OKLAHOMA WATER RESOURCES BOARD MEETING INFORMATION

The Oklahoma Water Resources Board meets monthly in accordance with the date, time, and location shown on the final posted agenda. A draft Board meeting agenda and packet materials are scheduled to be prepared approximately 10 calendar days prior to the Board’s meeting. A final agenda is scheduled to be posted at least 24 hours prior to the meeting. The standard sections of the agenda are numbered in a series; additional or special items will appear on the agenda subsequently. Standard sections include the following:

- 01000 = Call to Order
- 02000 = Financial Assistance Division
- 03000 = Summary Disposition Agenda
- 04000 = Items of Interest
- 05000 = Special Consideration Items

This meeting packet contains expanded information (summary documents, proposed orders, etc.) associated with individual agenda items. Each section of the packet contains a cover sheet noting the appropriate corresponding agenda item/number. (For example, to locate agenda item 2.D., concerning a grant or loan, review the packet for the section labeled, “2. Financial Assistance Division,” which will begin on page 02000. Item D. is placed in alphabetical order in the section and is labeled accordingly.) The documents and information provided within the meeting packet are draft until approved by the Board. Please contact OWRB staff for the final, official documents as approved by the Board.

If you require assistance in locating an item or accompanying documents, please contact OWRB staff at (405) 530-8800.
1.B.

April 18, 2022, Regular Meeting Draft Official Minutes

For consideration at the May 17, 2022 Board Meeting
1. CALL TO ORDER

The Regular Meeting of the Oklahoma Water Resources Board was called to order by Chairman Matt Muller at 1:30 p.m. on April 18, 2022 in the second-floor Board Room of the Oklahoma Water Resources Board located at 3800 N. Classen Boulevard, Oklahoma City, Oklahoma 73118. 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 April 14, 2022, at 12:00 p.m. at the Oklahoma Water Resources Board's office at 3800 N. Classen Boulevard, Oklahoma City, Oklahoma and provided on the agency's website.

A. Roll Call. Chairman Matt Muller welcomed everyone to the meeting and asked for the roll call of members.

**Board Members Present**
Matt Muller, Chairman
Charles Darby, Vice Chairman
Jennifer Castillo, Secretary
Ron Justice
Robert L. Melton
Bob Latham
Suzanne Landess
Robert L. Stallings, Jr.
Thomas A. Gorman

**Board Members Absent**
None

**Staff Members Present**
Julie Cunningham, Executive Director
Sara Gibson, General Counsel
Joe Freeman, Chief, Financial Assistance Division
Bill Cauthron, Chief, Water Quality Programs Division
Chris Neel, Chief, Water Rights Administration Division
Cleve Pierce, Chief, Administrative Services Division

**Others Attending**
Kris Neifing, City of Edmond, OK
B. Discussion, Amendments and Vote to Approve Official Minutes of the March 15, 2022 Regular Meeting. Chairman Muller stated members were provided the draft minutes of the March 15, 2022 regular meeting and asked the Board's pleasure regarding the minutes. There were no comments or amendments.

Vice Chairman Darby moved to approve the minutes of the March 15, 2022, Regular Meeting and Ms. Castillo seconded. Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman
NAY: None
ABSTAIN: Muller
ABSENT: None

Discussion, Amendments and Vote to Approve Official Minutes of the March 21, 2022 Special Meeting. Chairman Muller stated members were provided the draft minutes of the March 21, 2022 meeting and asked the Board's pleasure regarding the minutes. There were no comments or amendments.

Ms. Castillo moved to approve the minutes of the March 21, 2022, Special Meeting and Mr. Gorman seconded. Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Darby, Gorman, Muller
NAY: None
ABSTAIN: Landess, Melton
ABSENT: None

C. Executive Director's Report
Ms. Julie Cunningham, Executive Director, welcomed everyone to the meeting. Ms. Cunningham announced that the day started off with a very successful Water Day at the Capitol hosted by OWRB. She states that it was very well attended and several legislators,
including new legislators, were there to build relationships and have conversations about water issues that they have from different parts of the state. Ms. Cunningham notes that there was a lot of interest in the federal dollars coming in. There was also interest in the upcoming Flood Plan that is included in legislation as well as the hazard mitigation funding coming from the federal government that requires state match. There were 27 entities in attendance at Water Day from federal, state and water interest groups.

Ms. Cunningham proceeds to the retirement of Mr. Robert Melton from the Board, whose appointment ends May 14, 2022. Ms. Cunningham presents Mr. Melton’s resolution for five years of dedicated service to the Oklahoma Water Resources Board and representing Region 8 and the municipal water use interests of the Board. The resolution is presented on this day and applause is given as Ms. Cunningham thanks him again for his active participation in the Board.

Ms. Cunningham proceeds to the drought report. She states that most have seen the wildfires, burn bans and exceptional drought, especially in the panhandle. The drought outlook remains the same as there is below seasonal rainfall and above average temperatures for the next few months.

Ms. Cunningham states that she attended the Western State’s Water Council and Interstate Council on Water Policy. Ms. Cunningham is on the Executive Committee and Ms. Sara Gibson, General Council, is on the Legal Committee. Ms. Cunningham states there is a roundtable meeting every other year in Washington D.C. and it was good for the federal regulatory agencies and the states to hear their position papers. Notable positions were promoting renewable hydrogen and quantifying the needs of rural water infrastructure throughout the West. Ms. Cunningham states that there is federal agency support team called WestFAST that has dedicated staff from The Corps of Engineers, The Bureau of Reclamation, NASA, The Department of the Interior, NOAA, Department of Agriculture, EPA and others. This group is available to the Western States Water Council and the Western Governor’s Association to meet about policies that cross those federal agencies. Ms. Cunningham states that this is a good opportunity for direct connection and consultation with the federal agencies.

Ms. Cunningham proceeds to the legislative update. There are now less than 400 bills still alive. Ms. Cunningham states that a majority of our request bills are still alive, we have two gross production tax bills. One of the bills funds all the water studies for water rights, water availability, water administration and water planning activities. These funds have been renewed since the mid-2000’s and it paid for our last Water Plan implementation. The 2025 Comprehensive Water Plan contract has now been signed by the Board. At a future meeting, Owen Mills and the Contractor will present the direction, scope of work and timeframe of the upcoming Water Plan to the Board. Ms. Cunningham proceeds to several marijuana bills that include the enforcement for illegal water use of anyone that is using water illegally. There are several other bills including our rules that were approved by the Board and are now being looked at by the appropriations committee along with our budget which is still to be seen. The next deadline is April 28th which is the third reading deadline of the opposite chamber. Sine Die is May 27th. Ms. Cunningham thanks Sara Gibson and Robby Short for their efforts during this legislative session.
Ms. Cunningham gives updates on ARPA and the State ARPA Funding Steering Committee. She states that Joe Freeman and Lori Johnson have been answering questions and looking at the state’s ARPA funding needs. Ms. Cunningham asks for any questions the Board may have.

Mr. Melton asks how the Hydrogen Project is coming along.

Ms. Cunningham answers that Secretary Wagoner has been travelling and working on a letter of agreement between Oklahoma, Arkansas and Louisiana so that the states can partner and compete for the hydrogen hub which will be funded from the Department of Energy at the federal level.

Victoria Tran, Deputy Secretary of Energy and Environment, explains that SB 1852 would extend the hydrogen task force and modernize it to be a new energy initiative that will be called the Low Carbon Energy Initiative. This will involve state agencies along with stakeholder involvement to carry on these partnerships. Ms. Tran states that the Oklahoma, Arkansas and Louisiana governors all signed the agreement to chase for the hydrogen hub money on March 10th.

Ms. Cunningham asks for any further questions and concludes her Executive Director’s report.

D. Financial Update

1. Budget Report. Mr. Cleve Pierce, Chief, Administrative Services Division, presents the budget report for the period ending March 31, 2022. Mr. Pierce reports the agency has spent 46% of its appropriated budget, leaving 54%; has spent 49% of its revolving budget, leaving 51%; has spent 31% of its federal budget, leaving 69%. Overall, the total budget remaining is 54% with 25% of the year remaining. Mr. Pierce wanted to remind the Board that we do have obligations past the end of the fiscal year.

Mr. Pierce states that we have sent all our documents to the State Auditor for the ongoing audit and have not heard anything back yet. The auditor did lower our bill because there were some issues that did not need addressing such as payroll. We should be hearing back soon and will present the audit to the Board.

Mr. Pierce continues that we will be starting our budget process internally this week to get the budget sheets prepared. Mr. Pierce asks for any questions.

Ms. Cunningham asks Mr. Pierce to explain the USGS project for the Arbuckle-Simpson.

Mr. Pierce answers that periodically he mentions that there is $2 million dollars in funds sitting in appropriations unable to be spent. This is because those funds were supposed to be transferred to the 235 Fund which is the Arbuckle-Simpson Phase II Study. Mr. Pierce states that hopefully those funds will be transferred over this year if the legislation passes for OMES to have the authority to transfer these funds.

Mr. Muller asks for any further questions. There were none.
2. FINANCIAL ASSISTANCE DIVISION

A. Consideration of and Possible Action on a Proposed Order Approving Drinking Water Funding Application for The Elk City Public Works Authority, Beckham County. Recommended for Approval. Mr. Joe Freeman, Chief, Financial Assistance Division, greets the Board and states that the first item he has is a $1.7 million dollar loan request from the Elk City Public Works Authority. They are requesting the loan for laying approximately 8,720 feet of 6-inch PVC water lines in various parts of the city. The loan will be funded through the Drinking Water State Revolving Fund (SRF) loan program with a fixed interest rate plus half point administrative fee. The loan will mature within 30 years of completion of the project and will be secured with a lien on Elk City's water, sewer, and sanitation system revenues. Their debt coverage ratio stands at 3.53 times and staff recommends approval. Elk City asked Mr. Freeman to read the following comment on their behalf “Elk City appreciates the Board's consideration; this low interest loan will enable the city to move ahead on their important water projects.”

Chairman Muller asked for questions or a motion. Vice Chairman Darby moved to approve the application and Mr. Stallings seconded. There were no questions or discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller  
NAY: None  
ABSTAIN: None  
ABSENT: None

B. Consideration of and Possible Action on a Proposed Order Approving Drinking Water Funding Application for Enid Municipal Authority, Garfield County. Recommended for Approval. Mr. Freeman continues to the next item for a $4 million dollar loan request from this Enid Municipal Authority. They are requesting the loan for laying approximately 5,500 feet of 12-inch, 10-inch and 6-inch PVC water line in an area of the city which has experienced low water pressure. The loan will be funded through the Drinking Water SRF loan program with a fixed interest rate plus half point administrative fee. The loan will mature within 20 years of completion of the project and will be secured with a lien on Enid's water, sewer, and sanitation system revenues plus a two-cent sales tax. Enid has been a long-time good loan customer of the Board and they currently have 8 loans with the Board with a combined balance of $174.7 million dollars. Their debt coverage ratio stands at 2.27 times and staff recommends approval. The Mayor of Enid provided the following in support of the loan request “Enid is grateful for the consideration of this loan. This loan will allow the city to continue to upgrade Enid's water infrastructure system.”

Chairman Muller asked for questions or a motion. Mr. Gorman moved to approve the application and Ms. Castillo seconded. There were no questions or discussion and Chairman Muller called for the vote.
AYE: Latham, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: Stallings
ABSENT: None

C. Consideration of and Possible Action on a Proposed Order Approving Drinking Water Funding Application for Oklahoma City Water Utilities Trust, Oklahoma County. Recommended for Approval. Mr. Freeman presents a $31,645,000 loan request from the Oklahoma City Water Utilities Trust. They are requesting the loan proceeds for the following projects: replace the ozone system at the Lake Hefner Water Treatment Plant, various improvements and rehabilitation to the Draper Water Treatment Plant, rehabilitation of the interior and exterior of the elevated water storage tank at MacArthur Blvd and NW 28th St, the replacement of an 18-inch aerial water line crossing the South Canadian River at NW 10th St and County Line Rd, and the replacement of a 24-inch aerial water line crossing near the Interstate 44 and NW 36th St. The loan will be funded through the Drinking Water SRF loan program with a fixed interest rate plus half point administrative fee. The loan will mature within 30 years of the completion of construction and will be secured with a lien on Oklahoma City’s water, sewer, and sanitation system revenues. Oklahoma City’s water and sewer connections have increased by approximately 16% over the last ten years and population by over 17%. The Trust currently has 18 loans outstanding with the board with a combined balance of $428.8 million. Their debt coverage stands at 2.42 times and staff recommends approval.

Representing Oklahoma City is Chris Browning, Utilities Director, and John Samuel, Financial Operations Manager. Mr. Browning addresses and thanks the Board for the half a billion dollars in loans which saves the rate payers a lot of money. Mr. Browning states that he appreciates the partnership he has formed with the Board and is looking forward to the continued relationship. Mr. Browning puts into perspective that the next 10-year capital budget is 3.3 billion dollars to resiliency, reliability, and water supply for Central Oklahoma.

Chairman Muller asked for questions or a motion. Mr. Stallings moved to approve the application and Vice Chairman Darby seconded. There were no questions or discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: Castillo
ABSENT: None

Mr. Freeman proceeds and states the next three agenda items are for the Edmond Public Works Authority. The loans are for a new raw water intake structure at Lake Arcadia and for substantial improvements at Edmond’s Water Treatment Plant. Two of the loans will be financed through the Drinking Water SRF loan program and one loan will be through the State Revenue Bond loan program also known as the FAP loan program. The reason for financing the projects through the two programs is that in managing the capacity of the Drinking Water SRF loan program, we are not currently able to provide additional Drinking Water SRF funds for Edmond.
But we can finance the additional funds needed through the FAP loan program. This method of funding projects through the two programs falls in line with the financing plan set forth in the Water for 2060 plan. This plan led to the passage of State Question 764 in September of 2012 which created the Water Infrastructure Credit Enhancement Reserve Fund which greatly enhances the capacity of the FAP loan program as well as the subsequent adoption of the 2016 FAP bond indenture which created additional features benefiting the program and our borrowers.

D. Consideration of and Possible Action on a Proposed Order Approving Drinking Water Funding Application for The Edmond Public Works Authority, Oklahoma County. Recommended for Approval. Mr. Freeman explains that the first Edmond request is for $45 million dollars for the low lift pump station for intake of raw water from Lake Arcadia. This includes a wet well, three 60-inch diameter screened intake lines, five variable speed vertical turbine pumps, 2 feed systems, and a 42-inch discharge raw water transmission main. The loan will be funded through the Drinking Water SRF loan program with a fixed interest rate plus a half point administrative fee. The loan will mature within 30 years of the completion of construction and will be secured with a lien on Edmonds’s water, sewer, sanitation, and electric system revenues as well as a 2-cent sales tax. Over the past ten years Edmond’s water connections have increased by approximately 17% and sewer connection by approximately 15%. They currently have 5 outstanding loans with a combined balance of $45.8 million dollars. Edmond’s debt coverage ratio stands at 2.65 times and staff recommends approval.

Representing Edmond today is Kris Neifing, Director of Water Resources for the City of Edmond and Steve Lawrence, Engineering Services Supervisor. Mr. Neifing expresses appreciation for the consideration of these loans and asks for any questions.

Mr. Muller asks what the projections and capital outlays are for future updates. He is inquiring if this will be substantial to get them down the road or if there are other requests coming.

Mr. Neifing answers that there is one more large water project and there are a couple others that are smaller in comparison to finish out the water development, not only for water treatment but for delivery as well.

Chairman Muller asks for any further questions.

Mr. Gorman asks Mr. Freeman if their debt coverage ratio takes into account the new loans that are being applied for today, with the assumption that they are approved. For clarification, Mr. Gorman asks if it is a forward-looking debt service coverage ratio a backwards-looking debt service coverage ratio.

Mr. Freeman answers that all three loans have been taken into consideration for the reported debt coverage ratio.

Chairman Muller asks for any further questions. There were no further questions.

Chairman Muller asked for or a motion. Vice Chairman Darby moved to approve the application and Mr. Latham seconded. There were no questions or discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: None
ABSENT: None
E. Consideration of and Possible Action on a Proposed Order Approving Drinking Water Funding Application for The Edmond Public Works Authority, Oklahoma County. Recommended for Approval. Mr. Freeman proceeds to the next item which is a $140 million dollar loan request from the Edmond Public Works Authority. This loan is for improvements to their water treatment plant including modifications to the existing maintenance building, replacement of the granular activated carbon filters, construction of an elevated storage tank for backwash water storage, the construction of two new finished water clear wells, a new lift pump station, a new water meter vault, two new wastewater basins, a recycle pump station, and a new electrical building. The loan will be funded through the Drinking Water SRF loan program with a fixed interest rate plus a half point administrative fee. The loan will mature within 30 years of completion of construction and will be secured with a lien on Edmond’s water, sewer, sanitation and electric systems revenues and a 2-cent sales tax. As Mr. Freeman mentioned previously their debt coverage ratio stands at 2.65 times and staff recommends approval.

Chairman Muller asks for the Board’s pleasure. Mr. Latham moved to approve the application and Ms. Castillo seconded. There were no further questions or discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: None
ABSENT: None

F. Consideration of and Possible Action on a Proposed Order Approving State Loan Program Revenue Bond Loan Funding Application for The Edmond Public Works Authority, Oklahoma County. Recommended for Approval. Mr. Freeman proceeds to the next item which is a request from Edmond for a $83.2 million dollar state revenue bond loan known as a FAP loan. The proceeds of this loan will be utilized to provide the additional funds needed for the completion of the intake structure and water treatment plant work as described in the two previous agenda items. The loan will bear a fixed interest rate and will have a 30-year maturity. As with the two previous loan requests, this loan will be secured with a lien on Edmond’s water, sewer, sanitation and electric systems revenues and a 2-cent sales tax. As Mr. Freeman has mentioned their debt coverage ratio stands at 2.65 times and staff recommends approval.

Chairman Muller asked for questions or a motion. Ms. Castillo moved to approve the application and Mr. Gorman seconded. There were no questions or discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: None
ABSENT: None
G. Resolution Authorizing the Issuance of Oklahoma Water Resources Board State Loan Program Revenue Bonds in an Aggregate Principal Amount not to Exceed $250,000,000; at a Net Interest Cost not to Exceed Six Percent (6.0%); Providing for the Issuance of Said Bonds in One or More Series; Approving and Authorizing Execution of a Series 2022B Supplemental Bond Resolution and, if Deemed Advisable, an Additional Supplemental Bond Resolution for Each Additional Series; Waiving Competitive Bidding on the Bonds and Authorizing the sale Thereof by Negotiation and at a Discount Pursuant to the Terms of a Contract of Purchase Pertaining Thereto; Approving a Preliminary Official Statement with Respect to Said Bonds; Authorizing the Chairman or Vice Chairman to Deem Preliminary Official Statements for Additional Series of Bonds Final; Directing Deposit of Proceeds Derived from the Issuance of the Bonds in the State Treasury and Requesting the State Treasurer to Remit Such Proceeds to the Bond Trustee; Ratifying and Approving the Form of Promissory Note, Loan Agreement, and Note Purchase Agreement to be Executed by Borrowers in the State Loan Program; Authorizing Execution of Such Other and Further Instruments, Certificates and Documents as may be Required for the Issuance of the Bonds; Directing Payment of Costs of Issuance and Containing Other Provisions Relating to the Issuance of the Bonds. Recommended for Approval. Mr. Freeman closes with his last item which is a resolution requesting approval for the insurance of up to $250 million dollars in state loan program revenue bonds also known as the FAP. In March of 2021 the Board approved a resolution for an issuance of FAP bonds. Approval through the Oklahoma Council of Bond Oversight is good for six months plus one 6-month extension which will be expiring this month. Mr. Freeman states that under the bond authorization of March 2021, we closed 4 FAP bond issues which funded loans for Tonkawa, Hobart, Blackwell, Jones, Boise City, Duncan, Guymon, Wagoner, Broken Arrow, Okemah, Harrah, and El Reno. Due to the one-year approval expiring this month we need additional approval of issuance for the FAP bond issues of which the first will fund the FAP loan just approved for Edmond. Mr. Freeman states that the resolution before the Board authorizes the issuance of not to exceed $250 million dollars in FAP bonds in one or more series, provides for the approval of their preliminary official statement, authorizes the chairman or vice chairman to deem preliminary official statements for an additional series of bonds final, authorizes the sale of the bonds to be on a negotiated basis, directs the bond proceeds to be deposited and the state treasury and then remitted to BancFirst as your trustee, ratifies the form of promissory note, loan agreement, and note purchase agreement. In addition, the resolution authorizes execution of other documents required for the issuance of the bonds in direct payment of the costs of issuance. Mr. Freeman states that staff recommends approval and asks for any questions.

Mr. Latham asks if there is a bond council that reviews and issues this.

Mr. Freeman answers that yes, the bond council here today is Centennial Law Group and each borrower will also retain bond council.

Chairman Muller asked for questions or a motion. Mr. Stallings moved to approve the application and Mr. Latham seconded. There were no questions or discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: None
ABSENT: None
3. SUMMARY DISPOSITION AGENDA ITEMS

All of the items listed below under this Summary Disposition Agenda are recommended for approval.

Any item listed under this Summary Disposition Agenda may, at the request of any member of the Board, the Board’s staff, or any other person attending this meeting, 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. Chairman Muller asked if there were any items being requested to be removed. There were no requests to remove items to the Special Consideration Agenda.

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

Chairman Muller asks for the Board’s pleasure considering the items listed. Ms. Landess has a comment on Item G as it pertains to Weinkauf Petroleum, Inc. This item is for the “Consideration of and Possible Action on Applications for Regular Permits to Use Groundwater.” Ms. Landess states that she does not want to remove the item from the agenda but wants to be clear that she is against it. She explains that there is not enough fresh water available in the Panhandle for their use.

Chairman Muller notes her comment and asks for the Board’s pleasure again.

Mr. Darby moved to approve the application and Mr. Gorman seconded. There were no questions or further discussion and Chairman Muller called for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
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:
### 2. CWSRF Principal Forgiveness Loan Applications:

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

1. Intergovernmental Agreement between OWRB and Central Oklahoma Master Conservancy District to provide water quality monitoring support of Lake Thunderbird for state fiscal years 2022 and 2023.

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

1. D A Investments, LLC, Caddo County, #2021-528

### 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. Weinkauf Petroleum, Inc., Texas County, #2021-532
H. Consideration of and Possible Action on Applications to Amend Regular Permits to Use Groundwater:
None

I. Consideration of and Possible Action on Applications to Amend Prior Right to Use Groundwater:
None

J. Consideration of and Possible Action on Applications to for Term Permits to Use Stream Water:
None

K. Consideration of and Possible Action on Applications for Regular Permits to Use Stream Water:
None

L. Consideration of and Possible Action on Applications to Amend Regular Permits to Use Stream Water:
1. Pittsburg County Rural Water District #14, Pittsburg County, #1990-006

M. Consideration of and Possible Action on Well Driller and Pump Installer Licensing:
1. New Licenses, Accompanying Operator Certificates and Activities:
   1. Licensee: CoreCO USA
      Operator: David Smith
      Operator: Daniel Spaust
   2. Licensee: MenDenhall Enterprises & Contracting LLC
      Operator: Matthew MenDenhall

2. New Operators, Licensee Name Change, and/or Activities for Existing Licenses:
None

N. Consideration of and Possible Action on Dam and Reservoir Construction:
1. Liberty Ranch (Liberty Ranch Dam), #OK30596, Osage County
2. City of Claremore (Lowry Pond Dam), #OK30597, Rogers County

O. Consideration of and Possible Action on Permit Applications for Proposed Development on State Owned or Operated Property within Floodplain Areas:
None

P. Consideration of and Possible Action on Applications for Accreditation of Floodplain Administrators:
1. Ricky NeSmith, City of Nicoma Park, #FPA-032
2. William Jones, Town of Lone Wolf, #FPA-033
3. Charlie Clark, City of Lexington, #FPA-034
4. QUESTIONS AND DISCUSSION ABOUT AGENCY MATTERS AND OTHER ITEMS OF INTEREST
   A. No Items

5. SPECIAL CONSIDERATION

A. Consideration of and Possible Action on the Application to Amend Prior Groundwater Right No. 1968-350, Billy and Kimberly Mizer, Cimarron County, Oklahoma:
   1. Summary –
      Mr. Chris Neel, Chief, Water Rights Administration Division, greets the Chairman and Board. Mr. Neel explains that the special consideration item is an application to amend a Prior Right Permit to Use Groundwater, Permit No. 1968-350, under the name of Billy and Kimberly Mizer in Cimarron County. Mr. Neel states that on April 22, 2021, Billy and Kimberly Mizer submitted an application to amend the groundwater permit in Cimarron County, OK. The existing Prior Right Permit authorizes 280-acre feet of groundwater for irrigation purposes from one well referred to as the West Well. The Applicant is requesting an additional well location and well exception referred to as the East Well, in addition to the already existing well location. The groundwater to be withdrawn is to be withdrawn from the Ogallala panhandle major groundwater basin which has a maximum annual established with an equal portion share of 2-acre feet per acre per year. The notice of application was published in the Boise City news in Cimarron County on August 25, 2021, and September 5, 2021. The Board received a protest to the application in a timely manner and a hearing was conducted on January 28, 2022.

Ronnie and Audrey Cochran protested the application and were made parties herein and claimed that the location of the East Well violates the well spacing requirements because of close proximity to their well. During the hearing, the Applicant testified to have never pumped the East Well and that it was used in the 1970’s and 1980’s by his uncle. The Applicant testified that they would like to use the East Well as an insurance in case something happens to the West Well, claiming that corn yield will be hurt if the crop goes without water for 7 days. The Applicant testified that they intend to only use the East Well in case the West Well fails and the Applicant is not requesting additional water.

The Protestant, Mr. Ronnie Cochran, raised a concern of depletion of his irrigation well if the Applicant uses the East Well, which would negatively affect his well by drawing down the water table. Mr. Cochran testified the East Well is approximately 130 yards from his permitted well. In April of 2021, the Protestant, Mr. Cochran, received an additional permit that increased his water usage from 320-acre feet to 960-acre feet. The Hearing Examiner issued the Proposed Order to the agenda today to approve the amendment to the Application No. 1968-350, including the Well Spacing Exception in the name of Billy and Kimberly Mizer. Mr. Neel states that staff recommends approval of the Proposed Findings of Fact, Conclusions of Law and Board Order including approving the Well Spacing Exception. On April 14, 2022, OWRB received an Exception to the Hearing Examiner’s Order which was provided to the Board via email.

Ms. Sara Gibson asks Mr. Neel if staff noted anything that needed to be amended in the Order.

Mr. Neel answers that the Board Order indicates that the Protestant, Mr. Cochran, received
an additional permit that increased his water usage to 320-acre feet. Mr. Neel states that this is incorrect and that they had a Prior Right Permit for 320-acre feet, but they requested and received an additional 640-acre feet of water with their regular permit.

Ms. Sara Gibson clarifies that the water usage listed on the Board Order should be 960-acre feet total as opposed to the 320-acre feet listed.

Mr. Neel explains that the Exception to the Hearing Examiner’s Order states that the East Well is not necessary in order to withdraw the amount authorized by the existing permit under Chapter 30-7-4(a)(1) of the Proposed Order of these rules and that the term “necessary” is not defined in OWRB regulations. The Exception also points out that the Protestants made it clear to the Hearing Examiner during a hearing that the application should be approved and reasonable restrictions should be placed on the East Well under Chapter 30-3-6(b). There is no representation for the Applicant at today’s Board Meeting. Representing the Protestant is Allison B. Christian of McAfee & Taft. Mr. Neel asks for any questions.

Ms. Gibson states that the rule is whether it is inequitable or unreasonable not to grant it, which comes as a situation-by-situation evaluation.

Mr. Stallings asks if there were any technical experts or evidence at the well.

Mr. Neel states that there was no technical evidence to discuss the potential drawdowns or the effect of that well due to their proximity. Mr. Neel also answers that the Water Board did not do an analysis of the well.

Ms. Landess asks how far away the Cochran’s well is from the East Well.

Mr. Neel answers that during testimony they stated that it is 130 yards and Google places it further approximately 550-600 feet.

Ms. Landess opens the discussion and the possibility of the wells drawing down each other.

Chairman Muller asks for any more questions for Mr. Neel. There were no further questions at this time.

2. Discussion and presentation by parties

Chairman Muller calls Allison Christian to present to the Board on behalf of the Protestant. Ms. Christian greets the Board and introduces herself as an attorney for McAfee & Taft here on behalf of Ronnie and Audrey Cochran in this matter. Ms. Christian states that pursuant to Oklahoma Title 75 Section 322, a Hearing Examiner’s order may be reversed for a few reasons. Ms. Christian states that it should be overturned for two reasons: first, the Hearing Examiner broadly interpreted the term “necessary” in violation of Oklahoma Law and the Water Board’s regulations and second, the Order wholly failed to address Protesters requests that protections and reasonable restrictions be placed on the use of the East Well. The Protesters request that the Board denies this application or alternatively provides reasonable use restrictions to be placed on the East Well in accordance with Oklahoma Administrative Code Section 785:30-3-6(b)(2) to protect the Protesters existing water rights. Ms. Christian provides a map to show how close the wells are to each other.

Mr. Gorman asks Ms. Christian what are the reasonable restrictions that the Protestant would request.

Ms. Christian answers that there are options. One option is to remand this to the Hearing Examiner, and they could perform that analysis in conjunction with the Water Board. Option two is the Board could craft those restrictions today. Or an alternative option is that they would request the right to come back with priority rights to the East Well if there are any water issues and they are unable to withdraw their water effectively.
Mr. Muller opens discussion on the possibility of an approval of the application, as well as a denial of the application stating that he can see it from either side. He states that restrictions could be put on the permit to limit its use only in emergency situations would be his choice, but in the essence of time it is difficult to come up with those restrictions. Mr. Muller states that he would like to act and give direction to the Staff, Applicant and Protestant to arrive at a summary.

There is open discussion and questions on if there is authority to come up with and place those restrictions on the permit. Ms. Gibson confirms that yes, the Board does have the authority to do so, but this is usually not handled with groundwater cases.

There are questions about if this has ever been permitted in the past. Mr. Neel states that he believes there has never been a case where there is a permit for someone to have a back up well and not use it.

Ms. Castillo states that she is struggling with the word “necessary”. She states that there are some inconsistencies with what is in the Order as opposed to what was in the Exception. If the Applicant is applying for the permit only as a backup “insurance” plan, does that really deem it “necessary”.

Mr. Muller gives some calculations as to why it may be necessary for the Applicant to use the water for the corn crops if the West Well were to go down for more than 7 days, losing many bushels and therefor affecting the yields and profits of the crops.

3. **Possible Executive Session**
   As authorized by the Oklahoma Open Meeting Act in Section 307(B)(8) of Title 25 of the Oklahoma Statutes, an executive session may be held for the purpose of “[e]ngaging in deliberations or rendering a final or intermediate decision in an individual proceeding pursuant to Article II of the Administrative Procedures Act”.
   (a) Vote on whether to hold Executive Session. Before it can be held, the Executive Session must be authorized by a majority vote of a quorum of members present and such vote must be recorded.
   (b) Designation of person to keep written minutes of Executive Session, if authorized.
   (c) Executive Session, if authorized.

   Mr. Muller announces the option to discuss this matter in Executive Session, but an open discussion is preferred by the Board to come to some type of conclusion.

