

OKLAHOMA WATER RESOURCES BOARD

OFFICIAL MINUTES

June 19, 2018

1. CALL TO ORDER

The regular monthly meeting of the Oklahoma Water Resources Board was called to order by Chairman F. Ford Drummond at 9:30 a.m., on June 19, 2018, at the offices of the Oklahoma Water Resources Board, 3800 N. Classen Boulevard, Oklahoma City, Oklahoma. The meeting was conducted pursuant to the Oklahoma Open Meeting Law with due and proper notice provided pursuant to Sections 303 and 311 thereof. The agenda was posted on June 15, 2018, at 3:30 p.m., at the Oklahoma Water Resources Board's offices at 3800 N. Classen Boulevard, Oklahoma City, Oklahoma, and provided on the agency's website.

Chairman Drummond welcomed everyone to the June meeting of the Oklahoma Water Resources Board, and recognizing former Senator Ron Justice, now with the Oklahoma Farm Bureau.

A. Roll Call. Chairman Drummond asked for the roll call of members.

Board Members Present

Ford Drummond, Chairman
Jason Hitch, Vice Chairman
Stephen Allen, Secretary
Jennifer Castillo
Charles Darby
Bob Drake
Robert L. Melton
Matt Muller
Robert Stallings

Board Members Absent

None

Staff Members Present

Julie Cunningham, Executive Director
Sara Gibson, General Counsel
Cleve Pierce, Chief, Administrative Services Division
Joe Freeman, Chief, Financial Assistance Division
Kent Wilkins, Chief, Planning and Management Division
Bill Cauthron, Chief, Water Quality Programs Division
Mary Schooley, Executive Secretary

Others Present

Marla Peek, Oklahoma Farm Bureau, Oklahoma City, OK
Chris Mattingly, City of Norman, OK
Katie Lippoldt, Office of Secretary of Energy and Environment, Oklahoma City, OK
Ron Justice, Oklahoma Farm Bureau
Charles Swinton, BancFirst, Oklahoma City, OK
Tom Elkins, Cherokee Nation, Tahlequah, OK
Zac Swartz, Oklahoma Farm Bureau, Oklahoma City, OK
Eddie Rhandour, Oklahoma Department of Environmental Quality, Oklahoma City, OK
Candy Thompson, Oklahoma Department of Environmental Quality, Oklahoma City, OK
Michael Taylor, Cowan Group, Oklahoma City, OK
Kinsey Money, TPF
Jimmie Seago, Oklahoma Rural Water Association, Oklahoma City, OK
Karen Hawkins, City of Cherokee, Oklahoma
Cole Bond, Cardinal Engineering/City of Cherokee, OK
Rebecca Poole, Carollo/City of Norman, Oklahoma City, OK
Steven B. Aldridge, City of Okmulgee, OK
Anthony Mackey, M2M LLC, Noble, OK
Brian Torres, City of Cleveland, OK
Elzie Smith, City of Cleveland, OK
Tom Prag, City of Tulsa, OK
Ken Komiske, City of Norman, OK
Chris Havener, City of Tulsa, OK
Matthew Coe, Myers/Canadian County RWD #5, Oklahoma City, OK
Don Bowman, City of Cherokee, OK
Mike Cloy, City of Cherokee, OK
Jeri Fleming, Oklahoma Water Survey, Norman, OK
Jennifer Lewis, Office of the Attorney General, Oklahoma City, OK

B. Discussion, Amendments, and Vote to Approve Official Minutes of the May 15, 2018, Regular Meeting.

Chairman Drummond stated the draft minutes of the Board's last meeting, May 15, 2018, had been distributed and he asked if there were any changes. There were no changes, and Mr. Allen moved to approve the minutes of the May 15, 2018, meeting. Mr. Darby seconded.

Chairman Drummond called for the vote.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond

NAY: None

ABSTAIN: None

ABSENT: None

C. Executive Director's Report

Ms. Julie Cunningham, OWRB Executive Director, welcomed everyone in attendance and began her report updating the members on the current drought conditions across the state and anticipated forecast. She announced that she has appointed the OWRB's new permanent General Counsel, Sara Gibson, and she spoke to her qualifications and experience with state environmental agencies.

