

**Conservation Reserve Program (CRP)
North Dakota (ND) and South Dakota (SD)
Hunter Expenditure & Valuation Survey
OMB control Number 0560-NEW**

Part A. Justification

1. Circumstances making collection of information necessary:

The six components of the North Dakota (ND) and South Dakota (SD) Hunter Expenditure and Valuation Survey are being developed to generate estimates of economic impact of CRP on the outdoor recreational sector and important benefits from improved wildlife habitat. The survey components will examine waterfowl hunting, upland game hunting, and deer hunting in North Dakota and waterfowl hunting, upland game hunting, and deer hunting South Dakota. The economic impacts estimates from the survey will be used to improve conservation performance measures used in future FSA Strategic Plans. The authority to conduct a survey is contained in the Commodity Credit Corporation (CCC) Charter Act (15 U.S.C. 714), as amended, "... may enter into and carry out such contracts or agreements as are necessary in the conduct of its business, except that obligations under all such contracts or agreements (other than reimbursable agreements under section 11) for equipment or services relating to automated data processing, information technologies, or related items). ...". Funding for undertaking this analysis was provided by 2011 CRP technical assistance funds apportionment for monitoring and assistance.

Farm Service Agency (FSA) has determined that the only way to get the economic impacts and valuation of hunter use of lands enrolled in CRP is by surveying licensed deer, upland game, and waterfowl hunters. FSA is conducting the survey in North Dakota and South Dakota because these states have large amounts of land enrolled in the CRP (1.8 million acres and 1 million acres respectively), the effect of CRP on wildlife populations in these states has been well documented, the diversity of hunting opportunities in these states, and the importance of these states as hunting destinations. Without the survey no state-wide data sources exist that permit accurate estimation of expenditures or valuation of hunting on CRP lands in ND and SD. The prior studies available focused on six small areas in ND and are 10 years old. There have been significant changes to the CRP since that time, which renders the data from these studies obsolete. Further, the small area sampled by these studies limit their usefulness in making statewide inferences for ND areas and provides no information for SD. Without data on hunter use and expenditures, the economic contribution generated by the federal investments in CRP cannot be reliability estimated.

FSA is required by statute to consider benefits from the enhancement of wildlife habitat in selecting CRP offers. One of the benefits arising from enhancement of wildlife habitat is recreational use. Hunting is a major component of recreational

use of CRP. Furthermore, FSA is providing the services to the landowners under the CRP to help them to conserve and improve soil, water and wildlife resources on their lands. Some landowners have used their lands enrolled in CRP to provide recreational activities, with hunting being the primary use. The survey is needed to estimate the amount of hunting, hunter expenditures, and the value of the hunting that is occurring on CRP lands. Further, the economic effects from hunting extend to the hotels, restaurants, and other businesses serving the hunters. Collection of the data is necessary to evaluate and improve CRP lands selection criteria and program implementation. Using information on hunter expenditures obtained from the survey and regional economic model we will develop information on tourism related jobs supported by CRP related hunting. These results permit a comparison to the regional economic impacts of CRP land temporarily going out of crop production. See section #16 for more details.

2. How, by whom, and for what purpose is information used:

The ND and SD Hunter Expenditure and Valuation Survey will be mailed to hunters in ND and SD. The North Dakota Department of Game and Fish and the South Dakota Department of Game, Fish, and Parks have each agreed to provide a random sample of the names and addresses for licensed deer, upland game, and waterfowl hunters generating a total of six sub-samples. The appropriate survey form will be sent to hunters within the sample drawn for that group. For example, persons in the North Dakota waterfowl sample will receive the North Dakota waterfowl survey. Surveys will be mailed by the Department of Agricultural and Resource Economics, Colorado State University working cooperatively with ND and SD departments of Fish and Game. The results permit estimates of the income, employment and net economic value with and without hunting on CRP land. These estimates will provide an estimate of the recreational value of enhanced wildlife populations on CRP lands in these two states. The change in income and employment will be used to evaluate the economic impacts of the CRP program.