4. **Return to open meeting and possible vote or action on any matter discussed in the Executive Session, if authorized.**

   Open discussion and questions for the case continue by the Board and OWRB staff. Questions arise about the history of the well being drilled as it predates the rules. Ms. Gibson states that it was drilled after the prior rights were done and it was drilled before the maximum annual yield was done, so it fell into a gray area where it was never permitted.

   There are many concerns by multiple Board members about approving the application as it is today.

   Ms. Cunningham states that she knows there are cases that have been remanded back to the parties to have further discussion about restrictions the can both agree upon restrictions at a later date.
Ms. Christian is called back to answer what restrictions she believes the Protestant may be able to live with. Ms. Christian is concerned with the cost implications of remanding the case back to the parties in the interest of her client. She asks if the Water Board has resources to perform a study in order to better place informed restrictions on the groundwater well and its use.

Mr. Muller asks Mr. Neel what types of hydrological studies could be done and what kind of costs estimates could be done by OWRB. Mr. Neel states that there are some calculation tools available to make a better-informed decision, even though these are generally estimates.

Ms. Gibson advises that the Board could Table the application and give instruction to the parties to propose restrictions to bring to the next meeting. Another option is it could be remanded to the Hearing Examiner for further findings and development of proposed restrictions. Ms. Gibson states that OWRB staff could provide whatever assistance we can to facilitate these discussions.

Mr. Muller polls the Board preliminarily to note if any of the members would consider granting the permit as it is today with no restrictions. There was no support by any members of the Board. Therefore, Mr. Muller proposes that we ask each party what restrictions they would propose and what restrictions they would accept. The Applicant would then have the opportunity to come up with restrictions that would have to be discussed with the Protestant.

Discussion about the enforcement of these restrictions is discussed. Mr. Muller proposes a requirement of notification if the applicant needs to use the East Well if their West Well goes down.

Ms. Christian asks to provide context to the climate of the parties. She states that the Applicant does not have counsel and therefore the Protestant is the only party incurring costs. Ms. Christian proposes that someone from the Water Board could serve as a mediator for these discussions in coming up with certain restrictions.

Ms. Gibson states that yes, the Water Board does have mechanisms in place to mediate and allow these parties to discuss in a room.

Ms. Cunningham expresses her support in the Water Board being able to mediate this.

5. Vote on whether to approve the Proposed Order as presented or as may be amended, or vote on any other action or decision relating to the Proposed Order.

Ms. Castillo has a proposed motion that the Board Tables this matter for one month to allow the parties the ability to work with OWRB staff to mediate and come up with proposed restrictions. This would then allow for the presentation of this matter at the next Board Meeting.

Mr. Latham has an addition to Ms. Castillo’s motion. Mr. Latham would also include that in the case of no agreement by the parties, the OWRB staff member who mediates the case would propose a recommended restriction for the well.

Ms. Castillo accepts this addition as a friendly revision. Mr. Gorman seconds the motion. Chairman Muller asks for any questions or discussion. There was none and Chairman Muller proceeded to call for the vote.

AYE: Latham, Stallings, Justice, Castillo, Melton, Darby, Landess, Gorman, Muller
NAY: None
ABSTAIN: None
ABSENT: None
B. Consideration of and Possible Action on items Transferred from Summary Disposition Agenda, if any.
   There were no items transferred from the Summary Disposition for the Board’s consideration.

6. NEW BUSINESS

Under the Open Meeting Act, this agenda item is authorized only for matters not known about which could not have been reasonable foreseen prior to the time of posting the agenda or any revised agenda.
   There were no New Business items for the Board’s consideration.

7. ADJORNMENT

   There being no further business, Chairman Muller adjourned the regular meeting of the Oklahoma Water Resources Board at 3:20 p.m. on April 18, 2022.
1. **D. FINANCIAL UPDATE**

<table>
<thead>
<tr>
<th>Revenues</th>
<th>Budgeted</th>
<th>Expended</th>
<th>Balance</th>
<th>Percentage Remaining</th>
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<tbody>
<tr>
<td><strong>General Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19111 FY 21 Carryover</td>
<td>301,257</td>
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<td>301,257</td>
<td>100%</td>
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<tr>
<td>19201 FY 22 Appropriation</td>
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<td>3,073,142</td>
<td>2,921,399</td>
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<td><strong>Total General Revenue</strong></td>
<td>6,295,798</td>
<td>3,073,142</td>
<td>3,222,656</td>
<td>51%</td>
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<tr>
<td><strong>Revolving Funds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21000 Drillers Indemnity Fund</td>
<td>50,000</td>
<td>4,530</td>
<td>45,470</td>
<td>91%</td>
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<tr>
<td>21500 OWRB Revolving Fund</td>
<td>3,354,038</td>
<td>2,346,731</td>
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<tr>
<td>24000 Revolving Fund</td>
<td>782,271</td>
<td>567,001</td>
<td>215,270</td>
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<tr>
<td>24500 Drillers Regulation Fund</td>
<td>20,000</td>
<td>0</td>
<td>20,000</td>
<td>100%</td>
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<tr>
<td>25000 Water Infrastructure Dev. Fund (OCWP)</td>
<td>3,886,824</td>
<td>1,727,894</td>
<td>2,158,930</td>
<td>56%</td>
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<tr>
<td>42000 USGS Cooperative Agreement</td>
<td>301,300</td>
<td>151,635</td>
<td>149,665</td>
<td>50%</td>
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<tr>
<td>44400 DW Loan Administration Fund</td>
<td>1,129,752</td>
<td>327,215</td>
<td>802,537</td>
<td>71%</td>
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<tr>
<td>44500 CW Loan Administration Fund</td>
<td>1,851,441</td>
<td>1,098,109</td>
<td>753,332</td>
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<tr>
<td>47200 CW Loan Fund</td>
<td>400,000</td>
<td>0</td>
<td>400,000</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total Revolving Funds</strong></td>
<td>11,775,626</td>
<td>6,223,115</td>
<td>5,552,511</td>
<td>47%</td>
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<tr>
<td><strong>Federal Funds</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40000 Federal Fund</td>
<td>3,042,274</td>
<td>997,377.57</td>
<td>2,044,896</td>
<td>67%</td>
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<tr>
<td><strong>Total Federal Funds</strong></td>
<td>3,042,274</td>
<td>997,378</td>
<td>2,044,896</td>
<td>67%</td>
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<tr>
<td><strong>Total Funding</strong></td>
<td>21,113,698</td>
<td>10,293,635</td>
<td>10,820,063</td>
<td>51%</td>
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<tr>
<td><strong>Expenses</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>51000 Salary Expense</td>
<td>6,706,443</td>
<td>5,248,916</td>
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<td>51200 Insurance</td>
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<tr>
<td>51300 FICA and Retirement</td>
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<td>1,248,185</td>
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<td>51500 Professional Services</td>
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<td>1,875,506</td>
<td>6,200,678</td>
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<tr>
<td>51900 Flexible Benefits</td>
<td>16,000</td>
<td>7,436</td>
<td>8,564</td>
<td>54%</td>
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<tr>
<td><strong>Total Personal Services</strong></td>
<td>17,651,352</td>
<td>9,313,476</td>
<td>8,337,876</td>
<td>47%</td>
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<tr>
<td>52000 Travel Expense</td>
<td>410,639</td>
<td>125,869</td>
<td>284,770</td>
<td>69%</td>
</tr>
<tr>
<td>53000 Administrative Expense</td>
<td>1,228,596</td>
<td>746,252</td>
<td>482,344</td>
<td>39%</td>
</tr>
<tr>
<td>54000 Furniture and Equipment Expense</td>
<td>917,190</td>
<td>108,038</td>
<td>809,152</td>
<td>88%</td>
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<tr>
<td>55000 Intra Inter Agency Payments</td>
<td>905,922</td>
<td>905,922</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>3,462,347</td>
<td>980,159</td>
<td>2,482,188</td>
<td>72%</td>
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<tr>
<td><strong>Total Expenditures</strong></td>
<td>21,113,699</td>
<td>10,293,635</td>
<td>10,820,064</td>
<td>51%</td>
</tr>
</tbody>
</table>

Percent of FY Remaining: 17%
2. FINANCIAL ASSISTANCE DIVISION

May 17, 2022
### OKLAHOMA WATER RESOURCES BOARD
#### Emergency Grant Program
#### Priority List

<table>
<thead>
<tr>
<th>Priority Ranking</th>
<th>Priority Points</th>
<th>Date Requested</th>
<th>Grant Number</th>
<th>Applicant</th>
<th>County</th>
<th>Project Type</th>
<th>Amount Recommended</th>
<th>Available Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>73</td>
<td>06/10/2021</td>
<td>FAP-21-0010-G</td>
<td>Barnsdall Public Works Authority</td>
<td>Osage</td>
<td>Water</td>
<td>$99,450.00</td>
<td>$40,471.93</td>
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<tr>
<td>2</td>
<td>61</td>
<td>09/27/2021</td>
<td>FAP-22-0001-G</td>
<td>Woodward County Rural Water District #2</td>
<td>Woodward</td>
<td>Water</td>
<td>$87,250.00</td>
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</tr>
</tbody>
</table>

* Recommended for approval when funds available
* Funds are available

Total Requests: $186,700.00
WATER RESOURCES FUND
EMERGENCY GRANT ACCOUNT
April 30, 2022

Beginning Balance, 4/1/2022 $531,197.23

Income:
Interest Earnings 455.87
Reserve Earnings
2016 Gen Reserve 8,003.70
1986 Gen Reserve 942.63

Grant Refunds:
Returned Grant Funds
Unencumbered Grant Funds

Total Income 9,402.20

Grants Funded:

Total Grants Funded -

Ending Balance, 4/30/2022 540,599.43

Funds obligated for approved grants (127.50)
Total of grants recommended for approval
Total unobligated funds available for grants $540,471.93
LOAN APPLICATION
RECOMMENDED FOR APPROVAL

Applicant: Consolidated Rural Water District No. 9, McIntosh County

Loan Application No.: ORF-22-0015-DW
Drinking Water SRF Loan (“DWSRF Loan”)

Funding Requested: $695,000.00

Loan Interest Rate: The DWSRF Loan shall bear a fixed interest rate to be determined prior to loan closing plus an administrative fee of 0.5% per annum, all on the outstanding principal balance of the loan.

Loan Payment Term: Interest, administrative fee, and principal payments shall be made on a semi-annual basis. The applicant shall commence principal repayment no later than one (1) year following Project completion and the maturity of the loan shall be no later than twenty (20) years following the date the Project is completed.

Loan Security Position: The DWSRF loan shall be secured with a lien on the revenues of the applicant's water system and may include a mortgage on the applicant's water system and other real property.

Purpose: The applicant will utilize the loan proceeds to: (i) construct two chlorine booster stations, make storage tank improvements to the Tiger Hill tank, all related appurtenances (the “Project”), and (ii) pay related costs of issuance.

<table>
<thead>
<tr>
<th>Sources of Funds (Est.)</th>
<th>Uses of Funds (Est.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Proceeds</td>
<td>$695,000.00</td>
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<tr>
<td></td>
<td>Project</td>
</tr>
<tr>
<td></td>
<td>Bond Counsel</td>
</tr>
<tr>
<td></td>
<td>Trustee Bank</td>
</tr>
<tr>
<td>Total</td>
<td>$695,000.00</td>
</tr>
</tbody>
</table>
BEFORE THE OKLAHOMA WATER RESOURCES BOARD
STATE OF OKLAHOMA
IN THE MATTER OF LOAN APPLICATION
NO. ORF-22-0015-DW IN THE NAME OF
CONSOLIDATED RURAL WATER DISTRICT NO.9
MCINTOSH COUNTY, OKLAHOMA

PROPOSED ORDER APPROVING LOAN APPLICATION

This matter came on for consideration before the Oklahoma Water Resources Board (the "Board") on the 17th day of May, 2022.

WHEREAS, Consolidated Rural Water District No. 9, McIntosh County (the "Applicant") has made its Application for Funding No. ORF-22-0015-DW (the "Loan Application") to the Board and to the Oklahoma Department of Environmental Quality (the "DEQ") for a loan from the Drinking Water Treatment Revolving Loan Account (the “DWSRF”), pursuant to Title 82 Oklahoma Statutes 2011, Sections 1085.71 et seq, as amended; and

WHEREAS, the Applicant intends to use the loan for drinking water system improvements, to further compliance with State and Federal standards and/or to refinance existing indebtedness originally incurred for such purposes; and

WHEREAS, the DEQ has certified the Loan Application with regards to compliance with applicable technical program requirements and forwarded it to the Board with a recommendation that the Loan Application be considered and approved for a DWSRF Loan; and

WHEREAS, the Board has completed its review of the Loan Application and related information, and finds that the Loan Application should be approved according to the terms and conditions set forth below.

NOW, THEREFORE, LET IT BE RESOLVED AND ORDERED BY THE OKLAHOMA WATER RESOURCES BOARD:

Application for Funding No. ORF-22-0015-DW in the name of Consolidated Rural Water District No. 9, McIntosh County be and the same is hereby approved. Subject to and contingent upon the Board’s receipt of sufficient funds, a loan shall be made to the Applicant for the following purpose and subject to the following terms and conditions:

Purpose

The loan proceeds, along with other funds of the Applicant, if any, will be used to (i) construct two chlorine booster stations, make storage tank improvements to the Tiger Hill tank, all related appurtenances (the “Project”), and (ii) pay related costs of issuance, all as more specifically set forth in the Application.

Terms and Conditions

1. A loan shall be made to the Applicant to provide funds for the Project described in the Loan Application in an aggregate principal amount not to exceed $695,000.00. The Applicant shall pay interest on the loan at a fixed rate to be determined prior to closing plus an administrative fee at the rate of 0.5% per annum, all on the outstanding balance of disbursed loan proceeds. Interest, administrative fee, and any principal payments shall be made on a semi-annual basis. The Applicant shall commence principal repayment no later than one (1) year following Project
ORDER APPROVING LOAN APPLICATION
CONSOLIDATED RURAL WATER DISTRICT NO. 9, MCINTOSH COUNTY
ORF-22-0015-DW

completion, and the maturity of the loan shall be no later than twenty (20) years following the date
the Project is completed.

2. The loan shall be secured with a lien on the revenues of the Applicant’s water
system and may include a mortgage on the Applicant's water system and other real property.

3. Upon the Applicant's acceptance of the DEQ's Letter of Binding Commitment, the
funds shall be reserved for the Applicant for a period of one (1) year from the date of this Order.
In the event the loan is not closed on or before such date, the Board reserves the right to (i) approve,
at the Applicant’s request, a reasonable extension of time to close the loan, or (ii) de-obligate all
or a portion of the loan funds in order to be used by the Board to make other DWSRF loans, as the
Board determines shall permit the best use of the funds. Funds shall be provided to the Applicant
from the DWSRF in accordance with the DWSRF program regulations as approved by the United
States Environmental Protection Agency.

4. The Board's Staff is authorized to determine what additional conditions or
requirements shall be necessary in order to assure the soundness of the loan and compliance with
applicable financial, legal, DWSRF, and Bond Resolution requirements. In accordance with
applicable authority and the United States Environmental Protection Agency (“EPA”) guidelines
for the implementation of the DWSRF Capitalization Grant, the loan conditions may include
principal forgiveness to be used to pay a portion of the costs of the Project as described in the
Application or for other purposes authorized by applicable authority and EPA guidelines. The
Board’s Staff is further authorized to approve future modifications or additions to the project
purposes and uses of funds approved herein, provided such modifications or additions will not
materially and adversely affect the loan.

5. The loan shall be subject in all respects to the provisions of the Applicant’s
promissory note(s), loan agreement(s), and other loan documents which shall be executed by
proper officials of the Applicant and a Board Member at or prior to loan closing as appropriate.

6. Additional loans may be made at such times, for such projects of the Applicant, at
such repayment periods and interest rates, and upon such other terms and conditions as may be
agreed to and approved by the Board and the Applicant.

So ordered this 17th day of May, 2022, in regular and open meeting of the Oklahoma Water
Resources Board.

OKLAHOMA WATER RESOURCES BOARD
_______________________________________
Matt Muller, Chairman

ATTEST:

Jennifer Castillo, Secretary

(SEAL)

Reviewed By:

/s/
Joe Freeman, Chief
Financial Assistance Division
A RESOLUTION
EXPRESSING OFFICIAL INTENT TO REIMBURSE COSTS OF LOANS
FOR CLEAN WATER SRF PROJECTS

WHEREAS, the Oklahoma Water Resources Board (the “Board”) is an instrumentality of the State of Oklahoma; and

WHEREAS, Article X, Section 39 of the Oklahoma Constitution authorizes a program for financial assistance to public entities for water resource and sewage treatment purposes as authorized by the Legislature; and

WHEREAS, the Board has been authorized by the Legislature in 82 O.S. 2011, Sections 1085.51 through 1085.65 as amended (the "State Clean Water SRF Act") to sell and issue its obligations to provide necessary funds for the Clean Water State Revolving Fund Loan Account (the "CWSRF Account") in order to provide financial assistance to eligible entities for wastewater treatment projects all in accordance with the provisions of the State Clean Water SRF Act; and

WHEREAS, the Board expects prior to the issuance of Clean Water State Revolving Fund revenue bonds (the "Obligations") to finance from available revenues, other than bond proceeds, one or more loans attached hereto as Exhibit A ("Loans") in connection with the design, planning, acquisition and construction of clean water projects (the "Clean Water Projects"); and

WHEREAS, the Board finds, considers, and declares that the reimbursement of the Board for the payment of such expenditures will be appropriate and consistent with the lawful objectives of the Board and, as such, chooses to declare its intention, in accordance with the provisions of Section 1.150-2 of the Treasury Regulations, to reimburse itself for such payments at such time as it issues Obligations to fund the Loans used to finance the Clean Water Projects.

NOW, THEREFORE, BE IT RESOLVED BY THE OKLAHOMA WATER RESOURCES BOARD:

1. The Board reasonably expects to incur Obligations, as one or more series, with an aggregate maximum principal amount estimated not to exceed $529,752,927 for the purpose of funding the Loans the proceeds of which shall be used for the purpose of paying the costs of Clean Water Projects.

2. All costs to be reimbursed pursuant hereto will be used to fund the Loans for the Clean Water Projects in amounts currently estimated to be equal to the amounts set forth in Exhibit A. No tax-exempt obligations will be issued by the Board in furtherance of this Resolution after a date which is later than 18 months after the date the Loans are made.
3. No proceeds of obligations will be used pursuant hereto to reimburse costs previously paid with the proceeds of other obligations issued by the Board or any related entity.

ADOPTED and APPROVED this 17th day of May 2022.

OKLAHOMA WATER RESOURCES BOARD

Matt Muller, Chairman

ATTEST:

Jennifer Castillo, Secretary
(SEAL)

Reviewed by:

/s/
Joe Freeman, Chief
Financial Assistance Division
## EXHIBIT A
CLEAN WATER STATE REVOLVING FUND PROJECT REIMBURSEMENT LIST

<table>
<thead>
<tr>
<th>System</th>
<th>Amount</th>
<th>Project Description</th>
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</thead>
<tbody>
<tr>
<td>Adair Municipal Authority</td>
<td>$500,000.00</td>
<td>Sewer Line Replacement Project</td>
</tr>
<tr>
<td>Allen Public Works Authority</td>
<td>$38,070.00</td>
<td>AMR &amp; Sewer Collection</td>
</tr>
<tr>
<td>Altus Municipal Authority</td>
<td>$1,600,000.00</td>
<td>Wastewater Treatment Projects, Improvements and Upgrades</td>
</tr>
<tr>
<td>Ardmore Public Works Authority</td>
<td>$30,000,000.00</td>
<td>Wastewater Treatment Projects, Improvements and Upgrades</td>
</tr>
<tr>
<td>Arkoma Municipal Authority</td>
<td>$325,000.00</td>
<td>Installation of AMRs/AMIs</td>
</tr>
<tr>
<td>Arkoma Municipal Authority</td>
<td>$478,500.00</td>
<td>Wastewater Treatment Projects, Improvements and Upgrades</td>
</tr>
<tr>
<td>Atoka Municipal Authority</td>
<td>$200,000.00</td>
<td>Sanitary Sewer Evaluation Survey (SSES)</td>
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<tr>
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</tr>
<tr>
<td>Tuttle Public Works Authority</td>
<td>$5,926,095.00</td>
<td>Wastewater Treatment Projects, Improvements and Upgrades</td>
</tr>
<tr>
<td>Wagoner County RWSG &amp; SWMD #4</td>
<td>$21,121,320.00</td>
<td>Wastewater Treatment Projects, Improvements and Upgrades</td>
</tr>
<tr>
<td>Welch Public Works Authority</td>
<td>$67,000.00</td>
<td>Sewer System Evaluation Survey (SSES)</td>
</tr>
<tr>
<td>Wetumka Public Works Authority</td>
<td>$36,130.00</td>
<td>Automatic Meter Readers</td>
</tr>
<tr>
<td>Wewoka Public Works Authority</td>
<td>$85,000.00</td>
<td>Planning and Design Dam Rehab</td>
</tr>
</tbody>
</table>

$529,752,927.00
A RESOLUTION
EXPRESSING OFFICIAL INTENT TO REIMBURSE COSTS OF LOANS
FOR DRINKING WATER SRF PROJECTS

WHEREAS, the Oklahoma Water Resources Board (the "Board") is an instrumentality of the State of Oklahoma; and

WHEREAS, Article X, Section 39 of the Oklahoma Constitution authorizes a program for financial assistance to public entities for water resource and sewage treatment purposes as authorized by the Legislature; and

WHEREAS, the Board has been authorized by the Legislature in 82 O.S. 2011, Sections 1085.71 through 1085.84A as amended (the "State Drinking Water SRF Act") to sell and issue its obligations to provide necessary funds for the Drinking Water Treatment Revolving Loan Account (the "DWSRF Account") in order to provide financial assistance to eligible entities for financing drinking water treatment projects all in accordance with the provisions of the State Drinking Water SRF Act; and

WHEREAS, the Board expects prior to the issuance of Drinking Water State Revolving Fund revenue bonds (the "Obligations") to finance from available revenues, other than bond proceeds, one or more loans attached hereto as Exhibit A ("Loans") in connection with the design, planning, acquisition and construction of drinking water projects (the "Drinking Water Projects"); and

WHEREAS, the Board finds, considers, and declares that the reimbursement of the Board for the payment of such expenditures will be appropriate and consistent with the lawful objectives of the Board and, as such, chooses to declare its intention, in accordance with the provisions of Section 1.150-2 of the Treasury Regulations, to reimburse itself for such payments at such time as it issues Obligations to fund the Loans used to finance the Drinking Water Projects.

NOW, THEREFORE, BE IT RESOLVED BY THE OKLAHOMA WATER RESOURCES BOARD:

1. The Board reasonably expects to incur Obligations, as one or more series, with an aggregate maximum principal amount estimated not to exceed $1,417,935,360.00 for the purpose of funding the Loans the proceeds of which shall be used for the purpose of paying the costs of Drinking Water Projects.

2. All costs to be reimbursed pursuant hereto will be used to fund the Loans for the Drinking Water Projects in amounts currently estimated to be equal to the amounts set forth in Exhibit A. No tax-exempt obligations will be issued by the Board in furtherance of this Resolution after a date which is later than 18 months after the date the Loans are made.
3. No proceeds of obligations will be used pursuant hereto to reimburse costs previously paid with the proceeds of other obligations issued by the Board or any related entity.

ADOPTED and APPROVED this 17th day of May 2022.

OKLAHOMA WATER RESOURCES BOARD

Matt Muller, Chairman

ATTEST:

_________________________
Jennifer Castillo, Secretary
(SEAL)

Reviewed by:

_________________________
/s/
Joe Freeman, Chief
Financial Assistance Division
<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>LOAN AMOUNT</th>
<th>PROJECT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ada Public Works Authority</td>
<td>$400,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Altus Municipal Authority</td>
<td>$1,100,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Anadarko PWA</td>
<td>$140,000.00</td>
<td>Installation of automated flushing and tank aeration with blowers.</td>
</tr>
<tr>
<td>Atoka Municipal Authority</td>
<td>$800,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Atoka Municipal Authority</td>
<td>$1,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Beggs PWA</td>
<td>$100,000.00</td>
<td>Improvements to reduce Disinfection By-Products (DBPs).</td>
</tr>
<tr>
<td>Bixby PWA (II)</td>
<td>$5,700,000.00</td>
<td>Construction of the South Storage Tank and transmission line.</td>
</tr>
<tr>
<td>Calera Public Works Authority</td>
<td>$300,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Canadian Co. RWD #1</td>
<td>$2,000,000.00</td>
<td>Construct one new Ion Exchange nitrate reduction water treatment plant, two new distribution standpipes, and install eight new well pumps.</td>
</tr>
<tr>
<td>Canadian Co. RWD #4</td>
<td>$3,500,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Central Oklahoma Master Conservancy District</td>
<td>$145,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Checotah PWA (II)</td>
<td>$1,200,000.00</td>
<td>Water treatment plant improvements to reduce disinfection by-products.</td>
</tr>
<tr>
<td>Cherokee Co. RWD #1 (II)</td>
<td>$20,000.00</td>
<td>Construction of approximately 25,500 LF of 8 inch line, 6,500 LF of 6 inch line, a water storage tank, a pump station, and new water meters to connect to Muskogee Co. RWD #7. The project would eliminate a water treatment plant that is in disrepair and would also address water loss issues within the district.</td>
</tr>
<tr>
<td>Cherokee County Rural Water District #11</td>
<td>$55,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Municipality</td>
<td>Amount</td>
<td>Description</td>
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<tr>
<td>--------------------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Cleveland MA</td>
<td>$100,000.00</td>
<td>Installation of an aeration system and mixing system in the primary elevated water storage tanks and automated flushing hydrants.</td>
</tr>
<tr>
<td>Collinsville Municipal Authority</td>
<td>$7,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Comanche PWA</td>
<td>$100,000.00</td>
<td>Treatment plant improvements consist of installing a chlorine dioxide system and appurtenances for the reduction of disinfection byproducts.</td>
</tr>
<tr>
<td>Copan Public Works Authority</td>
<td>$500,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Cotton County Rural Water District #2</td>
<td>$116,652.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Creek Co. RWD #2</td>
<td>$5,695,082.00</td>
<td>Construction of four (4) miles of 12&quot; water line, a water tower and a pump station, and .5 mile of 10&quot; water line replacement.</td>
</tr>
<tr>
<td>Creek Co. RWD #2</td>
<td>$4,800,000.00</td>
<td>Water treatment improvements for reduction of disinfection byproducts.</td>
</tr>
<tr>
<td>Devol PWA</td>
<td>$100,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Edmond Public Works Authority</td>
<td>$6,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Edmond Public Works Authority</td>
<td>$13,500,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Edmond Public Works Authority</td>
<td>$14,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Edmond PWA (IX)</td>
<td>$181,000,000.00</td>
<td>Water Treatment Plant Expansion, Granular Activated Carbon (GAC) contactors, High Lift Pump Station (HLPS), two (2) new covered reinforced concrete clearwells, and Electrical (WTP-01B); Raw Water and Finished Water Transmission Mains (MAIN-03); AI-35 Complex Storage Improvements (TANK-02).</td>
</tr>
<tr>
<td>Edmond PWA (VIII)</td>
<td>$15,000,000.00</td>
<td>Installation of a 24-inch Water Line project along E. 33rd Street from east of S. Broadway/Highway 77 to I-35 and other upgrades. The water system improvements will increase distribution reliability, boost pressure and loop into other existing water lines.</td>
</tr>
<tr>
<td>Edmond PWA (X)</td>
<td>$222,000,000.00</td>
<td>Arcadia Lake Water Treatment Plant Expansion, remaining processes (WTP-01C), new ozone generation system, new preozone pipeline contactor, three (3) new solids contact clarifiers, two (2) new post ozone contactors, eight (8) new dual media filters, new pretreatment chemical building, new posttreatment chemical building, and associated electrical, controls, yard piping, paving, and other site improvements necessary to bring the new processes online and connect to existing processes and infrastructure.</td>
</tr>
<tr>
<td>Authority</td>
<td>Amount</td>
<td>Description</td>
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</tr>
<tr>
<td>Edmond PWA(VII)</td>
<td>$45,000,000.00</td>
<td>This phase of the project (INT-01), consists of the following: Preparing a</td>
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<tr>
<td></td>
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<td>site and access road within the United States Army Corps of Engineers (USACE)</td>
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<td>Property for the construction of a new intake adjacent to Arcadia Lake.</td>
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<td>This will require securing a Section 408 permit from the USACE. Construction</td>
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<tr>
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<td>of a below grade shaft for launching a tunnel boring machine and placing</td>
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<td>concrete and mechanical works in the shaft to allow it to function as a</td>
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<td>wet well for the low lift pumping station. The wet well will have a design</td>
</tr>
<tr>
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<td>capacity of 65 MGD. Construction of three (3) 60-inch diameter wet lake</td>
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<tr>
<td></td>
<td></td>
<td>taps and intake screens for a design capacity of 65 MGD – firm capacity.</td>
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<td></td>
<td>Excavation within Arcadia Lake for receiving the tunnel boring machine and</td>
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<tr>
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<td></td>
<td>construction of foundations within the lake for placement of the intake</td>
</tr>
<tr>
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<td>screens. Construction of a 30 MGD firm capacity pump station (expandable</td>
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<tr>
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<td>to 65 MGD firm capacity) and appurtenances over the wet well. Construction</td>
</tr>
<tr>
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<td>of the yard piping, paving, and an emergency generator adjacent to the pump</td>
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<tr>
<td></td>
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<td>station. The yard piping will mainly involve construction of a new 42-inch</td>
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<td>HDPE discharge raw water transmission main to the boundary of the INT-01 site</td>
</tr>
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<td></td>
<td>for connection to a new 42-inch HDPE raw water transmission main connecting</td>
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<tr>
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<td></td>
<td>the INT-01 site to the existing water treatment plant. This portion of the</td>
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<tr>
<td></td>
<td></td>
<td>raw water transmission main will be constructed under a different project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>under a separate funding request.</td>
</tr>
<tr>
<td>Enid Municipal Authority</td>
<td>$160,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Eufaula Public Works Authority</td>
<td>$100,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Fairfax PWA</td>
<td>$100,000.00</td>
<td>Improvements will address disinfection byproducts violations.</td>
</tr>
<tr>
<td>Fairview UA</td>
<td>$3,500,000.00</td>
<td>Construct a new water treatment plant and appurtenances.</td>
</tr>
<tr>
<td>Fairview UA</td>
<td>$13,154,300.00</td>
<td></td>
</tr>
<tr>
<td>Fort Cobb, Town of</td>
<td>$358,000.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Budget</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Foss Reservoir MCD (II)</td>
<td>$15,000,000.00</td>
<td>Construct a second, redundant, clarifier to allow for maintenance of the existing clarifier; construct a mixing basin along with additional bypass piping; and rehabilitation of the sand filter and reworking the piping to increase redundancy.</td>
</tr>
<tr>
<td>Frederick PWA (II)</td>
<td>$130,000.00</td>
<td>Installation of a permanent Chlorine Dioxide Feed System and a separate chlorine gas storage/feed building.</td>
</tr>
<tr>
<td>Garfield Co. RWD #6</td>
<td>$900,000.00</td>
<td>Install iron and manganese treatment system, line extension and booster station.</td>
</tr>
<tr>
<td>Geary UA</td>
<td>$75,000.00</td>
<td></td>
</tr>
<tr>
<td>Holdenville PWA</td>
<td>$91,000.00</td>
<td></td>
</tr>
<tr>
<td>Hominy PWA (II)</td>
<td>$300,000.00</td>
<td>Rehabilitation of the existing north water storage tank which would include design and installation of a water circulation system.</td>
</tr>
<tr>
<td>Indiahoma PWA</td>
<td>$268,000.00</td>
<td>Install an aeration system in the water tower, replace blending station, repair wellhouse, chlorination machine, and tank level guide repair.</td>
</tr>
<tr>
<td>Jet Utilities Authority</td>
<td>$100,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Jones PWA</td>
<td>$3,200,000.00</td>
<td>Replace the water storage tank with a new tank, rebuild the water wells, develop a new well and add a waterline, and install Automated Meter Reading (AMR) software and meters.</td>
</tr>
<tr>
<td>Locust Grove Public Works Authority</td>
<td>$6,203,595.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Lone Grove Water and Sewerage Trust Authority</td>
<td>$4,140,000.00</td>
<td>Water system improvements including: groundwater wells, waterlines, and a 0.40MG elevated water storage tank.</td>
</tr>
<tr>
<td>Marietta PWA</td>
<td>$5,200,000.00</td>
<td></td>
</tr>
<tr>
<td>Maysville MA</td>
<td>$6,600,000.00</td>
<td>Abandon the dilapidated surface water treatment plant, develop 2 new wells, construct a new water treatment plant, and replace the majority of our distribution system to meet ODEQ regulations.</td>
</tr>
<tr>
<td>Entity</td>
<td>Cost</td>
<td>Details</td>
</tr>
<tr>
<td>------------------------------</td>
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<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>McAlester PWA</td>
<td>$32,000,000.00</td>
<td>Replacement of water transmission and distribution lines throughout the City.</td>
</tr>
<tr>
<td>McCurtain Co. RWD #1</td>
<td>$2,990,000.00</td>
<td></td>
</tr>
<tr>
<td>McCurtain Co. RWD #8</td>
<td>$136,000.00</td>
<td></td>
</tr>
<tr>
<td>McIntosh County RWD #9</td>
<td>$450,000.00</td>
<td></td>
</tr>
<tr>
<td>McIntosh County RWS &amp; SWD #2</td>
<td>$22,015.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>McIntosh County RWSG &amp; SWMD #8</td>
<td>$100,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Miami Special Utilities Authority</td>
<td>$1,260,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Muskogee Co. RWD #3</td>
<td>$200,000.00</td>
<td>Installing water lines to loop in dead end lines to help with water age and two (2) booster stations to help with pressure issues.</td>
</tr>
<tr>
<td>Muskogee Municipal Authority</td>
<td>$8,400,000.00</td>
<td>ORF-18-0012-DW</td>
</tr>
<tr>
<td>New Cordell UA</td>
<td>$1,900,000.00</td>
<td>Replace existing water lines and associated improvements.</td>
</tr>
<tr>
<td>Norman UA (III)</td>
<td>$16,000,000.00</td>
<td>Install collection lines to bring the majority of the groundwater wells to one centralized location, storage tank, pumping station, and distribution lines.</td>
</tr>
<tr>
<td>Nowata MA</td>
<td>$450,000.00</td>
<td>Rehabilitation of the water treatment plant consisting of new pumps, variable frequency drives, and installation of SCADA system for plant automation.</td>
</tr>
<tr>
<td>Okarche PWA</td>
<td>$2,775,000.00</td>
<td>Construct a Treatment Plant for Nitrate Removal.</td>
</tr>
<tr>
<td>Oklahoma City Water Utilities Trust</td>
<td>$8,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Oklahoma City Water Utilities Trust</td>
<td>$55,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Project Name</td>
<td>Cost</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Oklahoma City WUT (X)</td>
<td>$31,645,000</td>
<td>WT-00757I Atoka pipeline surge tank replacement for the McComb station due to end of useful life. WT-0224 Draper WTP clearwells (15 MG) replacement due to end of useful life. WC-0991 MacArthur water storage tank structural deterioration repairs and paint to prevent corrosion. WC-0992 South Hefner backwash tank structural deterioration repairs and paint to prevent corrosion. WC-0993 West Draper backwash repairs and paint to prevent corrosion. WC-0994 South Overholser tank structural deterioration repairs and paint to prevent corrosion.</td>
</tr>
<tr>
<td>Okmulgee Co. RWD #4</td>
<td>$250,000</td>
<td>Construct a new combined booster pump station and chloramine booster station.</td>
</tr>
<tr>
<td>Okmulgee Municipal Authority</td>
<td>$1,200,000</td>
<td>Water treatment improvements and upgrades.</td>
</tr>
<tr>
<td>Ottawa Co. RWD #5</td>
<td>$400,000</td>
<td>Construct approximately13,500 feet of six-inch water line into a part of the district currently experiencing low water pressure, zero at times in many households, and erecting a standpipe on the point of highest elevation in that area.</td>
</tr>
<tr>
<td>Perry MA</td>
<td>$4,000,000</td>
<td></td>
</tr>
<tr>
<td>Pittsburg PWA</td>
<td>$120,000</td>
<td>Replacement of the filter media in the slow sand filter, additional chlorine feed point at the WTP, flushing hydrant, and booster chlorine station in the distribution system.</td>
</tr>
<tr>
<td>Porter PWA</td>
<td>$800,000</td>
<td>Water system improvements consisting of rehabilitation of an elevated water storage tank, ground storage tank, and booster pump station, and addressing DBP issues.</td>
</tr>
<tr>
<td>Porum PWA</td>
<td>$3,457,310</td>
<td>Installation of approximately 72,000 L.F. of line replacement and additional line, a proposed water storage tank, rehabilitation of two standpipes, and a proposed booster station.</td>
</tr>
<tr>
<td>Pushmataha Co. RWD #3</td>
<td>$100,000</td>
<td>Improvements for non-compliance with disinfection-by-product (DBP) issues.</td>
</tr>
<tr>
<td>Authority</td>
<td>Amount</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rogers Co. RWD #4 (II)</td>
<td>$3,600,000.00</td>
<td>Addition of a third &quot;Actifloc&quot; clarification/filtration unit at the existing RWD #4 water treatment plant; installation of a 500,000 gallon water storage tank at the existing RWD #4 treatment plant, and construct a two-mile long twelve-inch (12&quot;) water line project on S. 4100 Road, located near Talala, OK.</td>
</tr>
<tr>
<td>Shawnee Municipal Authority</td>
<td>$13,000,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Stillwater UA (IX)</td>
<td>$50,000,000.00</td>
<td>Terminal Storage Reservoir.</td>
</tr>
<tr>
<td>Stillwater UA (V)</td>
<td>$16,000,000.00</td>
<td>Construction of a WTP Finished Water Pump Station and Clearwell Replacement.</td>
</tr>
<tr>
<td>Stillwater UA (VI)</td>
<td>$60,000,000.00</td>
<td>WTP Rehabilitation and Improvements: New chemical building, new filters, new recarb., rehabilitation/expand chlorine system.</td>
</tr>
<tr>
<td>Stillwater UA (VII)</td>
<td>$250,000,000.00</td>
<td>Rehabilitate existing 36&quot; Raw WL, add new 42&quot; parallel Raw WL, and water treatment works upgrades.</td>
</tr>
<tr>
<td>Stillwater UA (VIII)</td>
<td>$25,000,000.00</td>
<td>Expand Raw Water Supply PS to 25 MGD.</td>
</tr>
<tr>
<td>Stillwater UA (X)</td>
<td>$40,000,000.00</td>
<td>Water line from WTP to 6th Street.</td>
</tr>
<tr>
<td>Stillwater Utilities Authority</td>
<td>$1,500,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Stillwater Utilities Authority</td>
<td>$5,700,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Stilwell Area Development Authority</td>
<td>$15,500,000.00</td>
<td>Expansion of the water treatment plant.</td>
</tr>
<tr>
<td>Stroud Utilities Authority</td>
<td>$151,406.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Taft PWA</td>
<td>$100,000.00</td>
<td>Installation of a dedicated water line to the standpipe to ensure all customers receive aerated/recirculated water and DBP compliant water.</td>
</tr>
<tr>
<td>Tahlequah Public Works Authority</td>
<td>$300,000.00</td>
<td>Water treatment improvements and upgrades</td>
</tr>
<tr>
<td>Talihina PWA</td>
<td>$275,000.00</td>
<td></td>
</tr>
<tr>
<td>Town of Loyal</td>
<td>$150,000.00</td>
<td>Installation of an Ion Exchange Treatment Unit, Building and Wastewater Disposal Storage Facility.</td>
</tr>
<tr>
<td>Wagoner Co. RWD #5</td>
<td>$8,000,000.00</td>
<td></td>
</tr>
<tr>
<td>Waurika PWA</td>
<td>$100,000.00</td>
<td>Construction improvements will be made to correct DBP problems.</td>
</tr>
<tr>
<td>Waurika PWA</td>
<td>$4,915,000.00</td>
<td></td>
</tr>
<tr>
<td>PVC &amp; Water Authority</td>
<td>Amount</td>
<td>Description</td>
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<td>-----------------------</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Welch PWA</td>
<td>$397,000.00</td>
<td>Rehabilitation of a well, pilot testing, and construction of an ion exchange treatment plant.</td>
</tr>
<tr>
<td>Wetumka PWA</td>
<td>$100,000.00</td>
<td>Improvements to the raw water intake, treatment plant, and/or distribution system to address the DBP exceedances occurring within the system.</td>
</tr>
<tr>
<td>Wewoka PWA</td>
<td>$300,000.00</td>
<td>Construct a new 500,000 gallon fully baffled clearwell at the WTP to assist in reduction of disinfection by-products.</td>
</tr>
<tr>
<td>Wewoka PWA</td>
<td>$400,000.00</td>
<td></td>
</tr>
</tbody>
</table>

$1,417,935,360.00
Financial Assistance Division
Loan and Grant Recipient Status

Funding as of May 3, 2022

Funding Totals by County
- < $1 Million
- $1-10 Million
- $10-20 Million
- $20-50 Million
- $50-100 Million
- $100-200 Million
- $200 Million - $1 Billion
- > $1 Billion

Funding Totals by Program
- Clean Water Loans: $2.12 Billion
- FAP Loans: $1.50 Billion
- Drinking Water Loans: $2.03 Billion
- REAP Grants: $65.2 Million
- Emergency Grants: $35.8 Million
- Drought Grants: $0.4 Million
- Special Purpose Grants: $2.6 Million

TOTAL: $5.75 Billion

TOTAL SAVINGS: $1.3 Billion
3.C. SUMMARY DISPOSITION AGENDA ITEMS

FINANCIAL ASSISTANCE DIVISION

May 17, 2022

No Items
3. SUMMARY DISPOSITION AGENDA ITEMS

D. Contracts and Agreements Recommended for Approval

May 17, 2022
AGENDA ITEM 3D(1)

MEMORANDUM AGREEMENT

WITH: Arkansas-Oklahoma Arkansas River Compact Commission

PURPOSE: For water monitoring and data collection

AMOUNT: Ark-OK to pay $6,300.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and the Arkansas-Oklahoma Arkansas River Compact Commission, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other Oklahoma state statutes provide to the effect that the Board is the Oklahoma state agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in the location of the gaging station described in this Agreement.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board one lump sum in the amount of Six Thousand Three Hundred Dollars ($6,300.00) to cover costs of necessary field and office work directly related to the maintenance and operation of the gaging station on the Arkansas River in Oklahoma west of Fort Smith, Arkansas and the computation of flows thereat, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Arkansas-Oklahoma Arkansas River

003102
Compact Commission for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD

Matt Muller, Chairman Date

ARKANSAS-OKLAHOMA RIVER COMPACT COMMISSION

Dr. Delia Haak, Chairman Date

ATTEST:

Jennifer Castillo, Secretary April Harris, Secretary

(SEAL) (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief Date
USGS, Oklahoma Water Science Center
Program Description:

This stream gaging program for the Arkansas River at Fort Smith, Oklahoma consists of the low-flow discharge data collection for one streamflow station. The high-flow portion and the satellite telemetry are funded by the U.S. Army Corps of Engineers, Tulsa District. The U.S. Geological Survey (USGS) operates and publishes the record of streamflow gaging stations to maintain long-term statistical records on a cooperative basis financed through the Oklahoma Water Resources Board (OWRB).

We propose to continue the low-flow monitoring program with Arkansas/Oklahoma Arkansas River Compact Commission. This will provide complete streamflow records and real-time remote data reporting of the minimum flow requirements described by the OWRB under the permitting of water in the Arkansas River.

We propose the continuation of the above data collection program for the period July 1, 2022 to June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>SW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07249455</td>
<td>Ark. River at Ft. Smith</td>
<td>Surface Water Gage</td>
<td>$10,700</td>
</tr>
<tr>
<td></td>
<td>Compact's share through the OWRB</td>
<td></td>
<td>$ 6,300</td>
</tr>
<tr>
<td></td>
<td>U.S. Geological Survey Federal Matching Funds</td>
<td></td>
<td>$ 4,400</td>
</tr>
<tr>
<td></td>
<td>Arkansas/Oklahoma Compact and USGS Total:</td>
<td></td>
<td>$10,700</td>
</tr>
</tbody>
</table>
AGENDA ITEM 3D(2)

MEMORANDUM AGREEMENT

WITH: City of Enid

PURPOSE: For water monitoring and data collection

AMOUNT: City of Enid to pay $25,000.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereinafter referred to as “Board”, and the City of Enid, hereinafter referred to as “Cooperator”,

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Twenty-Five Thousand Dollars ($25,000.00) to cover costs of necessary field and office work directly related to the collection and computation of continuous record of stream stage and discharge on Boggy Creek and North Boggy Creek or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the “Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the City of Enid for the Fiscal Year Ending June 30, 2023”, which attached proposal is incorporated by reference herein and made a part hereof for all purposes.
4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days’ prior written notice to the other party.

5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD       CITY OF ENID

Matt Muller, Chairman                      Christopher Gdanski, Director of Engineering
Date                                        Date

ATTEST:                                      ATTEST:

Jennifer Castillo, Secretary
(SEAL)                                    Secretary
(SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief        Date
USGS, Oklahoma Water Science Center
Proposed
Cooperative Program
between the OKLAHOMA WATER RESOURCES BOARD
and the U.S. GEOLOGICAL SURVEY
for the CITY OF ENID
for the Fiscal Year Ending June 30, 2023

Program Description:

The program consists of operation and maintenance of continuous stage gage on Boggy Creek and North Boggy Creek, as well as a continuous stage/discharge streamgage on Boggy Creek downstream of the confluence with North Boggy Creek. Publication at the three sites is included and the information is available, real-time, on the U.S. Geological Survey web page:

https://waterdata.usgs.gov/ok/nwis/rt

U.S. Geological Survey’s water alert system can be accessed at:

https://maps.waterdata.usgs.gov/mapper/wateralert/

We propose the installation and operation and maintenance of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boggy Creek at Leona Mitchell Blvd (stage)</td>
<td>$5,000</td>
</tr>
<tr>
<td></td>
<td>North Boggy Creek at US HWY 412 (stage)</td>
<td>$5,000</td>
</tr>
<tr>
<td></td>
<td>Boggy Creek at S 30th Street (stage/discharge)</td>
<td>$15,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$25,000</strong></td>
</tr>
</tbody>
</table>

City of Enid’s share through OWRB--------------------------------------$25,000

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$25,000</strong></td>
</tr>
</tbody>
</table>
AGENDA ITEM 3D(3)

MEMORANDUM AGREEMENT

WITH: City of Lawton

PURPOSE: For water monitoring and data collection

AMOUNT: City of Lawton to pay $15,200.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and the City of Lawton, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of a quarterly invoice from the Board, the Cooperator shall contribute and pay to the Board the amount of Three Thousand Eight Hundred Dollars ($3,800.00) to cover costs of necessary field and office work directly related to the collection and computation of records of streamflow on East Cache Creek, Lake Lawtonka and Lake Ellsworth and data collection platforms at the lake sites, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022. The total amount of all invoices and payments under this agreement shall be Fifteen Thousand Two Hundred Dollars ($15,200.00).

3. Funds paid by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the City of Lawton for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days' prior written notice to the other party.
5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD
Matt Muller, Chairman       Date

CITY OF LAWTON
Fred L. Fitch, Mayor       Date

ATTEST:
Jennifer Castillo, Secretary
(SEAL)

ATTEST:
Traci Hushbeck, City Clerk (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the OKLAHOMA WATER RESOURCES BOARD and the U.S. GEOLOGICAL SURVEY for the CITY OF LAWTON for the Fiscal Year Ending June 30, 2023

Program Description:

The program consists of operation and maintenance of continuous stage recorders on East Cache Creek, Lake Lawtonka, and Lake Ellsworth and data collection platforms at the lake sites. Publication at the three sites is included and the information is available, real-time, on the U.S. Geological Survey web page.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07308990</td>
<td>Lake Ellsworth nr Elgin</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>07309500</td>
<td>Lake Lawtonka nr Medicine Park</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>07311000</td>
<td>East Cache Creek nr Walters</td>
<td>$15,600</td>
</tr>
</tbody>
</table>

**Total** $25,600

City of Lawton's share through OWRB--------------------------$15,200

U.S. Geological Survey matching funds------------------------$ 9,400

U.S. Geological Survey NSIP funds--------------------------$ 1,000

**Total** $25,600
AGENDA ITEM 3D(4)

MEMORANDUM AGREEMENT

WITH: City of Moore

PURPOSE: For water monitoring and data collection

AMOUNT: City of Moore to pay $5,900.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereinafter referred to as “Board”, and the City of Moore, hereinafter referred to as “Cooperator”,

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey (“USGS”) for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Five Thousand Nine Hundred Dollars ($5,900.00) to cover costs of necessary field and office work directly related to the collection and computation of continuous record of inflow, storage and outflow from the Canadian River near Mustang and Norman, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the “Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Cities of Moore and Norman for the Fiscal Year Ending June 30, 2023”, which attached proposal is incorporated by reference herein and made a part hereof for all purposes.
4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days' prior written notice to the other party.

5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD    CITY OF MOORE

Matt Muller, Chairman    Date    Glenn Lewis, Mayor    Date

ATTEST:    ATTEST:

Jennifer Castillo, Secretary    Secretary
(SEAL)    (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief    Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Cities of Moore and Norman for the Fiscal Year Ending June 30, 2023

Program Description:

The existing program, initiated June 2006, is for two surface-water discharge stations on the Canadian River. The information supplied by this station will benefit the Cities of Moore, Norman, and Oklahoma City* by providing river discharge statistics to compute current seven-day, two year low flows required for permitted discharges of the Cities’ sewage treatment plant. Critical information provided by this station will be used to determine flood predictions and warnings, furnished by the National Weather Service to all downstream communities.

This station provides real-time and historic information that is served on the U.S. Geological Survey Web pages for the water user community and the general public.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized in below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Operation and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>07228940</td>
<td>Canadian River near Mustang</td>
<td>$15,600</td>
</tr>
<tr>
<td>07229050</td>
<td>Canadian River near Norman</td>
<td>$15,600</td>
</tr>
<tr>
<td></td>
<td>Total Program</td>
<td>$31,200</td>
</tr>
<tr>
<td></td>
<td>City of Moore's share through the OWRB</td>
<td>$5,900</td>
</tr>
<tr>
<td></td>
<td>U.S. Geological Survey Federal Matching Funds</td>
<td>$4,800</td>
</tr>
<tr>
<td></td>
<td>City of Norman's share through the OWRB</td>
<td>$5,900</td>
</tr>
<tr>
<td></td>
<td>U.S. Geological Survey Federal Matching Funds</td>
<td>$4,800</td>
</tr>
<tr>
<td></td>
<td>City of Moore, Norman, and USGS Total</td>
<td>$21,400</td>
</tr>
</tbody>
</table>

*Includes City of Oklahoma City's share of $9,800 under separate agreement.
AGENDA ITEM 3D(5)

MEMORANDUM AGREEMENT

WITH: City of Norman

PURPOSE: For water monitoring and data collection

AMOUNT: City of Norman to pay $5,900.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereinafter referred to as “Board”, and the Norman Utilities Authority, hereinafter referred to as “Cooperator”,

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey (“USGS”) for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Five Thousand Nine Hundred Dollars ($5,900.00) to cover costs of necessary field and office work directly related to the collection and computation of continuous record of inflow, storage and outflow from the Canadian River near Mustang and Norman, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the “Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Cities of
Moore and Norman for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days’ prior written notice to the other party.

5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD           NORMAN UTILITIES AUTHORITY

Matt Muller, Chairman                      Breea Clark, Chairman
Date                                      Date

ATTEST:                                    ATTEST:

Jennifer Castillo, Secretary              Secretary
(SEAL)                                    (SEAL)

U.S. GEOLOGICAL SURVEY                    Approved as to form and legality:

Jason M. Lewis, Branch Chief              Kathryn Walker, City Attorney
USGS, Oklahoma Water Science Center       City of Norman
Date                                      Date
Proposed Cooperative Program between the **Oklahoma Water Resources Board** and the **U.S. Geological Survey** for the **Cities of Moore and Norman** for the Fiscal Year Ending June 30, 2023

Program Description:

The existing program, initiated June 2006, is for two surface-water discharge stations on the Canadian River. The information supplied by this station will benefit the Cities of Moore, Norman, and Oklahoma City* by providing river discharge statistics to compute current seven-day, two year low flows required for permitted discharges of the Cities’ sewage treatment plant. Critical information provided by this station will be used to determine flood predictions and warnings, furnished by the National Weather Service to all downstream communities.

This station provides real-time and historic information that is served on the U.S. Geological Survey Web pages for the water user community and the general public.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized in below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Operation and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>07228940</td>
<td>Canadian River near Mustang</td>
<td>$15,600</td>
</tr>
<tr>
<td>07229050</td>
<td>Canadian River near Norman</td>
<td>$15,600</td>
</tr>
<tr>
<td></td>
<td><strong>Total Program</strong></td>
<td><strong>$31,200</strong>*</td>
</tr>
</tbody>
</table>

City of Moore's share through the OWRB       $ 5,900  
U.S. Geological Survey Federal Matching Funds   $ 4,800

City of Norman's share through the OWRB       $ 5,900  
U.S. Geological Survey Federal Matching Funds   $ 4,800

City of Moore, Norman, and USGS Total        $21,400

*Includes City of Oklahoma City's share of $9,800 under separate agreement.
AGENDA ITEM 3D(6)

MEMORANDUM AGREEMENT

WITH:       Central Oklahoma Master Conservancy District

PURPOSE:    For water monitoring and data collection

AMOUNT:     COMCD to pay $12,400.00

TERM:       Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Central Oklahoma Master Conservancy District, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Twelve Thousand Four Hundred Dollars ($12,400.00) to cover costs of necessary field and office work directly related to the operation of a stream gaging station on Little River below Thunderbird Reservoir for the purpose of rating the Thunderbird Reservoir outlet works and as an official record of discharge from the Reservoir, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Central Oklahoma Master Conservancy District for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days' prior written notice to the other party.
5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD          CENTRAL OKLAHOMA MASTER CONSERVANCY DISTRICT

Matt Muller, Chairman  Date               Amanda Nairn, President  Date

ATTEST:                                ATTEST:

Jennifer Castillo, Secretary   Michael Dean, Secretary
(SEAL)                            (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief  Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the OKLAHOMA WATER RESOURCES BOARD and the U.S. GEOLOGICAL SURVEY for the CENTRAL OKLAHOMA MASTER CONSERVANCY DISTRICT for the Fiscal Year Ending June 30, 2023

Program Description:

A cooperative program was initiated January 1966 when the Conservancy District became responsible for the continued operation of the streamflow station and one lake station. The existing program provides for collection and publication of streamflow data on Little River near Norman and publication on the web of Lake elevation and contents at Lake Thunderbird.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07229900</td>
<td>Lake Thunderbird nr Norman</td>
<td>$ 3,700</td>
</tr>
<tr>
<td>07230000</td>
<td>Little River below Lake Thunderbird</td>
<td>$15,600</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$19,300</strong></td>
</tr>
</tbody>
</table>

COMCD' S share through OWRB-----------------------------**$12,400**

U.S. Geological Survey matching funds---------------------**$ 6,900**

**Total**                                               **$19,300**
AGENDA ITEM 3D(7)

MEMORANDUM AGREEMENT

<table>
<thead>
<tr>
<th>WITH:</th>
<th>CP Kelco</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE:</td>
<td>For water monitoring and data collection</td>
</tr>
<tr>
<td>AMOUNT:</td>
<td>CP Kelco to pay $12,000.00</td>
</tr>
<tr>
<td>TERM:</td>
<td>Fiscal Year 2023</td>
</tr>
</tbody>
</table>
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and CP Kelco, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, such program of coordination and water resource investigations is referred to herein as the "cooperative program" between the Board and the USGS; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the monitoring of quality and quantity of water resources in the vicinity of its Beggs, Oklahoma facility; and

WHEREAS, the Board and USGS have agreed to include in their cooperative program the proposed monitoring described herein, and consequently the Board and the Cooperator desire to enter into this Agreement to reflect the Cooperator's participation in such cooperative program.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Twelve Thousand Dollars ($12,000.00) to cover costs of necessary field and office work directly related to the collection and computation of streamflow records for the Deep Fork River at Beggs, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for CP Kelco for the..."
Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days’ prior written notice to the other party.

5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD       CP Kelco, Inc.

Matt Muller., Chairman       Date       Name:       Date
Title:

ATTEST:       ATTEST:

Jennifer Castillo, Secretary       [Name, Title]
(SEAL)       (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief       Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program
between the OKLAHOMA WATER RESOURCES BOARD
and the U.S. GEOLOGICAL SURVEY
for the CP KELCO, INC.
for the Fiscal Year Ending June 30, 2023

Program Description:

This stream gaging program for the Deep Fork River near Beggs, Oklahoma consists of the low-flow discharge data collection for one streamflow station. The high-flow portion and the satellite telemetry are funded by the U.S. Army Corps of Engineers, Tulsa District. The U.S. Geological Survey (USGS) operates and publishes the record of streamflow gaging stations to maintain long-term statistical records on a cooperative basis financed through the Oklahoma Water Resources Board (OWRB).

We propose to continue the low-flow monitoring program with CP Kelco, Inc. This will provide complete streamflow records and real-time remote data reporting of the minimum flow requirements described by the OWRB under the permitting of water in the Deep Fork River.

We propose the continuation of the above data collection program for the period July 1, 2022 to June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>SW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07243500</td>
<td>Deep Fork near Beggs</td>
<td>Surface Water Gage</td>
<td>$12,000</td>
</tr>
</tbody>
</table>

CP Kelco's (100 %) $12,000
AGENDA ITEM 3D(8)

MEMORANDUM AGREEMENT

WITH: Fort Cobb Master Cons. Dist.

PURPOSE: For water monitoring and data collection

AMOUNT: Fort Cobb Master Cons. Dist. to pay $21,600.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Fort Cobb Reservoir Master Conservancy District, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Twenty-One Thousand Six Hundred Dollars ($21,600.00) to cover costs of necessary field and office work directly related to the collection and computation of data to compute a complete water budget at Fort Cobb Reservoir, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Fort Cobb Reservoir Master Conservancy District for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days' prior written notice to the other party.
5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD FORT COBB RESERVOIR MASTER CONSERVANCY DISTRICT

Matt Muller, Chairman Date Kyle Eastwood, President Date

ATTEST: ATTEST:

Jennifer Castillo, Secretary Ron Taylor, Acting Secretary
(SEAL) (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the OKLAHOMA WATER RESOURCES BOARD and the U.S. GEOLOGICAL SURVEY for the FORT COBB RESERVOIR MASTER CONSERVANCY DISTRICT for the Fiscal Year Ending June 30, 2023

Program Description:

The existing program, initiated in March 1969, consists of two stream flow stations, and one reservoir station. The purpose of these records is to provide data to compute a complete water-budget at the reservoir.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07325800</td>
<td>Cobb Creek nr Eakly</td>
<td>$15,600</td>
</tr>
<tr>
<td>07325900</td>
<td>Ft. Cobb Reservoir nr Ft. Cobb</td>
<td>$ 3,700</td>
</tr>
<tr>
<td>07326000</td>
<td>Cobb Creek nr Ft. Cobb</td>
<td>$15,600</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$34,900</strong></td>
</tr>
</tbody>
</table>

FCMCD's share through OWRB---------------------------------$21,600

U.S. Geological Survey matching funds-----------------------$12,300

U.S. Geological Survey NSIP funds----------------------------$ 1,000

**Total** $34,900
AGENDA ITEM 3D(9)

MEMORANDUM AGREEMENT

WITH: Grand River Dam Authority ("GRDA")

PURPOSE: For water monitoring and data collection

AMOUNT: GRDA to pay $70,600.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Grand River Dam Authority, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board one lump sum in the amount of Seventy Thousand Six Hundred Dollars ($70,600.00) to cover costs of necessary field and office work directly related to the collection and computation of records of streamflow directly related to the operation and maintenance of gaging stations and the computation of flows thereat, as required under Article 10 of said Federal Energy Regulatory Commission License No. 1494 and of said Federal Energy Regulatory Commission License No. 2183, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement.
between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Grand River Dam Authority for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. Board will, at all times during the term of this Agreement and for a period of five (5) years after the completion of this Agreement, maintain and make available for inspection and audit by GRDA and/or the Oklahoma State Auditor, all books, supporting documents, accounting procedures, practices, and all other items relevant to the Agreement.

5. Board will, at all times during the term of this Agreement and for a period of five (5) years after the completion of this Agreement, maintain and make available for inspection and audit by Cooperator and/or the Oklahoma State Auditor, all books, supporting documents, accounting procedures, practices, and all other items relevant to the Agreement.

6. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD GRAND RIVER DAM AUTHORITY

Matt Muller Date Daniel S. Sullivan Date
Chairman Chief Executive Officer/GM

ATTEST: ATTEST:

Jennifer Castillo, Secretary Sheila Allen, Secretary
(SEAL) (SEAL)
U.S. GEOLOGICAL SURVEY

________________________________________
Jason Lewis, Branch Chief                       Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program
between the OKLAHOMA WATER RESOURCES BOARD
and the U.S. GEOLOGICAL SURVEY
for the GRAND RIVER DAM AUTHORITY
for the Fiscal Year Ending June 30, 2023

Program Description:

This stream gaging program was initiated in 1939 when the Lake O'The Cherokees was constructed and expanded in 1963 when Lake Hudson was constructed. The program consists of six streamflow gaging stations (including two slope stations), two lake stations and one river stage station.