Regarding the calendar events, Ms. Cunningham stated there had been meetings of the Oklahoma Drought Contingency Group to look at updating the state drought plan and sharing data,

information, and drought forecasting tools; the last update was in 1977. The Division Chiefs' sponsored an Employee Appreciation Luncheon recognizing Public Service Week; the Water for 2060 Group met to continue working on implementing the recommendations of the 2060 Advisory Council and are currently working on a web portal, and working to develop an education program and statewide campaign with private partners. She attended the Aspen Institute Water Forum looking at watershed cooperation and integration where she spoke to the group about regional water planning.

Regarding the State Legislature, Ms. Cunningham said the past session had been a success for water, and two bills passed that had been requested that regarded promoting use of marginal water and extending the use of certain quantities of water under the maximum annual yield; the agency rule changes have been signed by the Governor including the fee schedule which will more appropriately align costs. A bill signing ceremony was held with Governor Fallin on SB 1294 with Senator Pederson and City of Enid/Enid Regional Development Authority regarding incremental implementation of the maximum annual yield to allow continued use of water until the basin is appropriated at a certain percentage. She stated staff will be scheduling meetings with the Legislative Leadership. Ms. Cunningham noted the Congressional report included in the meeting materials is lengthy; Committee work is underway and the markup of the Farm Bill and WRDA (contains EPA, COE, Dam Safety, BOR appropriations), most of which are receiving support for increased funding for the federal programs which with the OWRB is a partner.

Ms. Cunningham noted upcoming events such as the Association of Western State Engineers that will be attending a meeting hosted by the OWRB as she serves as Vice Chairman; and the Governor's Water Conference has been scheduled for December 5-6 at the Sheraton Reed Center. The Water for 2060 Excellence Award nominations are open until September 28 -- the application form is available on the OWRB website, and the categories are: public water supply, energy and industry, and agriculture production and crop irrigation.

Ms. Cunningham concluded her report. There were no questions by members.

D. Financial Update

1. Budget Report. Mr. Cleve Pierce, Administrative Services Division Chief, addressed the members and stated the budget report is for the time period ending in May. He said the agency has spent 84% of the appropriated budget leaving 16%; 62% of the revolving budget leaving 38%; 60% of federal dollars leaving 40%; and the overall budget remaining is 33% with 8% of the fiscal year remaining. He added there are obligations at the fiscal year end so some of the funds will not be spent until FY2019. He is working to have all the funding in place and is going through the mechanical process for budget approval which is due by June 30. He said staff and the Division Chiefs started the budget process early and he complimented them as well as Executive Director Julie Cunningham for being forward thinking.

Chairman Drummond mentioned the initiative petition to recall tax increases and Mr. Pierce responded staff has looked at scenarios of how the agency will respond to further decreases and rolling back expenditures. There was an additional \$130,000 for payroll increases which will be covered by revolving money in some areas; he said this year is a little tight and spending is 3% over last year but the budget is also smaller than last year for the same period. Chairman Drummond asked if there are increases to the Gross Production Tax, and Mr. Pierce responded yes, the agency received the full amount for this year.

Mr. Pierce concluded his report.

2. FINANCIAL ASSISTANCE DIVISION

A. Consideration of and Possible Action on a Proposed Order Approving Emergency Grant for Cherokee Development Authority, Alfalfa County. Recommended for Approval. Mr. Joe Freeman, Chief, Financial Assistance Division, stated to the members that this item is a \$73,000.00 emergency grant request by the Cherokee Development Authority located in Alfalfa County. He said the Authority has had back up assistance from two pumps fail at the main lift station. To correct the problem, the Authority proposes to replace the two failed pumps with two submersible pumps on rails with controls and alarms. The total project cost is estimated at \$210,000.00 which will be funded through the OWRB grant of \$73,000.00, and \$137,000.00 of local funds. Staff recommended approval of the emergency grant application.

