEM NO. 14-04-09 – Regional Water System, High Service Pump Station 2-2 and 2-3 Electrical Improvements, Project No. 298, Inspection Services Agreement
K. ADMINISTRATIVE MEMORANDUM NO. 4169 – Executive Assistant – Part-Time Position
L. ADMINISTRATIVE MEMORANDUM NO. 4170 – Regional Water System, Lower Bois d'Arc Creek Reservoir Mitigation Property Archaeological Survey, Phase I, Project No. 359
M. ADMINISTRATIVE MEMORANDUM NO. 4171 – Upper East Fork Interceptor System, Richardson Spring Creek Lift Station Improvements Final Design, Project No. 303, Engineering Services Agreement
N. ADMINISTRATIVE MEMORANDUM NO. 4172 – Upper East Fork Interceptor System, Wilson Creek Interceptor Improvements, Phase 2, Project No. 356, Engineering Services Agreement
O. ADMINISTRATIVE MEMORANDUM NO. 4173 – Regional Water System, Wylie Water Treatment Plant East Access Gate and Road Improvements, Project No. 291, Tabulation of Bids and Award of Contract
P. ADMINISTRATIVE MEMORANDUM NO. 4174 – Regional Water System, High Service Pump Station 2-2 and 2-3 Mechanical Improvements, Project No. 261, Additional Engineering Services
Q. ADMINISTRATIVE MEMORANDUM NO. 4175 – Wastewater System, Sabine Creek Wastewater Treatment Plant Evaluation, Engineering Services Agreement
R. ADMINISTRATIVE MEMORANDUM NO. 4176 – Regional Water System, McCree Road 6 MG Ground Storage Tank, Project No. 357, Property Acquisition, Resolution No. 14-5
S. ADMINISTRATIVE MEMORANDUM NO. 4177 – Regional Water System, Lake Texoma Pump Station Modifications, Project No. 128, Additional Engineering Services
T. ADMINISTRATIVE MEMORANDUM NO. 4178 – Regional Water System, Water Treatment Plant I, 2.5 and 3.0 MG Reservoir Roof Improvements, Project No. 260, Tabulation of Bids and Award of Contract
V. ADMINISTRATIVE MEMORANDUM NO. 4180 – Regional Water System, Water Treatment Plants I, II, III, and IV Ozonation, Project No. 153, Change Order No. 26
X. ADMINISTRATIVE MEMORANDUM NO. 4182 – Regional Water System, North McKinney Pipeline System, Phases I and II, Project No. 210, Change Order No. 2
Y. ADMINISTRATIVE MEMORANDUM NO. 4183 – Regional Water System, Lower Bois d'Arc Creek Reservoir Intake and Pump Station Configuration and Siting Engineering, Project No. 358, Engineering Services Agreement
Z. ADMINISTRATIVE MEMORANDUM NO. 4184 – Regional Water System, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, Reimbursement to the City of Wylie for Road Repairs
MEMORANDUM TO BOARD OF DIRECTORS
APRIL 17, 2014
PAGE 4

AA. ADMINISTRATIVE MEMORANDUM NO. 4185 – Regional Water System, Wylie Water Treatment Plants Chemical Systems Evaluation, Preliminary Engineering, Project No. 354, Additional Engineering Services

BB. ADMINISTRATIVE MEMORANDUM NO. 4186 – Regional Water System, Water Treatment Plant I, Conversion to Biologically Active Filtration and Improvement of Existing Underdrains, Project No. 259, Change Order No. 6

CC. ADMINISTRATIVE MEMORANDUM NO. 4187 – NTMWD’s Water Conservation and Drought Contingency/Water Emergency Response Plan Extension of Stage 3 Landscape Water Management Strategies

DD. WATER CONSUMPTION REPORT – March 2014

EE. WASTEWATER SYSTEM REPORT – March 2014

FF. SOLID WASTE SYSTEM REPORT – March 2014

GG. CONSTRUCTION PROGRESS REPORT – March 31, 2014

HH. NTMWD INVESTMENT SUMMARY FOR THE QUARTER ENDED MARCH 31, 2014

II. NTMWD RETIREE HEALTH INSURANCE FUND FOR THE SIX MONTHS ENDED MARCH 31, 2014

JJ. NTMWD EMPLOYEE’S RETIREMENT FUND FOR THE THREE MONTHS ENDED MARCH 31, 2014

KK. NTMWD FINANCIAL STATEMENTS FOR THE MONTH ENDED MARCH 31, 2014
NORTH TEXAS MUNICIPAL WATER DISTRICT

RESOLUTION NO. 14-3

A RESOLUTION COMMENDING JAMES M. PARKS FOR THIRTY-FIVE YEARS OF DEDICATED SERVICE TO THE NTMWD

WHEREAS, James M. (Jim) Parks began his tenure with the NTMWD on January 29, 1979, and served the NTMWD continuously until his retirement on April 30, 2014; and,

WHEREAS, Jim Parks became Executive Director/General Manager of the NTMWD and has been responsible for all aspects of the management, planning, operation and maintenance of NTMWD's water, wastewater and solid waste systems since May 1998; and,

WHEREAS, Jim Parks has worked closely with the member cities, customers, and other constituents to ensure that new facilities and resources are strategically placed into service as the service area continues to expand; and,

WHEREAS, critical to the operation of the NTMWD, Jim Parks provided significant contribution to the development of new water supplies to meet the region's projected long-term demand; and,

WHEREAS, Jim Parks has been instrumental in promoting the state's Water IQ public awareness and water conservation program; and,

WHEREAS, Jim Parks' public service is commended for being a visionary leader in the water industry, water planning, and water reuse, all while balancing the environmental water needs at a local, regional, and statewide level; and,

WHEREAS, throughout his 35 years of service with the NTMWD, Jim Parks has been instrumental in developing, maintaining, and executing long-range plans in the water, wastewater, and solid waste systems, resulting in millions of dollars of operating efficiencies for the benefit of the ratepayers of the NTMWD.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE NORTH TEXAS MUNICIPAL WATER DISTRICT THAT:

James M. Parks has served as a distinguished staff member and leader of the North Texas Municipal Water District from 1979 to 2014 and through his diligent efforts has sought to continuously improve and enhance NTMWD programs and activities. The thanks of the Board of Directors, staff, and cities served cannot express the true appreciation deserved.

THIS RESOLUTION PASSED BY THE NTMWD BOARD OF DIRECTORS ON THIS THE 24TH DAY OF APRIL 2014.

JOE JOPLIN, Secretary

BILL LOFLAND, President
CERTIFICATE FOR RESOLUTION NO. 14-6

THE STATE OF TEXAS
COUNTIES OF COLLIN, DALLAS, KAUFMAN, AND ROCKWALL
NORTH TEXAS MUNICIPAL WATER DISTRICT

We, the undersigned officers of the Board of Directors of North Texas Municipal Water District, hereby certify as follows:

1. The Board of Directors of North Texas Municipal Water District convened in REGULAR MEETING ON THE 24TH DAY OF APRIL, 2014, in the Board of Directors room at the District's principal office at Wylie, Collin County, Texas, and the roll was called of the duly constituted officers and members of said Board of Directors, to-wit:

Bill Lofland, President
Darwin L. Whiteside, Vice President
Joe Joplin, Secretary
Terry Sam Anderson
Don Cates
Gary Downey
Joe Farmer
Marvin Fuller
Don Gordon
Darrell Grooms
Bill Harrison
James Kerr
Jack May

Charles McKissick
Jim Mellody
John Murphy
Patrick Nicklen
Larry Parks
Bobby Robinson
Richard Sheehan
Lynn Shuyler
Shep Stahel
John Sweeden
Robert Thurmond
Jerry C. Yancey

and all of said persons were present, except the following absentee: __________________, thus constituting a quorum. Whereupon, among other business, the following was transacted at said Meeting: a written

RESOLUTION NO. 14-6 CALLING THE REMAINING MATURITIES OF THE NORTH TEXAS MUNICIPAL WATER DISTRICT WATER STORAGE FACILITIES REVENUE BONDS (CITY OF ROYSE CITY PROJECT), SERIES 2001 FOR REDEMPTION PRIOR TO MATURITY; AND ENACTING OTHER PROVISIONS RELATING TO THE SUBJECT
was duly introduced for the consideration of said Board and duly read. It was then duly moved and seconded that said Resolution be adopted; and, after due discussion, said motion, carrying with it the adoption of said Resolution, prevailed and carried by the following vote:
AYES: Each member of said Board of Directors shown present above voted "Aye"; except _________.

NOES: ____.

2. A true, full, and correct copy of the aforesaid Resolution adopted at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that said Resolution has been duly recorded in said Board's minutes of said Meeting; that the above and foregoing paragraph is a true, full, and correct excerpt from said Board's minutes of said Meeting pertaining to the adoption of said Resolution; that the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of said Board as indicated therein; and that each of the officers and members of said Board was duly and sufficiently notified officially and personally, in advance, of the time, place, and purpose of the aforesaid Meeting, and that said Resolution would be introduced and considered for adoption at said Meeting; and that said Meeting was open to the public, and public notice of the time, place, and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

SIGNED AND SEALED the 24th day of April, 2014.

______________________________
Secretary, Board of Directors

______________________________
President, Board of Directors

(SEAL)
RESOLUTION NO. 14-6 CALLING THE REMAINING MATURITIES OF THE NORTH TEXAS MUNICIPAL WATER DISTRICT WATER STORAGE FACILITIES REVENUE BONDS (CITY OF ROYSE CITY PROJECT), SERIES 2001 FOR REDEMPTION PRIOR TO MATURITY; AND ENACTING OTHER PROVISIONS RELATING TO THE SUBJECT

WHEREAS, North Texas Municipal Water District (the "District") has issued, and there are currently outstanding, the District's Water Storage Facilities Revenue Bonds (City of Royse City Project), Series 2001, consisting of bonds maturing on June 1 in each of the years 2014 through 2019, inclusive, and 2022, in the aggregate principal amount of $1,000,000 (the "Bonds"); and

WHEREAS, in the resolution that authorized the issuance of the Bonds (the "Bond Resolution"), the District reserved the option to redeem the Bonds maturing on and after June 1, 2012 before their scheduled maturity, commencing June 1, 2011 or on any date thereafter, in whole or in part at a price equal to the principal amount of the Bonds so called for redemption plus accrued interest to the redemption date; and

WHEREAS, the City of Royse City, Texas (the "City") has authorized the issuance of its General Obligation Refunding Bonds, Series 2014 (the "Refunding Bonds"), to be delivered to the purchasers thereof on May 13, 2014 (the "Closing Date"), in part to refund its obligations pursuant to Section 6(b)(1) of that certain "North Texas Municipal Water District - City of Royse City Water Storage Facilities Contract" (the "Contract") between the City and the District, dated as of January 25, 2001, which Section 6(b)(1) requires the City to pay to the District such amounts as are necessary to pay the principal and/or interest coming due on the Bonds, plus the fees and charges of the paying agent/registrar for the Bonds (the "Paying Agent/Registrar"); and

WHEREAS, the City has requested that the District call for redemption the Bonds maturing on and after June 1, 2015, in the aggregate principal amount of $910,000 (the "Redeemed Bonds"), on June 17, 2014 (the "Redemption Date"), and the City has agreed to make available to the District and/or the Paying Agent/Registrar the redemption price for the Redeemed Bonds on the Redemption Date, from the proceeds to be received by the City from the sale of its Refunding Bonds; and

WHEREAS, this Board of Directors finds and determines that it is necessary and in the best interests of the District to redeem all of the Redeemed Bonds on the Redemption Date, contingent upon the delivery of and payment for the City's Refunding Bonds, and the deposit of the redemption price for the Redeemed Bonds with the Paying Agent/Registrar; and

WHEREAS, it is officially found, determined and declared that the meeting at which this Resolution has been adopted was open to the public and public notice of the date, hour, place and subject of said meeting, including this Resolution, was given, all as required by the applicable provisions of Tex. Gov't Code Ann. ch. 551.
NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF NORTH TEXAS MUNICIPAL WATER DISTRICT THAT:

Section 1.  Findings.

The declarations, determinations and findings declared, made and found in the preamble to this Resolution are hereby adopted, restated and made a part of the operative provisions hereof.

Section 2.  Redemption of Bonds.

The Redeemed Bonds, in the aggregate principal amount of $910,000, are hereby called for redemption on June 17, 2014 (the "Redemption Date"), at a redemption price equal to the principal amount thereof plus accrued interest to the date of redemption, contingent upon the delivery of and payment for the City's Refunding Bonds, and the deposit of the redemption price for the Redeemed Bonds with the Paying Agent/Registrar, on the Closing Date. Interest on the Redeemed Bonds shall cease to accrue on the Redemption Date. The Redeemed Bonds are further described in Exhibit A hereto.

Section 3.  Authorization of Actions.

(a) The President of the Board or other authorized officer of the District is hereby authorized and directed to issue or cause to be issued the Notice of Redemption of the Redeemed Bonds in the form set forth in Exhibit A attached hereto to the Paying Agent/Registrar for the Redeemed Bonds (which Paying Agent/Registrar is The Bank of New York Mellon Trust Company, N.A.).

(b) In addition, the Paying Agent/Registrar is hereby directed to provide the appropriate notice of redemption as specified by the Bond Resolution and is hereby directed to make appropriate arrangements so that the Redeemed Bonds may be redeemed on their redemption date, contingent upon the delivery of and payment for the City's Refunding Bonds, and the deposit of the redemption price for the Redeemed Bonds with the Paying Agent/Registrar, on the Closing Date. The Redeemed Bonds shall be presented for redemption at the Paying Agent/Registrar therefor, and shall not bear interest after the date fixed for redemption.

(c) On or before the Redemption Date, the City shall deposit with the Paying Agent/Registrar for the Redeemed Bonds funds in an amount sufficient to provide for the redemption of the Redeemed Bonds.

(d) The officers and employees of the District are hereby authorized and directed to take such actions and to execute and deliver such documents, orders and receipts, including without limitation material events notices with respect to the Redeemed Bonds, as necessary or appropriate to consummate the transactions authorized by this resolution and to redeem the Redeemed Bonds in accordance with the provisions and requirements of the Bond Resolution.
**EXHIBIT A**

**NOTICE OF REDEMPTION**

**NORTH TEXAS MUNICIPAL WATER DISTRICT**

*Water Storage Facilities Revenue Bonds (City of Royse City Project), Series 2001*

**NOTICE IS HEREBY GIVEN** that the North Texas Municipal Water District (the "District") has called for redemption on the date and at the redemption price specified, the below listed outstanding Bonds of the District as follows:

North Texas Municipal Water District Water Storage Facilities Revenue Bonds (City of Royse City Project), Series 2001, dated November 1, 2001, consisting of bonds maturing on June 1 in each of the years 2015 through 2019, inclusive, and 2022, now outstanding in the aggregate principal amount of $910,000 (the "Bonds"), in the amounts, on the redemption date, at the redemption price of the principal amount called for redemption plus accrued interest to the date fixed for redemption, as follows:

<table>
<thead>
<tr>
<th>Maturity Date (6/1)</th>
<th>Principal Amount Outstanding</th>
<th>Principal Amount Redeemed</th>
<th>Redemption Date</th>
<th>Redemption Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$ 95,000</td>
<td>$ 95,000</td>
<td>June 17, 2014</td>
<td>100%</td>
</tr>
<tr>
<td>2016</td>
<td>$100,000</td>
<td>$100,000</td>
<td>June 17, 2014</td>
<td>100%</td>
</tr>
<tr>
<td>2017</td>
<td>$105,000</td>
<td>$105,000</td>
<td>June 17, 2014</td>
<td>100%</td>
</tr>
<tr>
<td>2018</td>
<td>$110,000</td>
<td>$110,000</td>
<td>June 17, 2014</td>
<td>100%</td>
</tr>
<tr>
<td>2019</td>
<td>$115,000</td>
<td>$115,000</td>
<td>June 17, 2014</td>
<td>100%</td>
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<tr>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2022</td>
<td>$385,000</td>
<td>$385,000</td>
<td>June 17, 2014</td>
<td>100%</td>
</tr>
</tbody>
</table>

On June 17, 2014, interest on such Bonds shall cease to accrue and be payable.

THE BONDS SHALL BE REDEEMED in whole at The Bank of New York Mellon Trust Company, N.A., Dallas, Texas, as the Paying Agent/Registrar for the Bonds. Upon presentation of the Bonds at the Paying Agent/Registrar on the aforementioned redemption date, the holder thereof shall be entitled to receive the redemption price equal to par and accrued interest to the redemption date.

NOTICE IS FURTHER GIVEN that due and proper arrangements have been made for providing the place of payment of the Bonds called for redemption with funds sufficient to pay the principal amount of the Bonds and the interest thereon to the redemption date. In the event the Bonds are not presented for redemption by the respective date fixed for their redemption, they shall not thereafter bear interest.

UNDER THE PROVISIONS of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (the "Act"), paying agents making payments of interest and principal on municipal securities may be obligated to withhold 28% tax from remittance to individuals who have failed to furnish the paying agent with a valid taxpayer identification number. Registered bondholders who wish to avoid the imposition of the tax should submit certified taxpayer identification numbers (via form W-9) when presenting the Bonds for payment.

THIS NOTICE is issued and given pursuant to the redemption provisions in the proceedings authorizing the issuance of the Bonds and in accordance with the recitals and provisions of each of the Bonds, respectively.
NOTICE IS FURTHER GIVEN that the Bonds should be submitted to the following address:

<table>
<thead>
<tr>
<th>First Class/Registered/ Certified Mail</th>
<th>Express Delivery</th>
<th>Hand Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 396</td>
<td>111 Sanders Creek Parkway East Syracuse, NY 13057</td>
<td>Corporate Trust Window 101 Barclay Street 1st Floor East New York, NY 10286</td>
</tr>
<tr>
<td>East Syracuse, NY 13057</td>
<td>East Syracuse, NY 13057</td>
<td>New York, NY 10286</td>
</tr>
</tbody>
</table>
NORTH TEXAS MUNICIPAL WATER DISTRICT
505 E. Brown Street • Wylie, Texas 75098
(972) 442-5405 – Phone • (972) 295-6440 – Fax

BOARD OF DIRECTORS
REGULAR MEETING
THURSDAY, APRIL 24, 2014
4:00 P.M.

Notice is hereby given pursuant to V.T.C.A., Government Code, Chapter 551, that the Board of Directors of North Texas Municipal Water District will hold a regular meeting, open to the public, on Thursday, April 24, 2014, at 4:00 p.m., at the North Texas Municipal Water District offices, 505 E. Brown Street, Wylie, Texas.

The Board of Directors is authorized by the Texas Open Meetings Act to convene in closed or executive session for certain purposes. These purposes include receiving legal advice from its attorney (Section 551.071); discussing real property matters (Section 551.072); discussing gifts and donations (Section 551.073); discussing personnel matters (Section 551.074); or discussing security personnel or devices (Section 551.076). If the Board of Directors determines to go into executive session on any item on this agenda, the Presiding Officer will announce that an executive session will be held and will identify the item to be discussed and provision of the Open Meetings Act that authorizes the closed or executive session.

AGENDA

I. INVOCATION – DIRECTOR DON CATES

II. ROLL CALL

III. RECOGNITION OF GUESTS
   A. Registered Guests

IV. PUBLIC COMMENTS

The Board of Directors allows individuals to speak to the Board. Prior to the meeting, speakers must complete and submit a “Public Comment Registration Form.” The time limit is five (5) minutes per speaker, not to exceed a total of thirty (30) minutes for all speakers. The Board may not discuss these items, but may respond with factual or policy information.

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1Persons with disabilities who plan to attend the NTMWD Board of Directors meeting and who may need auxiliary aids or services are requested to contact John Montgomery in the NTMWD Administrative Offices at (972) 442-5405 as soon as possible. All reasonable efforts will be taken to make the appropriate arrangements.
V. CONSENT AGENDA ITEMS

The Consent Agenda allows the Board of Directors to approve all routine, noncontroversial items with a single motion, without the need for discussion by the entire Board. Any item may be removed from consent and considered individually upon request of a Board member.

A. Consider Approval of Board of Directors Meeting Minutes – March 27, 2014 (Please refer to Consent Agenda Item No. 14-04-01)

B. Consider Authorizing Change Order No. 2 on Project No. 238, Plano No. 3 Delivery Point Metering Station Upgrade (Please refer to Consent Agenda Item No. 14-04-02)

C. Consider Authorizing Change Order No. 1 and Authorization to Make Final Payment on Project No. 255, Forney Parallel Interceptor (Line A) (Please refer to Consent Agenda Item No. 14-04-03)

D. Consider Authorization to Make Final Payment on Project No. 301, NTMWD Administration Building Structural Improvements, Task No. 1 (Please refer to Consent Agenda Item No. 14-04-04)

E. Consider Authorizing Additional Engineering Services on Project No. 331, Custer Road Transfer Station Tippling Floor Improvements (Please refer to Consent Agenda Item No. 14-04-05)

F. Consider Authorizing Inspection Services Agreement on Project No. 202, Electrical Improvements at High Service Pump Station 1-1 (Please refer to Consent Agenda Item No. 14-04-06)

G. Consider Authorizing Adjustment to Engineering Services Fee on Project No. 217, Electrical Improvements at Water Treatment Plant II Chemical Building (Please refer to Consent Agenda Item No. 14-04-07)

H. Consider Authorization to Make Final Payment on Project No. 251, Water Treatment Plant IV Conversion to Biologically Active Filtration (Please refer to Consent Agenda Item No. 14-04-08)

I. Consider Authorizing Inspection Services Agreement on Project No. 298, High Service Pump Station 2-2 and 2-3 Electrical Improvements (Please refer to Consent Agenda Item No. 14-04-09)

VI. AGENDA ITEMS FOR INDIVIDUAL CONSIDERATION

A. Presentation by Congressman Ralph Hall to Retiring Executive Director Jim Parks (Please refer to Board Memorandum)

B. Consider Adoption of Resolution No. 14-3 Commending Retiring Executive Director Jim Parks (Please refer to Board Memorandum)
C. Consider Authorizing Part-Time Executive Assistant Position
(Please refer to Administrative Memorandum No. 4169)

D. Consider Adoption of Resolution No. 14-6 Calling the Remaining Maturities of the North Texas Municipal Water District Water Storage Facilities Revenue Bonds (City of Royse City Project), Series 2001 for Redemption Prior to Maturity; and Enacting Other Provisions Relating to the Subject
(Please refer to Board Memorandum)

E. Consider Authorizing Lower Bois d’Arc Creek Reservoir Mitigation Property Archaeological Survey, Phase I, Project No. 359
(Please refer to Administrative Memorandum No. 4170)

F. Consider Authorizing Execution of Engineering Services Agreement on Project No. 303, Richardson Spring Creek Lift Station Improvements Final Design
(Please refer to Administrative Memorandum No. 4171)

G. Consider Authorizing Execution of Engineering Services Agreement on Project No. 356, Wilson Creek Interceptor Improvements, Phase 2
(Please refer to Administrative Memorandum No. 4172)

H. Consider Authorizing Award of Construction Contract on Project No. 291, Wylie Water Treatment Plant East Access Gate and Road Improvements
(Please refer to Administrative Memorandum No. 4173)

I. Consider Authorizing Additional Engineering Services on Project No. 261, High Service Pump Station 2-2 and 2-3 Mechanical Improvements
(Please refer to Administrative Memorandum No. 4174)

J. Consider Authorizing Execution of Engineering Services Agreement on Sabine Creek Wastewater Treatment Plant Evaluation
(Please refer to Administrative Memorandum No. 4175)

K. Consider Adoption of Resolution No. 14-5 Authorizing Land Acquisition Program for the McCree Road 6 MG Ground Storage Tank Site in the City of Garland, Project No. 357
(Please refer to Administrative Memorandum No. 4176)

L. Consider Authorizing Additional Engineering Services for Project No. 128, Lake Texoma Pump Station Modifications
(Please refer to Administrative Memorandum No. 4177)

M. Consider Authorizing Award of Construction Contract on Project No. 260, Water Treatment Plant I, 2.5 and 3.0 MG Reservoir Roof Improvements
(Please refer to Administrative Memorandum No. 4178)

N. Consider Authorizing Ratification of Execution of Agreement for Professional Services of Claims Specialist for Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation
(Please refer to Administrative Memorandum No. 4179)
O. Consider Authorizing Change Order No. 26 on Project No. 153, Water Treatment Plants I, II, III, and IV Ozoneation  
(Please refer to Administrative Memorandum No. 4180)

P. Consider Adoption of Resolution No. 14-4 Authorizing Additional Funding for Right-of-Way Acquisition Program on Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline  
(Please refer to Administrative Memorandum No. 4181)

Q. Consider Authorizing Change Order No. 2 on Project No. 210, North McKinney Pipeline System, Phases I and II  
(Please refer to Administrative Memorandum No. 4182)

R. Consider Authorizing Execution of Engineering Services Agreement on Project No. 358, Lower Bois d'Arc Creek Reservoir Intake and Pump Station Configuration and Siting Engineering  
(Please refer to Administrative Memorandum No. 4183)

S. Consider Authorizing Reimbursement to the City of Wylie for Road Repairs on Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline  
(Please refer to Administrative Memorandum No. 4184)

T. Consider Authorizing Additional Engineering Services on Project No. 354, Wylie Water Treatment Plants Chemical Systems Evaluation, Preliminary Engineering  
(Please refer to Administrative Memorandum No. 4185)

U. Consider Authorizing Change Order No. 6 on Water Treatment Plant I Conversion to Biologically Active Filtration and Improvement of Existing Underdrains  
(Please refer to Administrative Memorandum No. 4186)

V. Consider Authorizing Extension of Seasonal Watering as Written in Stage 3 of the NTMWD's Water Conservation and Drought Contingency/Water Emergency Response Plan  
(Please refer to Administrative Memorandum No. 4187)

VII. DISCUSSION

A. Water Supply Update

B. Water Rate Projection Review

C. Appointment of Nominating Committee for 2014-2015 Board of Directors Officers

VIII. ADJOURNMENT

NEXT REGULAR MEETING OF BOARD, THURSDAY, MAY 22, 2014, AT 4:00 P.M. IN THE ADMINISTRATIVE OFFICES, WYLIE, TEXAS
MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS
HELD ON THURSDAY, MARCH 27, 2014
IN THE NTMWD ADMINISTRATIVE OFFICES, WYLIE, TEXAS

The North Texas Municipal Water District Board of Directors met in Regular Session on Thursday, March 27, 2014, at 4:00 p.m. in the Administrative Offices, 505 East Brown Street, Wylie, Texas. Notice of the meeting was legally posted in accordance with Government Code, Title 551, Open Meetings.

President Bill Lofland called the meeting to order. President Bill Lofland advised that Director Larry Parks will be abstaining from voting on Agenda Item Nos. V. J. and K., and VI. H, M., and O.

I. INVOCATION

Director Terry Anderson offered the invocation.

II. ROLL CALL

Secretary Joe Joplin conducted a roll call. Directors Don Cates and Jim Mellody were absent. The following Directors were present for the March 27, 2014, Board meeting:

Terry Anderson                John Murphy
Gary Downey                  Patrick Nicklen
Joe Farmer                  Larry Parks
Marvin Fuller                 Bobby Robinson
Don Gordon                   Richard Sheehan
Darrell Grooms               Lynn Shuyler
Bill Harrison                Shep Stahel
Joe Joplin                   John Sweeden
James Kerr                   Bob Thurmond
Bill Lofland                 Darwin Whiteside
Jack May                     Jerry Yancey
Charles McKissick

The following NTMWD consultants attended the meeting:

Lewis Isaacks – Gay McCall Isaacks Gordon & Roberts
David Medanich – First Southwest Company
III. RECOGNITION OF GUESTS

A. Registered Guests

There were no registered guests recognized.

IV. PUBLIC COMMENTS

William Crowder, a professional geologist of Dallas, Texas, and owner of 166 acres in Red River County, presented comments regarding the Marvin Nichols Reservoir and the Mexia-Talco fault line.

V. CONSENT AGENDA ITEMS

Consent Agenda Item No. V. C. was pulled from the consent agenda for individual consideration.