We propose the continuation of the above data collection program for the period July 1, 2022 to June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>F.E.R.C. Project Number</th>
<th>SWO&amp;M Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>07185000</td>
<td>Neosho R nr Commerce</td>
<td>1494</td>
<td>$ 15,600</td>
</tr>
<tr>
<td>07185080</td>
<td>Neosho Rat Hwy 125 at Miami</td>
<td></td>
<td>$ 5,000</td>
</tr>
<tr>
<td>07188000</td>
<td>Spring R nr Quapaw</td>
<td>1494</td>
<td>$ 15,600</td>
</tr>
<tr>
<td>07189000</td>
<td>Elk R nr Tiff City</td>
<td>1494</td>
<td>$ 15,600</td>
</tr>
<tr>
<td>07190000</td>
<td>Lake O'The Cherokees at Langley</td>
<td>1494</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>07190496</td>
<td>Neosho R nr Langley Slope gage 1</td>
<td>1494</td>
<td>$ 3,700</td>
</tr>
<tr>
<td>07190498</td>
<td>Neosho R nr Langley Slope gage 2</td>
<td>1494</td>
<td>$ 2,400</td>
</tr>
<tr>
<td>07190500</td>
<td>Neosho R nr Langley</td>
<td>1494</td>
<td>$ 15,600</td>
</tr>
<tr>
<td>07191000</td>
<td>Big Cabin Cr nr Big Cabin</td>
<td>2183</td>
<td>$ 15,600</td>
</tr>
<tr>
<td>07191400</td>
<td>Lake Hudson nr Locust Grove</td>
<td>2183</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>07191500</td>
<td>Neosho R nr Chouteau</td>
<td>2183</td>
<td>$ 15,600</td>
</tr>
</tbody>
</table>

**TOTAL**                     $114,700

F.E.R.C. Project 1494---------$43,200
F.E.R.C. Project 2183---------$22,600

Cooperative Elevation Site-----$ 4,800

GRDA Share through OWRB------------------------$70,600
U.S. Geological Survey Matching funds--------$34,100
U.S. Geological Survey NSIP funds----------$10,000

**TOTAL** --------------------------------------$114,700
AGENDA ITEM 3D(10)

MEMORANDUM AGREEMENT

WITH: Hardage Site Remedy Corp.

PURPOSE: For water monitoring and data collection

AMOUNT: Hardage to pay $10,700.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Hardage Site Remedy Corp. as agent for the Hardage Site Responsible Parties, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Ten Thousand Seven Hundred Dollars ($10,700.00) to cover costs of necessary field and office work directly related to the collection and computation of records of streamflow on North Criner Creek in the vicinity of Criner, Oklahoma, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Hardage Site Remedy Corp. for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days prior written notice to the other party.
5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD  Hardage Site Remedy Corp., on behalf of the Hardage Site Responsible Parties

Matt Muller, Chairman  Date  J. Mark Kamilow, President  Date

ATTEST:

Jennifer Castillo, Secretary  Robert L. Roark, Assistant Secretary

(SEAL)  (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief  Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the OKLAHOMA WATER RESOURCES BOARD and the U.S. GEOLOGICAL SURVEY for the HARDAGE STEERING COMMITTEE for the Fiscal Year Ending June 30, 2023

Program Description:

The program consists of operation and maintenance of real-time steam flow discharge and publication of streamflow records by the U.S. Geological Survey (USGS) at North Criner Creek near Criner. The program began October 1989 with a full range discharge station.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07328180</td>
<td>North Criner Creek nr Criner</td>
<td>$10,700</td>
</tr>
<tr>
<td></td>
<td>Hardage Steering Committee (100%)</td>
<td>$10,700</td>
</tr>
</tbody>
</table>

003141
AGENDA ITEM 3D(11)

MEMORANDUM AGREEMENT

WITH: Lugert-Altus Irrigation District

PURPOSE: For water monitoring and data collection

AMOUNT: Lugert-Altus to pay $21,000.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Lugert-Altus Irrigation District, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Twenty-one Thousand Dollars ($21,000.00) to cover costs of necessary field and office work directly related to the collection and computation of records of streamflow to provide a continuous record of the inflow, storage and outflow from Lugert-Altus Reservoir into the natural stream channel, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Lugert-Altus Irrigation District for the Fiscal Year Ending June 30, 2023", which attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days prior written notice to the other party.
5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD

Matt Muller, Chairman Date

ATTEST:

Jennifer Castillo, Acting Secretary (SEAL)

LUGERT-ALTUS IRRIGATION DISTRICT

Allen Ensley, Office Manager Date

ATTEST:

[Name, Title] (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief Date

USGS, Oklahoma Water Science Center
Proposed
Cooperative Program
between the OKLAHOMA WATER RESOURCES BOARD
and the U.S. GEOLOGICAL SURVEY
for the LUGERT-ALTUS IRRIGATION DISTRICT
for the Fiscal Year Ending June 30, 2023

Program Description:

The U.S. Geological Survey (USGS) operates and publishes the record of two streamflow gaging stations and one lake station on a cooperative basis with the City of Altus and the Lugert-Altus Irrigation District financed through the Oklahoma Water Resources Board. The purpose of these stations is to provide a continuous record of the inflow to Lake Altus, the storage in Lake Altus, and the outflow from Lake Altus into the natural stream channel.

We propose the continuation of the above data collection program for the period July 1, 2022 to June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07301500</td>
<td>North Fork Red River nr Carter</td>
<td>$15,600</td>
</tr>
<tr>
<td>07302500</td>
<td>Lake Altus nr Lugert</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>07303000</td>
<td>North Fork Red River blw Altus Dam nr Lugert</td>
<td>$15,600</td>
</tr>
</tbody>
</table>

**TOTAL** $36,200

Lugert-Altus Irrigation District share (44%)--------------------------$21,000

U.S. Geological Survey matching funds (36%)---------------------$13,200

U.S. Geological Survey NSIP funds (6%)----------------------------$ 2,000

**TOTAL** $36,200
AGENDA ITEM 3D(12)

MEMORANDUM AGREEMENT

WITH: Oklahoma Gas and Electric Company

PURPOSE: For water monitoring and data collection

AMOUNT: OG&E to pay $10,700.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Oklahoma Gas and Electric Company, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the determination of available water supplies in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities required by the Cooperator shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Ten Thousand Seven Hundred Dollars ($10,700.00) to cover costs of necessary field and office work directly related to the collection and computation of streamflow records for the Poteau River at Panama, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Oklahoma Gas and Electric Company, for the Fiscal Year Ending June 30, 2023", which the attached proposal is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days' prior written notice to the other party.
5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD  OKLAHOMA GAS & ELECTRIC CO.

Matt Muller, Chairman      Date                Date

ATTEST:      ATTEST:

Jennifer Castillo, Secretary    [Name, Title]
(SEAL)      (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief    Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the OKLAHOMA WATER RESOURCES BOARD and the U.S. GEOLOGICAL SURVEY for the OKLAHOMA GAS AND ELECTRIC COMPANY for the Fiscal Year Ending June 30, 2023

Program Description:

This stream gaging program for the Poteau River at Panama, Oklahoma consists of the low-flow discharge data collection for one streamflow station. The high-flow portion and the satellite telemetry are funded by the U.S. Army Corps of Engineers, Tulsa District. The U.S. Geological Survey (USGS) operates and publishes the record of streamflow gaging stations to maintain long-term statistical records on a cooperative basis financed through the Oklahoma Water Resources Board (OWRB).

We propose to continue the low-flow monitoring program with Applied Energy Services (AES). This will provide complete streamflow records and real-time remote data reporting of the minimum flow requirements described by the OWRB under the permitting of water in the Poteau River.

We propose the continuation of the above data collection program for the period July 1, 2022 to June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>SW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07249413</td>
<td>Poteau R nr Panama</td>
<td>Surface Water Gage</td>
<td>$10,700</td>
</tr>
<tr>
<td></td>
<td>Oklahoma Gas and Electric Company (100%)</td>
<td></td>
<td>$10,700</td>
</tr>
</tbody>
</table>
AGENDA ITEM 3D(13)

MEMORANDUM AGREEMENT

WITH: Oklahoma Dept. of Wildlife Conservation ("ODWC")

PURPOSE: For water monitoring and data collection

AMOUNT: ODWC to pay $52,800.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein, by and between the Oklahoma Water Resources Board, hereafter referred to as "OWRB", and the Oklahoma Department of Wildlife Conservation, hereafter referred to as "ODWC",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other State statutes provide to the effect that the OWRB is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the OWRB is authorized to coordinate with other public entities in water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, Title 27A O.S. 1-3-101 further provides that within the OWRB's jurisdictional areas of environmental responsibility is "administration of a state program for assessing, monitoring, studying and restoring Oklahoma lakes with administration to include, but not be limited to, receipt and expenditure of funds from federal, state and private sources for clean lakes"; and

WHEREAS, Title 82 O.S. 1085.2(2) provides authority for the OWRB "to make such contracts and execute such instruments as in the judgment of the [OWRB] are necessary or convenient to the exercise of any of the powers conferred upon it by law"; and

WHEREAS, in order to carry out its authority and responsibilities, the OWRB cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the ODWC has an important interest regarding the monitoring and determination of water quality in certain streams and water resources in the state, which the OWRB is in a position to coordinate with and add to the cooperative program with the USGS.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The monitoring and determination of water quality in the streams and water resources required by the ODWC, as shown in the Scope of Work attached hereto and incorporated herein by reference, or other water quality monitoring work as may be agreed by the authorized representatives of the ODWC and the OWRB, shall be included in the cooperative program being maintained by the OWRB and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the ODWC shall contribute and pay to the Board the amount billed in the invoice, provided the total of all invoices and payment shall not exceed the amount of Fifty-Two Thousand Eight Hundred Dollars ($52,800.00) to cover costs of necessary field and office work directly related to the water quality monitoring performed for the ODWC for the period described in the Scope of Work beginning July 1, 2022 and ending June 30, 2023.

3. This Agreement, or any portion thereof, may be terminated by any party upon thirty (30) days' prior written notice to the other parties. If this Agreement is terminated, the ODWC shall be liable only for payment for performance rendered before the effective date of termination.
4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days’ prior written notice to the other party.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD

Matt Muller, Chairman  Date

ATTEST:

Jennifer Castillo, Secretary (SEAL)

OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION

J. D. Strong, Director  Date

ATTEST:

, Secretary (SEAL)

UNITED STATES GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief  Date
USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the **Oklahoma Water Resources Board** and the **U.S. Geological Survey** for the **Oklahoma Department of Wildlife Conservation** for the Fiscal Year Ending June 30, 2023

**Program Description:**

The existing program for the Oklahoma Department of Wildlife Conservation (ODWC) has historically been maintained through the Oklahoma Water Resources Board (OWRB). Beginning State Fiscal Year 2010, the ODWC began partnering with the OWRB to maintain surface-water and water-quality data collection program with the U.S. Geological Survey for the purpose of monitoring surface-water discharge and water-quality to continue to provide continuous data for long term trend analysis in these Oklahoma river basins.

These stations provide real-time and historic water-discharge and water-quality information that is served on the U.S. Geological Survey Web pages for the water user community and the general public.

We propose the continuation of the above data collection program for the period July 1, 2022 through June 30, 2023 as summarized in below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>Quality</th>
<th>Discharge</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>07152500</td>
<td>Arkansas R nr Ralston</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07175500</td>
<td>Caney R nr Ramona</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07335500</td>
<td>Red R at Arthur City, TX</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07335790</td>
<td>Kiamichi R nr Clayton</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07336820</td>
<td>Red R nr De Kalb</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07337900</td>
<td>Glover R nr Glover</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07338750</td>
<td>Mountain Fork R at Smithville</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
<tr>
<td>07339000</td>
<td>Mountain Fork R nr Eagletown</td>
<td>$10,700</td>
<td>$ 10,700</td>
<td></td>
</tr>
</tbody>
</table>

**Totals**                                                $0       $85,600  $85,600

Oklahoma Dept of Wildlife Conservation share through the OWRB $52,800
U.S. Geological Survey Federal Matching Funds $28,700
U.S. Geological Survey NSIP Funds $ 4,100

$85,600
AGENDA ITEM 3D(14)

MEMORANDUM AGREEMENT

WITH: Poteau Valley Improvement Auth.

PURPOSE: For water monitoring and data collection

AMOUNT: Poteau Valley to pay $6,300.00

TERM: Fiscal Year 2023
MEMORANDUM AGREEMENT

THIS AGREEMENT, dated as of the date of the last signature herein but to be effective as provided below, by and between the Oklahoma Water Resources Board, hereafter referred to as "Board", and Poteau Valley Improvement Authority, hereafter referred to as "Cooperator",

WITNESSETH:

WHEREAS, Title 27A O.S. Section 1-3-101 and other state statutes provide to the effect that the Board is the State agency possessing primary jurisdiction, authority and control of water resources management and development, and the coordination of activities in connection therewith, within the state of Oklahoma, and the Board is authorized to coordinate with other public entities of water resource investigations conducted by the federal United States Geological Survey ("USGS") for water quality and quantity monitoring in the state; and,

WHEREAS, in order to carry out its functions, the Board cooperates with the USGS in a program of collection of data concerning the water resources of the state of Oklahoma; and,

WHEREAS, the Cooperator has an important interest in said cooperative program, particularly regarding the monitoring of water resources in its general vicinity.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. The water data collection activities desired by the Cooperator and described in the attachment hereto entitled "Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Poteau Valley Improvement Authority for the Fiscal Year Ending June 30, 2022" (the “Proposal”), or other collection activities as may be agreed upon by the authorized representatives of the Cooperator and the Board, shall be included in the cooperative program being maintained by the Board and the USGS.

2. Within thirty (30) days after receipt of an invoice from the Board, the Cooperator shall contribute and pay to the Board in one lump sum the amount of Six Thousand Three Hundred Dollars ($6,300.00) to cover costs of necessary field and office work directly related to the collection and computation of records for the Black Fork at Page, Oklahoma, or other water data collection sites or activities as may be agreed by the respective representatives of the Cooperator and the Board, for the fiscal year beginning July 1, 2022.

3. Funds advanced by the Cooperator for the above purposes will be supplemented by matching funds appropriated by the Congress of the United States for cooperation with the States on water resources investigations, insofar as available funds will permit, and will be covered by the cooperative agreement between the Board and the USGS; and the same being contemplated within the “Proposed Cooperative Program between the Oklahoma Water Resources Board and the U.S. Geological Survey for the Poteau Valley Improvement Authority for the Fiscal Year Ending June 30, 2022.”
Improvement Authority for the Fiscal Year Ending June 30, 2023”, which is incorporated by reference herein and made a part hereof for all purposes.

4. This Agreement, or any portion thereof, may be terminated by either party upon thirty (30) days' prior written notice to the other party.

5. This Agreement shall be governed by and subject to the laws of the State of Oklahoma.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

OKLAHOMA WATER RESOURCES BOARD

Matt Muller, Chairman Date

POTEAU VALLEY IMPROVEMENT AUTHORITY

Mickey LaFevers, Chairman Date

ATTEST:

Jennifer Castillo, Secretary (SEAL) Keith Wright, Secretary (SEAL)

U.S. GEOLOGICAL SURVEY

Jason M. Lewis, Branch Chief Date

USGS, Oklahoma Water Science Center
Proposed Cooperative Program between the OKLAHOMA WATER RESOURCES BOARD and the U.S. GEOLOGICAL SURVEY for the POTEAU VALLEY IMPROVEMENT AUTHORITY for the Fiscal Year Ending June 30, 2023

Program Description:

This stream gaging program for the Black Fork at Page, Oklahoma consists of the lowflow discharge data collection for one streamflow station. The high-flow portion and the satellite telemetry are funded by the U.S. Army Corps of Engineers, Tulsa District. The U.S. Geological Survey (USGS) operates and publishes the record of streamflow gaging stations to maintain long-term statistical records on a cooperative basis financed through the Oklahoma Water Resources Board (OWRB).

We propose to continue the low-flow monitoring program with Poteau Valley Improvement Authority. This will provide complete streamflow records and real-time remote data reporting of the minimum flow requirements described by the OWRB under the permitting of water in the Black Fork River.

We propose the continuation of the above data collection program for the period July 1, 2022 to June 30, 2023 as summarized below:

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Station Name</th>
<th>SW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>07247250</td>
<td>Black Fork at Page</td>
<td>Surface Water Gage</td>
<td>$10,700</td>
</tr>
<tr>
<td>PVIA’s share through the OWRB</td>
<td></td>
<td></td>
<td>$ 6,300</td>
</tr>
<tr>
<td>U.S. Geological Survey Federal Matching Funds</td>
<td></td>
<td></td>
<td>$ 4,400</td>
</tr>
<tr>
<td>Poteau Valley Improvement Authority and USGS Total:</td>
<td></td>
<td></td>
<td>$10,700</td>
</tr>
</tbody>
</table>
AGENDA ITEM 3D(15)

INTERAGENCY AGREEMENT

WITH: Grand River Dam Authority ("GRDA")

PURPOSE: Agreement between the OWRB and GRDA providing work and services related to the GRDA Dissolved Oxygen Monitoring Project for fiscal year 2023

AMOUNT: GRDA to pay amount not to exceed $173,221.00

TERM: July 1, 2022 through December 31, 2023.
INTERAGENCY AGREEMENT

THIS AGREEMENT, dated for convenience of reference as of the 1st day of July, 2022 but to be effective as provided herein, by and between the Oklahoma Water Resources Board, hereinafter referred to as "Board", an agency of the State of Oklahoma created and existing pursuant to 82 O.S. § 1085.1, and the Grand River Dam Authority, hereinafter referred to as "Authority", an agency of the State of Oklahoma organized and existing pursuant to 82 O.S. § 861 et seq. as amended.

WHEREAS, 27A O.S. § 1-3-101 provides in part that the Board has a number of jurisdictional areas of environmental responsibility for the State of Oklahoma, including but not limited to administration of a state program for assessing, monitoring, studying and restoring Oklahoma lakes; and

WHEREAS, the Authority is a licensee under the Federal Power Act for all hydropower projects referenced herein; and

WHEREAS, the Board has the personnel, labor, equipment and facilities available to perform work for the Authority in connection with the project described herein; and

WHEREAS, pursuant to 82 O.S. §1085.2(2) the Board is authorized to make such contracts as in the judgment of the Board are necessary or convenient to the exercise of any of the powers conferred upon it by law; and

WHEREAS, this Agreement is further authorized by 74 O.S. § 581.

NOW, THEREFORE, in consideration of the above, it is agreed:

1. SERVICES TO BE PROVIDED BY BOARD. The Board shall complete the work and services ascribed to it in "Work plan for GRDA Dissolved Oxygen Monitoring Project for Fiscal Year 2023" attached hereto and incorporated by reference herein, in accordance with a schedule to be developed by representatives of the parties.

2. COMPENSATION BY AUTHORITY TO BOARD. The Authority shall pay and reimburse the Board for services performed and costs incurred in the performance of this Agreement, provided the total amount shall not exceed One Hundred Seventy-Three Thousand, Two Hundred Twenty-One Dollars ($173,221) for the entire term hereof. Payments shall be made according to the following procedures:

   a. The Board shall prepare, at minimum, quarterly invoices and submit the same to the Authority on or before the 20th day of October 2022, December 2022, March 2023, and June 2023. The invoices shall request payment associated with completion of the task indicated in the Workplan. The invoices shall detail all services performed and costs incurred during the previous quarter and shall itemize the following information, if applicable to this Agreement: (i) labor rate with position title and hours worked; (ii) material markup percentage, (iii)
equipment rate with hours utilized, (iv) quantity and type of material with unit cost, and (v) other miscellaneous expenses (e.g. hotel, meals, mileage, airfare, etc.) The Board shall provide sufficient documentation with each invoice to demonstrate the task has been achieved and supports the amounts requested. If unacceptable in form, the Authority will return the same to the Board with reason(s) for rejection.

b. The Authority will process and pay the invoice within forty-five (45) days after the date the invoice is received and accepted by the Authority.

3. TERM; EXTENSION; TERMINATION. Subject to the provisions of this paragraph no. 3, this Agreement shall be effective from July 1, 2022 through December 31, 2023. This Agreement may be extended, renewed or modified at any time upon such written terms and conditions as the parties may approve and execute with the same formalities as this Agreement. This Agreement may be terminated by either party for any reason, upon the occurrence of a "Termination Date" which is thirty (30) or more days after the terminating party delivers to the other party a written notice of termination specifying such Termination Date.

4. AUDIT. The Board will, at all times during the term of this Agreement and for a period of five (5) years after completion of this Agreement, maintain and make available for inspection and audit by the Authority and/or the Oklahoma State Auditor, all books, supporting documents, accounting procedures, practices, and all other items relevant to the Agreement.

5. WORKERS COMPENSATION. The Board agrees, acknowledges and warrants that it currently provides, and shall continue to provide, in full force and effect during the duration of this Agreement, such workers' compensation insurance and/or liability coverage otherwise as is due, sufficient and required by law (including, but not limited to 85 O.S. § 1 et seq.) and as may be necessary to meet and satisfy any and all acts incidental to the work and services to be or as may be provided and performed by the Board hereunder.

6. INDEMNITY. The Board and Authority mutually recognize that each party is a governmental entity subject to the provisions of the Governmental Tort Claims Act (51 O.S. 2001 § 151 et seq.). The Board and Authority hereby mutually agree that each is and may be held severally liable for any and all claims, demands, and suits in law or equity, of any nature whatsoever, paying for damages or otherwise, arising from any negligent act or omission of any of their respective employees, agents, or contractors which may occur during the prosecution or performance of this Agreement to the extent provided in the Governmental Tort Claims Act. Each party agrees to severally bear all costs of investigation and defense of claims arising under the Governmental Tort Claims Act and any judgments which may be rendered in such cause to the limits provided by law. Nothing in this section shall be interpreted or construed to waive any legal defense which may be available to a party or any exemption, limitation, or exception which may be provided by the Governmental Tort Claims Act.
7. **ENTIRE AGREEMENT.** This Agreement represents the entire agreement between the parties relative to the work described herein. All previous or contemporaneous agreements, representations, promises, and conditions relating to the subject matter herein are superseded.

8. **TIME OF THE ESSENCE.** The parties agree that the time is of the essence of each and every obligation set forth in this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates shown below.

**GRAND RIVER DAM AUTHORITY**

Daniel S. Sullivan          Date  
General Manager/Chief Executive Officer  

ATTEST:

Sheila Allen, Secretary     Date

**OKLAHOMA WATER RESOURCES BOARD**

Matt Muller, Chairman       Date

ATTEST:

Jennifer Castillo, Secretary Date

(SEAL)
Workplan for GRDA Dissolved Oxygen Monitoring Project for Fiscal Year 2023

Prepared for
The Grand River Dam Authority

Prepared by
Oklahoma Water Resources Board

April 2022
Introduction

A comprehensive monitoring and remediation effort is currently ongoing in the Grand River Basin. These efforts are required to meet the requirements outlined in the Grand River Dam Authority (GRDA) Federal Energy Regulatory Commission (FERC) permit. As part of the GRDA FERC re-licensing process the GRDA has agreed to implement a water quality improvement plan intended to achieve compliance with applicable water quality standards in portions of Hudson and Grand Reservoirs, as well as applicable tailrace areas. The GRDA has worked cooperatively with the OWRB since 2005 to accomplish this plan. As the program has matured, various water quality platforms have been placed throughout the monitoring area to collect real-time monitoring data, and various adaptive management plans have been tested and implemented to mitigate for low dissolved oxygen (DO). Although the various adaptive management plans are implemented through specific project work plans, the program has maintained a generalized monitoring work plan to support all project objectives. The objectives of the program are:

1. Operate and maintain project infrastructure
2. Manage all project data
3. Maintain and describe a long-term record of condition
4. Analysis and reporting for current mitigation activities

Operate and Maintain Project Infrastructure and Data (Objectives 1 and 2)

The project maintains a variety of water quality data collection platforms (WQDCPs) to support DO monitoring throughout the GRDA project areas. For the Pensacola project (Grand Lake), the WQDCPs include an in-lake water quality (WQ) platform¹ and three bridge mounted WQ platforms in the tailrace (Figure 1). The Markham Ferry Project (Hudson Lake) includes two tailrace WQ buoys (Figure 2). Each WQDCP is equipped with a fully functioning Eureka®Manta2 water quality sonde, datalogger, and telemetry equipment to collect and transmit data at various intervals. All instruments measure water temperature and dissolved oxygen, while some instruments also measure pH, blue green algae, chlorophyll-a, and turbidity. Each sonde also incorporates a central universal wiping system to ensure that the DO probe membrane remains free of foreign material. All WQDCPs are self-powered.

Each monitoring station is visited on regular intervals to ensure quality data are collected and DCPs are fully functioning. Sondes are calibrated and maintained according to OWRB Standard Operating Procedures (OWRB, 2013; Wagner et al., 2006). During each visit several sets of data are collected to allow for post-processing and application of service interval corrections before analyses occur. Records are corrected to account for drift from two sources—fouling and calibration. Probes are cleaned with a pre-cleaning and post-cleaning value recorded. The percentage difference between these two readings is applied to all data in the service interval as a fouling correction. After the sensor is cleaned, a calibration check is performed with calibration occurring as needed. When calibration is necessary, a calibration correction
is applied to all data in the service interval. For DO, this correction is calculated as the percent difference between a known reading (DO percent saturation reading before calibration) and the expected reading at the same temperature and barometric pressure. To fully correct data, the sum of the fouling and calibration corrections is applied as a two-point shift over the service interval with the assumption that drift occurred at a constant rate over that interval. All data are manipulated using AQUARIUS Workstation Environmental Management software (Aquatic Informatics, 2016). For a more detailed discussion of sampling procedures, please contact the OWRB/Water Quality Programs Division at (405) 530-8800 for a copy of the BUMP Standard Operating Procedures (SOP) document or visit the OWRB website at http://www.owrb.ok.gov/quality/monitoring/bump/pdf_bump/Streams/SOPs/ContinuousMultiparameter.pdf.

Data records are maintained using redundancy protocols. Data are saved to the WQDCP datalogger for batch transmissions at regular intervals. Transmitted data are captured and stored on OWRB and GRDA servers. All time series data are eventually stored and manipulated using the AQUARIUS Time Series Database (Aquatic Informatics, 2016), which is regularly backed up through the OWRB data management protocols. Data are displayed at both the GRDA and OWRB websites. Data are also available through an email alert system. When any individual compliance probe indicates a DO mg/L reading below any of the action limits, the WQDatalive, a web-based software hosted by NexasTechnology Inc. sends an alarm email to all necessary personnel at GRDA, FERC, ODWC, USFWS, and the OWRB notifying them of the appropriate action to take according to the mitigation plan.

As part of this project, the OWRB will maintain four in-lake WQDCP’s. These WQDCPs will be maintained by the OWRB using the same protocol and time frames as the rest of this project. The OWRB will capture data from these WQDCPs for the GRDA. This data will be hosted on the OWRB’s AQUARIUS Time Series Database (Aquatic Informatics, 2016).

1Grand Profiler is currently inactive. Plans are being made to replace this equipment.

Maintain and Describe a Long-term Record of Condition (Objective 3)

All project data are regularly analyzed to maintain a long-term record of water quality condition at each lake and tailrace. Data are analyzed from both a WQ standards and a WQ standards implementation perspective. Dissolved oxygen is addressed in two places in Oklahoma Administrative Rules—Oklahoma Administrative Code (OAC) Chapter 45 “Oklahoma’s Water Quality Standards (OWQS)” (OWRB, 2017) and OAC Chapter 46 “Implementation of Oklahoma’s Water Quality Standards” (OWRB, 2016). Compliance language for these sites can be found in Section 4.0 of “Pensacola and Kerr Dams Downstream DO Compliance and DO Monitoring Plan” (GRDA, 2008). Results are included in an annual monitoring report which will encompass all project activities. For a full understanding of analyses procedures, please refer to the most recent monitoring report (GRDA, 2020).
These analyses and reports are useful in several ways. Primarily, they provide an annual snapshot of condition. The year-end reports provide not only a graphical display of the data, but a year-end analysis of compliance and implementation. Second, data are analyzed over the period of record. These analyses are used to determine impairment status and to visualize long-term trends. Lastly, data are directly used to develop defensible, data-driven adaptive management plans.

**Analysis and Reporting for Current Mitigation Activities (Objective 5)**

Beginning in 2011-2012 a mitigation scenario was implemented in accordance with Article 403 of the Federal Energy Regulatory Commission’s (FERC) License for the Pensacola Project (FERC No. 1494) and the Markham Ferry Project (FERC No. 2183) to address the low DO conditions that exist during the summer months. This included pulsing aerated water from the turbines at Pensacola Dam and 350 cubic feet per second release from the Tainter gates at Kerr Dam. A yearly report will be provided for mitigation activities and an analysis of mitigation plan effects for both the Pensacola Project and the Markham Ferry Project. Additionally, all data for those projects will be provided in a digital format to GRDA. Prior to assessing additional mitigation plans that may help comply with state standards, OWRB and GRDA believe a better understanding of the physio-chemical relationships between power generation and lake stratification on Lake Hudson are needed. As a result, we will analyze those relationships between the profiler data and generation to determine any trends in tailrace and hypolimnetic DO. These relationships will be outlined in the annual report.
Figure 1. Pensacola Stations

Figure 2. Markham Ferry Stations
Table 1. Projects Sites, Descriptions, and Locations

<table>
<thead>
<tr>
<th>Project</th>
<th>Site</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensacola</td>
<td>Grand_Prof(^{1})</td>
<td>In Lake, 125 meters north of the dam</td>
<td>WQ Vertical Profiler</td>
</tr>
<tr>
<td>Pensacola</td>
<td>Horse Creek 1</td>
<td>In Lake</td>
<td>WQ Buoy</td>
</tr>
<tr>
<td>Pensacola</td>
<td>Horse Creek 2</td>
<td>In Lake</td>
<td>WQ Buoy</td>
</tr>
<tr>
<td>Pensacola</td>
<td>Horse Creek 3</td>
<td>In Lake</td>
<td>WQ Buoy</td>
</tr>
<tr>
<td>Pensacola</td>
<td>Neosho/Langley_4</td>
<td>County Road Bridge (950 meters downstream), Left Edge of Water</td>
<td>WQ Sonde in HDPE tube</td>
</tr>
<tr>
<td>Pensacola</td>
<td>Neosho/Langley_5</td>
<td>County Road Bridge (950 meters downstream), Center Channel</td>
<td>WQ Sonde in HDPE tube</td>
</tr>
<tr>
<td>Pensacola</td>
<td>Neosho/Langley_6</td>
<td>County Road Bridge (950 meters downstream), Right Edge of Water</td>
<td>WQ Sonde in HDPE tube</td>
</tr>
<tr>
<td>Markham</td>
<td>Ferry</td>
<td>Center Channel, 375 meters downstream of the dam</td>
<td>WQ Buoy</td>
</tr>
<tr>
<td>Markham</td>
<td>Ferry</td>
<td>Center Channel, 750 meters downstream of the dam</td>
<td>WQ Buoy</td>
</tr>
</tbody>
</table>

\(^{1}\)Grand Profiler (Grand_Prof) is currently inactive. Plans are being made to replace this equipment.

