

Contract No. 001-005
 "North Dakota Hen House Project 1"
 Submitted by Delta Waterfowl
 Principal Investigator: Joel Brice
 Directives C & B

PARTICIPANTS

Sponsor	Cost Share
Delta Waterfowl	<u>\$26,530</u>
Subtotal Cash Cost Share	\$26,530
Delta Waterfowl	<u>\$ 4,500</u> (in-kind)
Subtotal In-kind Cost Share	\$ 4,500
North Dakota Industrial Commission	<u>\$34,000</u>
Total Project Cost	\$65,030

Project Schedule – 10 years
 Contract Date – 5/30/2014
 Start Date – 6/01/2014
 Completion Date – 4/30/2024

Project Deliverables:
 Expenditure Status Report: November 30, 2014 ✓
 Status Report: April 30, 2015 ✓
 Status Report: April 30, 2016 ✓
 Status Report: April 30, 2017
 Status Report: April 30, 2018
 Status Report: April 30, 2019
 Status Report: April 30, 2020
 Status Report: April 30, 2021
 Status Report: April 30, 2022
 Status Report: April 30, 2023
 Final Report: April 30, 2024

OBJECTIVE/STATEMENT OF WORK:

This project will establish 200 new Hen Houses (each with 10 year maintenance agreements.) It is anticipated that this will produce over 400 additional mallards per year and nearly 4,500 over the course of the project. OHF funds will be used for contractor maintenance agreements and construction and installation of the hen houses at two new Hen House supersites (one east of Bismarck and one near Woodworth).

STATUS:

The original request was for \$60,530. The amount awarded was \$34,000 with stipulations that the OHF funding cannot be used for staffing and those items identified in the budget as Annual Reporting, Contractor Recruitment and Training and Annual Evaluation and Mapping which totaled \$8,000. As a result of the partial funding there will either be one larger Hen House Supersite near Bismarck or Woodworth, ND, or one smaller Supersite (59 structures per site) in both of the proposed areas. The number of hen houses will be reduced from 200 to 118. Contract 001-005 - Executed

12/14 - Status Report received. In June, 2014, Delta Waterfowl began purchasing the necessary materials for the project, including steel posts and cradles, as well as flax straw and welded wire fencing (for nest tunnels). Currently, all materials are on location in North Dakota. During early December the

contractors began constructing the tunnel portion of the Hen Houses. These are created by rolling a layer of flax straw between two layers of wire fencing. This provides a durable outer layer for the nest structure, protecting the hen and her nest from predators. By December 15, 2014 118 complete hen houses were ready to be installed in North Dakota wetlands. The contractors also built 22 replacement tunnels for use in future maintenance of the structures. The Outdoor Heritage Fund hen houses will be installed in northwestern Stutsman County creating what is called a Supersite. A supersite is a collection of 100 (in this case 118) or more hen houses installed within a relatively small geographic area to maximize duck production and minimize installation and maintenance costs. Delta Waterfowl currently has one hen house supersite in this area, located just north of Woodworth. These structures have been very productive, with nearly 60% of them used by nesting ducks annually. Most of this region hosts over 100 breeding duck pairs per square mile and contains numerous semi-permanent and permanent wetlands. These types of wetlands are optimal for nest structures because they have water nearly every spring, providing feeding and escape habitat for hens and their ducklings. On May 6, 2014 Delta Waterfowl biologists met with staff at the Chase Lake Wetland Management District to discuss potential location for the 118 hen houses. Chase Lake staff actively works with landowners in Stutsman County on conservation programs and projects. They are currently assisting Delta Waterfowl by locating suitable wetlands for the hen houses, as well as securing landowner permission. Delta Waterfowl staff and contractors will have locations for all project structures by December 31, 2014. Within the next few weeks contractors will begin installing the hen houses when ice thickness is safe for travel via ATV. They anticipate completion in mid-January 2015 well before mallards return from wintering grounds in the southern United States. Upon completion of installation Delta Waterfowl staff will create a spreadsheet of all Outdoor Heritage Fund nest structures, including GPS coordinates. After the first year, this spreadsheet will be updated with usages rates for all structures, providing an accurate estimate of duck production. Maps of the Outdoor Heritage Fund hen house project will also be created and made available.

4/30/2015 Status Report received and is posted on the website. Between late December 2014 and March 30, 2015 118 henhouses were installed and ready for occupancy by nesting mallard hens. Over the next month, Delta Waterfowl staff and/or contractors will visually inspect a sample of the Hen Houses to determine if any damage occurred during spring thaw. Early reports indicate that several hens have already begun nesting in OHF Hen Houses. (See status report for more details.)

4/26/2016 Status Report received and is posted on the website. Included in the posted status report is a map showing the location of the hen houses. The status report states: This grant report covers Delta Waterfowl activities on North Dakota Hen House Project I from 5/1/2015 to 4/30/2016. In winter 2014-2015, contractors installed 121 Hen Houses near Woodworth, North Dakota. In May 2015, Delta Waterfowl staff inspected the new nest structures and found most to be in great shape, with several already occupied by mallards. For first-year structures, usage rates (percentage of structures occupied during the nesting season) typically start low (10-30%) but increase over time. It was encouraging to see several new Hen Houses already used in the first year.

In late December 2015, Delta Waterfowl Hen House contractors began to visit project Hen Houses to complete annual maintenance. This work is typically conducted when wetlands are frozen to facilitate easy access to the nest structures. During maintenance visits, contractors remove old nest remains (eggs, eggshells, feathers, etc.) replace grass nesting material, and repair any damage to the Hen Houses. For each structure, contractors document evidence of nest(s) during the previous breeding season. This information is submitted to Delta Waterfowl staff, entered into a database, and evaluated to determine usage rate (percentage of Hen Houses used during a nesting season).

In 2015, 15% of the new Hen Houses were used by nesting mallards. This is a typical usage rate for new Hen Houses in North Dakota and will likely increase significantly in 2016 when nesting hens and their offspring return to nest in them again. The usage rate of existing Hen Houses (Installed in 2004) in Woodworth area was 57% in 2015.

Contractors completed the Hen House evaluations and maintenance in late March 2016. During maintenance visits, contractors found 5 Hen Houses that were damaged by ice movement and another 13 that were inadvertently burned, along with cattail and other wetland vegetation, by the producer renting the property. The posts and cradles were salvaged and placed in alternate locations, along with rebuilt tunnels. In total, 22 replacement Hen Houses were installed and 125 project structures will be ready for nesting mallards in 2016. *(This is four extra than what had been included in the application.)*

Over the next month, Delta Waterfowl staff and/or contractors will visually inspect a sample of the Hen Houses to determine if any damage occurred during spring thaw. On occasion, the thick sheets of ice covering wetlands will shift as they melt, bending or pushing over nest structure posts. Usage rates and estimated duck production for 2016 will be provided in the April 2017 project report. Delta Waterfowl sincerely appreciates the Outdoor Heritage Fund and the support of this project by the State of North Dakota.

Update 5/04/2016