Upon a motion by Director Jerry Yancey and a second by Director Joe Farmer, the Board of Directors voted unanimously to approve all the consent agenda items except Item No. V. C. as follows:

A. Consider Approval of Board of Directors Meeting Minutes – February 27, 2014
   (Please refer to Consent Agenda Item No. 14-03-01)

B. Consider Authorizing Reimbursement to City of Allen for the Allen-Plano-Frisco-McKinney Pipeline Air Release Valve Vent Relocations
   (Please refer to Consent Agenda Item No. 14-03-02)

C. Consider Authorizing Extension of Seasonal Watering as Written in Stage 3 of the NTMWD's Water Conservation and Drought Contingency/Water Emergency Response Plan
   (Please refer to Consent Agenda Item No. 14-03-03)

Since this item was pulled from the Consent Agenda, it was considered as a separate action item.

On a motion by Director Darrell Grooms and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize extension of seasonal watering as written in Stage 3 of the NTMWD's Water Conservation and Drought Contingency/Water Emergency Response Plan with implementation of the extension by the Member Cities and Customers no later than April 1, 2014, or as soon as possible thereafter, with subsequent monthly extensions considered by the Board of Directors.

Mike Rickman presented a water supply update prior to the vote being taken on this item.
D. Consider Authorizing Additional Engineering Services on Project No. ENG 12-7, Beck Branch Gravity Sewer, Rowlett Creek Crossing Improvements, Condition Assessment and Preliminary Design
   (Please refer to Consent Agenda Item No. 14-03-04)

E. Consider Authorizing Engineering Services Fee Adjustment on Project No. 278, Wilson Creek Gravity Interceptor Improvements, Phase I
   (Please refer to Consent Agenda Item No. 14-03-05)

F. Consider Authorizing Change Order No. 6 on Project No. 251, Water Treatment Plant IV Conversion to Biologically Active Filtration
   (Please refer to Consent Agenda Item No. 14-03-06)

G. Consider Authorizing Change Order No. 2 and Authorization to Make Final Payment on Project No. 282, 24-Inch Replacement Line for the Princeton No. 1 and McKinney-Princeton-Farmersville Pipelines Crossing U.S. Highway 380
   (Please refer to Consent Agenda Item No. 14-03-07)

H. Consider Authorizing Increase in Engineering Services Agreement on Project No. SWCF 06-1, Lookout Drive Transfer Station Expansion
   (Please refer to Consent Agenda Item No. 14-03-08)

I. Consider Authorizing Change Order No. 3 and Authorization to Make Final Payment on Project No. 201, Electrical Improvements at Raw Water Pump Station No. 2
   (Please refer to Consent Agenda Item No. 14-03-09)

J. Consider Authorizing Change Order No. 3 and Authorization to Make Final Payment on Project No. 200, Install Second 50 MGD Pump and Improvements at Apollo Pump Station, and Project No. 206, Install Piping Modifications at Hailey Pump Station
   (Please refer to Consent Agenda Item No. 14-03-10)

K. Consider Authorizing Ratification of Texas Water Development Board Contract Amendment Nos. 3, 4, and 5 for Development of 2016 Region C Water Plan and Authorizing Amendment to Professional Services Contract
   (Please refer to Consent Agenda Item No. 14-03-11)

VI. AGENDA ITEMS FOR INDIVIDUAL CONSIDERATION

A. **TABLED ITEM:** Consider Authorizing Execution of Engineering Services Agreement on Project No. 352, Water System Operations Center
   (Please refer to Administrative Memorandum No. 4141-1)

Upon a motion by Director Lynn Shuyler and a second by Director Patrick Nicklen, the Board voted unanimously to take this item from the table.

Upon the recommendation of the Executive Director, a motion by Director Lynn Shuyler, and a second by Director Joe Farmer, the Board voted to not authorize
execution of the engineering services agreement on Project No. 352, Water System Operations Center.

B. Consider Adoption of District Policy No. 38, Sanitary Sewer Overflow Reporting (Please refer to Administrative Memorandum No. 4153)

Director Jerry Yancey made a motion to adopt District Policy No. 38, Sanitary Sewer Overflow Reporting and to direct the NTMWD staff to prepare written procedures in accordance with all applicable state and federal regulations for the reporting of sanitary sewer overflows. Director John Sweedien seconded the motion. Director Joe Farmer suggested amending the policy as written to more clearly define that the Board directs policies and the NTMWD staff directs procedures. Director Jerry Yancey and Director John Sweedien accepted the change to the motion. District Policy No. 38 was unanimously approved by the Board of Directors.

President Bill Lofland advised that as part of the NTMWD procedure, sanitary sewer overflow incidents shall be reported to the President or Vice President, and the President will report to the Board of Directors.

C. Consider Authorizing the Executive Director to Provide Written Consent to Rights Granted in Revocable License Agreement between City of McKinney and McKinney LFG, LLC (Please refer to Administrative Memorandum No. 4154)

Upon a motion by Director Bill Harrison and a second by Director Lynn Shuyler, the Board of Directors voted unanimously to authorize the Executive Director to provide written consent to the rights granted in the Revocable License Agreement between the City of McKinney and McKinney LFG, LLC, which was attached to Administrative Memorandum No. 4154.

D. Consider Authorizing Award of Construction Contract on Project No. 323, Wylie Water Treatment Plant III, Variable Frequency Drives for Washwater Pumps (Please refer to Administrative Memorandum No. 4155)

Upon a motion by Director Shep Stahel and a second by Director John Murphy, the Board of Directors voted unanimously to authorize award of a construction contract to WHF Electrical Contractors, Inc., for the Wylie Water Treatment Plant III Variable Frequency Drives for Washwater Pumps, Project No. 323, in the amount of $634,047.

E. Consider Authorizing Execution of Engineering Services Agreement on Project No. 353, Beck Branch Interceptor Improvements, Phase I (Please refer to Administrative Memorandum No. 4156)

Upon a motion by Director Bobby Robinson and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize the Executive Director to execute an engineering services agreement with Lockwood, Andrews and Newnam, Inc., for professional services associated with engineering and
construction phase services for the Beck Branch Interceptor Improvements, Phase I, Project No. 353, in the not-to-exceed amount of $261,000.

F. Consider Authorizing Change Order No. 2 on Project No. 320, Wylie Water Treatment Plant II Improvements for Basin Nos. 3 and 4 (Please refer to Administrative Memorandum No. 4157)

Upon a motion by Director Lynn Shuyler and a secon by Director Jerry Yancey, the Board of Directors voted unanimously to authorize Change Order No. 2 for a decrease of $30,179.23, resulting in a revised contract amount of $5,438,493.77 and an additional 16 days of contract time resulting in a final completion date of February 7, 2015, for the Wylie Water Treatment Plant II Improvements for Basin Nos. 3 and 4, Project No. 320.

G. Consider Authorizing Execution of Engineering Services Agreement on Project No. 354, Wylie Water Treatment Plant III Chemical Systems Evaluation Preliminary Engineering (Please refer to Administrative Memorandum No. 4158)

Upon a motion by Director James Kerr and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize the Executive Director to execute an engineering services agreement with Carollo Engineers for professional services associated with the preliminary engineering for the Wylie Water Treatment Plant III Chemical Systems Evaluation, Project No. 354, in the not-to-exceed amount of $592,600.

H. Consider Authorizing Additional Engineering Services on Project No. 350, Lavon Lake Raw Water Pump Stations Intake Channel Improvements Final Engineering (Please refer to Administrative Memorandum No. 4159)

Upon the recommendation of Director Marvin Fuller and a second by Director John Murphy, the Board of Directors voted unanimously to authorize an increase of the engineering services fee with Freese and Nichols, Inc., for the Lavon Lake Raw Water Channel Improvements, Final Engineering, Project No. 350, in the amount of $33,000, resulting in a revised total not-to-exceed amount of $421,000.

I. Consider Authorizing Additional Inspection Services on Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation (Please refer to Administrative Memorandum No. 4160)

Upon a motion by Director Terry Anderson and a second by Director Darrell Grooms, the Board of Directors voted unanimously to authorize an increase in the resident project inspection fee of $95,600 to Mbrow Engineering, Inc., resulting in a revised not-to-exceed amount of $630,000 for inspection of electrical equipment to be installed during construction of the Water Treatment Plants I, II, III, and IV Ozonation, Project No. 153.
J. Consider Authorizing Change Order No. 25 on Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation
(Please refer to Administrative Memorandum No. 4161)

Upon a motion by Director James Kerr and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize Change Order No. 25 for Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation, an increase in the amount of $103,555.41, resulting in a revised contract amount of $111,049,520.98.

K. Consider Authorizing Change Order No. 1 on Project No. 298, High Service Pump Station 2-2 and 2-3 Electrical Improvements
(Please refer to Administrative Memorandum No. 4162)

Upon a motion by Director Patrick Nicklen and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $35,179.96, resulting in a revised contract amount of $4,938,149.96 and a 45-day contract time extension resulting in a revised final completion date of July 20, 2015, for Project No. 298, High Service Pump Station 2-2 and 2-3 Electrical Improvements.

L. Consider Authorizing Additional Engineering Services on Project No. 336, Wilson Creek Regional Wastewater Treatment Plant Solids Management Optimization and Control Improvements
(Please refer to Administrative Memorandum No. 4163)

Upon a motion by Director Lynn Shuyler and a second by Director Marvin Fuller, the Board of Directors voted unanimously to authorize an increase to the engineering services fee with CH2M HILL Engineers, Inc., for the Wilson Creek Regional Wastewater Treatment Plant Solids Management Optimization and Control Improvements, Project No. 336, in the amount of $215,699, resulting in a revised total not-to-exceed amount of $463,537.

M. Consider Authorizing Execution of Engineering Services Agreement on Project No. 269, Trinity River Main Stem Pump Station and Raw Water Pipeline Preliminary Engineering
(Please refer to Administrative Memorandum No. 4164)

Upon a motion by Director Terry Anderson and a second by Director John Sweeden, the Board of Directors voted unanimously to authorize the Executive Director to execute an engineering services agreement with Freese and Nichols, Inc., for professional services associated with the preliminary engineering for the Trinity River Main Stem Pump Station and Raw Water Pipeline, Project No. 269, in the not-to-exceed amount of $1,112,740.
N. Consider Authorizing Additional Engineering Services on Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation
(Please refer to Administrative Memorandum No. 4165)

On a motion by Director John Murphy and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize an increase in the engineering services fee with Black & Veatch Corporation in the amount of $61,050, resulting in a revised not-to-exceed amount of $11,003,419 for Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation.

O. Consider Authorizing Adjustment to Substantial Completion Dates on Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline
(Please refer to Administrative Memorandum No. 4166)

On a motion by Director Lynn Shuyler and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize a contract time extension to May 31, 2014, for Water Treatment Plants III and IV and June 30, 2014, for Water Treatment Plants I and II for substantial completion of the blending facilities for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268. The contract requirement regarding liquidated damages, which is tied to the substantial completion dates, would also be adjusted to May 31, 2014, and June 30, 2014, respectively.

P. Consider Authorizing Execution of Engineering Services Agreement and Utility Agreement on Project No. 355, FM 1378 and FM 2514 North Intersection Improvements, 20-Inch and 60-Inch Waterline Relocations
(Please refer to Administrative Memorandum No. 4167)

Upon a motion by Director Marvin Fuller and a second by Director Shep Stahel, the Board of Directors voted unanimously to authorize the Executive Director to execute an engineering services agreement with Birkhoff, Hendricks & Carter, LLP, to provide professional services associated with preparation of the plans and specifications for the FM 1378 and FM 2514 North Intersection Improvements 20-Inch and 60-Inch Waterline Relocations, Project No. 355, in the not-to-exceed amount of $120,500 and execute the Utility Agreement and other standard utility agreement forms for the FM 1378 and FM 2514 North Intersection Improvements 20-Inch and 60-Inch Waterline Relocations.

Q. Consider Authorizing Change Order No. 2 on Project No. 205, Supervisory Control and Data Acquisition System Upgrades and Operations
(Please refer to Administrative Memorandum No. 4168)

Upon a motion by Director Shep Stahel and a second by Director Gary Downey, the Board of Directors voted unanimously to authorize Change Order No. 2 for an increase of $94,505.21, resulting in a revised contract amount of $2,830,320.37 and a 120-day contract time extension resulting in a revised final completion date of August 27, 2014, for Project No. 205, Supervisory Control and Data Acquisition Upgrades and Operations.
VII. DISCUSSION ITEM

A. Water Supply Update

Mike Rickman presented a water supply update during discussion of item No. V. C.

VIII. ADJOURNMENT

There being no further business, the meeting adjourned at approximately 5:21 p.m. The next regular meeting of the NTMWD Board of Directors will be held Thursday, April 24, 2014, at 4:00 p.m. in the NTMWD Administrative Offices, 505 E. Brown Street, Wylie, Texas.

APPROVED:

________________________________________
BILL LOFLAND, President

ATTEST:

________________________________________
JOE JOPLIN, Secretary

(Seal)
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

CONSENT AGENDA ITEM NO. 14-04-02

REGIONAL WATER SYSTEM
PLANO NO. 3 DELIVERY POINT METERING STATION UPGRADE
PROJECT NO. 238

CHANGE ORDER NO. 2

This consent agenda item is for the Board of Directors consideration of Change Order No. 2 for an increase of $898, resulting in a revised contract amount of $309,816, for the Plano No. 3 Delivery Point Metering Station Upgrade, Project No. 238. The final completion date for this project will not change as a result of this change order.

REVIEW

The purpose of this project is to upgrade the meter and control valve at the Plano No. 3 Delivery Point in Plano. These upgrades include construction of a larger meter vault, flow meter, and a rate of flow control ball valve.

The following table summarizes Board actions to date for Project No. 238:

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Ad. Memc. / CAI No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2011</td>
<td>3613</td>
<td>Engineering Services Agreement (ESA) with Birkhoff, Hendricks and Carter, LLP (BH&amp;C)</td>
<td>$32,000</td>
</tr>
<tr>
<td>October 2011</td>
<td>3712</td>
<td>Interlocal Agreement (ILA) with City of Plano</td>
<td>$303,000</td>
</tr>
<tr>
<td>December 2011</td>
<td>11-12-05</td>
<td>C.O. No. 1 to Add Wax Tape Coating to Dresser Couplings</td>
<td>$5,918</td>
</tr>
</tbody>
</table>

These upgrades to the meter and control valve are included as a separate bid item on the City of Plano's pump station project. The ILA with the City of Plano, approved by the Board in October 2011, states that NTMWD will reimburse the City of Plano for the construction of the meter vault, flow meter, and control valve. The total value of the construction contract with the City of Plano, including Change Order No. 1 is $308,918.

CHANGE ORDER NO. 2

Proposed Change Order No. 2 consists of changes in materials for one item that will result in an overall increase of $898. The proposed cost has been reviewed and determined to be fair and reasonable by the NTMWD staff and BH&C for the materials and work involved.
**Item No. 1 - Additional Wax Tape Coating $898**

- **Issue:** Mortar coating was specified as protective coating for 12-inch couplings on the bypass line.

- **Recommendation:** In lieu of mortar coating, wax tape is preferred as protective coating. This will allow for ease of access should the coupling require repair.

- **Proposed Cost:** The contractor has submitted a proposal to furnish and install the additional recommended work for the total amount of $898.

- **Additional Contract Time:** No additional contract time is requested for this item.

**SUMMARY OF ADJUSTMENTS TO CONTRACT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract</td>
<td>$303,000</td>
</tr>
<tr>
<td>Change Order No. 1</td>
<td>5,918</td>
</tr>
<tr>
<td>Proposed Change Order No. 2</td>
<td>898</td>
</tr>
<tr>
<td>Revised Contract Amount</td>
<td>$309,816</td>
</tr>
</tbody>
</table>

**FUNDING**

Additional funding in the amount of $898 for Change Order No. 2 is available in the Regional Water System 2008 Construction Fund.

**RECOMMENDATION**

It is the recommendation of the Executive Director, NTMWD staff, and Birkhoff, Hendricks and Carter, LLP, that the Board of Directors approve Change Order No. 2 for an increase of $898, resulting in a revised contract amount of $309,816, for the Plano No. 3 Delivery Point Metering Station Upgrade, Project No. 238. This will be an item on the consent agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

CONSENT AGENDA ITEM NO. 14-04-03

MUSTANG CREEK INTERCEPTOR SYSTEM
FORNEY PARALLEL INTERCEPTOR (LINE A)
PROJECT NO. 255

CHANGE ORDER NO. 1
AND
AUTHORIZATION TO MAKE FINAL PAYMENT

This consent agenda item is for the Board of Directors consideration of: 1) Change Order No. 1 for a decrease of $1,254.43 resulting in a revised contract amount of $1,062,661.12; 2) 73 days of additional contract time resulting in revised substantial completion and final completion dates of March 21, 2014, and May 20, 2014, respectively; and, 3) authorization to make final payment to S.J. Louis Construction of Texas, Ltd., (S.J. Louis) in the final contract amount of $1,062,661.12, for the Forney Parallel Interceptor (Line A), Project No. 255.

REVIEW

In June 2011, the Board approved Administrative Memorandum No. 3651 authorizing an engineering services agreement with Freeman Millican, Inc., (FMI) for design of the Mustang Creek Interceptor System Improvements. These improvements are segmented into six construction contracts in order to reduce their respective sizes and to allow staggered progress of the overall improvements. The improvements are designed to meet Forney’s anticipated wastewater system peak flows through 2021.

In April 2013, by Administrative Memorandum No. 3972, the Board authorized the award of the construction contract for Line A, approximately 6,345 LF of 30, 24, and 21-inch gravity sewer to S.J. Louis in the contract amount of $1,063,915.55.

CHANGE ORDER NO. 1

Change Order No. 1 consists of two items, as follows:

*Item No. 1 – Adjustment to Contract Quantities*  
($1,254.43)

As with any construction project, the original bid quantities can change due to actual field conditions encountered during construction. The following adjustments to contract quantities were made to the indicated bid items in response to the actual conditions encountered:
CONSENT AGENDA ITEM NO. 14-04-03
PAGE 2

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Original Qty.</th>
<th>Revised Qty.</th>
<th>Diff.</th>
<th>Total Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.13</td>
<td>Additional Crushed Stone</td>
<td>CY</td>
<td>$25</td>
<td>50</td>
<td>(50)</td>
<td></td>
<td>(1,250.00)</td>
</tr>
<tr>
<td>P.15</td>
<td>Trench Safety</td>
<td>LF</td>
<td>$0.01</td>
<td>6,055</td>
<td>5,612</td>
<td>(443)</td>
<td>(4.43)</td>
</tr>
<tr>
<td>Total (Decrease)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($1,254.43)</td>
</tr>
</tbody>
</table>

*Item No. 2 – Additional Contract Time*

73 Calendar Days

All major work on the project, with the exception of the final tie-in to Forney’s 15-inch sewer at the upstream end of the line, was brought to near completion by September 2013. As preparations were being made to install the final section of pipe into the closure point, the pipe was found to be off grade. The contractor was directed to resurvey the layout control points. This revealed that there was a discrepancy in the original survey control point documentation and field layout, which had resulted in the gravity line being installed higher than the design vertical alignment. The change in alignment and the resulting gravity system capacity were evaluated by FMI against the current and projected ultimate needs of the Forney collection system.

As the City of Forney (City) Engineer, FMI determined that the change in vertical alignment had no significant negative impact to the system, except in the area of one lateral connection that was planned to be re-graded in a future City project to eliminate an aerial creek crossing. NTMWD staff, the City, and S.J. Louis reached a suitable technical solution whereby S.J. Louis would complete the aerial crossing removal and necessary modifications for a new connection to the gravity line at no additional cost, in consideration of the misalignment. This solution meets the needs of the City and is a satisfactory resolution for them and is recommended for concurrence by the Board.

The final tie-in was delayed in evaluation and resolution of the vertical alignment issue. All of the major work was completed on March 21, 2014. The additional 73 days of contract time reflect the extension of the substantial completion date to coincide with the completion of the tie in. The only remaining items to be completed are minor punchlist items. It is anticipated that all remaining work will be complete and ready for final acceptance within the next month.

**SUMMARY OF ADJUSTMENTS TO CONTRACT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Contract Amount</th>
<th>Calendar Days to Substantial Completion</th>
<th>Calendar Days to Final Completion</th>
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</thead>
<tbody>
<tr>
<td>Original Contract</td>
<td>$1,063,915.55</td>
<td>246</td>
<td>306</td>
</tr>
<tr>
<td>Proposed C.O. No. 1</td>
<td>(1,254.43)</td>
<td>73</td>
<td>73</td>
</tr>
<tr>
<td>Final Contract Amount</td>
<td>$1,062,661.12</td>
<td>319</td>
<td>379</td>
</tr>
</tbody>
</table>
RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Freeman Millican, Inc., that the Board of Directors authorize: 1) Change Order No. 1 for a decrease of $1,254.43 resulting in a revised contract amount of $1,062,661.12; 2) 73 additional calendar days of contract time, resulting in revised substantial completion and final completion dates of March 21, 2014, and May 20, 2014, respectively; and, 3) final payment to S.J. Louis Construction of Texas, Ltd., in the final contract amount of $1,062,661.12, pending completion of punchlist items, for the Forney Parallel Interceptor (Line A), Project No 255. This will be an item on the consent agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014 CONSENT AGENDA ITEM NO. 14-04-04

NTMWD ADMINISTRATION BUILDING
STRUCTURAL IMPROVEMENTS, TASK NO. 1
PROJECT NO. 301

AUTHORIZATION TO MAKE FINAL PAYMENT

This consent agenda item is for the Board of Directors consideration of authorization to make final payment to Mart, Inc., in the final contract amount of $67,634 for the NTMWD Administration Building Structural Improvements, Task No. 1, Project No. 301.

REVIEW

In December 2013, the Board of Directors approved Administrative Memorandum No. 4090-1 authorizing the award of contract for the construction of the NTMWD Administration Building Structural Improvements, Task No. 1, Project No. 301, to Mart, Inc., in the amount of $47,000.

In February 2014, the Board approved Administrative Memorandum No. 4128, which authorized Change Order No. 1 for additional concrete root barrier and cap wall, which increased the contract amount $20,634, resulting in a revised contract amount of $67,634.

All major work on the project was completed, and the project was considered substantially complete on March 31, 2014. It is anticipated that Mart, Inc., will complete all punchlist items by April 24, 2014. Release of final payment to Mart, Inc., in the final contract amount of $67,634 for the NTMWD Administration Building Structural Improvements, Task No.1, Project No. 301, will be contingent upon completion of punchlist items.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff and Huitt-Zollars, Inc., that the Board of Directors authorize final payment to Mart, Inc., in the final contract amount of $67,634 for the NTMWD Administration Building Structural Improvements, Task No. 1, Project No. 301. This will be an item on the consent agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

CONSENT AGENDA ITEM NO. 14-04-05

REGIONAL SOLID WASTE SYSTEM
CUSTER ROAD TRANSFER STATION TIPPING FLOOR IMPROVEMENTS
PROJECT NO. 331

ADDITIONAL ENGINEERING SERVICES

This consent agenda item is for the Board of Directors consideration of an increase in the scope and fee for engineering services by Weaver Boos Consultants, LLC-Southwest, (Weaver Boos) for work associated with the Custer Road Transfer Station Tipping Floor Improvements, Project No. 331, in the additional amount of $13,600. This would result in a revised total not-to-exceed engineering services fee of $113,600.

REVIEW

In May 2013, the Board of Directors approved Administrative Memorandum No. 3999, which authorized the Executive Director to execute an engineering services agreement (ESA) in the not-to-exceed amount of $100,000 with Weaver Boos to provide professional services associated with design, construction management, and inspection services for the Custer Road Transfer Station Tipping Floor Improvements, Project No. 331.

In January 2014, the Board of Directors approved Administrative Memorandum No. 4113, which authorized award of contract for the Custer Road Transfer Station Tipping Floor Improvements, Project No. 331, to North Texas Contracting, Inc., in the amount of $526,390.

PROPOSED ADDITIONAL SERVICES

The original ESA includes special services for 240 man hours of onsite inspection services by Weaver Boos to inspect the work. It is critical to operations that the Custer Road Transfer Station continues to receive and haul solid waste during construction. In order for the Custer Road Transfer Station to remain in service, the contractor is limited to removing small sections of the floor at a time. This construction limitation was not anticipated when the scope of engineering services was created. Weaver Boos has estimated the modified construction method will require an additional 160 hours of onsite inspection services.

ADDITIONAL ENGINEERING SERVICES FEE

Weaver Boos has requested $13,600 to provide the additional onsite inspection of the work. The proposal is based on an additional 160 man hours of inspection services at an average cost of $85 per hour. The proposed additional inspection services and associated costs have been reviewed and determined to be fair and reasonable by NTMWD staff.
SUMMARY OF ENGINEERING FEE

<table>
<thead>
<tr>
<th>Description</th>
<th>Basic Services</th>
<th>Special Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Amount</td>
<td>$68,000</td>
<td>$32,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Proposed Additional Services</td>
<td></td>
<td>13,600</td>
<td>13,600</td>
</tr>
<tr>
<td>Revised ESA Amount</td>
<td>$68,000</td>
<td>$45,600</td>
<td>$113,600</td>
</tr>
</tbody>
</table>

FUNDING

Additional funding in the amount of $13,600 for this project is to be made available in the Regional Solid Waste Capital Improvement Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize an increase to the engineering services fee with Weaver Boos Consultants, LLC-Southwest, for professional services associated with the construction phase of the Custer Road Transfer Station Tipping Floor Improvements, Project No. 331, in the amount of $13,600, resulting in a revised not-to-exceed engineering services fee of $113,600. This will be an item on the consent agenda of the April 2014 Board meeting.
REGIONAL WATER SYSTEM
ELECTRICAL IMPROVEMENTS AT
HIGH SERVICE PUMP STATION 1-1
PROJECT NO. 202

INSPECTION SERVICES AGREEMENT

This consent agenda item requests the Board of Directors authorize the Executive Director to execute an inspection services agreement with Mbroh Engineering, Inc., (MEI) to provide resident project inspection services during construction of the Electrical Improvements at High Service Pump Station (HSPS) 1-1, Project No. 202. The resident inspection services agreement would be in a not-to-exceed amount of $13,500. Consent Agenda Item No. 14-04-09 in this Board Packet requests authorization for inspection services associated with Project No. 298, HSPS 2-2 and 2-3 Electrical Improvements, also with MEI.

REVIEW

In January 2010, the Board of Directors approved Administrative Memorandum No. 3436 authorizing an engineering services agreement (ESA) with McCreary and Associates, Inc., for the design of Electrical Improvements at HSPS 1-1, Project No. 202, in the amount of $255,424.

In September 2013, the Board approved Administrative Memorandum No. 4048 authorizing award of the construction contract to Crescent Constructors, Inc., in the contract amount of $3,537,000 for Electrical Improvements at HSPS 1-1, Project No. 202.

DESCRIPTION OF PROJECT

Normally, the inspection requirements are provided by the NTMWD Engineering Department. The project consists mainly of electrical work involving high-voltage equipment. Construction inspection for high-voltage equipment is highly specialized and NTMWD staff recommends that an inspector with specialized expertise in this type of inspection services be employed. This administrative memorandum proposes to hire MEI, who will provide an electrical engineer with experience in high-voltage design and inspection. Although the inspector's primary role will be to oversee installation of the high-voltage equipment, it is anticipated that this engineer will also provide inspection support for other electrical work on this project. The duration of this inspection services agreement has been established to provide the required electrical inspection support.
INSPECTION SERVICES FEE

NTMWD staff requested MEI to submit a cost proposal for providing resident project inspection services associated with this project. MEI has proposed to perform the inspection services for the not-to-exceed amount of $13,500. This fee will cover salary, fringe benefits, transportation costs, supplies, communication equipment, and overhead and profit for a minimum of 150 hours of inspection. The required inspection effort will not be continuous, but will be on an as-needed basis over a timeframe of approximately seven months. MEI is currently under contract with NTMWD for inspection services on other construction projects on the water treatment plant site; therefore, the inspection time will be coordinated with other demands for this engineer’s time.

