TO: BOARD OF DIRECTORS

FROM: JAMES (JIM) M. PARKS, EXECUTIVE DIRECTOR

DATE: MARCH 20, 2014

SUBJECT: REGULAR MEETING – THURSDAY, MARCH 27, 2014

I. COMMITTEE MEETING MINUTES

A copy of the Water Committee meeting minutes and the Finance/Audit Committee meeting minutes of February 27, 2014, are enclosed.

II. ENCLOSURES

A. AGENDA – REGULAR MEETING – March 27, 2014
B. CONSENT AGENDA ITEM NO. 14-03-01 – Minutes, Regular Meeting, February 27, 2014
C. CONSENT AGENDA ITEM NO. 14-03-02 – Regional Water System, City of Allen Exchange Parkway Widening from Alma Drive to Allen Heights Drive, Allen-Plano-Frisco-McKinney Pipeline Air Release Valve Vent Relocations
D. CONSENT AGENDA ITEM NO. 14-03-03 – NTMWD’s Water Conservation and Drought Contingency/Water Emergency Response Plan Extension of Stage 3 Landscape Water Management Strategies
E. CONSENT AGENDA ITEM NO. 14-03-04 – Upper East Fork Interceptor System, Beck Branch Gravity Sewer, Rowlett Creek Crossing Improvements, Condition Assessment and Preliminary Design, Project No. ENG 12-7, Additional Engineering Services
F. CONSENT AGENDA ITEM NO. 14-03-05 – Upper East Fork Interceptor System, Wilson Creek Gravity Interceptor Improvements, Phase I, Project No. 278, Engineering Services Fee Adjustment
G. CONSENT AGENDA ITEM NO. 14-03-06 – Regional Water System, Water Treatment Plant IV, Conversion to Biologically Active Filtration, Project No. 251, Change Order No. 6
MEMORANDUM TO BOARD OF DIRECTORS
MARCH 20, 2014
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I. CONSENT AGENDA ITEM NO. 14-03-08 – Regional Solid Waste System, Lookout Drive Transfer Station Permit Amendment Application, Project No. SWCF 06-1 (093), Additional Engineering Services

J. CONSENT AGENDA ITEM NO. 14-03-09 – Regional Water System, Electrical Improvements at Raw Water Pump Station No. 2, Project No. 201. Change Order No. 3 and Authorization to Make Final Payment

K. CONSENT AGENDA ITEM NO. 14-03-10 – Regional Water System, Install Second 50 MGD Pump and Improvements at Apollo Pump Station, Project No. 200, and Install Piping Modifications at Hailey Pump Station, Project No. 206, Change Order No. 3, and Authorization to Make Final Payment

L. CONSENT AGENDA ITEM NO. 14-03-11 – Ratification of Texas Water Development Board Contract Amendment Nos. 3, 4, and 5 for Development of 2016 Region C Water Plan and Approval of Amendment to Professional Services Contract


N. ADMINISTRATIVE MEMORANDUM NO. 4153 – Sanitary Sewer Overflow Reporting, District Policy No. 38

O. ADMINISTRATIVE MEMORANDUM NO. 4154 – Consent to Revocable License Agreement Between City of McKinney and McKinney LFG, LLC

P. ADMINISTRATIVE MEMORANDUM NO. 4155 – Regional Water System, Wylie Water Treatment Plant III, Variable Frequency Drives for Washwater Pumps, Project No. 323, Tabulation of Bids and Award of Contract

Q. ADMINISTRATIVE MEMORANDUM NO. 4156 – Upper East Fork Interceptor System Beck Branch Interceptor Improvements, Phase I, Project No. 353, Engineering Services Agreement

R. ADMINISTRATIVE MEMORANDUM NO. 4157 – Regional Water System, Wylie Water Treatment Plant II Improvements for Basin Nos. 3 and 4, Project No. 320, Change Order No. 2


T. ADMINISTRATIVE MEMORANDUM NO. 4159 – Regional Water System, Lavon Lake Raw Water Pump Stations Intake Channel Improvements Final Engineering, Project No. 350, Additional Engineering Services


V. ADMINISTRATIVE MEMORANDUM NO. 4161 – Regional Water System, Water Treatment Plants I, II, III, and IV Ozonation, Project No. 153, Change Order No. 25

W. ADMINISTRATIVE MEMORANDUM NO 4162 – Regional Water System, High Service Pump Station 2-2 and 2-3 Electrical Improvements, Project No. 298, Change Order No. 1

X. ADMINISTRATIVE MEMORANDUM NO. 4163 – Regional Wastewater System, Wilson Creek Regional Wastewater Treatment Plant, Solids Management Optimization and Control Improvements, Project No. 336, Additional Engineering Services
Y. ADMINISTRATIVE MEMORANDUM NO. 4164 – Regional Water System, Trinity River Main Stem Pump Station and Raw Water Pipeline, Preliminary Engineering, Project No. 269, Engineering Services Agreement


AA. ADMINISTRATIVE MEMORANDUM NO. 4166 – Regional Water System, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, Construction Manager at Risk, Adjustment to Substantial Completion Dates

BB. ADMINISTRATIVE MEMORANDUM NO. 4167 – Regional Water System, FM 1378 and FM 2514 North Intersection Improvements, 20-Inch and 60-Inch Waterline Relocations, Project No. 355, Engineering Services Agreement and Utility Agreement

CC. ADMINISTRATIVE MEMORANDUM NO. 4168 – Regional Water System, Supervisory Control and Data Acquisition System Upgrades and Operations, Project No. 205, Change Order No. 2

DD. WATER CONSUMPTION REPORT – February 2014

EE. WASTEWATER SYSTEM REPORT – February 2014

FF. SOLID WASTE SYSTEM REPORT – February 2014

GG. CONSTRUCTION PROGRESS REPORT – February 28, 2014

HH. NTMWD FINANCIAL STATEMENTS FOR THE MONTH ENDED FEBRUARY 28, 2014

II. WATERCOMMITTEE MEETING MINUTES – February 27, 2013

JJ. FINANCE/AUDIT COMMITTEE MEETING MINUTES – February 27, 2014
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, March 27, 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 TERRY ANDERSON

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.

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 – 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)

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 Additional Engineering Services on Project
   No. SWCF 06-1 (093), 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)

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

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)

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)

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)

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)

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)

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)
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)

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)

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)

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)

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)

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)

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)

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)

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)

VII. DISCUSSION

A. Water Supply Update

VIII. ADJOURNMENT

NEXT REGULAR MEETING OF BOARD, THURSDAY, APRIL 24, 2014, AT 4:00 P.M. IN THE ADMINISTRATIVE OFFICES, WYLIE, TEXAS
NORTH TEXAS MUNICIPAL WATER DISTRICT
505 E. Brown Street • Wylie, Texas 75098
(972) 442-5405 – Phone • (972) 295-6440 – Fax

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS
HELD ON THURSDAY, FEBRUARY 27, 2014
IN THE NTMWD ADMINISTRATIVE OFFICES, WYLIE, TEXAS

The North Texas Municipal Water District Board of Directors met in Regular Session on Thursday, February 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. B., and VI. E., J., N., R., X., and Z.

I. INVOCATION

Director Jerry Yancey offered the invocation.

II. ROLL CALL

Secretary Joe Joplin conducted a roll call. No Directors were absent. The following Directors were present for the February 27, 2014, Board meeting:

Terry Anderson     Jim Mellody
Don Cates          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:

Shannon Kackle – 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

There were no public comments.

V. CONSENT AGENDA ITEMS

Upon a motion by Director John Murphy and a second by Director James Kerr, the Board of Directors voted unanimously to approve the consent agenda items as follows:

A. Consider Approval of Board of Directors Meeting Minutes – January 23, 2014
   (Please refer to Consent Agenda Item No. 14-02-01)

B. Consider Approval of Board of Directors Special Meeting Minutes – February 1,
   2014
   (Please refer to Consent Agenda Item No. 14-02-02)

C. Consider Approval of Board of Directors Planning Retreat Minutes – February 1,
   2014
   (Please refer to Consent Agenda Item No. 14-02-03)

D. Consider Authorization to Make Final Payment on Project No. 280, Floyd
   Branch Regional Wastewater Treatment Plant, 2012 Odor Control
   Improvements
   (Please refer to Consent Agenda Item No. 14-02-04)

E. Consider Authorization to Make Final Payment on Project No. 313, Union Pacific
   Railroad Crossing Protection of the Existing 72-Inch Texoma Pipeline
   (Please refer to Consent Agenda Item No. 14-02-05)

F. Consider Authorizing Change Order No. 2 and Authorization to Make Final
   Payment on Project No. 229, Wylie Water Treatment Plant Security
   Enhancements, Phase 2
   (Please refer to Consent Agenda Item No. 14-02-06)

G. Consider Authorizing Additional Engineering Services on Project No. 233,
   121 Regional Disposal Facility Fleet Maintenance Weld Services Building
   (Please refer to Consent Agenda Item No. 14-02-07)

H. Consider Authorizing Funding for Retirement Dinner in Honor of NTMWD's
   Executive Director
   (Please refer to Consent Agenda Item No. 14-02-08)
VI. AGENDA ITEMS FOR INDIVIDUAL CONSIDERATION

A. Consider Authorizing Funding for the Texas Water Smart Coalition Awareness Campaign
   (Please refer to Administrative Memorandum No. 4126)

   Upon a motion by Director Terry Anderson and a second by Director Jim Mellody the Board of Directors voted unanimously to continue to partner with the Texas Water Smart Coalition by funding the Texas Water Smart Coalition Awareness Campaign in a not-to-exceed amount of $100,000 on behalf of the NTMWD, Member Cities, and Customers.

B. Consider Authorizing Additional Engineering Services for Project No. 301, NTMWD Administration Building Structural Repairs, Building Renovations, and Building Additions
   (Please refer to Administrative Memorandum No. 4127)

   Upon a motion by Director Darrell Grooms and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize a change in the scope of services for the NTMWD administration building additions to include design and construction of a standalone building west of the existing administration building and authorize an increase to the engineering services agreement with Huitz-Zollars, Inc., for Project No. 301, NTMWD Administration Building Structural Repairs, Building Renovations, and Building Additions in the not-to-exceed amount of $45,125, for a revised total engineering services fee of $588,390.

C. Consider Authorizing Change Order No. 1 on Project No. 301, NTMWD Administration Building Structural Improvements, Task No. 1
   (Please refer to Administrative Memorandum No. 4128)

   Upon a motion by Director Lynn Shuyler and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $20,634 resulting in a revised contract amount of $67,634 and a 21-day contract time extension, resulting in a revised final completion date of April 27, 2014, for the NTMWD Administration Building Structural Improvements, Task No. 1, Project No. 301.

   (Please refer to Administrative Memorandum No. 4129)

   Upon the recommendation of the Water Committee, a motion by Director Terry Anderson, and a second by Director Larry Parks, the Board of Directors voted unanimously to amend and rename the NTMWD's Water Conservation and Drought Contingency/Water Emergency Response
E. Consider Authorizing Engineering and Legal Assistance for Project No. 351, Lower Bois d’Arc Creek Reservoir, Phase IIIB
(Please refer to Administrative Memorandum No. 4130)

Upon a motion by Director Darrell Grooms and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize funding for Freese and Nichols, Inc., and Lloyd, Gosselink, Rochelle & Townsend, PC, to perform engineering and legal services for Lower Bois d’Arc Creek Reservoir Phase IIIB, Project No. 351, in the not-to-exceed total amount of $1,000,000 (funding of $500,000 for Freese and Nichols, Inc., and funding of $500,000 for Lloyd, Gosselink, Rochelle & Townsend, PC).

F. Consider Authorizing Award of Construction Contract on Project No. 335, 121 Site Facility Water Transmission Pipeline Relocation at State Highway 121
(Please refer to Administrative Memorandum No. 4131)

Upon a motion by Director Darrell Grooms and a second by Director John Murphy, the Board of Directors voted unanimously to authorize award of a construction contract to Vessels Construction, A Division of Vescor, Inc., for 121 Site Facility Water Transmission Pipeline Relocation at State Highway 121, Project No. 335, in the amount of $90,878.

G. Consider Authorizing Change Order No. 4 on Project No. 277, Water Treatment Plant III, Filter Underdrain Improvements and Conversion to Biologically Active Filters
(Please refer to Administrative Memorandum No. 4132)

Upon a motion by Director James Kerr and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 4 for the Water Treatment Plant III Filter Underdrain Improvements and Conversion to Biologically Active Filters, Project No. 277, for an increase in the amount of $135,947.24, resulting in a revised contract amount of $6,815,140.95. The final completion date for this project remains January 9, 2016.

H. Consider Authorizing Additional Engineering Services on Project No. 308, Upper Rowlett and Cottonwood Creek Parallel Force Main Design
(Please refer to Administrative Memorandum No. 4133)

Upon a motion by Director Joe Farmer and a second by Director Lynn Shuyler, the Board of Directors voted unanimously to authorize additional engineering services to Cobb, Fendley & Associates, Inc., for professional services associated with design of the Upper Rowlett and Cottonwood Creek Parallel Force Main, Project No. 308, in the not-to-exceed amount of $97,785, resulting in a not-to-exceed engineering services fee of $619,517.
I. Consider Authorizing Change Order No. 1 on Project No. 278, Wilson Creek Gravity Interceptor Improvements, Phase 1
(Please refer to Administrative Memorandum No. 4134)

Upon a motion by Director Marvin Fuller and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $61,124.08, resulting in a revised contract amount of $3,105,029.18 and an additional 150 calendar days of contract time, resulting in a revised final completion date of November 5, 2014, for the Wilson Creek Gravity Interceptor Improvements, Phase 1, Project No. 278.

J. Consider Authorizing Additional Engineering Services for Fiscal Year 2014 Water Supply Planning Assistance
(Please refer to Administrative Memorandum No. 4135)

Upon a motion by Director Bobby Robinson and a second by Director Lynn Shuyler, the Board of Directors voted unanimously to authorize an increase to the engineering services agreement with Freese and Nichols, Inc., for Fiscal Year 2014 Water Supply Planning Assistance in the not-to-exceed amount of $150,000 for a revised total engineering services fee of $350,000.

K. Consider Authorizing Change Order No. 1 and Authorization to Make Final Payment on Project No. 310, Wylie-Mckinney 20-Inch Waterline Relocation at Stinson Road
(Please refer to Administrative Memorandum No. 4136)

Upon a motion by Director Lynn Shuyler and a second by Director Don Gordcn, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $26,566, resulting in a revised contract amount of $153,828, and authorize final payment to Dowager Utility Construction, Ltd., in the final contract amount of $153,828 for the Wylie-Mckinney 20-Inch Waterline Relocation at Stinson Road, Project No. 310.

L. Consider Authorizing Award of Construction Contract on Project No. 314, Farmersville Pump Station Pump No. 2
(Please refer to Administrative Memorandum No. 4137)

Upon a motion by Director Patrick Nicklen and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize award of a construction contract to Crescent Constructors, Inc., for the Farmersville Pump Station Pump No. 2, Project No. 314, in the amount of $143,700.
M. Consider Authorizing Additional Engineering Services for Project No. 285, Cooper Pipeline Embankment Improvement Near FM 3218 in Commerce, Texas
(Please refer to Administrative Memorandum No. 4138)

Upon a motion by Director John Murphy and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize additional engineering services to Lockwood, Andrews & Newnam, Inc., for the Cooper Pipeline Embankment Improvement Near FM 3218 in Commerce, Texas, Project No. 285, in the not-to-exceed amount of $22,733 for a not-to-exceed total of $141,733.

N. Consider Authorizing Change Order No. 3 and Authorization to Make Final Payment on Project No. 207, Expand Frisco/McKinney Pump Station to 130 MGD
(Please refer to Administrative Memorandum No. 4139)

Upon a motion by Director Shep Stahel and a second by Director Bobby Robinson, the Board of Directors voted unanimously to authorize Change Order No. 3 for a decrease of $72,624.12, resulting in a revised contract amount of $6,520,067.42 and an additional 131 days for final completion resulting in a final completion date of January 15, 2014, and authorize final payment to Archer Western Contractors, Ltd., in the final contract amount of $6,520,067.52, for Project No. 207, Expand Frisco/McKinney Pump Station to 130 MGD.

O. Consider Authorizing Change Order No. 2 on Project No. 227, Contract A, Upper White Rock Creek Parallel Force Main
(Please refer to Administrative Memorandum No. 4140)

Upon a motion by Director Shep Stahel and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize Change Order No. 2 for a net decrease of $41,368.09, resulting in a revised contract amount of $3,200,390.13 and an additional 30 calendar days resulting in a revised final completion date of April 20, 2014, for the Upper White Rock Creek Parallel Force Main, Project No. 227 (Contract A).

P. Consider Authorizing Execution of Engineering Services Agreement on Project No. 352, Water System Operations Center
(Please refer to Administrative Memorandum No. 4141)

Upon a motion by Director Don Gordon and a second by Director Charles McKissick, the Board of Directors voted unanimously to table this item.

Q. Consider Authorizing Change Order No. 24 on Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation
(Please refer to Administrative Memorandum No. 4142)
Upon a motion by Director Darrell Grooms and a second by Director Marvin Fuller, the Board of Directors voted unanimously to authorize Change Order No. 24 for Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation, an increase in the amount of $38,373.02, resulting in a revised contract amount of $110,945,965.57.

R. Consider Authorizing Change Order No. 3 on Project No. 128, Lake Texoma Pump Station Modifications
   (Please refer to Administrative Memorandum No. 4143)

Upon a motion by Director Jerry Yancey and second by Director Shep Stahel, the Board of Directors voted unanimously to authorize Change Order No. 3 to the Lake Texoma Pump Station Modifications, Project No. 128, for an increase of $51,095.65 resulting in revised contract amount of $6,649,959.78.

S. Consider Authorizing Additional Engineering Services on Project No. 312, Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements
   (Please refer to Administrative Memorandum No. 4144)

Upon a motion by Director Shep Stahel and a second by Director John Murphy, the Board of Directors voted unanimously to authorize additional engineering services for Black & Veatch Corporation for professional services associated with design for the Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements, Project No. 312, in the not-to-exceed amount of $23,958, resulting in a revised engineering services fee amount of $451,168.

T. Consider Authorizing Execution of Inspection Services Agreement on Project No. 312, Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements
   (Please refer to Administrative Memorandum No. 4145)

Upon a motion by Director Lynn Shuyler and a second by Director Shep Stahel, the Board of Directors voted unanimously to authorize the Executive Director to execute an inspection services agreement with Dietz Engineering in the not-to-exceed amount of $105,000 for the Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements, Project No. 312.

U. Consider Authorizing Reimbursement to Grayson County for Road Damage, Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline
   (Please refer to Administrative Memorandum No. 4146)

Upon the recommendation of the Water Committee, a motion by Director Shep Stahel, and a second by Director James Kerr, the Board of Directors voted unanimously to authorize reimbursement to Grayson County in the amount of $793,700 for damage to county roads as a result of construction
material delivery for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, per the “Interlocal Agreement between Grayson County and the NTMWD for Road Repairs” dated October 16, 2012.

V. Consider Authorizing Execution of Engineering Services Agreement on Project No. 330, Wylie Water Treatment Plant II Clearwell and Disinfection Modifications
(Please refer to Administrative Memorandum No. 4147)

Upon the recommendation of the Water Committee, a motion by Director Terry Anderson, and a second by Director John Murphy, the Board of Directors voted unanimously to authorize the Executive Director to execute an engineering services agreement with CH2M HILL Engineers, Inc., for professional services associated with design and construction for the Wylie Water Treatment Plant II Clearwell and Disinfection Modifications, Project No. 330, in the not-to-exceed amount of $1,350,000.

W. Consider Authorizing Additional Engineering Services for Project No. 286, Rockwall No. 2 Flow Meter Improvements
(Please refer to Administrative Memorandum No. 4148)

Upon a motion by Director Larry Parks and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize an increase to the engineering services agreement with KSA Engineers, Inc., for Rockwall No. 2 Flow Meter Improvements, Project No. 286, in the not-to-exceed amount of $37,000, for a revised total engineering services fee of $64,336.

X. Consider Authorizing Change Order No. 1 on Project No. 188, Expand High Service Pump Station 3-1 to 350 MGD
(Please refer to Administrative Memorandum No. 4149)

Upon a motion by Director James Kerr and a second by Director Darrell Grooms, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $136,720.94, resulting in a revised contract amount of $7,857,298.94, and approve an additional 75 calendar days of contract time for Project No. 188, Expand High Service Pump Station 3-1 to 350 MGD.

Y. Consider Authorizing Additional Engineering Services for Project No. 320, Wylie Water Treatment Plant II, Improvements for Basin Nos. 3 and 4
(Please refer to Administrative Memorandum No. 4150)

Upon a motion by Director Shep Stahel and a second by Director Darrell Grooms, the Board of Directors voted unanimously to authorize additional engineering services for Black & Veatch Corporation for professional services associated with design for the Wylie Water Treatment Plant II Improvements for Basin Nos. 3 and 4, Project No. 320, in the not-to-exceed
amount of $26,250, resulting in a revised engineering services fee of $277,150.

Z. Consider Authorizing Change Order No. 1 on Project No. 275, Chapman Lake Water Access, Task B (Dredging)
(Please refer to Administrative Memorandum No. 4151)

Upon a motion by Director Shep Stahel and a second by Director Don Gordon, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $56,033.75, resulting in a revised contract amount of $1,818,239.75 and an additional 20 calendar days of contract time, resulting in a revised final completion date of June 25, 2014, for the Chapman Lake Water Access, Task B (Dredging), Project No. 275.

AA. Consider Authorizing Change Order No. 5 on Project No. 259, Water Treatment Plant I Conversion to Biologically Active Filtration and Improvement of Existing Underdrains
(Please refer to Administrative Memorandum No. 4152)

Upon a motion by Director Shep Stahel and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 5 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 $104,627, resulting in a revised contract amount of $6,144,796.75.

VII. ADJOURNMENT

There being no further business, the meeting adjourned at approximately 5:22 p.m. The next regular meeting of the NTMWD Board of Directors will be held Thursday, March 27, 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

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-02

REGIONAL WATER SYSTEM
CITY OF ALLEN EXCHANGE PARKWAY WIDENING
FROM ALMA DRIVE TO ALLEN HEIGHTS DRIVE
ALLEN-PLANO-FRISCO-MCKINNEY PIPELINE
AIR RELEASE VALVE VENT RELOCATIONS

This administrative memorandum requests that the Board of Directors authorize the Executive Director to reimburse the City of Allen (Allen) in the amount of $11,800 for relocating two air release valve vents located within or immediately adjacent to Allen's future road construction in Exchange Parkway.

REVIEW

The two air release valve vents needing to be relocated were installed on the Allen-Plano-Frisco-McKinney (APFM) Pipeline, Project No. WCF 02-2, more specifically, Project A, Phase I. In February 2002, the Board approved Administrative Memorandum No. 2372, which authorized an engineering services agreement with Freese and Nichols, Inc., to design the 72-inch APFM pipeline. At the time of the design, the only open corridor for this pipeline was in the right-of-way (ROW) of Exchange Parkway in Allen. The pipeline was installed in the median where the future third traffic lane would be constructed. Allen did not have a projection for the construction of the third lane. The pipeline was installed totally within the ROW of Exchange Parkway between November 2004 and March 2006 when the Board authorized final payment by Administrative Memorandum No. 2860. The pipeline has been in continuous operation since that time.

In the fall of 2013, Allen bid the construction of the third lane and left turn lanes of Exchange Parkway. During the design of the additional pavement, Allen noted that NTMWD had two air release valve vents that were either in future paving or immediately adjacent to paving, so Allen included the relocation of these two air release valve vents as a line item in the construction contract. The construction of Exchange Parkway between Alma Drive and Junction Drive is underway at this time. The valve vent near Alma Drive is within the proposed pavement, and the second valve vent near Junction Drive is six inches from the proposed back of curb. The line item cost for relocating each vent is $5,900 each for a total cost of $11,800.

FUNDING

Funding in the amount of $11,800 is currently available in the Regional Water System 2014 Operating Budget Special Project Account (Account No. 101-5340-56000).
RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the Executive Director to reimburse the City of Allen in the amount of $11,800 for the Allen-Plano-Frisco-McKinney Pipeline Air Release Valve Vent Relocations. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-03

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

The purpose of this consent agenda item 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 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.

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 is recommended to be effective April 1, 2014, with monthly extensions considered by the Board thereafter.

The proposed extension of seasonal watering has been communicated with NTMWD Member Cities’ and Customers’ staffs through email on March 4, 2014, as the March 3, 2014, scheduled meeting for NTMWD Member Cities and Customers was rescheduled due to inclement weather.

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 decline as little to no rain inflow is being received in the NTMWD’s water supply sources. As of March 18, 2014, Lavon Lake is down 12.32 feet, Lake Jim Chapman is down 12.56 feet, Lake Tawakoni is down 9.59 feet, and Lake Texoma is down 8.75 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.
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 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. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-04

UPPER EAST FORK INTERCEPTOR SYSTEM
BECK BRANCH GRAVITY SEWER
ROWLETT CREEK CROSSING IMPROVEMENTS
CONDITION ASSESSMENT AND PRELIMINARY DESIGN
PROJECT NO. ENG 12-7

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 Michael Baker, Jr., Inc., (Baker) associated with the Beck Branch Gravity Sewer Rowlett Creek Crossing Improvements Condition Assessment and Preliminary Design, Project No. ENG 12-7, in the additional amount of $21,645. This would result in a revised total not-to-exceed engineering services fee of $245,337.27.

