

MINUTES OF MEETING OF THE
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY

September 11, 2017

The Board of Directors (the "Board") of the North Harris County Regional Water Authority (the "Authority") met in regular session, open to the public, at 6:00 p.m. on Monday, the 11th day of September, 2017, at the Authority's office located at 3648 Cypress Creek Parkway, Suite 110, Houston, Texas, a public meeting place within the boundaries of the Authority; whereupon, the roll was called of the duly constituted officers and members of the Board, to-wit:

Alan J. Rendl	President
Kelly P. Fessler	Vice President
Lenox A. Sigler	Secretary
Ron Graham	Assistant Secretary
Jim Pulliam	Treasurer/Investment Officer

All members of the Board were present, except Director Fessler, thus constituting a quorum. Also attending the meeting were: Mr. Jimmie Schindewolf, P.E., General Manager for the Authority; Mr. Jun Chang, P.E., D.WRE, Deputy General Manager for the Authority; Mr. Mark Evans, Director of Planning and Governmental Affairs for the Authority; Ms. Cynthia Plunkett, Financial Assistant for the Authority; Ms. Krystal Boggs, Administrative Assistant for the Authority; Messrs. Stephen Berckenhoff, P.E., Michael Baugher, P.E.; Dan Edwards, P.E. and Doug Haude, P.E., of AECOM Technical Services, Inc. ("AECOM"), Program Manager for the Authority; Mr. Brian Cunningham of Project Surveillance, Inc., a subcontractor to AECOM and project representative on several Authority projects; Mr. Wendell L. "Buddy" Barnes, P.E., of ARCADIS US, Inc., on-call engineers for the Authority; Mr. Tobin Synatschk, P.E., of Jones Carter, Inc., on-call engineers for the Authority; Ms. Giti Zarinkelk, P.E., and Mr. Michael Bagstad, P.E., of Zarinkelk Engineering Services, Inc., on call engineers for the Authority; Mr. Dennis Sander, P.E., of Sander Engineering Corporation, on-call engineers for the Authority; Mr. Alan Hutson, P.E., of Freese and Nichols, Inc., on-call engineers for the Authority; Mr. Charles Shumate, P.E., of Lockwood Andrews & Newnam, Inc.; Mr. W. John Seifert, P.E., of LBG-Guyton Associates, on-call engineers for the Authority; Mr. Carlton McDevitt of Severn Trent Environmental Services, Inc. ("STES"), operator for the Authority; Mr. Eugene Shepherd of RBC Capital Markets ("RBC"), co-financial advisor to the Authority; and Mr. Jonathan D. Polley, attorney, and Ms. Alison Miller, paralegal, of Radcliffe Bobbitt Adams Polley PLLC, general counsel and co-bond counsel for the Authority. Numerous members of the public and other consultants to the Authority were also present at the meeting. Copies of the sign-in sheets for those in attendance at the meeting are attached hereto.

WHEREUPON, the meeting was called to order and evidence was presented that public notice of the meeting had been given in compliance with the law. The posted notices of the meeting are attached hereto.

PRESIDENT'S MESSAGE

Director Rendl first called for a moment of silence to honor the first responders and victims of the terror attacks on September 11, 2001.

Director Rendl then explained that Mr. Shepherd is retiring from RBC after 60 years with the company. Director Rendl wished Mr. Shepherd a very long and enjoyable retirement. Mr. Schindewolf then stated that he has worked with Mr. Shepherd for 43 years and that Mr. Shepherd has done a great job for the Authority. Mr. Schindewolf expressed his thanks to Mr. Shepherd for all of his hard work on behalf of the Authority. Ms. Plunkett then thanked Mr. Shepherd for all of his guidance and advice over the years. Mr. Shepherd next addressed the Board and stated that it has been a blessing and honor to be a part of the Authority.

PUBLIC COMMENTS

Director Rendl noted that no public comment cards had been received.

REPORTS

STATUS OF ACTIVITIES BY COMMUNICATIONS / PUBLIC INFORMATION COORDINATOR

In the absence of Ms. Payne, Director Rendl reported on the status of activities by the Communications/Public Information Coordinator. A copy of the PowerPoint presentation is attached as an exhibit to these minutes.

Director Rendl next reported that he will be giving a presentation at an upcoming AARP meeting on Tuesday, September 19th.