The NTMWD staff has reviewed the inspection fee submitted by MEI and recommends it as reasonable for the work associated with this project. This fee is within the guidelines of the Consulting Engineers Council for this type of work.

FUNDING

Funding in the amount of $13,500 for this project is available in the Regional Water System Capital Improvement Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the execution of an inspection services agreement with Mbroh Engineering, Inc., for providing resident project inspection services during the construction phase of the Electrical Improvements at High Service Pump Station 1-1, Project No. 202, in the not-to-exceed amount of $13,500. This will be an item on the consent agenda of the April 2014 Board meeting.
REGIONAL WATER SYSTEM
ELECTRICAL IMPROVEMENTS AT
WATER TREATMENT PLANT II CHEMICAL BUILDING
PROJECT NO. 217

ENGINEERING SERVICES FEE ADJUSTMENT

This consent agenda item is for the Board of Directors consideration of an adjustment to the engineering services fee for Gupta and Associates, Inc., (GAI) for the Electrical Improvements at Water Treatment Plant (WTP) II Chemical Building, Project No. 217, in the credit amount of $19,000. This would result in a revised total not-to-exceed engineering services fee of $93,505.

REVIEW

In August 2010, the Board approved Administrative Memorandum No. 3515, which authorized an engineering services agreement (ESA) with GAI in the amount of $79,320, for the design of the Electrical Improvements at WTP II Chemical Building, Project No. 217.

In March 2013, the Board approved Administrative Memorandum No. 3961, which authorized an increase in the scope and fee for engineering services by GAI in the additional amount of $33,185, resulting in a revised total not-to-exceed amount of $112,505.

ENGINEERING SERVICES FEE ADJUSTMENT

Item No. 1 – Participation by GAI

During design, four authorized change orders were recommended by the Executive Director and NTMWD staff and were approved by the Board. Included in these four change orders are five change order items that can be attributed to design omission. These are items that should have reasonably been included in the original design and bid documents. The NTMWD’s approach to this is to request the design engineer to participate in 15% of the change order cost, which reflects an anticipated cost premium for this work, as compared to the cost if it were included with the original bid.
The current omissions in which the engineer is being asked to participate are shown in the table below:

<table>
<thead>
<tr>
<th>Description of Omission Item</th>
<th>C.O. Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorrect Scale on Site Plan</td>
<td>$90,582.27</td>
</tr>
<tr>
<td>Adjustment to Concrete Equipment Pad</td>
<td>3,281.92</td>
</tr>
<tr>
<td>Additional Unit Heater Power Connection</td>
<td>1,434.86</td>
</tr>
<tr>
<td>Additional Electrical Items for Lime Slurry Day Tank Mixers</td>
<td>23,075.88</td>
</tr>
<tr>
<td>Lime Mixer Adjustable Frequency Drive Modifications</td>
<td>8,977.43</td>
</tr>
<tr>
<td>Total C.O. Amount of Omission Items</td>
<td>$127,352.36</td>
</tr>
</tbody>
</table>

The total cost of the five omission items included in the change orders is $127,352.36. NTMWD and GAI have developed a tentative agreement that GAI will participate in these changes in the total amount of $19,000, which is approximately 15% of the change order amount.

SUMMARY OF ENGINEERING SERVICES FEE

<table>
<thead>
<tr>
<th>Description</th>
<th>Basic Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original ESA</td>
<td>$79,320</td>
<td>$79,320</td>
</tr>
<tr>
<td>Additional Engineering Services</td>
<td>33,185</td>
<td>33,185</td>
</tr>
<tr>
<td>Recommended Fee Adjustment (Decrease)</td>
<td>(19,000)</td>
<td>(19,000)</td>
</tr>
<tr>
<td>Revised Engineering Services Fee Amount</td>
<td>$93,505</td>
<td>$93,505</td>
</tr>
</tbody>
</table>

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize an adjustment to the engineering services fee with Gupta and Associates, Inc., for Electrical Improvements at Water Treatment Plant II Chemical Building, Project No. 217, in the credit amount of $19,000, resulting in a revised total not-to-exceed engineering services fee of $93,505. This will be an item on the consent agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

CONSENT AGENDA ITEM NO. 14-04-08

REGIONAL WATER SYSTEM
WATER TREATMENT PLANT IV
CONVERSION TO BIOLOGICALLY ACTIVE FILTRATION
PROJECT NO. 251

AUTHORIZATION TO MAKE FINAL PAYMENT

This consent agenda item is for the Board of Directors consideration of authorization to make final payment to Archer Western Construction, LLC, (Archer Western) in the final contract amount of $5,738,636.57 for Project No. 251, Water Treatment Plant (WTP) IV Conversion to Biologically Active Filtration.

REVIEW

The use of ozone to supplement the treatment process has been discussed with the Board on several occasions. Ozone is an oxidation process that has several potential advantages including:

- Disinfection
- Disinfection byproduct control (THMs, HAA5, etc.)
- Micro-constituent oxidation
- Micro-flocculation to reduce chemical usage
- Taste and odor control

During the preliminary engineering phase of Project No. 153, Wylie WTPs I, II, III, and IV Ozonation, pilot scale filter studies concluded that there is a need to convert the current conventional filters to biologically active filters (BAF). BAF simply means that biological activity on the filter media will develop and remove organic and inorganic material from the disinfected water.

Ozonation breaks up organic compounds into small pieces. These compounds, if allowed to enter the distribution system, can cause growth of nitrifying bacteria. To prevent this, the water plant filters will be modified to hold microorganisms that consume these compounds before they enter the distribution system. The microorganisms themselves have little chance of entering the distribution system since they exist in the top layer of the filter and cannot penetrate through it. As they grow, the excess amount of biological growth, or biofilm, is removed when the filter is backwashed.

The table below provides the history of this project starting with the engineering services agreement (ESA) for detailed design of this project and concluding with the latest change order approved by the Board:
<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Ad. Memo./ CAI No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2011</td>
<td>3640</td>
<td>ESA with Carollo Engineers</td>
<td>$368,055</td>
</tr>
<tr>
<td>February 2012</td>
<td>3759</td>
<td>Award to Archer Western</td>
<td>$5,364,550</td>
</tr>
<tr>
<td>June 2012</td>
<td>3812</td>
<td>C.O. No. 1 for welding in steel plugs in the filter effluent and influent pipes for nineteen filters</td>
<td>$57,815</td>
</tr>
<tr>
<td>May 2013</td>
<td>4000</td>
<td>C.O. No. 2 for replacement of underdrain blocks in Filter No. 11</td>
<td>$111,725</td>
</tr>
<tr>
<td>September 2013</td>
<td>4045</td>
<td>C.O. No. 3 for replacement of underdrain blocks and additional filter media in Filter No. 17</td>
<td>$138,988</td>
</tr>
<tr>
<td>December 2013</td>
<td>13-12-05</td>
<td>C.O. No. 4 for paving modifications, repair leak in Filter No. 11, and additional contract time</td>
<td>$21,308</td>
</tr>
<tr>
<td>January 2014</td>
<td>4116</td>
<td>C.O. No. 5 for a hydrogen peroxide injection manhole and additions to the heat trace control panel</td>
<td>$27,317</td>
</tr>
<tr>
<td>March 2014</td>
<td>14-03-06</td>
<td>C.O. No. 6 for stainless steel troughs at chemical unloading stations, stainless steel electrical disconnect switches, and controlled access security system</td>
<td>$16,933.57</td>
</tr>
</tbody>
</table>

The total value of the construction contract with Archer Western including Change Order No. 6 is $5,738,636.57.

AUTHORIZATION TO MAKE FINAL PAYMENT

All major work on the project is complete, and all twenty filters are in service with full functionality. This project was considered substantially complete on January 26, 2014. It is anticipated that the contractor will complete all minor punchlist items by the final completion date of April 28, 2014. Release of final payment to the contractor will be contingent upon completion of punchlist items.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Carollo Engineers, that the Board of Directors authorize final payment to Archer Western Construction, LLC, in the final contract amount of $5,738,636.57, for Project No. 251, Water Treatment Plant IV Conversion to Biologically Active Filtration. This will be an item on the consent agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

CONSENT AGENDA ITEM NO. 14-04-09

REGIONAL WATER SYSTEM
HIGH SERVICE PUMP STATION 2-2 AND 2-3
ELECTRICAL IMPROVEMENTS
PROJECT NO. 298

INSPECTION SERVICES AGREEMENT

This consent agenda item requests the Board of Directors authorize the Executive Director to execute an inspection services agreement with Mbroh Engineering, Inc. (MEI) to provide resident project inspection services during construction of the High Service Pump Station (HSPS) 2-2 and 2-3 Electrical Improvements, Project No. 298. The resident inspection services agreement would be in a not-to-exceed amount of $22,500.

REVIEW

In September 2012, the Board approved Administrative Memorandum No. 3856 authorizing an engineering services agreement with MEI for the design of the HSPS 2-2 and 2-3 Electrical Improvements, Project No. 298, in the amount of $636,682.

In September 2013, the Board approved Administrative Memorandum No. 4049 authorizing award of the construction contract to WHF Electrical Contractors, Inc., in the contract amount of $4,902,970 for the HSPS 2-2 and 2-3 Electrical Improvements, Project No. 298.

DESCRIPTION OF PROJECT

Normally, the inspection requirements are provided by the NTMWD Engineering Department. This project consists mainly of electrical work involving high voltage equipment. Construction inspection for high-voltage equipment is highly specialized and NTMWD staff recommends that an inspector with specialized expertise in this type of inspection services be employed. This administrative memorandum proposes to hire MEI, who will provide an electrical engineer with experience in high-voltage design and inspection. Although the inspector’s primary role will be to oversee installation of high-voltage equipment, it is anticipated that this engineer will also provide inspection support for other electrical work on this project. The duration of this inspection services agreement has been established to provide that additional electrical inspection support.

INSPECTION SERVICES FEE

NTMWD staff requested MEI to submit a cost proposal for providing resident project inspection services associated with this project. MEI has proposed to perform the inspection services for the not-to-exceed amount of $22,500. This fee will cover salary,
fringe benefits, transportation costs, supplies, communication equipment, and overhead and profit for a minimum of 250 hours of inspection. The required inspection effort will not be continuous, but will be on an as-needed basis over a timeframe of approximately 12 months. MEI is currently under contract with NTMWD for inspection services on other construction projects on the water treatment plant site; therefore, the inspection time will be coordinated with other demands for this engineer’s time.

The NTMWD staff has reviewed the inspection fee submitted by Mbroh Engineering, Inc., and recommends it as reasonable for the work associated with this project. This fee is within the guidelines of the Consulting Engineers Council for this type of work.

FUNDING

Funding in the amount of $22,500 for this project is available in the Regional Water System Capital Improvement Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the execution of an inspection services agreement with Mbroh Engineering, Inc., for providing resident project inspection services during the construction phase of the High Service Pump Station 2-2 and 2-3 Electrical Improvements, Project No. 298, in the not-to-exceed amount of $22,500. This will be an item on the consent agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4169

EXECUTIVE ASSISTANT – PART TIME POSITION

This purpose of this administrative memorandum is for the Board of Directors consideration to authorize the position of Executive Assistant – Part Time during the transition of the Executive Director/General Manager position from Mr. Jim Parks to Mr. Thomas Kula. It is anticipated that Mr. Parks will retire on April 30, 2014, and that Mr. Kula will commence employment with the NTMWD on May 1, 2014. In order to provide for this transition, it is recommended that the Executive Assistant – Part Time position be authorized to allow Mr. Kula to consult with Mr. Parks as Mr. Kula determines is in the best interest of the NTMWD.

FUNDING

Funding for the position of Executive Assistant – Part Time will be based on 30 hours per week (the maximum allowable hours for part time employment status) beginning May 1, 2014, on an as-needed basis at Mr. Parks’ current hourly rate as established pursuant to Resolution No. 13-12. This funding will be included in the 2013-2014 amended budget.

RECOMMENDATION

It is recommended that the Board of Directors authorize the position of Executive Assistant – Part Time as outlined in this administrative memorandum. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4170

REGIONAL WATER SYSTEM
LOWER BOIS D'ARC CREEK RESERVOIR MITIGATION PROPERTY
ARCHAEOLOGICAL SURVEY, PHASE I
PROJECT NO. 359

The purpose of this administrative memorandum is to request that the Board of Directors authorize funding for AR Consultants, Inc. (ARC), in the not-to-exceed amount of $118,500 for the Lower Bois d'Arc Creek Reservoir Mitigation Property Archaeological Survey, Phase I. This archaeological survey is part of the overall Lower Bois d'Arc Creek Reservoir (LBCR), Phase III, described below.

BACKGROUND

LBCR PHASE I - A fatal flaw analysis of constructing the Lower Bois d'Arc Creek Reservoir was completed as part of Phase I. The Phase I fatal flaw analysis concluded there were no major flaws that would obstruct building the LBCR.

LBCR PHASE II - Under this Phase, the TCEQ Water Rights Permit Application and the Clean Water Act Section 404 Permit Application to the USACE were completed and submitted to the respective agencies. The TCEQ Water Rights Permit Application was filed in December 2006, and the USACE Section 404 Permit Application was filed in June 2008. Additionally, an environmental report supporting the USACE Section 404 Permit Application was submitted on July 1, 2008.

LBCR PHASE III - Phase III is for permitting assistance, including additional engineering assistance leading to the issuance of both Section 404 and Water Rights Permits. Phase III B (Engineering and Legal Support) is ongoing at this time.

REVIEW

To satisfy requirements for a USACE Section 404 Permit to construct the Lower Bois d'Arc Creek Reservoir, a comprehensive archaeological investigation of the proposed reservoir site (including dam, raw water intake and lake pump station), pipeline route, water treatment plant site and mitigation site are all required. To-date, reports on the archaeological investigation of the reservoir site, pipeline route and the water treatment plant site have been submitted to and are under review by USACE which, in turn, coordinates review of the reports with Texas Historical Commission (THC) and Caddo Nation of Oklahoma (Caddo Nation).

The cost to complete an archaeological survey at the mitigation site is difficult to predict in advance. Therefore, a phased approach will be used for this project. Phase I of the LBCR Mitigation Property Archaeological Survey will include an initial pedestrian survey.
and extensive archival research of the history at the mitigation site (Riverby Ranch)
including identifying previously recorded archaeological sites and evaluation of
cemeteries and standing structures on the property. From this effort, a report of findings
will be developed, coordinated with USACE (as well as THC and Caddo Nation) and a
scope of work for Phase II will be developed. The cost for Phase II will be heavily
dependent upon findings during the Phase I survey. Funding for Phase II will be sought
after agreement with USACE is reached on the Phase II scope of work.

During the Phase I survey, ARC will be in frequent contact with USACE and THC
discussing findings and identifying additional work necessary in the scope for Phase II.
To avoid any delays in conducting fieldwork between phases, either during the Phase I
report preparation and review by USACE, THC and Caddo Nation or in awaiting an
NTMWD Board meeting to authorize funding for Phase II, a special service requiring
advance approval by the Executive Director prior to expenditure of funds is included in
Phase I in the amount of $20,000. This special service would be for initiating additional
work identified during Phase I as necessary for Phase II during discussions with USACE
and THC, thus allowing work to continue pending approval of full funding for Phase II.

FUNDING

The NTMWD staff has reviewed the proposal submitted by ARC and believes it is fair
and reasonable for the work associated with this project. Funding in the amount of
$118,500 is available in the Regional Water System Capital Improvement Fund for the
requested authorization.

RECOMMENDATION

It is the recommendation of the Executive Director and the NTMWD staff that the Board
of Directors approve funding in the not-to-exceed total amount of $118,500 for
AR Consultants, Inc., to perform archaeological services for Lower Bois d’Arc Creek
Reservoir Mitigation Property Archaeological Survey, Phase I, Project No. 359. This will
be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

UPPER EAST FORK INTERCEPTOR SYSTEM
RICHARDSON SPRING CREEK LIFT STATION IMPROVEMENTS FINAL DESIGN
PROJECT NO. 303

ENGINEERING SERVICES AGREEMENT

This administrative memorandum requests the Board of Directors authorize the Executive Director to execute an engineering services agreement (ESA) with Carollo Engineers, Inc., for final design and construction phase services associated with the Richardson Spring Creek Lift Station Improvements, Project No. 303. The ESA would be in accordance with the standard NTMWD agreement in a not-to-exceed amount of $351,900.

REVIEW

The Richardson Spring Creek Lift Station was originally developed by the City of Richardson in the 1970s to pump gravity flows collected in the Spring Creek Basin of Richardson into the Garland wastewater system. The station’s discharge was later redirected, via a new force main, away from the Garland system and into the Beck Branch Interceptor for conveyance to the Rowlett Creek Regional Wastewater Treatment Plant (RWWTP). The lift station was conveyed to the NTMWD for operating and maintaining as part of the initial establishment of the Upper East Fork Interceptor System.

The lift station currently houses four fixed-speed pumps and has a potential firm capacity (largest pump out of service) of 11 million gallons per day (MGD). After NTMWD constructed the Renner Road Lift Station in the early 1990s, a significant portion of the flow was normally redirected away from the Richardson Spring Creek basin (see attached vicinity map for locations of Renner Road and Richardson Spring Creek Lift Station). The Richardson Spring Creek Lift Station still receives approximately 2 MGD of gravity flow during normal dry-weather conditions, with a short-duration surge up to 6.2 MGD during wet weather, according to the NTMWD system model.

The station still serves as an emergency backup to the Renner Road Lift Station by way of diversion through the Spring Creek Trunk Sewer. Improvements to the Renner Road Lift Station are currently in design, and work under that project has identified a continuing need to divert up to 4 MGD to the Richardson Spring Creek Lift Station during projected peak flow at ultimate build-out conditions. This confirms the need to maintain an ultimate firm capacity of 11 MGD at the Richardson Spring Creek Lift Station.
The Richardson Spring Creek Lift Station sits in a low area east of Jupiter Road, south of Spring Creek, and the site is susceptible to localized flooding from Spring Creek during even moderate rainfall and runoff events. While this flooding does not inundate the elevated lift station structure, it does flood the site making access difficult for emergency response or repairs during a high-water event.

The lift station valves do not seal, which prevents the isolation of the pumps for maintenance. Structural pipe supports and thrust restraints show signs of advanced deterioration and require replacement to assure they will adequately handle the anticipated thrust forces of the system. The electrical switchgear has reached the limits of its useful life and needs an upgrade to serve new equipment within current electrical design standards.

In October 2012, the Board approved Administrative Memorandum No. 3876, authorizing a preliminary engineering evaluation by Carollo Engineers, Inc., (Carollo) to look at options to modernize the electrical system and improve the overall reliability of the station. The preliminary evaluation identified and analyzed three viable alternatives for improvements, resulting in the recommended alternative for final design and construction.

**DESCRIPTION OF PROJECT**

This project will include the following improvements to the existing Richardson Spring Creek Lift Station:

- Remove all four existing fixed-speed pumps and provide three or four new pumps and variable frequency drives. The capacity to be provided with the new pumps will be determined during the final design phase, based on the detailed evaluation of the flow that can reach the station and required pump cycle times.

- Provide new valves, magnetic flow meters, and associated piping in the pump lineups

- Provide a new separate electrical building to isolate the electrical switchgear from prolonged exposure to the harsh environment of the lift station and to provide access to the electrical building during flooding conditions

- Update the radio communications and security to be consistent with recently adopted NTMWD standards

- Provide an emergency generator to meet the power redundancy requirements of the Texas Commission on Environmental Quality

- Provide a new foot bridge to the top of the structure to allow personnel and small equipment access during flooded conditions
- Repair minor structural defects to the existing lift station and apply corrosion protective coatings in the wetwell

The project will include the following special services:

- Field surveying required for the project design
- Geotechnical investigation for new electrical building, generator, and walkway supports

The initial engineer's estimate for construction of the anticipated improvements is $3,100,000.

ENGINEERING SERVICES FEE

The preliminary engineering evaluation established a recommended design concept; however, the preliminary work revealed that the physical constraints of the site require the detailed design to consider special issues that are beyond the typical scope of improvements. These issues include:

- Most of the lift station site is within the designated 100-year flood plain. This will require that special consideration be given to the location of structures and access drives and that existing site contours be maintained so no additional permitting is required.
- The need to locate the new electrical building and emergency generator above the 100-year flood elevation will require support on elevated foundations, along with elevated bridging between structures to allow access during high water conditions.
- The configurations of existing discharge header and yard piping present considerable challenges to maintaining uninterrupted operations during construction. The design must account for construction sequencing to allow insertion of temporary isolation in several locations, and large scale temporary bypass pumping, all within a series of short-duration shutdown windows.
- The new electrical design must provide a configuration that allows for rapid switchover between the existing and new power systems, minimizing station downtime. This will require close coordination with existing conductor paths in order to maintain operations.

These complexities increase the level of design effort, particularly adding extra evaluation and coordination tasks in order to move the design from the conceptual to final stages. This is represented in a design fee to construction cost ratio that is higher than typically seen in lift station improvements projects, especially through the detailed design phase.
Carollo has proposed a total not-to-exceed fee of $351,900, including $319,900 for basic services and a not-to-exceed special services allowance of $32,000 related to survey, and geotechnical investigation.

The NTMWD staff has reviewed the proposed scope and fee proposal in consideration of the issues noted above. While the fee is slightly higher than normally encountered, in light of the special circumstances, the NTMWD staff recommends it as representative of improvements that are necessary and the design effort required. The services would be performed in accordance with the standard ESA.

**FUNDING**

Funding for this project in the amount of $351,900 is available in the Upper East Fork Interceptor 2009 Construction Fund.

**RECOMMENDATION**

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the Executive Director to execute an engineering services agreement with Carollo Engineers, Inc., for professional services associated with Project No. 303, Richardson Spring Creek Lift Station Improvements, in the not-to-exceed amount of $351,900. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4172

UPPER EAST FORK INTERCEPTOR SYSTEM
WILSON CREEK INTERCEPTOR IMPROVEMENTS, PHASE 2
PROJECT NO. 356

ENGINEERING SERVICES AGREEMENT

This administrative memorandum requests that the Board of Directors authorize the Executive Director to execute an engineering services agreement (ESA) with Kimley-Horn and Associates, Inc., (KHA) to provide professional services associated with design and construction for the Wilson Creek Interceptor Improvements, Phase 2, Project No. 356. The ESA would be in accordance with the standard NTMWD agreement with a not-to-exceed amount of $294,735.

REVIEW

The 42-inch Wilson Creek Interceptor was constructed in 1987 to convey flow from the City of McKinney to the McKinney Lift Station adjacent to the Wilson Creek Regional Wastewater Treatment Plant (RWWTP) as shown on the attached exhibit. The line is approximately 30,000 feet long. Growth projections for the Wilson Creek basin resulted in the recent design and construction of additional facilities in this portion of the Upper East Fork Interceptor System (UEFIS).

In 2009, construction began on the Wilson Creek Lift Station, located at the site of the old McKinney Landfill, with a new discharge force main to the Wilson Creek RWWTP headworks running parallel to the Wilson Creek Interceptor. This project was completed and began operation in 2011. The Wilson Creek Interceptor and the new parallel force main combine to provide for the ultimate projected capacity of the Wilson Creek drainage basin and other areas served by this pipeline system.

The UEFIS Evaluation Report, which was finalized in 2011, evaluated the UEFIS in terms of capacity and condition and provided recommendations for prioritization of improvements. The Wilson Creek Interceptor was identified in that report as a priority due to deterioration on the interior of the concrete pipe from exposure to hydrogen sulfide (H2S) over its 25-year life. With the completion of the parallel force main, there is an opportunity to complete the needed improvements to the original gravity line while flows are managed by the parallel force main alone.

In January 2012, the Board approved Administrative Memorandum No. 3756 authorizing design services for the Wilson Creek Interceptor Improvements, Phase 1.

In August 2013, the Board approved Administrative Memorandum No. 4033 authorizing the award of a construction contract to Insituform Technologies, LLC, (Insituform) for the
Phase I improvements. Phase I is approximately 12,300 linear feet in length and includes improvements to the downstream section of a 42-inch interceptor, starting at a manhole just east of County Road 317 and terminating at the McKinney Lift Station. Phase I is currently under construction.

DESCRIPTION OF PROJECT

The Wilson Creek Interceptor Improvements, Phase 2, consists of the upstream reach of 42-inch reinforced concrete pipe beginning adjacent to the Wilson Creek Lift Station and extending south to a manhole just east of County Road 317, approximately 17,500 linear feet in length. These improvements include inspection of the pipe, design, and implementation of improvements utilizing cured-in-place pipe technology.

The scope includes closed circuit television (CCTV) inspection of the inside of the pipe to determine if there is a need to perform spot repairs prior to installation of the lining system. Existing manholes will also be evaluated for improvements, which may include protective lining, the need for new ring and cover, and installation of new manholes as required for construction access.

Bidding and construction phase services will be part of the basic services. Special services are design elements that are highly likely to be needed for the project, but their exact scope and magnitude cannot be clearly defined without some sort of preliminary work on the project. For this project, this includes CCTV collection and review, topographic survey of the manholes, and easement verification.

The initial engineer’s estimate for construction of the anticipated improvements, based on the anticipated type of improvements and the extent of bypass pumping required, is $5,100,000.

ENGINEERING SERVICES FEE

KHA has proposed to perform the basic engineering services in the not-to-exceed amount of $207,395 and the special services in the not-to-exceed amount of $87,340. The total not-to-exceed amount for basic and special services being requested is $294,735.

The NTMWD staff has reviewed the engineering fees submitted by KHA and believes them to be within the guidelines of the Consulting Engineers Council for this type of work and representative of the effort associated with this project. The proposed engineering services would be performed in accordance with the standard ESA.

FUNDING

Funding for this project in the amount of $294,735 is available in the Upper East Fork Interceptor System Capital Improvement Fund.
RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the Executive Director to execute an engineering services agreement with Kimley-Horn and Associates, Inc., for professional services associated with design and construction for the Wilson Creek Interceptor Improvements, Phase 2, Project No. 356, in the not-to-exceed amount of $294,735. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4173

REGIONAL WATER SYSTEM
WYLIE WATER TREATMENT PLANT
EAST ACCESS GATE AND ROAD IMPROVEMENTS
PROJECT NO. 291

TABULATION OF BIDS
AND
AWARD OF CONTRACT

This administrative memorandum is for the Board of Directors consideration of a tabulation of bids and recommendation of award of a construction contract to North Texas Contracting, Inc., in the contract amount of $1,329,563 for the Wylie Water Treatment Plant (WTP) East Access Gate and Road Improvements, Project No. 291.

REVIEW

The purpose of this project is to improve an entrance to the WTP to allow for access of construction and chemical vehicle deliveries from Lynda Lane into WTPs III and IV. These improvements to the plant access and routing of traffic within WTPs III and IV will remove this traffic from Wylie streets, including Skyview Drive, as seen on the attached map. There is an existing entrance gate to WTP IV (east gate) off of Lynda Lane. This entrance was originally meant to be used for limited access, and there is currently no guardhouse. A new guardhouse, similar to the existing guardhouse at the WTP I and II entrance from SH 78, will be proposed for the Lynda Lane entrance. It is proposed that improvements to this entrance, as well as improving the existing roadways internal to WTPs III and IV, will allow most of the traffic to enter and exit via Lynda Lane.

In May 2012, the Board approved Administrative Memorandum No. 3800, which authorized the Executive Director to execute an engineering services agreement with Cobb, Fendley & Associates, Inc., (Cobb Fendley) for design of this project in the amount of $125,000.

In March 2013, the Board approved Consent Agenda Item No. 13-03-08 for additional engineering services in the amount of $9,871 for raising the three access manholes located at the north side of WTP III chemical building to increase the air venting capacity.

In October 2013, the Board approved Consent Agenda Item No. 13-10-03 for additional engineering services in the amount of $9,600 for revisions and coordination efforts due to ongoing construction projects.
SCOPE OF PROJECT

This project includes improvements to the east entrance gate at WTP IV by adding a guardhouse and security improvements, similar to the current layout at the main Wylie WTP entrance gate from SH 78. Security and paving improvements, including a "turn around" area, will also be built near the entrance gate north of WTP III off of Skyview Drive. This project includes a new connector road to improve construction traffic flow between WTP III and WTP IV. Paving improvements around and near the chemical building at WTP III are also included.