REVIEW

The Beck Branch Gravity Sewer was originally constructed in 1993 to transport wastewater flow collected from far eastern Richardson and the southeast corner of Plano to the Beck Branch Lift Station from where flow is then pumped to the Rowlett Creek Regional Wastewater Treatment Plant (RWWTP). The initial design incorporated an aerial crossing over Rowlett Creek with double 27-inch culverts below the crossing to provide continuous creek flow. The crossing was encased in rock backfill with a concrete slab topping, and the creek banks adjacent to the gravity sewer were stabilized with reinforced concrete slope aprons. Within a short time after construction of the aerial crossing (exact timing is unknown), the bypass culverts below the aerial crossing pipe became blocked with debris and silt, and the stream flow rose to spill over the structure that was protecting the aerial crossing. This resulted in the impounding of water along Rowlett Creek to the north and east of the crossing.

The following is a summary of the previous Board actions related to the engineering services fee for this project:

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Ad. Memo./Consent Agenda Item No.</th>
<th>Description</th>
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<tr>
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<td>May 2013</td>
<td>13-05-05</td>
<td>Authorized additional services related to mussel survey</td>
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<tr>
<td>January 2014</td>
<td>4108</td>
<td>Authorized additional services related to additional pumping for initial dewatering attempt</td>
<td>$32,848.77</td>
</tr>
</tbody>
</table>
PROPOSED ADDITIONAL SERVICES

Due to the unforeseen volatility of stream flows that are now evident in this location, it is expected that a much higher volume of pump capacity and temporary piping than originally estimated will be required to adequately dewater the stream. It is recommended to proceed with an alternate inspection approach involving specialty divers to perform an underwater inspection. The inspection will consist of a four person dive team for up to eight days, including cleaning the sediment off the face of the concrete structure, dewatering boxes, and sediment disposal. Once the sediment is removed, the divers will inspect the upstream, top, and downstream faces of the concrete crossing structure. The divers will provide the information on the nature, location, and size of deficiencies to Baker for evaluation.

ADDITIONAL ENGINEERING SERVICES FEE

Baker has presented a cost proposal totaling $47,745 for the underwater inspection by specialty divers. Due to the adjusted approach for evaluating the structure, some of the tasks previously authorized as special services will not be necessary. These include property and easement services, 27-inch force main alignment survey, mitigation determination, and permit preparation. It is recommended that the unused allowances associated with the abandoned tasks ($26,100) be reallocated to offset the new work associated with the underwater inspection. As this will not cover the complete additional cost associated with the divers, silt removal, disposal, and additional funding of $21,645 is requested. This will result in a revised total not-to-exceed contract amount of $245,337.27. The NTMWD staff recommends the additional scope and fee as necessary and representative of the effort required.

SUMMARY OF ENGINEERING SERVICES FEE

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<tr>
<th></th>
<th>Basic Services</th>
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<th>Additional Services</th>
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<tr>
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<td>12,733.50</td>
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<td>Additional Services</td>
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<td>Special Services</td>
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<tr>
<td>Revised Engineering</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
FUNDING


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 Michael Baker, Jr., Inc., for the Beck Branch Gravity Sewer Rowlett Creek Crossing Improvements Condition Assessment and Preliminary Design, Project No. ENG 12-7, in the amount of $21,645, resulting in a revised total not-to-exceed amount of $245,337.27. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-05

UPPER EAST FORK INTERCEPTOR SYSTEM
WILSON CREEK GRAVITY INTERCEPTOR IMPROVEMENTS, PHASE I
PROJECT NO. 278

ENGINEERING SERVICES FEE ADJUSTMENT

This consent agenda item is for the Board of Directors consideration of an adjustment to the engineering services fee for DAL-TECH Engineering, Inc., (DAL-TECH) for the Wilson Creek Gravity Interceptor Improvements, Phase I, Project No. 278, in the credit amount of $12,224.82. This would result in a revised not-to-exceed engineering services fee amount of $209,579.18.

REVIEW

In January 2012, the Board approved Administrative Memorandum No. 3756 authorizing the Executive Director to execute an engineering services agreement with DAL-TECH for design and construction phase services related to the Wilson Creek Gravity Interceptor Improvements, Phase I, in a not-to-exceed amount of $221,804.

In August 2013, the Board approved Administrative Memorandum No. 4033 authorizing award of a construction contract for Phase I to Insituform Technologies, LLC, in the contract amount of $3,043,905.10.

In February 2014, the Board approved Administrative Memorandum No. 4134 authorizing Change Order No. 1 for manhole modifications resulting in a revised contract amount of $3,105,029.18 and a revised contract completion date of November 5, 2014.

ENGINEERING SERVICES FEE ADJUSTMENT

*Item No. 1 – Participation by DAL-TECH* ($12,224.82)

Change Order No. 1 to the construction contract is attributed to a design omission by DAL-TECH, as the type of manhole construction and the proper approach to modifications should have reasonably been included in the original design and bid documents. Recognizing the generally accepted cost premium for change work versus similar work in the original bid, DAL-TECH has agreed to participate in this additional cost by providing a $12,224.82 reduction to the basic engineering services fee, which represents 20% of the net cost increase. The NTMWD staff recommends this reduced amount as acceptable consideration for the design omission.
CONSENT AGENDA ITEM NO. 14-03-05
PAGE 2

SUMMARY OF ENGINEERING SERVICES FEE

<table>
<thead>
<tr>
<th></th>
<th>Basic Services</th>
<th>Special Services</th>
<th>Total</th>
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</thead>
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<td>(Administrative Memorandum</td>
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<td>$53,170.00</td>
<td>$221,804.00</td>
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<td>Recommended Fee Adjustment</td>
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<tr>
<td>(decrease)</td>
<td>(12,224.82)</td>
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<td>(12,224.82)</td>
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<tr>
<td>Revised Engineering Services</td>
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<tr>
<td>Fee Amount</td>
<td>$156,409.18</td>
<td>$53,170.00</td>
<td>$209,579.18</td>
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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 DAL-TECH Engineering, Inc., for the Wilson Creek Gravity Interceptor Improvements, Phase I, Project No. 278, in the credit amount of $12,224.82, resulting in a revised total not-to-exceed amount of $209,579.18. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-06

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

CHANGE ORDER NO. 6

This consent agenda item is for the Board of Directors consideration of Change Order No. 6 for an increase of $16,933.57, resulting in a revised contract amount of $5,738,636.57 for Project No. 251, Water Treatment Plant (WTP) IV Conversion to Biologically Active Filtration. The revised final completion date of April 28, 2014, remains the same.

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>
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<tbody>
<tr>
<td>June 2011</td>
<td>3640</td>
<td>ESA with Carollo Engineers (Carollo)</td>
<td>$388,055</td>
</tr>
<tr>
<td>February 2012</td>
<td>3759</td>
<td>Award to Archer Western Construction, LLC (Archer Western)</td>
<td>$5,364,550</td>
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<tr>
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<td>3812</td>
<td>C.O. No. 1 for welding in steel plugs in the filter effluent and influent pipes for nineteen filters</td>
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<tr>
<td>May 2013</td>
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<td>C.O. No. 2 for replacement of underdrain blocks in Filter No. 11</td>
<td>$111,725</td>
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<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>
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<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>
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</table>

The total value of the construction contract with Archer Western including Change Order No. 5 is $5,721,703.

CHANGE ORDER NO. 6

Change Order No. 6 consists of three items on the referenced project for a net increase in contract price of $16,933.57. The NTMWD Engineering staff and Carollo have reviewed these items and recommend them as necessary and reasonable.

*Item No. 1 – Stainless Steel Troughs at Chemical Unloading Stations* $2,957

Two chemicals will be used in the BAF process: hydrogen peroxide and phosphoric acid. For each chemical, bulk storage tanks are provided that are designed with containment walls, sump areas and floor drains for handling of potential chemical discharges, as well as for containment and handling of rainwater. During installation of the facilities, it became apparent that there was a possibility, under certain conditions, that chemical accumulating within the containment area could flow back into a drain located outside the containment area.

To correct this possible situation, Carollo designed a set of stainless steel troughs that are connected to the existing floor drains. The connection from the stainless steel trough to the floor drain will be via a pipe and watertight joint at the floor drain, so the integrity of the containment area will not be compromised. Archer Western has
submitted a cost proposal for $2,957 for providing and installing two stainless steel troughs and drain pipes.

**Item No. 2 – Stainless Steel Electrical Disconnect Switches** $2,547

Following completion of the project design, NTMWD staff developed a standard approach regarding handling of rainwater and chemical discharges in chemical containment sumps. The standard was developed to assure proper handling of rainwater and potential chemical discharges within the containment area. Based on the adopted standard, an additional disconnect switch is required that was not shown on the contract drawings. Archer Western has submitted a cost proposal in the amount of $2,547 to provide and install two stainless steel, lockable disconnect switches, along with the additional conduit, wire, and labor required for a complete installation.

**Item No. 3 – Controlled Access Security System** $11,429.57

In the time since this project was awarded, NTMWD has developed standards for controlled access building security, which includes equipment such as card readers and the devices to connect the card readers to a central security system. Once the standards were available, Carollo prepared a project change memorandum for Archer Western using the latest NTMWD standards. The standard security devices required by NTMWD were much different than providing just a card reader at each door of the BAF chemical building as shown in the contract drawings.

Archer Western has submitted a cost proposal in the amount of $11,429.57 for providing two card readers required by NTMWD plus the switches that allow for the card readers to be connected to the central security system via a fiber optic network. Archer Western’s cost proposal also includes the programming needed to connect to NTMWD’s central security system. This price also included a credit for two card readers that were to be provided under the contract.

**SUMMARY OF CHANGE ORDER NO. 6**

<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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<td>1</td>
<td>Stainless Steel troughs at Chemical Unloading Stations</td>
<td>$2,957.00</td>
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<tr>
<td>2</td>
<td>Stainless Steel Electrical Disconnect Switches</td>
<td>2,547.00</td>
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<tr>
<td>3</td>
<td>Controlled Access Security System</td>
<td>11,429.57</td>
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<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>$16,933.57</td>
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SUMMARY OF ADJUSTMENTS TO CONTRACT

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<td>C.O. No. 5</td>
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<tr>
<td>Revised Contract Amount</td>
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<td>670</td>
<td>760</td>
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</table>

FUNDING

Additional funding in the amount of $16,933.57 for Change Order No. 6 is available in the Regional Water System 2009D Construction Fund.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Carollo Engineers, that the Board of Directors approves Change Order No. 6 for an increase of $16,933.57, resulting in a revised contract amount of $5,738,636.57 for Project No. 251, Water Treatment Plant IV Conversion to Biologically Active Filtration. The final completion date for this project remains April 28, 2014. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-07

REGIONAL WATER SYSTEM
24-INCH REPLACEMENT LINE FOR THE PRINCETON NO. 1 AND
MCKINNEY-PRINCETON-FARMERSVILLE PIPELINES
CROSSING U.S. HIGHWAY 380
PROJECT NO. 282

CHANGE ORDER NO. 2
AND
AUTHORIZATION TO MAKE FINAL PAYMENT

This consent agenda item is for the Board of Directors consideration of: 1) Change Order No. 2 for a decrease of $200 resulting in a revised contract amount of $467,497; 2) an additional 53 calendar days of contract time resulting in a final completion date of March 3, 2014; and, 3) authorization to make final payment to Wright Construction Co., Inc., (Wright) in the final contract amount of $467,497 for Project No. 282, the 24-Inch Replacement Line for the Princeton No. 1 and McKinney-Princeton-Farmersville Pipelines Crossing U.S. Highway 380.

REVIEW

NTMWD owns and operates two parallel 14-inch pipelines crossing U.S. Highway 380 in Princeton, which are sections of the Princeton No. 1 and McKinney-Princeton-Farmersville pipelines. The pipelines cross U.S. Highway 380 between 2nd Street and 4th Street and feed the Princeton No. 1 Delivery Point.

The existing 14-inch lines were installed in 1997 and replaced lines originally installed in 1957 and 1982. NTMWD staff has repaired the 14-inch lines numerous times on both sides of U.S. Highway 380. Based on the depth of the lines and the difficulty of the work, future pipeline repairs have the potential to be disruptive to local businesses. Based on the current and ultimate system needs, multiple crossings under U.S. Highway 380 are no longer required; therefore, this project replaces the two problematic 14-inch lines with one 24-inch line, including a steel casing installed by means other than open cut, to the Princeton No. 1 Tank at Dogwood Avenue.

The following table shows the previous actions of the Board on this project:

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<tr>
<th>Month/Year</th>
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CONSENT AGENDA ITEM NO. 14-03-07

PAGE 2

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<td>C.O. No. 1 for additional piping based on actual field conditions</td>
<td>$6,168</td>
</tr>
</tbody>
</table>

CHANGE ORDER NO. 2

Proposed Change Order No. 2 consists of two items for a credit of $200 for 14-inch pipe not used in original bid item 16 and 53 calendar days of additional contract time.

Item No. 1 – Adjustment to Contract Quantities

As with any construction project, the original bid quantities can change due to actual field conditions during construction. The following adjustments to contract quantities were made to the indicated bid items in response to the actual conditions encountered:

<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 Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Install 14-inch AWWA C303 RCCP Water Main</td>
<td>EA</td>
<td>$14,000</td>
<td>1.0</td>
<td>0.986</td>
<td>0.014</td>
<td>($200)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($200)</td>
</tr>
</tbody>
</table>

The credit of $200 is due to four linear feet (LF) of existing pipe being used in lieu of a new section of pipe being manufactured and installed. The contractor needed four LF of 14-inch C303 Reinforced Concrete Cylinder Pipe (RCCP) to replace a butterfly valve. The contractor used a section of the existing pipe that was removed at the tie-in location of the new 24-inch line. NTMWD and SPI staff viewed the pipe in the field and deemed it to be in acceptable condition for use on this project.

Item No. 2 – Additional Contract Time

53 Calendar Days

The additional requested contract time is due to the delay caused by the field verification of the 14-inch waterline on the south side of U.S. Highway 380. This verification resulted in the existing line being 36 feet further south than originally anticipated. Additional time was required for the redesign of the connection at this location and for the production of new shop drawings required by Hanson Pipe and Precast, the pipe manufacturer, including the time for submittal and approval of these drawings, as well as the delivery of materials. The installation cost for this item was
CONSENT AGENDA ITEM NO. 14-03-07
PAGE 3

previously approved by the Board in November 2013 by Change Order No. 1 in Consent Agenda Item No. 13-11-05.

SUMMARY OF CHANGE ORDER NO. 2

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adjustment to Contract Quantities (Decrease)</td>
<td>($200)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Additional Contract Time</td>
<td></td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>($200)</td>
<td>53</td>
<td>53</td>
</tr>
</tbody>
</table>

The proposed cost decrease and the contract time extension have been reviewed and determined to be fair and reasonable by the NTMWD staff and SPI.

SUMMARY OF ADJUSTMENTS TO CONTRACT

<table>
<thead>
<tr>
<th>Description</th>
<th>Contract Amount</th>
<th>Days to Substantial Completion</th>
<th>Days to Final Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract</td>
<td>$461,529</td>
<td>160 days</td>
<td>190 days</td>
</tr>
<tr>
<td>C.O. No. 1</td>
<td>6,168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed C.O. No. 2 (Decrease)</td>
<td>($200)</td>
<td>53 days</td>
<td>53 days</td>
</tr>
<tr>
<td>Revised Contract Amount</td>
<td>$467,497</td>
<td>213 days</td>
<td>243 days</td>
</tr>
<tr>
<td>Revised Contract Date</td>
<td></td>
<td>February 1, 2014</td>
<td>March 3, 2014</td>
</tr>
</tbody>
</table>

All major work on the project was completed, and the project was considered substantially complete by February 1, 2013. Additionally, all punchlist items have now been completed.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Schaumburg & Polk, Inc., that the Board of Directors authorize: 1) Change Order No. 2 for a decrease of $200, resulting in a revised final contract amount of $467,497; 2) an additional 53 calendar days of contract time, resulting in a final completion date of March 3, 2014; and, 3) final payment to Wright Construction Co., Inc., in the final contract amount of $467,497 for Project No. 282, the 24-Inch Replacement Line for the Princeton No. 1 and
McKinney-Princeton-Farmersville Pipelines Crossing U.S. Highway 380. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-08

REGIONAL SOLID WASTE SYSTEM
LOOKOUT DRIVE TRANSFER STATION
PERMIT AMENDMENT APPLICATION
PROJECT NO. SWCF 06-1 (093)

ADDITIONAL ENGINEERING SERVICES

The administrative memorandum is for the Board of Directors consideration of additional engineering services with Chiang, Patel & Yerby, Inc., (CP&Y) for out-of-scope efforts associated with preparing the Texas Commission on Environmental Quality (TCEQ) application for expansion of the Lookout Drive Transfer Station facility. The Board is requested to authorize an increase to the engineering services agreement with CP&Y in the amount of $12,000 for a total not-to-exceed amount of $535,132 for the Lookout Drive Transfer Station Expansion, Project No. SWCF 06-1 (093).

REVIEW

Through Administrative Memorandum No. 2944, the Board authorized the Executive Director to enter into an engineering services agreement with CP&Y to prepare the TCEQ permit amendment application to relocate and expand the Lookout Drive Transfer Station. In October 2010, the Board approved Resolution No. 10-26, which authorized the Executive Director to act on behalf of the NTMWD in submitting the permit application to the TCEQ.

The permit application was deemed technically complete in December 2012. In October 2013, the TCEQ Commissioners referred the application to the State Office of Administrative Hearing to settle certain contested issues through a contested case hearing. With the commencement of the hearing process, CP&Y is required to assemble and provide copies of all hard copy and electronic documents in their file pertaining to the project.

ENGINEERING SERVICES FEE

CP&Y prepared a request for additional fees to compile these documents. The amount requested, $12,000, is based on the estimated effort required for this work. NTMWD staff has reviewed the addendum request and believes the cost submitted for the additional work is fair and reasonable.

FUNDING

Additional funding in the amount of $12,000 is available in the Regional Solid Waste System 2009 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 Chiang, Patel, & Yerby, Inc., in the amount of $12,000 for a total not-to-exceed amount of $535,132 for the Lookout Drive Transfer Station Expansion, Project No. SWCF 06-1 (093). This will be an item on the consent agenda of the March 2014 Board meeting.
REGIONAL WATER SYSTEM
ELECTRICAL IMPROVEMENTS AT
RAW WATER PUMP STATION NO. 2
PROJECT NO. 201

CHANGE ORDER NO. 3
AND
AUTHORIZATION TO MAKE FINAL PAYMENT

This consent agenda item is for the Board of Directors consideration of: 1) Change Order No. 3 for a decrease of $33,699.42, resulting in a revised contract amount of $5,168,025.58; 2) a 115-day contract time extension, resulting in a revised final completion date of February 17, 2014; and, 3) authorization to make final payment to Crescent Constructors, Inc., in the final contract amount of $5,168,025.58 for Project No. 201, Electrical Improvements at Raw Water Pump Station No. 2.

REVIEW

The table below provides the history of this project starting with the engineering services agreement (ESA) for detailed design of this project and concludes 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>January 2010</td>
<td>3434</td>
<td>ESA with McCreary and Associates, Inc. (MAI)</td>
<td>$146,150</td>
</tr>
<tr>
<td>December 2010</td>
<td>3569</td>
<td>Additional engineering services with MAI</td>
<td>96,500</td>
</tr>
<tr>
<td>March 2012</td>
<td>3773</td>
<td>Additional engineering services with MAI</td>
<td>86,700</td>
</tr>
<tr>
<td>August 2012</td>
<td>3834</td>
<td>Award of contract to Crescent Constructors, Inc.</td>
<td>5,157,000</td>
</tr>
<tr>
<td>February 2013</td>
<td>3953</td>
<td>C.O. No. 1 for demolition of light poles, increase transformer size, and relocate new gate.</td>
<td>34,388</td>
</tr>
<tr>
<td>September 2013</td>
<td>13-09-03</td>
<td>C.O. No. 2 to install flex base, add PLC communications module, and replace pipe flexible couplings</td>
<td>$10,337</td>
</tr>
</tbody>
</table>

The total value of the construction contract with Crescent Constructors, Inc., including Change Order No. 2 is $5,201,725.
PROPOSED CHANGE ORDER NO. 3

Proposed Change Order No. 3 consists of changes in materials and quantity of work for four items that will result in an overall decrease of $33,699.42 and an increase of 115 calendar days of contract time. The proposed costs listed in the following paragraphs have been reviewed and determined to be fair and reasonable by the NTMWD staff and MAI for the materials and work involved.

*Item No. 1 – Knox Box, Locks, and Fire Lane Signs*  
$944  
52 Calendar Days

In January 2014, the City of Wylie Fire Marshal inspected the Raw Water Pump Station No. 2 site to ensure the work complies with City Fire Code. The Fire Marshal has requested the following items to meet City Codes and Ordinances:

- Install Knox box on the electrical building
- Install Knox padlock on front gates
- Install four fire lane "No Parking" signs

The contractor has submitted a proposal to install the above items for the total amount of $944 and 52 additional calendar days. NTMWD staff and MAI have reviewed these proposed contract modifications and have agreed that the cost and additional time requested is fair and reasonable.

*Item No. 2 – Additional Contract Time for Submittal Review*  
21 Calendar Days

The submittal process allows 21 calendar days for the engineer to complete a review of each type of material or equipment the contractor proposes to include in the project. MAI’s review of the adjustable frequency drive submittal lasted significantly longer than the 21 calendar days allowed in the contract. The engineering staff has reached an agreement with the contractor to extend the contract a total amount of 21 calendar days regarding the submittal review. The NTMWD staff feels a contract extension of 21 calendar days is fair and reasonable.

*Item No. 3 – Additional Contract time for New Electric Service Switchover*  
42 Calendar Days

The contractor notified NTMWD of his readiness to switch over the raw water pumps from the existing power to the new electrical service on September 3, 2013. Due to the demand for water at that time, the contractor was not allowed to begin the work until October 15, 2013, a delay of 42 calendar days. Crescent Constructors, Inc., has requested 42 calendar days of additional contract time for the delay. The NTMWD staff feels a contract extension of 42 calendar days is fair and reasonable.
CONSENT AGENDA ITEM NO. 14-03-09
PAGE 3

Item No. 4 – Adjustment to Contract Quantities ($34,643.42)

The contract documents included an allowance item, Bid Item No. 10, of $200,000 to be utilized for payment of Oncor Energy Delivery’s required contribution in aid of construction for the new electrical service. The actual cost was $165,356.58, leaving a credit of $34,643.42.

SUMMARY OF CHANGE ORDER NO. 3

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Days</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knox Box, Locks, and Fire Lane Signs</td>
<td>52</td>
<td>$944.00</td>
</tr>
<tr>
<td>2</td>
<td>Additional Contract Time for Submittal Review</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Additional Contract Time for New Electric Service Switchover</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Adjustment to Contract Quantities</td>
<td></td>
<td>(34,643.42)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>115</td>
<td>($33,699.42)</td>
</tr>
</tbody>
</table>

SUMMARY OF ADJUSTMENTS TO CONTRACT

<table>
<thead>
<tr>
<th>Description</th>
<th>Contract Amount</th>
<th>Days to Substantial Completion</th>
<th>Days to Final Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract</td>
<td>$5,157,000.00</td>
<td>320</td>
<td>365</td>
</tr>
<tr>
<td>C.O. No. 1</td>
<td>34,388.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.O. No. 2</td>
<td>10,337.00</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>C.O. No. 3</td>
<td>(33,699.42)</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>Revised Contract Amount</td>
<td>$5,168,025.58</td>
<td>449</td>
<td>494</td>
</tr>
<tr>
<td>Revised Contract Dates</td>
<td>January 3, 2014</td>
<td></td>
<td>February 17, 2014</td>
</tr>
</tbody>
</table>

All major work on the project was completed, and the project was considered substantially complete on November 15, 2013. All punchlist items were completed by February 14, 2014. NTMWD staff recommends authorization to make final payment to Crescent Constructors, Inc., in the final contract amount of $5,168,025.58 for Electrical Improvements at Raw Water Pump Station No. 2, Project No. 201.
RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and McCreary and Associates, Inc., that the Board of Directors authorize: 1) Change Order No. 3 for a decrease of $33,699.42, resulting in a revised contract amount of $5,168,025.58; 2) a 115-day contract time extension, resulting in a revised final completion date of February 17, 2014; and, 3) authorization to make final payment to Crescent Constructors, Inc., in the final contract amount of $5,168,025.58, for Project No. 201, Electrical Improvements at Raw Water Pump Station No. 2. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-10

REGIONAL WATER SYSTEM
INSTALL SECOND 50 MGD PUMP AND IMPROVEMENTS
AT APOLLO PUMP STATION, PROJECT NO. 200
AND
INSTALL PIPING MODIFICATIONS AT
HAILEY PUMP STATION, PROJECT NO. 206

CHANGE ORDER NO. 3
AND
AUTHORIZATION TO MAKE FINAL PAYMENT

This consent agenda item is for the Board of Directors consideration of: 1) Change Order No. 3 for a decrease of $49,109.16 resulting in a revised contract amount of $4,991,086.09; and, 2) authorization to make final payment to Legacy Contracting, LP, (Legacy) in the final contract amount of $4,991,086.09, which includes $4,580,501.65 for Project No. 200 and $410,584.44 for Project No. 206.