Table 2. Plan Milestone Dates

<table>
<thead>
<tr>
<th>Task</th>
<th>Beginning Date</th>
<th>Expected Ending Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Implementation</td>
<td>July 1, 2022</td>
<td>N/A</td>
</tr>
<tr>
<td>Data Collection</td>
<td>July 1, 2022</td>
<td>June 30, 2023</td>
</tr>
<tr>
<td>Data Analysis and Report Creation</td>
<td>July 1, 2022</td>
<td>December 15, 2022</td>
</tr>
<tr>
<td>Final Report due to FERC</td>
<td>February 15, 2023</td>
<td>March 15, 2023</td>
</tr>
</tbody>
</table>
### Table 3. General Project Budget

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Person Yrs.</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Environmental Programs Manager III</td>
<td>0.25</td>
<td>$17,664</td>
</tr>
<tr>
<td>1. Environmental Programs Specialist IV</td>
<td>0.40</td>
<td>$22,624</td>
</tr>
<tr>
<td>1. Environmental Programs Specialist I</td>
<td>0.40</td>
<td>$13,724</td>
</tr>
</tbody>
</table>

**Total Person Years = 1.05**  
**Sub-total = $54,012**

**Benefits**

- 74.33% of Salary for Fringe Benefits  
  - $40,147
- 68.77% of Salary for Indirect Costs  
  - $37,144

**Lodging & Per Diem**

- Travel & Per Diem (Per State Travel Act)  
  - $6,820

**Equipment**

- Water Quality Monitoring Field Equipment  
  - $5,000

**Supplies**

- Project Supplies and Materials  
  - $4,400
- Data Processing Materials  
  - $25,698

**Supplies Sub-total = $30,098**

**TOTAL PROJECT COST = $173,221**
AGENDA ITEM 3D(4)

AGREEMENT

WITH: Office of Management and Enterprise Services and Softchoice Corporation

PURPOSE: Agreement between Office of Management and Enterprise Services, Softchoice Corporation, and OWRB to build a platform through existing Microsoft products to connect FAD's internal financial database and reporting software to EPA's environmental reporting database for CWSRF reducing manual entry and streamlining EPA reporting requirements.

AMOUNT: Not to exceed $342,600.00

TERM: Beginning from date of full execution of this agreement until work is completed.
This Proposal is made this 17th Day of May, 2022 (“Effective Date”) between the State of Oklahoma by and through the Office of Management and Enterprise Services, for the benefit of the Oklahoma Water Resources Board (“State”) and Softchoice Corporation (“Supplier”) and is Contract Document in connection with Statewide Contract No. 1079 (“Contract”) between the State and Supplier. Unless otherwise indicated herein, capitalized terms used in this Proposal without definition shall have the respective meanings specified in the Contract.

The parties recognize that while the Office of Management and Enterprise Services is executing this contract, payment obligations rest solely with the Oklahoma Water Resources Board and the Office of Management and Enterprise Services shall not be responsible for such. Please send invoices and billing inquiries to:

Oklahoma Water Resources Board
3800 N. Classen Blvd
Oklahoma City, OK 73118

Supplier shall invoice agency only for hours and/or deliverables accepted by OMES in accordance with the SOW (as defined below).

This Proposal incorporates herein by reference the following attachments:


[remainder of page intentionally blank]
SIGNATURES

The undersigned represent and warrant that they are authorized, as representatives of the party on whose behalf they are signing, to sign this Proposal and to bind their respective party thereto.

STATE:

Authorized Signature

D. Jerry Moore
Printed Name
Chief Information Officer
Title
Date

SUPPLIER:

Authorized Signature

Sean Denomey
Printed Name
SVP Services and Customer Success
Title
Date

May 3, 2022

The Oklahoma Water Resources Board is additionally executing this Proposal to memorialize its involvement in negotiation of and its agreement with the terms of this Proposal.

Oklahoma Water Resources Board

Matt Muller
Chairman
Date

ATTEST:

Jennifer Castillo
Secretary
Date

(SEAL)
Statement of work
Time & Materials

Prepared by: Raudah Mohammed
April 22, 2022

EPA Financial Integration
State of Oklahoma by and through the Office of Management and Enterprise Services for the benefit of the Oklahoma Water Resource Board (OWRB)

External ID #: 7006634174
SOW Review No: Q-961878 rmp
General information

State of Oklahoma by and through the Office of Management and Enterprise Services, for the benefit of the Oklahoma Water Resource Board (“Customer” or “OMES”) and Softchoice Corporation (“Softchoice”) have entered into this Statement of Work (“SOW”) dated as of the last signature date below, pursuant to the current Master Services Agreement between Customer and Softchoice, also known as Oklahoma Statewide Contract #1079 (“Contract 1079”) and the terms and conditions herein. This SOW shall govern and supersede any terms and conditions stated on any purchase order submitted by Customer for the Services or Deliverables.

Confidential Information

The contents of this SOW are confidential information of the parties. This SOW may be used by employees of the Customer solely for internal evaluation purposes and may not be disclosed to other parties, except as may be required under the Open Records Act Title 51 O.S. § 24A.1 et seq. or other law.

Trademarks

Product names that are mentioned and, in this SOW, may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Disclaimer

The information included in this SOW has been gathered and complied by Softchoice, Subcontractor, and Customer, as applicable, in good faith and is believed to be accurate and complete. Softchoice and Subcontractor recommendations and services, as applicable, assume that the information is accurate and complete.

To the extent that this SOW includes dates for the completion of any Softchoice and Subcontractor services, as applicable, those dates are intended to be targets, not commitments, for the completion of those services, unless otherwise stated.

Our understanding of your needs

- Customer has a mission to protect and enhance the quality of life for Oklahomans by managing and improving the state’s water resources to ensure clean and reliable water supplies, a strong economy, and a safe and healthy environment. Their primary duties and responsibilities include water use appropriation and permitting, water quality monitoring and standards, financial assistance for water/wastewater systems, dam safety, floodplain management, water supply planning, technical studies and research, and water resource mapping.

Based on the above, Customer has engaged Softchoice for assistance as follows:

- Customer seeks to undertake a Solution Development effort to design, build, and launch an EPA Integration solution built with Microsoft cloud application platform services.
This involves an integration from an on-premise database to the EPA’s CBR system using Power Platform. The integration will transfer data from Customer’s IFS application, transform as necessary, and load the data via the API set up by the EPA. At the time of writing, a direct integration to the EPA’s system is not yet available. In the interim, the EPA has developed functionality to support file uploads to create records in the CBR system. The project will encompass the necessary technical work to migrate data from IFS, map it to EPA data, and automatically generate files that can be uploaded into the system.

Customer understands additional work will be required in a second phase to directly integrate with the target system once the API is available. Customer also requires a public dashboard to display the statuses of EPA-funded projects using the integrated data.

Softchoice will work with a subcontractor, HSO Enterprise Solutions, LLC (“Subcontractor”), to provide the Services outlined in this SOW.

**Project summary**

The objectives of this engagement are to:

- Complete analysis of EPA API documentation
- Update IFS application and database to accommodate EPA requirements
- Build intermediary Dataverse environment and tables
- Map IFS data to EPA data structure
- Create XML flat file generation process
- Design and build OWRB Project Dashboard

**Project scope**

Softchoice will provide consulting services for Customer to ensure the services and deliverables outlined in this SOW are met.

Subcontractor will provide technical services to develop a single solution using technical services available in the Microsoft cloud.

**Activities**

Subcontractor will adhere to the “Common Framework” (C-Frame) solution development methodology described in the Power Platform Adoption Framework.

For any solution developed as part of this engagement, the team will determine which of the framework’s project activities are applicable to the given solution, and will undertake those activities as part of the solution’s development.
The most up to date version of these activities may be found at:

https://github.com/PowerPlatformAF/PowerPlatformAF/wiki/6-Solution-Development.

Estimated Engagement Schedule

- A project kickoff meeting between Subcontractor and Customer will be scheduled within an estimated two (2) weeks of signing of this statement of work.

- The table below summarizes the initial sprint schedule for this engagement. Subcontractor and the Customer will work together to schedule Sprint 1 to start on a Monday within 6 weeks of signing of this SOW. Changes to the initial sprint schedule below may be mutually agreed to in writing by Subcontractor and the Customer without the need for a formal change issued for this SOW.

Milestones

<table>
<thead>
<tr>
<th>Sprint</th>
<th>Work Priorities</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EPA API Analysis and IFS Configuration</td>
<td>IFS architecture accommodates data needed for integration. Design documentation delivered</td>
</tr>
<tr>
<td>2</td>
<td>Build Dataverse environment and tables</td>
<td>Dataverse tables built. ERD document delivered</td>
</tr>
<tr>
<td>3-4</td>
<td>Build IFS to Dataverse integration pipeline</td>
<td>Data flowing from IFS to Dataverse</td>
</tr>
<tr>
<td>5</td>
<td>Create XML flat file generation process</td>
<td>XML files created with proper data structure for load into EPA's system</td>
</tr>
<tr>
<td>6</td>
<td>Build PowerBI dashboard</td>
<td>Dashboard published for testing</td>
</tr>
<tr>
<td>7</td>
<td>Testing, remediation, deployment</td>
<td>Solution hardening, go-live</td>
</tr>
</tbody>
</table>

Subcontractor Team Members Descriptions

Subcontractor sizes its teams to suit the Customer’s needs. A brief description of the most typical roles is found below.

- **Solution Architect (“SA”)** serves as the development effort's technical leader overseeing solution design and development, facilitating co-design sessions with business stakeholders and end-users, provides technical leadership to the development team, and offers both technical and strategic guidance to business leadership and technical teams. Typical efforts require 50% to 75% of the SA’s time (so 20-30 hours in an average week) from start to finish. This commitment could be lower or higher depending on technical and functional complexity, and in more complex cases it may make sense to break out technical leadership to a “Technical Architect” (“TA”) whilst retaining the SA’s responsibilities for business function leadership, facilitation, etc.

- **Lead Consultant** serves as the effort’s principal “hands on keyboard” developer leading solution development based on the SA’s established design and patterns. Dev Leads are often responsible for DevOps and ALM coaching and quality control for the efforts of other developers, and is directly developing the most complex functionality him or herself. Typical efforts require 50% to 100% of the Dev Lead’s time (so 20-40 hours in an average week) from start to finish. This commitment could be lower or higher
depending on technical and functional complexity, and in more complex cases it may make sense to share Dev Lead responsibilities amongst several qualified individuals (e.g. breaking out responsibility for DevOps and ALM).

- **Developer** possess experience in the platform services to be utilized in the solution (e.g. Dataverse, model or canvas Power Apps, Power Automate RPA, Power BI, etc.) in order to build the solution. Developers are assigned work items or responsibility for entire project activities or deliverables in order to progress development forward. Typical efforts require 100% of a developer’s time (so ~40 hours in an average week) from start to finish. This commitment could be lower or higher depending on technical and functional complexity, and in cases where multiple Power Platform (or other cloud services) are used, it may make sense to share developer responsibilities amongst several qualified individuals (e.g. one person developing a canvas app and another developing Power BI components). This division of labor may result in developers with specific skills requiring less than 100% of their working time, which is fine. Remember that Power Platform is a complex, principal platform in the Microsoft Cloud, so it is unreasonable to expect a single developer to know everything.

**Project Management**

As part of this Statement of Work Softchoice will provide Project Management services. Softchoice’s Project Manager will oversee and communicate the progress of tasks and deliverables throughout the project to ensure success. Listed below are the project management deliverables included for this engagement:

- Internal kickoff and Customer kickoff
- Resource allocation
- Project planning and project schedule, as the project progress
- Project status meetings, by sprint
- Project status reports, by sprint
- Financial management
- Change management, if applicable
- Project acceptance and project closure

**Framework**

Softchoice uses an Agile approach, and these engagements have the following characteristics:

- For the purposes of these engagements, one sprint is one week in time.
- The number of sprints is variable and estimates in terms of effort, measured in engineer–weeks. Engineer–weeks are planned in sprints, as detailed below under Project Commencement. At Softchoice’s discretion, additional team members may contribute with their subject matter expertise to assist in the project.

Subcontractor Project Manager (“PM”) will be responsible for project management of this engagement, which will be conducted according to an Agile methodology using 2-week sprints. Work items including any epics, features, backlog items, and tasks will be tracked in Azure DevOps (“ADO”).
Customer will assign a “Product Owner” (sometimes called a “Platform Owner” or client “Project Manager”) to work with the Subcontractor PM and Solution Architect (“SA”) so that work assignments reflect the Customer’s current priorities. The Product Owner will at minimum attend Sprint Planning and Sprint Review meetings in order to facilitate this collaboration.

### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Backlog Formation</strong></td>
<td></td>
</tr>
<tr>
<td>The PM will facilitate the initial creation of the backlog, which will encompass the entirety of known technical work to be performed and will be broken down into epics, features, backlog items, and tasks. Backlog items (sometimes called “user stories”) and tasks will generally be created by the Lead Consultant with technical guidance from the SA, but this responsibility may be changed at the discretion of the PM and SA.</td>
<td>Once at start of project, no later than Sprint 2</td>
</tr>
<tr>
<td><strong>Backlog Grooming</strong></td>
<td></td>
</tr>
<tr>
<td>Subcontractor team members with items assigned to them will update the status of those items as status changes or notes are required. The PM, SA, and Lead Consultant will make ongoing updates to the backlog in order to keep it current, including the addition, modification, or removal of items as necessary.</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>Sprint Planning</strong></td>
<td></td>
</tr>
<tr>
<td>The PM will facilitate sprint planning sessions during which backlog items and tasks will be assigned to individual team members for work in the coming sprint. These assignments represent a commitment of the assigned person to complete the work absent any unforeseen impacts, impediments, or changes. The PM, SA, Product Owner, and other client personnel will avoid adding or modifying work assignments for the current sprint once planning has been completed, with any emergency modifications being discussed with the PM and SA in advance.</td>
<td>Bi-Weekly</td>
</tr>
<tr>
<td><strong>Stand Up</strong></td>
<td></td>
</tr>
<tr>
<td>The PM will facilitate at 15-minute stand-up meeting for the project team where every team member will be expected to briefly summarize their work since last stand-up, their work upcoming before next stand-up, and any impacts, impediments, or changes experienced. Resolution of issues will generally not occur in the stand-up, though the appropriate parties will note the need for follow-up and act accordingly.</td>
<td>1-3 times per week</td>
</tr>
<tr>
<td><strong>Sprint Review and Retrospective</strong></td>
<td></td>
</tr>
<tr>
<td>The PM will facilitate sprint review and retrospective (just before Sprint Planning, in the same session) with the team to ensure that item statuses are up to date, lessons learned have been discussed, and sprint planning will proceed.</td>
<td>Bi-Weekly</td>
</tr>
<tr>
<td><strong>Major Backlog Updates</strong></td>
<td></td>
</tr>
<tr>
<td>The PM will, as necessary, facilitate major backlog updates similarly to initial backlog formation discussed above.</td>
<td>At the start of new solution development or other epic-level technical work</td>
</tr>
</tbody>
</table>
Project deliverables

Subcontractor will produce the following deliverables as part of Solution Development:

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Format</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status Report</td>
<td>Documentation</td>
<td>Weekly</td>
</tr>
<tr>
<td>Subcontractor will produce a status report of work underway and completed since last report, issues, and risks to the engagement.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Backlog

Subcontractor will maintain a backlog of solution features, items, and tasks to be completed as well as work prioritized for the current sprint. This backlog will Documentation be maintained for the Customer and Subcontractor team on an ongoing basis, with updates being made at least every two weeks to coincide with the engagement’s sprint cycle.

Solution Design Document

Subcontractor will provide documentation outlining the Solution solution’s technical and design parameters, including an entity relationship diagram (ERD).

Prior to GoLive

Solution File(s)

Subcontractor will provide both a managed and unmanaged copy of the solution file containing the functionality developed. Subcontractor will deploy this solution through the deployment pipeline to PROD provided that its team members have been provided the security permissions necessary to do so.

Assumptions

Subcontractor makes the following assumptions for the Assessment, upon which our activities, deliverables, pricing, schedule, and other provisions of this SOW are dependent:

- Subcontractor will have access to and use a dedicated development (“DEV”) environment for each solution to be developed.
- Subcontractor will have access to a production (“PROD”) environment and a mirror test (“TEST”) environment to which any solution may be deployed.
- Solutions deployed to TEST and PROD will be managed solutions as defined by Microsoft for Power Platform application lifecycle management.
- No person (Subcontractor, the Customer, or third parties) will modify solutions or customize components in non-development environments.
Customer will provide platform infrastructure that conforms with the “Limited High-Impact Deployment” enterprise management model found in the Power Platform Adoption Framework (https://aka.ms/ppaf), or will have made arrangements with Subcontractor to provide that infrastructure.

- EPA’s sandbox will be available to Subcontractor’s project team with supported documentation.
- An API is not currently available for direct integration and will be addressed in a future phase.
- Customer will provide the necessary access to source system’s database, and a gateway can be used to access the on-premise data from the cloud integration process.

Exclusions from scope
Anything not specifically stated in the Project Scope section or any reallocation of a task from Customer to Softchoice is considered outside the scope of this SOW and will require a Change Request to be agreed upon by both parties. This will likely impact the cost and timing of this project.

Conditions for project delivery
Softchoice and Customer agree that these conditions are required for the project to be executed within the time and budget stated:

Location and hours
1. The SOW is for work performed during regular business hours Monday through Friday, 8:30 am-5:30 pm (in the jurisdiction in which the Services are performed or such other jurisdiction as agreed to between the parties). Unless explicitly identified in this SOW, all work performed outside of regular business hours will be billed at 1.5 times the normal hourly rate.
2. All work will be performed remotely, unless otherwise agreed to by the Parties.

General conditions
1. Softchoice will be entitled to rely upon any routine instructions, authorizations, approvals or other information provided to Softchoice by Customer.
2. Any delays, errors or omissions that impact this SOW will be accounted for via a Change Request. The price and impact of each Change Request will be mutually agreed upon by the Parties.
3. Any errors, incompatibilities, or defects in Customer’s software, hardware or systems or any third-party products that effect this SOW will be addressed through a Change Request.
4. The Services do not include the provision of and cost for third-party products, third party technical support calls/ticket submission and support agreements with third party vendors.
5. Softchoice shall not be responsible for any modifications or alterations in respect of a Service or Deliverable made by parties other than Softchoice.
6. This SOW shall expire 60 days from the SOW date listed on the cover page, unless otherwise executed.

7. Subcontractor makes the following assumptions for this engagement in addition to any that have been previously addressed. The activities, deliverables, pricing, schedule, and other provisions of this statement of work are dependent on these assumptions being correct.

   a. Subcontractor and the Customer will jointly and diligently manage the scope of this SOW to meet the outlined target for project completion.

   b. The Customer will specify a Project Sponsor (“PS”) and Product Owner (“PO”) to work with Subcontractor. These roles may be filled by the same or different personnel at the Customer’s discretion.

   c. The client will provide timely access to project stakeholders (decision makers, business users, etc.), data, and applications / systems required for the completion of this engagement. The client will review and sign appropriate sign-off documents in a timely manner.

   d. Softchoice, Subcontractor and the Customer will generally observe local holidays, though exceptions may be made on the basis of religion or local customs.

   e. The Customer is responsible for providing access to any network or other resources that are required under the scope of this project.

   f. The Customer will provision a named user account in the Customer’s Microsoft tenant for each Subcontractor consultant assigned to this engagement.

   g. The Customer will acquire and assign the following licenses and / or access to the following technical services to each Subcontractor consultant assigned to this engagement for the duration of the term hereunder:

      i. Power Platform per User

      ii. PowerBI Premium

      iii. Microsoft 365 (at the level assigned by the Customer to their own typical IT employee)

      iv. Other licenses to technical services as may be required throughout the project, to be discussed and agreed upon between the Customer and Subcontractor’s assigned Project Manager

   h. The Customer will provision Azure DevOps projects and work with the Subcontractor team to deploy various ALM tools as may be required throughout the project.

   i. The Customer will provide designated Subcontractor technical personnel with the ability to provision Power Platform environments, data loss prevention policies, and other technical services within the Customer’s Microsoft tenant.

   j. Subcontractor team members will adhere to the Customer’s guidelines and policies concerning the provisioning of technical services on behalf of the Customer.

   k. During this process, the Customer will assess the data quality of data to be migrated or integrated and will determine whether or not the data should be cleaned prior to the start of the project. Subcontractor is not responsible for data accuracy or completeness of client-supplied data.

   l. End-user application functionality will be delivered in the following languages:
n. Work performed and project artifacts generated in accordance with this statement of work will be in English. Subcontractor consultants represent a variety of different backgrounds, however, so documentation may include words and syntax in both British and North American English.

o. Assuming a successful project completion, Customer, at its sole discretion, may agree to participate in a written or video case study / testimonial with Subcontractor.

Additional Terms and Conditions

The Parties agree that the following terms and conditions will apply in respect of the Services as provided by Softchoice. To the extent of any conflict between the terms of the Agreement and these Additional Terms and Conditions, the Additional Terms and Conditions will apply.

1. Warranty and Acceptance

a. Softchoice warrants that the Services will be performed in a good and workmanlike manner, and in accordance with generally accepted industry standards applicable to such services. Softchoice will re-perform, at its expense, any Services it provided which did not comply with this warranty brought to its attention within five (5) business days following the completion/closeout of the Services. This will be Customer’s sole and exclusive remedy for a breach of the warranty provided in this Section.

b. Customer will accept or reject any written materials created in connection with the Service (the “Deliverables”) in writing within five (5) business days of receipt. Customer will clearly state in writing the reasons for any rejection. Within five (5) business days of a notice of rejection, Softchoice will present a commercially reasonable corrective plan of action to Customer, and will then resubmit the corrected Deliverable to Customer. This will be Customer’s sole and exclusive remedy for rejected Deliverables under this Section.

c. Customer may not reject any Service or Deliverable if the grounds for rejection are based, in whole or in part, on: (i) Customer’s use of a Service or Deliverable in a manner not permitted or contemplated under this Agreement or the SOW; (ii) modification of any Service or Deliverable other than by Softchoice; (iii) the use or combination of any Service or Deliverable with materials not supplied by Softchoice; (iv) information supplied by Customer to Softchoice that is included in or relied upon to provide any Service or Deliverable; or (v) Customer’s negligence, breach or willful misconduct.

d. TO THE FULLEST EXTENT PERMITTED BY LAW, SOFTCHOICE MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESS OR IMPLIED, IN FACT OR IN LAW, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

2. Services-related Intellectual Property Rights

a. Intellectual property rights, including patents, copyrights, trade secrets, trademarks and service marks and all similar proprietary rights (“Intellectual Property Rights”) that belong to Customer, will remain the sole and exclusive property of Customer.

b. Customer will own all Deliverables except as follows: Softchoice will retain ownership in all working papers, pre-existing materials and any general skills, know-how, processes, or other Intellectual Property Rights (including a non-Customer-specific version of any Deliverables) which Softchoice
may have discovered or created independently or as a result of the Services ("Softchoice Information"). Softchoice grants Customer a non-exclusive, nontransferable license (without any right to sublicense except to Customer's Affiliates and permitted assigns on the same terms as those set out herein) to use such Softchoice Information included in the Deliverables for Customer's own internal use as part of such Deliverables.

c. Softchoice Information and any working papers and internal documentation prepared by or for Softchoice in connection with the Services, Deliverables or this Agreement will remain the sole and exclusive property of Softchoice. Softchoice Information is Confidential Information of Softchoice.

d. Softchoice is providing the Services and Deliverables solely for Customer's internal use and benefit. The Services and Deliverables are not for a third party's use, benefit or reliance and Softchoice disclaims any contractual or other responsibility or duty of care to others based upon the Services or Deliverables. Customer acknowledges that Softchoice provides similar services to other clients and that nothing in this Agreement will be construed to prevent Softchoice from carrying on such business or from acquiring, licensing, marketing, distributing, developing for itself or others or having others develop for it similar products, services or materials performing the same or similar functions as the Services and Deliverables contemplated by this Agreement or any SOW.

e. Customer hereby grants to Softchoice a limited, non-transferable, non-exclusive, right and license to Customer's Intellectual Property Rights that are necessary for Softchoice to perform the Services. Notwithstanding the foregoing, Customer acknowledges and agrees that Softchoice may transfer the foregoing license to approved subcontractors as necessary to perform the Services.

3. Services-related Indemnification

a. Softchoice will indemnify Customer against any losses, damages and costs (including reasonable legal fees) awarded against Customer to the extent arising from a third party claim, action or proceeding brought against Customer alleging that the use of a Deliverable by Customer infringes a third party's Intellectual Property Right valid in Canada or the United States (an "IP Claim"). Should the Deliverable become, or in the opinion of Softchoice be likely to become, the subject of an IP Claim, Softchoicemay, at its reasonable option: (i) procure for Customer the right to use the Deliverable; (ii) replace or modify, in whole or in part, the Deliverable to make it non-infringing and substantially comparable in functionality; or (iii) require the return of the Deliverable and promptly refund to Customer any fees paid by Customer to Softchoice which are reasonably attributable to such Deliverable. Notwithstanding the foregoing, Softchoice's liability for an IP Claim is reduced to the extent such claim is based on: (A) use of a Deliverable in a manner not permitted or contemplated under the Agreement or SOW; (B) modification of any Deliverable other than by Softchoice; (C) use or combination of any Deliverable with third party materials; (D) information supplied by Customer or Customer's authorized third party to Softchoice; or (E) Customer's negligence, breach or willful misconduct. THE FOREGOING STATES SOFTCHOICE'S ENTIRE LIABILITY AND CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES FOR IP CLAIMS.

b. The foregoing obligations under this Section are conditioned upon the indemnified Party: (i) notifying the indemnifying Party promptly in writing of any such action (provided that the indemnifying Party's obligations will only be diminished to the extent that a delay prejudices the indemnifying Party's defense of such matter); (ii) giving the indemnifying Party sole control of the defense and/or settlement of such action, unless Customer exercises its option per 74 OS 18b and 2006 OK AG 11 to
assert control of the action, in which case Customer may assume control of the defense; and (iii) giving the indemnifying Party all reasonable information and assistance (at the indemnifying Party’s expense).

4. Services-related Limitation of Liability
   a. Without limiting section 16.5 of the Agreement and subject to applicable law, each party’s total liability under this SOW will be limited to two times the dollar value of the fees paid or to be paid by Customer hereunder for the term in which the claim arises.
   b. IN NO EVENT WILL SOFTCHOICE BE LIABLE FOR CUSTOMER’S FAILURE TO SUFFICIENTLY BACK UP OR PROTECT ITS DATA OR FOR ANY CLAIM MADE BY CUSTOMER OR ANY THIRD PARTY TO THE EXTENT SUCH CLAIM ARISES OUT OF (i) MATERIALS PROVIDED BY CUSTOMER TO SOFTCHOICE FOR USE IN DEVELOPING, PERFORMING OR CUSTOMIZING ANY SERVICES OR DELIVERABLES OR (ii) CUSTOMER’S FAILURE TO PERFORM ANY OF ITS OBLIGATIONS UNDER THE AGREEMENT OR APPLICABLE SOW.

Customer responsibilities

Customer agrees that failure to deliver any of these responsibilities will impact the project’s commercial structure, which may include adjustments in time, scope, or both. Customer shall:

Working environment

1. Provide adequate working space at Customer’s site where required.
2. Provide necessary system access for Subcontractor personnel, including remote access where required.
3. For onsite services, Customer will ensure it follows best practices and health and safety guidelines as required in its jurisdiction in respect of preventing and/or reducing the risk of Covid-19 transmission. Customer will inform Softchoice of Customer's health and safety requirements that it requires Softchoice personnel to comply with, in writing in advance or upon SOW signature. Softchoice will use commercially reasonable efforts to follow such requirements in assigning personnel to perform Services onsite, and Customer understands that the project's timeline may be impacted as a result.
4. Assume all responsibility for site preparation, including space, cabling and electrical requirements.

Availability of resources

1. Once scheduled, Customer resources will be available when required. Failure to comply may affect Softchoice resource availability, cause additional project expenses, or both.
2. Customer is responsible for the delivery of all project prerequisites prior to the initial project kick off meeting.

Communication

1. If Customer is not able to provide project prerequisites or Customer resources, Customer is responsible for cancelling any scheduled meeting 24 hours in advance.
2. Provide Softchoice with the information it reasonably requires to perform the Services.
3. Designate a Customer Primary Contact who will be the focal point for a SOW and who shall have the authority to act on Customer’s behalf. Customer’s Primary Contact will remain engaged in the project and will act as Customer’s single point of escalation for the project.

4. Notify Softchoice of any relevant issues of which Customer is aware that will impact the Services. Failure to do so may result in a Change Request and additional costs outside of this SOW.

**Technology**

1. Perform all appropriate backups and be solely responsible for its data, including taking sufficient steps to protect itself against loss or corruption of data.

**Fee schedule**

Softchoice shall provide Customer the services described on a Time & Materials basis. A Time & Materials SOW means the total project cost may come in above or below the original estimate. Any changes to the scope will be handled by Softchoice’s change management process as set out in the Agreement.

<table>
<thead>
<tr>
<th>Task</th>
<th>Hours</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Consultant</td>
<td>560</td>
<td>$270</td>
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*Exclusive of any applicable taxes. All currency is in US funds. Pricing as per: Contract 1079.

**Travel and living expenses**

Not applicable.

**Project commencement**

Softchoice shall make all reasonable efforts to begin project services within four (4) weeks from the SOW execution date. Services are scheduled by the assigned Softchoice Project Coordinator or Project Manager after the SOW has been fully executed.

The Services performed will be detailed and performed in 1-week intervals that Softchoice refers to as a sprint. The Services are specified based on the contracted scope. The planning of activities occurs weekly with the objective of completion and review within the sprint. However, if the effort exceeds the weekly hours limit, eventual activities may be carried over into the subsequent sprint until Customer’s contracted limit is reached.
Each sprint begins with a working session and a subsequential planning meeting. An eventual working session could be requested during the week as well. Finally, Softchoice will have a review meeting to close the sprint. Work items within the sprint are locked down and are not changed during the sprint except for exceptional circumstances.

As work is performed within each sprint, objectives and planned activities for the following sprint will be adjusted to the current state that requires revision of the next sprint for achieving the stated goals of the project.

By the nature of Agile methodology, Softchoice does not guarantee that the Services are completed by a particular date. Instead, Softchoice guarantees Customer’s prioritization over sprint items prior to a sprint planning meeting.

**Cancellation and rescheduling**

Once a start date for the services being provided under this SOW has been agreed upon in writing by Customer and Softchoice (“Project Start Date”), Customer may change the Project Start Date without penalty upon written notice to Softchoice, if such notice is received more than five (5) business days prior to Project Start Date. If Customer changes the Project Start Date five (5) business days or less prior to the Project Start Date, Customer agrees to pay Softchoice the full price of the services that were scheduled for the week following the Project Start Date. Customer may cancel the Services without penalty upon written notice to Softchoice upon five (5) business days’ notice. Customer agrees to pay Softchoice for all Services performed, and all costs and expenses incurred up to the effective date of termination.

**Change requests**

The fees quoted are based on Softchoice executing the services on a specific, mutually agreed upon, schedule that allows both Softchoice and Customer reasonable time to perform their tasks. Any deviation from the scope or schedule could result in corresponding changes to the estimated price, dates, responsibilities, or other provisions of the project. Changes that have material impact to any of the foregoing will be accommodated with a Change Request form or a separate SOW as deemed appropriate by both parties. Softchoice will make reasonable efforts to mitigate the costs associated with the change, with Customer bearing only that portion of costs that cannot be mitigated or otherwise avoided.

It is imperative that the following formal change control process be maintained for this SOW in order to ensure mutual understanding between Subcontractor and the Customer needed for the engagement to achieve successful outcomes.
If a party uncovers a gap or need for change in this SOW, whether it is a business or technical issue, the discovering party will document this issue on a Change Request (“CR”) form. This form will be given to the PM who will determine the party best suited to address the issue. In order to be efficient with the change control process, Subcontractor may combine multiple changes in one CR so that it represents material change in scope, time or cost.

