

Supporting Statement for Paperwork Reduction Act Submissions
for Migratory Bird Harvest Surveys - Waterfowl Hunter Survey

The following information is provided as part of a request for renewal of OMB's approval for information collections under OMB control number 1018-0015. This information collection approval request combines three surveys (the Waterfowl Hunter Survey, the Migratory Bird Hunter Survey, and the Parts Collection Survey) and their associated forms because the surveys are interrelated and/or dependent upon each other. This request includes a separate supporting statement for each of those three surveys, accompanied by a single set of attachments that includes a table summarizing the burden for all forms associated with control number 1018-0015. This supporting statement addresses the Waterfowl Hunter Survey.

A. Justification

1. Under the Migratory Bird Treaty Act (16 U.S.C. 703-711) (Attachment 1) the Secretary of Interior has responsibility for setting appropriate regulations for the hunting of migratory birds, with due regard for maintaining such populations at healthy levels. The Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j) (Attachment 2) more specifically authorizes collection of such information as is necessary to determine appropriate hunting regulations. Information required for effectively governing harvests of migratory birds includes not only knowledge of the harvest's magnitude but also information of the species, age, and sex composition within that harvest, including the geographic and chronologic distribution of these components as they relate to various hunting regulations.

The Waterfowl Hunter Survey, which has been conducted annually since 1952, requests purchasers of Federal Duck Stamps at sample Post Offices to complete and return a postcard with their name and address. Hunters that return completed postcards constitute the sample for the Waterfowl Hunter Survey, and are sent a questionnaire at the end of the hunting season. A study of nonresponse (Attachment 3) found that only 24% of these people were given a postcard for their name and address, and that 54% of those who received the cards returned them. Combined with a 65% response rate to the questionnaire, there was only an 8% overall response rate. This response rate is clearly unacceptable, and the Fish and Wildlife Service (Service) has made improvements specified in an agreement with the Office of Management and Budget (OMB). However, there were still two unresolved problems: (1) we could not obtain information from the 46% of the people who received postcards, but did not return the postcards with their names and addresses. Without this information, we could not contact these people. And (2) the survey did not provide adequate estimates of the harvest of migratory birds other than waterfowl, because people who hunt those species are not required to purchase a Federal Duck Stamp. Requiring all migratory bird hunters to provide their names and addresses would solve both problems by providing a list of migratory bird hunters.

In response to concerns expressed by OMB about the low response rates, the Service requested and received approval for an amendment to the current Waterfowl Harvest Survey (OMB No. 1018-0015) to begin phasing in an improved survey. That survey includes other migratory birds that were not previously surveyed. Hunter names and addresses come from a required

Migratory Bird Harvest Information Program instead of from voluntary cards distributed to a sample of Federal Duck Stamp purchasers. The Service published a Final Rule in the Federal Register on March 19, 1993 that established the Migratory Bird Harvest Information Program (Attachment 4). This rule was updated on September 1, 1998 (Attachment 5), by which time all States had entered the program. The rule requires all licensed migratory bird hunters in each State to annually provide their name and address to the State hunting licensing authority. States are required to forward that information to the Service, thereby providing the Service with a sample frame that consists of all licensed migratory bird hunters. The Service began phasing in the Migratory Bird Harvest Information Program with three volunteer States in 1992 (California, Missouri, and South Dakota), and all States except Hawaii have participated in this program since 1998.

To maintain comparability among estimates, both the Waterfowl Hunter Survey and the new Migratory Bird Hunter Survey should be run concurrently for at least three years before the Waterfowl Hunter Survey is discontinued. Continuity is especially important for this survey because migratory bird management decisions are based on changes from previous years. During 1998, the first year in which we conducted the Migratory Bird Hunter Survey nationwide, many States experienced difficulties in getting the required name and address data to us in a timely manner. As a result, the 1998 Migratory Bird Hunter Survey results were not reliable enough to use for comparison with the 1998 Waterfowl Hunter Survey results. Therefore, we are requesting approval to conduct the Waterfowl Hunter Survey for one more year (2001) before discontinuing that survey. This will provide us with the minimum of three reliable years of overlap that we need to compare the results of the two surveys.

