

FINAL REPORT  
JUNE 30, 2012

FOR  
CONTRACT:

**C150454**

DUCKS UNLIMITED, INC.  
2926 E. MULBERRY STREET  
FORT COLLINS, CO 80524

IN COOPERATION WITH:

THE COLORADO WATER CONSERVATION BOARD  
UNITED WATER AND SANITATION DISTRICT  
NORTH AMERICAN WETLAND CONSERVATION ACT  
TOM AND CYNTHIA HAREN



## EXECUTIVE SUMMARY

DUCKS UNLIMITED IS PROUD TO PROVIDE THIS REPORT TO OUR FUNDING PARTNERS AT THE COLORADO WATER CONSERVATION BOARD. OVER THE LAST SEVERAL YEARS THE CWCB AND DU HAVE PARTNERED TO DELIVER THE VERY BEST IN WETLAND HABITATS THAT PROVIDE FOR WATERFOWL AND PEOPLE. THIS PARTNERSHIP HAS RESULTED IN THE CONSERVATION OF HABITAT FOR BIRDS, WHILE RETIMING WATER TO MEET THE MULTIPLE NEEDS OF THE STATEWIDE WATER SUPPLY INITIATIVE. THEY BENEFIT OF NOT ONLY THE DUCKS, GEESE AND OTHER WILDLIFE THAT DEPEND ON QUALITY WETLANDS, BUT ALSO TO THE PEOPLE OF COLORADO WHO CONTINUE TO ENJOY THESE SPECIAL PLACES.

THE CONTRACT WAS FULLY EXECUTED ON SEPTEMBER 14, 2009. THIS CONTRACT COVERED THREE PROJECTS: THE WELKER AUGMENTATION PROJECT, THE HAREN WETLAND DEVELOPMENT, AND THE PECKHAM AUGMENTATION SITE. THE WELKER AUGMENTATION PROJECT WAS CANCELLED DUE TO CIRCUMSTANCES EXPLAINED IN PREVIOUS REPORTS. WE ALSO ENCOUNTERED EXCEPTIONAL PROBLEMS WITH OUR PARTNERS AT CENTRAL COLORADO WATER CONSERVANCY DISTRICT (CCWCD) THAT RESULTED IN CANCELLATION OF THE PECKHAM PROJECT. WE WERE ABLE TO COMPLETE THE HAREN PROJECT WITH A NEW PARTNER AT UNITED WATER AND SANITATION DISTRICT. DESPITE SOME DELAYS, HAREN IS NOW COMPLETE AND FUNCTIONING PERFECTLY.

OUR ORIGINAL BUDGET ESTIMATED A NEED FOR \$150,000 FROM CWCB. WE ONLY USED ABOUT 20% OF THAT ESTIMATE, MOSTLY DUE TO CANCELLED PROJECTS. DESPITE OUR INABILITY TO EFFECTIVELY UTILIZE THE CWCB FUNDS, SUCCESSFUL CONCLUSION OF THE HAREN PROJECT YIELDED NEARLY 93% OF THE TOTAL MATCH COMMITMENT FOR THE GRANT OF \$614,836.91. WE EXCEEDED OUR MATCH COMMITMENT BY JUST OVER \$3,700.

UNFORTUNATELY, WE ONLY DELIVERED 50 ACRES OF THE ANTICIPATED 86 ACRES FROM THE GRANT OF ROUGHLY 60%. ALTHOUGH HAREN WAS TO BE THE CENTERPIECE OF THE PROJECT, CANCELLATION OF THE OTHER TWO PROJECTS CAUSED MAJOR PROBLEMS WITH MEETING OUR ACREAGE GOALS.

WE LOOK FORWARD TO MAINTAINING THE SUCCESSFUL PARTNERSHIP WE HAVE ENGENDERED WITH THE CWCB. WE ALSO WISH TO EXTEND SINCERE APPRECIATION TO UNITED WATER WHOSE VISIONARY LEADERSHIP CONCLUDED IN A FANTASTIC PROJECT FOR MUNICIPAL, INDUSTRIAL, AND WILDLIFE NEEDS IN COLORADO.