TABULATION OF CONSTRUCTION BIDS

Sealed bids were received at 2:00 p.m. on Wednesday, March 19, 2014, and are tabulated as follows:

<table>
<thead>
<tr>
<th>Bidder</th>
<th>Total Bid Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Texas Contracting, Inc.</td>
<td>$1,329,563.00</td>
</tr>
<tr>
<td>BAR Constructors, Inc.</td>
<td>$1,496,818.00</td>
</tr>
<tr>
<td>PaveCon Utilities, Inc.</td>
<td>$1,507,654.74</td>
</tr>
<tr>
<td>AUI Contractors, Inc.</td>
<td>$1,513,150.60</td>
</tr>
<tr>
<td>RAMA Enterprises, LLC</td>
<td>$1,560,650.00</td>
</tr>
</tbody>
</table>

The engineer's opinion of probable construction cost based upon the final design was $1,487,520.

The lowest responsive bid was received from North Texas Contracting, Inc., in the total amount of $1,329,563. According to several references contacted by NTMWD staff and Cobb Fendley, North Texas Contracting has successfully completed utilities, heavy civil, and site work related projects. North Texas Contracting has previously worked with the NTMWD satisfactorily completing the Custer Road Transfer Station Brush Grinding Pad, Project No. SWCF 03-2, and Project No. TWCF 05-1, City of Terrell Town North Water Improvements. Currently, North Texas Contracting is working for NTMWD on the Custer Road Transfer Station Tipping Floor Improvements, Project No. 331.

Based on North Texas Contracting's previous experience and provided statement of qualifications, it is the recommendation of the Executive Director, NTMWD staff, and Cobb Fendley that the Board authorizes the award of a construction contract for the Wylie WTP East Access Gate and Road Improvements to North Texas Contracting, Inc., in the amount of $1,329,563.

FUNDING

Funding in the amount of $1,329,563 for this project is available in the Regional Water System 2010A Construction Fund.
RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Cobb, Fendley & Associates, Inc., that the Board of Directors authorize a construction contract to North Texas Contracting, Inc., for the Wylie Water Treatment Plant East Access Gate and Road Improvements, Project No. 291, in the amount of $1,329,563. This will be an item on the regular agenda of the April 2014 Board meeting.
Wylie Water Treatment Plant East Access Gate and Road Improvements
Project No. 291
This administrative memorandum requests an increase in the scope and fee for additional services by MWH Americas, Inc., (MWH) associated with the design, bidding, and construction phases for the High Service Pump Station (HSPS) 2-2 and 2-3 Mechanical Improvements, Project No. 261, in the additional not-to-exceed amount of $84,377. This would result in a revised total not-to-exceed engineering services fee of $624,514.

REVIEW

HSPS 2-2 was constructed in 1980 and consists of six pumps. The pump station was expanded in 1987 with the addition of HSPS 2-3, which consists of eight pumps. The pump stations are supplied by three 84-inch suction headers. The pumps discharge into 60-inch, 72-inch, and 78-inch transmission lines. There are numerous butterfly valves, gate valves, check valves, and fittings in the pump station piping.

HSPS 2-2 and 2-3 serve large portions of the north and south systems, approximately two-thirds of NTMWD’s population. HSPS 2-2 and 2-3 are the most heavily used pump stations on the water treatment plant site, and these two pump stations together have a combined pumping capacity in excess of 400 million gallons per day (MGD). The pump stations were evaluated as part of the Water Transmission System Maintenance Study and Risk Assessment, Project No. 179, conducted by Freese and Nichols, Inc. One of the projects identified in this study is for mechanical improvements at HSPS 2-2 and 2-3, which were incorporated into this project.

In August 2011, by Administrative Memorandum No. 3677, the Board of Directors approved preliminary engineering services in a not-to-exceed amount of $162,372 to MWH to complete a more in-depth condition assessment. With preliminary engineering completed in November 2012, the Board of Directors approved Administrative Memorandum No. 3855 for engineering services by MWH for final design in a not-to-exceed amount of $492,994.

During final design, several additional items were identified that were not in the original scope but were proposed to improve maintainability and minimize interruption to operations. Therefore, in October 2013, by Administrative Memorandum No. 4080, the Board approved additional basic engineering services in the amount of $35,655. These additional services were for the inclusion in the design of light emitting diode (LED) lighting design, yard valve replacement, and clearwell sluice gate replacement.
In December 2013, by Consent Agenda Item No. 13-12-07, the Board of Directors approved additional engineering services in the amount of $11,488. The amount was for a pre-procurement package effort that was started by MWH. Ultimately, NTMWD decided not to pre-procure items for this project; however, it was necessary to reimburse the consultant as work on this task had been performed before the decision not to pre-procure was made.

PROPOSED ADDITIONAL SERVICES

This request for additional fee consists of the following items:

*Item No. 1 – Design Document Revisions*  
$51,725

The project plans and specifications had been completed to a point that would allow the project to move into the bidding phase in January 2014. However, since the commencement of design of this project, several additional construction projects have been awarded on the water treatment plant site that have significantly increased the complexity of the water plant operation. That complexity involves needs on the other ongoing construction projects, each of which require partial system outages that result in decrease of overall treatment capacity of the treatment plant.

NTMWD staff reviewed the critical nature of HSPS 2-2 and HSPS 2-3 with respect to the timing and phasing of numerous other projects currently under construction. As stated previously, these two pump stations serve approximately two-thirds of NTMWD’s population, which makes the phasing of this project one of the most sensitive projects ever undertaken by NTMWD. In order to confirm that adequate treatment and pumping capacity will exist at all times during the course of this project, NTMWD staff in conjunction with MWH reanalyzed the project phasing from a constructability standpoint considering the effect on other construction projects taking place on the Wylie Water Treatment Plant (WTP) site. The shutdowns on this project will have to be coordinated with work on the following projects:

- Project No. 276, Wylie WTP Finished Water Reservoir and Flow Metering Improvements
- Project No. 277, WTP III Filter Underdrain Improvements and Conversion to Biologically Active Filtration
- Project No. 302, WTP II Filter Underdrain Improvements and Conversion to Biologically Active Filtration
- Project No. 320, WTP II Basin 3 and 4 Improvements
- Project No. 330, WTP II Cleanwell and Disinfection Modifications

During this additional review, it was determined that the following changes to the scope of the design will improve the phasing and constructability of the project and assure adequate treatment and pumping capacity during the course of this project:

- Add a performance specification for carbon fiber repair of individual pump discharge pipes
• Remove the requirement to replace sleeve couplings and associated 40 foot deep excavation on the exterior of the pump station
• Revise the cathodic protection system
• Add the replacement of a 72-inch butterfly valve
• Revise contract documents to include Weko Seals on the pump discharge pipes
• Remove dehumidifiers from the contract documents
• Modify contract documents to include removal and storage of pump motors
• Revise shutdown procedures
• Add the HSPS 2-3 54-inch and 48-inch suction valves for replacement
• Remove the new Rexa actuators from the contract documents
• Revise Hazardous Materials Abatement specifications
• Revise specifications to allow sandblasting of ferrous material
• Revise drawings to include a fixed energy dissipater on the bypass piping for the yard butterfly valves
• Add drawings to provide isolation of the 90-inch and 60-inch pipes at the Plant III junction structure

This change in the work scope could have been viewed as the responsibility of the design engineer. However, it is the opinion of the Executive Director and NTMWD staff that the award of several additional construction projects, since the commencement of design of this project, increased the complexity of the project and impacted the design effort. It is recommended that the design engineer be compensated for work associated with the above changes, as the Executive Director and NTMWD staff felt this additional effort was critical in developing approaches to assure continued service throughout this project.

Item No. 2 – Project Management and Coordination $32,652

This task will consist of project monitoring and administration and project quality assurance/quality control activities. The project schedule has been lengthened by four months as described in Item No. 1 above. In addition, the project schedule for construction also has been lengthened from fourteen months to eighteen months. Taking this pump station out of service to construct the improvements is very complicated as stated previously, and it will involve processes from three of the four water treatment plants. The scope of MWH's project management and coordination has increased commensurate with the lengthening and complexity of the construction schedule. The scope of this task has increased the total project length from the 21-month schedule in MWH's original proposal to a 38-month project schedule. MWH is requesting additional engineering services for their project management due to the lengthening of both the design schedule and proposed construction schedule.

The additional not-to-exceed engineering fee for these three additional engineering services tasks is $84,377. These changes will produce a net increase in construction cost of approximately $500,000. Some of the items reanalyzed by MWH and NTMWD during this process will result in a potential construction cost savings, which is why the additional fee may appear to be high with respect to the additional construction cost.
SUMMARY OF PROPOSED ADDITIONAL SERVICES

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Amount</th>
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<tr>
<td>1</td>
<td>Design Document Revisions</td>
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<tr>
<td>2</td>
<td>Project Management and Coordination</td>
<td>$32,652</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$84,377</strong></td>
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SUMMARY OF ENGINEERING FEE

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<th>Special Services</th>
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<td>Services</td>
<td></td>
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</tr>
<tr>
<td>Revised Total</td>
<td></td>
<td></td>
<td>$624,514</td>
</tr>
</tbody>
</table>

NTMWD staff has reviewed the fee proposed by MWH for additional services to be performed and believes it to be fair and reasonable.

FUNDING

Additional funding in the amount of $84,377 for this project is available in the Regional Water System Capital Improvement Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize an increase to the engineering services agreement with MWH Americas, Inc., for High Service Pump Station 2-2 and 2-3 Mechanical Improvements, Project No. 261, in the not-to-exceed amount of $84,377, for a revised total engineering services fee of $624,514. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4175

WASTEWATER SYSTEM
SABINE CREEK WASTEWATER TREATMENT PLANT EVALUATION
ENGINEERING SERVICES AGREEMENT

This administrative memorandum requests that the Board of Directors authorize the Executive Director to execute an engineering services agreement (ESA) with Perkins Engineering Consultants, Inc., (Perkins) for the preparation of a study evaluating the Sabine Creek Wastewater Treatment Plant (WWTP) and the feasibility of placing Royse City’s WWTP back in service. The ESA would be in accordance with the standard NTMWD agreement with a not-to-exceed amount of $115,122. The study is to be funded through the Sabine Creek WWTP FY 13-14 Operating Budget as requested in writing by Royse City and Fate. NTMWD would provide administrative services support for the study.

REVIEW

In August 2006, the Sabine Creek WWTP was placed in service to treat wastewater from the cities of Royse City and Fate. In November 2006, Royse City’s wastewater treatment plant was taken out of service and; henceforth, all wastewater from Royse City and Fate has been treated at the Sabine Creek WWTP.

When the Royse City WWTP was taken out of service, NTMWD staff met with officials from Royse City to discuss the future of the plant. Royse City directed NTMWD to maintain the Royse City WWTP permit, although no flow would be treated through the plant. This decision was based on the possibility of placing the plant into operation sometime in the future with a benefit to potentially defer the expansion of the Sabine Creek WWTP. Since the Royse City WWTP was taken out of service, the permit has been maintained and some basic maintenance has been performed on the equipment in case a decision is made to place the plant into operation.

Since the Sabine Creek WWTP was placed into operation, both cities have experienced growth. Peak flows experienced at the Sabine Creek WWTP and capability of the plant to adequately treat the incoming flow indicate that planning for additional system capacity needs to commence. The proposed study will provide guidance for adding system capacity, as well as evaluate the capability of the current treatment units at the Sabine Creek WWTP.

PROPOSED EVALUATION

The proposed study to be performed by Perkins will evaluate: 1) options for adding wastewater treatment capacity; 2) potential hydraulic and treatment constraints at the Sabine Creek WWTP; and, 3) the feasibility of placing Royse City WWTP into operation to potentially defer expansion of the Sabine Creek WWTP.
The average daily flow at Sabine Creek WWTP is approaching 75% of the treatment plant’s design capacity. Texas Commission on Environmental Quality (TCEQ) regulations require that planning activities for providing adequate capacity for future anticipated flows commence once the plant flow has reached 75% of the plant’s design capacity. The wastewater flow to the plant has been increasing during a period of extended drought. Despite the extended drought conditions, peak flows to the treatment plant have on occasion exceeded the two-hour peak capacity allowed in the permit. Therefore, part of this recommended evaluation will be to review the historical peak flows received at the treatment plant, the projected growth and related wastewater flows, and develop recommendations for adequately treating the average and peak wastewater flows. NTMWD staff has met with the respective city managers of Royse City and Fate. Both cities concur that planning for future facility needs is a prudent course of action based on current flows being seen at the plant and projected growth in each of the cities.

The Sabine Creek WWTP has had water quality permit excursions related to hydraulic constraints within the plant. Due to financial limitations when the plant was originally constructed, some redundant treatment units were not included in the project. For instance, the plant has only one filtration unit and one ultra-violet (UV) disinfection system. These single treatment units limit the flexibility of the Operations staff; therefore, it is recommended that the study evaluate the plant’s treatment components with respect to capacity, redundancy, and meeting current TCEQ design criteria.

The project will also consist of:

- Studying the impact on the Sabine Creek WWTP and transport systems if the existing Royse City WWTP is placed back into operation
- Conducting a feasibility analysis related to acquiring the existing Royse City WWTP and placing the Royse City WWTP back in service
- Evaluating options for funding the operational costs of the Royse City WWTP that are equitable to Royse City and Fate

ENGINEERING SERVICES FEE AND FUNDING

Perkins has proposed to perform the basic engineering services associated with this project in the not-to-exceed amount of $115,122. The NTMWD has received written requests from Royse City and Fate to fund the cost of the study through the FY 13-14 Sabine Creek WWTP Operating Budget. Therefore, the study will be funded from the Special Studies and Reports Account 308-5000-53131.

The NTMWD staff has reviewed the engineering fees submitted by Perkins and believes these to be fair and reasonable for the work associated with this project. The services would be performed in accordance with the standard ESA.
RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the Executive Director to execute the engineering services agreement with Perkins Engineering Consultants, Inc., for professional services associated with the Sabine Creek Wastewater Treatment Plant Evaluation in the not-to-exceed amount of $115,122. This will be an item on the regular agenda of the April 2014 Board meeting.
The purpose of this administrative memorandum is to request the Board of Directors adopt Resolution No. 14-5, *A Resolution Authorizing the NTMWD Executive Director to Implement a Land Acquisition Program for the McCree Road 6 MG Ground Storage Tank Site in the City of Garland, Project No. 357*. The property is located in the City of Garland (Garland) at the intersection of McCree Road and IH 635, as shown on the attached exhibit. If purchased, the property will be used for the location of a new water system ground storage tank. This location will serve as an alternate site to a ground storage tank originally anticipated to be constructed on Project No. 325, Apollo Delivery Point 5.5 Million Gallon (MG) Ground Storage Tank.

This administrative memorandum will describe the reasons for the change in location of the proposed tank. NTMWD staff is currently negotiating a scope and fee with Lochwood, Andrews, and Newnam, Inc., (LAN) for the design of the McCree Road 6 MG Ground Storage Tank, which will be presented to the Board for consideration in the near future. The Board previously authorized an engineering services agreement (ESA) with LAN for the design of the Apollo 5.5 MG Ground Storage Tank, Project No. 325, which will be discontinued. The potential purchase and use of this property has been discussed with Garland staff and they have no objection to NTMWD pursuing this property purchase.

**EXECUTIVE SUMMARY**

The following will review the interrelationship of several ongoing design projects in the South Water Transmission System (South System). These projects were originally developed to provide additional finished water storage in the transmission system, assure minimum required pressure in this area of the delivery system, provide upgrades of aging infrastructure, and increase system operating efficiencies. During initial engineering design efforts, it was determined that the baseline pipeline elevation information used as a basis of design was incorrect. Based on that information, NTMWD staff placed the design of these projects on hold, while additional work was done to confirm the elevation information. With that confirmation complete, the NTMWD staff has evaluated the impacts to the design of these projects, and in conjunction with the design consultants developed a new overall approach, which provides the same benefits as the original design concepts at reduced overall costs estimated at $3 to 4 million. Because the recommendations impact several ongoing design efforts, an explanation is provided herein that includes each of the impacted projects.
REVIEWS

In March 2010, the Board approved Administrative Memorandum No. 3464, which authorized Freese and Nichols, Inc., (FNI) to provide professional services associated with development of the 2010 Water System Capital Improvement Program Update (2010 CIP Update), Project No. 208. The 2010 CIP Update recommended a new 5.5 MG ground storage tank at NTMWD’s Apollo Pump Station site located in Garland. This new tank would provide additional storage in the system and maintain the minimum required pressure in the pipeline between the Apollo Pump Station and the Casa View Pump Station, as well as enhance the operating efficiency.

In March 2013, the Board approved Administrative Memorandum No. 3957, which authorized an ESA with LAN for the Apollo Delivery Point 5.5 MG Ground Storage Tank (Apollo Tank), Project No. 325.

In September 2013, NTMWD staff had a coordination meeting with Garland on the construction of the new tank. From the meeting and subsequent discussion, NTMWD staff learned that an alternate site with approximately five (5) acres of land may be available for the new tank. The site is located near the intersection of McCree Road and IH 635 in Garland, adjacent to NTMWD’s Apollo to Casa View 42-inch waterline. Garland has expressed their support of NTMWD constructing the new tank at either the Apollo Pump Station site or the alternate site. NTMWD staff conducted a preliminary hydraulic analysis, and the results showed that this site may work better for the entire system than the Apollo Pump Station site. NTMWD’s real estate manager has been in contact with the owner of the property, and this property is available for purchase.

In December 2013, the Board approved Consent Agenda Item No. 13-12-02, which authorized additional engineering services with LAN for a detailed hydraulic analysis to confirm the benefits of this alternate site and determine the hydraulic parameters for the design of the tank. FNI was selected to perform the additional engineering services as a sub-consultant to LAN since FNI performed the hydraulic analysis for the 2010 CIP Update and is very familiar with NTMWD’s water system.

In February 2014, FNI completed the hydraulic analysis and concluded that the alternate site at the intersection of McCree Road and IH 635 works better hydraulically with the rest of NTMWD system and that this location is the preferred site for the new tank. The study also determined that the tank size would be 6.0 MG.

Although the property cost was not originally budgeted and the construction cost may be higher than the original estimate, the location change of this tank as well as the revised recommendations from the 2010 CIP Update based on additional hydraulic analysis recently performed on other projects in the area will result in significant overall capital savings and favorable operation of the system.
APOLLO – CASA VIEW – WALLACE PROJECTS

In addition to the Apollo Tank, the 2010 CIP Update also recommended improvements at Garland No. 4 Delivery Point, Wallace Street Pump Station, and Casa View Pump Station. All these facilities are located in and serve several cities in NTMWD's South System. The attached exhibit also shows the locations of the four facilities. At the recommendation of FNI's 2010 CIP Update, NTMWD awarded the following ESAs to commence the design of the improvements. These projects are summarized in the following paragraphs:

- In October 2012, the Board approved Administrative Memorandum No. 3875, which authorized an ESA with KSA Engineers, Inc., (KSA) for the Garland No. 4 Delivery Point Improvements (Garland No. 4 Project), Project No. 305. The scope includes repairs to the existing vault, existing 36-inch control valve, and Supervisory Control and Data Acquisition (SCADA) improvements.

- In February 2013, the Board approved Administrative Memorandum No. 3948, which authorized an ESA with LAN for the Wallace Street Site Improvements and Ground Storage Tank (Wallace Project), Project No. 324. The scope includes improvements to the existing 3.5 MG ground storage tank and valve vaults, improvements to the existing Wallace Street Pump Station, and construction of a new 3.5 MG ground storage tank.

The Wallace Street Pump Station is one of NTMWD's original booster pump stations constructed in the 1950s. With the evolution of the system, this pump station is being used only as an emergency pump station and has not been operated for more than ten years. The deteriorated condition requires a major rehabilitation of the pump station.

The new 3.5 MG tank at the Wallace Street Pump Station site was recommended for additional system storage and to maintain the system pressure between Wallace Street Pump Station and Casa View Pump Station, similar to the function of the Apollo Tank.

- In March 2013, the Board approved Administrative Memorandum No. 3958, which authorized an ESA with Kimley-Horn and Associates, Inc., (KHA) for the Casa View Control Structure Improvements and Ground Storage Tank Improvements (Casa View Project), Project No. 326. The scope includes replacement of flow control valves and potential installation of additional flow control valves, evaluation of existing ground storage tank and structural improvements as necessary, and construction of roof structures on the existing 3.5 MG and 4.0 MG ground storage tanks.

When preparing the hydraulic information for the design of the Wallace Street Pump Station project, NTMWD staff discovered that there was 26 feet of elevation error in FNI's hydraulic model used for the 2010 CIP Update. The elevation error was on a high point of the 36-inch pipeline between Wallace Street Pump Station and Casa View
Pump Station. Although the elevations in the FNI model were generated automatically with contours information, which is a commonly used methodology in modeling practice, the 26 feet of elevation difference significantly increased the required height of the new 3.5 MG ground storage tank at the Wallace Street Pump Station. Several meetings were held with FNI to discuss this issue, and FNI performed additional analysis at no cost to NTMWD to evaluate the impact on the recommendations and identify solutions. After comparing several options and discussing with NTMWD staff, FNI prepared a technical memorandum with several revised recommendations from the 2010 CIP Update. These revised recommendations would provide the same overall system benefit but could be implemented at significantly reduced capital cost. The summary of the changes to these project designs are as follows:

- The operation of the South System will be revised to allow the Apollo Tank to maintain the pressure in the pipelines that were originally recommended for the new 3.5 MG tank at the Wallace Street Pump Station site.

- The need for the new 3.5 MG tank at the Wallace Street Pump Station site would be eliminated.

- The need for pumping from the Wallace Street Pump Station would be eliminated and in lieu of rehabilitating the station, the recommendation is to abandon the station. Adequate capacity and redundancy exist without the need for the station.

- Without the pump station improvements and the new 3.5 MG ground storage tank, the scope of the Wallace Project is significantly reduced.

- The design bases of Garland No. 4 Project and Casa View Project are also impacted because of the change in hydraulic conditions. Since these two projects are smaller in size, the impacts would be to a lesser extent.

- The alternate site for the proposed tank, the Mccree Road 6 MG Tank, which is much closer to Casa View Pump Station and Wallace Street Pump Station, would further improve the hydraulic condition of the system.

NTMWD staff concurs with the recommendations developed by FNI. The overall capital savings on all four projects are estimated to be approximately $3 to 4 million. NTMWD staff is in discussion with the consultants on these projects for updating of the project scope and cost estimates. The exact changes to each individual project will be presented to the Board in the near future.

**FUNDING**

The NTMWD is currently in negotiations for this property. Upon entering into the contract, the Executive Director requests the authority to close on the contract for the purchase price of approximately $1,078,000 for five (5) acres. It is recommended that the Board authorize a total of $1,100,000 for the purchase of this property, which includes an easement to access the property, and includes all legal and title work.
associated with the purchase. Funding in the amount of $1,100,000 is available in the Regional Water System Capital Improvement Fund for this property purchase.

The Executive Director requests authority to provide the following support services:

1. Employ the firm of Gay, McCall, Isaacks, Gordon & Roberts, PC, to act as counsel on the acquisition of the property

2. Employ a title company to provide professional services related to certain property ownership issues

RECOMMENDATION

It is the recommendation of the Executive Director and the NTMWD Staff that the Board of Directors adopt Resolution No. 14-5, A Resolution Authorizing the NTMWD Executive Director to Implement a Land Acquisition Program for the McCree Road 6 MG Ground Storage Tank Site in the City of Garland, Project No. 357, which includes authorizing NTMWD's real estate manager to sign closing documents and/or execute escrow agreements for such parcel. The total funding requested to complete this acquisition is a not-to-exceed amount of $1,100,000 to include property purchase, easement, legal counsel assistance, and title work. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

RESOLUTION NO. 14-5

A RESOLUTION AUTHORIZING THE NTMWD EXECUTIVE DIRECTOR TO IMPLEMENT A LAND ACQUISITION PROGRAM FOR THE MCCREEE ROAD 6 MG GROUND STORAGE TANK SITE IN THE CITY OF GARLAND PROJECT NO. 357

WHEREAS, the NTMWD Board of Directors has authorized the 2010 Water System Capital Improvement Program Update, Project No. 208. Included in that project is the Water System Pressure Study; and,

WHEREAS, the Water System Pressure Study recommended the construction of a ground storage tank; and,

WHEREAS, a supplemental hydraulic analysis on the South Delivery System recommended acquisition of property for a ground storage tank site; and,

WHEREAS, adequate funds are available from the NTMWD Regional Water System Capital Improvement Fund to implement this acquisition.

NOW, THEREFORE, THE BOARD OF DIRECTORS IN A REGULAR MEETING RESOLVES THAT:

1. There is a public need for, and that the public welfare and convenience are to be served by, the acquisition of property for a new ground storage tank site.

2. It is in the best interest of the NTMWD to acquire a five (5) acre site.

3. The Executive Director is authorized to employ a title company, as necessary.

4. The Executive Director is authorized to employ the firm of Gay, McCall, Isaacks, Gordon & Roberts, PC, to represent the NTMWD in this land transaction.

5. The NTMWD's real estate manager is authorized to execute closing documents and/or execute escrow agreements for this land transaction.

6. A total not-to-exceed amount of $1,100,000 is authorized for this land transaction including property purchase, easement, legal counsel assistance, and title work.

THIS RESOLUTION ADOPTED BY THE NTMWD BOARD OF DIRECTORS IN A REGULAR MEETING ON APRIL 24, 2014, IN THE NTMWD ADMINISTRATIVE OFFICES IN WYLIE, TEXAS.

JOE JOPLIN, Secretary

BILL LOFLAND, President
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4177

REGIONAL WATER SYSTEM
LAKE TEXOMA PUMP STATION MODIFICATIONS
PROJECT NO. 128

ADDITIONAL ENGINEERING SERVICES

This administrative memorandum is for the Board of Directors consideration of a change of the scope and fee for additional professional services by Freese and Nichols, Inc., (FNI) for the Lake Texoma Pump Station Modifications, Project No. 128. This increase in scope includes additional engineering services in the lump sum amount of $54,000 to improve the Supervisory Control and Data Acquisition (SCADA) system connecting to the lake pump station. This would result in a revised total not-to-exceed engineering services fee of $1,028,200.

REVIEW

The following table summarizes Board actions to date for Project No. 128:

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Ad. Memo. No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2008</td>
<td>3141</td>
<td>Engineering Services Agreement (ESA) with FNI</td>
<td>$730,000.00</td>
</tr>
<tr>
<td>December 2008</td>
<td>3277-A</td>
<td>Award of contract to Archer Western Contractors, Ltd. (Archer Western)</td>
<td>$6,479,702.00</td>
</tr>
<tr>
<td>February 2010</td>
<td>3448</td>
<td>Adjustment to ESA with FNI</td>
<td>$35,200.00</td>
</tr>
<tr>
<td>March 2010</td>
<td>3466</td>
<td>C.O. No. 1 for addition of test stations for corrosion monitoring, exterior pipeline evaluation, bypass piping modifications, a new door, and modifications to soft starters</td>
<td>$37,046.13</td>
</tr>
<tr>
<td>April 2010</td>
<td>3477</td>
<td>Adjustment to ESA with FNI</td>
<td>$209,000.00</td>
</tr>
<tr>
<td>July 2013</td>
<td>4025</td>
<td>C.O. No. 2 for the two new pumps to be returned to the manufacturer for inspection prior to installation</td>
<td>$82,116</td>
</tr>
<tr>
<td>February 2014</td>
<td>4143</td>
<td>C.O. No. 3 for the pump manufacturer to repair a galled shaft and to recoat both pumps prior to installation</td>
<td>$51,095.65</td>
</tr>
</tbody>
</table>

The total value of the engineering services with FNI is $974,200 and the revised contract amount with Archer Western is $6,649,959.78.
PROPOSED ADDITIONAL SERVICES

The proposed modifications to the existing scope of the engineering services are summarized below. The additional engineering efforts are needed to make communication improvements to the Texoma Pump Station. With the pending completion of the Lake Texoma Outfall to Wylie Water Treatment Plant (WTP) Raw Water Pipeline, Project No. 268, the pumps at the lake will be placed into operation later this spring. This additional scope will provide the design needed for proper communication between the Texoma Pump Station, the balancing reservoir, and the water system operations control center at the Wylie WTP. At this time, the operators in the operations center only have the ability to shut the pumps off at the Texoma Pump Station. Heretofore, all pump starts at the pump station had been performed locally; however, due to the anticipated operational changes, it is recommended that the operations center have the capability for full control of the station operation. The operators will need information regarding the operating levels at the balancing reservoir, which instrumentation has been provided in Project No. 268. For proper monitoring and control of the entire system, additional SCADA capabilities will be required at the Texoma Pump Station that will allow the operators to stop and start the pumps.