The information gathered from this survey will be used to develop estimates of recreation services provided by hunting in North Dakota and South Dakota. These estimates will supplement information available from other sources on other environmental services such as water quality, erosion, carbon sequestration, and pollination to provide a more complete estimate of environmental services provided by the CRP in the Prairie Pothole Region of North Dakota and South Dakota. These estimates will provide for a more balanced and complete assessment of the CRP.

3. Use of information technology:

Information technology will be used to process and store the data collected. However, the survey cannot be delivered to hunters via internet or email for two reasons: (a) ND and SD Fish and Game agencies have told us they do not have

email addresses for most of the hunters; (b) many hunters live in rural areas of ND and SD that are not served by high speed internet connections. Thus reliance on information technology such as email surveys or internet surveys would result in a biased sample, unlikely to be generalizable to the population of ND and SD hunters. Phone surveys are not possible as hunters must have maps to identify where they hunted and several questions will involve a degree of recall not possible in phone interviews where rapid answers are required. Thus paper surveys with a postage paid return envelope will be used, as has been used in most past hunting surveys we are aware of. For the convenience of hunters with internet connection, the hunters will be provided with the option of submitting their response using the internet and survey identification number.

4. Efforts to identify duplication:

The United States Fish and Wildlife Service's (USFWS) National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) are the only source of consistently collected data regarding ND and SD hunting. However, this information is collected infrequently with currently available data being from 2001 or 2006. While 2011 state level data is being processed by USFWS, a review of the USFWS surveys shows that the data collected do not allow linking between species and private land type preventing a reliable estimate of economic activity from hunting on CRP lands. For example data on hunting on private lands do not identify species. Also, the private land data do not identify CRP land and therefore do not permit analysis of hunting on lands enrolled in CRP. Past analyses have substituted assumptions for data (1999 USDA-ERS study (AER # 778)). Data on species such as deer, waterfowl or other migratory species do not identify land type where the hunting took place. Further, the sample sizes underlying the species data are insufficient to generate reliable economic estimates for CRP land. For example, the last USFWS study of the economic impact of waterfowl hunting performed using the 2001 data had only 71 and 60 observations for the entire states of North Dakota and South Dakota respectively (2001 USFWS Economic Impact of Waterfowl Hunting in the United States). Clearly, these older small samples, when subdivided down to those hunting on CRP lands, would have limited validity.

5. Methods to minimize burden on small business or entities:

The information collected does not adversely impact small business or other small entities, as it is a survey of individual hunters rather than businesses.

6. Consequences if information collection is not conducted or is conducted less frequently:

The Food Security Act of 1985 (PL 99-198) as amended directs the Secretary of Agriculture to administer the CRP in a manner to 'conserve and improve the soil, water and wildlife resources... and to address issues raised by state, regional and

national conservation initiatives. The Secretary has undertaken numerous actions to conserve and improve soil, water, and wildlife resources. This survey seeks to evaluate initiatives to enhance wildlife populations in North Dakota and South Dakota including the Duck Nesting Habitat, State Acres for Wildlife Enhancement (SAFE), North Dakota Conservation Reserve Enhancement Program (CREP), and the South Dakota CREP, initiatives that have been developed to enhance waterfowl, upland game, and deer populations.

Without this data, FSA would not be able to comply with regulation of 16 U.S.C. 3831 as specified in the "Study on Economic Effects" section and Food, Conservation, Energy Act of 2008 (Farm Bill Publ. L. 110-246). Further, without this data FSA will not have the ability to examine the effectiveness of CRP initiatives, the selection criteria for enhancing recreational activities associated with wildlife populations and the economic benefits from these enhanced populations. In ND and SD these benefits primarily relate to hunting for the three types of species being studied here.

7. Special circumstances:

requiring respondents to report information to the agency more often than quarterly; **No.**

requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it; **No.**

requiring respondents to submit more than an original and two copies of any document; **No.**

requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years; **No.**

in connection with a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study; **No.**

requiring the use of a statistical data classification that has not been reviewed and approved by OMB; **No.**

that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or **No.**

requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law. **No.**

The information collection is consistent with the guidelines in 5 CFR 1320.6. The statistical methods to be used will be accepted survey procedures designed to permit state level inferences.