GENERAL MANAGER'S REPORT

Mr. Schindewolf stated that there was nothing new to report regarding the status of the Authority's State Water Implementation Revenue Fund for Texas ("SWIRFT") Financial Assistance Applications.

PROGRAM MANAGER'S REPORT

In the absence of Mr. Rolen, Mr. Berckenhoff first reviewed the Program Manager's Report with the Board, a copy of which is included behind Tab 3 of the meeting packet and is attached hereto.

UPDATE ON STATUS OF SURFACE WATER CONVERSION

Mr. Berckenhoff reported that the Spears Road Regional Pump Station delivered a daily average rate of approximately 27.4 million gallons per day of surface water during August. Mr. Berckenhoff added that the alternative water used in July was approximately 30.8%, as compared to 32% in June.

Mr. Berckenhoff further explained that during July, approximately 67.7% of the water used by the Public Water Systems (the "PWSs") in the Authority's 2010 service area was Alternative Water.

MAJOR ACTIVITIES

Concerning other activities, Mr. Berckenhoff reported that during the prior month, AECOM had assisted the Authority with the following items: 1) implementing and performing tasks regarding its aggregate water well permit (the "Permit"); 2) assisted the Authority in a variety of activities involving the City of Houston (the "City"); 3) continued oversight of engineering and acquisition related efforts; 4) provided oversight of STES's activities and its contract to operate the Authority's system; and 5) monitored, tabulated and analyzed amounts of water used by the PWSs covered by the Authority's Permit and, where necessary and practical, in consort with STES and the respective PWS operators and took appropriate actions to optimize the use of surface water.

LUCE BAYOU INTERBASIN TRANSFER PROJECT (THE "LUCE BAYOU PROJECT") UPDATE

Concerning the Luce Bayou Project, Mr. Berckenhoff reported the following items: 1) the Coastal Water Authority (the "CWA") accepted the bid and approved execution of the contract from Thalle Construction for construction of the dual 96-inch transmission lines, in the approximate amount of \$43 million, at the CWA Board meeting held on August 9, 2017; 2) on August 21, 2017 the CWA issued a notice to proceed to Teal Construction for construction of the Luce Bayou Project Maintenance Facility; 3) testing of on-site batch plant at Capers Ridge Pump Station is underway and installation of the 65-foot H-piles is ongoing, with 195 of 216 H-piles already installed; 4) construction of all five (5) canal segments is ongoing, including installation of the 96-inch inverted siphons, sedimentation basin boat ramp, box culvert bridges, dredge dewatering basin and sedimentation parshall flume; 5) Sam Houston Electric Coop ("SHEC") continues construction of the electrical substation at the pump station site; and 6) SHEC anticipates both the substation and transmission lines to be completed no later than January 2018.

THE NORTHEAST WATER PURIFICATION PLANT (THE "NEWPP") EXPANSION PROJECT UPDATE

Mr. Berckenhoff next reported that the City continues to transition the Project Director duties to Mr. Ravi Kaleyatodi. Mr. Berckenhoff went on to report that the City continues to work with the United States Army Corps of Engineers (the "USACE") and the Texas Commission on Environmental Quality on the pending record of decision regarding the 404 permit for the NEWPP Expansion Project. Mr. Berckenhoff further explained that the USACE has made a determination on the amount of environmental mitigation credits needed to satisfy the permit requirement for the NEWPP Expansion project. Mr. Berckenhoff went on to report that the City and the Houston Waterworks Team (the "HWT") are continuing negotiations to establish a Guaranteed Maximum Price for Early Work Package ("EWP") 1 which is for the site development. Mr. Berckenhoff added that the HWT is continuing its design document development and submittals, including the Balance of Plant design and EWPs, and the City has

provided comments to the HWT for various recently submitted EWP design documents. Mr. Berckenhoff further reported that the City and the HWT have participated in a series of Guiding Principles workshops. Mr. Berckenhoff then noted that the City has developed the Project Cash Flow Projections which provide an estimate of funding needs at key points of the NEWPP Expansion Project.