The SCADA system will be connected by radio from the pump station to the new balancing reservoir. This radio system will require a repeater station to be installed, and the scope of these additional services will include determination of the location of that repeater station. This will allow remote monitoring and control of the pumps. It is recommended that the operators have the ability to monitor the equipment by video due to the size, criticality of proper operation, and the long travel distances to the site. A virtual private network (VPN) system will be established for connection of a video feed from the lake pump station to the central control room. Finally, additional instrumentation will be required to allow remote monitoring of lubrication and cooling systems associated with the pumps and motors.

The following tasks will be performed as additional engineering services to provide design and construction phase assistance:

1. Confirm the final details of radio communication system to connect the pump station to the balancing reservoir using previous path studies.

2. Prepare engineering drawings and specifications for:
   a. installation of a radio system at the pump station and the balancing reservoir
   b. installation of radio system at repeater station
   c. replacement of programmable logic controller at the pump station
   d. camera system at the lake pump station, including a VPN system to provide remote video
   e. modifications to the starter control logic for the two 4,000 HP pumps and the two 6,000 HP pumps
   f. remote monitoring of lubrication and cooling systems of the pumps and motors
3. Review and comment on updated shop drawings associated with the communication improvements.

4. Conduct a site visit with NTMWD staff to determine sequences for testing and starting electrical equipment, valves, pumps, etc., that have not been in operation for several years. Prepare a checklist of equipment and controls that will be verified prior to beginning re-commissioning.

5. Assist NTMWD staff during re-commissioning of the pumping system. Attend up to five days of startup and testing.

ENGINEERING SERVICES FEE

FNI has submitted a cost proposal for the additional engineering services associated with the communication improvements of this project in the lump sum amount of $54,000. The NTMWD staff has reviewed the proposed fees submitted by FNI and believes them to be fair and reasonable for the work associated with this project. These fees are within the guidelines of the Consulting Engineers Council for this type of work. These services would be performed in accordance with the standard ESA.

FUNDING

Additional funding in the amount of $54,000 is available in the Regional Water System 2006 Construction Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize an increase to the engineering services agreement with Freese and Nichols, Inc., for additional professional services associated with the Lake Texoma Pump Station Modifications, Project No. 128, in the lump sum amount of $54,000 for a revised total not-to-exceed engineering services fee of $1,028,200. This will be an item on the regular agenda of the April 2014 Board meeting.
This administrative memorandum is for the Board of Directors consideration of a tabulation of bids and recommendation of award of a construction contract to Nations Roof Central, LLC, (Nations Roof) in the contract amount of $564,200 for Project No. 260, Water Treatment Plant I, 2.5 and 3.0 MG Reservoir Roof Improvements, Project No. 260.

REVIEW

There is a total of thirty (30) treated water storage reservoirs located either at the water treatment plants or various delivery points in NTMWD's transmission system. The roof slope of the majority of these reservoirs was based on previous common engineering practice of 1/8 of an inch per foot. This slope is similar to the slope previously used by utilities throughout Texas and is similar to the slope used on sidewalks, driveways, and other flat concrete construction. Over time, in part due to sagging of the concrete roof between structural supports, these constructed roof slopes have eventually resulted in ponding of rainwater on the surface. Ponded water has resulted in spalling of the concrete from numerous freeze-thaw cycles over the years.

In 1988, the Texas Commission on Environmental Quality (TCEQ) promulgated rules that increased the roof slope on treated water storage reservoirs. Since the early 1990s, the Executive Director and the NTMWD staff have presented several projects to the Board as part of a reservoir roof deck improvement program. This program includes rehabilitation and repair of the damaged concrete to restore the original structure and techniques and methods to provide increased slope to the roof to assure positive drainage of rainwater off the roof deck. To date, improvements including an increase in the slope of the roof deck have been completed on a total of eleven (11) treated water storage reservoir roofs.

The TCEQ routinely inspects water treatment and transmission facilities. During the 2010 TCEQ inspection of NTMWD facilities, TCEQ’s inspector noted two reservoirs at WTP I as an “area of concern” for not meeting current TCEQ slope requirements. The two reservoirs mentioned by TCEQ were the 3.0 MG reservoir and the south 2.5 MG reservoir.
In August 2011, the Board approved Administrative Memorandum No. 3675 authorizing an engineering services agreement (ESA) with Freese and Nichols, Inc., (FNI) to perform the design work required to install a sloped roof on these two reservoirs.

**TABULATION OF CONSTRUCTION BIDS**

Sealed bids were received at 2:00 p.m. on Friday, April 4, 2014, and are tabulated as follows:

<table>
<thead>
<tr>
<th>Bidder</th>
<th>Total Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nations Roof Central, LLC</td>
<td>$564,200</td>
</tr>
<tr>
<td>Texas Roof Management, Inc.</td>
<td>$649,949</td>
</tr>
<tr>
<td>Heritage One Roofing, Inc.</td>
<td>$686,404</td>
</tr>
<tr>
<td>Progressive Roofing</td>
<td>$823,114</td>
</tr>
<tr>
<td>Kpost Company</td>
<td>$828,600</td>
</tr>
</tbody>
</table>

The engineer's opinion of probable construction cost was $731,600.

The lowest responsive bid was received from Nations Roof in the total amount of $564,200. Nations Roof has not yet had an opportunity to complete a project for NTMWD; however, they have completed three projects in the DFW area using similar materials to those specified for this project. The following list includes the three projects stated in their statement of qualifications in which lightweight insulating concrete was applied:

- Baylor Medical Center at Grapevine................. $1,078,407
- PS Business Parks, Richardson LLP...............$118,610
- Jesuit College Preparatory School.................$211,090

Based on Nations Roof's previous experience and provided statement of qualifications, it is the recommendation of the Executive Director, NTMWD staff, and FNI that the Board of Directors authorize the award of a construction contract for the WTP I 2.5 and 3.0 MG Reservoir Roof Improvements to Nations Roof in the amount of $564,200.

**FUNDING**

Funding in the amount of $564,200 for this project is available in the Regional Water System Capital Improvement Fund.
RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Freese and Nichols, Inc., that the Board of Directors authorize a construction contract to Nations Roof Central, LLC, for the Water Treatment Plant I, 2.5 and 3.0 MG Reservoir Roof Improvements, Project No. 260, in the amount of $564,200. This will be an item on the regular agenda of the April 2014 Board meeting.
This administrative memorandum requests that the Board of Directors: 1) ratify the action of the Executive Director to authorize Saunders, Walsh & Beard, Attorneys & Counselors, to contract with a claims specialist to provide professional assistance in the not-to-exceed amount of $25,000 for review and evaluation of information submitted by McCarthy Building Companies, Inc., (McCarthy) in support of its claim for adjustment of the contract amount; and, 2) authorize the Executive Director to increase the not-to-exceed amount as appropriate, with approval of the Executive Committee of the Board of Directors, for the Water Treatment Plants I, II, III, and IV Ozonation, Project No. 153. Any such increase in the not-to-exceed amount shall be brought back to the Board for ratification.

REVIEW

During the November 2013 Water Committee meeting, NTMWD Executive Director and legal counsel informed the Water Committee of a sizable claim for delay submitted by McCarthy. Since that time, two sets of meetings have been ongoing regarding the claim negotiation. The Executive Director has met with McCarthy’s regional manager in an effort to maintain open lines of communication and NTMWD staff has met with McCarthy field personnel in an attempt to discuss individual items and specifics of the submitted claim. During these meetings, it has become apparent that the claim submitted by McCarthy is extremely involved. Although time and effort has been expended by the Executive Director and NTMWD staff in review of the information submitted by McCarthy, the complexity of the issues involved with the claim have precluded development of a recommendation for a proposed settlement. It is the recommendation of the Executive Director that professional assistance is required in order to perform a thorough review of the total claim of approximately $10 million.

SCOPE OF SERVICES

NTMWD legal counsel has recommended two potential firms with the capability to provide the service. The scope of services will include: 1) review of the contract documents; 2) review of the project work schedule as submitted by McCarthy; 3) review of documents related to the claim; and, 4) consultation with NTMWD’s legal counsel regarding recommended actions. An agreement that will allow for initial review of the claim by a claims specialist is currently being negotiated. It is anticipated an agreement will be executed prior to the date of the Board meeting, with an amount not-to-exceed $25,000.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4180

REGIONAL WATER SYSTEM
WATER TREATMENT PLANTS I, II, III, AND IV OZONATION
PROJECT NO. 153

CHANGE ORDER NO. 26

This administrative memorandum is for the Board of Directors consideration of Change Order No. 26 for Project No. 153, Water Treatment Plants (WTPs) I, II, III, and IV Ozonation. The recommended changes will result in a decrease of $24,697.35, resulting in a revised contract amount of $111,024,823.63. The interim milestone substantial completion dates and final completion date for this project will remain unchanged.

REVIEW

The use of ozone to supplement the treatment process has been discussed with the Board on several occasions. Ozone is an oxidation process that has several potential advantages including:

- Disinfection
- Disinfection byproduct control (THMs, HAA5, etc.)
- Micro-constituent oxidation
- Micro-flocculation to reduce chemical usage
- Taste and odor control

The preliminary engineering study for this project indicated that NTMWD will gain benefit from ozone disinfection. The table below provides the history of this project starting with the engineering services agreement (ESA) for detailed design of this project and concluding with the latest change order approved by the Board:

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Ad. Memo. No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2009</td>
<td>3346</td>
<td>ESA with Black &amp; Veatch Corporation (B&amp;V)</td>
<td>$10,620,000.00</td>
</tr>
<tr>
<td>October 2010</td>
<td>3547-A</td>
<td>Award to McCarthy Building Companies (McCarthy)</td>
<td>112,989,000.00</td>
</tr>
<tr>
<td>August 2011</td>
<td>3668</td>
<td>C.O. No. 1 for modifications to WTP III sedimentation basins and wiring modifications</td>
<td>87,737.15</td>
</tr>
<tr>
<td>September 2011</td>
<td>3699</td>
<td>C.O. No. 2 for improvements to WTP I Clarifloculator No. 2</td>
<td>30,000.00</td>
</tr>
<tr>
<td>October 2011</td>
<td>3713</td>
<td>C.O. No. 3 for deletion of electric handholes and davit crane modifications</td>
<td>(48,178.06)</td>
</tr>
<tr>
<td>Month/Year</td>
<td>Memo. No.</td>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>December 2011</td>
<td>3740</td>
<td>C.O. No. 4 for changing two-hour firewalls, demolition for 72-inch pipe, and ozone contactor influent pipes</td>
<td>120,288.62</td>
</tr>
<tr>
<td>January 2012</td>
<td>3753</td>
<td>C.O. No. 5 for mechanical insulation credit, 20-inch valve addition, and WTP II Basin No. 4 undermining</td>
<td>85,531.62</td>
</tr>
<tr>
<td>March 2012</td>
<td>3776</td>
<td>C.O. No. 6 for existing construction debris, additional control system programming, and 25kV cables</td>
<td>102,863.15</td>
</tr>
<tr>
<td>April 2012</td>
<td>3791</td>
<td>C.O. No. 7 for trap primers, WTP IV concrete pipe encasement, waterline leak, additional undermining at WTP II</td>
<td>252,716.53</td>
</tr>
<tr>
<td>May 2012</td>
<td>3807</td>
<td>C.O. No. 8 for electrical relays, increase MCC breaker size, relocation of backflow preventers, and additional chlorine feeders</td>
<td>179,303.48</td>
</tr>
<tr>
<td>September 2012</td>
<td>3859</td>
<td>C.O. No. 9 for chlorine diffuser orifice drilling, WTP II sludge valve station piping, WTP III sedimentation basin effluent box repair, and additional thrust restraint</td>
<td>128,065.21</td>
</tr>
<tr>
<td>October 2012</td>
<td>3873</td>
<td>C.O. No. 10 for WTP I and II chlorine feed system modifications, chlorine injector panel modifications, large diameter butterfly valve encasement, and WTP IV 84-inch pipe encasement demolition</td>
<td>111,463.32</td>
</tr>
<tr>
<td>November 2012</td>
<td>3887</td>
<td>C.O. No. 11 for replacement of a 16-inch tapping valve at North Ozone Operations (NOPS) Building, HVAC wiring modifications, pipe penetrations at precast walls, WTP II Basin No. 3 limit switch relocation, and relocated eight-inch ozone gas pipe</td>
<td>155,596.10</td>
</tr>
<tr>
<td>December 2012</td>
<td>3906</td>
<td>C.O. No. 12 for rerouting electrical circuits at WTP II, pour back concrete walls in the WTP III and IV settled water flumes, repair and coat settled water boxes at WTPs III and IV, remove an electrical duct bank in conflict at South Ozone Operations (SOPS) Building, relocate WTP I sample lines, and additional contract time</td>
<td>160,584.35</td>
</tr>
<tr>
<td>January 2013</td>
<td>3930</td>
<td>C.O. No. 13 for additional fiber optic cables and fire alarm panel connectivity, WTP III fiber optic cable conflict, revised WTP IV chemical feed, and cable tray extension at NOPS</td>
<td>269,575.51</td>
</tr>
<tr>
<td>Month/Year</td>
<td>Memo No.</td>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>February 2013</td>
<td>3949</td>
<td>C.O. No. 14 for work changes at NOPS required for NOPS expansion, add’l ozone generator cable testing, and fireman’s switches at NOPS and SOPS</td>
<td>76,130.23</td>
</tr>
<tr>
<td>March 2013</td>
<td>3966</td>
<td>C.O. No. 15 for a concrete fillet in WTP II Sedimentation Basin No. 7, changes to the ozone gas manifolds, quenching chemical light base changes, WTP IV plant water leak repair, chilled water minimum bypass at NOPS and SOPS, and WTP III and IV sedimentation basin underdrain reroute, and adjustment to interim completion dates</td>
<td>54,251.21</td>
</tr>
<tr>
<td>April 2013</td>
<td>3986</td>
<td>C.O. No. 16 for WTP III temporary bypass pipe conflict, demister pipe changes at 11 contactors, NOPS and WTP IV contactor fiber optic cabinets, WTP II fire department connection relocation, NOPS and SOPS fence alignment changes, and NOPS and SOPS signal splitters</td>
<td>144,688.77</td>
</tr>
<tr>
<td>May 2013</td>
<td>4003</td>
<td>C.O. No. 17 for electrical duct bank replacement, plug valve spool pieces, WTP II north and south contactor sanitary sewer reroute, eight-inch isolation valve at WTP IV, lightning protection credit, and electric valve actuator credit</td>
<td>58,405.59</td>
</tr>
<tr>
<td>June 2013</td>
<td>4013</td>
<td>C.O. No. 18 for fiber optic cabinets and switches, settled water turbidity sample pumps, destruct canisters, and fire sprinkler installation delay</td>
<td>475,186.93</td>
</tr>
<tr>
<td>July 2013</td>
<td>4017</td>
<td>C.O. No. 19 for relocation of an air release valve at NOPS, re-feed WTP II Basin Nos. 5, 6, 7, and 8 power panels, WTP II Basin No. 7 overflow pipes, ozone destruct piping, plant waterline encasement, and a credit for the WTP II Basin Nos. 3 and 4 sludge collection equipment</td>
<td>(4,756,650.01)</td>
</tr>
<tr>
<td>August 2013</td>
<td>4039</td>
<td>C.O. No. 20 for replacing the plant water pipe on the north side of WTP II Sedimentation Basin No. 7, bolt material credit, chiller flow switches, compressed air drip legs, and quenching chemical credit</td>
<td>52,692.05</td>
</tr>
<tr>
<td>October 2013</td>
<td>4076</td>
<td>C.O. No. 21 for modification of WTP II steps and add’l guardrail gates, WTP II Sed. Basin No. 3 rectangular butterfly valve conflict, add’l LOX tank pressure relief valve, add’l pipeline dewatering, and add’l electrical for quenching chemical metering pumps</td>
<td>$70,404.74</td>
</tr>
<tr>
<td>December 2013</td>
<td>4102</td>
<td>C.O. No. 22 for additional weld inspections,</td>
<td>$72,815.57</td>
</tr>
<tr>
<td>Date</td>
<td>Work Description</td>
<td>Amount</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>January 2014</td>
<td>16-inch x 12-inch plant water tap, WTP III 15-inch storm drain replacement, and additional chainwheel valve operators</td>
<td>$35,120.49</td>
<td></td>
</tr>
<tr>
<td>February 2014</td>
<td>C.O. No. 24 for the room integrity test at SOPS and NOPS, replacing flocculator grease lines in WTP II Sed. Basin 7, rain caps and door thresholds, WTP III road grade conflict, and additional gravel around LOX area of SOPS</td>
<td>$38,372.02</td>
<td></td>
</tr>
<tr>
<td>March 2014</td>
<td>C.O. No. 25 for rerouting WTP II plant water pipe, credit for work to be removed from the contract, chiller refrigerant pressure relief piping, and sidestream pump flexible connectors</td>
<td>$103,555.41</td>
<td></td>
</tr>
</tbody>
</table>

The total value of the construction contract with McCarthy including Change Order No. 25 is $111,049,520.98.

**CHANGE ORDER NO. 26**

Change Order No. 26 consists of six changes in work scope for this project that will result in an overall decrease in the contract amount by $24,697.35. The proposed costs listed in the following paragraphs have been reviewed and determined to be fair and reasonable by the NTMWD staff and B&V for the materials and work involved.

**Item No. 1 – North and South Ozone Operations Buildings (NOPS and SOPS)**

*Doors and Emergency Ozone System Stop Switch Signs*  
$5,394.36

- **Issue:** The City of Wylie Fire Marshal and the City of Wylie Building Official inspected the occupied areas of NOPS and SOPS for compliance to the Internation Building Codes (IBC). The building official and fire marshal noticed that one of the doors from the computer server room in NOPS opened into the hallway used as an egress from the building. The City of Wylie officials believed the door swing did not meet the IBC, so they required the door swing to be reversed to open into the server room. The City of Wylie officials also required every emergency stop switch that shuts down the ozone system to have a sign denoting which ozone system is stopped.

- **Recommendation:** Remove a door from SOPS to use in NOPS and purchase a new door and frame for installation in SOPS. Repair the drywall and paint where the original door was removed. Provide signs for all 22 ozone system emergency stop switches.
- **Proposed Cost:** McCarthy has submitted a cost proposal in the amount of $5,394.36 for the required changes. The door removed from NOFS has been turned over to NTMWD for use as needed.

*Item No. 2 – Submersible Sample Pump Electrical Splices*  
$2,257.33

- **Issue:** Turbidity sample pumps for each sedimentation basin at WTP II, III, and IV were originally to be provided by NTMWD and installed by McCarthy; however, this requirement was changed by addendum during the bidding process to require the contractor to supply the pumps. The pump that was supplied was a submersible pump that is equipped with six feet of power cord. The power cords for the specified pumps were not long enough to reach the control panels.

- **Recommendation:** Splice additional cable to each power cord to reach the control panels.

- **Proposed Cost:** McCarthy has submitted a cost proposal in the amount of $2,257.33 to splice all 20 turbidity sample pump power cords. This calculates to a cost of approximately $113 per splice.

*Item No. 3 – WTP II Reroute Four-Inch Plant Water Pipe and Six-Inch Fire Line*  
$14,046.52

- **Issue:** Each WTP II ozone contactor is equipped with a fire sprinkler system, which is supplied from a dedicated six-inch fire line. During the installation of the fire line on the north side of the WTP II Sedimentation Basin No. 1, McCarthy encountered a conflict with what appeared to be a concrete ductbank and an existing four-inch plant water pipe.

- **Recommendation:** In order to resolve the conflict, B&V prepared a work change directive that instructed McCarthy to reroute the existing four-inch plant water pipe above the valve gallery and enlarge the plant water penetration into the valve gallery for the fire line. This solution prevents the need to remove and relocate the ductbank and electrical circuits. The plant water pipe will need to be insulated because a section of the new piping is now above grade.

- **Proposed Cost:** McCarthy has submitted cost proposal in the amount of $14,046.52 for the rerouting the four-inch plant water pipe and making modifications to the six-inch fire line.

*Item No. 4 – 304 Stainless Steel Pipe Credit (decrease)*  
($39,755.00)
Issue: Contract specifications require gas oxygen service piping to be grade 304 stainless steel and the gas ozone piping to be grade 316 stainless steel. During installation of the buried ozone gas pipe to WTP IV, McCarthy discovered that a significant portion of the stainless steel ozone pipe installed between NOPS and WTP IV contactor was actually grade 304 stainless steel instead of the specified grade 316 stainless steel. Through some confusion during the submittal process, McCarthy had purchased and installed the type 304 stainless steel for both ozone and oxygen service. McCarthy, B&V, and NTMWD individually conducted additional investigations with respect to the use of 304 stainless steel in ozone gas service. All three independent investigations agreed that 304 stainless steel pipe could be used in dry ozone gas service. B&V's gas ozone system design has a number of measures to keep moisture from entering the ozone gas system and to keep the ozone gas pipe dry.

Recommendation: Allow McCarthy to leave the grade 304 stainless steel pipe as installed and request a credit for the difference in material cost.

Proposed Credit: McCarthy offered a credit of $39,755 as the difference in material cost between the 316 stainless and the 304 stainless. B&V reviewed the credit of $39,755 submitted by McCarthy and believes that it is appropriate for the materials involved.

Item No. 5 – WTP II North and South Contactor
Electrical Building Blockout

$2,490.48

Issue: A blockout is provided for electrical conduits entering the electrical room of the WTP II North and South Ozone Contactor Buildings. The contract documents require the openings to be grouted. A better, more aesthetically presentable repair to the blockout is to have the precast manufacturer fill the void with reinforced concrete and provide an exposed aggregate finish.

Recommendation: McCarthy will repair the blockouts in the electrical buildings at both WTP II North and South Contactors in accordance with the manufacturer's recommendations using an exposed aggregate finish.

Proposed Cost: McCarthy has submitted a proposal in the amount of $2,490.48 for the additional cost to repair the blockout with an exposed aggregate finish in both electrical buildings.

Item No. 6 – Delete a Portion of WTP IV Ozone Marking Slab (decrease)

($9,131.04)

Issue: Ozone marking slab is 3 feet wide and 4" thick concrete sidewalk type concrete slab used to denote the location of the buried ozone gas pipe. The ozone marking slab is used between the ozone generator buildings and the ozone contactors at all plants. The ozone marking slab at WTP IV would have crossed an area that was to be occupied by Garney and its subcontractors who are performing work on the Lake Texoma Outfall to Wylie WTP Raw Water
Pipeline, Project No. 268. If constructed as part of the ozone project, the ozone marking slab would have to be demolished soon after its installation.

- **Recommendation:** Prepare a work change directive for McCarthy to delete the ozone marking slab from its contract. NTMWD staff will work with Garney Construction for installation of the ozone marking slab following completion of work in this area on the Texoma to Wylie WTP Raw Water Pipeline project.

- **Proposed Credit:** McCarthy is submitting a credit in the amount of $9,131.04 to delete the installation of approximately 900 linear feet of ozone marking slab.

### SUMMARY OF CHANGE ORDER NO. 26

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Amount</th>
<th>Days to Substantial Completion</th>
<th>Days to Final Completion</th>
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<tbody>
<tr>
<td>1</td>
<td>NOPS and SOPS Buildings Doors and Emergency Ozone System Stop Switch Signs</td>
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<tr>
<td>2</td>
<td>Submersible Sample Pump Electrical Splices</td>
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<td>3</td>
<td>WTP II Reroute Four-Inch Plant Water Pipe and Six-Inch Fire Line</td>
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<tr>
<td>4</td>
<td>304 Stainless Steel Pipe Credit (decrease)</td>
<td>(39,755.00)</td>
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<tr>
<td>5</td>
<td>WTP II North and South Contactor Electrical Building Blockout</td>
<td>2,490.48</td>
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<td>6</td>
<td>Delete a Portion of WTP IV Ozone Marking Slab (decrease)</td>
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<td>0</td>
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<tr>
<td></td>
<td>Proposed Total C.O. Amount (decrease)</td>
<td>($24,697.35)</td>
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### SUMMARY OF ADJUSTMENTS TO CONTRACT

<table>
<thead>
<tr>
<th>Description</th>
<th>Contract Amount</th>
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<th>Final Completion</th>
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<td>C.O. No. 8</td>
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<td>C.O. No. 9</td>
<td>128,065.21</td>
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</table>
CURRENT STATUS OF NEGOTIATIONS WITH MCCARTHY

During the November 2013 Water Committee Meeting, NTMWD Executive Director and legal counsel informed the Water Committee of a sizable claim for delay submitted by McCarthy. Since that time, two sets of meetings have been ongoing regarding the claim negotiation: 1) the Executive Director has met with McCarthy’s regional manager in an effort to maintain open lines of communication; and, 2) NTMWD staff has met with McCarthy field personnel in an attempt to discuss individual items and specifics of the submitted claim. During these meetings, it has become apparent that the claim submitted by McCarthy is extremely involved. Although time and effort has been expended by the Executive Director and NTMWD staff in review of the information submitted by McCarthy, the complexity of the issues involved with the claim have precluded development of a recommendation for a proposed settlement. It is the recommendation of the Executive Director that professional assistance is required for adequate review of the total claim of approximately $10 million. Administrative Memorandum No. 4179 in this Board Packet requests the Board ratify the actions of the Executive Director to authorize Saunders, Walsh & Beard to contract with a claims specialist to provide professional assistance for review and evaluation submitted by McCarthy in support of its claim.
RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Black & Veatch Corporation that the Board of Directors approve Change Order No. 26 for Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation, a decrease in the amount of $24,697.35, resulting in a revised contract amount of $111,024,823.63. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4181

REGIONAL WATER SYSTEM
AUTHORIZATION FOR ADDITIONAL FUNDING
FOR RIGHT-OF-WAY
LAKE TEXOMA OUTFALL TO WYLIE WATER TREATMENT PLANT
RAW WATER PIPELINE, PROJECT NO. 268
RIGHT-OF-WAY ACQUISITION PROGRAM
RESOLUTION NO. 14-4

This administrative memorandum requests that the Board of Directors adopt Resolution No. 14-4, A Resolution Authorizing Additional Funding for Right-of-Way for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, Right-of-Way Acquisition Program, with an additional funding request of $400,000.

Administrative Memorandum No. 3882 and Resolution No. 12-20 for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, previously established a right-of-way acquisition program budget of $8,546,500.

At this time, easements have been acquired or the final negotiations have taken place, excluding one property. In addition, final settlements have not been made regarding crop damages on select properties. In order to assure adequate funding is available for the remaining easement and crop damages associated with final restoration and legal services required to support these settlements, additional funding is being requested at this time. Based on the current funds expended and projection of the remaining easement and associated cost, it is requested the budget be increased by $400,000, resulting in a total authorization of $8,946,500 for right-of-way associated with this project.