Representing Cherokee DA was Mayor Karen Hawkins; City Manager, Mr. Don Bowman; and Mike Cloy, Project Engineer. Chairman Drummond asked how the citizens would raise the local contribution, and Mayor Hawkins answered the community of 1,600 would "tighten its belt."

There were no other questions by members, and Chairman Drummond asked for a motion. Mr. Allen moved to approve the \$73,000.00 Emergency Grant to the Cherokee Development Authority, and Mr. Darby seconded.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

B. Consideration of and Possible Action on a Proposed Order Approving Drinking Water Funding Application for Rural Water and Sewer District No. 5, Canadian County. Recommended for Approval. Mr. Freeman stated that the item is a \$1,161,000.00 loan request from the Canadian County RWSD #5 located in Canadian County. The District is requesting the loan to construct approximately 35,460 feet of 2" and 6" waterline. The loan will be funded through the Drinking Water State Revolving Loan Program and Mr. Freeman noted provisions of the loan agreement. The District purchases water from El Reno for its water source and its water connections have increased by 7.5% over the last ten years. The debt coverage ratio stands at 1.68-times. Staff recommended approval of the loan application.

Representing the District were Fred Kappus, Chairman, and T.J. Meshberger, Manager.

Mr. Drake moved to approve the DWSRF loan to Canadian County RWSD #5, and Mr. Hitch seconded.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

C. Consideration of and Possible Action on a Proposed Order Approving State Loan Program Revenue Bond Loan Funding Application for Okmulgee Municipal Authority, Okmulgee County. Recommended for Approval. Mr. Freeman stated this item is a \$7,450,000.00 loan request by the Okmulgee Municipal Authority located in Okmulgee County. He said the Authority is requesting the loan proceeds for rehabilitation of the wastewater treatment plant, installing 7,000 feet of water line, and construction of a one-million-gallon elevated storage tank. The loan will be funded through the Board's State Loan Program Revenue Bond Program (FAP), and he noted provisions of the loan agreement. Mr. Freeman stated that Okmulgee has been a long time, good loan customer of the Board's and currently has five loans outstanding with a principal balance of \$17.4 million dollars. The debt coverage ratio stands at 1.48-times. Staff recommended approval of the loan application.

Representing OMA was Mayor Steven Aldridge who spoke to the members about its service to 45,000 residential and commercial customers. The City is currently under capacity if there are issues with the treatment plant and this project will ensure storage in case of emergencies.

Mr. Hitch asked if the one-million-gallon storage tank is treated fresh water and Mayor Aldridge answered that it is. Water from Dripping Springs and Okmulgee Lakes go to the treatment plant where currently 4.5 mgd is treated. Chairman Drummond asked about capitalized interest which is not usually a component. Mr. Freeman responded it has been done a few times, and the capitalized interest will be through completion of the project and then payments will begin.

There were no other questions and Chairman Drummond stated he would entertain a motion. Mr. Hitch moved to approve the FAP loan to the Okmulgee Municipal Authority, and Mr. Stallings seconded.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

D. Consideration of and Possible Action on a Proposed Order Approving State Loan Program Revenue Bond Loan Funding Application for Cleveland Municipal Authority, Pawnee County. Recommended for Approval. Mr. Freeman stated this item is an \$8,565,000.00 loan request by the Cleveland Municipal Authority. The loan is being requested to construct a new water treatment plant, a treated water storage tank, a waste lift station, an office, chemical storage facility, and lab building. Additionally, loan proceeds are for the purchase and installation of automatic water meters and backup generator. Mr. Freeman said the loan will be funded through the FAP Revenue Bond Loan Program, and he noted provisions of the loan agreement; this is the first loan received from Cleveland from the OWRB. The Authority's debt coverage ratio stands at approximately 2.14-times. Staff recommended approval of the loan application.

Mr. Brian Torres, City Councilman, and Mr. Elzie Smith, City Manager, were in attendance representing the Cleveland MA. Mr. Torres spoke to the members they had been working on the project for about 10 years, and he complimented the OWRB staff. Chairman Drummond asked about Cleveland's water supply, and Mr. Torres answered the water source is Cleveland Lake and at one time they had considered to tie onto Lone Chimney, but it would not be able to supply what is needed, but will offset supplies during drought situations.

