



MEMORANDUM

December 6, 2014

TO: All Interested Parties

FROM: Cynthia K. Dohner, Director, Southeast Region, U.S. Fish and Wildlife Service
Gordon S. Myers, Executive Director, N.C. Wildlife Resources Commission

SUBJECT: Collaborative Conservation of Fish and Wildlife and their Habitats on
Mattamuskeet National Wildlife Refuge

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12/6/14
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The U.S. Fish and Wildlife Service (FWS) and the North Carolina Wildlife Resources Commission (WRC) have a long history of collaboration and recognize the benefit of finding collaborative approaches to conservation challenges. Continuing the strong level of collaboration between these two partners is important for establishing a shared management philosophy to address the conservation challenges of today and tomorrow facing the Mattamuskeet National Wildlife Refuge, especially its centerpiece, Lake Mattamuskeet. Our agencies have a strong commitment to the concept of adaptive management and making management decisions based on the best available information. This philosophy is consistent with the Mattamuskeet National Wildlife Refuge Comprehensive Conservation Plan (CCP).

This memorandum reaffirms that commitment by establishing the Mattamuskeet Collaboration Team. The primary goal of this team is to establish clear common goals and identify specific actions that our two agencies can take to address conservation challenges facing the Mattamuskeet National Wildlife Refuge, especially Lake Mattamuskeet. These actions are categorized into five areas; collaboration, research, outreach, regulatory, and enforcement (Attachment A). This approach promotes an adaptive management philosophy that is consistent with the CCP and will continue to advance the goals of the Mattamuskeet National Wildlife Refuge.

**Action Items for Collaborative Conservation of Fish and Wildlife and their Habitats
on Mattamuskeet National Wildlife Refuge**

Collaboration

1. The philosophy of cooperation and collaboration, formalized here in writing, between the FWS and WRC, as well as with other relevant stakeholders, will extend to adjacent private lands when 1) those lands are potentially impacted by management decisions on Mattamuskeet National Wildlife Refuge (MNWR); or 2) when those private lands directly impact conservation and management of fish, wildlife, and other aquatic resources in Lake Mattamuskeet. This Memorandum serves as the foundation to:
 - a. Develop a clear mission statement, goals, objectives, and implementation strategies pertaining to restoring and maintaining the ecological integrity of Lake Mattamuskeet;
 - b. espouse a philosophy of cooperation and collaboration operating in the context of a three-legged stool (i.e. federal and state government and stakeholders);
 - c. establish a foundation for understanding the MNWR ecology, especially seasonal lake levels on fish, wildlife, and other aquatic resources in Lake Mattamuskeet and its associated canal system on the MNWR and to adjacent private lands;
 - d. establish a foundation for understanding the effects of adjacent private lands on water quality on MNWR;
 - e. establish a foundation for developing and implementing an adaptive approach to managing fish, wildlife, and other aquatic resources based upon the best available science;
 - f. continue or establish policies and goals for developing a collaborative archive of historical survey, monitoring and applicable research data on MNWR (or adjacent private or state lands), and a data sharing portal accessible by staff in both agencies;
 - g. commit multi-year funding to allow for continued operation, monitoring, and maintenance of USGS water quality monitoring stations on west and east sides of Lake Mattamuskeet;
 - h. as necessary, commit funding and staffing resources to allow field personnel to contribute and be effective at developing and implementing a collaborative and adaptive approach to management of fish, wildlife, and other aquatic resources;
 - i. as necessary, commit funding and staffing resources to conduct collaborative surveys, monitoring, or research;