FUNDING

Additional funding in the amount of $400,000 is available in the Regional Water System 2012 Construction Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors adopt Resolution No. 14-4, A Resolution Authorizing Additional Funding for Right-of-Way for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, Right-of-Way Acquisition Program, with an additional funding request of $400,000, resulting in a total authorization of $8,946,500 for the right-of-way acquisition program. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

RESOLUTION NO. 14-4

A RESOLUTION AUTHORIZING ADDITIONAL FUNDING FOR RIGHT-OF-WAY FOR THE LAKE TEXOMA OUTFALL TO WYLIE WATER TREATMENT PLANT RAW WATER PIPELINE, PROJECT NO. 268 RIGHT-OF-WAY ACQUISITION PROGRAM

WHEREAS, the NTMWD Board of Directors has authorized the engineering design of the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268; and,

WHEREAS, by Administrative Memorandum No. 3882 and Resolution No. 12-20, the NTMWD Board of Directors has authorized the acquisition of right-of-way for Project No. 268; and,

WHEREAS, the NTMWD Board of Directors previously authorized funding in the amount of $8,546,500 for the acquisition of right-of-way for Project No. 268; and,

WHEREAS, it is necessary to proceed with finalizing the acquisition of easements and additional funds are required to conclude the project; and,

NOW, THEREFORE, THE BOARD OF DIRECTORS IN A REGULAR MEETING DETERMINES AND RESOLVES THAT:

1. There is a public need for and that the public welfare and convenience are to be served by the construction of an NTMWD pipeline and appurtenances associated with the Lake Texoma to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268.

2. A budget increase of $400,000 is authorized for right-of-way acquisition, resulting in a total authorized funding for right-of-way acquisition on this project of $8,946,500.

3. This Resolution shall take effect and be in full force and effect from and after the date of its adoption, and it is so resolved; and all resolutions of the Board of Directors of the District in conflict herewith are hereby amended or repealed to the extent of such a conflict.

THIS RESOLUTION ADOPTED BY THE NTMWD BOARD OF DIRECTORS IN A REGULAR MEETING ON APRIL 24, 2014, IN THE ADMINISTRATIVE OFFICES OF THE NTMWD, WYLIE, TEXAS.

JOE JOPLIN, Secretary

BILL LOFLAND, President

(SEAL)
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014 ADMINISTRATIVE MEMORANDUM NO. 4182

REGIONAL WATER SYSTEM
NORTH MCKINNEY PIPELINE SYSTEM, PHASES I AND II
PROJECT NO. 210

CHANGE ORDER NO. 2

This administrative memorandum is for the Board of Directors consideration of: 1) Change Order No. 2 for an increase of $225,788, resulting in a revised contract amount of $14,996,414.22; and, 2) a 30-day contract time extension resulting in a revised final completion date of February 21, 2015, for Project No. 210, North McKinney Pipeline System, Phases I and II.

REVIEW

The following table summarizes Board actions to date for the North McKinney Pipeline System, Phases I and II, Project No. 210:

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Ad. Memo./ CAI No.</th>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>June 2010</td>
<td>3496</td>
<td>Engineering Services Agreement (ESA) with Freese and Nichols, Inc. (FNI) for Phase I</td>
<td>$690,650.00</td>
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<tr>
<td>March 2011</td>
<td>3605</td>
<td>ESA with FNI for Phase II</td>
<td>$745,450.00</td>
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<tr>
<td>February 2013</td>
<td>3945</td>
<td>Additional Engineering Services</td>
<td>$57,660.00</td>
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<tr>
<td>October 2013</td>
<td>4074</td>
<td>Interlocal Cooperation Agreement (ILA) with the Town of Fairview</td>
<td>$62,338.00</td>
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<tr>
<td>November 2013</td>
<td>13-11-07</td>
<td>Additional Engineering Services</td>
<td>$10,600.00</td>
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<tr>
<td>December 2013</td>
<td>4104</td>
<td>ILA with the City of Lucas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4105</td>
<td>Award of contract to S.J. Louis Construction of Texas, Ltd. (S.J. Louis) and C.O. No. 1 for a separate tunnel installation for the City of Lucas 12-inch waterline crossing a creek on Rock Ridge Road and Country Club Road</td>
<td>$14,770,626.22</td>
</tr>
</tbody>
</table>

The total value of the construction contract with S.J. Louis, including Change Order No. 1 is $14,770,626.22.

PROPOSED CHANGE ORDER NO. 2

Proposed Change Order No. 2 consists of changes in materials and quantity of work for eight items that will result in an overall increase of $225,788 and an increase of 30 calendar days of contract time. The proposed costs and requests for additional time
listed in the following paragraphs have been reviewed and determined to be fair and reasonable by the NTMWD staff and FNI for the materials and work involved. NTMWD is in discussions with FNI regarding their participation in Item Nos. 1, 3, 4, 6 and 7.

**Item No. 1 – Additional Pipe Manufacturer Costs**

$18,588

- **Issue:** The pipe profile shown on the contract drawings conflicts with the existing utilities at the tunnel locations beneath Airport Road at Elm Street, beneath Industrial Boulevard at Airport Road, and within the Simpson Manufacturing property limits (Country Lane from Old Mill Road to FM 546). It is necessary to revise the pipe profile to avoid the conflicts; consequently, the pipe bend angles also will need to be changed.

- **Recommendation:** Have the contractor direct the pipe manufacturer, Northwest Pipe, to modify the pipe bends.

- **Proposed Cost:** The contractor has submitted a cost proposal in the amount of $18,588 to modify the pipe bends.

**Item No. 2 – Increased Depth for 36-Inch Pipe**

$40,000

- **Issue:** In recent discussions with one of the property owners along the pipeline route, Encore Wire, it has been determined that proposed storm sewer culverts and pipelines in the area from the intersection of Airport Road at Elm Street to a point approximately 1,600 linear feet (LF) west of the intersection will be in conflict with the proposed water pipeline profile as currently shown on the contract drawings. This information was not made available to FNI during the design phase of the project.

- **Recommendation:** Lower the 1,600 LF of proposed water pipeline in this area to avoid future conflicts with proposed storm drainage.

- **Proposed Cost:** The contractor has submitted a cost proposal to install the pipe at the additional depth for $25 per LF for 1,600 LF for a total amount of $40,000.

**Item No. 3 – Increased Depth for 60-Inch Pipe**

$76,500

- **Issue:** Proposed change order items No. 3 and 4 are associated with the Simpson Manufacturing easement. The plans and specifications were completed and this project was bid based on information available across the Simpson Manufacturing property in McKinney. The pipeline route on the Simpson Manufacturing property is approximately 4,025 feet in length. Negotiations for the easement were underway when the project was bid. In order to complete easement negotiations with Simpson Manufacturing, NTMWD's legal counsel, Gay, McCall, Isaacks, Gordon & Roberts, PC, worked with Simpson Manufacturing on the settlement, including the determination of the final profile of the pipeline across the property with respect to existing and future utilities. These proposed changes were recommended by NTMWD legal counsel based on the
negotiations with Simpson Manufacturing and due to conflicts that were not addressed in the plans and specifications that were released for bid. The proposed pipeline routing that was impacted by existing and proposed sanitary sewer lines in and across the Simpson Manufacturing property located at Country Lane from Old Mill Road to FM 546 conflict with the proposed water pipeline profile.

- **Recommendation:** In order to avoid conflict with existing and proposed sanitary sewer lines, it is proposed to lower 2,550 LF of proposed water pipeline in this area.

- **Proposed Cost:** The contractor has submitted a proposal to install the pipe at the additional depth for $30 per LF for 2,550 LF for a total amount of $76,500.

*Item No. 4 – Work Around Existing Utilities – Simpson Manufacturing*  
$20,000

- **Issue:** There are four existing utilities on the Simpson Manufacturing property that the contractor will be required to expose and work around during pipe laying operations that were not shown on the contract drawings.

- **Recommendation:** Require the contractor to adequately protect these utilities during the pipe laying installation.

- **Proposed Cost:** The contractor has submitted a cost proposal in the amount of $5,000 for each utility crossing to protect and work around the additional utilities. A total of four utilities calculates to a total amount of $20,000 for this item.

*Item No. 5 – Tunnel Correction along Airport Road at Elm Street*  
$53,200

- **Issue:** The contractor proceeded with the tunnel along Airport Road at Elm Street and had installed 112 linear feet (LF) of tunnel when a 36-inch waterline was encountered. Although the existing 36-inch waterline was shown on the plans based on information obtained during the design phase, the pipeline was at a different elevation than depicted in the plans and is within the tunneling alignment.

- **Recommendation:** Lower and adjust the grade of 112 LF of tunnel liner casing. This work will include removal of the installed liner plate, lowering the bore pit, re-tunneling the entire length of 112 LF, and installing grout in the over-excavated area.

- **Proposed Cost:** The contractor has submitted a cost proposal of $475 per LF of correction for 112 LF for a total cost of $53,200.
Item No. 6 – Tunnel Correction along Airport Road at Industrial Boulevard $14,500

- **Issue:** The contractor had completed 19 LF of tunnel at this location when a 12-inch sanitary sewer line was discovered to be within the alignment of the tunnel at the north side of Industrial Boulevard.
- **Recommendation:** Lower and adjust the grade of 19 LF of tunnel liner casing by a depth of approximately six feet.
- **Proposed Cost:** The contractor has submitted a cost proposal in the lump sum amount of $14,500 for the lowering of the tunnel liner at this location.

Item No. 7 – Additional Depth of Access Manways $3,000

- **Issue:** The redesign of the profile at the locations presented above have created deeper access manways at three locations in this vicinity.
- **Recommendation:** Increase the depth of the access manways to match the revised pipe profile.
- **Proposed Cost:** The contractor has submitted a cost proposal in the amount of $250 per vertical foot (VF) for 12 VF, which calculates to a total amount of $3,000 for this item.

Item No. 8 – Additional Contract Time 30 Calendar Days

- **Issue:** Extra contract time will be required to perform the above proposed seven Change Order No. 2 items.
- **Recommendation:** Provide contract time for the additional work described above.
- **Proposed Cost:** The contractor has requested 30 additional calendar days of contract time for Item Nos. 1 through 7 in Change Order No. 2.

**SUMMARY OF CHANGE ORDER NO. 2**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Days</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Additional Pipe Manufacturer Costs</td>
<td></td>
<td>$18,588</td>
</tr>
<tr>
<td>2</td>
<td>Increased Depth for 36-Inch Pipe</td>
<td></td>
<td>40,000</td>
</tr>
<tr>
<td>3</td>
<td>Increased Depth for 60-Inch Pipe</td>
<td></td>
<td>76,500</td>
</tr>
<tr>
<td>4</td>
<td>Work Around Existing Utilities – Simpson Manufacturing</td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>5</td>
<td>Tunnel Correction along Airport Road at Elm Street</td>
<td></td>
<td>53,200</td>
</tr>
<tr>
<td>6</td>
<td>Tunnel Correction along Airport Road at Industrial Boulevard</td>
<td></td>
<td>14,500</td>
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<td>7</td>
<td>Additional Depth of Access Manways</td>
<td></td>
<td>3,000</td>
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<tr>
<td>8</td>
<td>Additional Contract Time</td>
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<tr>
<td>Total</td>
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<td>120</td>
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SUMMARY OF ADJUSTMENTS TO CONTRACT

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<tr>
<th>Description</th>
<th>Amount</th>
<th>Days to Substantial Completion</th>
<th>Days to Final Completion</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>C.O. No. 1</td>
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<tr>
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</table>

FUNDING

Additional funding in the amount of $225,788 for Change Order No. 2 is to be made available in the Regional Water System 2012 Construction Fund.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Freese and Nichols, Inc., that the Board of Directors authorize: 1) Change Order No. 2 for an increase of $225,788, resulting in a revised contract amount of $14,996,414.22; and, 2) a 30-day contract time extension resulting in a revised final completion date of February 21, 2015, for Project No. 210, North McKinney Pipeline System, Phases I and II. This will be an item on the regular agenda of the April 2014 Board meeting.
This administrative memorandum requests that the Board of Directors authorize the Executive Director to execute an engineering services agreement (ESA) with Freese and Nichols, Inc., (FNI) for professional services for the Lower Bois d'Arc Creek Reservoir (LBCR) Intake and Pump Station Configuration and Siting Engineering, Project No. 358. The ESA would be in accordance with the standard NTMWD agreement with a not-to-exceed amount of $200,000.

REVIEW

The Board has authorized several actions for the LBCR project that involve numerous activities including feasibility studies, permit applications, legal services, environmental services, engineering services, and property acquisition.

The preliminary engineering for the dam design was authorized by the Board in Administrative Memorandum No. 4091. FNI is performing the preliminary design of the dam at this time. The intake tower and raw water pump station configuration and siting engineering need follow concurrently with the dam design, so the designs of all three structures are coordinated with each other. All three structures are influenced and affected by the other, so their preliminary designs need to be performed concurrently. The raw water pump station and initial 3,000 linear feet of discharge pipe also needs to be located or sited now to assure proper coordination between the location of the raw water pump station, discharge pipe, dam, and spillway.

SCOPE OF SERVICES

The project scope includes:

- configuration of pump station intake
- siting for the lake pump station and approximately 3,000 LF of discharge pipeline
Basic engineering tasks include:

- collection of existing data
- determining environmentally sensitive areas and permitting constraints
- develop intake, pump station and electrical substation site alternatives
- develop intake, pump station and electrical substation arrangement alternatives
- coordinate with Fannin County Electric Co-Op and Oncor for location of electric power service
- preparation of two technical memoranda
- conduct two workshops with NTMWD to discuss findings of the technical memoranda

The total amount proposed for the basic services is a not-to-exceed amount of $200,000.

The current opinion of construction cost for the LBCR pump station, including 3,000 linear feet of discharge pipeline is $34,920,000 and for the LBCR intake tower is $17,082,000. The total combined opinion of construction cost for both structures is $52,002,000.

**ENGINEERING SERVICES FEE**

NTMWD requested FNI submit a cost proposal for the design work associated with configuring the LBCR intake tower structure and siting the LBCR pump station. The engineering services scope will be done in three phases: 1) siting pump station location and intake structure configuration; 2) preliminary engineering; and, 3) final engineering. This administrative memorandum requests approval of engineering for siting the pump station location and intake structure configuration, which will include those tasks listed under scope of services above. FNI has proposed to perform the basic engineering services in the not-to-exceed amount of $200,000. Once FNI completes these two tasks, the next step will be for FNI to submit a scope and fee proposal for the preliminary engineering effort.

The NTMWD staff has reviewed the engineering fees submitted by FNI and believes them to be fair and reasonable for the work associated with this project. These fees are within the guidelines of the Consulting Engineers Council for this type of work. The services would be performed in accordance with the standard ESA.

**FUNDING**

Funding in the amount of $200,000 for this project is available in the Regional Water System Capital Improvement Fund.
RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the Executive Director to execute an engineering services agreement with Freese and Nichols, Inc., for professional services associated with the Lower Bois d'Arc Creek Reservoir Intake and Pump Station, Configuration and Siting Engineering, Project No. 358, in the not-to-exceed amount of $200,000. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4184

REGIONAL WATER SYSTEM
LAKE TEXOMA OUTFALL TO WYLIE WATER TREATMENT PLANT
RAW WATER PIPELINE
PROJECT NO. 268

REIMBURSEMENT TO THE CITY OF WYLIE FOR ROAD REPAIRS

This administrative memorandum is for the Board of Directors consideration to authorize reimbursement to the City of Wylie (City) for road repairs required as a result of construction material delivery for the Lake Texoma Outfall to Wylie Water Treatment Plant (WTP) Raw Water Pipeline, Project No. 268. The requested amount of reimbursement is $80,000. Even with the proposed reimbursement, it is still projected that the total project cost including engineering, right-of-way acquisition, construction, inspection, and testing will be within the total amount previously authorized by the Board.

SUMMARY

The Lake Texoma Outfall to Wylie WTP Raw Water Pipeline project will provide the facilities required to reestablish pumping of the NTMWD's water right from Lake Texoma. This project was authorized by the Board in September 2011. Since that time, the project team has completed the design of the entire project, completed construction of approximately 48 miles of large diameter (84-inch and 96-inch) piping, and significant progress has been made on construction of the facilities required to blend Lake Texoma water with the water pumped into the Wylie WTP from Lake Lavon (blending facilities). The entire project cost, including engineering, right-of-way acquisition, construction, inspection, and testing totals approximately $311,000,000.

Achieving this amount of work in just over two years has taken a massive coordinated effort between NTMWD staff, Freese and Nichols, Inc. (FNI) and their sub-consultants, and the Construction Manager at Risk (CMAR), Garney Construction Company. Critical decisions were made by the project team at all points during the process based on several factors with the primary goal of achieving timely completion and startup of the facilities within the time frames established by the Board.

REVIEW

As the Board is aware, much construction activity has taken place on the Wylie WTP site during the construction of the facilities required to blend Lake Texoma water with the water pumped into the WTP from Lake Lavon (blending facilities). The construction traffic includes many hundreds of truckloads of heavy construction materials including large pipe, concrete, and gravel embedment. The NTMWD staff has met with City staff
on several occasions to discuss the damage being caused to roads adjacent to the WTP site. The roads most affected by the construction traffic include: 1) Paul Wilson Road along the west side of WTP III; 2) Skyview Drive along the north side of WTP III and south of Raw Water Pump Station No. 3; and, 3) Eubanks/Lynda Lane along the east side of WTP IV. The subject of this administrative memorandum is Paul Wilson Road and Skyview Drive. Both of these roads are asphalt with some sections of the roadway maintained by the City and some sections maintained by Collin County.

Although Collin County will begin maintenance activities in the near future to improve the entire length of Paul Wilson Road and Skyview Drive, approximately 3.9 miles, damage caused by NTMWD construction to the two roads required immediate temporary repair. Following the most recent meeting between NTMWD staff and Wylie’s City Manager and Engineering Manager in February, the NTMWD and City staffs inspected the condition of both roads to determine areas requiring repair. It was agreed that Wylie would perform the necessary immediate repairs to assure the roads were safe and passable. It is the recommendation of the Executive Director and NTMWD staff that since the damage was caused by NTMWD construction activities, the City be reimbursed for the work performed on these two roads. It is recommended that NTMWD reimburse the City a total of $80,000 for repair work performed by the City on Paul Wilson Road and Skyview Drive.

In May 2012, by Administrative Memorandum No. 3800, the Board authorized the Executive Director to execute an engineering services agreement with Cobb, Fendley & Associates, Inc., for design of Project No. 291, Wylie WTP East Access Gate and Road Improvements. The purpose of this project is to improve the roadways for WTPs III and IV, as well as to remove the majority of the chemical deliveries from Skyview Drive and redirect them to the WTP IV entrance on Lynda Lane. Award of construction for this project is the subject of Administrative Memorandum No. 4173 on the April 2014 Board agenda. During several of the previously mentioned meetings between NTMWD staff and City staff, the condition of the roads along the east side of WTP IV has also been discussed. These roads include Eubanks Lane, Lynda Lane, and Forrest Ross. Much heavy construction and chemical delivery traffic have utilized and will continue to utilize these roads. In the near future, the NTMWD staff will present for the Board’s consideration a request to fund improvements to these roads.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize reimbursement to the City of Wylie in the amount of $80,000 for road repairs as a result of construction material delivery for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4185

REGIONAL WATER SYSTEM
WYLIE WATER TREATMENT PLANTS CHEMICAL SYSTEMS EVALUATION
PRELIMINARY ENGINEERING
PROJECT NO. 354

ADDITIONAL ENGINEERING SERVICES

This administrative memorandum requests the Board of Directors: 1) authorize Water Treatment Plants I, II, and IV to be added to the Wylie Water Treatment Plant (WTP) III Chemical Systems Evaluation, Preliminary Engineering, Project No. 354; and 2) authorize additional engineering services with Carollo Engineers in the not-to-exceed amount of $842,700 resulting in a revised not-to-exceed amount of $1,435,300.

REVIEW

The chemical systems at the Wylie WTP have been constructed during many projects since the original construction of WTP I in the mid-1950s. The facilities include bulk storage chemical tanks, smaller day tanks, chemical pumps, chemical solution and gas piping, both above grade and buried, that is routed throughout each of the four water treatment plants, dispensing equipment, metering equipment, and safety equipment. Construction and upgrade of the water treatment system is continuously underway at the water treatment plants. Standardly, each construction project will include modifications, additions or extensions to the chemical systems, which will include excavation around the chemical systems. While the chemical system facilities met all requirements in effect at the time of construction, it is the opinion of the NTMWD staff that a review of the existing facilities is warranted for the following reasons:

- Confirm the systems meet current Texas Commission on Environmental Quality (TCEQ), International Fire Code (IFC), and other applicable regulations
- Inspect the condition of the chemical unloading, storage, containment, and conveyance systems to assure proper integrity of the systems
- Determine required improvements based on regulatory requirements and condition assessment

In March 2014, the Board approved Administrative Memorandum No. 4158, which authorized an engineering services agreement (ESA) with Carollo Engineers (Carollo) in the not-to-exceed amount of 592,600 to perform the preliminary engineering for a chemical systems evaluation of Wylie WTP III. The purpose of the preliminary engineering effort is to perform an evaluation of the chemical systems at the Wylie WTP III for plant specific tasks. As stated in Administrative Memorandum No. 4158, Much of “the preliminary engineering effort performed for WTP III will apply to the other three plants (WTPs I, II, and IV) on the Wylie site. However, in order to accurately apply the recommendations to WTPs I, II, and IV, future engineering will be required for those
three plants that will supplement the results of this engineering effort. Recommendations for the three remaining plants will be presented to the Board in the future for consideration and action." The purpose of the current administrative memorandum is to add the plant specific tasks for WTPs I, II, and IV in the scope of the chemical system evaluation.

PROPOSED ADDITIONAL SERVICES

The proposed additional services will include the addition of Wylie WTPs I, II, and IV to the scope of work previously approved for WTP III and as described in the following paragraphs. These services would include a review of NTMWD's chemical system facilities for Wylie WTPs I, II, III, and IV by collecting data and field investigations for each of the chemicals currently used in the treatment process. All chemical systems will be evaluated for compliance with current TCEQ and IFC regulations. Carollo will also identify risks associated with each chemical and will provide recommendations for bulk/day storage, including containment, unloading, conveyance, and metering. Other considerations that will be evaluated during this project include structural condition/integrity, instrumentation hardware, supervisory control and data acquisition (SCADA) functionality, safety systems, painting, and labeling. The chemical systems to be evaluated include the following:

1. Ferric Sulfate
2. Sodium Hydroxide (Caustic)
3. Hydrofluorosilicic Acid (Fluoride)
4. Polymer
5. Sodium Chlorite
6. Chlorine Dioxide
7. Lime
8. Calcium Thiosulfate
9. Hydrogen Peroxide
10. Phosphoric Acid
11. Chlorine
12. Anhydrous Ammonia

A summary of the major tasks to be performed include the following:

- Review existing drawings and record information related to chemical systems prior to conducting field investigations
- Conduct interviews with plant personnel to assist in determining actual field conditions and existing facilities
- Identify the risks associated with each chemical and conduct risk workshops to review the findings of the risk identification
- Perform alternative evaluations for each chemical and include recommendations for bulk storage (containment, unloading, and transfer to day tanks), conveyance, and metering
- Conduct workshops to review the findings of the alternative evaluations
• Prepare a monitoring plan, which will include routine procedures and documentation for evaluating the systems’ conditions
• Develop specific recommendations for each chemical system
• Evaluate the existing instrumentation hardware including tank level measurement, pressure measurement, flow measurement, and alarms
• Prepare recommendations for additional or replacement instrumentation hardware based on evaluation
• Review the SCADA functionality for the chemical systems from the receiving point to application point and recommend improvements where appropriate
• Evaluate the safety systems including emergency showers, emergency eye wash stations, and personal protection
• Evaluate chemical storage tanks, as well as pipe coatings and labeling to confirm compliance with TCEQ painting and labeling requirements
• Prepare schematics of each chemical system
• Prepare a construction cost estimate based on the recommendations developed during this overall project evaluation
• Prepare draft report(s) summarizing all aspects of the evaluation
• Revise draft report(s) based on input from NTMWD staff and prepare final report(s)

The following items were not included in the original agreement but are proposed to be added to Carollo’s scope of services at the request of NTMWD staff:

• Evaluate the existing electrical facilities with particular attention to chemical unloading areas to ensure adequate lighting for chemical delivery trucks during non-daylight hours
• Communicate with NTMWD legal counsel in addition to NTMWD staff personnel with regard to all regulatory items

ADDITIONAL ENGINEERING SERVICES FEE

Carollo has proposed to perform the additional engineering services associated with the project in the not-to-exceed amount of $739,000 for basic services and in the not-to-exceed amount of $103,700 for special services, resulting in a total not-to-exceed amount of $842,700. Included in the special services are subsurface utility evaluation costs and survey costs to expose facilities in selected locations and record their locations. The nature of this project has resulted in a project with the basic engineering services amount much larger than a conventional design project. Work by Carollo will include a large amount of document review, regulatory review, field investigation, risk identification, and alternatives evaluation. The engineer’s opinion of probable construction cost will be developed after the majority of the engineering effort has been completed. The result is anticipated to be a ratio of engineering costs to projected construction costs that do not align with typical construction contract convention.
ADMINISTRATIVE MEMORANDUM NO. 4185

PAGE 4

Considering the scope and projected level of effort, NTMWD staff believes the resulting not-to-exceed engineering fees to be representative of the effort required. The services would be performed in accordance with the standard ESA and added to the current ESA for Project No. 354. These fees are within the guidelines of the Consulting Engineers Council for this type of work.

SUMMARY OF ENGINEERING SERVICES AGREEMENT

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<td>(Ad. Memo. No. 4158)</td>
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<td>Proposed Additional Services</td>
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<td>$1,297,000</td>
<td>$138,300</td>
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This item will be reviewed during the Water Committee meeting to be held on Thursday, April 24, 2014, at 2:00 p.m.

FUNDING

Additional funding in the amount of $842,700 for this project is to be made available in the Regional Water System Capital Improvement Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors: 1) authorize Water Treatment Plants I, II, and IV to be added to the Wylie Water Treatment Plant III Chemical Systems Evaluation, Preliminary Engineering, Project No. 354; and 2) authorize additional engineering services with Carollo Engineers in the not-to-exceed amount of $842,700 resulting in a revised not-to-exceed amount of $1,435,300. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4186

REGIONAL WATER SYSTEM
WATER TREATMENT PLANT I
CONVERSION TO BIOLOGICALLY ACTIVE FILTRATION AND
IMPROVEMENT OF EXISTING UNDERDRAINS
PROJECT NO. 259

CHANGE ORDER NO. 6

This administrative memorandum is for the Board of Directors consideration of Change Order No. 6 for Project No. 259, Water Treatment Plant (WTP) I Conversion to Biologically Active Filtration and Improvement of Existing Underdrains for an increase of $66,374, resulting in a revised contract amount of $8,211,170.75.

REVIEW

Included in this project are the following improvements in WTP I: new filter underdrains, floor slabs and air distribution piping; new precast concrete troughs at a higher elevation than the existing troughs; corrosion protectant coating on all wetted surfaces in each filter; new valves at selected locations; new electric actuators for new and existing valves; new effluent launder weir plates in the four clariflocculators; and associated electrical and instrumentation.

The table below provides the history of this project starting with the engineering services agreement (ESA) for detailed design of this project and concluding with the latest change order approved by the Board:

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<th>Ad. Memo. No.</th>
<th>Description</th>
<th>Amount</th>
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<td>Award to PCL Construction, Inc. (PCL)</td>
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<td>March 2013</td>
<td>3960</td>
<td>C.O. No. 1 for twelve (12) 30-inch washwater supply valves and bulkheads to isolate the clariflocculators</td>
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<td>3982</td>
<td>C.O. No. 2 for additional surface preparation for epoxy coating system</td>
<td>$227,024.59</td>
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<td>June 2013</td>
<td>4005</td>
<td>C.O. No. 3 for epoxy injection in filter construction joints</td>
<td>$28,269.20</td>
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<td>January 2014</td>
<td>4115</td>
<td>C.O. No. 4 for bituminous coating removal at center flume of four filters</td>
<td>$68,145.00</td>
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</table>
The total value of the construction contract with PCL including Change Order No. 5 is $8,144,796.75.