NORTHEAST TRANSMISSION LINE (THE "NETL") PROJECT UPDATE

Mr. Berckenhoff next reported that the advertise/bid phases are pending for two (2) 108-inch (108") sections of the NETL Project and the 54-inch (54") interconnect line. Mr. Berckenhoff further informed the Board that acquisition of the necessary right-of-way easements is proceeding forward on several segments of the NETL and that design work is progressing on nine (9) additional sections of the NETL, including one (1) 120-inch (120") section, and eight (8) 108-inch (108") sections of such line. Mr. Berckenhoff also reported that City Council recently approved the contract amendment for design of the 66-inch interconnect line. Mr. Berckenhoff added that Construction Review Committee meetings had been held for three (3) sections of the line.

Mr. Berckenhoff next reported on the impact of Hurricane Harvey within the Authority's boundaries. Mr. Berckenhoff stated that over a 96-hour period, approximately 168 billion gallons of rain fell within the Authority. Mr. Berckenhoff commended Severn Trent and Mr. McDevitt for their preparations and handling of the Authority's facilities during Hurricane Harvey. Mr. Berckenhoff went on to report that three (3) SCADA panels were damaged as a result of Hurricane Harvey, but that there has been no erosion, subsidence or sinkholes develop as a result of all of the rainfall. Mr. Schindewolf then stated that Mr. Berckenhoff and Mr. Chang were also responsible for keeping the Authority's systems operational, and that they all did a great job along with Severn Trent. Mr. Chang then reported that the City had first notified the Authority that they were unable to backwash the filter at the City's NEWPP due to flooding and that the production from the NEWPP was reduced to below 30 million gallons per day. The NEWPP may be forced to shut down if the plant kept flooded. However, the City was able to engage contractors and built an aqua dam (also known as tiger dam), which consisted of a plastic tube filled with water, while AECOM provided pumps to pump out the water which enabled the NEWPP to resume operations. Director Graham asked how long the water delivery reduction from the NEWPP lasted. Mr. Chang responded that the reduction in supply from the City that really impacted the Authority lasted about six (6) to seven (7) days. Mr. Chang further reported that the City's other water plant facilities were not affected. Discussion ensued regarding improvements and design considerations for the NEWPP Expansion Project. Director Graham then asked about the current quality of water in Lake Houston. Mr. Berckenhoff stated that Lake Houston currently has a very high turbidity level and low alkalinity, which is very difficult to treat. However, the treated water the Authority received from the City from the NEWPP had been, and continued to be in good quality. Mr. McDevitt then reported that the City has communicated very carefully with the Authority regarding the NEWPP operation issues, and the Authority received good cooperation from every operating company that handles utility districts within the Authority's boundaries during Hurricane Harvey.

ATTORNEY'S REPORT

Mr. Polley stated that he had nothing to report at this time.

REGULAR AGENDA

APPROVAL OF MINUTES

The Board next considered approval of the minutes of the August 7, 2017 regular meeting. Upon motion by Director Graham, seconded by Director Pulliam, after full discussion and the question being put to the Board, the Board voted unanimously to approve the minutes of the August 7, 2017 regular meeting, as written.

FINANCIAL ASSISTANT'S REPORT, INCLUDING APPROVE PAYMENT OF BILLS, ISSUANCE OF CHECKS, REVIEW BUDGET COMPARISON, AND REPORT ON STATUS OF PAYMENTS OF QUARTERLY PUMPAGE FEES

Director Rendl then recognized Ms. Plunkett, who reviewed the Authority's Financial Report with the Board, including the monthly investment report, the checks being presented for payment, and the budget comparison for the month ended July 31, 2017, a copy of which is included behind Tab 5 of the meeting packet and is attached hereto. Upon motion by Director Sigler, seconded by Director Pulliam, after full discussion and the question being put to the Board, the Board voted unanimously to approve the Financial Report, the monthly investment report, and the checks being presented for payment.

CONFIRM UPCOMING MEETING DATE

Director Rendl then reminded the meeting attendees that the Authority's next regular meeting will be held on Monday, October 2, 2017, at 6:00 p.m. at the Authority's office.

PUBLIC COMMENTS

Mr. Schindewolf then stated that Mr. Haude also played an instrumental role to the Authority during Hurricane Harvey.

There being no further business to come before the Board, the meeting was adjourned.

PASSED, APPROVED AND ADOPTED this 2nd day of October, 2017.



Secretary, Board of Directors