There were no other questions, and Chairman Drummond stated he would entertain a motion. Mr. Darby moved to approve the FAP loan to the Cleveland Municipal Authority, and Mr. Hitch seconded.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

E. Consideration of and Possible Action on a Proposed Order Approving State Loan Program Revenue Bond Loan Funding Application for Norman Utilities Authority, Cleveland County. Recommended for Approval. Mr. Freeman stated the Norman Utilities Authority has requested an FAP loan in the amount of \$12,000,000.00 to acquire land as well as engineer, design and construct ten test holes, six water wells, distribution piping, and fire hydrants. Norman will also be utilizing approximately \$740,000 in local funds for the project. He noted provisions of the loan agreement, and stated Norman has been an excellent, long time loan customer of the Board's and currently has four outstanding loans with a balance of approximately \$43.1 million. Norman's water and sewer

connections have increased 17% over the past ten years; the debt coverage ratio stands at 2.0-times. Staff recommended approval of the loan application.

Mr. Ken Komiske, Director of Utilities, and Chris Mattingly, Capitol Projects Engineer were present representing the Norman Utilities Authority. He said the citizens vote on the rate before the city can approach the Board about applying for a loan.

There were no questions, and Mr. Drake moved to approve the FAP loan to the Norman Utilities Authority. Mr. Stallings seconded. Chairman Drummond called for the vote.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

F. Consideration of and Possible Action on a Proposed Order Approving Clean Water Funding Application for Lawton Water Authority, Comanche County. Recommended for Approval. Mr. Freeman stated this item is for the consideration of a \$12,705,000.00 loan application by the Lawton Water Authority. Lawton is requesting the loan to rehabilitate portions of the Authority's collection system mainlines and manholes, as well as sewer system expansion. Mr. Freeman stated the loan will be funded through the Clean Water State Revolving Fund Loan Program, and he noted provisions of the loan agreement. He said that Lawton has been a long time loan customer of the Board's and currently has five loans outstanding with a combined balance of \$7.7 million; the debt coverage ratio stands at approximately 3.99-times. Staff recommended approval.

Mr. Rusty Wisenhunt, Director of Field Utilities Maintenance and Construction, represented the Lawton Water Authority. The loan will fund Phase 3 of the sewer rehabilitation project.

There were no questions, and Chairman Drummond stated he would entertain a motion. Mr. Hitch moved to approve the CWSRF loan to the Lawton Water Authority, and Mr. Allen seconded.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

G. Consideration of and Possible Action on a Proposed Order Approving Clean Water Funding Application for Tulsa Metropolitan Utility Authority, Tulsa County. Recommended for Approval. Mr. Freeman stated this item is a \$14,350,000.00 loan request by the Tulsa Metropolitan Utility Authority for several improvements and rehabilitation projects at the Haikey Creek Wastewater Treatment Plant as well as construction of sludge drying beds at the Southside Wastewater Treatment Plant. He said the loan will be funded through the Clean Water State Revolving Loan Fund Program, and he noted provisions of the loan agreement. He said the water and sewer connections have increased approximately 12% over the past ten years. Mr. Freeman said Tulsa received the first Clean Water SRF loan in 1990 and has 24 loans outstanding with the Board with a total balance of \$186.2 million; the debt coverage ratio stands at 1.46-times. Staff recommended approval. Mr. Hitch asked why there was no breakdown on the costs, and Mr. Freeman stated the TMUA covered all the costs.

Mr. Tom Prag, Senior Engineer and Mr. Chris Havener, Treasure Analyst, were present in support of the loan application. Mr. Prag thanked the members for consideration of the application and complimented OWRB staff for their assistance.

There were no questions. Mr. Allen moved to approve the CWSRF loan to the TMUA, and Mr. Darby seconded.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None

ABSTAIN: None
ABSENT: None

Chairman Drummond thanked the customers for their participation and also recognized Mr. Freeman and the OWRB staff who allow many communities to improve water and wastewater infrastructure at a more affordable way through this important program of the State.