REVIEW

The table below provides the history of this project starting with the engineering services agreement (ESA) for detailed design of this project and concludes 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>December 2009</td>
<td>3427</td>
<td>ESA with Freese and Nichols, Inc., (FNI) Project No. 200</td>
<td>$353,000.00</td>
</tr>
<tr>
<td>February 2010</td>
<td>3447</td>
<td>ESA with FNI, Project No. 206</td>
<td>$16,200.00</td>
</tr>
<tr>
<td>March 2011</td>
<td>3606</td>
<td>Additional Engineering Services with FNI for Project Nos. 200 and 206</td>
<td>$130,000.00</td>
</tr>
<tr>
<td>October 2011</td>
<td>3708</td>
<td>Award of Contract to Legacy for Project Nos. 200 and 206</td>
<td>$4,983,343.91</td>
</tr>
<tr>
<td>December 2011</td>
<td>11-12-07</td>
<td>Additional Engineering Services with FNI for Project Nos. 200 and 206</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>August 2013</td>
<td>4035</td>
<td>C.O. No. 1 for addition of double doors and insulation to Pump Station No. 2 and an electrical upgrade for Project No. 200</td>
<td>$26,243.17</td>
</tr>
<tr>
<td>November 2013</td>
<td>4092</td>
<td>C.O. No. 2 for manpower and equipment and demobilization and remobilization cost and time</td>
<td>$30,608.17</td>
</tr>
</tbody>
</table>
CHANGE ORDER NO. 3

Proposed Change Order No. 3 consists of the following item:

*Item No. 1 – Adjustment to Contract Quantities*  
($49,109.16)

As with any construction project, the original bid quantities can change due to actual field conditions during construction. The following adjustments to contract quantities were made to the indicated bid items in response to the actual conditions encountered:

<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 Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1b</td>
<td>Witness Test-Pump</td>
<td>EA</td>
<td>$7,500</td>
<td>1</td>
<td>(1)</td>
<td></td>
<td>($7,500.00)</td>
</tr>
<tr>
<td>A-1c</td>
<td>Witness Test-Motor</td>
<td>EA</td>
<td>12,500</td>
<td>1</td>
<td>(1)</td>
<td>(12,500.00)</td>
<td></td>
</tr>
<tr>
<td>B-1b</td>
<td>Witness Test-VFD</td>
<td>EA</td>
<td>2,715.13</td>
<td>1</td>
<td>(1)</td>
<td>(2,715.13)</td>
<td></td>
</tr>
<tr>
<td>C-4</td>
<td>Extra Pier Depth</td>
<td>VF</td>
<td>73.19</td>
<td>80</td>
<td>43</td>
<td>(37)</td>
<td>(2,708.03)</td>
</tr>
<tr>
<td>C-5</td>
<td>Extra Flowable Fill</td>
<td>CY</td>
<td>93.92</td>
<td>200</td>
<td></td>
<td>(200)</td>
<td>(18,784.00)</td>
</tr>
<tr>
<td>C-6</td>
<td>Extra Concrete Pavement</td>
<td>SY</td>
<td>$49.02</td>
<td>100</td>
<td>(100)</td>
<td></td>
<td>(4,902.00)</td>
</tr>
<tr>
<td></td>
<td><strong>Total (Decrease)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(100)</td>
<td>($49,109.16)</td>
</tr>
</tbody>
</table>

Bid Items A-1b, A-1c, and B-1b were included in the bid form for an NTMWD representative to attend the factory witness test for the pumps, motors, or VFDs, respectively. The NTMWD staff and FNI elected to accept the standard factory performance test data without a representative from NTMWD in attendance.

**SUMMARY OF ADJUSTMENTS TO CONTRACT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Contract Amount</th>
<th>Days to Substantial Completion</th>
<th>Days to Final Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract</td>
<td>$4,983,343.91</td>
<td>450 days</td>
<td>480 days</td>
</tr>
<tr>
<td>C.O. No. 1</td>
<td>26,243.17</td>
<td>60 days</td>
<td>60 days</td>
</tr>
<tr>
<td>C.O. No. 2</td>
<td>30,608.17</td>
<td>222 days</td>
<td>222 days</td>
</tr>
<tr>
<td>Proposed C.O. No. 3</td>
<td>(Decrease)</td>
<td>(49,109.16)</td>
<td></td>
</tr>
<tr>
<td>Revised Contract</td>
<td>$4,991,086.09</td>
<td>732 days</td>
<td>762 days</td>
</tr>
<tr>
<td>Dates</td>
<td>December 22, 2013</td>
<td>January 21, 2014</td>
<td></td>
</tr>
</tbody>
</table>
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. 3 for a decrease of $49,109.16, resulting in a revised contract amount of $4,991,086.09; and, 2) authorization to make final payment to Legacy Contracting, LP, in the final contract amount of $4,991,086.09, which includes $4,580,501.65 for Project No. 200, Install Second 50 MGD Pump and Improvements at Apollo Pump Station and $410,584.44 Project No. 206, Install Piping Modifications at Hailey Pump Station. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

CONSENT AGENDA ITEM NO. 14-03-11

RATIFICATION OF TEXAS WATER DEVELOPMENT BOARD
CONTRACT AMENDMENT NOS. 3, 4, AND 5
FOR DEVELOPMENT OF 2016 REGION C WATER PLAN
AND APPROVAL OF AMENDMENT TO PROFESSIONAL SERVICES CONTRACT

The purpose of this consent agenda item is to request the Board of Directors ratify Amendment Nos. 3, 4, and 5 to the contract with the Texas Water Development Board (TWDB) for grant funding for development of the 2016 Region C Water Plan and to request the approval of an amendment to the professional services contract with Freese and Nichols, Inc., (FNI) for this work. The current contract is for $1,938,684. Amendment Nos. 3, 4, and 5 include additional grant funds in the amount of $141,614. This brings the total funding to $2,080,298.

REVIEW

Senate Bill 1 (SB1) passed by the 75th Texas Legislature mandated the TWDB to implement a program of regional planning. The TWDB designated 16 regional planning areas, which have established a planning group for each region. Region C, which includes the NTMWD, consists of 16 area counties. In order to consider and include the future water needs of everyone in the region, a multimember-planning group was seated with representation from the various water interest groups in the planning area. The regional planning group secured a lead agency that had the legal authority as a political subdivision of the State to make a grant application and contract on behalf of the Region C Water Planning Group (RCWPG) for funds available from the TWDB for development of a regional water plan. The NTMWD Board of Directors previously accepted the RCWPG’s designation as the contract administrator.

For the 2001, 2006, and 2011 plans, the RCWPG selected the engineering firm of FNI to prepare the plan. The NTMWD accepted grant funding from the TWDB for development of the regional water plans. The NTMWD contracted with FNI for the professional services to prepare these plans. FNI completed the 2001, 2006, and 2011 Region C Water Plans, and all three plans were approved by the TWDB and submitted as part of the State Water Plan. SB1 mandated that the regional water plan be updated every five years. The 2016 plan will focus on an update of the Region C Water Plan based upon the 2010 Federal Census.

REGIONAL PLAN GRANT APPLICATION

On April 8, 2011, the NTMWD filed a grant application on behalf of the RCWPG to prepare the 2016 Region C Water Plan. On June 22, 2011, the TWDB authorized its staff to negotiate a contract for a fee not to exceed $597,220, and a contract in this amount was executed with the TWDB on August 19, 2011. On October 1, 2012, the NTMWD filed a grant application for additional funding in the amount of $1,341,464 on
CONSENT AGENDA ITEM NO. 14-03-11
PAGE 2

behalf of the RCWPG to prepare the 2016 Region C Water Plan. On October 17, 2012, the TWDB authorized its staff to negotiate a contract for additional funding in the amount of $1,341,464 bringing the total contract amount to $1,938,684. (Only $781,296 of this additional funding was to be available immediately; $560,168 of the additional funding would be available at a later date subject to written authorization from TWDB.) That action was executed in Amendment No. 2.

On June 14, 2013, Amendment No. 3 between TWDB and NTMWD was executed. This Amendment included revision of Task 4D scope with the total contract amount being unchanged.

On December 20, 2013, Amendment No. 4 between TWDB and NTMWD was executed. This Amendment included an additional $8,500 of budget to be used by NTWMD for administrative costs related to Conflict Resolution between Regions C and D (Task 100); an Authorization to Proceed for funds that were previously contracted but not available; changed deadline for the Technical Memorandum from May 1, 2014, to August 1, 2014; revision of scope for Task 4A and 4C; and, specification that $170,214 of the total contract funds would not be available until September 1, 2014.

On March 13, 2014, Amendment No. 5 between TWDB and NTMWD was executed. This Amendment included additional scope and budget ($133,114) for Tasks 12 and 13 to be used by consultants for Prioritization of Projects in the 2011 and 2016 Regional Water Plans, and the specification that $202,877 of the total contract funds would not be available until September 1, 2014.

PROPOSED TWDB CONTRACT

In order to obtain the grant funds, a contract must be signed between the TWDB and the NTMWD as applicant for Region C. The TWDB is finalizing a contract with terms and conditions that will be standard for all 16 regions.

At a meeting on April 30, 2012, the RCWPG requested and authorized NTMWD to finalize and execute a contract for additional funding to complete the 2016 Region C Water Plan. The RCWPG appreciates the willingness of the NTMWD to continue acting as the contract administrator on their behalf. TWDB executed the contract on January 2, 2013.

PROPOSED CONSULTANT CONTRACT

The RCWPG approved the selection of FNI for the fourth round of water planning at their March 2011 meeting. A professional services contract was developed and executed on September 6, 2011. The professional services agreement was presented to the NTMWD Board for consideration and was approved as the Region C contract administrator in December 2012.
Funding for the professional services contract is through grants from the TWDB. The TWDB had committed $1,938,684 and now has committed an additional $141,614 for the total Region C budget. NTMWD shall not be liable for any costs in excess of the maximum not-to-exceed funding of this contract unless the contract is amended to increase the maximum not-to-exceed funding.

The RCWPG recommended acceptance of FNI's scope of work and budget and unanimously agreed to authorize the NTMWD to execute the amendment to the contract with FNI on their behalf. It is the opinion of the Executive Director that this contract provides the NTMWD with adequate and reasonable protection against loss and will achieve the intent of producing the mandated water plan.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors: 1) ratify Amendment Nos. 3, 4, and 5 to the contract with the Texas Water Development Board on behalf of the Region C Water Planning Group for grant funding for development of the 2016 Region C Water Plan in the amount of $141,614; and, 2) authorize the Executive Director to execute an amendment to the contract with Freese and Nichols, Inc., on behalf of the Region C Water Planning Group for professional services in the not-to-exceed amount of $133,114. This will be an item on the consent agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4141-1

REGIONAL WATER SYSTEM
WATER TREATMENT PLANT
WATER SYSTEM OPERATIONS CENTER
PROJECT NO. 352

ENGINEERING SERVICES AGREEMENT

Administrative Memorandum No. 4141 was tabled at the February 2014 Board meeting. The purpose of this administrative memorandum is to request that the Board of Directors: 1) remove this item from the table; and, 2) take the action to not approve the execution of an engineering services agreement for Project No. 352, Water Treatment Plant (WTP) Water System Operations Center.

REVIEW

In May 2009, the Board approved Administrative Memorandum No. 3346, which authorized an engineering services agreement (ESA) with Black & Veatch Corporation (B&V) in the amount of $10,620,000 for final design and construction document preparation for Project No. 153, Wylie WTP I, II, III, and IV Ozoneation (Ozone Project).

In October 2010, the Board approved Administrative Memorandum No. 3547 authorizing award of the construction contract to McCarthy Building Companies, Inc., (McCarthy) in the contract amount of $112,989,000. The Ozone Project currently is under construction with a proposed completion date of July 2014. As part of the Ozone Project, the North Ozone Operations Building (NOPS) was constructed between WTP III and IV for housing the liquid oxygen facilities, the ozone generators, and the cooling water chillers. An area on the west side and adjacent to NOPS was reserved and indicated on the drawings for office space. The footprint of this reserved space is 132 feet by 34 feet, or approximately 4,488 square feet. At the time of design of the ozonation facilities, the reserved area adjacent to NOPS was to be used for future design and construction of the Water System office space.

In January 2010, the NTMWD Board approved Administrative Memorandum No. 3439, which authorized the Executive Director to execute an ESA with EMA for design and construction phase services for Project No. 205, SCADA System Upgrades and Operations. Included in the SCADA project, EMA with assistance from NTMWD staff would evaluate the existing main control room location, currently in the Operations Building constructed in the mid-1950s and develop recommendations regarding the location of a new control room if the current location is not suitable. EMA noted that the existing control room has considerable constraints that make its upgrade or expansion difficult and costly. EMA and NTMWD staff agree that the preferred location for the new main control room would be within the area reserved for office space west of and
adjacent to the NOPS. It is the opinion of the Executive Director and NTMWD staff that locating the Control Room staff with the remaining Water System staff will provide the most efficient operation for the system. The Operations Center is envisioned to house the main control room and associated offices for key operations and plant personnel who require close access to the main control room.

In February 2012, the Board approved Administrative Memorandum No. 3764 authorizing additional engineering services for B&V to design a new main plant control room along with office space and then negotiate a change order with McCarthy for construction. Plans were prepared to the 95% level, and McCarthy was provided with a set of 95% plans for preliminary pricing. McCarthy’s preliminary price based on the set of plans provided was 60% higher than the engineer’s opinion of construction cost. Due to the significant discrepancy between the engineer’s opinion of cost and that submitted by McCarthy and the overall size of the project (approximately 4,500 square feet), it is the recommendation of the Executive Director and NTMWD staff that plans and specifications be developed and the project be competitively bid in lieu of proceeding with this work as a change order. Since receipt of the preliminary price submitted by McCarthy, the Board will recall that McCarthy has submitted a Request for Equitable Adjustment (REA) along with additional change order requests that total approximately $10 million. The REA and change order items are currently under review by the NTMWD staff and Saunders, Walsh & Beard. Therefore, NTMWD staff requests that the Board authorize a separate project for the Water System Operations Center. In order to perform this work as a separate project, a design engineer will have to prepare a complete set of documents, as well as include the time for bid phase and construction phase services.

B&V completed the scope of services as approved by the Board in February 2012. After reviewing the preliminary proposal from McCarthy, NTMWD and B&V developed a number of value engineering items to reduce cost. The value engineering resulted in several major changes to the 95% level plans. A partial list of the major changes is included below:

- Reduce office sizes and increase the number of offices from 8 to 10
- Shorten the height of pre-cast panels from 20 feet to 14 feet
- Use rough aggregate finish for exterior of concrete precast panels instead of brick veneer to increase competition
- Use package air conditioning units and a damper controlled duct system

PROPOSED SCOPE OF PROJECT

NTMWD staff requested B&V submit a proposal for design, preparation of bidding documents, bid phase, and construction phase services for the Operations Center. The project will provide the design for centralized Water System management and
operations and will include a new main control room along with 10 offices, a conference room, break room, and a copy room. The engineering services include preparation of design documents and associated construction services for constructing approximately 4,500 square feet of facility space.

A preliminary estimated construction cost at this stage is based on a typical cost per square foot plus the specialty items needed for security and data. B&V's opinion of probable construction cost for the Operations Center is approximately $1,200,000. The cost opinion includes electrical, instrumentation, and security revisions requested by NTMWD staff.

ENGINEERING SERVICES FEE

B&V proposes a not-to-exceed basic services fee of $274,600 for these design services. B&V's proposed fee appears high when compared to other projects of this size, due to the increased level of electrical, instrumentation/control, mechanical, and architectural engineering efforts required for this project. There are a number of reasons for this, including:

- Implementation of a new security system for both the Operations Center and the adjacent existing NOPS building entry doors, including door access hardware, access controller panel, and programming
- Modifications to the existing building telephone and data system for both the existing NOPS building and the Operations Center
- Addition of a number of data points for uninterruptible power source (UPS) backup and the addition of an engine generator to back up the UPS
- Use of walker-duct system (in-floor communications cable routing system) in the control room floor to allow maximum flexibility and expansion in the control room
- Additional meetings with NTMWD's technical services and information technology staffs for specialty items that are required for the control room

The Executive Director and NTMWD staff reviewed the proposal and fee submitted by B&V. Although a number of factors impact the overall design and, therefore, the submitted fee, it is the opinion of the Executive Director that the Board not approve the engineering fee. NTMWD staff will request a proposal from another engineer/architect, and present a recommendation to the Board in the near future for action on design of this project.
RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors: 1) remove this item from the table; and, 2) take the action to not approve the execution of an engineering services agreement for Project No. 352, Water Treatment Plant Water System Operations Center. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4153

SANITARY SEWER OVERFLOW REPORTING
DISTRICT POLICY NO. 38

This purpose of this administrative memorandum is to request the Board of Directors consideration of District Policy No. 38, Sanitary Sewer Overflow Reporting.

Sanitary Sewer Overflow (SSO) reporting is governed by state and federal regulations. The regulations require timely and accurate reporting of SSOs to the proper authorities, with failure to comply with those regulations constituting a violation of the Clean Water Act and/or the Texas Water Code. It is the recommendation of the Executive Director and NTMWD staff that a written policy is adopted and written procedures are developed to ensure the timely and accurate reporting of SSOs to the proper authorities.

The attached policy requires the established written procedures to be reviewed on an annual basis to ensure that they are compliant with all state and federal regulations appropriate for the reporting of SSOs, and to recommend any changes necessary to ensure the NTMWD’s continued compliance with the appropriate federal and state rules and regulations.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Lloyd, Gosselink, Rochelle & Townsend, PC, that the Board of Directors adopt District Policy No. 38, Sanitary Sewer Overflow Reporting, and direct NTMWD staff to prepare written procedures in accordance with all applicable state and federal regulations for the reporting of sanitary sewer overflows. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014 DISTRICT POLICY NO. 38

SANITARY SEWER OVERFLOW REPORTING

SECTION I. PURPOSE

This policy is enacted to ensure that there are written policies and procedures in place to address the means and methods for reporting sanitary sewer overflows ("SSOs").

SECTION II. BACKGROUND

SSO reporting is governed by state and federal regulations. The failure to timely and accurately report SSOs to the proper authorities may constitute a violation of the Clean Water Act and/or the Texas Water Code. It is, therefore, imperative that the NTMWD develop written policies and procedures to ensure the timely and accurate reporting of SSOs to the proper authorities.

SECTION III. SSO REPORTING POLICIES AND PROCEDURES

Written policies and procedures shall be developed to address, among other things: 1) how to respond to allegations of SSOs; 2) how to document the size, remedial activities, and determine whether there has been any environmental impact from an SSO; and, 3) how to timely and accurately report SSOs to the proper local, state, and/or federal authorities.

SECTION IV. REVIEW AND AMENDMENT OF POLICIES AND PROCEDURES

NTMWD staff shall review the written policies and procedures on an annual basis to ensure that same are current with the federal and state reporting requirements for SSOs. As needed, the written policies and procedures shall be amended from time to time.

SECTION V. IMPLEMENTATION

All written policies and procedures as approved by the Executive Director shall be implemented by NTMWD staff. The Wastewater System Manager shall provide for annual training regarding same.

SECTION VI. ADOPTION

This policy was passed and approved by the Board of Directors of the North Texas Municipal Water District in a regular meeting on the 27th day of March 2014.

JOE JOPLIN, Secretary BILL LOFLAND, President
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4154

CONSENT TO REVOCABLE LICENSE AGREEMENT
BETWEEN CITY OF MCKINNEY AND MCKINNEY LFG, LLC

The purpose of this administrative memorandum is to request the Board of Directors to authorize the Executive Director to provide written consent to a revocable license agreement between the City of McKinney (City) and McKinney LFG, LLC (McKinney LFG). The easement within the revocable license agreement will be effective when the Texas Commission on Environmental Quality (TCEQ) issues a letter to NTMWD approving closure activities at the McKinney Landfill, which begins the post-closure care period.

BACKGROUND

In 1993, the City of McKinney and NTMWD entered into a Lease and Easement Agreement (Landfill Agreement) whereby the City, as the owner of McKinney Landfill property (the McKinney Landfill), leased the landfill premises to NTMWD for the operation of the municipal solid waste landfill, and entered into certain agreements regarding the operation, closure, and post-closure care of the McKinney Landfill. The Landfill Agreement provided that the lease of the McKinney Landfill premises would terminate upon the closure of the McKinney Landfill, but that NTMWD would retain a non-exclusive blanket easement over the McKinney Landfill premises to complete post-closure care obligations. These obligations typically last at least 30 years per the current solid waste regulations. The Landfill Agreement was amended on May 2, 2007, through Board-approved Administrative Memorandum No. 3018 (April 2007), to provide NTMWD with ownership rights over all landfill gas rights associated with the McKinney Landfill. McKinney LFG and NTMWD entered into a Landfill Gas Rights, Lease, and Development Agreement, dated July 10, 2007, through Board-approved Administrative Memorandum No. 3030 (June 2007), so that McKinney LFG could develop a landfill gas-to-energy project on the McKinney Landfill premises.

The McKinney Landfill is expected to imminently achieve “closed” status by the TCEQ, commencing the non-exclusive blanket easement over the McKinney Landfill premises for post-closure care obligations. The City has determined that the gas-to-energy project on the McKinney Landfill, governed by the Landfill Gas Agreement, is a permitted post-closure activity at the McKinney Landfill for which NTMWD may authorize under its blanket easement rights.

McKinney LFG has installed improvements and equipment to collect, capture, flare, and process the landfill gases on and under the McKinney Landfill pursuant to the Landfill Gas Agreement and consistent with the easement granted to NTMWD by the City in the Landfill Agreement. The City, as the owner of the McKinney Landfill premises, desires to authorize McKinney LFG access to the McKinney Landfill premises upon
commencement of post-closure care in furtherance of McKinney LFG’s operations under the Landfill Gas Agreement and will enter into the attached Revocable License Agreement with McKinney LFG. The City and McKinney LFG have requested NTMWD provide its consent to the rights provided in the agreement. NTMWD staff has requested review of this agreement by Lloyd, Gosselink, Rochelle & Townsend, PC. They have completed their review and have no objections.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Lloyd, Gosselink, Rochelle & Townsend, PC, that the Board of Directors authorize the Executive Director to provide written consent to the rights granted in the attached Revocable License Agreement between the City of McKinney and McKinney LFG, LLC. This will be an item on the regular agenda of the March 2014 Board meeting.
After recording, return to:

City Secretary
City of McKinney
P.O. Box 517
McKinney, Texas 75069

REVOCABLE LICENSE AGREEMENT

This REVOCABLE LICENSE AGREEMENT ("Agreement") is entered into to be effective on the date that the last approving party executes the Agreement ("Effective Date") between the CITY OF MCKINNEY, TEXAS, a Texas home-rule municipal corporation ("City"), and MCKINNEY LFG, LLC, a Delaware limited liability company ("Licensee"), upon the terms and conditions set forth below.

RECITALS

WHEREAS, in 1993, the City and the North Texas Municipal Water District ("NTMWD") entered into a Lease and Easement Agreement ("Landfill Agreement") whereby the City, as the owner of McKinney Landfill property (the "McKinney Landfill"), leased the landfill premises (the "McKinney Landfill Premises") to NTMWD for the operation of municipal solid waste landfill, and entered into certain agreements regarding the operation, closure and post-closure of the McKinney Landfill; and

WHEREAS, the Landfill Agreement provided that the lease of the McKinney Landfill Premises would terminate upon the closure of the McKinney Landfill, but that NTMWD would retain a non-exclusive blanket easement over the McKinney Landfill Premises to complete post-closure obligations at the McKinney Landfill; and

WHEREAS, the Landfill Agreement, was amended on May 2, 2007, to provide NTMWD with ownership rights over all landfill gas rights associated with the McKinney Landfill; and

WHEREAS, Licensee and NTMWD entered into that certain Landfill Gas Rights, Lease, and Development Agreement, dated July 10, 2007, as amended ("Landfill Gas Agreement") so that Licensee could develop a landfill gas-to-energy project on the McKinney Landfill Premises; and

WHEREAS, the McKinney Landfill is expected to achieve "closed status" by the Texas Commission on Environmental Quality, such that NTMWD will only possess a non-exclusive blanket easement ("Easement") over the McKinney Landfill Premises for post-closure obligations at the McKinney Landfill; and

WHEREAS, the City has determined that the gas-to-energy project on the McKinney Landfill, governed by the Landfill Gas Agreement, is a permitted post-closure activity at the McKinney Landfill for which NTMWD may authorize under its blanket easement rights; and
WHEREAS, Licensee has installed certain improvements and equipment to collect, capture, flare, and process the landfill gases on and under the McKinney Landfill including the Gas Processing Facilities as defined below (collectively, the “Gas Facilities”), pursuant to the Landfill Gas Agreement and consistent with the easement granted to NTMWD by the City in the Landfill Agreement;

WHEREAS, Licensee has constructed certain facilities on the McKinney Landfill defined in the Landfill Gas Agreement as “Licensees” plant, equipment and related facilities constructed and located at the Landfill for processing Landfill Gas to produce and sell electricity, compressed natural gas, liquefied natural gas, medium Btu gas or high Btu gas to an end use customer,” (collectively, the “Gas Processing Facilities”), ; and

WHEREAS, the City, as the owner of the McKinney Landfill Premises, desires to authorize Licensee to access the McKinney Landfill Premises in furtherance of Licensee’s operations under the Landfill Gas Agreement and pursuant to the terms and conditions set forth in this Agreement.