The expected response rate is 60 percent; a conservative response rate to assure an adequate number of responses is obtained for analysis. Two prior hunter surveys in the upper mid-west had response rates over 68 percent (MN DNR 2002; 2005).

Gigliotti (2009) sampled South Dakota hunters using Walk-In-Areas (private lands providing public access). The study had a 72 percent response rate from residents and a 77 percent response rate from non-residents using two mail contacts. McGinley and Hull (2011), obtained a 73.2% response rate for Wisconsin hunters targeting upland birds. The human dimensions specialist with the South Dakota Game, Fish, and Parks conducts season-after harvest surveys for game species pursued by residents and non-residents in the state each year (available at: <http://gfp.sd.gov/hunting/harvest/default.aspx>). In 2010—the most recent survey results available—all six of the studies conducted obtained response rates over 60 percent; with 5 of the 6 obtaining response rates of 77 percent or above. This survey uses up to four contacts (advance cover letter, initial survey mailing, second survey mailing and third survey mailing, each with a personalized cover letter and postage paid return envelope) to provide a 60% response rate. The use of four contacts has been demonstrated as a means to enhance response rates. Part B provides additional information.

8. Federal Register Notice

The Notice has been published on February 1, 2013 (78 FR 7390-7391) to solicit public comments on the survey. Four comments were received and there were no impact on the information collection. Two commenters supported in conducting surveys. The other two comments were from the same person with the similar comments that were not related to the information collection. NASS has reviewed the survey last April 2013.

The survey has been prepared by John Loomis at Colorado State University and reviewed by FSA and a United States Geological Survey (USGS) staff economist who is familiar with hunting in these two states (William Gascoigne at USGS (970-226-9227)). Additional review has been provided by USGS range conservationists familiar with hunting conditions in these two states (Mark Vandever, USGS (970-226-9264), and Larry Gigliotti, SD State University, No. Plains Lab, (605-688-6717).

9. Decision to provide any payment to respondents:

There are no plans to provide gifts or payments to the respondents.

10. Confidentiality provided to respondents:

The results of each completed survey received are strictly confidential and will not be shared outside this study. Results of the study will be of aggregate analyses estimating the effects of CRP benefits. The contents of each respondent will be combined with other responses to provide statistically valid State estimates while protecting the identities of all participants. The confidentiality of the survey responses will be protected by SEC. 1244 [16 U.S.C. 3844] (b), which states that personal information in relation to natural resources conservation programs "... shall not be considered public information and shall not be released. Statistical and aggregated information may be disclosed if the information has been transformed into a statistical or aggregate form without naming the individual ... or site". The survey will also be handled according to established FSA procedures implementing the Privacy and Freedom of Information Act of 1974, and OMB Circular A-130, Responsibilities for the Maintenance of Records about Individuals by Federal Agencies.

11. Questions of a sensitive nature:

No data is collected on the survey that may be considered sensitive in nature. Although the last question on respondent's income might be interpreted as sensitive, this question is typically asked in hunter surveys to collect information used to estimate economic values using the travel cost model as it is a demand estimating method. The principal being that the best estimate of the value of time spent is the opportunity cost of the time that an individual forgoes income to go hunting. Economic theory specifies that consumers' (e.g., hunters in our case) choices maximize their well being, subject to a budget constraint. Reliable estimates of the economic value for hunting require an estimate of each hunter's budget constraint; this is inferred using their income.

12. Estimates of Burden:

To minimize the burden only 6000 hunters will be surveyed. An average time for the hunters to complete survey will be 15 minutes, including reviewing the cover letter. This estimate was generated by having several FSA and USGS personnel read the cover letter and postcards and answer the survey. FSA will mail reminder postcards to the non-respondents. The total public burden hours will be 1,500 hours in this information collection.

Based USFWS National Survey data on median hunter income in ND, the estimated average hourly rate for the hunters is \$31.25. The total cost of this burden for all respondents associated with this information collection is \$46,875.