2. This information collected is used by both Federal and State authorities to monitor the effects of various hunting regulations on the harvest of individual migratory bird species. The information has been particularly useful in evaluating the effects of changes in daily bag limits, hunting season length, and hunting season dates on harvest. Information obtained also gives the Service a great deal of insight into the status of the many species involved. If this information were not collected, the Service's ability to promulgate regulations allowing controlled hunting of migratory birds would be greatly weakened. The information is also used by private conservation and hunting organizations that are concerned with the welfare of our migratory bird resource.

The Waterfowl Hunter Survey, which estimates the harvest of ducks and geese, is based on Federal Duck Stamp sales. This survey asks people who purchase Federal Duck Stamps from randomly sampled post offices and other stamp vendors to complete and return a postcard (form 3-1823A, Attachment 6) with their name and address. Hunters who complete and return the postcard are sent a postcard questionnaire (form 3-2056G, Attachment 7) at the end of the hunting season, asking them to report their harvest of ducks and geese. Their responses provide estimates of the average harvest per hunter, which, combined with total Federal Duck Stamp sales, estimate the total harvest of ducks and geese. Combined with the results of the Parts Collection Survey, which estimates the species composition of the duck and goose

harvest, these harvest estimates enable the Service to evaluate the effects of season length, season dates, and bag limits on the harvest of each species, and thus help determine appropriate hunting regulations.

3. This information collection does not utilize technological collection methods. Responses are from randomly selected waterfowl hunters who are asked to voluntarily participate in a season-long survey. If we put the survey forms on line, we might receive responses from people who were not randomly selected for the survey. This would invalidate (i.e., bias) our survey results and complicate our efforts to obtain reliable harvest information to use in setting migratory bird hunting regulations.

4. Many State wildlife agencies collect some information on migratory bird harvest within their State, and a number of State hunter surveys have been examined. State information is generally collected secondarily in harvest surveys of non-migratory game and is not adequate for Federal regulatory responsibilities because: (1) it is often insufficiently detailed or imprecise, or has inherent weaknesses in sampling design resulting in serious biases; (2) comparable information is not available from all States because survey methodologies vary among States; (3) many State survey results are not available in time to be useful for promulgating regulations; and (4) some States do not conduct hunting surveys or maintain lists of hunter names and addresses.

5. This information collection involves only the U.S. Postal Service and individual waterfowl hunters. The U.S. Postal Service is remunerated for its involvement.

6. If this information was not collected, the Service's ability to promulgate regulations allowing controlled hunting of migratory game birds would be greatly weakened. The health and well being of migratory bird populations demand that harvests be commensurate with population size. If these surveys were not conducted, the lack of accurate assessment of migratory bird harvests would logically dictate restrictive hunting regulations, with a loss in hunting recreation due to only vague knowledge of the effects of hunting on migratory game bird populations and fear of possible overharvest.

If the surveys were conducted less frequently than yearly intervals, it would be impossible to adequately monitor the status of migratory birds which can change substantially between years as a result of droughts, floods, freezes, or other conditions. Estimates are required for annually promulgating hunting regulations.

7. There are no special circumstances that require information to be collected in this manner.

8. Solicitation of comments on this information collection was published on April 12, 2001, in the Federal Register, Vol. 66, No. 71, pages 18973-18974 (Attachment 16). No comments were received in response to this notice.

Meetings and workshops are held several times annually between Service and State personnel responsible for management of migratory birds, at which time problems and needs related to harvest surveys are discussed and acted upon. The Service has representatives to each of the four flyways (groups of States) to coordinate migratory bird management with State biologists. The representatives are:

Atlantic Flyway:	Jerome R. Serie	301/497-5851
Mississippi Flyway:	Kenneth E. Gamble	573/876-1915
Central Flyway:	David E. Sharp	303/275-2385
Pacific Flyway:	Robert E. Trost	503/231-6162

Immediately prior to the annual setting of migratory bird hunting regulations, public hearings are held at which individuals may comment on the regulations-setting procedures, including the conduct of harvest surveys. The Service has provided information to the public at the Outdoor Writers Association of America and Association for Conservation Information Meetings. Voluntary written comments and suggestions received from survey participants are noted and considered.

