MEMORANDUM OF UNDERSTANDING (MOU)

Between the
U.S. Fish and Wildlife Service (USFWS)
Bear River Migratory Bird Refuge (BRMBR)
And the
Utah Department of Environmental Quality (DEQ)
Division of Water Quality (DWQ)

For

Joint Path Forward Regarding the Discharge from the Perry-Willard Regional Wastewater Treatment Plant to the Willard Spur to Insure the Long-Term Protection of the Bear River Migratory Bird Refuge Wetlands

I. Authority

This agreement is entered into by USFWS under the authority of 16 USC 668dd and by DWQ under authority of Section 19-5-104(1) (b) UAC.

II. Purpose

USFWS and DWQ have a mutual goal to protect Utah's water resources including wetlands on the BRMBR and have established a long history of cooperation to meet this goal. The purpose of this memorandum is to coordinate activities to insure the protection of the Willard Spur and adjacent BRMBR wetlands from the discharge from the Perry-Willard Regional Wastewater Treatment Plant (PWRWWTP) which will operate according to a Utah Pollutant Discharge Elimination System (UPDES) permit issued by the DWQ.

III. Background

The BRMBR is a key part of the Great Salt Lake ecosystem providing habitat for over 200 bird species and also serves a vital role in the Bear River delta ecosystem by protecting, creating, and managing more than 41,000 acres of freshwater wetlands. The USFWS must ensure that the biological integrity and environmental health of the BRMBR is maintained for the benefit of present and future generations of Americans and has authority to regulate all activities on the refuge including discharge of wastewater into the refuge.

All waters of the state, including the waters and the wetlands in the BRMBR, are property of the state, and protection of the quality and beneficial uses of the waters of the state resides with DWQ. As such, DWQ classifies the waters of the state into beneficial use categories, establishes water quality criteria to protect the beneficial uses of these waters, permits discharges into waters of the state provided that they will not degrade uses, and investigates violations of the environmental laws of the state or regulations adopted pursuant thereto.

While USFWS and DWQ have unique and independent regulatory authorities, both agencies strive for mutual cooperation in exercising their respective authorities, duties, and functions to

protect the quality and beneficial uses of the waters of the state associated with the BRMBR and to secure cooperation among agencies of the state, agencies of other states, interstate agencies, tribal entities, and the federal government in meeting these objectives.

The PWRWWTP was constructed to serve the 20 year needs for Perry and Willard cities and was ready to begin operation in June 2010. The plant was designed to discharge effluent into Willard Spur which is adjacent to the boundary of the BRMBR. The facility was constructed and the draft UPDES permit was issued in compliance with all DWQ rules and regulations adopted to protect water quality. However, adverse comments on the draft UPDES permit for this facility combined with a request to the Utah Water Quality Board to reclassify the waters of Willard Spur resulted in DWQ re-evaluating the draft permit and potential impacts to water quality and wetland health of the Willard Spur.

Preliminary, very conservative, modeling of the nutrient loading to the Spur from the PWRWWTP indicates a potential risk to wetland aquatic life uses within 5 years. This resulted in DWQ adopting a precautionary approach by modifying the UPDES permit to immediately reduce nutrient loading from the PWWTP, developing an interim monitoring strategy to assess the Spur for impacts from this discharge, and initiating study to establish site specific water quality standards for Willard Spur.

The remainder of this MOU outlines how the USFWS and DWQ will jointly work together to implement this precautionary approach.

IV. It Is Mutually Agreed That:

1. **Discharge from PWRWWTP:** Representatives from the USFWS and DWQ met on-site to investigate the exact location of the discharge from the PWRWWTP and mutually agree that the discharge is not within the boundaries of the BRMBR. However, USFWS and DWQ agree that the exact flow regime of the discharge cannot be known now and there may be a co-mingling of waters from the PWRWWTP with that of BRMBR. As such, the parties agree to monitor the discharge as part of the monitoring plan described in item 3 below.