13. Total annual cost burden to respondents or record keepers:

There are no capital or startup costs associated with this information collection.

14. Estimates of annualized cost to the federal government:

The cost to the Federal Government for the full study will be \$260,000, the amount estimated for the cooperative agreement to Colorado State University's Department of Agricultural and Resource Economics. This cost includes developing the sampling intensity, mailing and collecting the survey, entering the data into a database, analyzing the information and preparing a report. One FSA employee at a GS-14 Level will handle the overall procurement processing in the selection of a contract and the monitoring of the contract activity will be estimated around \$63,510 ($\42.34×1500 burden hours).

Each of the six surveys (North Dakota deer hunters, North Dakota upland game hunters, North Dakota waterfowl hunters, South Dakota deer hunters, South Dakota upland game hunters, and South Dakota waterfowl hunters) will be sent to 1000 licensed hunters. The North Dakota and South Dakota state wildlife agencies have each agreed to provide 3 separate lists of names and addresses for deer, upland game, and waterfowl hunters. The lists are generated using the permits hunters purchased, and the hunters sampled will be selected randomly from these lists.

15. Reasons for changes in burden:

This is a new information collection.

16. Tabulation, analysis, and publication of results:

The hunters will be stratified by hunter type (e.g., waterfowl hunters, deer hunters and upland game bird hunters) and by the two states (e.g., ND and SD). A total of 6000 hunters will be sampled: 1000 North Dakota deer hunters, 1000 North Dakota upland game hunters, 1000 North Dakota waterfowl hunters, 1000 South Dakota deer hunters, 1000 South Dakota upland game hunters, and 1000 South Dakota waterfowl hunters. The North Dakota and South Dakota state wildlife agencies have each agreed to provide 3 separate lists of names and addresses for deer, upland game, and waterfowl hunters. The lists are generated using the permits hunters purchased, and the hunters sampled will be selected randomly from these lists and mailed surveys. Given the expected 60% response rate (discussed below), this sample size should yield a power of 80% to detect differences between CRP hunters and non-CRP hunters.

Microsoft Excel will be used to error check data entry and check for and identify outliers. These processes can be conducted using logic test operations and the data sorting procedure. Excel will also be used to develop descriptive statistics of the survey responses and estimate the mean and variance for the estimates. The confidence intervals will be calculated to provide upper and lower boundaries around the estimates.

The statistical relationships between hunter use, hunter harvest success, wildlife populations and CRP enrollment in each county (i.e. hunter response models $Use = func(CRP\ acres, success\ rates \dots)$ $Success = func(CRP\ acres, wildlife\ populations \dots)$) will be estimated with either OLS regression or a count data model using either Eviews or Stata statistical package.

Estimating the economic impact of the Conservation Reserve Program (CRP) on the Recreational Sector requires 3 steps:

- 1) Estimation of the effect of CRP on the wildlife populations of interest
- 2) Estimating the change in outdoor recreation associated with higher wildlife populations
- 3) Estimating the economic impacts of changed levels of outdoor recreation.

Because hunting is a high valued, regulated activity, changes in hunting activity will be used as a proxy for the outdoor recreational sector. We recognize that limiting the estimation of outdoor recreational economic benefit to just hunting will result in a conservative estimate, but obtaining reliable information on other outdoor recreational activity such as photography, bird watching, and other forms of wildlife observation would be too expensive, and no studies estimating the effect of CRP on fish populations are available.

The steps will be discussed in turn:

- 1) Estimates of the effect of the CRP on wildlife populations have been conducted using multiple approaches (Reynolds et al., 2001; Niemuth et al., 2007, Reynolds, et al., 2007, Nielson et al., 2008, and others). These analyses have been conducted by either examining population response to CRP covers over time or, in the case of waterfowl, using established and validated wildlife population models based on landscape features to estimate waterfowl populations with and without CRP covers.