9. No payments or gifts are provided to respondents.

10. Each hunter contacted receives an assurance that the survey is conducted in accordance with the Privacy Act of 1974. Hunters are not asked to write their names on the questionnaires, and are assured that their names or identifications will not be associated with their questionnaires.

11. There are no questions of a sensitive nature.

12. Approximately 29,000 name and address cards (form 3-1823A, Attachment 6) and 20,500 questionnaires (form 3-2056G, Attachment 7) are received annually. Response frequency for both forms is once annually. The amount of time to complete the name and address card averages 1 minute (483 total burden hours), and the time required to record and summarize hunting trips to complete the questionnaire averages 7 minutes, at 1 minute per hunting trip with respondents averaging 7 trips (2,392 total burden hours). Thus, the total annual burden estimate for this survey is 2,875 hours. Assuming an hourly cost of \$7.26, this will convert to \$20,872.50 total annual cost. See Attachment 17 for a table showing the burden calculations for all forms included in this approval request.

13. There is no non-hour cost burden to respondents.

14. The annual cost of this survey to the Federal government is estimated as \$237,700. This estimate was derived from records of actual expenditures incurred in conducting these surveys in past years.

15. There are currently 131,992 burden hours in the OMB inventory for Migratory Bird Harvest Surveys (OMB No. 1018-0015). The increase of 6,925 hours is associated with another survey included in this approval request, not the Waterfowl Hunter Survey (see Attachment 17 and the Supporting Statement for the Migratory Bird Hunter Survey).

16. Plans are to conduct the Waterfowl Hunter Survey for the 2001-2002 hunting season, after which it will be replaced by the Migratory Bird Hunter Survey.

Schedule for the Waterfowl Hunter Survey

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| June | Name and address cards are distributed to a sample of post offices and other Federal Duck Stamp vendors. |
| July-Jan | Federal Duck Stamps go on sale July 1. Completed name and address cards are returned to the Service in Laurel, Maryland, where the hunters' names and addresses are compiled in a database. |
| Dec-Mar | Following a staggered schedule because of variation among States in hunting season dates, questionnaires are addressed and mailed after the close of the hunting season in each State. Responses are examined for legibility and then compiled in a database in Laurel. |
| Apr-May | Editing and analysis of questionnaire data. |
| July | The report must be prepared and distributed by early July in time for the public hearing on waterfowl hunting regulations. |

17. Approval to not display the OMB approval expiration date is not requested.

18. There are no exceptions to the certification statement contained in Item 19 of OMB Form 83-I for the information being collected.

B. Collection of information employing statistical methods

1. The potential respondent universe for form 3-1823A (name and address card) consists of about 1,632,200 Federal Duck Stamp purchasers. About 3,600 post offices and branches are randomly selected from the 14,300 post offices and branches that sell duck stamps. If a post office sells more than 1,000 duck stamps, the branches of that post office are sampled separately. Stores that buy duck stamps for resale from post offices in the sample are asked to distribute the name and address cards. Stores that obtain duck stamps for resale from other distributors are randomly sampled by the terminal digit of their ZIP code. National Wildlife Refuges that sell duck stamps are sampled, stratifying by Service region and by the number of

duck stamps sold. About 29,400 name and address cards are returned (7% response rate). About 28,800 of the returned name and address cards represent potential waterfowl hunters (stamp purchasers who plan to hunt waterfowl), and they are sent the questionnaire (form 3-2056G). About 20,500 questionnaires are returned (71% response rate). State figures are given in Tables 1 and 2.