NOW, THEREFORE, this Agreement is made and entered into by the City and Licensee, upon and for the mutual consideration hereinafter stated, which entities hereby agree and understand as follows:

AGREEMENT

1. **Representations.** The parties believe that the recitals set forth above are true and correct in all material respects and are hereby incorporated into the body of this Agreement as though fully set forth in their entirety herein. Each of the parties acknowledges and agrees that it has the requisite power and authority to enter into this Agreement and that the person executing the Agreement on its behalf has been duly authorized to do so.

2. **Premises.** The City, as the owner of the McKinney Landfill Premises, grants Licensee a revocable license and the right of access over and across the McKinney Landfill Premises as indicated in Exhibit A attached hereto and incorporated herein by reference (“Licensed Property”). The City makes this grant solely to the extent of its rights, title and interest in the Licensed Property, without any express or implied warranties of any kind, including, but not limited to condition or suitability for any purposes.

3. **Purpose.** The City grants Licensee permission to use the Licensed Property solely for the following purposes:

   a. (i) the location of the Gas Facilities thereon; (ii) the construction, installation, operation and maintenance of the Gas Facilities; (iii) any landfill gas line to transmit landfill gas produced by the Gas Facilities to others if located remote from the McKinney Landfill Premises; (iv) any condensate lines to or from the Gas Facilities; and (v) sewer, electric, gas, water, telephone and other utilities that are necessary or desirable for the Gas Facilities and related equipment as reasonably determined by Licensee.
b. Ingress and egress over and through the Licensed Property by vehicle or on foot with around the clock access to the Licensed Property and the Gas Facilities.

4. **Term.** This Agreement commences on the Effective Date and shall continue thereafter for so long as the Licensed Property is used solely for the purposes set out in Section 3 of this Agreement, but in no event longer than the term of the Easement. Notwithstanding the foregoing, if the Landfill Gas Agreement is terminated by NTMWD due to an event of default under the terms thereof, this Agreement shall terminate simultaneously therewith. Additionally, the City may terminate this Agreement upon Licensee’s default and upon providing Licensee thirty (30) days written notice of the City’s intent to terminate this Agreement, if said default remains uncured by Licensee within thirty (30) days of receipt of said written notice.

5. **Failure to Vacate Premises.** Licensee shall, within twelve (12) months after the expiration or termination of this Agreement, remove the Gas Processing Facilities and return the Licensed Property to its condition on the effective date of the Landfill Gas Agreement. Notwithstanding the forgoing, Licensee may not be required to, and shall not be permitted to, remove or disturb waste, cover, vegetation, the collection system or any flares, placed on the Licensed Property as part of the Landfill’s operations or closure, whether or not such waste, cover or vegetation was placed after the effective date of the Landfill Gas Agreement. Upon said expiration or termination, the collection system and flare station located on the McKinney Landfill shall become the property of NTMWD, subject to any superior rights of City under the Easement, and Licensee shall have no further responsibility with respect to said collection system or flare station.

6. **Permits and Other Operating Requirements.** Licensee shall be solely responsible for obtaining all permits and other permissions, of any nature, for its use of the Licensed Property. Licensee shall conduct all of its operations within the Licensed Property in accordance with all rules, laws, ordinances, statutes, and regulations of the City of McKinney, Collin County, the State of Texas, the United States, and agencies of the United States Federal Government and/or the State of Texas to include the Federal Aviation Administration, the Environmental Protection Agency, the Federal Emergency Management Agency, the Texas Commission on Environmental Quality, and the Texas State Department of Health. Failure of Licensee to obtain any required permits not otherwise cured within any applicable cure period or deadline provided by a regulatory agency, or if any such permits are revoked, shall cause this Agreement to automatically terminate and Licensee shall immediately vacate the Licensed Premises in accordance with Paragraph 5.

7. **Indemnification.** Licensee hereby assumes all liability and responsibility for and agrees to fully indemnify, hold harmless and defend the City and its officers, agents, servants and employees from and against all claims, suits, judgments, demands, damages, losses and expenses, including but not limited to attorney’s fees, for injury to or death of a person or damage to property, arising out of or in connection with, directly or indirectly, Licensee’s use of the Licensed Property that forms the basis of this Agreement specifically including, but not limited to, the operation of the Gas Facilities on the McKinney Landfill and the construction, maintenance, operation, use and removal of the Gas Facilities on the Licensed Property, as well as the maintenance, repair, restoration and remediation of the Licensed
Property. This indemnity includes claims or fines made by any state or federal agency. The provisions of this paragraph are solely for the benefit of the parties hereto and are not intended to create or grant any rights, contractual or otherwise, to any other person or entity. Further, Licensee shall maintain insurance in accordance with the provisions of the Landfill Gas Agreement, and in accordance with paragraph 8 of this Agreement, and shall name the City as additional insured.

8. Insurance Requirements.

a. Licensee shall, at its own expense, procure, pay for and maintain the following insurance written by companies approved by the State of Texas and acceptable to the City. Licensee shall furnish to the City of McKinney Purchasing Manager certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Certificates shall reference the “McKinney Landfill Gas to Energy Project” and shall provide, at a minimum, the following coverages:

1. Worker's compensation insurance covering Licensee's liability under applicable workers' compensation law. Licensee's liability shall not be less than $1,000,000 for each occurrence.

2. Comprehensive automotive liability limit shall not be less than the following:
   a. Bodily Injury: $1,000,000 per occurrence, $5,000,000 aggregate
   b. Property Damage: $1,000,000 per occurrence, $5,000,000 aggregate.

3. Comprehensive general liability limit shall not be less than the following:
   a. Bodily Injury: $1,000,000 per occurrence, $5,000,000 aggregate
   b. Property Damage: $1,000,000 per occurrence, $5,000,000 aggregate.

b. With reference to the foregoing required insurance, Licensee shall endorse applicable insurance policies as follows:

1. A waiver of subrogation in favor of City, its officials, employees, and officers shall be contained in the Workers’ Compensation insurance policy.

2. City, its officials, employees and officers shall be named as additional insureds on the Commercial General Liability policy as well as the Environmental Impairment Liability (Site Coverage) policy, by using endorsement CG2026 or broader; and

3. All insurance policies shall be endorsed to the effect that the City will receive at least thirty (30) days’ notice prior to cancellation, non-renewal, termination, or material change of the required policies.

c. All insurance shall be purchased from an insurance company that meets a financial rating of B+VI or better as assigned by A.M. Best Company or equivalent.
9. **Property Maintenance.** Licensee shall, during the term of this Agreement, maintain the Licensed Property in a clean, neat and orderly manner, to the extent that such maintenance is required due to an action or inaction of Licensee.

10. **Assignment.** Licensee shall not assign, sublet, or transfer its interest in this Agreement without the prior written consent of City, which consent shall be provided at the sole discretion of the City.

11. **Notice.** Notice may be given by fax, hand delivery, or certified mail, postage prepaid, and is deemed received on the day faxed or hand delivered or on the third day after deposit if sent certified mail. Notice must be sent as follows:

**If to City:**

City of McKinney  
Jason Gray, City Manager  
222 N. Tennessee  
McKinney, Texas 75069  
Phone: 972-547-7520

**If to Licensee:**

McKinney LFG, LLC  
680 Andersen Drive, 5th Floor  
Pittsburgh, PA, 15220  
Attn: President  
Phone: 412-747-8700

12. **NTMWD Consent.** This Agreement shall not be effective until and unless NTMWD gives its consent to the Agreement, as evidenced by the signature of NTMWD’s authorized representative below.

13. **General Provisions.**

a. The Agreement is entered into subject to the McKinney City Charter and ordinances of the City of McKinney, as same may be amended from time to time, and is subject to and is to be construed, governed and enforced under all applicable State of Texas and federal laws. Licensee will make any and all reports required per federal, state or local law including, but not limited to, proper reporting to the Internal Revenue Service, as required in accordance with Licensee’s income. Situs of this Agreement is agreed to be Collin County, Texas, for all purposes, including performance and execution.

b. If any of the terms, provisions, covenants, conditions or any other part of this Agreement are for any reason held to be invalid, void or unenforceable, the remainder of the terms,
provisions, covenants, conditions or any other part of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

c. No right or remedy granted herein or reserved to the parties is exclusive of any other right or remedy herein by law or equity provided or permitted; but each shall be cumulative of every other right or remedy given hereunder. No covenant or condition of this Agreement may be waived without written consent of the parties. Forbearance or indulgence by either party shall not constitute a waiver of any covenant or condition to be performed pursuant to this Agreement.

d. This Agreement embodies the complete agreement of the parties hereto, superseding all oral or written previous and contemporaneous agreements between the parties relating to matters herein, and except as otherwise provided herein cannot be modified without written agreement of the parties.

e. The parties to this Agreement agree and covenant that this Agreement will be enforceable in McKinney, Texas; and that if legal action is necessary to enforce this Agreement, exclusive venue will lie in Collin County, Texas.

f. For purposes of this Agreement, including its intended operation and effect, the parties (City and Licensee) specifically agree and contract that: (1) the Agreement only affects matters/disputes between the parties to this Agreement, and is in no way intended by the parties to benefit or otherwise affect any third person or entity notwithstanding the fact that such third person or entity may be in contractual relationship with City and/or Licensee; and (2) the terms of this Agreement are not intended to release, either by contract or operation of law, any third person or entity from obligations owing by them to either City and/or Licensee.

(Signature Pages Follow)
(Signature Page of City to License Agreement)

CITY:

CITY OF MCKINNEY, TEXAS

By: ______________________

Name: ______________________

Title: ______________________

Attest:

By: ______________________

Name: ______________________

Title: ______________________

Date: ______________________

STATE OF TEXAS §

COUNTY OF _____________ §

§

This instrument was acknowledged before me, the undersigned authority, this ___ day of _____________, 2013 by _____________________, _____________________ of the City of McKinney, Texas, on behalf of such City.

___________________________
Notary Public State of Texas
(Signature Page of Licensee to License Agreement)

LICENSEE:

MCKINNEY LFG, LLC, a Delaware limited liability company

By: __________________________

Name: _________________________

Title: __________________________

STATE OF ________  §

COUNTY OF ________  §

This instrument was acknowledged before me, the undersigned authority, this ___ day of _________, 2013 by ______________, of McKinney LFG, LLC, a Delaware limited liability company, on behalf of such Delaware limited liability company.

________________________
Notary Public State of _________
The North Texas Municipal Water District, as an easement holder in the McKinney Landfill, while not a party to this Agreement, hereby gives its consent to the rights granted through this Agreement.

NTMWD:

NORTH TEXAS MUNICIPAL WATER DISTRICT

By: ____________________________

Name: __________________________

Title: __________________________
EXHIBIT A

Licensed Property
Legal Description

EXHIBIT A

Beginning at a point situated North 503.58 feet and South 89°35'10" West 50.00 feet from the common corner of the Samuel McFarland Survey, the F. T. Duffau Survey, the M. Hart Survey, and the W. S. Richardson Survey all, in Collin County, Texas;

Thence North 89°35'10" East 840.76 feet to a point for a corner;

Thence South 1569.55 feet to a point for a corner;

Thence East 100.00 feet to a point for a corner;

Thence South 2530.00 feet to a point in the center line of Wilson Creek;

Thence, along the center line of Wilson Creek with its meanders as follows:

North 57°12'09" West 264.22 feet;
South 60°37'29" West 102.07 feet;
North 30°47'15" West 173.86 feet;
North 72°16'57" West 66.67 feet;
North 85°08'04" West 63.08 feet;
South 55°29'41" West 159.48 feet;
North 15°38'23" East 271.97 feet;
North 10°34'35" East 96.05 feet;
North 25°26'13" West 74.97 feet;
North 64°38'13" West 79.51 feet;
South 51°55'46" West 184.03 feet;
South 59°11'42" West 55.05 feet;
North 72°29'52" West 81.60 feet;
North 27°01'17" West 81.40 feet;

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North 35°09'53" West 154.65 feet;  
South 85°50'31" West 95.85 feet;  
South 85°16'11" West 168.67 feet;  
North 24°28'12" West 210.04 feet;  
North 20°29'17" East 261.02 feet;  
North 20°21'03" West 87.88 feet;  
South 85°07'22" West 282.98 feet;  
South 51°30'31" West 193.01 feet;  
North 63°59'26" West 346.28 feet;  
North 41°28'05" East 514.12 feet;  
North 12°51'26" East 44.67 feet;  
North 19°25'05" East 84.22 feet;  
North 30°12'05" West 75.80 feet;  
South 75°09'51" West 204.53 feet;  
North 01°33'12" West 106.62 feet;  
North 36°47'03" East 118.90 feet;  
North 02°28'13" East 120.64 feet;  
North 14°57'31" East 55.57 feet;  
North 30°43'05" West 53.97 feet;  
North 87°36'54" West 338.59 feet;  
North 21°58'56" East 251.71 feet;  
North 29°29'43" West 103.58 feet;  
North 46°53'57" West 100.08 feet;  
North 89°01'48" West 140.01 feet;  
North 30°50'31" West 205.92 feet;  
North 05°15'19" West 258.64 feet;  
North 71°10'34" West 55.91 feet;  
South 63°36'05" West 160.00 feet;  
North 58°49'03" West 75.88 feet to a point in the  
east right of way line of the H. & T. C. Railway Company  
property;
Thence along the east right of way line of the H. & T.C. Railway as follows:

North 46°17'21" East 2117.56 feet to an iron rod;

Along a curve to the left having a radius of 6367.12 feet, a central angle of 1°04'42", and a long chord which bears North 46°14'38" East 119.82 feet, an arc distance of 119.82 feet to an iron rod;

Thence South 71°57'10" East 251.23 feet to a point for a corner;

Thence South 370.05 feet to the point of beginning, and containing 168.92 acres of land, more or less.
This administrative memorandum is for the Board of Directors consideration of a tabulation of bids and recommendation to award a construction contract to WHF Electrical Contractors, Inc., (WHF) in the contract amount of $634,047 for the Wylie Water Treatment Plant (WTP) III Variable Frequency Drives (VFD) for Washwater Pumps, Project No. 323.

REVIEW

Two washwater pumps (one pump in service and one standby) are provided for WTP III. Each pump is driven by a 300 horsepower, 4160 volt, three-phase motor. These pumps are used during the cleaning (or backwash) cycle of each filter to remove the contaminants trapped in the filter media. Since original construction of WTP III, these pumps have been in service with full-voltage electrical starters. This means that the pumps are brought up to full speed and full discharge pressure within one or two seconds. A flow control valve in the pump discharge pipe is designed to control the flow and limit the pressure admitted to the underdrain section of each filter at the start of each backwash sequence. A "low" backwash flow rate (approximately 7,000 GPM) followed by a "high" backwash flow rate (approximately 22,000 GPM) is controlled by the flow control valve. Over the years, several failures of the flow control valve have occurred due to the pressure surge developed during the starting of a washwater pump. These failures include the actual breaking of the disk in the 36-inch butterfly valve used for flow control. Another possible consequence, which can occur during starting of a washwater pump, is a pressure surge on a filter underdrain system. If the pressure surge is great enough, filter underdrain blocks can become displaced resulting in a filter having to be removed from service for many months. While this has not yet occurred at WTP III, this scenario is a very real possibility, with the resulting repair cost quite significant.

In February 2013, by Administrative Memorandum No. 3942, the Board approved an engineering services agreement with Mbroh Engineering, Inc., (Mbroh) for the design of the proposed electrical modifications.
TABULATION OF CONSTRUCTION BIDS

Sealed bids were received at 2:00 p.m. on Tuesday, February 25, 2014, and are tabulated as follows:

<table>
<thead>
<tr>
<th>Bidder</th>
<th>Base Bid Amount</th>
<th>Alternate Bid Amount</th>
<th>Total Bid Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHF Electrical Contractors, Inc.</td>
<td>$631,247</td>
<td>$2,800</td>
<td>$634,047</td>
</tr>
<tr>
<td>Facility Solutions Group, Inc.</td>
<td>$729,040</td>
<td>$2,800</td>
<td>$731,840</td>
</tr>
<tr>
<td>Texsun Electrical Contractors, Inc.</td>
<td>$867,000</td>
<td>$7,500</td>
<td>$874,500</td>
</tr>
<tr>
<td>ACME Electric Company</td>
<td>$887,000</td>
<td>$9,400</td>
<td>$896,400</td>
</tr>
</tbody>
</table>

The consulting engineer's opinion of probable construction cost just prior to bid opening was approximately $1,700,000. This cost estimate was based on cost estimates received from the equipment manufacturers (VFDs, switchgear, and HVAC equipment), as well as estimates for construction labor. All four of the bids received were well below the engineer's opinion of probable construction cost. It appears that NTMWD received very competitive bids and it further emphasizes the difficulty of accurately estimating project construction costs.

The bid form was structured with a base bid to include two VFDs, expansion of the current electrical building in which they are housed, installation of HVAC equipment, and associated PLC programming. The alternate bid amount includes work in an existing termination enclosure, which is to be abandoned after construction of the current project and the Lake Texoma Outfall to Wylie WTP Raw Water Pipeline, Project No. 268. The cost of this alternate bid amount is very competitive, and it is recommended that this item be awarded. The bid form also included a provision to add to or deduct from the contractor's bid if changes were needed just prior to opening of bids. WHF inserted a deduction of $150,000 and WHF's bid in the table above reflects this deduction.

WHF, the lowest responsive bidder, has successfully completed projects as a subcontractor for the NTMWD in the past including the Lake Tawakoni WTP, Project No. 99; Princeton Lift Station Expansion, Project No. 146; Lower Rowlett Creek Lift Station Expansion, Project No. 163; McKinney Lift Station Improvements, Project No. 150; and, Raw Water Pump Station No. 1 Electrical Modifications, Project No. 171. WHF is currently the electrical subcontractor on the High Service Pump Station 3-1 Expansion to 350 MGD at WTP III, Project No. 188. WHF is currently the general contractor for the High Service Pump Station 2-2 and 2-3 Electrical Improvements, Project No. 298. It is the opinion of the NTMWD staff and Mbroh that WHF has the ability to complete the project according to construction documents.

FUNDING

Funding in the amount of $634,047 is available in the Regional Water System Capital Improvement Fund.
RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Mbroh Engineering, Inc., that the Board of Directors 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4156

UPPER EAST FORK INTERCEPTOR SYSTEM
BECK BRANCH INTERCEPTOR IMPROVEMENTS, PHASE I
PROJECT NO. 353

ENGINEERING SERVICES AGREEMENT

This administrative memorandum requests that the Board of Directors authorize the Executive Director to execute an engineering services agreement (ESA) with Lockwood, Andrews and Newnam, Inc., (LAN) to provide professional services associated with design and construction services for the Beck Branch Interceptor Improvements Phase I, Project No. 353. The ESA would be in accordance with the standard NTMWD agreement with a not-to-exceed amount of $261,000.

TECHNICAL REVIEW

The Beck Branch Interceptor was constructed in 1978 as part of an NTMWD Special Facilities Project for the cities of Richardson and Plano to convey flow from the cities to the Rowlett Creek Regional Wastewater Treatment Plant (RWWT), as shown in the attached exhibit. The Upper East Fork Interceptor System (UEFIS) was created in 1984 to provide facilities serving several cities to transport wastewater flows to Rowlett Creek RWWT and Wilson Creek RWWT. When the UEFIS was updated in 1992, the Beck Branch Interceptor became part of the UEFIS.

The Beck Branch Interceptor begins at a junction box just northeast of the State Highway 190 and State Highway 5 intersection and runs east and north to the Rowlett Creek RWWT. The interceptor consists of approximately 17,300 linear feet of reinforced concrete pipe (RCP) gradually increasing in diameter from 33-inch to 54-inch. The Plano Spring Creek No. 1 Force Main, Renner Road Force Main, Richardson Spring Creek Force Main, and the Beck Branch Force Main, each originating from lift stations of the same name, feed the interceptor at various points. The turbulence created where the force mains enter the interceptor increases the localized release of hydrogen sulfide and other odorous compounds from the liquid. This results in advanced deterioration of the concrete pipe at and around these locations.

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 Beck Branch Interceptor was identified in that report as a priority due to deterioration on the interior of the concrete pipe and the junction structures from exposure to hydrogen sulfide over its 36-year life. While the recommendations address the entire length of the interceptor, available funding makes it necessary to consider improvements in phases, beginning with the upper reach that generally flows less full and is, therefore, subject to higher levels of deterioration.
DESCRIPTION OF PROJECT

The engineering staff is recommending a phased approach that will investigate, design, and implement improvements utilizing cured-in-place pipe (CIPP) technology for approximately 8,700 linear feet of the upstream section as Phase I, which includes improvements to the 33-inch through 45-inch RCP interceptor. Future phases will address improvements to the downstream 54-inch RCP section as a separate effort.

The scope includes closed circuit television (CCTV) inspection of the inside of the pipe to determine the appropriate level of improvements to the interceptor, including the need to accommodate spot repairs. Existing manholes will also be evaluated for improvements, which may include protective lining of existing concrete manholes, new ring and covers as needed, and installation of new manholes as required for construction access.

The connecting force mains and other gravity contribution points will have to remain in service during the improvements. It is anticipated that a certain level of bypass pumping will be required to collect these flows and reintroduce them downstream of the active work area. Development of possible temporary pipe routings and appropriate withdrawal and reintroduction points will be part of the design effort.

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, easement verification, and TxDOT and railroad permitting, if necessary.

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 $3,035,000.

ENGINEERING SERVICES FEE

LAN has proposed to perform the basic engineering design services for the not-to-exceed amount of $199,000, with an additional not-to-exceed allowance for special services of $62,000. The total not-to-exceed amount for basic and special services being requested is $261,000.

NTMWD staff has reviewed the proposed scope and engineering fees submitted by LAN and recommends them as representative of the pre-design inspections and design effort necessary. The proposed 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 NTMWD ESA.
FUNDING

Funding for this project in the amount of $261,000 is to be made available in the Upper East Fork Interceptor System 2012 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 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4157

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

CHANGE ORDER NO. 2

This administrative memorandum is for the Board of Directors consideration of:
1) Change Order No. 2 for a decrease in contract amount of $30,179.23, resulting in a
revised contract amount of $5,438,493.77; and, 2) an additional 16 days of contract time
resulting in a final completion date of February 7, 2015, for Project No. 320, Wylie Water
Treatment Plant II Improvements for Basin Nos. 3 and 4.

REVIEW

In February 2013, the Board approved Administrative Memorandum No. 3941, which
authorized the Executive Director to execute an engineering services agreement with
Black & Veatch Corporation (B&V) for design of the project. Included in the project is
the demolition and reconstruction of the floors in Sedimentation Basin Nos. 3 and 4,
installation of four circular clarifiers, new basin effluent launders, construction of
trenches in Sedimentation Basin Nos. 2 and 7, and associated electrical and
instrumentation additions.

In June 2013, the Board approved Administrative Memorandum No. 4012, which
awarded the procurement contract to WesTech Engineering, Inc., (WesTech) in the
amount of $661,536 for the circular clarification equipment.

In September 2013, the Board approved Administrative Memorandum No. 4056, which
presented a tabulation of bids and recommended award of the construction contract to
BAR Constructors, Inc., (BAR) in the amount of $5,447,036. The procurement contract
for the circular clarification equipment was assigned to BAR for installation.

In November 2013, the Board approved Administrative Memorandum No. 4082, which
approved Change Order No. 1 for an increase in contract amount of $21,637 to include
lauder support brackets in the scope of work for WesTech.

CHANGE ORDER NO. 2

Change Order No. 2 consists of three items on the referenced project for a decrease in
the contract amount of $30,179.23 and an increase in contract time of 16 days. The
NTMWD Engineering staff and B&V reviewed these items and recommend them as
necessary and reasonable for the materials and work involved.
Item No. 1 – Upgrade Manhole Top and Hatch

During the design phase, it was not apparent that the area in which a new manhole would be placed was in an area used for vehicle access on the south side of the WTP II chemical building. This area is a staging area for equipment used for required maintenance activities in Basin Nos. 4 and 5. The plans specify installing a manhole with the lid six inches above grade with an access hatch that is not rated for traffic. This item was discovered after the contractor began installing the shoring for the excavation and marked the center of the manhole. This cost proposal submitted by the contractor includes a traffic-rated hatch and additional concrete needed to support the loads typically exerted by vehicles.

Item No. 2 – Deduct Payment to Procurement Contractor

($31,422.96)

The procurement contract awarded to WesTech stated that up to 5% of the total procurement contract price would be paid to the equipment manufacturer for submittals. In September 2013, NTMWD made a payment of $31,422.96 directly to WesTech before the construction contract was awarded to the general contractor. The contract documents provide for the construction contract amount to be reduced by any payments made to the procurement contractor by owner prior to award of the construction contract. The full price of the procurement contract was assigned to the construction general contractor, and the contract amount needs to be adjusted to account for the submittal payment, which has been made to the procurement contractor.

Item No. 3 – Additional Contract Time

16 Days

The notice to proceed for this project was issued on November 4, 2013, and NTMWD intended to allow BAR to begin work in Basin No. 4 on that day. Other work was being performed at WTP II during this period under other contracts and the water system demand was too high at the time to allow additional treatment capacity to be removed from service. After other work was completed, the NTMWD drained Basin No. 4 at WTP II and allowed BAR to begin on November 20, 2013.