<<PROJECT 1 NAME>> <<PROJECT 1

## ACREAGE SUMMARY

Table 1 summarizes the acreage conserved through the actions funded under the contract. No projects funded under this contract are complete.

#	Name	Acre-feet	Acre-feet	Acres	Acres
		Proposed	Revised	Proposed	Revised
CO-208-1	Welker Augmentation Project	0	0	20	0
CO-210-1	Haren Wetland Development	0	0	60	50
CO-209-1	Peckham Augmentation Site	0	0	6	0
<b>TOTAL</b>		<b>0</b>	<b>0</b>	<b>86</b>	<b>50</b>

## FINANCIAL SUMMARY

Table 2 summarizes the CWCB funds authorized, the funds spent, and the remaining funds available for achieving project goals. DU has scheduled delivery of these projects by the end of autumn 2010.

Grant Amount:	\$	150,000.00
Date of Report:		6/29/2012

						% of	
Project & Task	Description	Total Budget/ Grant Funds	Total Amount Invoiced	Match Provided	Total Cost	Budget Spent	
CO-208-1 Welker Augmentation Project (Project Cancelled)							
1	Survey and Design	\$11,139	\$0	\$6,064	\$6,064		
2	Wetland Construction		\$0	\$0	\$0		
3	Wetland Construction	\$45,092	\$0	\$0	\$0		
	TOTAL	\$56,231	\$0	\$6,064	\$6,064	0	
CO-210-1 Haren Wetland Development							
4	HWD Survey & Design	\$ 9,005	\$ 23,550	\$ 64,968	\$ 88,518		
5	HWD Western Ditch	\$ -	\$ -	\$ -	\$ -		
6	HWD Recharge Ponds	\$ 28,532	\$ -	\$ 481,490	\$ 481,490		
	TOTAL	\$ 37,537	\$ 23,550	\$ 546,458	\$ 570,008		63%
CO-209-1 Peckham Augmentation Site (Project Cancelled)							
7	PAS Survey & Design	\$ 8,117	\$ 3,485	\$ 27,211	\$ 30,697		
8	PAS Recharge Ponds	\$ 35,000	\$ -	\$ -	\$ -		
	TOTAL	\$ 43,117	\$ 3,485	\$ 27,211	\$ 30,697		8%
	SUBTOTALS	\$ 136,885	\$ 27,035	\$ 579,734	\$ 606,769		20%
	INDIRECT CHARGES	\$ 13,115	\$ 2,630	\$ 9,154	\$ 11,785		20%
	GRAND TOTAL	\$ 150,000	\$ 29,666	\$ 588,888	\$ 618,554		20%
	Original Match Estimate				614836.91		101%

Project Description (Cancelled as Reported in 10/19/2009)

After routine archeological investigations necessary for securing federal matching funds for the pond development on the site, Ducks Unlimited, Inc. was informed of the presence of historical artifacts on the property that qualified the site to be registered on the National Registry of Historic Places. The presence of these pre-Colombian Native American artifacts required additional archaeological investigation if the federal funds allocated for the project were to be used. These investigations would have provided information needed to avoid and or mitigate negative impact on the resources as a result of project activities. They also would have precipitated some level of agency and public review to ensure that federal funds were not destroying cultural resources. Mr. Peter Coors, owner of the property, was informed of these findings and of the alternative actions available to him. Mr. Coors decided to proceed with the project without utilizing federal dollars and, therefore, removing any federal oversight of project activities as it applies to cultural resource protection.

DU continued discussion with Mr. Coors and his representatives to ascertain the extent of cultural resources on the site outside of any federal regulatory oversight. This would allow us the opportunity to deliver the project without unduly endangering any historic artifacts found on the property. Mr. Coors decided not to allow these investigations. Therefore, DU has decided not to be the agent of delivery for this portion of the Colorado Central South Platte Wetlands Partnership.