2. **Participation in Willard Spur Steering Committee**: A Willard Spur Steering Committee is being established by DWQ to insure representatives from a broad range of interests are involved in all discussions to develop the monitoring plan and study outlined in this agreement, and other activities undertaken relative to the PWRWWTP and Willard Spur. DWQ agrees to organize and conduct all Steering Committee meetings and USFWS agrees to participate in all meetings of this committee.

3. **Studies to be Developed**: In consultation with the Willard Spur Steering Committee, the USFWS and DWQ agree to jointly develop the following studies:

a. **Interim Monitoring Plan**: A monitoring plan to assess impacts from the PWRWWTP discharge on the waters of Willard Spur and the BRMBR wetlands will be developed by USFWS and DWQ in consultation with the Willard Spur Steering Committee. This plan will outline:
    i. All chemical, physical, and biological monitoring to be completed (both baseline and on-going). The USFWS has indicated its priority concern is freshwater depth in the Spur and the spread of non-desirable invasive plants, such as *Phragmites*, and wants to insure this element is included in the monitoring plan;
    ii. Existing data from other previous or ongoing studies conducted by DWQ, USFWS, USGS and other parties that can be used to provide baseline data and information and may continue to provide relevant data;
    iii. How the information collected will be used to make decisions; and
    iv. How the data collected will be shared between USFWS, DWQ, Willard Spur Steering Committee and the public.

b. **Site-Specific Water Quality Standards for Willard Spur**: A scientific study to create site-specific water quality standards for the Willard Spur to insure protection of the BRMBR wetlands will be developed by USFWS and DWQ in consultation with the Willard Spur Steering Committee. DWQ agrees to use the results of these investigations to adopt, in accordance with state and federal regulations, changes to Utah's water quality standards (i.e., more protective antidegradation categorical protections, site-specific beneficial uses and associated water quality standards) to ensure long-term protection of the Willard Spur ecosystem. This plan will include:
    i. Detailed scope of work that that outlines investigations that will be conducted to generate data and information necessary to develop defensible water quality standards to ensure the long-term protection of the Willard Spur ecosystem
    ii. Existing studies conducted by DWQ, USFWS, USGS and other parties that may provide relevant data and information;
    iii. How the information collected will be used develop water quality standards;
    iv. How the data collected will be shared between USFWS, DWQ, Willard Spur Steering Committee and the public.

4. **Funding of Studies and Sharing Data**: DWQ will seek funding from the Water Quality Board to complete the studies outlined in item 3 above. The USFWS agrees to pursue cost share funding to the greatest extent feasible and to assist with these studies with staff support. DWQ and USFWS also agree to share all data relevant to wetland health of the BRMBR and Willard Spur. USFWS will be responsible to study the delivery to and distribution of treated effluent to impounded wetlands within refuge boundaries if this is ultimately selected as the disposal alternative.

5. **Issuance of UPDES Permit**: DWQ will issue the UPDES permit to the PWRWWTP to discharge into the Willard Spur. This permit will take a precautionary approach by including the following:

    a. A discharge limit for ammonia that is associated with the beneficial use class 3B and 3E waters assigned to the BRMBR to protect aquatic life and waterfowl;
    b. A monitoring requirement for dissolved oxygen;
    c. A requirement to optimize nutrient removal by the facility with the goal of reducing effluent phosphorous concentrations to 1 ppm and nitrogen concentrations to the lowest levels that are practicable;
    d. A clause that requires the permit to be reopened should monitoring reveal degradation of Willard Spur or wetlands associated with the BRMBR attributable to the PWRWTP effluent.

    DWQ agrees to share the draft UPDES permit with the Willard Spur workgroup and USFWS and seek their input prior to public notice.

TERMINATION

This Memorandum of Understanding shall become effective when signed by the designated representatives of the parties. The memorandum shall remain in force until terminated by mutual agreement or by either party upon Sixty (60) days written notice to the other party. Amendments to this agreement may be proposed by either party and shall be adopted upon written agreement by all parties.

The undersigned parties hereby agree to the terms and conditions of this memorandum specified above on this 18 day of January, 2010.

Bob Barrett, Refuge Director
Bear River Migratory Bird Refuge
U.S. Fish and Wildlife Service

Walter L. Baker, P.E., Director
Division of Water Quality
Utah Department of Environmental Quality