Over recent years innovations in geospatial information system analysis and the Department of Agriculture's common land unit (CLU) data has permitted rigorous examination of the effects of adding or subtracting grass, buffers, and wetlands to a landscape. The CLU data provides the exact location of agricultural fields on the landscape. These data when combined with CRP contract data can be integrated with other data such as the USFWS Annual Waterfowl Population Survey, the Breeding Bird Survey, and State data collection efforts to estimate and validate nesting, breeding, and survival rates, which in turn provides reliable estimates of the role of CRP and other conservation measures on wildlife populations.

FSA is working with U.S. Fish and Wildlife Service (USFWS) to develop estimates of waterfowl and grassland bird populations with and without

CRP. This agreement will be facilitated by existing agreements with USGS, USFWS, and joint ventures. Current agreements include:

- An agreement with the United States Geologic Survey's (USGS) Northern Prairie Wildlife Research Center to develop an Integrated Landscape Model of ecosystem services provided by CRP wetland and grass conservation systems,
- An agreement with the United States Geologic Survey's (USGS) Fort Collins Science Center to quantify ecosystem services from CRP grasslands, and
- An agreement between FSA, USFWS Prairie Pothole Joint Venture, USGS, and Colorado State University to assemble and share geospatial data to inform decision making and conservation program delivery in the Prairie Pothole region.

Additionally, the North Dakota Game and Fish Department and the South Dakota Game, Fish, and Parks Department have provided wildlife, hunter license, and public access data that enable the estimation of wildlife population effects and hunter demand due to CRP.

- 2) Wildlife populations with and without CRP are then used to estimate the changes in hunter harvest success rates due to CRP. Hunting Demand is a function of the likelihood for success, which in turn is positively related to the wildlife population. CRP also positively influences hunting demand by increasing hunter access to suitable habitat. The functional relationship can be expressed as:

Hunter Trips = f (hunter success rates (+), hunting access (+), travel cost, travel time, income, age, retirement status).

A hunter demand model will be developed and applied. The difference in estimated demand (number of trips per hunter) will be attributed to CRP.

Description of Step #2 Models

We hypothesize that the first hunter response to improved wildlife populations associated with CRP will be in the form of the number of people who choose to hunt in a given county. Since in Step #1 we will have documented the strong link between CRP lands and wildlife populations, we will use percent of the county in CRP lands as our reduced form variable for wildlife populations. We do this because changing CRP lands is our policy variable. The number of hunters' times trips per hunter times hunter expenditures per trip will be our ultimate data input into the IMPLAN input-output model for calculating income and jobs dependent on CRP.

Therefore, the Step 2 model involves a multiple regression of how the number of hunters hunting in county i influenced by the percent of the county lands in CRP. Of course other factors that also influence the number of hunters going to a county i including the amount of public access outside of CRP (e.g., PLOTS_{it} or WIA_{it}, depending on whether SD or ND). In addition county demographics and percent of the county in public ownership such as BLM, USFWS and state wildlife management areas may matter as well and will be included in the model.

$$\text{Number of hunters}_i = B_0 + B_1 (\%CRP_{it}) - B_2 (\%PLOTS_{it} \text{ or } WIA_{it}) + B_3 (\%Public Land_i) + B_4 (\text{County Demographics}_i) + B_5 (\text{Population}_i)$$

Where:

Number of hunters going to county i ,

Number of hunters visiting county i for one of our three species (deer, waterfowl or upland game birds; separate model for each, however.)

%CRP_{it} - is percent of county or hunt zone i in CRP lands in year t

%PLOTS_{it} or WIA_{it} - are public land access programs in ND and SD, respectively in county i in year t .

%Public Land _{i} - is percentage of the county in public ownership such as BLM, USFWS, or state wildlife management area.

County Demographics _{i} in county i - are county level variables that will include separate variables for median income, percent white, median age, etc.

Population _{i} is the population of county i .

Using the estimated coefficients from this model we will forecast the number of hunters with and without CRP. Then this will be aggregated by county to arrive at the change in total number of hunters in that state due to CRP. This will be a factor in our Step 3 analysis of regional economic impact.