Preliminary conversations have occurred between DU, Central Colorado Water Conservancy District, Dry Lakes Ranch and the Colorado Water Conservation Board regarding the potential to reassign the delivery agent for the Welker Augmentation Project. Meetings between the parties will occur in October or November of 2009 to resolve the situation.

To date, DU has performed site reconnaissance, project control and field site visits, developed a site topographic map, project engineering, and project design. No further work (apart from the mentioned coordination meetings) will be conducted by DU on this portion of the contract.

### Project Description

The Haren Wetland Development is a large-scale wetland recharge project located near the SPR in southern Weld County. Approximately 60 acres of recharge wetlands will be created on de-watered agland to generate recharge credit for CCWCD's plan and to provide high-quality waterfowl habitat. Recharge basins will be created by constructing contour terraces in portions of the property served by water delivery from the Western Ditch. These basins will be designed such that average maximum depth does not exceed 24"-36". As intensive and efficient agricultural practices overtook most of the non-urban lands associated with the SPR corridor in southern Weld County, the amount of suitable wetland habitat in that area has diminished. Further, recent water transfers and dry-up of aglands has continued to hasten wetland loss. The wetlands provided by this project will help reverse that trend. They are especially important as they provide a shallow-water component to the Chestnut Slough wetland complex. This slough is an important wintering site for thousands of ducks and geese in the region.

Implementation of the project and delivery of the identified tasks was delayed throughout much of the contract period through June 2011 as Ducks Unlimited and the Central Colorado Water Conservation District could not develop an agreement for development. Eventually, CCWCD cancelled the project. However, the project was resurrected by United Water and Sanitation District in the fall of 2011. Using the designs developed by Ducks Unlimited, United was able to work out agreements with the landowner and with CCWCD. Over 50 acres of wetlands were constructed by March of 2012. The project now stands as an excellent demonstration for local landowners and water producers of how to cooperatively maximize water resources for municipalities, industry, and agriculture through wildlife enhancements. In fact the project is already generating much more interest in the area and we expect that the Haren Project will exceed expectations for water retiming and spur additional projects in the area.

### Wildlife Benefits

The project was designed to benefit migrating waterfowl and other wetland-dependent waterbirds. The project is adjacent to Chestnut Slough, a regionally important wintering roost area for ducks, geese, and other wildlife species. The Haren site sits immediately adjacent to and above Chestnut Slough. Recharge from the wetland development will positively impact water regimes in Chestnut Slough, increasing its utility to wintering birds. It will also provide a degree of habitat heterogeneity missing in this portion of the SPR. Wildlife benefits gained from this project include positive habitat gains for waterfowl, shorebirds, Neotropical migrants, amphibians and, to native fish of the SPR basin. The shallow-water basins provide these birds with roosting cover during critical periods of their trans-continental journey, but, more importantly, they provide food resources in a manner designed to maximize foraging efficiency. This is important to send these birds to their breeding grounds on the northern prairies in the best body condition possible, thus ensuring the highest productivity (i.e. clutch size, brood survival, and returning fall flights). Other resident wildlife species would benefit, including species

of concern like northern leopard frogs, short-eared owls, and fish species dependent upon return flows to the South Platte River.

### Project Accomplishments

#### TASK 1: Project survey and design **REVISION COMPLETE IN JUNE 2011**

- Description of task

Production of a project plan outlining the necessary land and water improvements for proper project function.

- Method or procedure that will be used or followed to accomplish the task and identify who will undertake the task

DU or its agent will conduct a survey of the project area. A topographic map will be developed from the survey using standard models and AutoCAD software programs. This topographic map will place 6" to 12" contours in order to estimate microtopography and land fall in the project area. DU's engineers will work with CCWCD and Mr. Haren to develop a detailed project design, including schematics of wetland impoundments, water level control structures, water delivery infrastructure, and the proper placement of diversions and ditches.