- j. establish a timeline to hold coordination and/or technical meetings as necessary to meet the goals, objectives, and implementation strategies of this memorandum; and
 - k. establish an appropriate portal to disseminate progress towards the goals, objectives, and implementation strategies of this memorandum to interested stakeholders and the public.
2. Formal oversight, guidance, and direction of this philosophy of cooperation and collaboration between WRC and FWS will be through the formation of the **Mattamuskeet Collaboration Team**. This team will have a hierarchical approach to cooperation and collaboration and will have a structure as follows:
- a. a two-member **Executive Committee** will be comprised of FWS (Regional Chief, Southeast Region, National Wildlife Refuge System) and WRC (Chief Deputy Director). The Executive Committee will serve to provide overall direction and oversight to the Mattamuskeet Collaboration Team and will provide direct guidance to the Steering Committee;
 - b. a four-member **Steering Committee** will be comprised of FWS (South Atlantic Supervisor of National Wildlife Refuges; MNWR Refuge Manager) and WRC (Chief, Division of Inland Fisheries; Chief, Division of Wildlife Management). The Steering Committee will establish and appoint members to a number of working groups which will be tasked to address specific areas of mutual interest where a collaborative approach to conservation and management is deemed necessary or beneficial. Steering Committee members will not also serve as members of individual working groups. Working groups will report directly to the Steering Committee;
 - c. the **Working Groups** will be formed and address the following issues::
 - Technical\Biological Working Group - lake and canal water quality, purpose and function of water control structures, waterfowl and other migratory birds, fish, other aquatic resources, habitats, invasive species, research, surveys and monitoring, technical data compilation and management, and climate change. Members will include specific technical\biological expertise from FWS and WRC.
 - Legal\Policy - legal and policy issues as identified by the Steering Committee. One member each will be appointed from FWS and WRC.
 - Law Enforcement - continue cooperative and collaborative enforcement of federal and state laws and regulations. Members will include enforcement personnel from FWS, FWS- MNWR, and WRC-Hyde County.
 - Outreach\Communication – serve as a conduit for cooperative and collaborative approaches to visitor services, public outreach, and communications. Members will include personnel from FWS and WRC.

Mattamuskeet Lodge Restoration – examine potential development and operational plans to restore uses of the lodge.

Research

The FWS and WRC will prioritize, and provide funding and logistical support for research, surveys, and monitoring efforts of interest, as identified by the Mattamuskeet Collaboration Team, to 1) inform our collective knowledge of current impacts to water quality, fish, wildlife, habitats, and other aquatic resources; 2) inform the direction of current or future lake management decisions; and 3) ensure all current and future lake management decisions are initiated based upon the best available scientific knowledge. Shared priorities for research, surveys, and monitoring will address but are not limited to the lake's water budget, SAV health, lake water quality, climate change, adjacent federal, State and private land management and seasonal lake water levels. Specific research, surveys, and monitoring of the lake will be identified by the Technical Working Groups as part of the Mattamuskeet Collaboration Team and may include such items as:

- a. develop a water budget to identify all potential sources of inputs-outputs which potentially impact water quality on Lake Mattamuskeet;
- b. examine factors which drive ecosystem state and function on Lake Mattamuskeet including light attenuation, sediment resuspension, and sediment-nutrient fluxes;
- c. develop a protocol for baseline monitoring of Lake Mattamuskeet for phytoplankton biomass and community composition, nutrients, cyanotoxins, pesticides, metals, total suspended solids, and suspended sediments;
- d. develop a protocol for more intensive and annual monitoring of submerged and emergent aquatic vegetation on Lake Mattamuskeet;
- e. identify impacts of seasonal lake levels on fish, waterfowl and other migratory birds, and aquatic habitats on MNWR, and on adjacent private lands;
- f. examine role and function of Lake Mattamuskeet water level management, refuge impoundments, state lands, and adjacent private lands in meeting the seasonal energetic requirements of wintering waterfowl; and
- g. examine the role of climate change and potential impacts on lake water levels.

Outreach

The FWS and WRC will collaborate to design and implement broad-based outreach and marketing strategies and programs. These marketing programs will have clear shared goals,

objectives, strategies, and measurable outcomes, including development of consistent agency messages and education of stakeholders and the public on collaboration on MNWR.

Regulatory

FWS and WRC will review the current MNWR Comprehensive Conservation Plan, existing explanations of the legal jurisdictions with respect to the 1934 Consent Decree establishing language, legal issues regarding landowner drainage rights and North Carolina General Statutes and Administrative Code, the National Wildlife Refuge Administration Act of 1966 and the National Wildlife Refuge System Improvement Act of 1997 as needed as it pertains to actions proposed by the Mattamuskeet Collaboration Team.

Enforcement

The FWS and WRC will develop coordination strategies to improve enforcement of respective agency regulations on MNWR.