SUMMARY OF CHANGE ORDER NO. 2

<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>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Upgrade Manhole Top and Hatch</td>
<td>$1,243.73</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Deduct Payment to Procurement Contractor</td>
<td>($31,422.96)</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>Additional Contract Time</td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proposed Total C.O. Amount (Decrease)</td>
<td>($30,179.23)</td>
<td></td>
<td></td>
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SUMMARY OF ADJUSTMENTS TO CONTRACT

<table>
<thead>
<tr>
<th>Description</th>
<th>Contract Amount</th>
<th>Days to Substantial Completion</th>
<th>Days to Final Completion</th>
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<tbody>
<tr>
<td>Original Contract</td>
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<td>444</td>
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<tr>
<td>C.O. No. 1</td>
<td>21,637.00</td>
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<td></td>
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<tr>
<td>Proposed C.O. No. 2</td>
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<td>16</td>
<td>16</td>
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<tr>
<td>Revised Contract Amount</td>
<td>$5,438,493.77</td>
<td>439</td>
<td>460</td>
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</table>

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Black & Veatch Corporation that the Board of Directors approve: 1) Change Order No. 2 for a decrease of $30,179.23, resulting in a revised contract amount of $5,438,493.77; and, 2) 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

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

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 to provide professional services associated with preliminary engineering for the Wylie Water Treatment Plant (WTP) III Chemical Systems Evaluation, Project No. 354. The ESA would be in accordance with the standard NTMWD agreement in a not-to-exceed amount of $592,600.

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 extension 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

The purpose of this preliminary engineering effort is to perform an evaluation of the chemical systems at the Wylie WTP III for plant specific tasks. 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.
SCOPE OF SERVICES

The NTMWD staff met with representatives of Carollo Engineers (Carollo) and requested a proposal to perform professional services. These services would include a review of NTMWD's chemical system facilities for Wylie WTP III 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)

ENGINEERING SERVICES FEE

Carollo has proposed to perform the basic engineering services associated with the project in the not-to-exceed amount of $558,000 and the special services in the not-to-exceed amount of $34,600. 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.

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. These fees are within the guidelines of the Consulting Engineers Council for this type of work.

FUNDING

Funding in the amount of $592,600 for this project is to be made available in the Regional Water System Capital Improvements 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 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4159

REGIONAL WATER SYSTEM
LAVON LAKE RAW WATER PUMP STATIONS
INTAKE CHANNEL IMPROVEMENTS
FINAL ENGINEERING
PROJECT NO. 350

ADDITIONAL ENGINEERING SERVICES

This administrative memorandum requests an increase in the scope and fee for engineering services by Freese and Nichols, Inc., (FNI) for associated work on the Lavon Lake Raw Water Pump Stations (RWPS) Intake Channel Improvements, Final Engineering, Project No. 350, in the additional amount of $33,000. This would result in a revised total not-to-exceed engineering services fee of $421,000.

REVIEW

In January 2014, the Board approved Administrative Memorandum No. 4120, which authorized an engineering services agreement (ESA) with FNI in the amount of $388,000 for final design, bid phase, and construction phase services to remove dredged material from the intake channels in Lavon Lake. Also included in the current ESA is the preparation and submittal of the environmental permitting documents to obtain a temporary construction license from the U.S. Army Corps of Engineers (USACE) to dredge the intake channels to RWPS Nos. 2 and 3. Additionally, FNI would identify several acceptable areas for disposal of silt dredged from the intake channels and assist NTMWD with boundary surveys and easement preparation documents.

FNI has identified a favorable area on the Wylie Water Treatment Plant (WTP) site for the silt dredged from RWPS No. 3 known as Residual Disposal Area 3 (Area 3). Area 3 is one of the permanent residual disposal areas located on the Wylie WTP, and it was constructed in 2010 as part of Project No. 203 for disposal of water plant residuals in accordance with NTMWD’s no discharge permit. The Area 3 berms were constructed under Project No. 203 from compacted material excavated on the WTP site.

Area 3 has a number of advantages as a dredged material disposal site. This area is relatively close to RWPS No. 3 when compared to other available sites. For the most part, the berms are already constructed and are available for silt disposal. Area 3 is totally within the WTP boundary, so no additional easement or boundary survey will be needed to use it as a disposal area. The pipeline that transports dredged silt from the RWPS No. 3 Intake channel to Area 3 will cross only USACE property and NTMWD property to reach Area 3, so only one pipeline easement is needed. Dredged material could be deposited within an existing bermed area, thus encumbering no additional property on the WTP site, making Area 3 a favorable location for disposal of dredged silt from the RWPS No. 3 intake channel. This area is shown on the attached exhibit.
PROPOSED ADDITIONAL SERVICES

This scope includes performing geotechnical investigation and seepage and slope stability analysis of the existing water treatment plant residuals disposal Area 3 on the Wylie WTP property. The southern berm of Area 3 began seeping as it was being filled with residuals, so NTMWD ceased using Area 3 for residual disposal. FNI is confident that the berms surrounding Area 3 can be rehabilitated to contain the dredged silt, but they will need to perform an adequate geotechnical investigation of the berms to determine the extent of the rehabilitation needed. The special services in the current ESA for this project does not include any geotechnical investigation.

ENGINEERING SERVICES FEE

FNI proposes to perform a geotechnical investigation of the Area 3 berms in two phases: Phase I is basic geotechnical investigation, and Phase II is seepage and stability analysis. The two phases are expected to take approximately six weeks to complete. The total additional cost for this scope of work is $33,000. NTMWD staff has reviewed the proposed fee submitted by FNI and believes it to be fair and reasonable for the work associated with this project. The additional services will be performed in accordance with the standard ESA.

SUMMARY OF ENGINEERING FEE

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<tr>
<th>Description</th>
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<th>Special Services</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Amount (Administrative Memorandum No. 4120)</td>
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<tr>
<td>Proposed Additional Services</td>
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<td>33,000</td>
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<tr>
<td>Revised ESA Amount</td>
<td>$349,000</td>
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<td>$421,000</td>
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</table>

FUNDING

Additional funding in the amount of $33,000 is to be made available from the Regional Water System Contingency Fund.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4160

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

ADDITIONAL INSPECTION SERVICES

This administrative memorandum requests authorization to increase the resident project inspection fee to Mbroh Engineering, Inc., (Mbroh) by $95,600 resulting in a revised not-to-exceed amount of $630,000 for inspection of electrical equipment to be installed during the construction of Water Treatment Plants (WTPs) I, II, III, and IV Ozonation, Project No. 153.

REVIEW

In May 2009, by Administrative Memorandum No. 3346, the Board approved an engineering services agreement with Black & Veatch Corporation (B&V) for the design of the ozonation facilities for WTPs I, II, III, and IV.

In October 2010, the Board approved Administrative Memorandum No. 3547-A authorizing award of the construction contract to McCarthy Building Companies, Inc., in the contract amount of $112,989,000 for WTPs I, II, III, and IV Ozonation, Project No. 153, which is under construction with various activities underway at all four WTPs.

The ozonation project has not only increased the size but also the complexity of the electrical systems on the water treatment plant site. The ozone installation includes a significant amount of high voltage electrical work that is highly specialized and unique to this project, including a new 15 MVA transformer for NTMWD's Electrical Substation No. 2. This transformer will convert electric power from 138,000 volts to 25,000 volts. Also included in this project are additions to the 25,000 volt plant-wide distribution system. Four 10 MVA transformers (two at the South Ozone Operations Building and two at the North Ozone Operations Building) will convert electric power from 25,000 volts to 4,160 volts to supply the ozone generators.

INSPECTION SERVICES FEE

Normally, the inspection requirements are provided by the NTMWD Engineering Department. Based on the type and amount of this highly specialized high voltage installation, the Executive Director and NTMWD staff prepared a recommendation in August 2011 for resident inspection services through an electrical engineer of Mbroh. The Board approved the recommendation in Administrative Memorandum No. 3674, authorizing an inspection services agreement with Mbroh in the not-to-exceed amount of $374,400. In April 2013, by Administrative Memorandum No. 3981, the Board
approved additional electrical inspection services in the not-to-exceed amount of $160,000.

Although the inspector's primary role has been oversight of high-voltage equipment, this engineer has also provided inspection support for other electrical work on this project. Throughout the course of the ozone project, several other projects have been designed, and are currently under construction, that include electrical coordination with the plant-wide electrical distribution system, as well as connection to the electrical systems installed on the ozone project. Mbroh's inspector has been requested to assure proper coordination, both during design and construction, between the ozone electrical work and the electrical installations on other projects. The use of this electrical engineer has proven to be beneficial to the ozonation project, as well as the overall electrical systems on the water treatment plant site. In the near future, a request is planned to be presented to the Board for consideration of electrical inspection services for these other projects.

Through January 2014, approximately $488,160 of the $534,400 authorized funding has been billed. Due to the complexity and criticality of proper installation and start up of the new electrical systems, it is recommended that the electrical inspection and project coordination services being performed by Mbroh be continued through August 2014.

NTMWD requested Mbroh to submit a cost proposal for providing additional resident project inspection services associated with this project. Mbroh has proposed to perform the additional inspection services at the same hourly rate established in the original agreement with a maximum additional fee not to exceed $95,600. The NTMWD staff has reviewed the inspection fees submitted by Mbroh and believes them to be fair and reasonable for the work associated with this project.

SUMMARY OF INSPECTION SERVICES FEE

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Resident Inspection Services Amount</td>
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<tr>
<td>(Administrative Memorandum No. 3674)</td>
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</tr>
<tr>
<td>Additional Inspection Services (Administrative Memorandum No. 3981)</td>
<td>$160,000</td>
</tr>
<tr>
<td>Proposed Adjustment to Inspection Services</td>
<td>$95,600</td>
</tr>
<tr>
<td>Proposed Revised ESA Amount</td>
<td>$630,000</td>
</tr>
</tbody>
</table>

FUNDING

Additional funding in the amount of $95,600 is to be made available in the Regional Water System 2009D Construction Fund.
RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize an increase in the resident project inspection fee of $95,600 to Mbroh 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

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

CHANGE ORDER NO. 25

This administrative memorandum is for the Board of Directors consideration of Change Order No. 25 for Project No. 153, Water Treatment Plants (WTPs) I, II, III, and IV Ozonation. The recommended changes will result in an increase of $103,555.41, resulting in a revised contract amount of $111,049,520.98. 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 concludes with the latest change order approved by the Board:

<table>
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<tr>
<th>Month/Year</th>
<th>Ad. Memo. No.</th>
<th>Description</th>
<th>Amount</th>
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<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>
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<tr>
<td>October 2010</td>
<td>3547-A</td>
<td>Award to McCarthy Building Companies (McCarthy)</td>
<td>112,989,000.00</td>
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<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>Ad. 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 to 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>
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<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</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>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 2013</td>
<td>4102</td>
<td>C.O. No. 22 for additional weld inspections, 16-inch x 12-inch plant water tap, WTP III 15-inch storm drain replacement, and additional chainwheel valve operators</td>
<td>$72,815.57</td>
</tr>
<tr>
<td>January 2014</td>
<td>4114</td>
<td>C.O. No. 23 for lowering the WTP II Basin No. 7 drain valve, adding perforated PVC drains in the LOX area of NOPS and SOPS, and relocating WTP II Basin No. 6 overflow</td>
<td>$35,120.49</td>
</tr>
<tr>
<td>February 2014</td>
<td>4142</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>
</tr>
</tbody>
</table>

The total value of the construction contract with McCarthy including Change Order No. 24 is $110,945,965.57.

**CHANGE ORDER NO. 25**

Change Order No. 25 consists of four changes in work scope for this project that will result in an overall increase in the contract amount by $103,555.41. 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. NTMWD staff is currently discussing with B&V their potential responsibility for costs associated with Item Nos. 1, 3, and 4.

*Item No. 1 – WTP II Basin Nos. 7 and 8 Chlorine Panel Plant Water Supply Pipe Reroute*  

Plant water is supplied to the chlorine injector panel to create a vacuum to mix the chlorine gas with the plant water, which then makes chlorine solution. The contract documents show the existing chlorine injector panel and chlorine solution distribution panel that feed chlorine into the settled water for WTP II Basin Nos. 7 and 8 to remain in their same location. However, the plans did not show any changes to the chlorine solution piping that feed the distribution panel, although the structures around the panels change substantially in this project. The plant waterline that feeds the chlorine panels was in conflict with the newly constructed ozone contactor influent channel and had to be rerouted to avoid this conflict. This plant waterline is a three-inch stainless steel pipe with numerous bends. The chlorine panels are to remain in service until WTP II is ready to convert to biologically active filtration.

McCarty has submitted a cost proposal in the amount of $13,397.38 to modify the plant water piping to avoid conflicts with the improvements associated with the WTP II south ozone contactor.
Item No. 2 – Work to be Removed from the Contract (Credit) ($14,197.07)

NTMWD staff recognized that there were some painting requirements that could be removed from the project, so they coordinated with B&V to develop Work Change Directive (WCD) No. 56, Work to be Removed from the Contract. Credit was provided for McCarthy not painting galvanized joists, the underside of galvanized metal deck, and exposed electrical conduits in buildings. Also, McCarthy was not required to provide a special finish on ductwork and conduit exposed to the elements. McCarthy submitted a total credit in the amount of $14,197.07 for all items removed from the contract described in WCD No. 56.

Item No. 3 – Chiller Refrigerant Pressure Relief Piping $57,093.52

McCarthy has requested compensation for extra work involved in adding five refrigerant pressure relief pipes for each chiller. The contract documents show one pipe for refrigerant pressure relief, when in fact each chiller was equipped with six pressure relief valves. Each chiller has three one-and-one-half inch pressure relief valves and three one-inch pressure relief valves. All six have to be vented to a point outside the building. NTMWD staff directed McCarthy to connect all six pressure relief valves to a single two-inch carbon steel vent pipe with stainless steel braided flexible hoses as allowed by the chiller manufacturer. Much more effort and materials are required for fabrication of the actual pressure relief pipe than that shown on the drawings. As an example, the two-inch pressure relief vent pipe has to be extended the full length of the chiller to connect all of the pressure relief valves. Five additional carbon steel tees are added to the relief vent pipe, and all of these connections have to be welded. The additional welding also requires additional weld testing by x-ray. There are five chillers at the North Ozone Operations Building (NOPS) and four chillers at the South Ozone Operations Building (SOPS) requiring a total of 50 additional pressure relief connections and additional carbon steel vent pipe.

McCarthy has submitted a cost proposal in the amount of $57,093.52 for the additional materials and labor necessary to connect all of the refrigerant pressure relief valves supplied with the chillers.

Item No. 4 – Flexible Sidestream Pump Connectors $47,261.58

McCarthy is requesting additional compensation for providing flexible connections at the suction and discharge of each sidestream pump. The sidestream pumps pump water from the ozone contactor influent flume to the ozone injector where ozone gas is dissolved in the water and diffused into the process. The water flow through the ozone injector causes considerable vibration that has to be dampened to prevent it from being transmitted to the pump. There are five sidestream pumps at each contactor at WTPs II, III, and IV, and three sidestream pumps at the WTP I contactor for a total of 28 sidestream pumps and 56 flexible connectors. Flexible connections are shown in the drawings, but they are not specified in the contract documents. McCarthy assumed that other pipe couplings specified in the contract documents would provide the required flexibility, so they fabricated the sidestream pump suction and discharge pipe, making a
hard pipe connection at the pump suction and discharge. The ozone equipment supplier, Fuji, arrived onsite to start up the ozone equipment at WTP IV, and after noticing that the flexible connectors were not installed, informed McCarthy the sidestream pumps could not be commissioned without the flexible connectors. B&V verified that the flexible connectors were needed prior to starting the pumps.

McCarthy’s initial cost proposal requested full compensation for this cost, which amounted to approximately $95,000. NTMWD Engineering countered McCarthy’s argument that the flexible connectors are shown schematically, as well as on one of the mechanical drawings, so NTMWD should not bear the entire cost of the flexible couplings. NTMWD recognized that there was no specification for the flexible connectors, which did cause confusion. McCarthy revised the cost of this item downward to $47,261.58 for the installation of 56 flexible connections. This calculates to an approximate cost of $844 for each flexible connection. It is the recommendation of the Executive Director and the NTMWD staff that this negotiated approach, with NTMWD and the contractor sharing a portion of this cost, represents an equitable settlement to this issue.

### SUMMARY OF CHANGE ORDER NO. 25

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WTP II Basin Nos. 7 and 8 Chlorine Panel Plant Water Supply Pipe Reroute</td>
<td>$13,397.38</td>
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<td>2</td>
<td>Work to be Removed from the Contract</td>
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<td>3</td>
<td>Chiller Refrigerant Pressure Relief Piping</td>
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<tr>
<td>4</td>
<td>Flexible Sidestream Pump Connectors</td>
<td>47,261.58</td>
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<td>0</td>
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<td></td>
<td>Proposed Total C.O. Amount</td>
<td>$103,555.41</td>
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### SUMMARY OF ADJUSTMENTS TO CONTRACT

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<th>Description</th>
<th>Contract Amount</th>
<th>Substantial Completion</th>
<th>Final Completion</th>
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<tbody>
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<td>January 31, 2014</td>
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<td>C.O. No. 1</td>
<td>87,737.15</td>
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<td>C.O. No. 2</td>
<td>30,000.00</td>
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<tr>
<td>C.O. No. 3</td>
<td>(48,178.06)</td>
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<td>C.O. No. 4</td>
<td>120,288.62</td>
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<td>C.O. No. 5</td>
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<td>C.O. No. 6</td>
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<tr>
<td>C.O. No. 7</td>
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<tr>
<td>Description</td>
<td>Contract Amount</td>
<td>Substantial Completion</td>
<td>Final Completion</td>
</tr>
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<tr>
<td>C.O. No. 8</td>
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<td>C.O. No. 9</td>
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<td>C.O. No. 11</td>
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<td>C.O. No. 12</td>
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<td>C.O. No. 13</td>
<td>269,575.51</td>
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<td>C.O. No. 14</td>
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<td>C.O. No. 15</td>
<td>54,251.21</td>
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<td>58,405.59</td>
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<tr>
<td>C.O. No. 18</td>
<td>475,186.93</td>
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<tr>
<td>C.O. No. 19</td>
<td>(4,756,650.01)</td>
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<td>C.O. No. 20</td>
<td>52,692.05</td>
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<td>C.O. No. 21</td>
<td>70,404.74</td>
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<td>C.O. No. 22</td>
<td>72,815.57</td>
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<td>C.O. No. 23</td>
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<tr>
<td>C.O. No. 25</td>
<td>103,555.41</td>
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</tr>
</tbody>
</table>

In the last 30 months, the NTMWD staff has presented 23 change order requests to the Board for this project totaling $2,865,349.05 excluding the $4,756,650.01 credit for scope reduction contained in Administrative Memorandum No. 4017 from July 2013 and the $48,178.06 credit for deletion of handholes and davit crane modifications contained in Administrative Memorandum No. 3713 from October 2011. This may appear to be a significant extra cost but relative to the size of the project, it is approximately a 2.5 percent change. The amount of work completed by McCarthy since the start of the project is approximately $105,000,000.

In October 2013, NTMWD Executive Director informed the Board, by Administrative Memorandum No. 4076, that McCarthy did not achieve Milestone No. 2 by the August 24, 2013, date as extended in Administrative Memorandum No. 4039. Milestone No. 2 consists of one-half of the NOPS Building and WTP IV contactors. McCarthy did achieve Milestone No. 2 on November 18, 2013, approximately 86 days late. During the November 2013 Water Committee Meeting, NTMWD Executive Director and legal counsel informed the Water Committee of McCarthy’s current schedule, as well as a sizable claim for delay submitted by McCarthy. The liquidated damages from McCarthy’s late completion of this project will be part of the claim negotiation. McCarthy
is submitting letters to NTMWD purportedly in support of its claim, and NTMWD staff continues to answer each letter from McCarthy in a timely manner responding to McCarthy's claim for delay. 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. At this time, NTMWD's position is that the contract precludes McCarthy from waiting so long to make a claim for delays that occurred in the past, some over two years ago. NTMWD staff is negotiating with McCarthy regarding the portion of McCarthy's claim for delays that occurred within the last few months.

FUNDING

Additional funding in the amount of $103,555.41 for this change order is to be made available in the Regional Water System 2009D Construction Fund.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Black & Veatch Corporation that the Board of Directors approve 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

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

CHANGE ORDER NO. 1

This administrative memorandum is for the Board of Directors consideration of:
1) Change Order No. 1 for an increase of $35,179.96, resulting in a revised contract
amount of $4,938,149.96; and, 2) a 45-day contract time extension resulting in a
final completion date of July 20, 2015, for High Service Pump Station
(HSPS) 2-2 and 2-3 Electrical Improvements, Project No. 298.

REVIEW

This project was initiated in response to the age and condition of the electrical
switchgear, transformer, and motor control centers (MCCs) at HSPS 2-2 and 2-3, which
25-30 years have reached the end of their useful life. The majority of the scope of this
project includes replacing the existing switchgear and fourteen (14) “across-the-line”
motor starters inside the HSPS 2-2 and 2-3 electrical room. Other improvements include
increasing the capacity of the HVAC system to accommodate the additional heat load
generated by the new equipment and the modification of the current power system
configuration to increase reliability.

In September 2012, the Board of Directors approved Administrative Memorandum
No. 3856 authorizing an engineering services agreement in the amount of $636,682
with the consulting firm of Mbroh Engineering, Inc., (MEI) to design and coordinate
construction of HSPS 2-2 and 2-3 Electrical Improvements, Project No. 298.

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

PROPOSED CHANGE ORDER NO. 1

Proposed Change Order No. 1 consists of changes in materials and quantity of work for
two items that will result in an overall increase of $35,179.96. The proposed costs listed
in the following paragraphs have been reviewed and determined to be fair and
reasonable by the NTMWD staff and MEI for the materials and work involved.
The contract documents require fused switches to feed two new 750 kVA power transformers. NTMWD staff requested the engineer to issue a field order to change the incoming feeds on both of the power transformers to include a two-position switch. The switch will allow selection between two electrical sources ("A" or "B" feeders) to power the transformers without the need to operate the fused switches. The benefit of this selector switch is improved downtime when one of the feeders is disrupted and improved safety by reducing the arc flash level associated with operation of the fused switches.

In order to install these two switches, an additional medium voltage circuit from the switchgear to each switch is required. The contractor has submitted a proposal to install the two circuits, which include approximately 660 feet of 5 kV cable and 200 feet of conduit for the total amount of $20,166.95 and 45 additional calendar days. NTMWD staff and MEI have reviewed the proposal and agree that this cost is reasonable for the additional scope of work and time. NTMWD staff considers these changes not to be the result of errors or omissions, but rather these changes are to increase the reliability and safety of the electrical service.

Item No. 2 – 50 kVA Lighting Transformers $15,013.01

The electrical design of Project No. 261, another project at these same two pump stations is underway. Project No. 261, Mechanical Improvements to HSPS 2-2 and 2-3 requires two 50 kVA transformers to power the lighting panels in the pump rooms downstairs. The coordination of the design of the two projects resulted in the transformers being furnished and installed under this construction contract. The electrical design of this project includes replacement of the two existing 25 kVA transformers, which currently power the downstairs lighting with new 25 kVA transformers housed inside the new MCCs also installed under this project.

The maximum transformer size that can be mounted internally to an MCC is 30 kVA. To accommodate Project No. 261, the engineer issued a field order directing the contractor to modify the MCCs by installing two 50 kVA transformers separately, one in each of the downstairs pump rooms. The equipment supplier agreed to make the changes to the MCCs and provide externally-mounted equipment at no additional cost to the NTMWD.

In order to connect the externally-mounted transformers to the MCCs, however, additional raceway and conductors are required, which includes approximately 1,200 feet of primary cable and 135 feet of conduit. The contractor has submitted a proposal to install the additional conduit and wiring for the total amount of $15,013.01. NTMWD staff and MEI have reviewed the proposal and agree that this cost is reasonable for the additional scope of work.
SUMMARY OF CHANGE ORDER NO. 1

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<th>Item No.</th>
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<td>2</td>
<td>50 kVA Lighting Transformers</td>
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SUMMARY OF ADJUSTMENTS TO CONTRACT

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FUNDING

Additional funding in the amount of $35,179.96 for Change Order No. 1 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 Mbroh Engineering, Inc., that the Board of Directors approve: 1) Change Order No. 1 for an increase of $35,179.96, resulting in a revised contract amount of $4,938,149.96; and, 2) 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. This will be an item on the regular agenda of the March 2014 Board meeting.
This administrative memorandum requests an increase in the scope and fee for engineering services by CH2M HILL Engineers, Inc., (CH2M HILL) associated with the Wilson Creek Regional Wastewater Treatment Plant (RWWTP) Solids Management Optimization and Control Improvements, Project No. 336, in the additional amount of $215,699. This would result in a revised total not-to-exceed engineering services fee of $463,537.

EXECUTIVE SUMMARY

Upon review of an upcoming Capital Improvement Program (CIP) project for upgrades to the Wilson Creek RWWTP Solids Building, it became apparent that multiple benefits would result from combination with this project currently in the design phase. The rationale for essentially doubling of the recommended engineering fee and the benefits from this combination of projects are described in this administrative memorandum.

REVIEW

In August 2013, the Board approved Administrative Memorandum No. 4036 authorizing the Executive Director to execute an engineering services agreement (ESA) with CH2M HILL for the Wilson Creek RWWTP Solids Management Optimization and Control Improvements project in the not-to-exceed amount of $247,838. The scope of this project is to provide engineering design and contract documents for modifications at the plant to improve and optimize the management of solids. A summary of the tasks to address the sludge management issues is as follows:

- At Plant I sludge pump stations, add four motor-operated valves, connect existing waste sludge pumps and associated flow meters to plant Supervisory Control and Data Acquisition (SCADA) system, and add a programmable logic controller (PLC) for additional data acquisition and control processing.