- Description of the major deliverables/products that will be produced upon successful completion of the task

HA1. DU will deliver a detailed survey package designing a series of wetland recharge ponds on the Haren property. This package will include all appurtenant water delivery infrastructures. **REVISION SCHEDULED FOR 7/2010**

HA2. DU will provide a detailed bid package for the Haren Wetland Development; including all plans, specifications and quantities for labor, materials and equipment. **ON SCHEDULE FOR 8/2010**

#### TASK 2: Western Ditch diversion structure and water delivery **COMPLETED**

- Description of task

The design and installation of a high-capacity water diversion in the Western Ditch such that rapid water delivery into recharge wetlands is ensured.

- Method or procedure that will be used or followed to accomplish the task and identify who will undertake the task



- Description of the major deliverables/products that will be produced upon successful completion of the task

HA3: DU, in association with United Water & Sanitation District, will construct a high-capacity headgate capable of diverting at least 40 cfs of ditch flow into the recharge wetland on the Haren site. **Headgate construction was completed in March 2012.**

TASK 3: Recharge wetland construction      **COMPLETED**

- Description of task

Construction of recharge wetland through the excavation, movement, and placement of earthen fill such that wetland impoundments optimize water infiltration and shallow-water habitats. Installation of pumps, pipelines, water control structures and measurement devices necessary to meet project objectives. This task will be initiated by CCWCD with technical assistance by DU. Project completion will be managed by DU.

- Method or procedure that will be used or followed to accomplish the task and identify who will undertake the task

DU in association with CCWCD and Mr. Haren will oversee construction of all land and water improvements necessary to flood three to four 20 acre recharge wetlands on the Haren property. This includes the construction of embankments, running feeder ditches to new recharge wetlands and the installation of appropriate water measurement devices.

- Description of the major deliverables/products that will be produced upon successful completion of the task

HA4. United completed construction of the project in the Spring of 2012. The CWCB along with John Stulp toured the site in April 2012.

### Project Description (CANCELLED)

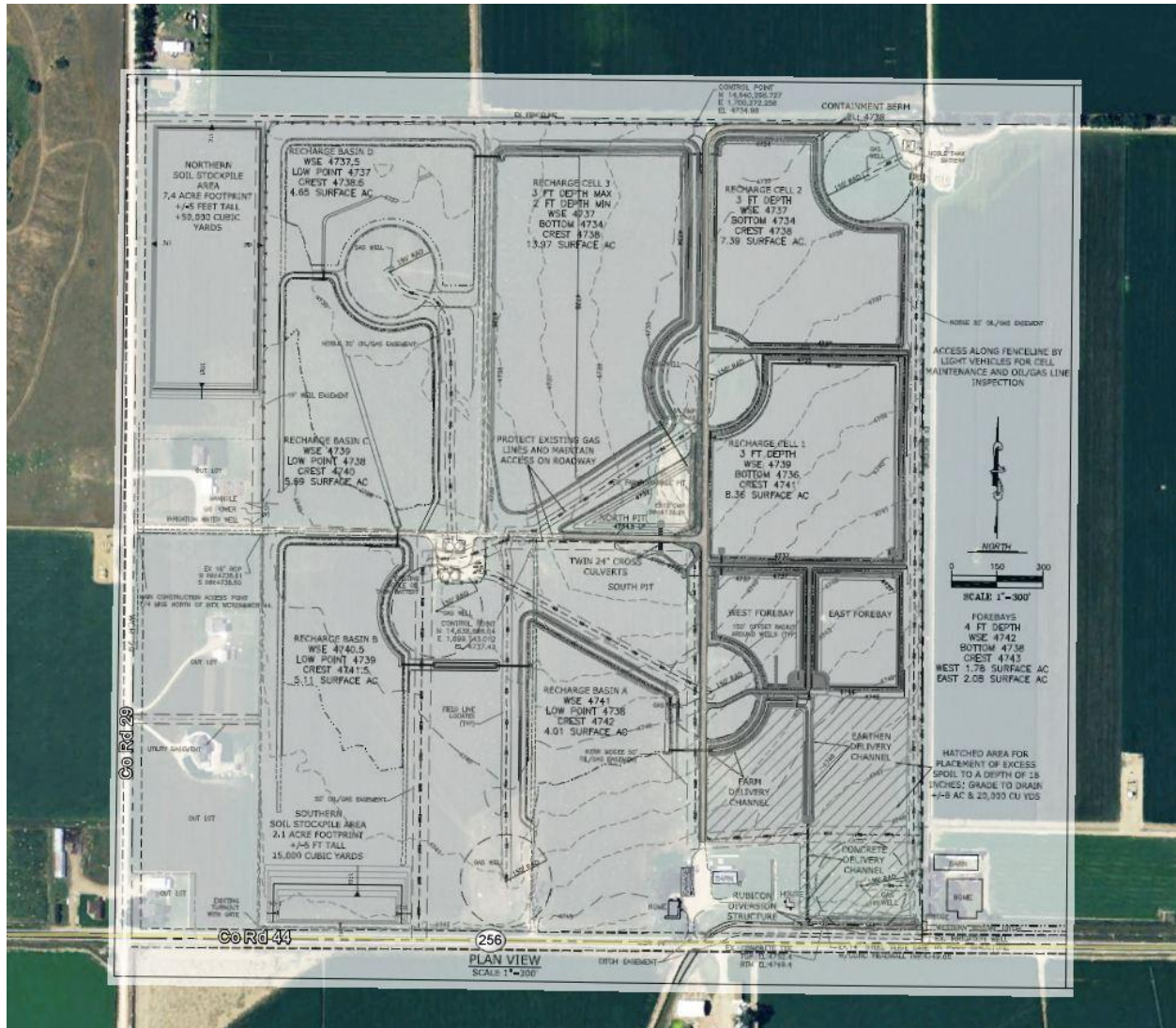
Due to the issues encountered with CCWCD on the Haren project and our similar partnership on this project, we decided not to move forward with this project. At this time the project has stalled and will likely not be completed in the near future