Mr. Freeman said he received notification the bond issue that will fund the Cleveland, Okmulgee, and Norman loans did receive an AAA rating, and bond sales will begin next week.

3. SUMMARY DISPOSITION AGENDA ITEMS

Any item listed under this Summary Disposition Agenda may, at the requested of any member of the Board, the Board's staff, or any other person attending this meeting, may be transferred to the Special Consideration Agenda. Under the Special Consideration Agenda, separate discussion and vote or other action may be taken on any items already listed under that agenda or items transferred to that agenda from this Summary Disposition Agenda.

A. Requests to Transfer Items from Summary Disposition Agenda to the Special Consideration Agenda, and Action on Whether to Transfer Such Items. There were no items moved to the Special Consideration Agenda.

B. Discussion, Questions, and Responses Pertaining to Any Items Remaining on Summary Disposition Agenda and Action on Items Listed.

Chairman Drummond asked if there were actions or questions regarding the items on the Summary Disposition Agenda. Mr. Kent Wilkins, Chief, Planning and Management Division, stated to the members that item H.2., J&R Transport Inc., and item I.5., AEM Holdings, LLC, need to be withdrawn from the Board's consideration due to notice deficiencies.

Chairman Drummond noted the lengthy list of contracts and asked if there were questions. There were no questions. Chairman Drummond asked for a motion to approve the remaining items on the Summary Disposition Agenda.

Mr. Hitch moved to approve the Summary Disposition Agenda as amended, and Mr. Stallings seconded. Chairman Drummond called for the vote.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond
NAY: None
ABSTAIN: None
ABSENT: None

The following items were approved:

C. Consideration of and Possible Action on Financial Assistance Division Items:

1. Rural Economic Action Plan (REAP) Grant Applications:

| <u>Item No.</u> | <u>Application No.</u> | <u>Entity Name</u> | <u>County</u> | <u>Amount Recommended</u> |
|-----------------|------------------------|--------------------------|---------------|---------------------------|
| ASCOG | | | | |
| a. | FAP-13-0020-R | Rural Water District # 4 | Stephens | \$100,014.00 |
| COEDD | | | | |
| b. | FAP-18-0020-R | Rural Water District # 1 | Okfuskee | 82,500.00 |

| | | | | |
|-------|---------------|--------------------------------|----------|-----------|
| GGEDA | | | | |
| c. | FAP-16-0035-R | Town of Adair | Mayes | 99,900.00 |
| SODA | | | | |
| d. | FAP-18-0021-R | Bromide Public Works Authority | Johnston | 99,999.00 |

D. Consideration of and Possible Action on Contracts and Agreements:

1. Amendment of Joint Funding Agreement with U.S. Geological Survey (USGS) for hydrological survey on Section 1 of the Washita Alluvium and Terrace Groundwater Basin.
2. Memorandum Agreement with USGS and Applied Energy Services, Shady Point, Inc. for water monitoring and data collection.
3. Memorandum Agreement with USGS and Arkansas-Oklahoma Arkansas River Compact Commission for water monitoring and data collection.
4. Memorandum Agreement with USGS and Central Oklahoma Master Conservancy District for water monitoring and data collection.
5. Memorandum Agreement with USGS and Cherokee Nation for water monitoring and data collection.
6. Memorandum Agreement with USGS and CP Kelco for water monitoring and data collection.
7. Memorandum Agreement with USGS and Fort Cobb Reservoir Master Conservancy District for water monitoring and data collection.
8. Memorandum Agreement with USGS and Grand River Dam Authority for water monitoring and data collection.
9. Memorandum Agreement with USGS and Hardage Site Remedy Corp for water monitoring and data collection.
10. Memorandum Agreement with USGS and The City of Lawton for water monitoring and data collection.
11. Memorandum Agreement with USGS and Lugert-Altus Irrigation District for water monitoring and data collection.
12. Memorandum Agreement with USGS and the City of Moore for water monitoring and data collection.
13. Memorandum Agreement with USGS and the City of Norman for water monitoring and data collection.
14. Memorandum Agreement with USGS and the Oklahoma Department of Wildlife Conservation for water monitoring and data collection.
15. Memorandum Agreement with USGS and Poteau Valley Improvement Authority for water monitoring and data collection.