- Develop a process control strategy for automating the sludge wasting from Plant I and Plant II primary and secondary pump stations.

- Develop new, and modify existing, human-machine interface (HMI) display and control screens in the plant master control system.
At the dewatering building, replace and relocate local control panels for two of the belt filter presses to incorporate coordinated monitoring and control of the remote sludge feed and transfer pumps, and polymer feed.

PROPOSED ADDITIONAL SERVICES

NTMWD staff has identified recommended improvements with several existing items of equipment in the dewatering building and originally scheduled a project to address them separate from the ongoing design efforts in Project No. 336. Upon further review, it is proposed to incorporate the following improvements into the current design:

- Replacement of existing reciprocating disk belt filter press feed pumps with progressive cavity pumps. Progressive cavity pumps are better suited to the inlet and discharge conditions of this facility and will alleviate the ongoing maintenance and repair issues experienced with the existing reciprocating disk pump installation.

- Replacement of the outdated and under-sized polymer mix and feed system in favor of current technology that provides better integration with the plant’s overall SCADA system.

- Replacement of the undersized lime mixing and feed screws to blend and transport limed sludge from the belt filter presses more effectively. The existing mixers are undersized for the current belt filter press capacity and are the weak link in the dewatered sludge handling process.

- Structural evaluation of the original (north) solids building to identify any potential effects that removal of the existing unused pivoting conveyor equipment might have on the future use of this building for storage space.

The items listed above were planned to be addressed as a separate project. As the scope of these improvements was considered in relation to the ongoing sludge optimization design effort, it became apparent that the two efforts were closely related. Because they complement one another in certain ways there are numerous advantages for combining these two efforts together for the design and construction:

- The dewatering building improvements are predominantly mechanical, with smaller tasks associated with electrical, instrumentation, and control. This mix of disciplines balance out the predominantly electrical, instrumentation, and control elements of the current solids optimization project.

- Balancing these elements yields a synergy of work that will likely cause greater interest in bidding and better coordination during construction than if they are designed, bid, and built separately. Contractors should receive better pricing for work from subcontractors due to the increased work volume.
There will be economies in the design and construction costs from combining two complementary projects into one. The drawings and specifications, as well as the bidding effort, will avoid duplication by having one set of construction drawings and specifications.

The preliminary opinion of probable construction cost for the original solids optimization project was $690,500. The dewatering building improvements estimated construction cost is approximately $2,662,000. With the addition of the dewatering building improvements to the scope of work, the revised estimated construction cost for this project is $3,352,500.

ENGINEERING SERVICES FEE

CH2M HILL has proposed to perform additional engineering services associated with this project for the not-to-exceed amount of $215,699. Combining these two projects will have obvious savings in the engineering cost by not duplicating numerous management tasks. Fitting the proposed upgrades into the existing space, with minimal or no disruption to the dewatering process, is not the same as designing a new facility from scratch. The effort involves meticulous documentation of the existing area dimensions and electrical infrastructure and will likely involve several iterative steps to ensure that sufficient room is provided for maintenance and parts replacement. Design of a new facility from scratch does not usually involve as many constraints, and this is reflected in the engineering hours and cost.

NTMWD staff has reviewed the proposed fee submitted by CH2M HILL and believes it to be fair and reasonable for the work associated with this project. These services will be performed in accordance with the standard ESA.

SUMMARY OF ENGINEERING FEE

<table>
<thead>
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<th>Description</th>
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<tr>
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<td>Proposed Additional Services</td>
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<td>Revised ESA Amount</td>
<td>$463,537</td>
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FUNDING

Funding for this project in the amount of $215,699 is to be made available in the Regional Wastewater System 2013 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 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4164

REGIONAL WATER SYSTEM
TRINITY RIVER MAIN STEM PUMP STATION AND
RAW WATER PIPELINE
PRELIMINARY ENGINEERING
PROJECT NO. 269

ENGINEERING SERVICES AGREEMENT

This administrative memorandum requests authority to employ Freese and Nichols, Inc., (FNI) to provide the professional services associated with preliminary engineering for the Trinity River Main Stem Pump Station (PS) and Raw Water Pipeline, Project No. 269. The engineering services agreement (ESA) would be in accordance with the standard NTMWD agreement with a not-to-exceed amount of $1,112,740.

STATUS OF RAW WATER SUPPLY

At the 2014 Annual Board of Directors Retreat in February 2014, the NTMWD staff and FNI reviewed the status of NTMWD’s raw water supply, both short-term and long-term. Due to the expiration of the contract with Dallas for interim raw water supply in 2016, a shortfall may exist from 2017 through 2020, ranging from approximately 25 million gallons per day (MGD) to 45 MGD. At the Water Committee Meeting on February 27, 2014, the Executive Director and NTMWD staff reviewed options for obtaining additional interim or permanent raw water supply to assure adequate supply through 2020. The current plan for raw water and finished water supply for 2021 and later includes development of the Lower Bois d’Arc Creek Reservoir and the Leonard (North) Water Treatment Plant. The consensus of the Water Committee was for the Executive Director and NTMWD staff to move forward with the following actions:

- Proceed with negotiations with the City of Dallas regarding potential extension of the interim raw water supply contract through 2020
- Commence with design of the Trinity River Main Stem PS project
- Commence with negotiations for the potential purchase of raw water from the Main Stem of the Trinity River. The source of the raw water would be wastewater treatment plant return flows in the Trinity River. Potential contracting entities include Dallas, Tarrant Regional Water District, Trinity River Authority, Upper Trinity Regional Water District, City of Irving, and Exelon.
- Continue with preliminary planning efforts associated with use of Lake Texoma water through development of a desalination treatment process

This administrative memorandum is for the preliminary design effort associated with the Trinity River Main Stem PS and Raw Water Pipeline.
The NTMWD operates the East Fork Raw Water Supply project, which consists of a diversion pump station, constructed wetlands, conveyance pump station, and an 84-inch pipeline approximately 42 miles in length to convey raw water to Lake Lavon. The diversion pump station draws water from the East Fork of the Trinity River approximately 11 miles downstream of Lake Ray Hubbard. The water is pumped through the constructed wetlands area then pumped to Lake Lavon.

In 2008, NTMWD and the City of Dallas entered into a contract that included provisions for raw water supply as follows:

- Dallas would be responsible for construction of the Trinity River Main Stem PS project with a minimum pumping capacity of 90 MGD. The project would include a pump station and pipeline approximately 17 miles in length that would discharge raw water into the headworks of NTMWD's wetland project.
- Dallas would be responsible for the cost of design and construction of the Main Stem PS project
- Until such time that the Main Stem PS project was constructed and placed in service, Dallas would continue to pass NTMWD wastewater plant return flows through Lake Ray Hubbard. NTMWD would continue to pump these return flows from the Diversion PS through the wetland project
- Upon completion of the Main Stem PS and pipeline, Dallas would retain the NTMWD wastewater plant return flows in Lake Ray Hubbard, and NTMWD would obtain that amount of water from the Main Stem PS.

At this time, the City of Dallas has elected not to construct the Main Stem PS and will continue to pass NTMWD wastewater plant return flows through Lake Ray Hubbard. Based on the potential shortfall described above from 2017 through 2020, the Executive Director and NTMWD staff recommend that NTMWD move forward with design of the Main Stem PS and are beginning negotiations immediately with the City of Dallas towards development of a contract for purchase of raw water, and for terms for reimbursement of the cost associated with design and construction of the Main Stem PS by the NTMWD. NTMWD staff is also contacting the other potential contracting entities mentioned above regarding the purchase of their excess water.

SCOPE OF PROPOSED PROJECT

In September 2011, the Board of Directors authorized the Executive Director to execute an ESA with FNI for Level 1 (Preliminary) design of a temporary main stem pump station and raw water pipeline. That design effort commenced concurrently with the design of the Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline. Work progressed on both projects; however, based on rains in the spring of 2012 that raised the water level in Lake Lavon and Lake Chapman, a decision was made to discontinue design of the Temporary Main Stem PS project. Before the project was placed on hold, FNI completed 50% of plan design of the raw water pipeline. The pipeline alignment was completed, and easement documents were prepared for a
portion of the pipeline. Also included was a conceptual design of a temporary intake and pump station. Portions of the design effort completed during the Temporary Main Stem PS project will be usable in the design of the permanent facilities, and the engineering fee proposed by FNI below takes into account $1,618,922 of design fees for the work previously completed. This includes the work on the majority of the pipeline alignment, 50% pipeline design and preparation of easement documents, and the work completed on the temporary pump station siting, since the permanent pump station is proposed at the same location.

ENGINEERING

NTMWD requested FNI submit a cost proposal for the design work associated with the pump station, pipeline, connection at the headworks of the wetlands, modification to the existing conveyance pump station, and wetlands capacity evaluation. It is proposed to split the design into two phases. This phasing is recommended due to concurrent activities that are required to obtain this raw water supply. Utilization of this pump station and pipeline system will require the purchase of raw water from one or more entities that discharge treated wastewater effluent into the Trinity River. Concurrent with the preliminary design described in this administrative memorandum, NTMWD staff will pursue discussions with those entities that discharge treated wastewater effluent into the Trinity River.

In Phase I, it is proposed to perform the basic engineering to develop Level 1 design of the Trinity River Main Stem PS. Included in Phase I special services are the costs for:

- Environmental permitting
- Surveying
- Geotechnical services
- Preliminary design modifications to splitter box at headworks of the wetland
- Geomorphology
- Water rights permitting
- Wetlands capacity and phosphorus removal analysis
- Preliminary design associated with the conveyance pump station. The preliminary design effort would develop recommendations regarding the required size of the pump station expansion, but this work would only be authorized after development of an agreement regarding raw water purchase. Additional pumping capacity would be needed to transfer the additional water passed through the East Fork Wetland.

In Phase 2, it is proposed to perform basic services for final design of both pump stations and the final design of the pipeline. Phase 2, special services, would include the following:

- Power systems study
- Final design of the wetlands splitter box modifications
- Pipeline surge analysis
- Corrosion engineering
ENGINEERING FEE

FNI has developed a preliminary opinion of probable construction cost for the pump station and pipeline project of $82 million. This estimated cost is based on design of a raw water intake, 90 MGD pump station, electrical feed, 17 miles of 72-inch pipeline, and connection to the headworks of the East Fork Wetland.

The total engineering fee proposed for the permanent pump station and raw water pipeline estimated at $82 million is $6,516,980, which equates to approximately 7.9% of the construction cost. This fee is within the guidelines of the Consulting Engineers Council for this type of work. Taking into account the previous effort by FNI, which can be applied to this permanent pump station project of $1,618,922, the total proposed fee for Phases I and II is $4,898,058 ($6,516,980 - $1,618,922). The split between Phase I and II is described below:

- Phase I will include basic services in the amount of $430,700 for Level 1 design of the pump station, and $682,040 for Special Services outlined above, for a total of $1,112,740. This is the amount recommended for approval in this administrative memorandum.

- Phase II Basic Services would include $1,717,600 for the final design of the pump station and expansion of the conveyance pump station and $1,547,718 for final design of the pipeline for a total basic design effort of $3,265,318. The Special Services for Phase II described above would total $520,000. The timing for the two phases would be as follows:
  - Phase 1: April 2014 – Aug 2014
  - Phase 2: Sep 2014 – May 2015
  - Bid Pump Station – May/June 2015*
  - Bid Pipeline – Oct 2015

* Depending on status of water purchase negotiations, there may be a need to pre-purchase pumps, which would be scheduled for May/June 2015, with bidding of the pump station no later than October/November 2015 to achieve completion of the project by the first quarter of 2017. If the facilities were not completed in time to eliminate a potential raw water shortfall, that shortfall could be addressed through submittal of a request to Texas Commission on Environmental Quality for short-term overdrafting of Lake Lavon.

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.

Although the cost of this project had not previously been included in the Capital Improvement Program (CIP), NTMWD Operational and Engineering staffs have thoroughly reviewed the scheduling, timing, sizing, and scope of all capital projects
included in the CIP. Changes have been made to the overall CIP in order to minimize, to the extent possible, the future water rate impact to Member Cities and Customers that may result from this project. The water rate impact will be presented to the Board in the near future.

FUNDING

Funding in the amount of $1,112,740 for the design effort described in this administrative memorandum 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 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4165

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

ADDITIONAL ENGINEERING SERVICES

This administrative memorandum requests an increase in the scope and fee for engineering services by Black & Veatch Corporation (B&V) in the additional amount of $61,050, resulting in a revised not-to-exceed amount of $11,003,419 for Water Treatment Plants (WTPs) I, II, III, and IV Ozonation, Project No. 153. This scope includes services for design of facilities in NTMWD’s north substation.

REVIEW

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

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<th>Month/Year</th>
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PROPOSED ADDITIONAL SERVICES

NTMWD owns two electrical substations on the Wylie WTP property that receive power from an Oncor 138 kV transmission line. The substations are designated as the south substation (Substation No. 1) and the north substation (Substation No. 2). The south substation was constructed with two 28 MVA transformers in 1988. The north substation was constructed with two 28 MVA transformers in 2003 and was designed with essentially the same equipment and features. These two substations are vital to the operation of the Wylie WTP in that they provide all of the electrical power for WTPs I, II, III and IV, as well as Raw Water Pump Station No. 3. A new transformer was installed in the ozonation project in NTMWD’s north substation to provide the additional power needed for the ozone generation process. Also, additional high
voltage electrical work was performed in both substations to provide two alternate feeds to the ozone generation facilities and to improve an existing dedicated interconnection tie line (sometimes referred to as an "emergency" connection) between the two NTMWD substations. The original intent of this interconnection tie line was to be able to provide a portion of the electrical load on an emergency basis if either of the two substations were completely out of service. This control philosophy did not require a complex system for electrical breaker coordination and control. This overall control philosophy was discussed by the design team during the design of the project.

The ozonation facilities at WTPs III and IV have been placed in service, placing additional load on the new facilities at Substation No. 2. Now that the third transformer along with all the improvements at the substation have been placed in service, the NTMWD staff has had a number of opportunities to operate switches and other devices in the substation. Through this operation, NTMWD staff has gained a better understanding of the desired operation of the substations and has developed recommended changes to the substation operation that differ philosophically from the approach taken during the original design of the facilities. For example, there is a huge advantage in having the ability to operate the substations in parallel (have both substations in service simultaneously) without having to remove one substation from service. This will provide a more robust electrical system for the entire Wylie WTP site. The NTMWD staff recommends design changes be considered that will provide additional flexibility to the system. This additional flexibility will change the complexity, and the design will need to take into account this complexity as well as assure the proper safety of this installation.

PROPOSED ADDITIONAL SERVICES

NTMWD requested a proposal from B&V to address the issues described above. The proposal includes:

- Installation of additional devices and relocation of existing devices in the north substation needed to allow the transformers to be paralleled in the same manner as the south substation
- Modification of the drawings to reflect the proposed devices to better facilitate load transfer via the dedicated interconnection tie line between the north and south substations
- Modification of the control functions to support the changes that allow paralleling of the transformers

Plans will be prepared and presented to one of the general contractors presently working onsite to prepare a cost proposal for this work. The estimated construction cost is in the range of $200,000 to $300,000. If the proposal is acceptable, a request will be presented to the Board for consideration of authorizing a change order in a future administrative memorandum.
ENGINEERING SERVICES FEE

B&V has proposed a not-to-exceed basic services fee of $61,050 for these additional design services. The design work is to be performed by a specialized high voltage electrical engineer, whose salary rate is significantly higher than others on a treatment plant design team. Therefore, the design cost may appear high as compared to the construction cost. However, due to the critical function of these facilities, the desired benefit to be gained through this additional design and highly specialized designers required to provide this service, the NTMWD staff believes the proposed fee submitted by B&V to be fair and reasonable for the work associated with this design effort. 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.

SUMMARY OF ESA

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FUNDING

Additional funding in the amount of $61,050 for this project is to be made available in the Regional Water System 2009D 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 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4166

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

CONSTRUCTION MANAGER AT RISK
ADJUSTMENT TO SUBSTANTIAL COMPLETION DATES

This administrative memorandum requests the Board of Directors approve a contract time extension for the substantial completion dates for the blending facilities construction associated with the Lake Texoma Outfall to Wylie Water Treatment Plant (WTP) Raw Water Pipeline, Project No. 268.

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 is estimated to be approximately $312,500,000.

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 Companies, Inc., (Garney). 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 as soon as possible.

REVIEW

In September 2011, the Board approved separate actions regarding the drought. By Administrative Memorandum No. 3681, the Board approved implementation of Stage 3 of the Water Conservation and Drought Contingency/Water Emergency Response Plan effective November 1, 2011. The Board also approved Administrative Memorandum No. 3684, which approved Phase I of the project for professional services by FNI associated with pumping water directly from Lake Texoma to the Wylie WTP.
To complete the necessary construction as expeditiously as possible, a recommendation was developed regarding use of the CMAR delivery method. In this method, contracts are executed with a construction manager who then becomes part of the design team along with the design engineer and NTMWD staff.

In November 2011, the Board approved Administrative Memorandum No. 3728 and adopted Resolution No. 11-22 authorizing the use of the CMAR delivery method under Texas Government Code Chapter 2267 for the project. In January 2012, the Board approved Administrative Memorandum No. 3748 authorizing the use of Garney as CMAR for the project. The services to be provided under the January 2012 authorization were for preconstruction services. Through these services, the CMAR joined the design team along with the design engineer and NTMWD staff to review and further develop the project delivery plan to optimize the project design constructability.

In June 2012, the Board approved Administrative Memorandum No. 3817 authorizing: 1) Garney to perform CMAR procurement and construction services in the amount of $7,951,135; 2) an allowance to the CMAR for bonds, insurance, and contingency in the amount of $3,055,000; and, 3) payments to the CMAR in the not-to-exceed amount of $250,000,000 for construction associated with the project. The total funding approved in June 2012 for these services and construction was $261,006,135.

In November 2012, the Board approved Administrative Memorandum No. 3881 authorizing an additional allowance for bonds and insurance in the amount of $555,000. This adjustment increased the funding for bonds, insurance, and contingency to $3,610,000.

In January 2013, the Board approved Administrative Memorandum No. 3931 authorizing: 1) an adjustment to the allowance for the CMAR for bonds, insurance, and contingency in the amount of $2,919,300; and, 2) an adjustment to the allowance for the CMAR in the not-to-exceed amount of $17,156,309 for construction associated with the Lake Texoma Outfall to Wylie WTP Raw Water Pipeline. The total additional funding requested for these services and construction was $20,075,609.

PROPOSED CONTRACT TIME EXTENSION

In accordance with the terms of Administrative Memorandum No. 3931, the substantial completion date for the blending facilities is January 15, 2014, for WTPs III and IV, and March 15, 2014, for WTPs I and II, with $5,000 per day liquidated damages for completion after these dates. Substantial completion for this portion of the project is defined as the ability of the new facilities to blend Lake Texoma raw water with Lake Lavon raw water in a manual mode of operation.

During the course of construction of the blending facilities, numerous projects have been underway on the Wylie WTP site. The total number of projects has ranged from 15 to 20, with the total construction amount ranging from $200 - $300 million.
These projects impact all aspects of the treatment process, and include WTPs I, II, III, and IV ozonation, filter rehabilitation and upgrades at all four water treatment plants, high service pump station upgrades, construction of additional reservoir capacity, electrical work, sludge pump station and lagoon construction. These various projects require portions of the plants to be taken out of service to either perform the work or to tie-in to the existing facilities. Each facility shutdown impacts the overall treatment capacity, and these components of the various projects must be coordinated in order to assure adequate treatment capacity exists at all times throughout the year. The shutdowns required for the blending facilities will at times reduce the treatment capacity by up to 300 million gallons per day for extended periods of up to two weeks. The risk of each of these facility tie-ins is fully evaluated by the Executive Director and NTMWD staff before the work is allowed to proceed, and specific requirements are included in the individual contracts regarding time allowed for the tie-ins, working hours, backup labor, and equipment that are put in place to assure the work is performed in as short a time as possible at the least risk.

The activities of the numerous ongoing construction projects are coordinated by the Engineering and Operations Departments, and an overall schedule of plant shutdowns and tie-ins is maintained and updated continuously. In the case of the blending facilities, the size of the shutdowns and magnitude of the impact on the treatment capacity was evaluated, and specific times for this work was adjusted, taking into account the other needs on the plant site and impact to other projects. The coordination of all these activities has resulted in an overall schedule for all the construction projects that provides the optimum benefit to the NTMWD and assures adequate treatment capacity at all times. This coordinated effort has resulted in adjustment to the substantial completion for the blending facilities as follows: May 31, 2014, for WTPs III and IV and June 30, 2014, for WTPs I and II. 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.

There will be plant work going beyond the proposed substantial completion dates, but it is difficult to predict what those specific bid package final completion dates should be until the major plant work shutdowns are completed. It is proposed to adjust the final completion dates for other plant work bid packages after substantial completion at WTPs I, II, III, and IV is achieved.

No additional funding is associated with this request.

RECOMMENDATION

It is the recommendation of the Executive Director, NTMWD staff, and Freese and Nichols, Inc., that the Board of Directors approve a contract time extension to May 31, 2014, for WTPs III and IV, and June 30, 2014, for WTPs 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. This will be an item on the regular agenda of the March 2014 Board meeting.
NORTH TEXAS MUNICIPAL WATER DISTRICT

MARCH 2014

ADMINISTRATIVE MEMORANDUM NO. 4167

REGIONAL WATER SYSTEM
FM 1378 and FM 2514 NORTH INTERSECTION IMPROVEMENTS
20-INCH AND 60-INCH WATERLINE RELOCATIONS
PROJECT NO. 355

ENGINEERING SERVICES AGREEMENT AND UTILITY AGREEMENT

This administrative memorandum requests that the Board of Directors authorize the Executive Director to: 1) execute an engineering services agreement (ESA) with Birkhoff, Hendricks & Carter, LLP, (BHC) to provide professional engineering services associated with design and construction for the Country Club Road (FM 1378) and Parker Road (FM 2514) North Intersection Improvements 20-Inch and 60-Inch Waterline Relocations, Project No. 355; and, 2) execute the utility agreement and other standard utility agreement forms for this relocation project, since a portion of the relocation cost of each pipeline will be eligible for reimbursement by the Texas Department of Transportation (TxDOT). The ESA would be in accordance with the standard NTMWD agreement with a not-to-exceed amount of $120,500.

REVIEW

TxDOT is designing improvements to the intersection of FM 1378 and FM 2514. Based on TxDOT's completion of a portion of this design, in March 2012 by Administrative Memorandum No. 3775, the Board approved the relocation of the NTMWD 20-inch pipeline south of the intersection of FM 1378 and FM 2514. TxDOT has now completed the remaining conceptual design of the intersection of FM 1378 and FM 2514, which will result in the need for NTMWD to relocate two existing pipelines. The purpose of this project is for the design and relocation of NTMWD 20-inch and 60-inch pipelines at and north of the intersection of FM 1378 and FM 2514.

NTMWD owns and operates two water transmission pipelines in this area that are affected by this highway improvement project: the Wylie to McKinney 20-inch waterline and the 60-inch McKinney Parallel Pipeline, Phase I waterline. Both pipelines are located partially inside private easement and partially inside TxDOT right-of-way (ROW).

The 20-inch Wylie to McKinney Pipeline was the original pipeline that transported treated water from Wylie to McKinney, and it was constructed in 1956. This pipeline is located inside private easement adjacent to the west side of FM 1378. Approximately 300 linear feet of pipeline are affected by this relocation, of which, a portion will be eligible for reimbursement by TxDOT. NTMWD is investigating the amount of the Wylie to McKinney Pipeline that is inside private easement versus the amount of pipe located within TxDOT ROW. Preliminary record searches show that FM 2514 was not part of the TxDOT system at the time the Wylie to McKinney Pipeline was constructed.
Phase I of the 60-inch McKinney Parallel Pipeline is located inside a private easement adjacent to the east side of FM 1378. This pipeline parallels FM 1378 for approximately 200 linear feet, where the pipeline turns west and crosses beneath FM 1378. A rough estimate shows that 60% of this 60-inch pipeline is inside private easement with the remaining 40% located in TxDOT ROW.

TxDOT has asked NTMWD to relocate both pipelines as required for the proposed highway improvements. This relocation will require the acquisition of new easements in certain locations for construction of these two relocated pipelines. Relocation of pipelines currently within existing highway ROW is the responsibility of NTMWD, and relocation of pipelines currently within private easement is eligible for reimbursement through the state program. Discussions with TxDOT are underway to determine reimbursement arrangements. Reimbursement for a portion of engineering, easement acquisition, construction, and inspection, is included in the TxDOT program.

The initial opinion of probable construction cost for this project is $1,544,000, and this cost includes the relocation for both the 20-inch and 60-inch pipelines.

DESCRIPTION OF PROJECT

Although final design drawings for the improvements to the intersection of FM 1378 and FM 2514 are not yet available, TxDOT plans to award a construction contract in September 2014. In an attempt to accommodate this schedule, NTMWD staff is requesting authorization to employ BHC to design the appropriate pipeline relocations. BHC will provide the following basic services:

- Existing data collection
- Develop alternatives based upon review of data and engineering constraints
- Preliminary route selection report
- Preparation of plan and profile drawings for selected route
- Preparation of final contract documents
- Assistance for permit acquisition including highway crossings
- Bid processing services
- Construction phase services

The following items will be approached as special services:

- Surveying to identify permanent property, access easement, and temporary construction easement needs
- Preparation of easement documents
ENGINEERING SERVICES FEE

BHC has proposed to perform the basic engineering services in the not-to-exceed amount of $110,000. BHC has also requested the not-to-exceed amount of $10,500 for special services. The total proposed fee requested is a not-to-exceed amount of $120,500.