The Peckham Augmentation Site is an important recharge project located 2 miles south and east of Peckham in Weld County, Colorado. Approximately 15 acres of recharge wetlands will be created through the application of low-level terraces to two properties on the boundary of irrigated aglands. Existing irrigation infrastructure will be expanded to allow the flooding of these impoundments with water from the Platte Valley Irrigation Company (PVIC) ditch. The site sits on 20 acres of pivot corner and agland. It is owned and/or operated by two landowners, Mr. Martinson and Mr. Dinner. Currently the land is used as un-irrigated cropland. The project site sits equidistant between the SPR and Beebe Draw, a locally important wetland complex preferred by waterfowl. Its adjacency to many cropfields and remnant depressional wetlands lends greater habitat value to the wetlands than is immediately apparent by its location on the boundary of multiple center pivots. The Peckham site is attractive to CCWCD due to its distance from the riverbottom. Recharge credits derived from this project location provide a lot of ‘deep’ coverage as a single years addition fan out across multiple years of depletions. Through the installation of several low-level terraces and appropriate water-control structures, we will take advantage of existing water pipeline to flood approximately 15 acres of recharge wetland.

### Wildlife Benefits

The value of this site to waterfowl rests in its location amidst the croplands of southern Weld County and in its position between the SPR and Beebe Draw (a locally important wetland complex). The Peckham Augmentation Site rests in a prime spot to service ducks and geese traversing those wetland corridors. Abundant waste grains provide carbohydrates to migrating and wintering waterfowl populations. This project will provide a shallow-water component right in the middle of these food resources. Additionally, this wetland project will offset some of the depressional wetland losses that this part of Weld County has seen as the efficiencies of intensive agriculture have lessened the amount of tailwater and seep arriving in natural wetland basins. Basins of this sort also provide high quality habitat to migrating shorebirds and wading birds. They function much the same as playa basins in this respect, by providing wetlands that flood and drain rapidly. This wetland types have particular invertebrate communities that are crucial to maintaining body condition in some of our longest-distance migrants.

# ATTACHMENT B: CO-210-1 HAREN WETLAND DEVELOPMENT PROJECT PLAN



ATTACHMENT B: CO-210-1 HAREN WETLAND DEVELOPMENT  
PROJECT PLAN

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Construction on Haren



Water Sluiceway

