



Project Title: “Inventory and Assessment of Water Resources for National Wildlife Refuges and National Fish Hatcheries”

Headline Title (2-5 words): Water Resource Inventory and Assessment (WRIA)

Brief Summary (Abstract): The WRIA project collects existing water-related information for National Wildlife Refuges and National Fish Hatcheries. Data on each station’s water features, water rights, water quality, water monitoring, water related infrastructure, and hydroclimate are stored in a web-based, centralized, geospatial database. Water-related threats and needs are also identified for each refuge. A refuge-specific narrative is written that summarizes these data and provides recommendations.

Project Location: Nation-wide

Partners: This is a USFWS project, although we use data from multiple agencies, including USGS and EPA.

Background: Water is a vital component of the National Wildlife Refuge and National Fish Hatchery Systems. Climate change and increasing human populations will continue to heighten demand for clean, fresh water. A challenge for the USFWS is to ensure that sufficient quantities of good quality water are available for refuges and hatcheries to support their missions, now and in the future. In order to adequately manage and protect our water supplies, the USFWS needs station-specific information on water resources, and an assessment of water-related threats and needs. The WRIA project has been developed to collect and store that information in a centralized database.

Project Goals: Information contained in the WRIA database will be useful in identifying needs and threats to refuge/hatchery water resources at multiple scales—from the individual station to the national level. At the regional and national levels, the WRIAs will help us prioritize work and take prescriptive actions. The hydroclimate component will allow us to track trends in precipitation and temperature near each refuge. These refuge-level assessments are also a crucial step in understanding the information needs for a targeted water monitoring and management effort.

Strategy Goals Implemented: Goal 2, Strategy 2.1, Action 2.1.3 Identify species and habitats particularly vulnerable to transition under climate change.

Goal 4, Strategy 4.1, Action 4.1.5 develop consensus standards and protocols that enable multi-partner use and data discovery, as well as interoperability of databases and analysis tools related to fish, wildlife, and plant observation, inventory, and monitoring.

Climate Impacts Addressed: Impacts on species and habitats



NATIONAL *fish, wildlife & plants*
CLIMATE ADAPTATION STRATEGY

Status of Project Implementation (Timeline, Milestones, Next Steps): This is a multi-year project and is ongoing. As of 3/1/2014 we have approximately 42 WRIA narratives completed (40 refuges, 2 hatcheries). An initial version of the WRIA application will be released in April, 2014.

Project Outcomes: The WRIA project has two major products. The first is the centralized, web-based database, from which authorized users can enter and retrieve information on refuge/hatchery water resources. The database application will be useful at multiple levels, from the field station to the national offices. The other major product is the station-specific WRIA narrative document that describes the major findings of the WRIA process and presents any recommendations for further studies or actions that will help to mitigate threats or address needs. This station-specific narrative is especially valuable to the field staff.

Funding Sources: USFWS

Photos/Attachments: None

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