2. Sample Federal Duck Stamp vendors are asked to distribute name and address cards (form 3-1823A) to duck stamp purchasers, and ask the duck stamp purchasers to complete and mail the card. Respondents who indicate on the card that they plan to hunt waterfowl are sent a questionnaire (form 3-2056G) soon after the end of the waterfowl hunting season in their State. Those who do not return the questionnaire within four weeks are sent a follow-up questionnaire.

For the name and address cards and questionnaires, post offices are cluster samples of duck stamp purchasers. Post offices are stratified by States and by geographic zones within States. The lists of post offices and branches for each stratum are sorted by numbers of duck stamps sold the previous year, with each group of 8 forming a substratum. One post office or branch is selected randomly from each half of each substratum.

The number of active waterfowl hunters, number of hunting days, and duck, sea duck, goose, and coot harvests are estimated from the questionnaire using a ratio estimate with the response per hunter and the known number of duck stamps sold. Species-, age-, and sex-specific harvests are estimated using ratios estimated from the Parts Collection Survey. Variances are not annually estimated because correlations among years and between the two surveys preclude the use of the usual variance estimators. However, 95% confidence limits derived from jackknife variance estimates have been about $\pm 8\%$ for mallard harvest estimates and $\pm 11\%$ for Canada goose harvest estimates at the flyway level.

A survey of waterfowl hunters must be conducted annually because waterfowl harvests can change substantially between years depending on the size of the fall flight and hunting pressure. Estimates are required for annually promulgating hunting regulations.

3. The forms have been designed to be as attractive and as easy to use as possible. The cover letter attempts to motivate the respondent and stress the importance of participation. One follow-up questionnaire is mailed to nonrespondents about 4 weeks after the first questionnaire, to maximize the response rate.

4. This request covers the last stage of the phase-in of the new Migratory Bird Hunter Survey. It continues to test the procedures that will replace the existing Waterfowl Hunter Survey. No tests are planned for the Waterfowl Hunter Survey.

5. The individual directly responsible for information collection and analysis is: Dr. Paul I. Padding, Chief, Harvest Surveys Section, Division of Migratory Bird Management, Laurel, MD 20708-4028 (301/497-5980).

The following statisticians have reviewed the statistical design and analysis of these surveys:

Ms. Christine M. Bunck, Program Coordinator, Biomonitoring Environmental Status and Trends, 1849 C Street NW, Washington, D.C. 20240 (202/482-3972)

Mr. Grey W. Pendleton, Statistician (Biology), Biometrical Group, Patuxent Environmental Science Center, Laurel, MD (301/497-5632)

Dr. Robert E. Trost, Migratory Bird Management Office, U.S. Fish and Wildlife Service, 911 N.E. 11th Avenue, Portland, OR 97232-4181 (503/231-6162)

Dr. Paul H. Geissler, Biologist, National Ecological Surveys Team, Patuxent Environmental Science Center, Laurel, MD 20708 (301/497-5780)

Table 1. Potential respondent universe, sample, and response rates for name and address cards (Form 3-1823A).

State	Duck Stamps in Universe	Duck Stamps in Sample	Duck Stamp Sample Rate	Name and Address Cards Received	Name and Address Card Response Rate		
CT	6,349	2,516	40%	177	7%		
DE	6,001	1,881	31%	116	6%		
DC	1,454	780	54%	6	1%		
FL	21,995	6,199	28%	379	6%		
A T L A N T I C	GA	20,565	6,270	30%	455	7%	
	ME	10,662	3,425	32%	289	8%	
	MD	23,904	7,225	30%	302	4%	
	MA	12,181	3,774	31%	221	6%	
	NH	5,486	2,260	41%	163	7%	
	F L Y W A Y	NJ	14,544	3,994	27%	210	5%
		NY	39,223	12,670	32%	1,157	9%
NC		31,450	10,029	32%	759	8%	
PA		51,384	17,972	35%	1,484	8%	
RI		1,575	875	56%	45	5%	
SC		24,346	7,483	31%	465	6%	
VT		3,753	1,586	42%	97	6%	
VA	25,476	7,228	28%	595	8%		
WV	1,469	665	45%	57	9%		
AL	16,550	2,972	18%	351	12%		
M I S S I S S I P P I	AR	62,131	16,230	26%	647	4%	
	IL	60,189	19,354	32%	1,322	7%	
	IN	21,640	6,765	31%	727	11%	
	IA	29,469	12,007	41%	863	7%	
	KY	18,030	5,106	28%	260	5%	
	LA	107,025	29,268	27%	1,124	4%	
	MI	68,013	18,957	28%	919	5%	
F L Y W A Y	MN	134,155	30,142	22%	1,470	5%	
	MS	24,448	5,894	24%	427	7%	
	MO	31,745	9,438	30%	871	9%	
	OH	42,425	12,261	29%	1,103	9%	
	TN	29,877	9,093	30%	506	6%	
	WI	98,380	30,754	31%	2,506	8%	

