

# **MEMORANDUM OF AGREEMENT**

## **I. Resolutions**

WHEREAS, the U.S. Fish and Wildlife Service ("the Service") and the Big Bend Groundwater Management District #5 ("the District") (collectively known as "the Parties") have met regularly to find a local, voluntary, collaborative solution to resolve the Service's water impairment complaint related to Water Right File No. 7,571 ("the Complaint") for the Quivira National Wildlife Refuge ("the Refuge").

WHEREAS, the Parties agree that after examining relevant data and hydrologic modeling, the development and implementation of an augmentation wellfield, as described herein, will be the primary mechanism in addressing the Service's Complaint. The Parties also agree that the development of the water rights purchase program, water rights movement program, and a program to incentivize the removal of end guns within the District as described herein, may be pursued by the District to adjust the amount of water augmented for the Refuge by the wellfield.

WHEREAS, it is the intent of the Parties to initiate evaluation of the proposal to develop an augmentation wellfield under the National Environmental Policy Act (NEPA), including a later agreement following this Agreement to include additional details of the projects described herein to address the Service's impairment complaint related to the Refuge ("Subsequent Agreement").

WHEREAS, the Parties agree that this Agreement serves as the basis for the Subsequent Agreement that will specify all terms and obligations related to the planning, design and implementation of an augmentation wellfield and the development of the water rights purchase and movement programs described herein. The Parties desire to put the proper assurances in place to allow the planning, design and implementation of an augmentation wellfield and the development of water rights purchase and movement programs until the Subsequent Agreement is executed.

WHEREAS, based on information received from the Service and Kansas Department of Health and Environment, the Parties believe that the groundwater in this area is within the water quality range acceptable to the Refuge. Pending further analysis through NEPA, the Parties preliminarily agree this area has a quantity of water that can be appropriated in a sustainable manner.

WHEREAS, the Parties have worked cooperatively in reaching the terms of this Agreement, with the District sharing with the Service all its available data, studies, reports and calculations collected to address the issues in the Service's Complaint.

WHEREAS, this Agreement is entered into pursuant to the Fish and Wildlife Act of 1956, 16 U.S.C. § 742a, et seq.; the Fish and Wildlife Coordination Act, 16 U.S.C. 661 et seq., the Migratory Bird Conservation Act, 16 U.S.C. § 715d et seq., and the National Wildlife Refuge System Administration Act, 16 U.S.C. 668dd et seq.

WHEREAS, the execution of this Agreement shall not constitute, nor is it in any way an admission by any Party of any liability, and shall not be used in any other action against any Party as proof of liability.

## **II. Definitions**

"Short-Term Projects" means projects developed that will be implemented and operated under contracts, or through other appropriate means within the first 5 years of this Agreement.

“Long-Term Projects” means projects developed that will be implemented and operated under contracts or through other appropriate means beyond 5 years of this Agreement.

“Management Committee” means the committee to provide input for the successful implementation of this Agreement and the Subsequent Agreement. The committee is anticipated to include lead representatives from the District, Service, as well as ad hoc representatives from the Kansas Department of Agriculture-Division of Water Resources, Kansas Department of Health and Environment, and Water Protection Association for Central Kansas (WaterPACK).

“Technical Committee” means the committee formed to advise and make recommendations to the Management Committee to implement the projects for purposes of this Agreement. This committee will be chosen by the Management Committee and will be composed of members with expertise in groundwater and surface water project development and management.

“Technical Operations Plan” means the plan to be developed by the Parties to outline processes and procedures to implement and operate projects under this Agreement and to be incorporated into the Subsequent Agreement.

### **III. Stipulations**

In consideration of the mutual covenants contained herein and other good and valuable consideration, the adequacy of which is acknowledged, the Parties hereby stipulate as follows:

#### **1. Short Term Projects**

##### **a. Rattlesnake Augmentation Wellfield**

The District shall design and construct an augmentation wellfield to supplement the streamflow in the Rattlesnake Creek with groundwater pumped from the regional aquifer. Water will be delivered directly to the Rattlesnake Creek channel immediately upstream of the Refuge. Streamflow augmentation will be implemented from the wellfield designed with a delivery capacity of 15 cubic feet per second (“cfs”) under normal conditions to the Rattlesnake Creek stream channel. The District agrees to provide an additional 3 cfs to the Rattlesnake Creek at critical, agreed upon, times each year. The Technical Committee will make recommendations to the Parties regarding whether the additional 3 cfs will be needed each year.

##### **b. Work Plan**

Within twelve (12) months of the Effective Date of this Agreement, the District shall submit a work plan for the augmentation wellfield to supplement the streamflow in the Rattlesnake Creek. Such work plan which will contain an implementation schedule, including dates for at least the following milestones:

- i. Project Design
- ii. Engineering Plans and Specifications

iii. Wellfield construction beginning and completion dates

c. Delivery Schedule

The District will work with the Refuge Manager, in coordination with the Technical Committee, to develop a delivery schedule that maximizes the efficiency of delivery to meet augmentation obligations at the Refuge. In months when streamflow in Rattlesnake Creek is sufficient to meet or exceed the requirements for water at the Refuge, as determined by the Technical Committee, the District will have no obligation to deliver streamflow during those months. Accounting for the water delivery will be conducted using newly established telemetry enabled water flowmeters at the delivery point of the stream channel. The Service will install the appropriate type of staff gauge at Little Salt Marsh ("LSM") to enhance delivery coordination and maintain transparency in monitoring water elevations.

Operational use and scheduling for the streamflow augmented water will be further described in more detail in a technical operations plan, which will be developed by the Parties and incorporated into the Subsequent Agreement.

d. Costs

The District agrees to pay for the cost to develop, construct, operate, and maintain the augmentation wellfield, all pipelines or canals, and points of discharge necessary to ensure water from the wellfield is delivered to the Rattlesnake Creek channel or any other point agreed upon with the Service south of the Refuge.