- 3) The change in hunter demand with and without CRP is used in the subsequent economic models to estimate the income, employment and consumer surplus generated by the Outdoor Recreation Sector. The difference between the two estimates will be the contribution to the sector attributed to the CRP. It is explicitly understood that the estimates with and without CRP are conservative because activity associated with wildlife observation, photography and fishing will not be included.

Empirical Specification of Models to capture effects of CRP:

To estimate the hunter trips per season, a travel cost method (TCM) demand curve will be estimated. The TCM is a widely used and well accepted recreation demand modeling approach (Loomis and Walsh, 1997;

Parsons, 2003; Haab and McConnell). The method has been recommended for use by Federal agencies since 1979 (U.S. Water Resources Council, 1979). Our TCM demand model estimation will be performed using a count data model in which t is the standard for trip frequency travel cost models (Creel and Loomis, 1990; Parsons, 2003). The count data estimates will be conducted using either Eviews or Stata statistical packages. The confidence intervals will be calculated for descriptive statistics and estimates of net economic value from the travel cost model.

Travel Cost Models:

One TCM will be estimated for each of three species in the Prairie Pothole region (ND & SD). The basic multi-site (sites are defined as counties) TCM model to test for statistical differences in number of trips per hunter and net economic value (consumer surplus) with CRP would be:

$$\text{Hunter Trips}_{ji} = B_0 - B_1 \text{TC}_{ji} + B_2 (\% \text{CRP}_i) + B_3 (\% \text{CRP} * \text{TC}) + B_4 \text{Harvest}_j + B_5 (\text{CRPHUNT}) + B_6 \text{Demog} + B_7 \text{State} \dots B_n X_n$$

Where:

Hunter Trips = number of trips by hunter j to county i , $i=1..83$

TC - is round trip travel cost

%CRP – percent of county or hunt zone in CRP lands (reflects wildlife population effects).

*%CRP*TC* - is an interaction term to allow for different slopes of the demand curve for %CRP land and hence different consumer surplus per trip as well.

Harvest_j - is the hunter success rate (bag per day, or season).

CRPHunt - Dummy whether he/she hunted on CRP land (measure of the access provided)

*CRPHunt*TC* - is an interaction term to allow for different slopes of the demand curve for CRP hunters.

State: Dummy variable for SD and ND.

Evaluating Change in Value per Trip with CRP

The average consumer surplus per trip in the count data model we will be using for the TCM analysis is $1/B_1$ for non CRP hunters and $1/(B_1+B_3)$ for CRP hunters (Creel and Loomis, 1990; Parsons, 2003). If B_3 is statistically different from zero we will be able to compute separate estimates of consumer surplus for each CRP hunters as distinct from non CRP hunters.

Evaluating Changes in Trips and Regional Economic Effects with CRP

a. If the two intercept shifters on CRP land are statistically significant, then the magnitude of that coefficient will tell us what the difference in number

of hunting trips is for hunters taking trips on CRP lands versus without CRP or in areas with a high percent of CRP land.

b. Harvest is another variable that may be influenced by CRP land. Thus, given the evidence that CRP lands result in higher wildlife populations, and then harvest should go up as well. Thus, we can perform a “with CRP vs. without CRP” analysis of the change in trips with and without CRP using this avenue.

c. The survey also collects hunter expenditure data. Combining changes in trips with CRP with hunter expenditures yields the amount of hunter expenditures related to CRP land. This information on hunter expenditures serves as data for IMPLAN regional economic model. IMPLAN, an input-output modeling software that constructs Social Accounts that describe the structure and function of a specific local economy, will be used to calculate the change in income and employment in ND and SD with and without CRP. IMPLAN software is widely used by USDA agencies such as the USFS, as well as United States Department of Interior (USDO I) agencies such as USGS and BLM.

IMPLAN uses the model of the local economy to investigate the consequences of projected economic transactions in a geographic region, by examining the region’s economic activity with and without these transactions. The combined change in number of hunters and change in trips per hunter will give us the change in total hunting trips, the economic transactions to be examined. This change in total hunting trips along with hunter expenditures can be entered into the IMPLAN model, and the change in the regional economic activity estimated.

d. Thus there are three pathways in which we can test for whether presence of CRP lands results in more economic value of hunting on private lands: (a) how trips per hunter changes with the amount of CRP in the county, (b) how number of hunters in the county change with the amount of CRP in the county and (c) how consumer surplus or value per trip changes with CRP lands.