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

FUNDING

Funding in the amount of $120,500 is to be made available from the Regional Water System Capital Improvement Fund.

UTILITY AGREEMENT

As stated earlier, a portion of the relocation costs for both the 20-Inch Wylie to McKinney Pipeline and Phase I of the 60-Inch McKinney Parallel Pipeline will be eligible for reimbursement by TxDOT. After determining the portion of the relocations to be reimbursed, NTMWD is to submit a Utility Agreement Package with appropriate forms to TxDOT. These standard TxDOT forms authorize the relocation of the NTMWD facility and reimbursement per TxDOT policy. Approval of this administrative memorandum would authorize the Executive Director to execute all necessary forms to be submitted for the FM 1378 and FM 2514 20-Inch and 60-Inch Waterline Relocations to TxDOT.

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize the Executive Director to: 1) 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, 2) 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. This will be an item on the regular agenda of the March 2014 Board meeting.
# NORTH TEXAS MUNICIPAL WATER DISTRICT
## WATER CONSUMPTION REPORT
### February 2014

<table>
<thead>
<tr>
<th>Member Cities</th>
<th>Water Used Feb 14 1000 Gallons</th>
<th>Daily Avg Feb 14 29 Days</th>
<th>Total 13-14 Aug - Feb 1000 Gallons</th>
<th>% of Annual Maximum</th>
<th>Water Used Feb 13 1000 Gallons</th>
<th>Daily Avg Feb 13 28 Days</th>
<th>Total 12-13 Aug - Feb 1000 Gallons</th>
<th>12-13 % of Annual Maximum</th>
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<tbody>
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<td>Allen</td>
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</tbody>
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## Lake Elevations

**Lavon (Conservation Pool 492.0)**
- **100.0% (118,670 acre ft) Remaining Water Right**
  - February 2014: Maximum 479.80, Minimum 479.67, Average 479.74
  - February 2013: Maximum 483.46, Minimum 483.28, Average 483.38

**Chapman (Conservation Pool 440.0)**
- **5.3% (3,052 acre ft) Remaining Water Right**
  - February 2014: Maximum 427.45, Minimum 427.06, Average 427.22
  - February 2013: Maximum 432.95, Minimum 432.76, Average 432.85

**Tawakoni (Conservation Pool 437.5)**
- **71.7% (36,729 acre ft) Remaining Water Right**
  - February 2014: Maximum 428.89, Minimum 428.01, Average 428.25
  - February 2013: Maximum 433.09, Minimum 432.86, Average 432.96

## Precipitation

**Lavon**
- February 2014: Total Inches 0.31, Year to Date 12.37
- February 2013: Total Inches 1.50, Year to Date 15.38

**Chapman**
- February 2014: Total Inches 1.53, Year to Date 19.31
- February 2013: Total Inches 2.49, Year to Date 19.94

**Tawakoni**
- February 2014: Total Inches 1.63, Year to Date 18.39
- February 2013: Total Inches 2.68, Year to Date 14.89

NORTH TEXAS MUNICIPAL WATER DISTRICT
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<th>12-13 % of Annual Maximum</th>
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# NORTH TEXAS MUNICIPAL WATER DISTRICT
## REGIONAL WASTEWATER SYSTEM FLOW REPORT
### FEBRUARY 2014

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<th>Flow %</th>
<th>Total Flow Feb-13 (1000 GAL)</th>
<th>Flow %</th>
<th>Total 12-13 Oct-Feb (1000 GAL)</th>
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<th>Total 13-14 Oct-Feb (1000 GAL)</th>
<th>Flow %</th>
<th>Total Flow Feb-13 (1000 GAL)</th>
<th>Flow %</th>
<th>Total 12-13 Oct-Feb (1000 GAL)</th>
<th>Flow %</th>
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<tr>
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* Report does not include nonmember city flows.
### NORTH TEXAS MUNICIPAL WATER DISTRICT
### REGIONAL WASTEWATER SYSTEM FLOW REPORT
### FEBRUARY 2014

#### LOWER EAST FORK INTERCEPTOR SYSTEM

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

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*Final Effluent Reported as BOD5.*

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### NORTH TEXAS MUNICIPAL WATER DISTRICT
### REGIONAL SOLID WASTE SYSTEM
### TONNAGE REPORT
### February 2014

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## CONSTRUCTION PROGRESS REPORT
### FOR PROJECTS UNDERWAY
#### FEBRUARY 28, 2014

### WATER SYSTEM

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

**BID AMOUNT:** $61,316,420.00

**CONTRACTOR:** BAR CONSTRUCTORS, INC.

**CHANGE ORDERS:**
- 1 - ($88,876.76)
- 2 - $83,334.34
- 3 - $24,913.52
- 4 - $35,890.05
- 5 - $532,186.58
- 6 - $262,271.96
- 7 - $55,586.52
- 8 - $50,285.76
- 9 - $82,627.19
- 10 - $16,211.07
- 11 - $24,693.03
- 5 - $101,412.69

**NOTICE TO PROCEED DATE:** JULY 17, 2008

**ORIGINAL COMPLETION DATE:** JUNE 30, 2010

**REVISED COMPLETION DATE:** JANUARY 14, 2013

**TIME LAPSED:** 126%

**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 leak in the side slope of the constructed berm requires NTMWD technical services to construct containment berms and install 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. Preliminary results of the investigation indicate the contractor utilized improper clay soil, clay containing sand, during construction of the lagoon interior liner. NTMWD staff issued a directive for corrective action to the contractor in December 2013. NTMWD staff and B&V continue to monitor the leak while negotiations are underway with the contractor.

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**PROJECT NO. 128**  
LAKE TEXOMA PUMP STATION MODIFICATIONS

**BID AMOUNT:** $6,479,702.00

**CONTRACTOR:** ARCHER WESTERN CONTRACTORS, LLC

**CHANGE ORDERS:**
- 1 - $37,046.13
- 2 - $82,116.00
- 3 - $51,095.65

**NOTICE TO PROCEED DATE:** JANUARY 14, 2009

**COMPLETION DATE:** AUGUST 1, 2010

**TIME LAPSED:** 331%

**CURRENT CONTRACT AMOUNT:** $6,649,959.78

**AMOUNT EARNED TO DATE:** $6,215,995.88

**% 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.

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 - $169,584.35
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 - ($4,756,650.01)
20 - $52,692.05
21 - $70,404.74
22 - $72,815.57
23 - $35,120.49
24 - $38,373.02

CURRENT CONTRACT AMOUNT: $110,945,965.57
AMOUNT EARNED TO DATE: $104,838,371.80
% CONTRACT AMOUNT EARNED: 94%

REMARKS: The WTP III North and South Contactors are undergoing the 30 day owner's operation test. A substantial completion inspection for WTP III contactors and the remaining portion of North Ozone Operations Building (NOPS) is scheduled for March 3, 2014. The ozone generators at South Ozone Operations Building (SOPS) are being started up by the equipment manufacturer. The chilled water equipment and condenser water equipment at SOPS is undergoing functional testing. The WTP II south contactor is ready for water even though some equipment is being electrically connected in the ozone gallery. Installation of conduit and wire from the WTP II south contactor electrical room to various pieces of equipment in the contactor gallery is still in progress. The ozone equipment in WTP I contactor and WTP II north contactor is being performance tested. The electrical installation in the WTP I ozone contactor gallery is complete; the termination of the electrical instruments in WTP I gallery is underway. Paving around the SOPS is 95% complete.
PROJECT NO. 188
EXPAND HIGH SERVICE PUMP STATION 3-1 TO 350 MGD

CONTRACTOR: BAR CONSTRUCTORS, INC.

BID AMOUNT: $7,720,578.00
CHANGE ORDERS: 1 - $136,720.94
Time Ext.-75 Days
CURRENT CONTRACT AMOUNT: $7,857,298.94
AMOUNT EARNED TO DATE: $7,487,191.20
% CONTRACT AMOUNT EARNED: 97%

TIME LAPSED: 160%

REMARKS: The contractor is in the process of completing the electrical connections to the new pumps and motors. Prime Controls is in the process of inputting the programming for remote control of the pumps and motors. The pumps are scheduled to be started up during the month of March.

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

CONTRACTOR: LEGACY CONTRACTING, LP

BID AMOUNT: $4,572,759.47
CHANGE ORDERS: 1 - $26,243.17
Time Ext.-60 Days
2 - $30,608.17
Time Ext.-222 Days
CURRENT CONTRACT AMOUNT: $4,629,610.81
AMOUNT EARNED TO DATE: $4,583,619.13
% CONTRACT AMOUNT EARNED: 99%

TIME LAPSED: 104%

REMARKS: During the month of February, a walkthrough to final the project was completed and a punchlist was generated. Permission to final the project will be submitted at the March 2014 Board meeting.

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

CONTRACTOR: CRESCENT CONSTRUCTORS INC.

BID AMOUNT: $5,157,000.00
CHANGE ORDERS: 1 - $34,388.00
2 - $10,337.00
Time Ext.-14 Days
CURRENT CONTRACT AMOUNT: $5,201,725.00
AMOUNT EARNED TO DATE: $5,186,981.58
CONTRACT AMOUNT EARNED: 99%

TIME LAPSED: 133%

REMARKS: This project is complete. A consent agenda item authorizing final payment will be presented at the March 2014 Board meeting.
### 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:** 24%

**Remarks:** The contractor continues to submit material and equipment information to the engineer for review.

Bid amount: $3,537,000.00  
Change Orders: None  
Current Contract Amount: $3,537,000.00  
Amount Earned to Date: $328,714.86  
Contract Amount Earned: 10%

### 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:** APRIL 29, 2014
- **Time Lapsed:** 86%

**Remarks:** Plant II PLCs are 75% complete and startup has begun on those PLCs that are installed. Plant III PLCs are completed and 25% have been started. Fiber optics cable in Plant III is complete. Programming of HMI screens in the chemical storage area is 75%, substations 25%, trending 75% and HMIs associated with Plant II PLCs are 90% complete. Factory testing of all PLCs are completed, and field configuration of network switches are complete.

Bid amount: $2,714,732.00  
Change Orders: 1 - $21,083.16  
Time Ext.-90 Days  
Current Contract Amount: $2,735,815.16  
Amount Earned to Date: $2,308,145.91  
Contract Amount Earned: 84%

### 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. Closeout is planned to be concurrent with Project No. 200.

Bid amount: $410,584.44  
Change Orders: None  
Current Contract Amount: $410,584.44  
Amount Earned to Date: $410,584.44  
Contract Amount Earned: 100%
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%

REMARKS: Construction of this project is complete. Final payment will be made as authorized by the Board at the February 2014 Board meeting.

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%

PROJECT NO. 229
WYLIE WATER TREATMENT PLANT
SECURITY ENHANCEMENTS, PHASE 2

CONTRACTOR: FACILITIES SOLUTION GROUP

CONTRACT DATE: JULY 26, 2012

NOTICE TO PROCEED DATE: AUGUST 22, 2012

COMPLETION DATE: AUGUST 30, 2013

REVISED COMPLETION DATE: JANUARY 19, 2014

TIME LAPSED: 122%

REMARKS: This project is complete. Final payment was authorized at the February 2014 Board meeting.

BID AMOUNT: $2,102,324.00

CHANGE ORDERS: 1 - $6,801.94
Time Ext.-90 Days
2 - $10,423.78
Time Ext.-65 Days

CURRENT CONTRACT AMOUNT: $2,119,549.72

AMOUNT EARNED TO DATE: $2,119,549.72

% CONTRACT AMOUNT EARNED: 100%

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: 92%

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 in progress. The chemical equipment used in the biologically active filtration process is being started up and tested. The contractor's work areas are cleaned and all disturbed areas are being prepared for seeding. The pipe insulation is the only remaining construction activity.

BID AMOUNT: $5,364,550.00

CHANGE ORDERS: 1 - $57,815.00
2 - $111,725.00
3 - $138,988.00
4 - $21,308.00
Time Ext.-120 Days
5 - 27,317.00

CURRENT CONTRACT AMOUNT: $5,721,703.00

AMOUNT EARNED TO DATE: $5,548,973.03

% CONTRACT AMOUNT EARNED: 97%
PROJECT NO. 259
WATER TREATMENT PLANT I CONVERSION TO BAF AND UPGRADES 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: 50%
BID AMOUNT: $7,535,625.00
CHANGE ORDERS: 1 - $181,105.96
2 - $227,024.59
3 - $28,269.20
4 - $68,145.00
5 - $104,627.00
CURRENT CONTRACT AMOUNT: $8,144,796.75
% CONTRACT AMOUNT EARNED: 85%

REMARKS: This project includes work in all 12 filters and 4 clarifiers at WTP I. Work is completed on Clarifier Nos. 1 and 4 and Filter Nos. 2, 4, 8, 10, and 12. Startup of this part of the plant will begin the first week of March 2014. All new valves/actuators and magmeters are installed. Structural modifications are complete on Filter Nos. 6, 9, and 11. Contractor will work on coatings and underdrain system installation in March and continue modifications on Filter Nos. 1, 3, and 5.

PROJECT NO. 266
42-INCH AND 24-INCH WATERLINE RELOCATION ALONG STACY ROAD (FM 2766) 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: 17%
BID AMOUNT: $5,798,242.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $5,798,242.00
AMOUNT EARNED TO DATE: $170,705.50
% 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.

PROJECT NO. 268
LAKE TEXOMA OUTFALL TO WYLIE WATER TREATMENT PLANT RAW WATER PIPELINE
CONTRACTOR: (CMAR): GARNET CONSTRUCTION
CMAR NOTICE TO PROCEED DATE: JUNE 29, 2012
CONTRACT DATE: JANUARY 26, 2012
COMPLETION DATE: MARCH 15, 2014
TIME LAPSED: 97%
AUTHORIZED TOTAL AMOUNT TO DATE: $282,323,495.00
AUTHORIZED EXPENDITURE TO DATE: $279,099,743.80
AMOUNT EARNED TO DATE: $267,523,324.95

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 also set the guaranteed maximum price at $282,323,495 based on the current scope for the project.
BIDS RECEIVED & AWARDED
During February, Plant Work Bid Package No. 6 recommendation memorandum was approved and the work is represented in CMAR Contract Amendment No. 12.

CONSTRUCTION
All pipeline sections (A, B, C, D, and E) are complete and passed hydrostatic testing. Pipeline contractors continued work on easement restoration and fiber optic conduit installation. The fiber optic cable installation 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, and all four blend tanks are substantially complete. Work continued in the north and south electrical buildings at Raw Water Pump Station No. 3, the reclaim electrical buildings, as well as other various electrical buildings. Work continued on the mixing boxes, various meter vaults, flow meter installations, and plant piping. The electrical contractor continued work on miscellaneous items including setting equipment, panels, and various duct banks throughout the plant site.
<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>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>N/A</td>
<td>06/29/12</td>
<td>Procurement Service</td>
<td>$350,540</td>
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<td>1</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>
<td>$3,055,000</td>
<td>$3,055,000</td>
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<td>2</td>
<td>06/06/12</td>
<td>06/29/12</td>
<td>Pipe Material</td>
<td>$1,180,054,123</td>
<td>$1,136,302,012</td>
<td>$-43,752,111</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>
<td>$10,337,599</td>
<td>$194,861</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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<tr>
<td>3</td>
<td>07/11/12</td>
<td>08/16/12</td>
<td>CMAR Provided Materials &amp; Services for Connections &amp; Blending</td>
<td>$2,614,830</td>
<td>$2,614,830</td>
<td>$0</td>
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<td>39a</td>
<td>N/A</td>
<td>10/31/12</td>
<td>Credit for CMAR Selected Materials that were Incorporated into Amendment No. 5</td>
<td>$-9,267,129</td>
<td>$-9,267,129</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>
<td>$2,049,507</td>
<td>$1,867,888</td>
<td>$-181,619</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>
<td>$55,453,176</td>
<td>$-7,731,918</td>
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<td>5</td>
<td>10/03/12</td>
<td>10/31/12</td>
<td>ASI Constructors constructs Balancing Reservoir</td>
<td>$20,872,668</td>
<td>$21,549,332</td>
<td>$676,664</td>
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<td>6</td>
<td>07/11/12</td>
<td>12/07/12</td>
<td>Construction Staking</td>
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<td>$393,393</td>
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<td>08/29/12</td>
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<td>Gate Valves</td>
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<td>$342,408</td>
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<td>09/12/12</td>
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<td>Flow Control Ball Valve</td>
<td>$495,000</td>
<td>$429,970</td>
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<td>09/12/12</td>
<td>12/07/12</td>
<td>Sleeve Valves</td>
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<td>$1,504,505</td>
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<td>6</td>
<td>12/12/12</td>
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<td>Flow Meters</td>
<td>$1,941,000</td>
<td>$1,669,990</td>
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<tr>
<td>6</td>
<td>09/12/12</td>
<td>12/07/12</td>
<td>MV Switchgear RWPS1</td>
<td>$389,000</td>
<td>$167,026</td>
<td>$-221,974</td>
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<td>09/12/12</td>
<td>12/07/12</td>
<td>MV VFD RWPS3</td>
<td>$1,352,000</td>
<td>$1,124,084</td>
<td>$-227,916</td>
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<td>6</td>
<td>09/12/12</td>
<td>12/07/12</td>
<td>MV Primary Unit Substation RWPS1</td>
<td>$100,000</td>
<td>$208,647</td>
<td>$108,647</td>
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<td>7</td>
<td>N/A</td>
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<td>Allowance for Bonds and Insurance</td>
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<td>7</td>
<td>N/A</td>
<td>12/07/12</td>
<td>Allowance for Utility Conflicts</td>
<td>$150,000</td>
<td>$150,000</td>
<td>$0</td>
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<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>Plant I &amp; II Furnish and Install</td>
<td>$11,413,097</td>
<td>$8,550,835</td>
<td>$-2,862,262</td>
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<tr>
<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>Plant III &amp; IV Furnish and Install</td>
<td>$10,913,404</td>
<td>$9,107,940</td>
<td>$-1,805,464</td>
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<tr>
<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>60&quot; &amp; 78&quot; Yard Pipe and Connections</td>
<td>$7,524,695</td>
<td>$5,368,890</td>
<td>$-2,155,805</td>
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<tr>
<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>Existing Plant Chemical Feed, meters, and vaults</td>
<td>$1,694,290</td>
<td>$3,512,000</td>
<td>$1,817,710</td>
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<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>Submittals in support of Texoma Surge Tank</td>
<td>$250,000</td>
<td>$250,000</td>
<td>$0</td>
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<tr>
<td>8</td>
<td>12/12/12</td>
<td>01/21/13</td>
<td>Sherman Bypass</td>
<td>$732,273</td>
<td>$392,500</td>
<td>$-339,773</td>
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<tr>
<td>9</td>
<td>12/19/12</td>
<td>02/08/13</td>
<td>Electrical &amp; Instrumentation/ SCADA</td>
<td>$11,537,350</td>
<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>
<td>$3,827,500</td>
<td>$2,797,653</td>
<td>$-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>
<td>$0</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>
<td>$4,381,897</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>
<td>$5,000,000</td>
<td>$5,525,689</td>
<td>$525,689</td>
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<td>10</td>
<td>N/A</td>
<td>02/08/13</td>
<td>Allowance for Bonds, Insurance, and Contingency</td>
<td>$2,919,300</td>
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<td>11</td>
<td>03/06/13</td>
<td>06/17/13</td>
<td>Cathodic Protection System and Implementation</td>
<td>$977,590</td>
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<td>$-477,050</td>
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<td>11</td>
<td>03/06/13</td>
<td>06/17/13</td>
<td>Fiber Optic Cable Install</td>
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<td>$498,852</td>
<td>$56,239</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>
<td>$250,000</td>
<td>$397,836</td>
<td>$147,836</td>
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</table>

**Current Total**: $297,982,083

**Current Total**: $276,756,368

**Difference**: $-19,225,715
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: 8%

REMARKS: The contractor continues to construct the dewatering system. Dredging is anticipated to begin in March.

BID AMOUNT: $1,762,206.00
CHANGE ORDERS: 1 - $56,033.75
Current Contract Amount: $1,818,239.75
Amount Earned to Date: $542,877.00
% Contract Amount Earned: 30%

PROJECT NO. 276
WYLIE WATER TREATMENT PLANT FINISHED WATER RESERVOIR & 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: 23%

REMARKS: Excavation for the new clearwell is underway and the concrete batch plant has been set up. Baffle wall materials have been received for several of the clearwell improvements and are awaiting opportunities for clearwell shutdowns.

BID AMOUNT: $14,720,800.00
CHANGE ORDERS: 1 - ($568,496.03)
CURRENT CONTRACT AMOUNT: $14,152,303.97
AMOUNT EARNED TO DATE: $1,754,948.36
% CONTRACT AMOUNT EARNED: 12%

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: 36%

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 underdrain installation is underway. Filter No. 21 at Plant II requires extensive structural repairs. The repairs required at the east end of Filter
No. 21 are 95% complete and only lack installation of a short section of Combi-Flex, which cannot be installed until the new concrete has cured sufficiently. 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.

**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

TIME Lapsed: 129%

REMARKS: The contractor has completed the punchlist for the project. Previously, the contractor requested 53 additional calendar days for final completion, which would put the final completion date at March 3rd. A recommendation will be presented for consideration at the March 2014 Board meeting for Change Order No. 2 and authorization to make final payment.

**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: 107%

REMARKS: This project is complete. Awaiting final invoice from engineering consultant in order to submit and invoice for reimbursement by the City of Wylie.

**PROJECT NO. 284**
WYLIE WTP's 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: 92%
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 clean up. A final walkthrough will be conducted in March.

<table>
<thead>
<tr>
<th>PROJECT: NO. 289</th>
<th>BID AMOUNT: $1,488,400.00</th>
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</thead>
<tbody>
<tr>
<td>SOUTH DELIVERY POINT IMPROVEMENTS, PRIORITY NO. 2</td>
<td>CHANGE ORDERS: NONE</td>
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<tr>
<td>CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC</td>
<td>CURRENT CONTRACT AMOUNT: $1,488,400.00</td>
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<tr>
<td>CONTRACT DATE: NOVEMBER 21, 2013</td>
<td>AMOUNT EARNED TO DATE: $0.00</td>
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<td>NOTICE TO PROCEED DATE: DECEMBER 9, 2013</td>
<td>% CONTRACT AMOUNT EARNED: 0%</td>
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<td>COMPLETION DATE: AUGUST 6, 2014</td>
<td>TIME LAPSED: 32%</td>
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</table>

REMARKS: During the month of February, the contractor continued to work on submittals.

<table>
<thead>
<tr>
<th>PROJECT NO. 293</th>
<th>BID AMOUNT: $2,799,880.00</th>
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<tbody>
<tr>
<td>BONHAM WATER TREATMENT PLANT SLUDGE LAGOON IMPROVEMENTS</td>
<td>CHANGE ORDERS: 1 - $171,098.00</td>
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<tr>
<td>CONTRACTOR: HARRISON WALKER &amp; HARPER, LP</td>
<td>CURRENT CONTRACT AMOUNT: $2,970,778.00</td>
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<td>CONTRACT DATE: APRIL 25, 2013</td>
<td>AMOUNT EARNED TO DATE: $2,046,098.05</td>
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<td>NOTICE TO PROCEED DATE: MAY 8, 2013</td>
<td>% CONTRACT AMOUNT EARNED: 69%</td>
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<tr>
<td>COMPLETION DATE: APRIL 3, 2014</td>
<td>TIME LAPSED: 88%</td>
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</tbody>
</table>

REMARKS: Sludge removal from original Lagoons 1 and 2 has been completed. Clay liner for new lagoon is complete 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.

<table>
<thead>
<tr>
<th>PROJECT NO. 296</th>
<th>BID AMOUNT: $318,975.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>WYLIE WATER TREATMENT PLANT IMPROVEMENTS FOR LAGOONS 1, 2, AND 3</td>
<td>CHANGE ORDERS: NONE</td>
</tr>
<tr>
<td>CONTRACTOR: PCL CONSTRUCTION, INC.</td>
<td>CURRENT CONTRACT AMOUNT: $318,975.00</td>
</tr>
<tr>
<td>CONTRACT DATE: SEPTEMBER 19, 2013</td>
<td>AMOUNT EARNED TO DATE: $84,495.68</td>
</tr>
<tr>
<td>NOTICE TO PROCEED DATE: OCTOBER 7, 2013</td>
<td>% CONTRACT AMOUNT EARNED: 26%</td>
</tr>
<tr>
<td>COMPLETION DATE: MAY 5, 2014</td>
<td>TIME LAPSED: 67%</td>
</tr>
</tbody>
</table>

REMARKS: The contractor installed 180 feet of the 12-inch decant line and rerouted a portion of the pipeline to avoid crossing direct-buried 25kV power lines.
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
COMPLETION DATE: JUNE 5, 2015

TIME LAPSED: 19%

REMARKS: The submittal process continues. Transformer T2, installed in 2009, was taken out of service and Transformers T3 and T4 have replaced T2 in service so the associated outdoor switchgear can be demolished. Indoor buss duct demolition has begun, and outdoor duct bank demolition has begun.

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: 116%

REMARKS: Contractor is currently scheduling startup of new equipment.