Table 1. Continued.

State	Duck Stamps in Universe	Duck Stamps in Sample	Duck Stamp Sample Rate	Name and Address Cards Received	Name and Address Card Response Rate	
CENTRAL FLYWAY	CO	41,911	9,538	23%	557	6%
	KS	18,364	6,093	33%	535	9%
	MT	21,985	6,059	28%	159	3%
	NE	31,975	10,384	32%	681	7%
	NM	4,878	2,068	42%	217	10%
	ND	32,266	8,375	26%	519	6%
	OK	20,200	6,179	31%	327	5%
	SD	34,925	8,597	25%	453	5%
	TX	136,036	24,508	18%	1,269	5%
	WY	11,349	3,883	34%	271	7%
PACIFIC FLYWAY	AZ	7,270	2,031	28%	190	9%
	CA	81,146	19,575	24%	799	4%
	ID	24,035	7,128	30%	499	7%
	NV	7,687	2,989	39%	542	18%
	OR	32,653	5,008	15%	395	8%
	UT	27,574	7,152	26%	266	4%
	WA	42,263	11,794	28%	1,077	9%
	AK	9,807	5,117	52%	562	11%
	U.S. Total	1,632,218	451,651	28%	29,389	7%

Table 2. Potential respondent universe, sample, and response rates for questionnaires (Form 3-2056G).

State	Questionnaires Sent	Questionnaires Returned	Questionnaire Response Rate	
CT	177	140	79%	
DE	115	67	58%	
DC	4	3	75%	
FL	379	275	73%	
A T L A N T I C	GA	455	326	72%
	ME	286	199	70%
	MD	302	213	71%
	MA	220	182	83%
	NH	163	119	73%
	NJ	210	141	67%
F L Y W A Y	NY	1,150	792	69%
	NC	756	488	65%
	PA	1,484	1,101	74%
	RI	44	36	82%
	SC	464	288	62%
	VT	97	63	65%
	VA	594	410	69%
	WV	57	49	86%
	AL	349	247	71%
M I S S I S S I P P I	AR	644	322	50%
	IL	1,314	981	75%
	IN	724	532	74%
	IA	861	546	63%
	KY	260	167	64%
	LA	1,122	629	56%
	MI	916	684	75%
	MN	1,470	1,113	76%
F L Y W A Y	MS	426	262	62%
	MO	864	517	60%
	OH	1,103	850	77%
	TN	506	331	65%
	WI	2,500	2,098	84%

Table 2. Continued.

	State	Questionnaires Sent	Questionnaires Returned	Questionnaire Response Rate
C E N T R A L F L Y W A Y	CO	555	403	73%
	KS	31	26	84%
	MT	159	113	71%
	NE	679	498	73%
	NM	215	160	74%
	ND	519	316	61%
	OK	325	221	68%
	SD	453	329	73%
	TX	1,269	856	68%
	WY	270	204	70%
P A C I F I C F L Y W A Y	AZ	190	135	71%
	CA	798	626	78%
	ID	499	421	84%
	NV	541	485	90%
	OR	394	266	68%
	UT	266	209	79%
	WA	1,074	762	71%
	AK	561	338	60%
	U.S. Total	28,814	20,539	71%