The PM will present the CR and its impact statement to the PS at his / her earliest convenience. The PM and PS will determine whether the issue is within the scope of the current project or outside of the current scope. Finally, they will determine the best course of action to take to resolve the issue. The options are to perform the change in the current scope with no increase in cost, perform the change in the current scope with an agreed-upon increase in the cost, perform the change in a future scope, or reject the change.
## Contact details

<table>
<thead>
<tr>
<th>Services Work Address or Remote</th>
<th>Remote</th>
</tr>
</thead>
<tbody>
<tr>
<td>City, State, Zip</td>
<td>3800 N Classen Blvd</td>
</tr>
<tr>
<td>Customer Primary Contact</td>
<td>Lori Johnson</td>
</tr>
<tr>
<td>Title</td>
<td>Assistant Chief of Financial Assistance Division</td>
</tr>
<tr>
<td>Phone Number</td>
<td>(405) 530-8835</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:lori.johnson@owrb.ok.gov">lori.johnson@owrb.ok.gov</a></td>
</tr>
<tr>
<td>Customer Signing Authority</td>
<td><a href="mailto:lori.johnson@owrb.ok.gov">lori.johnson@owrb.ok.gov</a></td>
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<tr>
<td>Softchoice Manager, Professional Services</td>
<td>Sean Denomey</td>
</tr>
<tr>
<td>Softchoice Account Manager</td>
<td>Jaspreet Monga</td>
</tr>
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## Payment terms

Services performed under this SOW will be invoiced every two (2) weeks until the project is complete unless otherwise noted in the Agreement. All invoices and billing correspondence shall be sent to Customer’s designated billing contact below:

### Billing address:

<table>
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<tr>
<th>Name</th>
<th>Lori Johnson</th>
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</thead>
<tbody>
<tr>
<td>Street Address</td>
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<tr>
<td>City, State, Zip</td>
<td>Oklahoma City, OK 73118</td>
</tr>
<tr>
<td>Phone Number</td>
<td>(405) 530-8835</td>
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<tr>
<td>Email Address</td>
<td><a href="mailto:lori.johnson@owrb.ok.gov">lori.johnson@owrb.ok.gov</a></td>
</tr>
</tbody>
</table>
PO # (billing ref. #):

(Please indicate “NA” if not applicable)

***This signed document must be sent back in its entirety (not just the signature page)***

Document created by Raudah Mohammed (raudah.mohammed@softchoice.com)
2022-05-03 - 3:33:33 PM GMT- IP address: 142.122.152.37

Document emailed to Veronica Meffe (veronica.meffe@softchoice.com) for approval
2022-05-03 - 3:35:48 PM GMT

Email viewed by Veronica Meffe (veronica.meffe@softchoice.com)
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Document approved by Veronica Meffe (veronica.meffe@softchoice.com)
Approval Date: 2022-05-03 - 3:40:01 PM GMT - Time Source: server- IP address: 72.15.59.2

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2022-05-03 - 3:40:03 PM GMT

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2022-05-03 - 6:11:07 PM GMT- IP address: 104.47.74.126

Document signing delegated to Sean Denomey (sean.denomey@softchoice.com) by SC Legal Department (legal@softchoice.com)
2022-05-03 - 6:14:00 PM GMT- IP address: 72.15.59.2

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Signature Date: 2022-05-03 - 8:35:58 PM GMT - Time Source: server - IP address: 38.29.132.235

Agreement completed.
2022-05-03 - 8:35:58 PM GMT
AGENDA ITEM 3D(17)

JOINT FUNDING AGREEMENT

WITH:

United States Geological Service (USGS)

PURPOSE:

Continued operation and maintenance of the Monitoring Program

AMOUNT:

OWRB to pay amount not to exceed $406,600.00

TERM:

July 1, 2022 through June 30, 2023
THIS AGREEMENT is entered into as of the July 1, 2022, by the U.S. GEOLOGICAL SURVEY, Oklahoma-Texas Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the Oklahoma Water Resources Board party of the second part.

1. The parties hereto agree that subject to the availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation Water Resource Investigations (per attachment), herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50, and 43 USC 50b.

2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) include In-Kind-Services in the amount of $0.00

   (a) $175,900 by the party of the first part during the period July 1, 2022 to June 30, 2023
   (b) $406,600 by the party of the second part during the period July 1, 2022 to June 30, 2023
   (c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of: $0

   Description of the USGS regional/national program:

   (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.

   (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.

4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.

5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.

6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.

7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program, and if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties. The Parties acknowledge that scientific information and data developed as a result of the Scope of Work (SOW) are subject to applicable USGS review, approval, and release requirements, which are available on the USGS Fundamental Science Practices website (https://www.usgs.gov/about/organization/science-support/science-quality-and-integrity/fundamental-science-practices).
9. Billing for this agreement will be rendered quarterly. Invoices not paid within 60 days from the billing date will bear Interest, Penalties, and Administrative cost at the annual rate pursuant the Debt Collection Act of 1982, (codified at 31 U.S.C. § 3717) established by the U.S. Treasury.

USGS Technical Point of Contact
Name: Jason Lewis
Branch Chief
Address: 202 NW 66th Street
Oklahoma City, OK 73116
Telephone: (405) 651-2029
Fax: 
Email: jmlewis@usgs.gov

Customer Technical Point of Contact
Name: Lance Phillips
Address: 3800 N. Classen Boulevard
Oklahoma City, Oklahoma 73118
Telephone: (405) 530-8800
Fax: 
Email: lance.phillips@owrb.ok.gov

USGS Billing Point of Contact
Name: Julie Murray
Budget Analyst
Address: 202 NW 66th Street
Oklahoma City, OK 73116
Telephone: (405) 205-1952
Fax: 
Email: jamurray@usgs.gov

Customer Billing Point of Contact
Name: Chrystal Krittenbrink
Legal Assistant
Address: Oklahoma Water Resources Board 3800 N. Classen Blvd
Oklahoma City, OK 73118
Telephone: (405) 530-8801
Fax: (405) 530-8900
Email: Cris.Krittenbrink@owrb.ok.gov

U.S. Geological Survey
United States
Department of Interior

Oklahoma Water Resources Board

By ______________ Date: 05/03/2022
Name: Timothy H. Raines
Title: Director

By_________________________ Date: __________
Name: 
Title: 

By_________________________ Date: __________
Name: 
Title: 

By_________________________ Date: __________
Name: 
Title: 

Form 9-1366 (May 2018)
May 3, 2022

Mr. Lance Phillips
Oklahoma Water Resources Board
3800 N. Classen Boulevard
Oklahoma City, Oklahoma  73118

Dear Mr. Phillips:

Enclosed is a signed copy of our standard joint-funding agreement for the Surface Water Monitoring Program with the Oklahoma-Texas Water Science Center Water Resources Investigations, during the period July 1, 2022 through June 30, 2023 in the amount of $406,600 from your agency. U.S. Geological Survey contributions for this agreement are $175,900 for a combined total of $582,500. Please sign and return a one copy of the fully-executed agreement to Julie Murray at jamurray@usgs.gov.

Federal law requires that we have a signed agreement before we start or continue work. Please return the signed agreement by **July 1, 2022**. If, for any reason, the agreement cannot be signed and returned by the date shown above, please contact Jason Lewis by phone number (405) 651-2029 or email jmlewis@usgs.gov to make alternative arrangements.

This is a fixed cost agreement to be billed quarterly via Down Payment Request (automated Form DI-1040). Please allow 30-days from the end of the billing period for issuance of the bill. If you experience any problems with your invoice(s), please contact Julie Murray at phone number (405) 205-1952 or email at jamurray@usgs.gov.

The results of all work performed under this agreement will be available for publication by the U.S. Geological Survey. We look forward to continuing this and future cooperative efforts in these mutually beneficial water resources studies.

Sincerely,

Timothy H. Raines
Director

Enclosure

22SJFAOK002010
## Joint Funding Agreements:

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<td>$0</td>
<td>$350,430</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Summary of Tables A and B:

- **Oklahoma Water Resources Board - U.S. Geological Survey, 2022 Fiscal Year**
- **July 1, 2022 to June 30, 2023**
- **Prepared by J.M. Lewis, April 28, 2022**

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**USGS Spr Sheet FY23-OWRB-USGS-StreamgaingProgram-FY2023a**

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| A | B   | C   | D   | E   | F   | G   | H   | I   | J   | K   | L   | M   |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 43| FY01| $350,430 | $0  | $350,430 | $111,050 | $27,800 | $138,850 | $461,480 | $950,760 |
| 44| FY00| $374,070 | $0  | $374,070 | $111,300 | $31,300 | $142,600 | $485,370 | $1,002,040 |
| 45| FY99| $468,740 | $0  | $468,740 | $111,300 | $31,300 | $142,600 | $580,040 | $1,191,380 |
| 46| FY98| $458,740 | $0  | $458,740 | $124,050 | $12,300 | $136,350 | $582,790 | $1,177,880 |
AGENDA ITEM 3D(18)

RESOLUTION

WITH: U.S. Environmental Protection Agency

PURPOSE: Resolution authorizing an application for funding assistance through the U.S. Environmental Protection Agency's Exchange Network Grant Program to support better access to water quality data.
A RESOLUTION OF THE OKLAHOMA WATER RESOURCES BOARD AUTHORIZING AN APPLICATION FOR FUNDING ASSISTANCE THROUGH THE U.S. ENVIRONMENTAL PROTECTION AGENCY’S EXCHANGE NETWORK GRANT PROGRAM TO SUPPORT BETTER ACCESS TO WATER QUALITY DATA

WHEREAS, the United States Environmental Protection Agency (USEPA) has implemented the Exchange Network Grant Program to support better environmental decisions by promoting the use of more timely and consistent data which is shareable by partners across the Exchange Network as well as by environmental professionals and the public;

WHEREAS, USEPA has solicited proposals for financial assistance from States, Tribes, and other organizations for projects intended to facilitate better access to and share environmental data;

WHEREAS, the Oklahoma Water Resources Board (“Agency”) has identified itself as an eligible applicant under USEPA’s Exchange Network Grant Program Funding Opportunity Number EPA-OMS-22-01;

WHEREAS, the Agency is pursuing grant funding assistance under the Exchange Network Grant Program in an amount up to $394,200, with no cost share for the Agency, for a project improving the Agency’s water quality database and to access a national water quality dataset directly through said database to ultimately better inform management decisions (“Project”);

NOW, THEREFORE, be it resolved by the Board as follows:

1. The Board has reviewed the scope and purpose of the funding application and finds that the Project will serve the needs of the people of Oklahoma and satisfy the goals of the Exchange Network Grant Program, and on that basis, supports the staff’s submittal of the grant proposal to USEPA.

2. The Agency is capable of funding the minimum zero-percent cost share required to obtain grant funding under the Exchange Network Grant Program.

3. Pursuant to state policy, the Agency and sought and received approval from the Office of the Secretary of Energy and Environment in order to pursue this funding opportunity.

4. The Board hereby ratifies the action of its Chief Financial Officer or his designee of the Agency in applying for financial assistance from USEPA’s Exchange Network Grant Program and authorizes the Chief Financial Officer or his designee to execute any related document, including a cooperative financial assistance agreement with USEPA.

5. The Chief Financial Officer and staff are directed to take all other actions necessary to secure funding for the Project under the Exchange Network Grant Program, including working with USEPA to meet established deadlines for entering into a cooperative financial assistance agreement.
PASSED AND ADOPTED by the Oklahoma Water Resources Board on the 17th day of May, 2022:

_____________________________________
Matt Muller, Chairman

ATTEST:

_____________________________________
Jennifer Castillo, Secretary
Streamlining and Providing Better Access to Data Including Direct Access to NARS Study Data

Oklahoma Water Resources Board (OKWRB)

FY 2022 Exchange Network Grant Program
Project Narrative
April 29th, 2022

1) Project Description

The OKWRB submits this EN Partnership application in support of Exchange Network (EN) Funding Area(s): Funding Area 1: Increased Data Access and Innovative Business Processes, specifically EEDS Strategy Principles of building an information-centric environmental protection enterprise using a shared platform and use of REST-based Application Programming Interfaces (APIs). Applicable specific Opportunities are detailed for each goal under section 2.

OWRB has worked with several Oklahoma state sister agencies, project partners, and NALMS to manage, improve, and share water quality monitoring data for better and more timely environmental decision-making through previous Exchange Network grants.

Funding from this Exchange Network grant would enable OKWRB and partners to address the following business and administrative needs in our re-used, shared platform water quality data management system:

- Dramatically streamline capture of and improve quality of field water quality data through re-use of NARS mobile apps and direct import into our re-used water quality data management system.
- Improve searchability, analysis, and assessment of water quality data in our data management system.
- Improve useability and accuracy of continuous and discrete data results for groundwater wells.
- Allow NALMS’ to pass associated volunteer group non-Secchi-Dip-In data to WQX and improve and support NALMS Secchi Dip-In event administrators’ management of data from annual Secchi Dip In and other project events.

This project supports the goals and objectives of the EPA’s Draft FY 2022-2026 Strategic Plan, especially Goal 3, Objective 3.4, and the achievement of associated environmental results (see Table 1).

Table 1. Supported EPA Strategic Goals and Objectives

<table>
<thead>
<tr>
<th>Strategic Goal</th>
<th>Strategic Objective</th>
<th>Description of Project Support</th>
<th>Associated Environmental Output(s) and/or Outcome(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 3: Greater Certainty, Compliance, and Effectiveness</td>
<td>Objective 3.4 – Streamline and Modernize</td>
<td>Creates an efficient dataflow from NARS studies’ respective apps directly into a database from a JSON file. Streamlines water quality data management, searchability, and accuracy from lakes, streams, and groundwater studies. Produces more opportunities for electronic submittal from citizen scientists and streamlining administrative data flow in the reused Secchi Dip-in data platform.</td>
<td>The ability to manage and analyze NARS study data leading to a better understanding of Oklahoma waters using an existing dataset that is currently not easily accessible. Creating datasets using a cleaner workflow, thus decreasing staff time having to manipulate the data and avoiding potential errors. Generating a more complete Secchi Dip-In dataset by streamlining data flows and allowing more users to upload data.</td>
</tr>
</tbody>
</table>
2) Project Goals, Outputs, and Outcomes

The project has four goals. All associated costs, outputs, schedule dates and rationales, outcomes, supported business/administrative needs, supported EPA Strategic Plan goals and outputs, and applicable funding area, opportunity, and potential activities are detailed in Table 2, below.

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Output</th>
<th>Scheduled Completion Date</th>
<th>Rationale for Scheduled Completion Date of Output</th>
<th>Output Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement direct import of certain NARS mobile app outputs into our reused data management system</td>
<td>1.1 Analyze, design, and code database and software changes to support the import of JSON files from the Habitat Assessment sections of the NARS NLA mobile app.</td>
<td>4/30/2023</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$69,500</td>
</tr>
<tr>
<td></td>
<td>1.2 Analyze, design, and code database and software changes to support the import of JSON files from the Fish Gear and Sampling, Fish Collection, and Benthic Sample Collection sections of the NRSA and NLA apps.</td>
<td>7/31/2023</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$80,100</td>
</tr>
</tbody>
</table>

Anticipated Outcome(s):
- Streamlining, reduction of costs for capture, vetting, and consolidation of field measurements and observations.
- Improved data quality / reduced human error.
- Improved timeliness of field data and observations for both state and EPA use.

Supported Administrative/Business Need(s):
See project description, above.

Most applicable Supported EPA Strategic Goal and Objective:
Goal 5, Objective 5.2 (See Table 1, above)

Most Applicable Funding Area, Opportunity, and Potential Activities:
Funding Area 2 - Eliminate paper submittals and expand e-reporting - Water Quality eXchange (WQX) - WQX data submission Mapping state/tribal/territorial data system to WQX Schema and/or collaborate with eligible entities collecting monitoring data:
- WQX data submission

This project goal:
- Adopts innovative business processes and helps modernize the critical data services that power OKWRB’s and partners’ systems and workflows,
- Is based on shared platforms.
- Uses interoperable technology platforms and services to promote collaboration and facilitate the integration of data needed to improve environmental management among partner agencies.
- Will improve environmental decisions by making data more open, interoperable, and readily usable.
- Promotes sustainable data integration practices by working with external partners to cultivate modern environmental data infrastructure and address the difficult and universal challenge of legacy data
- Helps all project stakeholders submit and share programmatic data.
### Total Budget for Goal 1: $149,600

<table>
<thead>
<tr>
<th>Goal 2</th>
<th>Output</th>
<th>Scheduled Completion Date</th>
<th>Rationale for Scheduled Completion Date of Output</th>
<th>Output Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streamlining and improving water quality monitoring data capture, management, and analysis capabilities in our re-used water quality data management shared platform.</td>
<td>2.1 Design and code software and database changes to enter, import, display, export and publish via API well monitoring point adjustment value information.</td>
<td>8/31/2023</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$30,500</td>
</tr>
<tr>
<td></td>
<td>2.2 Make specific database and software changes to improve data access and searchability for data analysis and assessment.</td>
<td>1/31/2024</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$45,600</td>
</tr>
</tbody>
</table>

### Anticipated Outcome(s):
- Improved data quality / useability for improved local and national decision-making.
- Streamlining and reduction of cost in time wasted in zeroing in on data desired for analysis and assessment purposes.

### Supported Administrative/Business Need(s):
See project description, above.

### Supported EPA Strategic Goal and Objective:
Goal 5, Objective 5.2 (See Table 1, above)

### Most Applicable Funding Areas, Opportunities, and Potential Activities:

#### Funding Area 1 - Increased Data Access and Innovative Business Processes – Innovative Business Processes: Continuous Water Quality Monitoring
- Modify Existing Tools to Publish Data in Open Formats
- Develop Approaches for Capturing and Sharing Sensor Metadata

#### Open Data, Data Modernization, and Digital Transformation Projects including Geospatial Data
- Designing the technical framework for the creation of accessible environmental data collections

#### Funding Area 2 - Eliminate paper submittals and expand e-reporting - Water Quality eXchange (WQX) - WQX data submission Mapping state/tribal/territorial data system to WQX Schema and/or collaborate with eligible entities collecting monitoring data:
- WQX data submission

This project goal:
- Helps agencies adopt innovative business processes and modernize the critical data services that power their systems and workflows,
- Will improve environmental decisions by making data more open, interoperable, and readily usable,
- Promotes sustainable data integration practices by working with external partners to cultivate modern environmental data infrastructure,
- Uses of REST-based web application programming interfaces (APIs) as the foundation for creating interoperability and openness,
- Helps stakeholders submit and share programmatic data to WQX and the NWQP.

### Total Budget for Goal 2: $76,100

<table>
<thead>
<tr>
<th>Goal 3</th>
<th>Output</th>
<th>Scheduled Completion Date</th>
<th>Rationale for Scheduled Completion Date of Output</th>
<th>Output Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement data management and data sharing improvements and support for NALMS re-used data management system</td>
<td>3.1 Expand use of NALMS Dip-In data management and WQX flow system for NALMS to aggregate, analyze, and flow to WQX data from other volunteer projects that are not related to the Secchi Dip-In.</td>
<td>2/28/2023</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$ 32,200</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3.2 Design and implement critical database and software improvements to streamline batch data capture and data analysis and visualization for both NALMS administrative and volunteer end users.</td>
<td>6/30/2024</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$ 27,600</td>
<td></td>
</tr>
<tr>
<td>3.3 Obtain ongoing technical assistance for the NALMS Secchi Dip-In data management and WQX flow system in support of both the annual Secchi Dip-In event and other expanded uses of the system. Examples of assistance include but are not necessarily limited to: updated and improved templates and import configurations, end user materials, remote training, configuration of new or improved end user data entry forms, complex batch file import scenarios, identification and consolidation of duplicate monitoring locations and/or waterbodies, attribution of historical Dip-In data to appropriate user accounts in the new system.</td>
<td>Ongoing throughout the life of the project.</td>
<td>The tasks will be ongoing, as requested by NALMS personnel.</td>
<td>$ 28,700</td>
<td></td>
</tr>
</tbody>
</table>

**Anticipated Outcome(s):**
- Improved data quality / useability for improved local and national decision-making.
- Increased quantity of useable volunteer data to EPA and National Water Quality Portal.
- Improved citizen scientist and volunteer group “buy-in” and participation through improved data attribution, searchability, and analysis.
- Streamlined/more efficient data capture for both NALMS and Citizen Scientists.

**Supported Administrative/Business Need(s):** See project description, above.
### Supported EPA Strategic Goal and Objective:

| Goal 5, Objective 5.2 (See Table 1, above) |

### Most Applicable Funding Areas, Opportunities, and Potential Activities:

#### Funding Area 1 - Increased Data Access and Innovative Business Processes – Innovative Business Processes
- Open Data, Data Modernization, and Digital Transformation Projects including Geospatial Data
  - Identifying and prioritizing environmental data to be held and/or served
  - Designing the technical framework for the creation of accessible environmental data collections
  - Promote sustainable data modernization and integration within and across state agencies

#### Funding Area 2 - Eliminate paper submittals and expand e-reporting - Water Quality eXchange (WQX) - WQX data submission Mapping state/tribal/territorial data system to WQX Schema and/or collaborate with eligible entities collecting monitoring data:
  - WQX data submission
  - Quality Assurance and Quality Check reports
  - Partner with eligible entities collecting monitoring data

This project goal:
- Is focused on building on a modern environmental protection enterprise that is information-centric and based on shared platforms,
- Will help agencies take advantage of available EN Services,
- Uses interoperable technology platforms and services to promote collaboration and facilitate the integration of data needed to improve environmental management among partner agencies and organizations,
- Will improve environmental decisions by making data more open, interoperable, and readily usable,
- Promotes sustainable data integration practices by working with external partners to cultivate modern environmental data infrastructure and address the difficult and universal challenge of legacy data,
- Will help stakeholders submit and share programmatic data to WQX and NWQP.

### Total Budget for Goal 3:

<table>
<thead>
<tr>
<th>Goal 4</th>
<th>Output</th>
<th>Scheduled Completion Date</th>
<th>Rationale for Scheduled Completion Date of Output</th>
<th>Output Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement data capture and data sharing improvements and support for NALMS Re-Used mobile app.</td>
<td>4.1 Design and implement needed modifications to adapt and support our re-used mobile app in conjunction with the expanded use of our data management system.</td>
<td>8/31/2024</td>
<td>Based on contractor provided estimated level of effort and other shared platform community tasks queued. Also adjusted to allow for contracting process.</td>
<td>$40,000</td>
</tr>
</tbody>
</table>

### Anticipated Outcome(s):

- Improved data quality / useability for improved local and national decision-making.
- Increased quantity of useable volunteer data to EPA and National Water Quality Portal.
- Improved citizen scientist and volunteer group “buy-in” and participation through improved data attribution, searchability, and analysis.
- Streamlined/more efficient data capture for both NALMS and Citizen Scientists.

### Supported Administrative/Business Need(s):

See project description, above.

### Supported EPA Strategic Goal and Objective:

| Goal 5, Objective 5.2 (See Table 1, above) |

### Most Applicable Funding Areas, Opportunities, and Potential Activities:

This project goal:
Funding Area 1 - Increased Data Access and Innovative Business Processes
Open Data, Data Modernization, and Digital Transformation Projects including Geospatial Data
• Identifying and prioritizing environmental data to be held and/or served
• Designing the technical framework for the creation of accessible environmental data collections
• Promote sustainable data modernization and integration within and across state agencies

Funding Area 2 - Eliminate paper submittals and expand e-reporting - Water Quality eXchange (WQX)
WQX data submission Mapping state/tribal/territorial data system to WQX Schema and/or collaborate with eligible entities collecting monitoring data:
• WQX data submission
• Quality Assurance and Quality Check reports
• Partner with eligible entities collecting monitoring data

<table>
<thead>
<tr>
<th>Total Budget for Goal 4:</th>
<th>$ 40,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Total Budget for Goals:</td>
<td>$ 354,200</td>
</tr>
<tr>
<td>b. Personnel Costs (Not Included in Goal Costs):</td>
<td>$ 16,451</td>
</tr>
<tr>
<td>c. Fringe Costs (Not Included in Goal Costs):</td>
<td>$ 12,232</td>
</tr>
<tr>
<td>Total Direct Costs:</td>
<td>$ 372,888</td>
</tr>
<tr>
<td>Total Indirect Costs:</td>
<td>$11,317</td>
</tr>
<tr>
<td>Total Project Budget:</td>
<td>$ 394,200</td>
</tr>
</tbody>
</table>

3) Key Personnel and Associated Roles, Responsibilities, and Qualifications

Key contacts and their applicable project roles and responsibilities and other mandatory role-specific details for each applicable role are provided in Table 3.
<table>
<thead>
<tr>
<th>Key Contact Type</th>
<th>Applicable Role?</th>
<th>Contact Name</th>
<th>Current Job Title</th>
<th>Current Organization</th>
<th>Anticipated Role(s)/Responsibilit(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT MANAGER</td>
<td>Yes</td>
<td>Jet Stine</td>
<td>Quality Assurance and Data Manager</td>
<td>Oklahoma Water Resources Board</td>
<td>Administration of the grant, including communicating with all partners and contractors on the day-to-day progress of the grant</td>
</tr>
<tr>
<td>Project and Financial Management Experience and/or Qualifications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Over ten years of experience with OKWRB working in water quality data management. Have successfully co-led previous Exchange Network grant projects.</td>
</tr>
<tr>
<td>PROGRAMMATIC CONTACT</td>
<td>Yes</td>
<td>Cleve Pierce</td>
<td>Water Resources Division Chief</td>
<td>Oklahoma Water Resources Board</td>
<td>Point of Contact for grants.gov and financial administration of the funds</td>
</tr>
<tr>
<td>Programmatic Office’s Relationship to the Applicant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cleve is employed at OWRB and is the Chief of the Administrative Division which is responsible for financial administration and management.</td>
</tr>
<tr>
<td>FORMAL PARTNER CONTACT</td>
<td>Yes</td>
<td>Lisa Borre</td>
<td>Senior Research Specialist</td>
<td>Cary Institute of Ecosystem Studies</td>
<td>Point of Contact for NALMS related tasks</td>
</tr>
<tr>
<td>Partnering Organization’s Relation to the Lead Applicant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OWRB has partnered with the NALMS organization on a previous Exchange Network grant and one of our employees is a past president of NALMS.</td>
</tr>
</tbody>
</table>

Additionally, we anticipate using a sole-sourced, qualified contractor; vetted to have extensive previous and unique experience and expertise in the technical and business process details of the work at hand. The contractor will lead analysis work to determine end user requirements and will design and code database, business logic, and user interface changes for software and API enhancements. The contractor will test and rollout of new database and software changes. The contractor will provide specialized technical assistance throughout the life of the project.

4) Commitment to Reuse

OKWRB is committed to reusing existing tools developed and available for Exchange Network partner use. Specifically, the program will reuse at least the following products currently registered in the SSRC/ECCIP:
- 26937: AK ADEC FY17 - OS83922001 AWQMS Enhancements
- 24678: ENIPC OETA NM Tribes-Pueblos Augmentation of Ambient Water Quality Monitoring System (AWQMS) Data Analysis Tools
- 24697: ENIPC OETA NM Tribes-Pueblos Augmentation of Ambient Water Quality Monitoring System (AWQMS) Data Explorer / Dashboard
- 14318: MD-AWQMS-OS83564701
- 32578: OKWRB - OKWRB NALMS Secchi Dip-In Implementation of AWQMS

In accordance with the terms and conditions of the Exchange Network Grant Program, the OKWRB commits to register any new tools developed during the execution of this grant project at the time of grant close-out.

5) Technical Understanding

OKWRB will be utilizing the following data management and technological solutions to accomplish the goals and outputs as outlined in this project:
- **Ambient Water Quality Monitoring System (AWQMS) and associated, peripheral APIs**
  - **Description:** AWQMS provides a solution for consolidation, QC, analysis, and submission for OKWRB’s, its partners, and NALMS’ water quality monitoring data.
o **Necessity and Appropriateness:** This solution is a necessary and appropriate choice for the proposed project because it has been a proven solution over the years for data management and submission of water quality results to EPA’s WQX and the National Water Quality Portal (NWQP).

o **Meeting Business/Administrative Needs:** This solution helps OKWRB, its partners, and NALMS to meet the business and administrative needs identified in the Project Description, above.

o **Ability to Implement:** OKWRB is confident in its ability to implement and maintain this solution because it is a vetted, tested, stable solution that has now been in use by many states, tribes, and volunteer groups. The contractor that supports and maintains the solution is stable and has a proven track record, including a deep understanding of the EPA back-end systems and EN concepts and technical complexities.

The technology outputs developed during the proposed project will enhance data sharing and availability for immediate stakeholders, including OKWRB and several sister state agencies including the Oregon Department of Environmental Quality and the Connecticut Department of Energy and Environmental Protection, as well as the Cary Institute and NALMS as described above in the Project Description. Additionally, this project will enhance data sharing and availability for organizations across the Exchange Network by providing higher quality and quantity of water quality data to WQX and the NWQP in a timelier and streamlined manner.

### 6) Project Alignment with the E-Enterprise Digital Strategy (EEDS)

The technical solutions as detailed in **Section Five: Technical Understanding** align with the three principles of the EEDS and reflect the EEDS’s API-first approach and enhance data sharing and availability where appropriate by providing REST, OGC-compliant, and SOS-compliant APIs for ease of integration.

- **1st Principle: The Information-Centric Approach:**
  This project solution provides secure but improved access to quality information by adding data elements and searchability improvements that help information users quickly include the correct/intended data for analysis and assessment purposes. Additionally, our re-used data management system provides REST, OGC-compliant, and SOS compliant APIs that make the data interoperable. The built-in EN node client allows for very simple data submission to WQX using the EN standard API.

- **2nd Principle: The Shared Platform Approach:**
  This project solution is built on a shared platform used by many states, tribes, and volunteer groups, not only will OKWRB benefit from the previous development efforts of these other programs, but they will also benefit from this project. Our contract is experienced in making system changes and enhancements in a manner that benefits the most users using the shared platform, or at least in a way that is not a detriment to other users. The solution is designed as a web application and is deployed as a cloud-based service that has the ability to serve multiple organizations, if desired.

- **3rd Principle: The Customer-Centric Approach:**
  The changes proposed for this project are all “grass roots” requests from end users in order to better meet their business needs and streamline their processes.

### 7) Overview of Project Budget

A detailed overview of project goal and output costs for this project has been provided in **Section Two: Project Goals, Outputs, and Outcomes.** The table in that section also includes supported administrative/business need(s), the most supported EPA strategic goal and objective, and the most applicable related Funding Area, Opportunity, and Potential Activity. Refer to that table for evaluation of cost appropriateness of each goal. All goal outcome estimates were estimated by our anticipated contractor using a “bottom up” approach to consider the work tasks involved to arrive at hourly estimations and associated time and materials costs.

**Summary of Project Costs**
- The total budget for this project is $394,200, with $[dollar amount] in direct grants funding and $0 in in-
kind support.

- This project is a partnership project. $128,500 of the $394,200 are funds for project partners.
- This project does not include a formal mentor
- The proposed project budget also includes $40,000 for in-house costs and $354,200 budgeted for contractual costs.
- This project is charging indirect costs at a rate of 68.77% This ICR is active until 7/1/2022
- This project is requesting a total of $0 in equipment and a total of $0 in supplies.
- This project is requesting a total of $0 in travel costs

8) Past Performance

OKWRB has been awarded three Exchange Network assistance agreements since 2002.