The survey is designed as a onetime only instrument.

The results of the survey will be used by the FSA to better administer the CRP and provide a more complete report of the program benefits. This report will be peer reviewed by USDA and USDO I staff and will be made available on the FSA website. At this point there is no plan for a hard copy publication, although publication of this report is possible.

The primary results will be contained in a table with the following format. The results from IMPLAN will be used to calculate: (a) state income and (b)

jobs related to hunting. Results TCM will be used to estimate the Net Economic Value to the Hunters.

<u>State</u>	Expenditures of hunters on CRP land	Income related hunting on CRP lands	Jobs related to hunting on CRP lands	Net Economic Value to Hunters
ND				
SD				
Total				

The project plan will be completed 6 months from start of data collection following the Dillman Tailored Design Method (Dillman, 2000).

1st two weeks: – Finalize details of sampling design (by hunter type) and electronic format. ND and SD pull samples and provide the names and addresses to Colorado State University (CSU). Although the States have agreed to pull the samples for the surveys, a memorandum of understanding will not be prepared until the survey has been approved.

3rd-4th weeks – CSU sends an advance cover letter, and then a first mailing of the survey will be sent to the potential respondents in a package containing a cover letter explaining the purpose of the study, the survey with map, and a postage paid return envelope.

6th week – Approximately 2 weeks later a postcard will be sent reminding the participants of the survey to complete the survey and thanking those who have already responded. Data entry begins on first mailing returns.

8th week – second mailing of survey with a new cover letter and postage paid return envelope will be sent to non-respondents to increase response rate.

10th -12th weeks – If less than 60% response rate is obtained, then a third mailing of the survey will occur to non-respondents. Data entry continues. Obtain data on amount of CRP land in each county.

13th -14th weeks – Error checking of the data for coding errors and outliers takes place. Expenditure data combined into groups for IMPLAN Input-Output model analysis. Variables are recoded for Travel Cost Method demand analysis.

15th -19th weeks – IMPLAN input-output analysis conducted to estimate income and jobs related to CRP completed. Travel Cost Method (TCM) demand model is

estimated to calculate net economic value. Using either the TCM demand model or a separate aggregate hunter response model, relate amount of hunter use to the amount of CRP land in the county and to hunter harvest success rates (e.g., bag for upland game and waterfowl per trip, percent success for deer).

20th-21st weeks – Calculate the change in income, jobs and net economic value per acre of CRP land and the marginal effects of changes in CRP land on these three economic variables. Load program up into a spreadsheet interface for FSA to use for policy analysis purposes.

22nd to 26th weeks – Write report detailing all steps from survey and sample design, statistical analysis methods, results, and interpretation of the data. Report delivered.

17. Reasons display of expiration date of OMB approval is inappropriate:

FSA will display the expiration date of OMB even though this survey is one time thing in this request.

18. Exceptions to 83-1 certificate statement:

The FSA is able to certify compliance with all provisions under Item 19 of OMB Form 83-I.

**19. How is this information collection related to the Customer Service Center?
Will this information be part of their one stop shopping?**

The information collection will not be part of the Customer Service Center. It will be posted on line as part of the CRP program benefits reports.

References

- Gigliotti, L.M., 2009, Hunter evaluation of the 2009 Walk-In Areas report: Pierre, SD, South Dakota Game, Fish & Parks. HD-7-10.AMS.
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- Minnesota Department of Natural Resources (MN DNR), 2002, the 2002 Waterfowl Hunting Season in Minnesota—A Study of Hunters' Opinions and Attitudes: University of Minnesota, Cooperative Fish and Wildlife Research Unit.
- Minnesota Department of Natural Resources (MN DNR), 2005, Waterfowl Hunting in North Dakota—A survey of Minnesota residents who hunt waterfowl in North Dakota: University of Minnesota, Cooperative Fish and Wildlife Research Unit.