16. Professional Services Engagement Letter with Arledge & Associates, P.C. to provide auditing services related to the Board's financial assistance programs for CWSRF and DWSRF loan administrative funds.

17. Professional Services Engagement Letter with Arledge & Associates, P.C. to provide auditing services related to the Board's financial assistance programs for revenue bond issues.

18. Professional Services Engagement Letter with Arledge & Associates, P.C. to provide auditing services related to the Board's financial assistance programs for the Oklahoma Clean Water State Revolving Fund Account Program.

19. Professional Services Engagement Letter with Crawford & Associates, P.C. to provide accounting services related to the Board's financial assistance programs.

20. Agreement with Arbitrage Compliance Specialist, Inc. for arbitrage services in connection with the issuance of state government entity obligations and indebtedness for OWRB loan programs.

21. Interagency Agreement with the Oklahoma Department of Environmental Quality regarding the Drinking Water State Revolving Fund.

22. Professional Services Contract between OWRB and the Oklahoma Rural Water Association for training and education for water system board members and operators, technical assistance and long-term planning assistance.

23. Second Amendment to Standby Bond Purchase Agreement and First Amendment to Letter Agreement with State Street Bank and Trust Company for liquidity services for the Board's financial assistance programs variable rate bonds.

24. Interagency Agreement between OWRB and the Oklahoma Department of Agriculture, Food and Forestry ("ODAFF") for collecting groundwater samples at monitoring wells of swine licensed managed feeding operations ("LMFOs").

25. Interagency Agreement between OWRB and the Department of Environmental Quality ("DEQ") to perform bathymetric surveys to determine lake oxygen water quality standards.

26. Interagency Agreement between OWRB and the Grand River Dam Authority ("GRDA") to continue the Dissolved Oxygen Monitoring Project.

27. Memorandum with USGS and USDA – Agricultural Research Service for water monitoring and data collection.

E. Consideration of and Possible Action on Applications for Temporary Permits to Use Groundwater:

1. Lloyd Joe & Monica Withers, Caddo County, #2017-547
2. Nghi U. Truong & Thuy Diem Nguyen, Cherokee County, #2017-584
3. Jason & Amy M. Russell, Canadian County, #2018-506

F. Consideration of and Possible Action on Applications to Amend Temporary Permits to Use Groundwater:

None

G. Consideration of and Possible Action on Applications for Regular Permits to Use Groundwater:

1. Sudsbury Family Revocable Trust, Ellis County, #2018-503

4. QUESTIONS AND DISCUSSION ABOUT AGENCY MATTERS AND OTHER ITEMS OF INTEREST

A. Presentation and Discussion about Board Education Series, "Groundwater Basin Studies."

Mr. Kent Wilkins, Chief, Planning and Management Division, addressed the Board members and stated the Groundwater Basin Studies is a "behind the scene" program that is extremely important to the work of the OWRB--issuing groundwater right permits and the management of the waters of the State. He said the Legislature reinforced the importance of the program by requiring studies on all fresh water basins across the State, and further supported by recommendations of the Oklahoma Comprehensive Water Plan in 2012 through a major recommendation and funding to continue those studies. Staff has set a robust time schedule to complete the studies and anticipate that by the year 2022 all of the major basin studies will be completed, as well as the required 20-year updates. Mr. Wilkins introduced the OWRB Groundwater Basin Study staff -- Jessica Correll, Derek Wagner, managing supervisors; Kyle Spears, Jacob Hernandez; and Elise Sherrod is the surface water allocation specialist.

Mr. Wilkins stated the 1973 law established the public policy of the State to put groundwater resources to beneficial use and to promulgate reasonable regulation developed from hydrologic surveys of the fresh groundwater basins or subbasins. A restriction on the production would be established based on the characteristics of the aquifer and the acres of land overlying the groundwater basin. The 2012 Comprehensive Water Plan recommendation was to complete all unstudied basins and all required 20-year updates.