PROPOSED CHANGE ORDER NO. 6

Proposed Change Order No. 6 consists of four items on the referenced project for a net increase in contract price of $66,374. The NTMWD Engineering staff and Carollo have reviewed these items and recommend them as necessary and reasonable.

Item No. 1 – Pipe Spacers

- **Issue:** New 30-inch influent and washwater valves were planned to be replaced as part of this project. During installation of the valves, it was discovered that the existing 30-inch flanged fittings had smaller diameter bolt holes than currently provided on a standard 30-inch flange.

- **Recommendation:** The consulting engineer recommended installation of pipe spacers for each thru-bolt on all valves. There are a total of twenty-four (24) 30-inch valves and each valve has 48 thru-bolts resulting in 1,152 spacers to fabricate and install.

- **Proposed Cost:** The contractor has submitted a proposal to furnish and install the additional recommended work for the total amount of $7,905.

Item No. 2 – Loss of Head Instrument Modifications

- **Issue:** The existing differential pressure transmitter and the pressure gauges for each filter are operational. However, the associated valves and copper piping from each filter to the respective transmitter were installed during the original construction and are extremely deteriorated. Replacement of these components was not part of the original scope.

- **Recommendation:** Demolish existing piping and supports, patch holes, and core drill new holes for piping. Install new 316 stainless steel piping, new pipe supports, as well as new valves for all twelve (12) filters.
Proposed Cost: The contractor has submitted a proposal to furnish and install the additional recommended work at a cost of approximately $2,947.75 per filter. The total cost for all twelve filters is $35,373.

Item No. 3 – Restore Communications to the pH Meter $3,618

Issue: Significant construction and numerous changes have occurred since WTP I was originally placed into service. In some cases, the new facilities were not accurately shown on the record drawings. As a result, the design of the new control system did not provide complete communications, and additional improvements are needed for proper indication of the settled water pH meter.

Recommendation: Install new wiring and terminations from the filter gallery to the new PLC-1 cabinet located in the control room. SCADA modifications and additional programming will also be required to restore communication to the existing pH meter.

Proposed Cost: The contractor has submitted a proposal to furnish and install the recommended work for the total amount of $3,618.

Item No. 4 – Level Instruments $19,478

Issue: After WTP I was placed back into operation, it has been determined that eight existing ultrasonic level transmitters (LITs) do not provide accurate level indication. The LITs have been calibrated with no improvement in performance.

Recommendation: NTMWD staff and Carollo propose to replace the LITs on Filter Nos. 1, 3, 5, 6, 7, 9, and 11 as well as the settled water flume for a total of eight new LITs.

Proposed Cost: The contractor has submitted a proposal to furnish and install the recommended work at a cost of approximately $2,434.75 for each LIT. The total cost for all eight level instruments (LIT’s) is $19,478. This cost includes: furnish and install eight new LITs (the contractor will utilize existing conduit and wire), wire terminations, PLC programming, and instrument calibration.

A total cost of $66,374 has been proposed by the contractor for these changes. NTMWD staff and Carollo have reviewed the costs submitted by the contractor and feel they are representative of the materials and labor effort involved.
### SUMMARY OF CHANGE ORDER NO. 6

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<td>Pipe Spacers</td>
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<td>2</td>
<td>Loss of Head Instrument Modifications</td>
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<td>3</td>
<td>Restore Communications to the pH Meter</td>
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<td>4</td>
<td>Level Instruments</td>
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<td><strong>Total</strong></td>
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### SUMMARY OF ADJUSTMENTS TO CONTRACT

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<td>C.O. No. 2</td>
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<td>C.O. No. 3</td>
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<td>C.O. No. 4</td>
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<td>C.O. No. 5</td>
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### FUNDING

Additional funding in the amount of $66,374 for this project is available in the Regional Water System Capital Improvement Fund.

### RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Carollo Engineers that the Board of Directors approve Change Order No. 6 for the Water Treatment Plant I Conversion to Biologically Active Filtration and Improvement of Existing Underdrains, Project No. 259, for an increase in the amount of $66,374, resulting in a revised contract amount of $8,211,170.75. This will be an item on the regular agenda of the April 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

APRIL 2014

ADMINISTRATIVE MEMORANDUM NO. 4187

NTMWD’S WATER CONSERVATION AND DROUGHT CONTINGENCY/WATER EMERGENCY RESPONSE PLAN EXTENSION OF STAGE 3 LANDSCAPE WATER MANAGEMENT STRATEGIES

The purpose of this administrative memorandum is to request that the Board of Directors authorize an extension of seasonal watering as written in Stage 3 of the NTMWD’s Water Conservation and Drought Contingency/Water Emergency Response Plan with continuation of the extension by the Member Cities and Customers no later than May 1, 2014, or as soon as possible thereafter, with subsequent monthly extensions considered by the Board.

The implementation of seasonal watering, as written in Stage 3 of the Plan, limits landscape watering with sprinklers or irrigation systems at each service address between November 1 and March 31 to once every two weeks. The extension of seasonal watering through May 31, 2014, is recommended to be effective May 1, 2014, with monthly extensions considered by the Board thereafter.

NTMWD staff will continue to monitor the raw water supply and drought conditions and will update the Board monthly. Each month, NTMWD staff will make a recommendation to the Board to extend the seasonal watering or return to a lesser drought provision, if applicable, based on water models and if any changes in the weather pattern have occurred.

As the ongoing drought conditions remain, reservoir levels continue to remain very low as little to no rain inflow is being received in the NTMWD’s water supply sources. As of April 16, 2014, Lavon Lake is down 11.75 feet, Lake Jim Chapman is down 10.74 feet, Lake Tawakoni is down 9.83 feet, and Lake Texoma is down 8.32 feet. The Lake Texoma water supply is scheduled to be back online in May 2014 for Water Treatment Plants III and IV and in June 2014 for Water Treatment Plants I and II.

BACKGROUND

Implementation of Stage 3 was approved on April 25, 2013, which included Member Cities and Customers limit landscape watering with sprinklers or irrigation systems at each service address to once every seven days effective June 1, 2013. Implementation of Stage 3 seasonal watering was approved on October 17, 2013, which included Member Cities and Customers limit landscape watering with sprinklers or irrigation systems at each service address between November 1 and March 31 to once every two weeks. On March 27, 2014, NTMWD Board approved continuation of the seasonal landscape watering of once every two weeks for the month of April 2014.
SUMMARY

Water models indicate that continuation of Stage 3 of the Plan will assist in extending water supplies, and it is critical in meeting projected water demands that Member Cities and Customers continue to achieve a 10% or greater water use reduction. NTMWD staff will continue to monitor the raw water supply and drought conditions and will update the Board monthly.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize extension of seasonal watering through May 31, 2014, as written in Stage 3 of the NTMWD's Water Conservation and Drought Contingency/Water Emergency Response Plan with continuation of the extension by the Member Cities and Customers no later than May 1, 2014, or as soon as possible thereafter, with subsequent monthly extensions considered by the Board. This will be an item on the regular agenda of the April 2014 Board meeting.
## NORTH TEXAS MUNICIPAL WATER DISTRICT
### WATER CONSUMPTION REPORT
#### March 2014

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<td>55,335,851</td>
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### Lake Elevations

**Lavon (Conservation Pool 492.0)**
100% (118,670 acre ft) Remaining Water Right

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<tr>
<td>Maximum</td>
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<tr>
<td>Minimum</td>
<td>479.52</td>
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<td>Average</td>
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**Chapman (Conservation Pool 440.0)**
5.3% (3,052 acre ft) Remaining Water Right

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</tr>
<tr>
<td>Minimum</td>
<td>427.00</td>
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<td>Average</td>
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**Tawakoni (Conservation Pool 437.5)**
44.0% (28,091 acre ft) Remaining Water Right

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<tr>
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<tr>
<td>Minimum</td>
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### Precipitation

**Lavon**

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<td>Total Inches</td>
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**Chapman**

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**Tawakoni**

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<td><strong>Subtotal Customers</strong></td>
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# NORTH TEXAS MUNICIPAL WATER DISTRICT

## REGIONAL WASTEWATER SYSTEM FLOW REPORT

### MARCH 2014

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<td>1,044,106</td>
<td>8.19</td>
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<td>9.24</td>
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<td>4.07</td>
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<td>3.58</td>
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<td>3.75</td>
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<td>421,285</td>
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<tbody>
<tr>
<td>Allen</td>
<td>156,281</td>
<td>10.03</td>
<td>1,044,106</td>
<td>10.98</td>
<td>212,530</td>
<td>12.04</td>
<td>1,081,704</td>
<td>11.15</td>
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<tr>
<td>Frisco</td>
<td>86,430</td>
<td>5.55</td>
<td>518,454</td>
<td>5.45</td>
<td>82,267</td>
<td>4.66</td>
<td>478,449</td>
<td>4.93</td>
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<tr>
<td>McKinney</td>
<td>401,001</td>
<td>25.74</td>
<td>2,368,679</td>
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* Report does not include nonmember city flows.
### LOWER EAST FORK INTERCEPTOR SYSTEM

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### SABINE CREEK REGIONAL WWTP

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# NORTH TEXAS MUNICIPAL WATER DISTRICT
## WASTEWATER QUALITY REPORT
### MARCH 2014

### CARB. BIOCHEMICAL OXYGEN DEMAND

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<th>FINAL</th>
<th>TCEQ</th>
<th>% REMOVAL</th>
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### NORTH TEXAS MUNICIPAL WATER DISTRICT
#### REGIONAL SOLID WASTE SYSTEM
#### TONNAGE REPORT
#### March 2014

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CONSTRUCTION PROGRESS REPORT
FOR PROJECTS UNDERWAY
MARCH 31, 2014

WATER SYSTEM

PROJECT: NO. WCF 07-4
LAKE TAWAKONI WATER TREATMENT PLANT

CONTRACTOR: BAR CONSTRUCTORS, INC.

CONTRACT DATE: JUNE 26, 2008

NOTICE TO PROCEED DATE: JULY 17, 2008

ORIGINAL COMPLETION DATE: JUNE 30, 2010

REVISED COMPLETION DATE: JANUARY 14, 2013

TIME LAPSED: 127%

BID AMOUNT: $61,316,420.00

CHANGE ORDERS:
1. ($88,876.75)
2. $83,334.34
3. $24,913.52
4. $35,890.05
5. $532,186.58
6. $262,271.96
7. $55,566.52
8. $50,285.76
9. $82,627.19
10. $16,211.07
11. $24,693.03

CURRENT CONTRACT AMOUNT: $62,395,543.26

AMOUNT EARNED TO DATE: $62,385,543.26

% CONTRACT AMOUNT EARNED: 99%

REMARKS: The contractor has completed all major components of construction except for the sedimentation basin sludge lagoon. A discharge from the lagoon into the adjacent creek was discovered in December 2013. NTMWD technical services has constructed containment berms and installed submersible pumps to arrest the discharge and return the leaking water back to the lagoon. NTMWD staff and Black & Veatch Corporation (B&V) are currently investigating the cause of the leak. NTMWD staff issued a directive to the contractor in December 2013 to correct the lagoon construction. NTMWD staff and B&V continue to monitor the leak while negotiations are underway with the contractor.

PROJECT NO. 128
LAKE TEXOMA PUMP STATION MODIFICATIONS

CONTRACTOR: ARCHER WESTERN CONTRACTORS, LLC

CONTRACT DATE: JANUARY 13, 2009

NOTICE TO PROCEED DATE: JANUARY 14, 2009

COMPLETION DATE: AUGUST 1, 2010

TIME LAPSED: 336%

BID AMOUNT: $6,479,702.00

CHANGE ORDERS:
1. ($37,046.13)
2. $82,116.00
3. $51,095.65

CURRENT CONTRACT AMOUNT: $6,649,959.78

AMOUNT EARNED TO DATE: $6,215,965.88

% CONTRACT AMOUNT EARNED: 95%

REMARKS: Since the two new vertical pumps were stored onsite for an extended period, the option to undertake a factory inspection prior to installation was recommended to the Board at the July 2013 meeting. The Board approved Change Order No. 2 in the amount of $82,116 to have the pumps returned to the pump manufacturer for inspection prior to installation. In January, the pumps were
inspected by the pump manufacturer and the NTMWD was given the inspection report. In February, the Board approved Change Order No. 3 in the amount of $51,095.65 to have the pump manufacturer recoat the pumps and repair a galled shaft, both per the pump manufacturer’s recommendation following completion of the inspection report. In March, the pump manufacturer repaired the galled shaft and recoated the pumps.

PROJECT NO. 153  
WATER TREATMENT PLANTS I, II, III AND IV OZONATION

CONTRACTOR: MCCARTHY BUILDING COMPANIES, INC.

CHANGE ORDERS: 1 - $87,737.15  
2 - $30,000.00  
3 - ($48,178.06)  
4 - $120,288.62  
5 - $85,531.62  
6 - $102,863.15  
7 - $252,716.53  
8 - $179,303.48  
9 - $128,065.21  
10 - $111,463.32  
11 - $155,596.10  
12 - $160,584.35  
13 - $269,575.51  
14 - $76,130.23  
15 - $54,251.21  
16 - $144,688.77  
17 - $58,405.59  
18 - $475,186.93  
19 - ($4,756,850.01)  
20 - $52,692.05  
21 - $70,404.74  
22 - $72,815.57  
23 - $35,120.49  
24 - $38,373.02  
25 - $103,555.41

CURRENT CONTRACT AMOUNT: $111,049,520.98

AMOUNT EARNED TO DATE: $105,221,514.91

% CONTRACT AMOUNT EARNED: 95%

REMARKS: The WTP III north and south contactors completed the 30-day owner’s operation test on March 17, 2013. A substantial completion inspection for WTP III contactors and the remaining portion of North Ozone Operations Building was performed on March 3, 2014. Black and Veatch provided McCarthy with the list of items required for substantial completion, and McCarthy is working on resolving the items on that list. The ozone generators at South Ozone Operations Building (SOPS) have all been started up by the equipment manufacturer. Initial testing of WTP II north contactor with ozone is underway. The instrumentation equipment in the WTP II south contactor is being checked in preparation for ozone testing. Paving around the SOPS is complete, as well as the paving at WTP III.
PROJECT NO. 188
EXFAND HIGH SERVICE PUMP STATION 3-1 TO 350 MGD

CONTRACTOR: BAR CONSTRUCTORS, INC.

CONTRACT DATE: JUNE 30, 2010
NOTICE TO PROCEED DATE: SEPTEMBER 3, 2010
COMPLETION DATE: AUGUST 6, 2012
REVISED COMPLETION DATE: OCTOBER 20, 2012

TIME LAPSED: 163%

REMARKS: The contractor is in the process of installing new flow meter probes and cable. The pumps are scheduled to be started up during the month of April.

PROJECT NO. 200
INSTALL SECOND 50 MGD PUMP AND IMPROVEMENTS AT APOLLO PUMP STATION

CONTRACTOR: LEGACY CONTRACTING, LP

CONTRACT DATE: NOVEMBER 21, 2011
NOTICE TO PROCEED DATE: DECEMBER 21, 2011
ORIGINAL COMPLETION DATE: APRIL 14, 2013
REVISED COMPLETION DATE: JANUARY 21, 2014

TIME LAPSED: 108%

REMARKS: During the month of March, the Board approved final payment. The contractor completed all outstanding punchlist items.

PROJECT NO. 201
ELECTRICAL IMPROVEMENTS AT RAW WATER PUMP STATION NO. 2

CONTRACTOR: CRESCENT CONSTRUCTORS INC.

CONTRACT DATE: SEPTEMBER 27, 2012
NOTICE TO PROCEED DATE: OCTOBER 11, 2012
ORIGINAL COMPLETION DATE: OCTOBER 11, 2013
REVISED COMPLETION DATE: FEBRUARY 17, 2014

TIME LAPSED: 107%

REMARKS: This project is complete and is to be closed out this month.
## PROJECT NO. 202
**ELECTRICAL IMPROVEMENTS AT HIGH SERVICE PUMP STATION NO. 1-1**

- **Contractor:** Crescent Constructors, Inc.
- **Contract Date:** October 17, 2013
- **Notice to Proceed Date:** November 6, 2013
- **Completion Date:** February 14, 2015
- **Time Lapsed:** 30%

**Remarks:** The contractor continues to submit material and equipment information to the engineer for review. Above ground conduit rough-in is 25% complete, light fixture installation is 35% complete. Approved materials continue to arrive and are stored on site.

## PROJECT NO. 205
**SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM UPGRADES AND OPERATIONS**

- **Contractor:** Prime Controls, LP
- **Contract Date:** December 28, 2012
- **Notice to Proceed Date:** January 29, 2013
- **Original Completion Date:** January 29, 2014
- **Revised Completion Date:** August 27, 2014
- **Time Lapsed:** 73%

**Remarks:** Contractor field check and startup engineering work is 25% complete. Plant I Rockwall pump station PLC is complete. Installation and startup of Plant III PLCs is 50% complete. Existing Modicon PLC installation and testing is 50% complete. Layer 2 network switch installation and testing is 50% complete. Approximately 22% of programming (PLC and HMI) has been completed.

## PROJECT NO. 206
**INSTALL PIPING MODIFICATIONS AT HAILEY PUMP STATION**

- **Contractor:** Legacy Contracting, LP
- **Contract Date:** November 21, 2011
- **Notice to Proceed Date:** December 21, 2011
- **Completion Date:** April 14, 2013
- **Time Lapsed:** 125%

**Remarks:** As of May 2013, the contractor has completed all work associated with this project. Authorization to make final payment for both Project Nos. 200 and 206 was approved at the March 2014 Board meeting.
PROJECT NO. 207
EXPAND FRISCO/MCKINNEY
PUMP STATION TO 130 MGD
CONTRACTOR: ARCHER WESTERN CONTRACTORS, LLC
CONTRACT DATE: JANUARY 27, 2011
NOTICE TO PROCEED DATE: FEBRUARY 9, 2011
ORIGINAL COMPLETION DATE: JULY 28, 2013
REVISED COMPLETION DATE: JANUARY 15, 2014
TIME Lapsed: 120%
BID AMOUNT: $6,441,225.00
CHANGE ORDERS: 1 - $75,540.00
2 - $75,926.64
Time Ext.-40 Days
3 - ($72,624.12)
Time Ext.-131 Days
CURRENT CONTRACT AMOUNT: $6,520,067.52
AMOUNT EARNED TO DATE: $6,520,067.52
% CONTRACT AMOUNT EARNED: 100%
REMARKS: The contractor has submitted the final payment application. This project is complete.

PROJECT NO. 210
NORTH MCKINNEY PIPELINE PHASES I AND II
CONTRACTOR: S.J. LOUIS CONSTRUCTORS OF TEXAS, LTD.
CONTRACT DATE: JANUARY 23, 2014
NOTICE TO PROCEED DATE: FEBRUARY 26, 2014
ORIGINAL COMPLETION DATE: JANUARY 22, 2015
TIME Lapsed: 8%
BID AMOUNT: $14,741,741.22
CHANGE ORDERS: 1 - $28,885.00
CURRENT CONTRACT AMOUNT: $14,770,626.22
AMOUNT EARNED TO DATE: $130,092.00
% CONTRACT AMOUNT EARNED: 1%
REMARKS: The contractor has begun tunneling operations in McKinney, around Airport Road and Elm Street, and Airport Road and Industrial Boulevard. The contractor plans to begin open trench pipe laying operations in these same locations beginning in April.

PROJECT NO. 251
WATER TREATMENT PLANT IV CONVERSION TO BIOLOGICALLY ACTIVE FILTRATION
CONTRACTOR: ARCHER WESTERN CONTRACTORS, LLC
CONTRACT DATE: MARCH 22, 2012
NOTICE TO PROCEED DATE: MARCH 29, 2012
COMPLETION DATE: DECEMBER 29, 2013
REVISED COMPLETION DATE: APRIL 28, 2014
TIME Lapsed: 95%
BID AMOUNT: $5,364,550.00
CHANGE ORDERS: 1 - $57,815.00
2 - $111,725.00
3 - $138,988.00
4 - $21,308.00
5 - $27,317.00
6 - $16,933.57
Time Ext.-120 Days
CURRENT CONTRACT AMOUNT: $5,738,636.57
AMOUNT EARNED TO DATE: $5,707,300.03
% CONTRACT AMOUNT EARNED: 97%
REMARKS: This project includes work in all 20 filters at WTP IV. Filter Nos. 1-20 are complete with the exception of automatic operation of the leveling gates, and they have been placed back into service. The programming for the leveling gate operation is complete. The chemical equipment used in the biologically active filtration process has been started up and tested. A final walkthrough inspection is scheduled for the beginning of April 2014. Only minor punchlist items remain.
PROJECT NO. 259
WATER TREATMENT PLANT I CONVERSION TO BAF AND IMPROVEMENTS OF EXISTING UNDERDRAINS

CONTRACTOR: PCL CONSTRUCTION, INC.

CONTRACT DATE: NOVEMBER 15, 2012

NOTICE TO PROCEED DATE: DECEMBER 6, 2012

COMPLETION DATE: MAY 5, 2015

TIME Lapsed: 53%

BID AMOUNT: $7,535,625.00

CHANGE ORDERS: 1 - $181,105.96
2 - $227,024.59
3 - $28,269.20
4 - $88,145.00
5 - $104,627.00

CURRENT CONTRACT AMOUNT: $8,144,796.75

AMOUNT EARNED TO DATE: $7,132,724.31

% CONTRACT AMOUNT EARNED: 88%

REMARKS: This project includes work in all 12 filters and 4 clarifloculators at WTP I. Work is completed on Clarifloculator Nos. 1 and 4 and Filter Nos. 2, 4, 8, 10, and 12. Startup of completed filters was performed the first week of March. All new valves, actuators, and flowmeters are installed. Filter No. 6 underdrains are currently being installed; Filter Nos. 9 and 11 will follow. Contractor is working towards completing these three filters by early April. Electrical and instrumentation subcontractors are working towards restoring communications with wastewater pumps and elevated storage tank level.

PROJECT NO. 266
42-INCH AND 24-INCH WATERLINE RELOCATION ALONG STACY ROAD (FM 2786) FROM SH 5 (GREENVILLE DRIVE) TO FM 1378 (COUNTRY CLUB ROAD)

CONTRACTOR: MOUNTAIN CASCADE OF TEXAS, LLC

CONTRACT DATE: DECEMBER 19, 2013

NOTICE TO PROCEED DATE: JANUARY 14, 2014

COMPLETION DATE: DECEMBER 10, 2014

TIME Lapsed: 23%

BID AMOUNT: $5,798,242.00

CHANGE ORDERS: NONE

CURRENT CONTRACT AMOUNT: $5,798,242.00

AMOUNT EARNED TO DATE: $194,705.50

% CONTRACT AMOUNT EARNED: 3%

REMARKS: The contractor is in the process of clearing the permanent easement of trees and is installing temporary fencing where required. Contractor anticipates beginning boring/tunneling operations in early April. Open trench installation is anticipated to begin in May 2014.

PROJECT NO. 268
LAKE TEXOMA OUTFALL TO WYLIE WATER TREATMENT PLANT RAW WATER PIPELINE

CONTRACTOR: (CMAR): GARNEY CONSTRUCTION

CMAR NOTICE TO PROCEED DATE: JUNE 29, 2012

CONTRACT DATE: JANUARY 26, 2012

COMPLETION DATE: JUNE 30, 2014

TIME Lapsed: 87%

AUTHORIZED TOTAL AMOUNT TO DATE: $282,323,495.00

AUTHORIZED EXPENDITURE TO DATE: $279,099,743.80

AMOUNT EARNED TO DATE: $270,271,543.33

REMARKS: In January 2013, through approval of Administrative Memorandum No. 3931, the Board approved an adjustment to the allowance for Garney Companies, Inc., (the CMAR) for additional funding for bonds, insurance, contingency, and construction in the amount of $20,075,609. This requested additional funding and set the guaranteed maximum price at $282,323,495 based on the current scope for the project.
BIDS RECEIVED & AWARDED
Plant Work Bid Package No. 6 was completed and approved in February, there are no planned additional bid packages required for completion of this project.

CONSTRUCTION
All pipeline sections (A, B, C, D, and E) are complete and passed hydrostatic testing. Pipeline contractors are finishing work on easement restoration and fiber optic conduit installation is near completion. The fiber optic cable contractor continues to pull fiber cable through the conduit. The balancing reservoir contractor achieved substantial completion on both cells in November 2013 and continued work on miscellaneous electrical/SCADA work items.

On the Wylie water treatment plant site, the surge tank, all four blend tanks, and Mixing Boxes III and IV are substantially complete. The Plant III raw water pipeline was tied in to the new Mixing Box III and Blend Tank III, and Lake Lavon water now flows through the new blending facilities. Work continued in the north and south electrical buildings at Raw Water Pump Station No. 3, the reclaim electrical buildings, and other various electrical buildings. Work continued on Mixing Boxes I and II, various meter vaults, flow meter installations, and miscellaneous plant piping. The electrical contractor continued work on miscellaneous items including setting equipment, panels, and various duct banks throughout the plant site.
## Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline

### Cost Summary to Date

<table>
<thead>
<tr>
<th>Amendment</th>
<th>Date Bid</th>
<th>Date Authorized</th>
<th>Item</th>
<th>Budget</th>
<th>Actual Bid</th>
<th>Difference</th>
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<tbody>
<tr>
<td>1</td>
<td>N/A</td>
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<td>Procurement Service</td>
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<td>Construction Service</td>
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<td>1</td>
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<td>Bonds and insurance</td>
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<td>2</td>
<td>06/06/12</td>
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<td>Pipe Material</td>
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<td>3</td>
<td>07/11/12</td>
<td>08/16/12</td>
<td>CMAR Provided Materials &amp; Services for Pipeline</td>
<td>$10,142,738</td>
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<td>3</td>
<td>07/11/12</td>
<td>08/16/12</td>
<td>CMAR Selected Materials &amp; Services for Pipeline</td>
<td>$10,196,843</td>
<td>$9,267,129</td>
<td>-$929,714</td>
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<td>3</td>
<td>07/11/12</td>
<td>08/16/12</td>
<td>CMAR Provided Materials &amp; Services for Connections &amp; Blending</td>
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<td>3a</td>
<td>N/A</td>
<td>10/31/12</td>
<td>Credit for CMAR Selected Materials that were incorporated into Amendment No. 5</td>
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<td>4</td>
<td>08/01/12</td>
<td>08/16/12</td>
<td>CMAR Provided Services for Sludge Removal at WTP Site</td>
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<td>$1,867,888</td>
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<td>5</td>
<td>10/03/12</td>
<td>10/31/12</td>
<td>Pipeline Installation (John D. Stevens Sections A&amp;B, BAR Constructors Section C, Garney Construction Section D, and Oscar Renda Contracting Section E)</td>
<td>$63,185,094</td>
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<td>10/03/12</td>
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<td>ASI Constructors constructs Balancing Reservoir</td>
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<td>07/11/12</td>
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<td>Construction Staking</td>
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<td>Flow Control Ball Valve</td>
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<td>Flow Meters</td>
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<td>MV Switchgear RWPS3</td>
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<td>Allowance for Utility Conflicts</td>
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<td>12/12/12</td>
<td>01/21/13</td>
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<td>12/12/12</td>
<td>01/21/13</td>
<td>Plant III &amp; IV Furnish and Install</td>
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<td>12/12/12</td>
<td>01/21/13</td>
<td>60&quot; &amp; 78&quot; Yard Pipe and Connections</td>
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<td>$5,368,890</td>
<td>-$2,155,805</td>
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<td>12/12/12</td>
<td>01/21/13</td>
<td>Existing Plant Chemical Feed, meters, and vaults</td>
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<td>Submittals in support of Texoma Surge Tank</td>
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<td>$250,000</td>
<td>$0</td>
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<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>Sherman</td>
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<td>12/19/12</td>
<td>02/08/13</td>
<td>Electrical &amp; Instrumentation/ SCADA</td>
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<td>$12,541,700</td>
<td>$1,004,350</td>
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<td>9</td>
<td>12/12/12</td>
<td>02/08/13</td>
<td>Concrete Raw Water Storage - Lake Texoma Surge Tank</td>
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<td>-$1,029,847</td>
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<td>9</td>
<td>12/12/12</td>
<td>02/08/13</td>
<td>Credit for Submittals in support of Texoma Surge Tank</td>
<td>-$250,000</td>
<td>-$250,000</td>
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<td>9</td>
<td>12/12/12</td>
<td>02/08/13</td>
<td>Concrete Raw Water Storage - Blend Tanks I &amp; II</td>
<td>$4,500,000</td>
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<td>9</td>
<td>12/12/12</td>
<td>02/08/13</td>
<td>Concrete Raw Water Storage - Blend Tanks III &amp; IV</td>
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<td>03/06/13</td>
<td>06/17/13</td>
<td>Cathodic Protection System and Implementation</td>
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<td>03/06/13</td>
<td>06/17/13</td>
<td>Fiber Optic Cable Install</td>
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<td>$499,852</td>
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<td>11</td>
<td>04/05/13</td>
<td>06/17/13</td>
<td>Pump Vibration Monitoring and Correction</td>
<td>$250,000</td>
<td>$293,000</td>
<td>$43,000</td>
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<td>12</td>
<td>08/21/13</td>
<td>02/24/14</td>
<td>Mobile Filtration Components</td>
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<td>$397,836</td>
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<td><strong>Total</strong></td>
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<td><strong>Current Total</strong></td>
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<td><strong>$278,755,368</strong></td>
<td><strong>-$19,226,715</strong></td>
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</tbody>
</table>
PROJECT NO. 275
CHAPMAN LAKE WATER ACCESS TASK B (DREDGING)  
CONTRACTOR: KALLAN INDUSTRIES, INC.  
CONTRACT DATE: JANUARY 10, 2014  
NOTICE TO PROCEED DATE: JANUARY 16, 2014  
COMPLETION DATE: JUNE 5, 2014  
REVISED COMPLETION DATE: JUNE 25, 2014  
TIME LAPSED: 44%  
REMARKS: The contractor continues to construct the dewatering system and turbidity protection screens. Dredging is anticipated to begin in early April.