**2. Long-Term Projects**

The District will use reasonable efforts to develop a water right purchase program to promote the retirement of water rights from sensitive areas in the Rattlesnake Creek region. The goal of this program is to retire 2,500 acre-feet ("AF") from areas close to the stream based on the response map published by KDA-DWR on November February 14, 2018 (the "response map").

The District will also use reasonable efforts to promote the movement of water under K.A.R. 5-25-22 and other programs, such as the Central Kansas Water Bank Association, from sensitive areas in the Rattlesnake Creek region to less-sensitive areas of the District.

If the water right purchase program is unable to retire 2,500 acre-feet ("AF") from areas close to the stream based on the response map, the District will use reasonable efforts to incentivize end gun removal from center pivot systems within the region. As of January 2015, the District determined that there were 1,032 center pivots with operational end guns.

**3. Water Storage Measures**

Water management at the Refuge utilizes the LSM in a manner that provides water to all reaches of the Refuge while maintaining adequate water levels for habitat in and around LSM. Once the augmentation wellfield is operational, the Service agrees to store up to an additional 383 AF of water in LSM annually to provide quality water bird habitat following

monthly/seasonal species-habitat requirements as outlined in the Comprehensive Conservation Plan ("CCP").

#### **4. Monitoring**

The Parties intend to develop a monitoring program to ensure the on-going operations of the augmentation wellfield as intended under this Agreement. Such monitoring program will detail the Parties' monitoring roles and will be incorporated into the Subsequent Agreement. The program will address:

- a. Monitoring water quality and augmentation operations in accordance with water quality requirements of the Kansas Department of Health and Environment, and
- b. Monitoring water quantity and permitting requirements of the Kansas Department of Agriculture – Division of Water Resources.
- c. Monitoring of water storage and release operations at LSM.

#### **5. Request to Secure Water**

The Service agrees not to submit a request to secure water pursuant to K.S.A. 82a-706b and K.A.R. 5-4-1 to address its impairment in 2020 and 2021.

#### **6. Assistance in Developing an Augmentation Project**

The Parties agree to provide administrative and regulatory assistance and support within their authority to assist in the development and implementation of projects under this Agreement.

#### **7. Modification**

The Parties recognize that there are circumstances that are outside the direct control of the District (e.g. ability to obtain water rights, acquisition necessary easements, etc.) and that a modification of this Agreement may be necessary. The Parties also recognize that, after the augmentation wellfield is implemented and operational, additional assessment of hydrologic conditions may necessitate amendments to the long term projects identified in Paragraph 2. The terms of this Agreement, including any timeframe herein, may be modified by written consent of both Parties. No modification of this Agreement shall be valid unless the change is made in writing and is approved by authorized representatives of the Parties, evidenced by the signature of each respective representative.

#### **8. Timeline**

The District and Service will use reasonable efforts to meet the following milestones to implement the terms of this Agreement. Parties will notify each other as soon as practicable if any timeframe in this section will not be met and shall modify the timeframe(s) to include the new date(s) pursuant to Paragraph 7.

- i. District applies for Watershed Act grant

August 2020

- |      |  |               |
|------|--|---------------|
| ii.  | Funding potentially awarded                              | November 2020 |
| iii. | Environmental Assessment and Feasibility Study completed | May 2021      |
| iv.  | Decision anticipated                                     | August 2021   |

## **9. Term and Termination**

This Agreement shall remain in effect until replaced by a subsequent agreement or terminated by either Party. Either Party may terminate this Agreement only upon 90 days' notice in writing. In addition to such notice, the Party wishing to terminate shall afford the non-terminating Party a reasonable opportunity to confer before such termination takes effect. Any pending notice to terminate this Agreement will be rescinded by the Party who served the notice once the issues have been resolved.

## **10. Limitation**

Nothing in this MOA shall be construed as obligating the United States, the District or any other public agency, their officers, agents or employees to expend any funds in excess of appropriations authorized by law.

## **11. Third-Party Challenges or Appeals**

Nothing in this MOA may be the basis of any third-party challenges or appeals. Nothing in this MOA creates any rights or causes of action in persons not parties to this MOA.

## **12. Notices**

All official notices shall be sent to the Parties' designated contacts as listed below:

U.S. Fish and Wildlife Service  
Quivira National Wildlife Refuge  
Refuge Manager  
1434 NE 80<sup>th</sup> Street  
Stafford, KS 67578

U.S. Fish and Wildlife Service  
Chief, Division of Water Resources  
134 Union Boulevard  
Lakewood, CO 80228-1807

Manager  
GMD5  
125 S. Main St.  
Stafford, KS 67578

Lynn Preheim  
Stinson LLP  
1625 N. Waterfront Pkwy  
Suite 300  
Wichita, KS 67206

### **13. No Third-Party Beneficiary**

No Party to this Agreement intends for this Agreement to confer any benefit upon any person or entity not a signatory to this Agreement, whether as a third-party beneficiary or otherwise.

### **14. Headings**

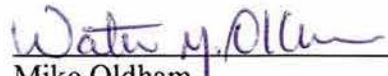
The headings of clauses contained herein are used for convenience and ease of reference. They shall not limit the scope or intent of the clause.

### **15. Effective Date**

This Agreement shall become effective upon the execution by the Parties hereto.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the day and year first written above.

 Date: 7-25-20  
Darrell Wood  
President, Board of Directors  
Big Bend Groundwater Management District 5

 Date: 7/25/20  
Mike Oldham  
Refuge Manager  
U.S. Fish and Wildlife Service