PROJECT No. 310
WYLIE-MCKINNEY 20-INCH WATERLINE RELOCATION AT STINSON ROAD

CONTRACTOR: DOWAGER UTILITY CONSTRUCTION, LTD.

CONTRACT DATE: JULY 25, 2013
NOTICE TO PROCEED DATE: AUGUST 1, 2013
COMPLETION DATE: FEBRUARY 27, 2014

TIME LAPSED: 100%

REMARKS: The contractor has completed the punchlist and the final walkthrough was performed on February 18. Authorization to make final payment was approved at the February 2014 Board meeting. This project is complete.
PROJECT NO. 312
LAKE TAWAKONI WATER TREATMENT PLANT
SLUDGE LAGOON IMPROVEMENTS

CONTRACTOR: CRESCEENT CONSTRUCTORS, INC.

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

TIME LAPPED: 8%

REMARKS: Excavation of the lagoon and sludge pumping station began February 17, 2014. A fiber optic line was damaged by the contractor, and repaired the same day, on February 27. Contractor continues to provide submittal information.

BID AMOUNT: $3,463,000.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $3,463,000.00
AMOUNT EARNED TO DATE: $112,325.00
% CONTRACT AMOUNT EARNED: 3%

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

CONTRACTOR: LEWIS CONTRACTORS, INC.

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

TIME LAPPED: 86%

REMARKS: The tunnel liner work was successfully completed during the scheduled Texoma pipeline shutdown in January. In February, Lewis Contractors worked on restoration, and the Board authorized final payment.

BID AMOUNT: $165,000.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $165,000.00
AMOUNT EARNED TO DATE: $156,750.00
% CONTRACT AMOUNT EARNED: 95%

PROJECT NO. 318
WYLIE NO. 3 DELIVERY POINT METERING STATION UPGRADE

CONTRACTOR: CRESCEENT CONSTRUCTORS, INC.

DATE: NOVEMBER 21, 2013
NOTICE TO PROCEED DATE: DECEMBER 12, 2013
COMPLETION DATE: JULY 10, 2014

TIME LAPPED: 40%

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 after end of the normal shutdown window (May 15). Delivery of the flow control valve has the potential to delay installation until this Fall when acceptable water usage rates would again allow for a shutdown.

BID AMOUNT: $250,000
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $250,000.00
AMOUNT EARNED TO DATE: $15,085.00
CONTRACT AMOUNT EARNED: 6%
PROJECT NO. 320
WYLIE WATER TREATMENT PLANT II
IMPROVEMENTS FOR BASINS 3 AND 4

CONTRACTOR: BAR CONSTRUCTORS, INC.

CONTRACT DATE: OCTOBER 17, 2013

NOTICE TO PROCEED DATE: NOVEMBER 4, 2013

ORIGINAL COMPLETION DATE: JANUARY 22, 2015

TIME LAPSED: 27%

REMARKS: One of the two 30-inch bores under Basin No. 5 is complete and the 16-inch pipe has been inserted and pressure tested. The second bore under Basin No. 5 is currently about 60% complete. The bore under the wall between Basins Nos. 3 and 4 has been completed and the pipe has been inserted and grouted. The 24-inch sludge line east of Basin No. 5 has been rerouted to allow space for the 120-inch manhole to be installed. The drive shafts for the flocculators have been removed to allow replacement of the stuffing boxes.

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: 113%

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

CONTRACTOR: LEGACY CONTRACTING, LP

CONTRACT DATE: SEPTEMBER 19, 2013

NOTICE TO PROCEED DATE: NOVEMBER 12, 2013

COMPLETION DATE: JULY 10, 2014

TIME LAPSED: 45%

REMARKS: Contractor has completed excavation for vault and begun form work. Submittal process is near completion.
**PROJECT NO. 227A**  
**UPPER WHITE ROCK CREEK PARALLEL FORCE MAIN**  
**CONTRACTOR:** S.J. LOUIS CONSTRUCTION OF TX, LTD  
**CONTRACT DATE:** FEBRUARY 28, 2013  
**NOTICE TO PROCEED DATE:** MARCH 21, 2013  
**ORIGINAL COMPLETION DATE:** FEBRUARY 24, 2014  
**REVISED COMPLETION DATE:** APRIL 20, 2014  
**TIME LAPSED:** 87%  
**REMARKS:** During the month of February, S.J. Louis continued the construction of the valve vault. S.J. Louis also replaced a section of pipe rail fence, replaced a park bench, seeded, and continued restoration.

<table>
<thead>
<tr>
<th>CHANGE ORDERS</th>
<th>AMOUNT</th>
<th>TIME EXTENSION</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>$142,269.74</td>
<td>-25 Days</td>
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<tr>
<td>2</td>
<td>$(41,368.09)</td>
<td>-30 Days</td>
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**BID AMOUNT:** $3,099,488.48  
**CURRENT CONTRACT AMOUNT:** $3,200,390.13  
**AMOUNT EARNED TO DATE:** $2,921,560.09  
**% CONTRACT AMOUNT EARNED:** 91%

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**PROJECT NO. 227B**  
**UPPER WHITE ROCK CREEK LIFT STATION IMPROVEMENTS**  
**CONTRACTOR:** ARCHER WESTERN CONSTRUCTION, LLC  
**CONTRACT DATE:** MARCH 28, 2013  
**NOTICE TO PROCEED DATE:** MAY 1, 2013  
**ORIGINAL COMPLETION DATE:** MAY 26, 2014  
**REVISED COMPLETION DATE:** SEPTEMBER 1, 2014  
**TIME LAPSED:** 62%  
**REMARKS:** During February, Archer Western mobilized to the site and started removing the jogging path.

<table>
<thead>
<tr>
<th>CHANGE ORDERS</th>
<th>AMOUNT</th>
<th>TIME EXTENSION</th>
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<tbody>
<tr>
<td>1</td>
<td>$(219,000.00)</td>
<td>-98 Days</td>
</tr>
<tr>
<td>2</td>
<td>$178,041.56</td>
<td>-98 Days</td>
</tr>
</tbody>
</table>

**BID AMOUNT:** $2,060,950.00  
**CURRENT CONTRACT AMOUNT:** $2,017,991.56  
**AMOUNT EARNED TO DATE:** $46,350.00  
**% CONTRACT AMOUNT EARNED:** 2%

---

**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:** 120%  
**REMARKS:** Insituform performed improvements to 11 manholes and continued restoration.

<table>
<thead>
<tr>
<th>CHANGE ORDERS</th>
<th>AMOUNT</th>
<th>TIME EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$24,896.50</td>
<td></td>
</tr>
</tbody>
</table>

**BID AMOUNT:** $2,686,876.00  
**CURRENT CONTRACT AMOUNT:** $2,711,772.50  
**AMOUNT EARNED TO DATE:** $2,360,929.55  
**% CONTRACT AMOUNT EARNED:** 87%
### 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:** 196%

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

**BID AMOUNT:** $1,633,117.20  
**CHANGE ORDERS:** 1 - $48,680.00  
Time Ext.-.40 Days  
2 - (87,681.20)  
Time Ext.-.64 Days  
**CURRENT CONTRACT AMOUNT:** $1,594,116.00  
**AMOUNT EARNED TO DATE:** $1,594,116.00  
**% CONTRACT AMOUNT EARNED:** 100%

### 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:** 39%

**REMARKS:** Contractor has installed concrete for the vault foundation slab and walls.

**BID AMOUNT:** $2,070,000.00  
**CHANGE ORDERS:** NONE  
**CURRENT CONTRACT AMOUNT:** $2,070,000.00  
**AMOUNT EARNED TO DATE:** $791,181.84  
**% CONTRACT AMOUNT EARNED:** 38%

### 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:** 99%

**REMARKS:** Overhead pole line construction is basically complete with all equipment mounted and overhead conductors in place and properly tensioned. Overhead transformers for reclosers are to be installed and final miscellaneous connections are yet to be finished. Switchgear and generator submittals have been approved and released for shipment.

**BID AMOUNT:** $4,664,000.00  
**CHANGE ORDERS:** NONE  
**CURRENT CONTRACT AMOUNT:** $4,664,000.00  
**AMOUNT EARNED TO DATE:** $1,778,591.00  
**% CONTRACT AMOUNT EARNED:** 38%
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: 97%

REMARKS: S.J. Louis is working on getting the materials needed for eliminating an aerial creek crossing on a connecting lateral.

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

CONTRACTOR: ARCHER WESTERN CONSTRUCTION

CONTRACT DATE: AUGUST 22, 2013
NOTICE TO PROCEED: SEPTEMBER 9, 2013
COMPLETION DATE: AUGUST 5, 2014
TIME LAPSED: 52%

REMARKS: Archer Western has installed the new surge relief piping, installed two 16-inch plug valves on the discharge header, and relocated the existing surge relief valve. They have started installing the odor control piping. Their masonry subcontractor has completed the electrical building walls. The electrical subcontractor has finished installing the duct banks and installed the grounding grid around the electrical building.

PROJECT NO. 270
SOUTH MESQUITE CREEK REGIONAL WASTEWATER TREATMENT PLANT AERATION SYSTEM IMPROVEMENTS, PHASE 1

CONTRACTOR: GRACON CONSTRUCTION

CONTRACT DATE: SEPTEMBER 19, 2013
NOTICE TO PROCEED: OCTOBER 15, 2013
COMPLETION DATE: FEBRUARY 7, 2015
TIME LAPSED: 28%

REMARKS: Gracon Construction started excavating for Blower Building No. 1, the electrical building, and the transformer pad.
PROJECT NO. 278
WILSON CREEK GRAVITY INTERCEPTOR IMPROVEMENTS
PHASE 1
CONTRACTOR: INSITUFORM TECHNOLOGIES, LLC
CONTRACT DATE: AUGUST 22, 2013
NOTICE TO PROCEED DATE: SEPTEMBER 11, 2013
COMPLETION DATE: JUNE 8, 2014
REVISED COMPLETION DATE: NOVEMBER 5, 2014
TIME LAPSED: 41%
REMARKS: Insituform continued the submittal process.

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%

PROJECT NO. 279
UPPER EAST FORK INTERCEPTOR SYSTEM
FUGITIVE EMISSIONS CONTROL
CONTRACTOR: ARCHER WESTERN CONSTRUCTION, LLC
CONTRACT DATE: DECEMBER 19, 2013
NOTICE TO PROCEED DATE: JANUARY 13, 2014
COMPLETION DATE: DECEMBER 9, 2014
TIME LAPSED: 14%
REMARKS: Contractor is working on submittals.

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%

PROJECT NO. 280
FLOYD BRANCH RWTP
ODOR CONTROL IMPROVEMENTS
CONTRACTOR: CRESCENT CONSTRUCTORS, INC.
CONTRACT DATE: JANUARY 24, 2013
NOTICE TO PROCEED DATE: FEBRUARY 6, 2013
ORIGINAL COMPLETION DATE: MARCH 13, 2014
REVISED COMPLETION DATE: APRIL 2, 2014
TIME LAPSED: 91%
REMARKS: A final walkthrough was conducted and Crescent completed all construction activity. Final manuals are being processed.

BID AMOUNT: $817,000.00
CHANGE ORDERS: 1 - $18,223.00
Time Ext.-20 Days
CURRENT CONTRACT AMOUNT: $835,223.00
AMOUNT EARNED TO DATE: $835,223.00
% CONTRACT AMOUNT EARNED: 100%
PROJECT NO. 288
SOUTH MESQUITE CREEK RWWTP SOLIDS
BUILDING ODOR CONTROL IMPROVEMENTS

CONTRACTOR: ASSOCIATED CONSTRUCTION PARTNERS

BID AMOUNT: $1,699,200.00
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $1,699,200.00
AMOUNT EARNED TO DATE: $535,510.80
CONTRACT AMOUNT EARNED: 32%

NOTICE TO PROCEED: JUNE 19, 2012
COMPLETION DATE: JUNE 14, 2014
TIME LAPSED: 71%

REMARKS: Associated Construction Partners (ACP) is working on installing the wear plates and relocating the drains in Sludge Loading Bay Nos. 3 and 4. They are preparing the subgrade for the odor control equipment foundation. ACP has removed the existing makeup air unit and installed the fresh air duct in the belt filter press area. The electrical subcontractor replaced one set of feeders and set two trip units for the solids building motor control center.

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

CONTRACTOR: BIG SKY CONSTRUCTION CO.

BID AMOUNT: $1,439,000.34
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $1,439,000.34
AMOUNT EARNED TO DATE: $227,972.00
CONTRACT AMOUNT EARNED: 16%

NOTICE TO PROCEED: JANUARY 22, 2014
FINAL COMPLETION DATE: DECEMBER 18, 2014
TIME LAPSED: 11%

REMARKS: Big Sky cleared the trees, prepared the subgrade, and drilled and poured the foundation piers. They installed the 3-inch waterline, 6-inch sanitary sewer line, and the 12-inch storm drain. They also worked on forming up the grade beams for the slab.

PROJECT NO. 300
ASAP GRAVITY INTERCEPTOR IMPROVEMENTS,
SECTION 2 and 3

CONTRACTOR: INSITUFORM TECHNOLOGIES, LLC

BID AMOUNT: $3,272,042.25
CHANGE ORDERS: NONE
CURRENT CONTRACT AMOUNT: $3,272,042.25
AMOUNT EARNED TO DATE: $0.00
% CONTRACT AMOUNT EARNED: 0%

NOTICE TO PROCEED DATE: NOVEMBER 19, 2013
COMPLETION DATE: JULY 17, 2014
TIME LAPSED: 42%

REMARKS: 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: 25%  
REMARKS: Fuquay continued the submittal process.

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**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: 88%  
REMARKS: The contractor has applied for a building permit with the City of Melissa (City). All submittals, except the pre-engineered building submittal, have been approved. The City Fire Marshall has requested modifications to the current fire suppression design. The engineer is currently revising the design to accommodate the Fire Marshall’s requests. Once the design is approved by the City, the contractor will reapply for the building permit.

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<table>
<thead>
<tr>
<th>TOTAL VALUE - ALL PROJECTS</th>
<th>$602,332,842.17</th>
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<tbody>
<tr>
<td>TOTAL EARNED - ALL PROJECTS</td>
<td>$511,438,105.12</td>
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</table>
NORTH TEXAS MUNICIPAL WATER DISTRICT

MINUTES – WATER COMMITTEE MEETING
HELD FEBRUARY 27, 2014, AT 12:30 P.M.
ADMINISTRATIVE OFFICES, WYLIE, TEXAS

Director Terry Anderson called the meeting of the NTMWD Water Committee to order at approximately 12:30 p.m. on Thursday, February 27, 2014.

Members present included Chairman Terry Anderson, John Sweeden, Bob Thurmond, Larry Parks, Don Gordon, and Richard Sheehan. Director Shep Stahel arrived late. President Bill Lofland, Vice President Darwin Whiteside, Secretary Joe Joplin, Past President Charles McKissick, and Directors Joe Farmer, and James Kerr were also present. NTMWD staff present included Jim Parks, Joe Stankiewicz, Judd Sanderson, Bently Powell, Robert McCarthy, Erik Felthous, Denise Hickey, Tiffany Currie, and Melisa Fuller. Shannon Kackley of Gay, McCall, Isaacks, Gordon and Roberts, PC, was also present.

I. ACTION ITEMS

A. Consider Approval of Water Committee Meeting Minutes – November 21, 2013

Upon a motion by Director John Sweeden and a second by Director Bob Thurmond, the Board of Directors voted unanimously to approve the Water Committee meeting minutes of November 21, 2013.

B. Discuss and Possible Action on Alternatives for Raw Water Supply Before 2020 and Beyond

Jim Parks and Joe Stankiewicz reviewed the alternatives for raw water supply before 2020 and beyond including:

- Dallas Interim Purchase
- Lake Texoma Pipeline
- Dredging Lavon and Chapman
- Main Stem Pump Station
- Lower Bois d’Arc Creek Reservoir (LBDCR)

Joe Stankiewicz reviewed the projected NTMWD demands and supplies in years 2017-2020. Mr. Stankiewicz advised of the shortfall of supply in 2017 of 25 MGD and up to 45 MGD in 2020.

Joe reviewed the possibility of extending the Dallas interim water purchase through 2020. No new infrastructure is needed and it is the least cost alternative; however, drought conditions may cause Dallas not to extend.

Joe reviewed the option of the Main Stem Pump Station, which would replace the Dallas interim water purchase. This option requires permit, pipeline, pump
station, and contracts for additional supply. The estimated capital cost is $95M ($0.010/1,000 – rate impact). NTMWD would finance the project and negotiate reimbursement of the cost from Dallas. This option would take 2.5 years to complete.

Joe reviewed the desalination option of Texoma raw water supply. The total water right is 197,000 af/yr or 176 MGD. Blending of 84,000 af/yr or 75 MGD could start in two months. A permit has been submitted to TCEQ for a plant that would produce 50 MGD. In order to produce 50 MGD, a plant capacity of 60 MGD is needed. The projected future blend with LBDCR is 41 MGD or 45,800 af/yr.

Joe reviewed the following considerations with desalination of Texoma water supply:

- Construct desalination WTP near Texoma Pump Station
- Parallel pipe from Texoma PS to plant to produce 50 MGD (67,200 af/yr)
- Treated water pipeline from WTP to McKinney
- Permit difficult and uncertain for 60 MGD probably not possible for 100 MGD
- $582 M capital cost ($0.50 - $0.60/1,000 – rate impact
- 3 year schedule (optimistic)

The NTMWD staff recommended path forward is to pursue an extension of Dallas interim water and concurrently commence Main Stem Pump Station project. Joe reviewed the proposed development sequences as follows:

- Extend Dallas Interim Purchase through 2020
- Main Stem Pump Station
- LBDCR and Leonard Water Treatment Plant
- Blend Texoma with LBDCR
- Desalination of 60 MGD Texoma water

- Main Stem Pump Station by 2017
- LBDCR and Leonard Water Treatment Plant
- Blend Texoma with LBDCR
- Desalination of 60 MGD Texoma Water


Jim Parks reviewed the Water Conservation and Water Resource Management Plan Update and revised Administrative Memorandum No. 4129. Mr. Parks
advised that the TCEQ requires plans be updated every 5 years, which are due May 2014. NTMWD Plan updates have been completed. Public comments were taken on February 19, 2014, with Board consideration February 2014. Mr. Parks discussed NTMWD's two separate plans: Water Conservation Plan and Water Resource Management Plan. The Water Conservation Plan includes water efficient measures that are in place at all times. The Water Resource Management Plan has a start and end date and will be initiated in response to drought, loss of supply, or interruption of service. Mr. Parks advised that the NTMWD staff has been working with other suppliers and cities for regional consistency in Water Conservation and Drought Contingency Plans.

Mr. Parks reviewed the key amendments to the plan that include:

- Reduction to three stages versus four stages
- Removed voluntary stage

The three stages include:

Stage 1
- Twice per week
- 5% reduction

Stage 2
- Once per week
- 10% reduction

Stage 3
- No outdoor watering permitted
- 33% reduction or as needed

Mr. Parks reviewed the differences from the 2008 Plans and the proposed 2014 Plans as well as variances and exceptions to the plans.

Jim reviewed the concerns of the Member Cities, which included:

- May 2014 Plans must be submitted
- NTMWD, NTMWD Members and Customers will still be in current Plan Stage 3
- Concern is how to transition to newly amended Plans to have least amount of consumer confusion

Mr. Parks advised that in response to the Member City concerns, the proposed changes will not take effect until after the current drought has ended.

Upon a motion by Director Bob Thurmond and a second by Director Bob Thurmond, the Water Committee voted unanimously to recommend to the Board of Directors taking the following action: amending and renaming NTMWD's Water Conservation and Drought Contingency/Water Emergency Response

D. Consider Recommendation on Authorizing Reimbursement to Grayson County for Road Damage, Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline (Please refer to Administrative Memorandum No. 4146)

Joe Stankiewicz reviewed the proposed reimbursement to Grayson County for road damage, Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline. Mr. Stankiewicz advised that NTMWD previously executed an Interlocal Cooperation Agreement with Grayson County, which addressed open cut and county roads and reimbursing Grayson County for damage due to pipe, material, and equipment deliveries. The project impacted 17 county roads totaling 23 miles. The roads have been inspected by the County Commissioner, NTMWD, FNI, and Garney. The NTMWD staff recommended reimbursement in the amount of $793,700.

Upon a motion by Director Larry Parks and a second by Director Bob Thurmond, the Water Committee voted unanimously to recommend to the Board of Directors authorizing reimbursement to Grayson County for road damage in the amount of $793,700.

E. Consider Recommendation on Authorizing Execution of Engineering Services Agreement on Project No. 330, Wylie Water Treatment Plant II Clearwell and Disinfection Modifications (Please refer to Administrative Memorandum No. 4147)

Joe Stankiewicz reviewed Project No. 330, Wylie WTP II Clearwell and Disinfection Modifications.

Upon a motion by Director John Sweeden and a second by Director Don Gordon, the Water Committee voted unanimously to recommend to the Board of Directors authorizing execution of engineering services agreement on Project No. 330.

II. DISCUSSION ITEMS

A. Discuss Repairs Necessary to the Cooper Pipeline Near FM 3218 in Commerce, Texas, and Repair Cost Recovery

Joe Stankiewicz reviewed the repairs necessary to the Cooper Pipeline near FM 3218 in Commerce, Texas, and the proposed repair cost recovery.
III. ADJOURNMENT

There being no further business, the meeting of the Water Committee adjourned at approximately 2:40 p.m. The Chairman will call the next meeting of the Water Committee with proper notification to all members.

TERRY ANDERSON
Chairman
NORTH TEXAS MUNICIPAL WATER DISTRICT

MINUTES OF FINANCE/AUDIT COMMITTEE MEETING
HELD ON THURSDAY, FEBRUARY 27, 2014, AT 2:30 P.M.
IN THE NTMWD ADMINISTRATIVE OFFICES, WYLIE, TEXAS

Chairman John Sweeden called the meeting of the Finance/Audit Committee to order at approximately 2:40 p.m. on Thursday, February 27, 2014, in the Administrative Offices in Wylie, Texas.

Finance/Audit Committee members in attendance included Chairman John Sweeden, Directors Joe Farmer, Don Cates, Terry Anderson, Shep Stahel, Don Gordon, and Marvin Fuller. NTMWD Board President Bill Lofland, Vice President Darwin Whiteside, Secretary Joe Joplin, Past President Charles McKissick, Directors James Kerr, Larry Parks, and John Murphy also attended. NTMWD staff in attendance included Jim Parks, Judd Sanderson, Eric Felthous, John Montgomery, and Melissa Fuller. Shannon Kackley of Gay, McCall, Isaacks, Gordon & Roberts; Jack Brown, Ken Brown, and Peter Ruth of Maplewood Advisors, Inc.; and Kim Calhoun of Westwood Holdings Group, Inc., were also in attendance.

I. ACTION ITEMS

A. Consider Approval of Minutes – February 1, 2014

Upon a motion by Director Don Cates and a second by Director Joe Farmer, the Finance/Audit Committee voted unanimously to approve the minutes of the meeting held on February 1, 2014.

B. Review NTMWD Employees’ Retirement Program

Judd Sanderson reviewed a handout summarizing the NTMWD’s Employees’ Retirement Program.

C. Review and Possible Action on 2013 Retirement Fund Investment Performance by Maplewood Advisors, Inc.

Peter Ruth of Maplewood reviewed Maplewood’s handout detailing the 2013 retirement plan fund portfolio and performance. Mr. Ruth reviewed the 2013 return of investments, which resulted in a 16.6% annual return and ending balance of $27,486,351. Ken Brown reviewed Maplewood’s investment with American Funds and details of Maplewood’s investment portfolio.

On a motion by Director Shep Stahel and a second by Director Joe Farmer, the Finance/Audit Committee voted unanimously to receive the financial report on the 2013 Retirement Fund Investment Performance as submitted by Maplewood Advisors, Inc.
D. Review and Possible Action on 2013 Retirement Fund Investment Performance by Westwood Holdings Group, Inc.

Kim Calhoun from Westwood provided a handout detailing the 2013 retirement plan fund portfolio and performance. Ms. Calhoun reviewed details of Westwood's portfolio and the 2013 return of investments, which resulted in a 16.5% annual return and ending balance of $26,965,269.

On a motion by Director Shep Stahel and a second by Director Don Gordon, the Finance/Audit Committee voted unanimously to receive the financial report on the 2013 Retirement Fund Investment Performance as submitted by Westwood Advisors, Inc.

E. Review and Possible Action on 2013 Retiree Health Insurance Fund Investment Performance by Westwood Holdings Group, Inc.

Kim Calhoun of Westwood provided a handout detailing the 2013 NTMWD Employee Retiree Health Insurance program fund. Since its inception in September 2013, the fund has achieved a 6.1% return and had an ending balance of $3,358,484.

On a motion by Director Shep Stahel and a second by Director Don Cates, the Finance/Audit Committee voted unanimously to receive the financial report on the 2013 Retiree Health Insurance Fund Investment Performance as submitted by Westwood Advisors, Inc.

F. Review and Possible Action on Performance of Investment Managers

On a motion by Director Don Cates and a second by Director Don Gordon, the Finance/Audit Committee voted unanimously to continue to invest funds with Maplewood Advisors, Inc., and Westwood Holdings Group, Inc.

II. ADJOURNMENT

There being no further business, the meeting adjourned at 3:40 p.m. The next meeting of the Finance/Audit Committee will be called by the Chairman with proper notification to all members.

JOHN SWEEDEN
Chairman