OKWRB has registered six IT components in SSRC since 2011 (see Table 7).

Table 7. Component Registrations in Grants from 2011 Onwards

<table>
<thead>
<tr>
<th>Grant ID</th>
<th>Year of Grant Award</th>
<th>Year of Grant Close-Out</th>
<th>Component Description</th>
<th>System</th>
<th>Link to Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>83923001</td>
<td>2017</td>
<td>Open</td>
<td>OKWRB Local Water Quality Assessments Management and ATTAINS Submission AWQMS Integration</td>
<td>SSRC</td>
<td>28318</td>
</tr>
<tr>
<td>83944001</td>
<td>2017</td>
<td>Open</td>
<td>NALMS Initial Implementation of AWQMS</td>
<td>SSRC</td>
<td>32578</td>
</tr>
<tr>
<td>83923001</td>
<td>2017</td>
<td>Open</td>
<td>Groundwater and wells metadata module in AWQMS</td>
<td>SSRC</td>
<td>32577</td>
</tr>
<tr>
<td>83923001</td>
<td>2017</td>
<td>Open</td>
<td>Lake Depth and Groundwater Vertical Profile Reporting Improvements in AWQMS</td>
<td>SSRC</td>
<td>32579</td>
</tr>
<tr>
<td>83923001</td>
<td>2017</td>
<td>Open</td>
<td>Habitat Assessment tracking improvements in AWQMS</td>
<td>SSRC</td>
<td>32580</td>
</tr>
<tr>
<td>83944001</td>
<td>2018</td>
<td>Open</td>
<td>Ability to import NARS NRSA mobile app Habitat Assessment forms JSON output directly into AWQMS</td>
<td>SSRC</td>
<td>32581</td>
</tr>
</tbody>
</table>
AGENDA ITEM 3D(19)

SPONSORED RESEARCH AGREEMENT

WITH: University of Oklahoma Board of Regents

PURPOSE: To provide for the modernization of ArcGIS desktop extensions and geoprocessing web service by the Center for Spatial Analysis

AMOUNT: Not to exceed $15,175.00

TERM: June 1, 2022 through June 30, 2023
SPONSORED RESEARCH AGREEMENT
FY22-ORA2-43

THIS AGREEMENT is entered into by and between the Board of Regents of the University of Oklahoma, a constitutional entity of the State of Oklahoma (hereinafter referred to as "University") and the State of Oklahoma, Water Resources Board with principal offices at 3800 N. Classen Blvd., Oklahoma City, OK 73118 (hereinafter referred to as "Sponsor").

WITNESSETH

WHEREAS, the research program contemplated by this Agreement is of mutual interest and benefit to University and to Sponsor, will further the instructional and research objectives of the University in a manner consistent with its status as a public higher educational institution, and may derive benefits for both Sponsor and University through the advancement of knowledge through discovery and the creation of new technologies;

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree to the following:

SECTION 1. DEFINITIONS

1.1 "Invention" shall mean any invention, discovery, improvement, concept, product, or idea made during the Project whether or not patentable or copyrightable, including but not limited to processes, machines, methods, computer software, formulas, and know-how directly relating thereto. An Invention is “made during the Project” if it arises from work performed pursuant to the Project conducted under this Agreement and is made during the Period of Performance.

1.2 “Joint Invention” shall mean all Inventions conceived and/or made jointly by one or more employees of University and by one or more employees of Sponsor.

1.3 "Period of Performance" is the term of this Agreement as set forth in Section 3 below, unless earlier terminated as provided for in Section 5.

1.4 “Project” shall mean the research project entitled “Modernization of ArcGIS Desktop Extensions and Geoprocessing Web Service Phase 3” as described in Appendix A, under the direction of Dr. Todd Fagin as Principal Investigator.

1.5 “Sponsor Invention” shall mean all Inventions conceived and/or made solely by one or more employees of Sponsor.

1.6 “University Invention” shall mean all Inventions conceived and/or made solely by one or more employees of University.

1.7 "Background IP" shall mean any invention, discovery, improvement, concept, product, or idea that is not made during the Project.

SECTION 2. RESEARCH WORK

2.1 University does not guarantee specific research results but will exercise good faith efforts to perform the Project substantially in accordance with the terms and conditions of this Agreement. Sponsor understands that University’s primary mission is education and advancement of knowledge and consequently the Project will be designed to carry out that mission.

2.2 The manner of performance of the Project shall be determined solely by the Principal Investigator. In the event the Principal Investigator becomes unable or unwilling to continue the Project and a mutually
acceptable substitute is not available, either party shall have the option to terminate the Project.

2.3 Sponsor agrees that, if funds are exhausted prior to completion of the research, University will, at the option of Sponsor, submit a final report of accomplishments or provide an estimate of additional funds required to complete the Project and will continue the research if such funds are provided by Sponsor.

2.4 Sponsor understands that University may be involved in similar research through the same or other researchers on behalf of itself and others. University shall be free to continue such research, and Sponsor shall not gain any rights via this Agreement to such other research.

2.5 The Principal Investigator shall furnish Sponsor periodic letter reports summarizing progress on the Project. The Principal Investigator shall prepare and submit, on behalf of University, a final report to the Sponsor within ninety (90) days of the termination of this Agreement.

2.6 As long as Principal Investigator is employed by University, it shall be conclusively presumed that any patentable invention conceived of and/or reduced to practice by such Principal Investigator was made in his/her/their capacity as an employee of University and shall be promptly disclosed to and exclusively owned by University regardless of the circumstances surrounding the conception and/or reduction to practice.

SECTION 3. PERIOD OF PERFORMANCE

3.1 The Period of Performance will be: June 1, 2022, through June 30, 2023.

SECTION 4. COSTS, BILLINGS AND OTHER SUPPORT

4.1 This is a cost reimbursable agreement. For the services, reports, and other items to be delivered hereunder, Sponsor shall pay University, in U.S. dollars, an amount not to exceed Fifteen Thousand One Hundred Seventy-Five Dollars ($15,175), payable to the University of Oklahoma and sent to the business/payment address in Section 10. University shall bill Sponsor monthly, on a cost reimbursable basis, at Sponsor’s business address set forth in Section 10. Payment shall be due within thirty (30) days of receipt of invoice, with final invoice due ninety (90) days following termination of this Agreement.

4.2 The University agrees to incur expenses substantially in accordance with the cost estimate included in Appendix B (“Budget”), incorporated herein by reference. University reserves the right to re-budget funds as necessary for completion of the Project.

4.3 University shall retain title to any equipment purchased with funds provided by Sponsor under this Agreement. Title to equipment furnished by Sponsor to University, if any, shall remain with the Sponsor. The costs of transporting, installing and servicing any equipment used herein, whether the property of University or Sponsor, shall be allowable under this Agreement.

4.4 University shall maintain relevant accounting records in a central location sufficient to enable Sponsor to determine whether University has properly expended Sponsor funds. Sponsor may examine the records upon reasonable, prior written notice sent to the University business address.

SECTION 5. TERMINATION

5.1 Either party may terminate this Agreement at any time by giving not less than sixty (60) days prior written notice to the other party. In the event of early termination, University shall take all reasonable steps to minimize termination costs. Provided, notwithstanding anything in this Agreement to the contrary, in the event of early termination, Sponsor shall pay all costs and noncancellable obligations incurred by University as of the date of termination.
5.2 In the event that either party shall commit any breach of or default in any of the terms or conditions of this Agreement, and also shall fail to remedy the default or breach within thirty (30) days after receipt of written notice thereof from the other party, the party giving notice may, at its option and in addition to any other remedies which it may have at law or in equity, terminate this Agreement by sending written notice of termination in accordance with Section 10 to the defaulting party and the termination shall be effective as of the date of the receipt of the notice.

5.3 The performance by either Party hereunder shall be excused to the extent of unforeseen circumstances beyond such Party’s reasonable control, including, but not limited to: National Weather Service forecasted weather events, hurricanes, tsunami, floods, ice storms, lightning, landslide or similarly cataclysmic occurrence, or other acts of God; extended power outages; epidemics, pandemics, or related outbreaks if declared by the World Health Organization or federal government; county, state, or national declaration(s) of emergency as issued by an authorized government entity; war. acts of terrorism, or acts of public enemies; sabotage, riots or civil disturbances; or material destruction of facilities. In such event, the Parties shall be excused from performing an obligation or undertaking provided for in this Agreement, and the period for the performance of any such obligation or undertaking shall be extended for a period equivalent to the period of actual delay; provided, however, if performance is not restored within one hundred and twenty (120) days, either Party may terminate this Agreement.

5.4 Termination of this Agreement by either party for any reason shall not affect the rights and obligations of the parties accrued prior to the effective date of termination of this Agreement, except insofar as Sponsor’s breach of contract for failure to make payments under Section 4 shall cause Sponsor to forfeit its rights under Section 8. The rights and duties of Sections 6, 8, 9 and Paragraph 11.10 of this Agreement shall survive termination.

SECTION 6. PUBLICITY

Neither party to this Agreement may use the name or mark of the other nor the name(s) of the other’s employees in news releases, publicity, advertising, or product promotion without the prior written permission of the other.

SECTION 7. PUBLICATION

Subject to confidentiality provisions, University and Sponsor shall have the right at its discretion to release non-proprietary information or to publish any material resulting from the Project. The publishing party will furnish a copy of any proposed publication to the other party for its review at least thirty (30) days in advance of submission for publication. Publication of specific results may be delayed for a limited period, not to exceed sixty (60) days, to obtain any intellectual property protection and remove the other party’s Confidential Information contained in the publication. The other party agrees to limit disclosure of such copies to its employees solely for the purposes of review and comment unless otherwise agreed in writing by the publishing party or required by the Oklahoma Open Records Act. No unreasonable delay shall be imposed on the filing, defense or publication of any student thesis or dissertation. University shall give Sponsor the option of being acknowledged in such publication for its sponsorship of the Project.

SECTION 8. INTELLECTUAL PROPERTY

8.1 Nothing in this Agreement grants either party any ownership rights in any Background IP of the other party, except as expressly provided herein. Sponsor grants University for the term of this agreement a royalty-free, non-exclusive and non-transferable license to use its Background IP listed in Appendix C solely for the purpose of performing the Project.

8.2 Any University Invention shall belong to University and any Sponsor Invention shall belong to Sponsor; provided however, University is hereby granted a royalty-free, nonexclusive and nontransferable right and license to Sponsor Inventions for non-commercial, educational and research purposes. Any Joint Invention shall belong to University and Sponsor, jointly.
8.3 University will provide Sponsor with a written disclosure of any University Invention or Joint Invention promptly upon its being reported to the University by the Principal Investigator. Sponsor will provide University with a written disclosure of any Sponsor Invention or Joint Invention promptly upon its being reported to Sponsor by a Sponsor investigator. Sponsor shall execute a non-disclosure agreement covering Inventions, as may be required by the University and as allowed by the Oklahoma Open Records Act.

8.4 University hereby grants to Sponsor a non-exclusive, royalty-free license to use any University Invention in connection with Sponsor’s field of commercial interest, subject to all of the following conditions and qualifications: (a) the license herein described applies to any University Invention only to the extent to which said Invention was actually and formally disclosed to University, (b) Sponsor does not license University Invention to third party(-ies), and (c) Invention is not embodied in any product or services sold or provided by Sponsor, or Sponsor’s affiliates, in any manner.

8.5 University hereby grants to Sponsor an option to negotiate an exclusive license (to the extent University may be free to do so) to a University Invention and/or University rights in a Joint Invention subject to requirements that:

(a) Sponsor shall exercise its option to negotiate the exclusive license agreement for any such Invention(s), in writing, within sixty (60) days of disclosure of the Invention to Sponsor by University.

(b) Sponsor and University shall negotiate the terms and conditions of the license in good faith for a period that shall not exceed one hundred twenty (120) days from Sponsor’s notice of intent to exercise said option, or such other period of time agreeable to both parties.

(c) In the event that Sponsor and University fail to enter into an agreement during that one hundred twenty (120) day period of time, the University shall have the right to dispose of the University Invention, at its sole and exclusive discretion with no further obligation to Sponsor.

8.6 The parties recognize that inventions, improvements, discoveries, copyrightable works, or other proprietary information may arise from research sponsored in whole or in part by governmental agencies. The parties agree that any such development shall be governed by the provisions of applicable law and subject to the reservation of the rights of the Government of the United States of America, as set forth in 37 CFR 401 and the Patent and Trademark Law Amendments Act of 1980 (Bayh-Dole Act).

SECTION 9. CONFIDENTIALITY

9.1 Any and all knowledge, proprietary information, know-how, practices, processes, or other information (hereinafter referred to as "Confidential Information") disclosed or submitted in writing or in other tangible form which is marked "Confidential Information" to either party by the other shall be submitted to the designated technical representative identified in Section 10 and maintained by the receiving party in strict confidence and shall not be disclosed to any third party. Furthermore, neither party shall use Confidential Information for any purpose other than those purposes specified in this Agreement. The parties may disclose Confidential Information to employees requiring access for the purposes of this Agreement; provided, however, that prior to making any such disclosure the employee shall be apprised of the duty to maintain Confidential Information in confidence and not to use such information for any purpose other than in accordance with the terms and conditions of this Agreement.

9.2 Each party shall use reasonable efforts to prevent the disclosure of any of the other party’s Confidential Information to third parties for a period of three (3) years from receipt thereof, provided that the receiving party’s obligation hereunder shall not apply to information that:

a. is generally available to the public, or thereafter becomes available to the public through no act of the receiving party, or
b. is documented to be independently known prior to receipt thereof, or is made available to the receiving party as a matter of lawful right by a third party, or

c. is required by law to be released; provided, however, that prior to any such release, the other party will be notified so that it may take protective measures if it deems necessary, or

d. is independently developed by an employee of receiving party that has not had access directly or indirectly to the Confidential Information, which claim is corroborated by written evidence.

SECTION 10. NOTICES

Notices, invoices, communications and payments shall be submitted to the offices identified below. All legal notices must be sent by personal delivery or certified mail, return receipt requested. All other contractual notices and communications hereunder shall be deemed made as of the date of mailing if given by overnight courier service or by registered, certified or first class mail, postage prepaid, and addressed to the party to receive such notice or communication at the address(es) given below, or such other address as may hereafter be designated by notice in writing.

<table>
<thead>
<tr>
<th>If to Sponsor (Business/Invoices):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Anil Pillai, CPO/Accountant</td>
</tr>
<tr>
<td>Address: Oklahoma Water Resources Board</td>
</tr>
<tr>
<td>3800 Classen Blvd.</td>
</tr>
<tr>
<td>City, State, ZIP Code: Oklahoma City, OK 73118</td>
</tr>
<tr>
<td>Phone/Fax: (405) 530-8883</td>
</tr>
<tr>
<td>e-mail:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If to Sponsor (Technical):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Tracy Scopel, GISP</td>
</tr>
<tr>
<td>Address: Oklahoma Water Resources Board</td>
</tr>
<tr>
<td>3800 Classen Blvd.</td>
</tr>
<tr>
<td>City, State, ZIP Code: Oklahoma City, OK 73118</td>
</tr>
<tr>
<td>Phone/Fax: (405) 530-8883</td>
</tr>
<tr>
<td>e-mail: <a href="mailto:Tracy.Scopel@owrb.ok.gov">Tracy.Scopel@owrb.ok.gov</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If to University (Legal):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: The Executive Secretary of the Board of Regents of the University of Oklahoma</td>
</tr>
<tr>
<td>Address: 660 Parrington Oval, Room 119</td>
</tr>
<tr>
<td>City, State, ZIP Code: Norman, OK 730191</td>
</tr>
</tbody>
</table>
### If to University (Business/Payment):

<table>
<thead>
<tr>
<th>Name:</th>
<th>Tamara Franklin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Research Financial Services</td>
</tr>
<tr>
<td></td>
<td>University of Oklahoma</td>
</tr>
<tr>
<td></td>
<td>201 Stephenson Pkwy., Five Partners Place, Ste. 3100</td>
</tr>
<tr>
<td>City, State, ZIP Code:</td>
<td>Norman, OK 73019-5833</td>
</tr>
<tr>
<td>Phone/Fax:</td>
<td>(405) 325-1084 (405) 325-6029</td>
</tr>
<tr>
<td>e-mail:</td>
<td><a href="mailto:Tamara-Franklin@ouhsc.edu">Tamara-Franklin@ouhsc.edu</a></td>
</tr>
</tbody>
</table>

### If to University (Business/Contract Terms):

<table>
<thead>
<tr>
<th>Name:</th>
<th>Leslie Flenniken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Office of Research Services</td>
</tr>
<tr>
<td></td>
<td>University of Oklahoma</td>
</tr>
<tr>
<td></td>
<td>201 Stephenson Pkwy., Five Partners Place, Ste. 3100</td>
</tr>
<tr>
<td>City, State, ZIP Code:</td>
<td>Norman, OK 73019-5833</td>
</tr>
<tr>
<td>Phone/Fax:</td>
<td>(405) 325-7969 (405)325-6029</td>
</tr>
<tr>
<td>e-mail:</td>
<td><a href="mailto:lflenniken@ou.edu">lflenniken@ou.edu</a></td>
</tr>
</tbody>
</table>

### If to University (Technical):

<table>
<thead>
<tr>
<th>Name:</th>
<th>Todd Fagin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Center for Spatial Analysis</td>
</tr>
<tr>
<td></td>
<td>Department of Geography and Environment</td>
</tr>
<tr>
<td>City, State, ZIP Code:</td>
<td>3100 Monitor Ave, Two Partners Place, Suite 180</td>
</tr>
<tr>
<td></td>
<td>Norman, OK  73019</td>
</tr>
<tr>
<td>Phone :</td>
<td>405-325-9644</td>
</tr>
<tr>
<td>e-mail:</td>
<td><a href="mailto:tfagin@ou.edu">tfagin@ou.edu</a></td>
</tr>
</tbody>
</table>

**SECTION 11. GENERAL TERMS AND CONDITIONS**

11.1 This Agreement may not be assigned by either party in whole or in part without the prior written permission of the other party.

11.2 This agreement shall be governed by the laws of the state of Oklahoma, without giving force and effect to its choice of law provisions. Any legal action in connection with this agreement shall be filed in a state court of competent jurisdiction in the state of Oklahoma, to which jurisdiction and venue Sponsor expressly agrees.

11.3 Should the parties to this Agreement be unable to resolve between themselves any dispute arising from any of the provisions within this Agreement, each party shall have recourse under the law.

11.4 If any provision(s) of this Agreement shall be held invalid, illegal, or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

11.5 This Agreement constitutes the entire agreement and understanding between the parties and supersedes all prior and/or contemporaneous discussions, representations, or agreements, whether written or oral, of the parties relating to the work to be performed. This Agreement may be extended, renewed or otherwise amended at any time by the mutual written agreement of the parties. If a purchase order or other document relating to the work to be performed is provided with terms or conditions contradictory to those included in this Agreement, the terms and conditions of this Agreement shall supersede and remain applicable.
11.6 This Agreement may be executed in several counterparts, each of which shall be deemed the original, but all of which shall constitute one and the same instrument. This Agreement may be executed using electronic or digital signatures, which shall have the same force and effect as a manual signature.

11.7 The parties agree that this Agreement shall be binding upon their respective successors, assigns or transferees of any nature, if assignment and/or transfer is permitted in accordance with the terms of this Agreement.

11.8 Sponsor agrees that it shall comply with the export control laws and regulations, embargoes and sanctions. Each party agrees that in the event that export controlled information/technology is disclosed, disclosing party shall provide receiving party with sufficient and appropriate information including Export Control Classification Numbers (ECCNs) and/or the Munitions List categories to allow receiving party to properly comply with the export controls regulations. Sponsor maintains an export management system adequate to ensure compliance. Sponsor agrees that it will comply with all other applicable laws, orders and regulations relating to the use and/or transfer of deliverables specified in Appendix A and that it will not at any time take any action which would cause University to be in violation of any such laws, orders and regulations.

11.9 In the performance of all services hereunder, the parties shall be deemed to be and shall be independent contractors and, as such, neither shall be entitled to any benefits applicable to employees of the other. Neither party is authorized or empowered to act for the other for any purpose and shall not on behalf of the other enter into any contract, warranty, and/or representation as to any matter. Neither shall be bound by the acts or conduct of the other.

11.10 To the extent allowed by Oklahoma law, Sponsor shall indemnify, defend, and hold University, its Regents, officers, agents, students, and employees harmless from and against liability for any and all claims, demands, damages, liabilities, fines, penalties, losses, expenses, costs, and fees of any nature (e.g., attorneys' fees) including, but not limited to, bodily injury, death, personal injury, illness, product liability, and property damage arising from Sponsor’s use of information or materials received from University, by Sponsor or its officers, servants, agents, or of any third party acting on behalf of or under authorization from Sponsor including without limitation, use of products, developed or made arising out of or in connection with this Agreement. University will give Sponsor notice of any claim it receives within ten (10) business days of receipt of a claim by University.

11.11 University agrees to be responsible for its own negligent acts and omissions and those of its employees and agents in accordance with the Oklahoma Governmental Tort Claims Act, 51 O.S. 1991 151, et seq., as amended.

11.12 As applicable, the provisions of Executive Order 11246, as amended by Executive Order No. 11375, Executive Order No. 11141, Executive Order No. 13665 and as supplemented in Department of Labor regulations (41 CFR Part 60-1.4(a), 60-300.5(a) and 60-741.5(a) et seq.), are incorporated into this Agreement and must be included in any subcontracts awarded involving this Agreement. The parties represent that all services are provided without discrimination on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, national origin, disability, political beliefs, or veteran’s status; they do not maintain nor provide for their employees any segregated facilities, nor will the parties permit their employees to perform their services at any location where segregated facilities are maintained. In addition, the parties agree to comply with the applicable provisions of Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 701, and the Vietnam Era Veteran’s Readjustment Assistance Act of 1974, 38 U.S.C. § 4212.

11.13 The terms of this Agreement shall not be binding upon either of the parties hereto until it has been properly executed on behalf of each party to the Agreement in the spaces provided below. It is then effective as of the starting date of the period of performance.
IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives on the dates set forth below.

OKLAHOMA WATER RESOURCES BOARD

BY: Matt Muller
TITLE: Chairman
DATE:

ATTEST: Jennifer Castillo, Secretary

THE BOARD OF REGENTS OF THE UNIVERSITY OF OKLAHOMA

BY: Leslie Flenniken
TITLE: Associate Director, Award Administration
DATE:

READ AND UNDERSTOOD:

BY: Todd Fagin
DATE:  
Principal Investigator
APPENDIX A

STATEMENT OF RESEARCH PROJECT/PROPOSAL

Scope of Work:

1. Discovery:
   - In this ongoing task we will address any new needs or requirements overlooked during project scoping meetings. This task and associated labor may be absorbed into other relevant efforts if scoping proves clear enough to carry this work to completion.

2. Updating of ArcGIS Add-Ins for ArcMap 10.8.x (final)
   - This task covers the practical alteration and updating of OWRB’s four (4) existing ArcGIS Desktop Add-Ins (the tools) such that existing functionality and user experience are preserved where updated tools are interfaced with GIS infrastructure held at both CSA and OMES as needed.
     - Specifically, these tools have been supplied as source code to CSA and include:
       - OWRB.GISPlugin.WR.AutoMap
       - OWRB.GISPlugin.WR.Search
       - OWRB.GISPlugin.LegalSearch
       - OWRB.GISPlugin.LegalMap
   - This task covers the practical alteration and updating of OWRB’s four (4) existing ArcGIS Desktop Add-Ins for compatibility with ESRI ArcMap 10.8.x, to the host software platform’s end-of-life.
     - ESRI, the software vendor of ArcGIS Desktop, announced ArcMap 10.8.x as the final major version in late 2020, with end-of-support in 2026.
   - This task does not seek to expand existing tools’ functionality.
   - Where applicable and advantageous during this effort, datasets held at OMES which serve as tool dependencies will be migrated to the new infrastructure held at CSA.

3. Updating of ArcGIS Add-Ins for ArcGIS Pro 2.9+
   This task covers an updating and refactoring of OWRB’s four (4) existing ArcGIS Desktop Add-Ins as feature-equivalent ArcGIS Pro 2.9+ extensions. This task seeks to produce a set of deliverable tools compatible with ArcGIS Pro 2.9+ which minimize departure from the functionality and user experience of corresponding, existing ArcMap Add-Ins. These new tools will preserve tool action and functionality when interfaced with GIS infrastructure held at both CSA and OMES.
   - While task does not seek to expand existing tools’ functionality, alternative presentation or strategy may be necessary in achieving equivalent functionality in the deliverable tools.
   - Where applicable and advantageous during this effort, datasets held at OMES which serve as tool dependencies will be migrated to the new infrastructure held at CSA.
4. **Updating of the “GISUtility” Web Application**
   - This task covers the practical alteration and updating of OWRB’s one (1) existing ASP.NET geoprocessing web application for compatibility with the updated tools and for compliance with current web standards.
   - Additionally, this task covers any corresponding updates to web services upon which this web application depends, for compatibility with updated tools and for compliance with current web standards.
   - This task does not seek to expand existing web application’s functionality, nor does it seek to alter the capabilities of its associated web services.
   - Where applicable and advantageous during this effort, datasets or web services held at OMES which serve as web application dependencies will be migrated to the new infrastructure held at CSA.
   - CSA notes this task is a high priority in the present scope of work.

5. **Hosting of the “GISUtility” Web Application**
   - This task establishes CSA as the web host for the updated “GISUtility” geoprocessing web application. The updated web application will be hosted at the new infrastructure held at CSA; CSA will perform the necessary configuration to expose the web service to OWRB’s users as a resource over the existing secure VPN tunnel.

6. **Connectivity and Credentialing**
   - Prior effort has established a secure VPN tunnel between CSA and OMES infrastructure relevant to earlier project needs. CSA and OWRB will expand their use of this existing tunnel to carry additional traffic generated by the updated tools.
   - CSA, OWRB and OMES will remain in contact surrounding further credentialling for access to any datasets shown to be held at OMES infrastructure as required by the updated tools.

7. **Testing and Reconfiguration**
   - This task covers testing and reconfiguration activities arising after preliminary delivery of the updated tools. In principle, the overall upgrade effort seeks to minimize any departure in existing workflow or user experience with respect to tools’ functionality. This testing effort, involving both CSA and OWRB staff is targeted to identifying and resolving relevant issues.

8. **Ongoing Tool Maintenance**
   - We acknowledge the present scope of work is parcel to a larger migration effort in OWRB GIS workflows, services, and data, towards infrastructure held at CSA. CSA will assure tools upgraded in the current scope of work will remain compatible commensurate with further migration effort in OWRB GIS infrastructure and with further updates in the ArcGIS Desktop software platform. CSA will assure this result by revisiting and revising tools as needed for a period of approximately one calendar year after delivery.

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9. **Project Administration**
- This task consists of routine contract drafting, University business compliance, labor tracking, invoicing, etc.

10. **Project Deliverables**
- This task covers the packaging and delivery of the practical results of the work.
- For Deliverables generated during Tasks 4 and 5, OWRB can at a minimum expect:
  - Access to the updated web application, running at OWRB’s existing infrastructure housed at CSA.
  - The source codebase reproducing the updated web application and associated web services. Additionally, CSA may deliver any related intermediate assemblies or compiled materials at OWRB’s convenience.
    - OWRB is free to use and extend this codebase insofar as this use is compatible with applicable terms found elsewhere in the corresponding contract for services document.
  - A brief technical narrative documenting any possible “breaking changes” or relevant departures in design undertaken during the updating effort.
  - A brief technical narrative documenting the deployment process for this web application and associated services, on current/appropriate .NET and ArcGIS Enterprise Server platforms, respectively.
- For Deliverables generated during Task 2, OWRB can at a minimum expect:
  - Four (4) ArcGIS Add-Ins (.esriaddin format) files, comprising the four updated tools for use with ArcMap 10.8.x, covered in Task 2.
  - The source codebase reproducing these four (4) updated ArcGIS Add-Ins (the tools).
    - OWRB is free to use and extend this codebase insofar as this use is compatible with applicable terms found elsewhere in the corresponding contract for services document.
  - A brief technical narrative documenting any possible “breaking changes” or relevant departures in design undertaken during the updating effort.
  - A brief technical narrative documenting the installation process for these ArcGIS Add-Ins as extensions for ArcMap Desktop.
- For Deliverables generated during Task 3, OWRB can at a minimum expect:
  - Four (4) ArcGIS Add-Ins (.esriAddInX format) files, comprising the four tools updated and refactored for use with ArcGIS Pro 2.9+, as-covered in Task 3.
  - The source codebase reproducing these four (4) new ArcGIS Add-Ins (the tools).
    - OWRB is free to use and extend this codebase insofar as this use is compatible with applicable terms found elsewhere in the corresponding contract for services document.
  - A brief technical narrative documenting any possible “breaking changes” or relevant departures in design undertaken during the updating and refactoring effort.
  - A brief technical narrative documenting the installation process for these ArcGIS Add-Ins as extensions for ArcGIS Pro 2.9+.
- In concert with the maintenance activities covered in Task 8, CSA will respond to any request for information surrounding these project deliverables in good faith. This includes any further discussion or description, practical assistance with, or further distribution of the deliverables.
APPENDIX B

BUDGET

UNIVERSITY of OKLAHOMA BUDGET
Cumulative Budget

<table>
<thead>
<tr>
<th>PAY PERIOD</th>
<th>0/1/2022</th>
<th>1/1/2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTE Salary</td>
<td>$30,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Direct Cost</td>
<td>$30,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$60,000</td>
<td>$60,000</td>
</tr>
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</table>

A. SENIOR PERSONNEL

<table>
<thead>
<tr>
<th>Position</th>
<th>FTE</th>
<th>Salary</th>
<th>Direct Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>1</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Co-Principal Investigator</td>
<td>1</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$80,000</td>
</tr>
</tbody>
</table>

B. OTHER PERSONNEL

<table>
<thead>
<tr>
<th>Position</th>
<th>FTE</th>
<th>Salary</th>
<th>Direct Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Doctoral Associates</td>
<td>1</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$40,000</td>
</tr>
</tbody>
</table>

C. PRIME BENEFITS

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Salaries and Wages (FTE)</td>
<td>$60,000</td>
</tr>
</tbody>
</table>

D. PERMANENT EQUIPMENT

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL PERMANENT EQUIPMENT

E. TRAVEL

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
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<tr>
<td>Foreign</td>
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</table>

F. OTHER DIRECT COSTS

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials and Supplies</td>
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</tr>
</tbody>
</table>

TOTAL OTHER DIRECT COSTS

G. FUTURE COSTS

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcontracts</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL FUTURE COSTS

H. TOTAL DIRECT COSTS (A THROUGH G)

<table>
<thead>
<tr>
<th>Category</th>
<th>Base</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBO Facilities Usage - Member</td>
<td>$12,044</td>
<td>$12,044</td>
</tr>
<tr>
<td>TOTAL DIRECT COSTS</td>
<td>$12,044</td>
<td>$12,044</td>
</tr>
</tbody>
</table>

I. INDIRECT COSTS

<table>
<thead>
<tr>
<th>Category</th>
<th>Base</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL INDIRECT COSTS</td>
<td>$3,121</td>
<td>$3,121</td>
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</tbody>
</table>

TOTAL COSTS - CUMULATIVE

<table>
<thead>
<tr>
<th>Category</th>
<th>Base</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL COSTS</td>
<td>$15,165</td>
<td>$15,165</td>
</tr>
</tbody>
</table>
ArcGIS Custom Plug-ins

ArcGIS COM+ DLL custom plug-ins are Visual Basic .Net 2.0 COM+ DLLs that integrate into the OWRB ArcGIS Desktop application (ArcMap) to support the agency’s water rights permitting functions by searching and/or updating spatial features. The plug-ins, developed by former agency IT staff, utilize back-end data generated by the OWRB Water Rights Database Application and ArcGIS (both the ArcSDE spatial database and the local ArcMap client installations). Oracle 11g R2 is the RDBMS.