Mr. Wilkins said there are a number of major (10) and minor (19) groundwater basins, and major (12) and minor (13) alluvial basins across the State, and he defined the differences determined by pumping capability; the basins were illustrated on the maps provided in the PowerPoint presentation. The OWRB staff has completed the maximum annual yield (MAY) for 24 studies and established the Equal Proportionate Share (EPS), and has also conducted updates as required every 20 years. Staff has been increased in order to meet the deadline, and also works with outside experts such as the US Geological Survey, Oklahoma Geological Survey, Oklahoma State University and University of Oklahoma. He said seven studies are ongoing, five with the USGS, and three studies were completed in 2017. He named the basins completed, undergoing study, and those planned to be studied in the future which will complete the studies on the major basins.

Components of the studies include defining the aquifer boundary, determining the aquifer base, measuring the well depths, generating water table/potentiometric surface maps, determining hydraulic properties of the aquifer, analyzing the permitted groundwater use, looking a climate data, estimating aquifer recharge, examining streamflow/baseflow measurements, and collecting water quality data. Mr. Wilkins explained how through updated data aquifer boundaries can change through better knowledge of the formation. Mr. Wilkins said that groundwater law contemplates depletion and staff looks at the well measurements, water usage, precipitation and drought when determining a 20-year minimum basin life by calculating the maximum amount of water that can be withdrawn per acre to sustain the basin life, while reserving a certain amount for domestic use.

Mr. Wilkins reviewed the photos and graphs included in the PowerPoint presentation and the mechanics of staff's field work including tests in determining the characteristics of the aquifer, how the water is drawn down, how it recharges and how quickly (recharge rate), and said each aquifer is different. He showed an example of the driller's log, generating cross sections and saturated thickness which is helpful in determining where to drill wells; use of the aquifer is also considered, as well as discharge from the basin to rivers (baseflow), and water quality (TDS) is very important, i.e., the presence of chlorides, arsenic, etc.

Mr. Wilkins briefly addressed what happens after the hydrologic investigation is completed, a tentative determination prepared, public hearings conducted, and a final order approved by the Board

that will establish the maximum annual yield and equal proportionate share for that basin (more detailed presentation will be made at a future meeting on this process). The Maximum Annual Yield (MAY) is the total amount of fresh groundwater that can be withdrawn while allowing a minimum 20-year life of the basin. The Equal Proportionate Share (EPS) --once the maximum annual yield has been established --is the amount of water allocated to each permit applicant that will be proportionate to the amount of land owned or leased by that applicant. Each groundwater user is entitled to withdraw an equal share of water proportional to the amount of land owned. Mr. Wilkins noted 2018 legislation that impact the studies are Senate Bill 1294 that allows flexibility by the Board to delay or gradually implement the Equal Proportionate Share until the total allocated amount reaches 25% of the Maximum Annual Yield. Secondly, the bill establishes well spacing statewide; currently well spacing is only in effect in basins where the MAY has been determined and this bill will establish well spacing in temporary areas and will be protective of the existing and domestic wells. House Bill 3405 defines Marginal Quality Groundwater as groundwater containing 5000-10000 Parts Per Million Total Dissolved Solids, and allows the Board to promulgate rules regarding construction standards for marginal quality wells and to permit the use of marginal quality groundwater.