PROJECT NO. 276
WYLIE WATER TREATMENT PLANT FINISHED WATER RESERVOIR AND FLOW METERING IMPROVEMENTS  
CONTRACTOR: BAR CONSTRUCTORS, INC.  
CONTRACT DATE: AUGUST 22, 2013  
NOTICE TO PROCEED DATE: OCTOBER 1, 2013  
COMPLETION DATE: JULY 23, 2015  
TIME LAPSED: 27%  
REMARKS: Excavation for the 4-2 clearwell continues. The 4 MG clearwell at Plant III has been drained for the installation of baffling, weir walls, and two new wall penetrations. Upon entering the clearwell, four (4) of the existing CMU baffle walls had fallen, two of which were intended to be removed under this project. A great deal of corroded rebar is also visible in the ceiling where the concrete has delaminated. With the very large area affected and the fact that the roof is planned to be retrofitted with a roof having a greater slope, CH2M HILL has been asked to: 1) estimate the cost of repairing and retrofitting the roof; and, 2) estimate the cost of installing a new sloped roof. After these estimates are prepared and evaluated, a recommended course of action will be presented to the Board for consideration.

PROJECT NO. 277
WATER TREATMENT PLANT III FILTER UNDERDRAIN IMPROVEMENTS AND CONVERSION TO BAF  
CONTRACTOR: ARCHER WESTERN CONTRACTORS, LLC  
CONTRACT DATE: JANUARY 24, 2013  
NOTICE TO PROCEED DATE: FEBRUARY 7, 2013  
ORIGINAL COMPLETION DATE: DECEMBER 9, 2015  
REVISED COMPLETION DATE: JANUARY 9, 2016  
TIME LAPSED: 39%  
BID AMOUNT: $1,762,206.00  
CHANGE ORDERS: 1 - $56,033.75  
Time Ext.-20 Days  
CURRENT CONTRACT AMOUNT: $1,818,239.75  
AMOUNT EARNED TO DATE: $542,877.00  
% CONTRACT AMOUNT EARNED: 30%

BID AMOUNT: $14,720,800.00  
CHANGE ORDERS: 1 - ($568,496.03)  
CURRENT CONTRACT AMOUNT: $14,152,303.97  
AMOUNT EARNED TO DATE: $2,855,124.43  
% CONTRACT AMOUNT EARNED: 20%

BID AMOUNT: $6,452,461.00  
CHANGE ORDERS: 1 - $104,527.71  
Time Ext.-31 Days  
2 - $53,132.85  
3 - $69,072.15  
4 - $135,947.25  
CURRENT CONTRACT AMOUNT: $6,815,140.95  
AMOUNT EARNED TO DATE: $3,193,954.70  
% CONTRACT AMOUNT EARNED: 47%
REMARKS: This project includes work in all 40 filters at WTP III and Filter No. 21 at WTP II. Filters completed to date are Nos. 36-40. Filter No. 23 is out of service pending approval of a change order to replace the underdrain blocks. Filter No. 26, which requires extensive repairs, is out of service until next winter when a large portion of the plant can be out of service for the period of time required to complete the repairs. Filter Nos. 1, 2, and 3 are currently out of service and require only finishing touches on media installation. Work on Filter Nos. 9 and 10 began before Filter Nos. 1, 2, and 3 were completed because they were inoperable due to the condition of the underdrains. AWC installed washwater valves in Filter Nos. 5 and 7 during the Plant III shutdown to allow work to begin on these filters at a later date. Filter No. 21 at Plant II requires extensive structural repairs. The repairs required at the east end of Filter No. 21 are complete. A design has been completed by the consultant for the repairs to the west wall, and the contractor will prepare a quote for a future change order.

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PROJECT NO. 282
24-INCH REPLACEMENT LINE FOR THE PRINCETON NO. 1 AND MCKINNEY-PRINCETON-FARMERSVILLE PIPELINES CROSSING US HIGHWAY 380

CONTRACTOR: WRIGHT CONSTRUCTION CO., INC

CONTRACT DATE: JUNE 27, 2013
NOTICE TO PROCEED DATE: JULY 3, 2013
COMPLETION DATE: JANUARY 9, 2014
REVISED COMPLETION DATE: MARCH 3, 2014

TIME Lapsed: 109%

REMARKS: This project is complete. Final payment will be made as authorized by the Board.

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PROJECT NO. 283
FM 1378 20-INCH AND 60-INCH WATERLINE RELOCATIONS

CONTRACTOR: MOUNTAIN CASCADE OF TEXAS, LLC

CONTRACT DATE: DECEMBER 20, 2012
NOTICE TO PROCEED DATE: JANUARY 4, 2013
ORIGINAL COMPLETION DATE: JUNE 3, 2013
REVISED COMPLETION DATE: DECEMBER 30, 2013

TIME Lapsed: 123%

REMARKS: This project is complete. Final payment has been made as authorized by the Board. Awaiting final invoice from engineering consultant in order to submit an invoice for reimbursement from the City of Wylie.
PROJECT NO. 284
WYLIE WTPs I AND II SLUDGE LINE
IMPROVEMENTS

CONTRACTOR: PCL CONSTRUCTION, INC.

CONTRACT DATE: JUNE 27, 2013

NOTICE TO PROCEED DATE: AUGUST 12, 2013

ORIGINAL COMPLETION DATE: JANUARY 9, 2014

REVISED COMPLETION DATE: MARCH 6, 2014

TIME LAPSED: 109%

REMARKS: The new 16-inch sludge pipeline is in service. Remaining work includes cutting the existing sludge pipeline in two locations and plugging with a blind flange, and cleanup.

BID AMOUNT: $525,690.00

CHANGE ORDERS: 1 - $13,902.00
   Time Ext.-30 Days
2 - $18,972.00
   Time Ext.-30 Days

CURRENT CONTRACT AMOUNT: $558,564.00

AMOUNT EARNED TO DATE: $551,190.00

% CONTRACT AMOUNT EARNED: 99%

PROJECT NO. 289
SOUTH DELIVERY POINT IMPROVEMENTS,
PRIORITY NO. 2

CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC

CONTRACT DATE: NOVEMBER 21, 2013

NOTICE TO PROCEED DATE: DECEMBER 9, 2013

COMPLETION DATE: AUGUST 6, 2014

TIME LAPSED: 48%

REMARKS: During the month of March, the contractor completed the construction of the slab for the Kaufman delivery vault. Also at the Kaufman delivery vault, the contractor completed setting the rebar for the walls in preparation for concrete. The contractor continues to process submittals.

BID AMOUNT: $1,488,400.00

CHANGE ORDERS: NONE

CURRENT CONTRACT AMOUNT: $1,488,400.00

AMOUNT EARNED TO DATE: $201,318.30

% CONTRACT AMOUNT EARNED: 14%

PROJECT NO. 293
BONHAM WATER TREATMENT PLANT
SLUDGE LAGOON IMPROVEMENTS

CONTRACTOR: HARRISON WALKER & HARPER, LP

CONTRACT DATE: APRIL 25, 2013

NOTICE TO PROCEED DATE: MAY 8, 2013

COMPLETION DATE: APRIL 3, 2014

TIME LAPSED: 97%

REMARKS: Sludge removal from original Lagoons 1 and 2 has been completed. Clay liner for new lagoon is completed and compaction test results have met the specification requirements. Contractor is currently working on installing the yard piping, including: 24-inch sludge pipeline, 6-inch drain line, and 6-inch decant line. Concrete work for the decant pump station is in progress.

BID AMOUNT: $2,799,680.00

CHANGE ORDERS: 1 - $171,098.00

CURRENT CONTRACT AMOUNT: $2,970,778.00

AMOUNT EARNED TO DATE: $2,191,204.00

% CONTRACT AMOUNT EARNED: 74%
PROJECT NO. 298
HIGH SERVICE PUMP STATION 2-2 AND 2-3 ELECTRICAL IMPROVEMENTS
CONTRACTOR: WHF ELECTRICAL CONTRACTORS, INC.
CONTRACT DATE: OCTOBER 17, 2013
NOTICE TO PROCEED DATE: NOVEMBER 7, 2013
ORIGINAL COMPLETION DATE: JUNE 5, 2015
REVISED COMPLETION DATE: JULY 20, 2015
TIME LAPSED: 22%
REMARKS: The submittal process continued. Contractor has mobilized and started demolition.

PROJECT NO. 299
LAKE TAWAKONI WATER TREATMENT PLANT CHLORINE DIOXIDE SYSTEM
CONTRACTOR: RED RIVER CONSTRUCTION CO.
CONTRACT DATE: JANUARY 24, 2013
NOTICE TO PROCEED DATE: MARCH 1, 2013
ORIGINAL COMPLETION DATE: SEPTEMBER 7, 2013
REVISED COMPLETION DATE: JANUARY 19, 2014
TIME LAPSED: 122%
REMARKS: Equipment startup is complete, and the walkthrough has been completed; however, the chemical flow meters on the chlorine dioxide generator skids have experienced partial plugging by small pieces of PVC in the chemical lines. B&V will issue a work change directive to address the issue by installing strainers in the chemical lines. Two other work change directives were issued after the walkthrough to provide additional insulation on the sodium chlorite pumps and to provide limit switches on valves in the sodium hypochlorite transfer piping.
PROJECT NO. 301 TASK 1
ADMINISTRATION BUILDING STRUCTURAL REPAIRS,
BUILDING RENOVATIONS, AND BUILDING ADDITION

CONTRACTOR: MART, INC.

CONTRACT DATE: DECEMBER 19, 2013
NOTICE TO PROCEED DATE: FEBRUARY 5, 2014
COMPLETION DATE: APRIL 6, 2014
REVISED COMPLETION DATE: APRIL 27, 2014

TIME LAPSED: 59%

REMARKS: The contractor has completed the installation of the cut-off wall and concrete cap and is in the process of installing the expansion joint filler. Cleanup and final grading are expected to be complete by the end of the month.

BID AMOUNT: $47,000.00
CHANGE ORDERS: 1 - $20,634.00
Time Ext. - 21 Days
CURRENT CONTRACT AMOUNT: $67,634.00
AMOUNT EARNED TO DATE: $47,125.00
% CONTRACT AMOUNT EARNED: 66%

PROJECT NO. 312
LAKE TAWAKONI WATER TREATMENT PLANT
SLUDGE LAGOON IMPROVEMENTS

CONTRACTOR: CRESCENT CONSTRUCTORS, INC.

CONTRACT DATE: JANUARY 23, 2014
NOTICE TO PROCEED DATE: FEBRUARY 10, 2014
COMPLETION DATE: SEPTEMBER 28, 2014

TIME LAPSED: 19%

REMARKS: Excavation of the lagoon and sludge pumping station began February 17, 2014. The seal slab for the pump station has been poured and the forms have been installed for the pump station foundation.

BID AMOUNT: $3,463,000.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $3,463,000.00
AMOUNT EARNED TO DATE: $259,249.09
% CONTRACT AMOUNT EARNED: 7%

PROJECT NO. 313
UNION PACIFIC RAILROAD CROSSING PROTECTION OF
EXISTING 72-INCH TEXOMA PIPELINE

CONTRACTOR: LEWIS CONTRACTORS, INC.

CONTRACT DATE: NOVEMBER 21, 2013
NOTICE TO PROCEED DATE: DECEMBER 12, 2013
COMPLETION DATE: MARCH 12, 2014

TIME LAPSED: 100%

REMARKS: The tunnel liner work was successfully completed during the scheduled Texoma pipeline shutdown in January. In March, Lewis Contractors completed restoration and final payment was made as authorized by the Board. This project is now complete.

BID AMOUNT: $165,000.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $165,000.00
AMOUNT EARNED TO DATE: $165,000.00
% CONTRACT AMOUNT EARNED: 100%
PROJECT NO. 318
WYLIE NO. 3 DELIVERY POINT METERING STATION UPGRADE

CONTRACTOR: CRESCENT CONSTRUCTORS, INC.

NOTICE TO PROCEED DATE: DECEMBER 12, 2013

COMPLETION DATE: JULY 10, 2014

TIME LAPSED: 61%

REMARKS: The contractor is waiting for the manufacture and delivery of materials for the project, including the flow control valve. Current schedule has the flow control valve arriving mid to late April, and the tie-in will be scheduled for late April 2014.

PROJECT NO. 320
WYLIE WATER TREATMENT PLANT II
IMPROVEMENTS FOR BASIN NOS. 3 AND 4

CONTRACTOR: BAR CONSTRUCTORS, INC.

NOTICE TO PROCEED DATE: OCTOBER 4, 2013

ORIGINAL COMPLETION DATE: JANUARY 22, 2015

REVISED COMPLETION DATE: FEBRUARY 7, 2015

TIME LAPSED: 32%

REMARKS: The following work applies to Basin No. 4. All three bores have been completed. Subgrade preparation continues on the west clarifier. The majority of the drain and sludge piping under the new floor has been installed and concrete encased. The new stuffing boxes for the flocculator shafts have been received and the old ones have been removed. NTMWD maintenance has fabricated new shafts and will also supply rebuilt bearings to install when the new stuffing boxes are in place.

WASTEWATER SYSTEM

PROJECT NO. 222
ROWLETT CREEK RWWTP
2011 IMPROVEMENTS

CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC

NOTICE TO PROCEED DATE: MAY 29, 2012

ORIGINAL COMPLETION DATE: AUGUST 22, 2013

REVISED COMPLETION DATE: DECEMBER 10, 2013

TIME LAPSED: 119%

REMARKS: Work is complete with the exception of minor punchlist items. Archer Western is in the process of submitting final O&Ms.
PROJECT NO. 223
PRAIRIE CREEK RELIEF SEWER CONTROL STRUCTURE
FLOW METERING IMPROVEMENTS

BID AMOUNT: $605,115.00

CHANGE ORDERS: NONE

CURRENT CONTRACT AMOUNT: $605,115.00

AMOUNT EARNED TO DATE: $154,001.00

% CONTRACT AMOUNT EARNED: 25%

CONTRACTOR: LEGACY CONTRACTING, LP

NOTICE TO PROCEED DATE: NOVEMBER 12, 2013

COMPLETION DATE: JULY 10, 2014

TIME LAPSED: 58%

REMARKS: Contractor has completed vault floor and walls. The submittal process is near completion.

PROJECT NO. 227A
UPPER WHITE ROCK CREEK PARALLEL FORCE MAIN

BID AMOUNT: $3,099,488.48

CHANGE ORDERS: 1 - $142,269.74
Time Ext.-25 Days

2 - (41,368.09)
Time Ext.-30 Days

CURRENT CONTRACT AMOUNT: $3,200,390.13

ORIGINAL COMPLETION DATE: FEBRUARY 24, 2014

AMOUNT EARNED TO DATE: $2,930,160.09

% CONTRACT AMOUNT EARNED: 92%

CONTRACTOR: S.J. LOUIS CONSTRUCTION OF TX, LTD

NOTICE TO PROCEED DATE: MARCH 21, 2013

REVISED COMPLETION DATE: APRIL 20, 2014

TIME LAPSED: 95%

REMARKS: S.J. Louis continued the construction of the valve vault and continued restoration.

PROJECT NO. 227B
UPPER WHITE ROCK CREEK LIFT STATION IMPROVEMENTS

BID AMOUNT: $2,060,950.00

CHANGE ORDERS: 1 - ($219,000.00)

2 - $176,041.56
Time Ext.-98 Days

CURRENT CONTRACT AMOUNT: $2,017,991.56

AMOUNT EARNED TO DATE: $284,004.28

% CONTRACT AMOUNT EARNED: 14%

CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC

NOTICE TO PROCEED DATE: MAY 1, 2013

ORIGINAL COMPLETION DATE: MAY 26, 2014

REVISED COMPLETION DATE: SEPTEMBER 1, 2014

TIME LAPSED: 68%

REMARKS: Archer Western completed the access turnaround, generator pad, and began the construction of the duct bank.
PROJECT NO. 228
COTTONWOOD CREEK OUTFALL SEWER IMPROVEMENTS

CONTRACTOR: INSITUFORM TECHNOLOGIES, LLC

CONTRACT DATE: NOVEMBER 15, 2012

NOTICE TO PROCEED DATE: DECEMBER 12, 2012

COMPLETION DATE: DECEMBER 17, 2013

TIME LAPSED: 128%

REMARKS: Insituform continued manhole coating and restoration. There may be a possible time extension due to coordination of an alignment issue.

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PROJECT NO. 234
ASAP GRAVITY INTERCEPTOR IMPROVEMENTS,
SECTION 1

CONTRACTOR: REPipe CONSTRUCTION, LLC

CONTRACT DATE: JUNE 28, 2012

NOTICE TO PROCEED DATE: AUGUST 20, 2012

ORIGINAL COMPLETION DATE: FEBRUARY 16, 2013

REVISED COMPLETION DATE: MAY 31, 2013

TIME LAPSED: 207%

REMARKS: All major work is complete. Final payment is being withheld pending resolution of bond claim by supplier.

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PROJECT NO. 245
UPPER ROWLETT CREEK LIFT STATION
FLOW METERING IMPROVEMENTS

CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC

CONTRACT DATE: SEPTEMBER 19, 2013

NOTICE TO PROCEED DATE: OCTOBER 22, 2013

COMPLETION DATE: SEPTEMBER 17, 2014

TIME LAPSED: 49%

REMARKS: Contractor has installed concrete for the vault slab, walls, and roof.
PROJECT NO. 254
SOUTH MESQUITE RWWTP
ELECTRICAL IMPROVEMENTS

CONTRACTOR: ACME ELECTRIC COMPANY

CONTRACT DATE: JANUARY 24, 2013
NOTICE TO PROCEED DATE: JANUARY 29, 2013
COMPLETION DATE: FEBRUARY 28, 2014

TIME LAPSED: 107%

REMARKS: The contractor has completed installing pole line hardware, reclosers, transformers, and grounding. Pole line is now complete and awaiting final walkthrough prior to being energized. Pad mounted transformer for existing administration building is installed. Sectionalization switches for Blower Building No. 1 are installed. Duct bank for Blower Building No. 2 is installed. Generator has arrived onsite and was installed on pad. Waiting arrival of main switchgear.

PROJECT NO. 255E
FORNEY MUSTANG CREEK INTERCEPTOR SYSTEM
FORNEY PARALLEL INTERCEPTOR

CONTRACTOR: S.J. LOUIS CONSTRUCTION OF TEXAS, LTD.

CONTRACT DATE: APRIL 25, 2013
NOTICE TO PROCEED: MAY 6, 2013
COMPLETION DATE: MARCH 8, 2014

TIME LAPSED: 108%

REMARKS: S.J. Louis has completed all the tie-ins, and this line was put in service on March 19, 2014.

PROJECT NO. 255F
FORNEY MUSTANG CREEK INTERCEPTOR SYSTEM
FORNEY LIFT STATION IMPROVEMENTS

CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC

CONTRACT DATE: AUGUST 22, 2013
NOTICE TO PROCEED: SEPTEMBER 9, 2013
COMPLETION DATE: AUGUST 5, 2014

TIME LAPSED: 62%

REMARKS: Archer Western has formed and poured the sidewalk, antenna foundation, and odor control equipment pad. They have also installed the odor control piping and equipment.
PROJECT NO. 270
SOUTH MESquite CREEK REGIONAL WASTEWATER TREATMENT PLANT AERATION SYSTEM IMPROVEMENTS, PHASE 1

CONTRACTOR: GRACON CONSTRUCTION

BID AMOUNT: $4,739,000.00
CHANGE ORDERS: 1 - ($140,095.00)
2 - ($97,444.00)
CURRENT CONTRACT AMOUNT: $4,501,461.00
AMOUNT EARNED TO DATE: $368,646.17
CONTRACT AMOUNT EARNED: 8%

NOTICE TO PROCEED: OCTOBER 15, 2013
COMPLETION DATE: FEBRUARY 7, 2015
TIME LAPSED: 35%

REMARKS: Gracon Construction finished excavating for Blower Building No. 1 electrical building and transformer pad, and they have demolished the existing sidewalk. They are placing structural fill for the electrical building and transformer pad.

PROJECT NO. 278
WILSON CREEK GRAVITY INTERCEPTOR IMPROVEMENTS PHASE 1

CONTRACTOR: INSITUFORM TECHNOLOGIES, LLC

BID AMOUNT: $3,043,905.10
CHANGE ORDERS: 1 - $61,124.08
Time Ext.-150 Days
CURRENT CONTRACT AMOUNT: $3,105,029.18
AMOUNT EARNED TO DATE: $0.00
% CONTRACT AMOUNT EARNED: 0%

NOTICE TO PROCEED DATE: AUGUST 22, 2013
COMPLETION DATE: JUNE 8, 2014
REVISED COMPLETION DATE: NOVEMBER 5, 2014
TIME LAPSED: 48%

REMARKS: Insituform continued the submittal process.

PROJECT NO. 279
UPPER EAST FORk INTERCEPTOR SYSTEM FUGITIVE EMISSIONS CONTROL

CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC

BID AMOUNT: $1,684,000.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $1,684,000.00
AMOUNT EARNED TO DATE: $0.00
% CONTRACT AMOUNT EARNED: 0%

NOTICE TO PROCEED DATE: DECEMBER 19, 2013
COMPLETION DATE: DECEMBER 9, 2014
TIME LAPSED: 23%

REMARKS: Contractor continued to work on submittals.
PROJECT NO. 280
FLOYD BRANCH RWWTP ODOR CONTROL IMPROVEMENTS

CONTRACTOR: CRESSEND CONSTRUCTORS, INC.

CHANGE ORDERS: 1 - $18,223.00

TIME EXT. - 20 Days

CURRENT CONTRACT AMOUNT: $835,223.00

% CONTRACT AMOUNT EARNED: 100%

REMARKS: This project is complete. Final payment is being processed.

PROJECT NO. 288
SOUTH MESQUITE CREEK RWWTP SOLIDS BUILDING ODOR CONTROL IMPROVEMENTS

CONTRACTOR: ASSOCIATED CONSTRUCTION PARTNERS

CHANGE ORDERS: NONE

CURRENT CONTRACT AMOUNT: $1,699,200.00

AMOUNT EARNED TO DATE: $745,400.80

% CONTRACT AMOUNT EARNED: 44%

REMARKS: Associated Construction Partners (ACP) drilled and poured the foundation piers and are forming the base slab for the odor control equipment foundation. They are installing the odor control duct for the belt filter press area.

PROJECT NO. 294
SOUTH MESQUITE CREEK REGIONAL WASTEWATER TREATMENT PLANT OPERATIONS BUILDING

CONTRACTOR: BIG SKY CONSTRUCTION CO.

CHANGE ORDERS: NONE

CURRENT CONTRACT AMOUNT: $1,439,000.34

AMOUNT EARNED TO DATE: $324,358.60

% CONTRACT AMOUNT EARNED: 23%

REMARKS: Big Sky formed and poured the grade beams. They are forming the base slab and parking lot pavement. Big Sky is installing the sewer and waterlines that run underneath the slab. The electrical subcontractor is installing the duct banks.
PROJECT NO. 300
ASAP GRAVITY INTERCEPTOR IMPROVEMENTS,
SECTION 2 AND 3

CONTRACTOR: INSITUFORM TECHNOLOGIES, LLC

CONTRACT DATE: OCTOBER 17, 2013

NOTICE TO PROCEED DATE: NOVEMBER 19, 2013

COMPLETION DATE: JULY 17, 2014

TIME LAPSED: 55%

REMARKS: Insituform began the CCTV and cleaning of the interceptor. The construction entrances were also installed for access. Insituform continued the submittal process.

PROJECT: NO. 311
UPPER EAST FORK INTERCEPTOR SYSTEM MANHOLE IMPROVEMENTS

CONTRACTOR: FUQUAY, INC.

CONTRACT DATE: DECEMBER 19, 2013

NOTICE TO PROCEED DATE: JANUARY 14, 2014

COMPLETION DATE: JULY 13, 2014

TIME LAPSED: 42%

REMARKS: Fuquay cleaned eighteen manholes on the West Rowlett Creek Trunk Sewer Sections 1 and 2 in preparation for coating. Eleven of these manholes also received cementitious material to repair manhole defects.

SOLID WASTE SYSTEM

PROJECT NO. 233
121 REGIONAL DISPOSAL FACILITY
FLEET MAINTENANCE WELD SHOP

CONTRACTOR: TEGRITY CONTRACTORS, INC.

CONTRACT DATE: JULY 25, 2013

NOTICE TO PROCEED: AUGUST 28, 2013

COMPLETION DATE: MARCH 26, 2014

TIME LAPSED: 100%

REMARKS: The contractor has received a building permit from the City of Melissa. All submittals, except the pre-engineered building submittal, have been approved. The engineer has revised the design to accommodate the fire suppression system.
PROJECT NO. 322
121 REGIONAL DISPOSAL FACILITY
SCALE HOUSE MODIFICATIONS

BID AMOUNT: $100,016.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $100,016.00
AMOUNT EARNED TO DATE: $20,000.00
CONTRACT AMOUNT EARNED: 20%

CONTRACTOR: ROBIN L. BROWN, INC.
CONTRACT DATE: DECEMBER 19, 2013
NOTICE TO PROCEED: JANUARY 20, 2014
COMPLETION DATE: MARCH 2, 2014
TIME LAPPED: 156%

REMARKS: Demolition of the scale house wall and the new construction have begun on the north side of the building.

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PROJECT NO. 331
CUSTER ROAD TRANSFER STATION
TIPPING FLOOR IMPROVEMENTS

BID AMOUNT: $526,390.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $526,390.00
AMOUNT EARNED TO DATE: $101,784.00
CONTRACT AMOUNT EARNED: 19%

CONTRACTOR: NORTH TEXAS CONTRACTING, INC.
CONTRACT DATE: FEBRUARY 27, 2014
NOTICE TO PROCEED: MARCH 17, 2014
COMPLETION DATE: OCTOBER 13, 2014
TIME LAPPED: 4%

REMARKS: Demolition of the Tipping floor has begun on the East side of the building.

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TOTAL VALUE - ALL PROJECTS  $615,661,117.01
TOTAL EARNED - ALL PROJECTS  $519,066,624.82
84%