The plug-ins generate data used by the agency’s spatial database for both internal and website use.

The dlls and accompanying files for the plug-ins are copied to the directory C:\Program Files (x86)\ArcGIS\Desktop10.6\Utilities, added to a toolbar in ArcMap, and registered via a batch file.

**Water Rights GIS Mapping:**
This plug-in allows permitting staff to add, edit, and delete locations (points and polygons) and coordinates associated with active permits in the agency’s spatial geodatabase. Permitting staff receive a unique user name and password from the DBA for this work. A Standard or Advanced license is required.

**Water Rights Automap:**
This plug-in is used once a month by the GIS Group. It converts the last nine months of 90-day water use permits (PTs) in the Water Rights Database into point and polygon feature classes in the test schema of the SDE geodatabase. Through a series of ArcGIS ModelBuilder tools, these recent points and polygons are merged with the complete PT feature classes, and the feature classes are pushed to the production version of SDE. Standard or Advanced Desktop licenses are required to run this tool.

**Water Rights Search:**
This plug-in allows OWRB ArcGIS users to select water rights permits based on a different attributes of the permit points and lands feature classes, including permit number, legal description, county, stream system, and entity name. It then zooms to the selected features.

**Legal Description Search:**
This plug-in allows OWRB ArcGIS users to enter a section, township, or range from the PLSS layers, or the County, and zoom to that location.
GIS Utility (Latitude-Longitude/PLSS Converter)

The GIS Utility is an ASP.Net geoprocessing web application that converts legal descriptions to latitude-longitude coordinates. It also performs the reverse function, converting latitude-longitude coordinates to legal descriptions, placing these coordinates at the center of the smallest division of the legal description. Installation and function are described below.

Application is installed at C:""inetpub/wwwroot/CustomServices

Application pool appeared to have only default settings.

The utility itself has a test panel that will appear in a web browser:
Here are the formats of the http:// requests that the utility will evaluate and produce the displayed results. Also editing these queries and placing the desired latitude and longitude or township, range, section, and quarters in the correct syntax followed by sending them to the server in the address box of a browser will result in the server sending a response in the right format.

```
```

Produces this output to a browser:

```
QTR1=NW
QTR2=SE
QTR3=SE
TOWNSHIP=12N
RANGE=03WI
SECTION=17
COUNTY=Oklahoma
CODE=1
```

```
```
metry2FGeometryServer&TOWNSHIP=01N&RANGE=02WI&SECT=03&QUARTER1=NW&QUARTER2=NE&QUARTER3=SE

Produces this output to a browser:

COUNTY=Garvin
LATITUDE=34.5857813287948
LONGITUDE=-97.3908813751526
CODE=1
3. SUMMARY DISPOSITION AGENDA ITEMS

WATER RIGHTS ADMINISTRATION DIVISION
AND
ENGINEERING AND PLANNING DIVISION

May 17, 2022
# WATER RIGHTS ADMINISTRATION DIVISION

Applications for Regular Permits to Use Groundwater

May 17, 2022

<table>
<thead>
<tr>
<th>APP. NO. &amp; DATE FILED</th>
<th>NAME OF APPLICANT</th>
<th>NUMBER OF WELLS</th>
<th>COUNTY &amp; BASIN</th>
<th>LAND DEDICATED</th>
<th>PURPOSE &amp; AMOUNT RECOMMENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021-536 9/01/2021</td>
<td>Bobby Lee Martin</td>
<td>9</td>
<td>Beckham, County North Fork of the Red River</td>
<td>480 acres Sec.8,T9N, R24W1M</td>
<td>Irrigation Use 480 a.f.</td>
</tr>
</tbody>
</table>
### WATER RIGHTS ADMINISTRATION DIVISION

Applications to Amend Regular Permits to Use Groundwater

May 17, 2022

<table>
<thead>
<tr>
<th>APP. NO. &amp; DATE FILED</th>
<th>NAME OF APPLICANT</th>
<th>NUMBER OF WELLS</th>
<th>COUNTY &amp; BASIN</th>
<th>LAND DEDICATED</th>
<th>PURPOSE &amp; AMOUNT RECOMMENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-504 1/10/2022</td>
<td>Lo-Buck Farms, LLC</td>
<td>2*</td>
<td>Texas County</td>
<td>400 acres*</td>
<td>Irrigation use 800 a.f.*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ogallala – Panhandle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Region</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The applicant requests to amend their temporary groundwater permit by adding 480 acre-feet of groundwater per calendar year (for a total of 800 acre-feet authorized); by adding 240 acres dedicated (for a total of 400 acres dedicated); and adding one well location (for a total of two wells authorized). All other aspects of the permit will remain the same.
WATER RIGHTS ADMINISTRATION DIVISION
Applications for Regular Permits to Use Stream Water

May 17, 2022

<table>
<thead>
<tr>
<th>APP. NO. &amp; DATE Filed</th>
<th>NAME OF APPLICANT</th>
<th>POINTS OF DIVERSION</th>
<th>COUNTY &amp; STREAM SYSTEM</th>
<th>PURPOSE &amp; AMOUNT RECOMMENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-035 11/14/2008</td>
<td>William &amp; Brenda G. Howard</td>
<td>One point of diversion on the Kiamichi River Sec. 20, T02N, R21EIM</td>
<td>Pushmataha County SS 1-3</td>
<td>Irrigation of 175 acres 276.5 a.f.</td>
</tr>
<tr>
<td>2012-006 1/24/2012</td>
<td>John Brandon</td>
<td>Two points of diversion on the Kiamichi River Secs. 35 &amp;36, T03S, R16EIM</td>
<td>Pushmataha County SS 1-3</td>
<td>Irrigation of 183 acres 290 a.f.</td>
</tr>
<tr>
<td>2017-045 7/6/2017</td>
<td>Imogene Hairrell Harris 1990 Revocable Trust</td>
<td>One point of diversion on the Kiamichi River Sec. 17, T01S, R17EIM</td>
<td>Pushmataha County SS 1-3</td>
<td>Irrigation of 90 acres 240 a.f.</td>
</tr>
</tbody>
</table>
WATER RIGHTS ADMINISTRATION DIVISION
Well Driller and Pump Installer Licensing

May 17, 2022

<table>
<thead>
<tr>
<th>DPC NUMBER</th>
<th>NAME OF FIRM</th>
<th>CERTIFIED ACTIVITIES</th>
<th>OPERATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPC-0269</td>
<td>Associated Environmental</td>
<td>Monitoring Well</td>
<td>Darren Gilliham</td>
</tr>
<tr>
<td></td>
<td>Industries</td>
<td></td>
<td>OP-2402</td>
</tr>
<tr>
<td>DPC-0737</td>
<td>W.E. Pender&amp; Sons Inc.</td>
<td>Pump Installation</td>
<td>Kevin Bullock</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OP-2403</td>
</tr>
</tbody>
</table>

New Licenses, Accompanying Operator Certificates and Activities:

None

New Operators, License Name Change, and/or Activities for Existing Licenses:
ENGINEERING AND PLANNING DIVISION
Applications to Construct, Enlarge, Repair or Alter Dam and/or Spillway

May 17, 2022

<table>
<thead>
<tr>
<th>NID. NO. &amp; COUNTY</th>
<th>NAME OF APPLICANT &amp; NAME OF PROJECT</th>
<th>PLANS &amp; SPECS PREPARED BY</th>
<th>HAZARD CLASSIFICATION</th>
<th>LEGAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK01344</td>
<td>City of Hominy</td>
<td>Tim Ward, PE</td>
<td>High</td>
<td>Sec. 02, T22N R08EIM</td>
</tr>
<tr>
<td>Osage County</td>
<td>Hominy Municipal Lake</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The applicant requests approval for alteration/improvement of the Hominy Municipal Lake dam and spillway. The permit is for the construction of a semi-permanent siphon to draw water below the normal surface elevation to allow for increased flood storage. The primary purpose of the dam is Municipal. The dam is 60 feet tall and has a normal impoundment capacity of 5,000 acre-feet and a maximum impoundment capacity of 5,735 acre-feet.

| OK02123           | City of Guthrie/Guthrie Public Works Authority | Mathew Coe, PE | High | Sec.32, T16N R02WIM |
| Logan County      | Guthrie Lake Dam                         | Myers Engineering, Inc. |                |                  |

The applicant requests approval for repair of the spillway of Guthrie Lake. The primary purpose of the dam is municipal. The permit is the demolition and replacement of the spillway. The dam is 33 feet tall and has a normal impoundment capacity of 2246 acre-feet and a maximum impoundment capacity of 2709 acre-feet.
<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
<th>Organization</th>
<th>Approver</th>
<th>Application Type</th>
<th>Location Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK02425</td>
<td>Town of Lake Aluma/John Kenney</td>
<td>Marc Long, PE</td>
<td>High</td>
<td>Sec. 07, T12N, R02WIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oklahoma County Lake Aluma Dam</td>
<td>Smith Roberts Baldischwiler, LLC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The applicant requests approval for improvement/alteration of the Lake Aluma and spillway. The primary purpose of the dam is flood control. The permit is for the reconstruction of the primary spillway. The dam is 38 feet tall and has a normal impoundment capacity of 140 acre-feet and a maximum impoundment capacity of 260 acre-feet.

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
<th>Organization</th>
<th>Approver</th>
<th>Application Type</th>
<th>Location Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK02535</td>
<td>Oklahoma City Water Utilities Trust</td>
<td>Ryan Smith, PE</td>
<td>High</td>
<td>Sec. 27, T13N, R04WIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oklahoma County Lake Hefner Dam</td>
<td>Smith Roberts Baldischwiler, LLC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

The applicant requests approval for slope repair/improvements on the downstream slope of the Lake Hefner dam. The dam is 112 feet tall and has a normal impoundment capacity of 74,400 acre-feet and a maximum impoundment capacity of 107,400 acre-feet.
### ENGINEERING AND PLANNING DIVISION

**Floodplain Administrator Accreditation Applications**

**May 17, 2022**

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>NAME OF COMMUNITY</th>
<th>FLOODPLAIN ADMINISTRATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPA-036</td>
<td>McIntosh County</td>
<td>Jeffery Moore</td>
</tr>
</tbody>
</table>
5. SPECIAL CONSIDERATION

WATER RIGHTS ADMINISTRATION DIVISION

May 17, 2022
WATER RIGHTS ADMINISTRATION DIVISION
Application for Amendment to Prior Right to Use Groundwater

May 17, 2022

<table>
<thead>
<tr>
<th>NUMBER &amp; DATE</th>
<th>COUNTY</th>
<th>NAME OF APPLICANT</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968-350</td>
<td>Cimarron</td>
<td>Billy and Kimberly Mizer</td>
<td>Approval of Proposed Order</td>
</tr>
<tr>
<td>4/22/2021</td>
<td>County</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Applicants have requested an amendment to their prior right to authorize one additional existing well on assigned lands located in Cimarron County. Applicants have also requested a well location exception. Evidence in the record showed that the Applicants will use the well as a backup source of water for irrigation purposes. It appears from the record that the Applicants are good stewards of the water and would not unnecessarily use or allow waste to occur. The record shows that the Applicants have a valid right to the assigned land, the land overlies the Ogallala – Panhandle Region Groundwater Basin (for which the maximum annual yield and equal proportionate share has been determined and each landowner is therefore entitled to 2.0 acre-feet per acre); irrigation use is a beneficial use; and waste will not occur.

The Applicants’ additional well is closer than the required spacing of 1320 feet from authorized well(s) owned by another but have provided evidence to meet an exception to the spacing requirement. Therefore, the application for amendment should be approved and an amended prior right issued.

One of the primary disputes in the case involves the proximity of the Applicants’ well to the Protestant’s well and the possibility of interference. Applicants testified that the well is existing and was used for irrigation purposes in the 1970s and 1980s. Therefore, the Applicant should be granted an exception to the spacing requirements. See Finding of Fact nos. 11-17, 21 and 22 and Conclusion of Law nos. 23, 24, 27, 28 and 31-35.
Special Consideration: Groundwater Amendment: Permit #19680350 - Billy and Kimberly Mizer - Cimarron County
BEFORE THE OKLAHOMA WATER RESOURCES BOARD
STATE OF OKLAHOMA

In the Matter of the Application of Billy and Kimberly Mizer for an Amendment to a Groundwater Permit in Cimarron County

Application No. 1968-350

PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND BOARD ORDER

INTRODUCTION

This matter arises out of the application filed by Billy and Kimberly Mizer (“Applicant”) for an Amendment to a Groundwater use permit. Applicant requested an existing well be added to his permit for purposes of irrigation. Ronnie and Audrey Cochran submitted a protest to the application and the matter was set for hearing January 28, 2022.

A hearing was held at the Board offices in Oklahoma City, Oklahoma. The parties were present and Protestants were represented by counsel. After the hearing was adjourned, the matter was taken under advisement. A proposed Order was prepared, served on the parties, and presented to the Board for consideration and action.

Based upon the Findings of Fact and Conclusions of Law that follow, the Board determines that the application should be granted.

BACKGROUND

1. On April 22, 2021, Applicant filed an application with the Board for an Amendment to Groundwater Permit No. 1968-350. Currently, the permit authorizes the withdrawal and use of 280 acre-feet of groundwater per calendar year from one well, referred to as the West well, for the purposes of irrigating 160 acres located in the SE of Section 34, T4N, R4ECM, Cimarron County. The Amendment seeks to add one (1) well, referred to as the East well, to the permit, bringing the total number of wells for the permit to two (2). Applicant also seeks a well spacing exception. All other aspects of the prior right remain the same. The pre-existing East well being added to Permit No. 1968-350 is in the SE ¼ of SE ¼ of SE ¼ of Section 34, T4N, R4ECM, Cimarron County. The water source is the Ogallala Panhandle Groundwater Basin.

2. To support this application, Applicant submitted a Warranty Deed (Book 0332 Page 119). The Warranty Deed was signed and delivered on February 14, 2005 from Curtis Ray Baker and Cheryl L. Baker to Billy R. Mizer and Kimberly A. Mizer. The land is in the SE ¼ of Section Thirty-Four (34), Township Four (4) North, Range Four (4) ECM, Cimarron County, Oklahoma.

3. Applicant submitted a surface estate owner’s map for notification purposes.

NOTICE

4. On August 13, 2021, Board staff notified Applicant that the application had been reviewed and directed Applicant to give notice of the application by certified mail to each surface owner of land within 1,320 feet of the outside boundary of the ten-acre tract of land with a

5003
groundwater well location covered by the application, and publish notice of the application in a
newspaper qualified to publish legal notices in Cimarron County for two consecutive weeks
beginning on August 29, 2021 and September 5, 2021. The notice was published on August 25,
2021 and September 1, 2021 in The Boise City News in Cimarron County. The notice listed a
protest deadline of October 4, 2021 and included Applicant’s well location exception request.
Applicant also sent, by certified mail, direct notice to those individuals listed on the surface estates
owner’s map.

PROTEST

5. Ronnie and Audrey Cochran protested the application and were made parties herein. In
the written protest, protestants claimed that the location of the East well violates the well spacing
requirements and because of the close proximity to their well, the granting of the permit will
directly and adversely affect their legally protected interests.

HEARING

6. The hearing commenced on January 28, 2022, at the Board’s office in Oklahoma City,
Oklahoma. Applicants appeared pro se and Protestants appeared represented by counsel, Allison
B. Christian and Colby J. Byrd, of McAfee & Taft, Oklahoma City, Oklahoma. The hearing was
opened, appearances were entered, witnesses were sworn, the Protestants’s evidence and
arguments were heard, and the hearing was adjourned. Thereafter, a proposed order was prepared,
served on the parties, and presented to the Board for consideration at its April 19, 2022 meeting.

7. Applicant Billy Mizer testified that he and his wife bought the property from his
grandfather in 2006 and the property had two wells on it. Applicant farms corn, milo and wheat.
Applicant testified that he has never pumped the East well, but that his uncle pumped it in the
1970’s and the 1980’s. Applicant currently uses the West well on the property to water corn and
that well meets the crops needs. However, having the second existing well permitted will ensure
that if the current well ceases to function, he will not lose his crop. Applicant testified that the
corn yield will be hurt if the corn goes without water for seven days. Applicant testified to a past
incident wherein the West well failed, but Applicant was able to get assistance before his crop was
negatively impacted. Applicant testified he intends only to use the groundwater from the East well
if the West well ceases to function again. Applicant is not requesting more water, but merely
seeking to add the well to the permit as insurance for his crop. Applicant testified, to the best of
his recollection, that the East well pumps 500 to 600 gallons of water a minute. The West well
pumps 800 gallons of water per minute.

8. Applicant plans to run an underground line from the East well to the pivot so that if the
West well fails, he will have the East well to irrigate his crop. The East well has an irrigation
motor set on it and Applicant guessed it likely pumped 500 gallons of water per minute because it
took his uncle two to three days to water the Southeast corner. The application establishes that
the depth of the East well is 240 feet. Applicant did not know when his uncle quit using the well.
Applicant has no plans to drill additional wells on the property.

9. Protestant Ronnie Cochran testified at the hearing. Mr. Cochran also farms corn, milo
and wheat on his property and raises cattle. Mr. Cochran has one well on his property that he uses
for the cattle and to irrigate grass and corn. Mr. Cochran’s well is 280 feet deep and he withdraws
5005 gallons per minute. Mr. Cochran testified that his concern is that if Applicant is issued a permit to operate the East well, his water levels could drop, therefore negatively impacting his well by drawing it down. Mr. Cochran testified that he protested because he was trying to protect his water rights. Mr. Cochran testified the East well is approximately 120-130 yards from his permitted well.

10. On cross-examination, Mr. Cochran testified that he was aware the East well was operated during the 1970’s and the 1980’s by previous owners. In April, 2021, Mr. Cochran received a new permit from the Board that increased his water usage to 320 acre feet. Mr. Cochran has grown corn on his land for the past four years and testified the East well had a motor on it when he purchased the land. Protestant remember several years ago the East well being used to water cattle by someone who leased Applicant’s property.

FINDINGS OF FACT

OWNERSHIP

11. The East well overlies the same basin as the West well described on the prior right. The proposed well is located as follows: SE ¼ of SE ¼ of SE ¼ of Section 34, T4N, R4ECM, Cimarron County, Oklahoma. Ownership was not disputed at the hearing.

LAND LOCATED OVER GROUNDWATER BASIN

12. The land already dedicated to Permit No. 1968-350 overlies the Ogallala Panhandle Groundwater Basin. The maximum annual yield determination established by the Board is 2 acre-foot per year per acre of land. This was not disputed at the hearing.

BENEFICIAL USE

13. The proposed use of the groundwater remains the same that is already authorized - to irrigate 160 acres of the land dedicated to the existing permit. During the hearing, Applicant testified he intends to use the East well if the West well “goes down.” The beneficial use of the groundwater was not disputed at the hearing.

WASTE BY DEPLETION

14. There was no evidence Applicants used the East well without a permit, intended to use fresh groundwater in any manner so that the water is lost for beneficial use; will transport the water from the well to the place of use in such a manner that there is an excessive loss in transit; use the water in such an inefficient manner that excessive losses occur; allow any fresh groundwater to reach a pervious stratum and be lost into cavernous or pervious materials encountered in a well; or use the water for air conditioning or cooling purposes without providing facilities to aerate and reuse such water.

WASTE BY POLLUTION

15. There was no evidence of waste by pollution.
WELL SPACING

16. Well spacing set by the Board for bedrock groundwater basins or subbasins where the maximum annual yield has been determined is 1320 feet. Applicant applied for a well spacing exception. The East well was “drilled, completed, and used prior to March 12, 2002, which is the date of the maximum annual yield determination for the Ogallala Panhandle groundwater basin.” See Well Spacing Exception Request dated April 18, 2021 attached Applicant’s Application for an Amendment to a Groundwater Permit. Undisputed evidence established that the East well was in fact drilled, completed and used as far back as the 1970’s and 1980’s.

17. Protestants’ written protest, as well as Mr. Cochran’s testimony at the hearing, focused on the proximity of the East well to the Protestants’s well. Protestant is concerned that if the permit is granted, his well could be drawn down, which would directly and adversely affect their well.

CONCLUSIONS OF LAW

Based upon applicable law, and as applied to the above Findings of Fact and evidence in the record, the Board draws the following Conclusions of Law:

USE OF GROUNDWATER

18. Under 60 O.S. § 60, the owner of the surface of a given tract of land owns the fresh groundwater beneath the surface of that land. That surface owner or his lessee may use such groundwater in accordance with the use regulations imposed by the Oklahoma Groundwater Law, 82 O.S. § 1020.1 and following.

SUBJECT MATTER JURISDICTION

19. The Board has subject matter jurisdiction to adjudicate applications for permits according to the Oklahoma Groundwater Law and the Board’s rules promulgated pursuant thereto.

PERSONAL JURISDICTION; DUE PROCESS

20. Due and proper notice of the application and subsequent proceedings was given to all potentially interested persons as required by law. Applicants and Protestants are interested parties to this proceeding. All other potentially interested persons have defaulted or abandoned their interests. Oklahoma Administrative Code (“OAC”) 785:4-7-3.

ELEMENTS TO BE DETERMINED

21. The existing permit overlies the Ogallala Panhandle Groundwater Basin and was issued for the purposes of irrigation. There was no dispute concerning Applicant’s ownership of the land, the amount of water Applicants are entitled to use, whether the use is beneficial, and that waste would not occur. Instead, as this is an application to amend an existing permit, the focus of the hearing was based on the well spacing and whether necessity existed to entitle Applicant to a permit on the East well.
22. When a person makes an application to amend groundwater rights to add a well to an existing permit, OAC 785:30-7-4(a) governs as follows:

(a) **Additional wells.**

   (1) The holder of a permit or prior right may make a written petition to the Board for approval of an additional well(s) where such well(s) is or are necessary in order to withdraw the amount authorized by the existing permit. If ownership of the land, permit or prior right changes after the petition is filed, the petitioner must promptly notify the Board and notice of such change may be required.

   (2) The petition shall be filed prior to drilling the well(s) on forms provided by the Board and shall be accompanied by a map or plat (see APPENDIX A of this Chapter). The additional well(s) must be located on lands dedicated to a permit to take and use groundwater from the same groundwater basin, be drilled and used to prevent waste and meet applicable well spacing requirements or location exceptions.

   (3) The Executive Director shall approve the petition, provided:

   (A) That the new well location meets established well spacing or is not closer than one-thousand three hundred twenty feet (1320') from lands owned by another if well spacing is not applicable; or

   (B) That, if well spacing is not applicable, there is submitted a written statement from each surface estate owner owning land closer than one-thousand three hundred twenty feet (1320') from the well requested to be authorized, stating that he or she has no objection to the new well location.

   (4) If one of the above enumerated conditions cannot be met, the permittee must give notice as set forth in 785:30-3-4 regarding each additional proposed well. If a protest is received, the Board shall schedule a hearing and notify the applicant and protestant of such hearing. Even if no protest is received, the petitioner shall be given opportunity for hearing if the petition cannot be recommended for approval to the Board.

* * *

(c) **Location of wells identified.** A legal description or multi-purpose completion report such as that required by 785:35-5-3 showing the location of the well to the nearest ten (10) acre tract shall be submitted to the Board within sixty (60) days after completion of any additional or replacement well.
THE ADDITIONAL WELL IS NECESSARY
TO MAKE USE OF THE WATER RIGHT

23. During the hearing, applicant testified adding an already drilled well was necessary for purposes of having a back-up well in the event the current well fails. Applicant agreed that his current well sufficiently withdraws the amount necessary to sustain his corn crop, but seeks the additional permit as an “insurance policy.” Protestant argued that Applicant failed to show the permitting of an additional well is necessary because Applicant admitted the West well currently has the ability to withdraw the amount of water authorized under the existing permit. Applicant is not dedicating more land to the permit to request additional water, but merely seeking an additional vessel to withdraw the already permitted amount if necessary.

24. Based on the information submitted in the application and at the hearing, the Board concludes that Applicants provided evidence that a permit for the East well was necessary to protect his crop if the West well fails.

GROUNDWATER BASIN

25. The dedicated land under the current permit overlies the Ogallala Panhandle Groundwater Basin. The additional well to be added to the permit also overlies the Ogallala Panhandle Groundwater Basin. The maximum annual yield for this aquifer is 2 acre-foot per acre per year. Applicant is not seeking additional groundwater.

WASTE BY DEPLETION

26. The Board must determine whether the existing well is drilled and used to prevent waste. Title 82 Section 1020.15(A) defines committing waste as follows:

1. Drilling a well, taking or using fresh groundwater without a permit, except for domestic use;
2. Taking more fresh groundwater than is authorized by the permit;
3. Taking or using fresh groundwater in any manner so that the water is lost for beneficial use;
4. Transporting fresh groundwater from a well to the place of use in such a manner that there is an excessive loss in transit;
5. Using fresh groundwater in such an inefficient manner that excessive losses occur;
6. Allowing any fresh groundwater to reach a pervious stratum and be lost into cavernous or otherwise pervious materials encountered in a well;
7. Permitting or causing the pollution of fresh water strata or basin through any act which will permit fresh groundwater polluted by minerals or other waste to filter or otherwise intrude into such a basin or subbasin. The Board shall be precluded from determining whether waste by pollution will occur pursuant to the provisions of this paragraph if the activity for which the applicant or water user intends to or has used the water as specified under Section 1020.9 of [Title 82] is required to comply with rules and requirements of or is within the jurisdictional areas of environmental responsibility of the department of Environmental Quality or the Oklahoma Department of Agriculture, Food and Forestry;
8. Drilling wells and producing fresh groundwater therefrom except in accordance with the well spacing previously determined by the Board;¹

9. Using fresh groundwater for air conditioning or cooling purposes without providing facilities to aerate and reuse such water; or

10. Failure to properly plug abandoned fresh water wells in accordance with rules of the Board and file reports thereof.

According to OAC 785:30-1-1, paragraphs (1) through (6) and paragraphs (8) and (9) are forms of “waste by depletion” (as that term is used in the case of Oklahoma Water Resources Board v. Texas County Irrigation and Water Resources Ass’n, 1984 OK 96). Paragraphs (7) and (10) are forms of “waste by pollution”.

27. The Board acknowledges Protestants’ concern about the groundwater supply in the area and that the use of groundwater from the East well could draw down the water level of his well. However, the legislative policy expressed in the Oklahoma Groundwater Law is “to utilize the groundwater resources of the state.” 82 O.S. § 1020.2(A). To implement that policy, the Oklahoma Groundwater Law authorizes the controlled reduction of a groundwater basin as long as that reduction is done in an orderly fashion according to the statutory scheme for reasonable restrictions on such use. The surface owner or lessee of land overlying a fresh groundwater basin is entitled to use the groundwater beneath the surface once certain elements of the Oklahoma Groundwater Law have been met. Here, Applicant already has a permit to withdraw the groundwater. The application herein is merely an amendment to add a well to the permit in the event the permitted well fails.

28. Producing fresh groundwater from wells not in accordance with the well spacing requirements could be determined waste by depletion. Pursuant to 785:30-3-6, the well spacing for “bedrock groundwater basins or subbasins where the maximum annual yield has been determined,” is 1320 feet. Evidence established that the East well is within the 1320 feet. Applicant is seeking a well exception that will be discussed below.

WASTE BY POLLUTION

29. The provisions of 82 O.S. 1020.15(A)(7) provides the Board shall not permit any groundwater used to commit waste by “permitting or causing the pollution of a fresh water strata or basin through any act which will permit fresh groundwater polluted by minerals or other waste to filter or otherwise intrude into such a basin or subbasin.” Subsection (10) also declares waste as an owners “failure to properly plug abandoned water wells in accordance with rules of the Board and file reports thereof.” As stated above, no evidence was adduced by either party regarding pollution, so the Board must conclude, based on the above findings of fact that waste by pollution will not occur.

30. Applicant’s plan is to run an underground line from the East well to the pivot. No evidence was presented, nor was it argued, that such would cause waste by depletion or pollution.

WELL SPACING EXCEPTION

¹ The well spacing will be addressed below in the well spacing exception portion of this order.
31. To qualify for a spacing exception, Applicant must show that completing a new well that would satisfy the spacing requirements of 785:30-3-6(a) would be inequitable or unreasonable. The well spacing for “bedrock groundwater basins or subbasins where the maximum annual yield has been determined,” is 1320 feet. Applicant seeks a well spacing exception for the already drilled well.

32. To establish that enforcing the well spacing would be inequitable or unreasonable, the Board’s rules give examples of situations where such burden is met. The rules indicate that it would be inequitable or unreasonable to require compliance with well spacing when a well requested to be authorized was drilled, completed and used prior to the date of the maximum annual yield determination or prior to October 1, 2019 within temporary basins and which does not meet the spacing requirements of (a) of this section. Here, the East well in question was drilled to completion in the 1960’s. Evidence also established that the East well was used during the 1970’s and the 1980’s. No evidence refuted that the maximum annual yield determination of the Ogallala Panhandle Groundwater Basin was established in March, 2002.

33. Testimony established that the East well was drilled, completed and used prior to date the maximum annual yield was determined for the Ogallala Panhandle Groundwater Basin.

34. Applicant established that enforcing compliance with well spacing would be inequitable or unreasonable. OAC 785:30-3-6(b)(1)(C).

35. Pursuant to OAC 785:30-3-6(b), a location exception shall be granted if the person requesting same shows that compliance with the well spacing requirements would be inequitable or unreasonable.

CONCLUSION

36. The Board hereby orders that the Application for an Amendment to Groundwater Permit No. 1968-350 in the name of Billy and Kimberly Mizer shall and is hereby APPROVED. The well spacing exception requested is GRANTED.
ORDER

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED that Application for an Amendment to Groundwater Permit No. 1968-350 in the name of Billy and Kimberly Mizer shall be and the same is hereby APPROVED. The amendment authorizes one additional well to the current groundwater permit, bringing the total number of wells for this permit to two (2). The additional well added to this permit is located in the SE ¼ of SE ¼ of SE ¼ of Section 34, T4N, R4ECM, Cimarron County, Oklahoma.

IT IS FURTHER ORDERED that all other terms and provisions set forth in the application and not inconsistent with provisions of this Order shall be incorporated into and made a part of the permit.

IT IS SO ORDERED by the Oklahoma Water Resources Board in regular and open meeting this ___ day of ____________, 2022.

OKLAHOMA WATER RESOURCES BOARD

________________________________________
Matt Muller, Chairman

ATTEST:

_________________________________
Jennifer Castillo, Secretary

(SEAL)