Questions by the Board Members included: Chairman Drummond asked if all of the major basins have been studied, and Mr. Wilkins answered they had not, and the deadline to complete the studies is 2022. Mr. Muller asked if staff investigated unpermitted wells, and Mr. Wilkins responded staff receives calls weekly whereby the landowner is contacted to determine the purpose, if a permit is required, and whether it is an approved well location and has met well construction standards. Regarding the basin boundary, Mr. Wilkins responded to a question by Chairman Drummond that staff reviews well record inventory that shows the formation and production and then map the outcrop; they also look at water quality data. Mr. Hitch asked if records are available for test wells as well as regular permitted wells, and Mr. Wilkins said some drillers are very detailed in their reporting and some are not, but all are required to submit well logs on completed wells and all describe the formation. Mr. Muller asked about staff confidence in the accuracy of the well log and Mr. Wilkins said logs on domestic wells were not required until 1984, and there was a period when drillers were first licensed to get the logs submitted. It has been an issue as the driller not the landowner is required to file the log, and if they are identified there can be penalties assessed. Staff verifies the well is reported in the correct location. Regarding boundary determination, Mr. Hitch and Mr. Drake asked questions about whether geopolitical boundaries are used in the basin boundary determination, and whether the boundary changes because of better data not movement. Mr. Wilkins said the boundary changes based on new information by the USGS and other entities, and OWRB field work. Mr. Muller asked about whether staff was confident of the boundary determination, and if the boundary changes due to the effect of drought. Mr. Wilkins responded that the water is held between caverns and fractures and water levels overtime do go up and down which is evidenced through the annual well measurement program (2,000 wells across the state measured annually); the outer boundary does not change as the formation dictates the actual boundary. Ms. Cunningham added the water level will go up and down, but it will not go outward because of the geologic material; and Mr. Wilkins said there could be small changes in the alluvial and terrace if water levels were extremely high. He said the official boundary established by the Board, following public hearings, does not change. Regarding the new legislation, members asked if the replacement well spacing would remain the same and whether the MAYs in studied basins has proven to be steady.

Mr. Wilkins concluded his presentation. Chairman Drummond commented about the importance of the basin studies and the need for completion, as well as the 20-year updates. Mr. Muller commented that the water use reporting system is based on the honor system, and Mr. Wilkins said there are some concerns with the quality of the data -- metering is not required -- and recently the OWRB has received a \$400,000 grant to improve the data base to become more compatible with the

USGS which will be more useful, but still based on the honor system. Chairman Drummond said this information is available on the website, and he thanked the staff for their work in this area

5. SPECIAL CONSIDERATION

A. No items.

B. Consideration of and Possible Action on Items Transferred from Summary Disposition Agenda, if any.

There were no items transferred from the Summary Disposition Agenda to the Special Consideration Agenda for the Board's consideration.

6. ELECTION OF OFFICERS

Chairman Drummond stated it had been his privilege to serve a second round as Chairman; it is a great Board and excellent staff, and he is proud of the agency. He said the Executive Committee proposed the following slate of officers:

Chairman - Jason Hitch; Vice Chairman - Stephen Allen; Secretary - Rob Stallings

Mr. Drake moved to elect the slate of officers as recommended by the Executive Committee. Mr. Darby seconded. Chairman Drummond called for the vote.

AYE: Allen, Melton, Muller, Darby, Drake, Castillo, Stallings, Hitch, Drummond

NAY: None

ABSTAIN: None

ABSENT: None

7. NEW BUSINESS

Under the Open Meeting Act, this agenda item is authorized only for matters not known about or which could not have been reasonably foreseen prior to the time of posting the agenda or any revised agenda.

There were no new business items for the Board's consideration.

Chairman Drummond stated the Board now has flexibility to miss a few meetings a year if the Board so chooses. He said the Board had been polled, and he recommended cancelling the July meeting. Ms. Cunningham will be out of state for the August meeting; OWRB General Counsel Ms. Sara Gibson would serve in her place.

It was the consensus of the Board to cancel the July meeting; the next meeting of the Board will be held on August 21, 2018.

8. ADJOURNMENT

There being no further business, Chairman Drummond adjourned the meeting of the Oklahoma Water Resources Board at 10:50 a.m. on June 19, 2018.

OKLAHOMA WATER RESOURCES BOARD

_____/s/_____
Jason Hitch, Chairman

_____/s/_____
Stephen B. Allen, Vice Chairman

_____/s/_____
Charles Darby

_____/s/_____
Bob Drake

_____/s/_____
Robert L. Melton, Sr.

_____/s/_____
F. Ford Drummond

_____/s/_____
Jennifer Castillo

_____/s/_____
Matt Muller

ATTEST:

_____/s/_____
Robert L. Stallings, Jr., Secretary

(SEAL)