PLANNING AND ACCOMPLISHMENT NARRATIVE

UPPER MISSISSIPPI RIVER WILD LIFE AND FISH REFUGE

P. O. BOX 226
WINONA, MINNESOTA

JANUARY-JUNE, 1973

Approved, Regional Office:	Submitted by:
_____ Signature	Wayne E. Gueswel Signature
_____ Title	Refuge Mgr. Title
_____ Date	2/27/74 Date

REFUGE PERSONNEL

Wayne E. Gueswel	Refuge Manager
Dr. William E. Green	Wildlife Biologist (Management)
Donald G. Young	Refuge Manager (Assistant)
Michael J. Willett (e.o.d. 11/19/73)	Administrative Officer
Jay Hamernick	Refuge Manager (Public Use)
Hilma Volk	Refuge Manager (Public Use)
Duncan E. Green	Maintenanceman
Lorraine A. Joswick	Clerk-Steno

DISTRICT MANAGERS

Jerry F. Leinecke	Refuge Manager	Winona District
Matthias A. Kerschbaum	Refuge Manager	La Crosse "
Peter T. Smith	Refuge Manager (Asst.)	La Crosse "
Douglas M. Mullen	Refuge Manager	Lansing District
Jeffrey R. Smith (Resigned 5/12/73)	Refuge Manager	Guttenberg "
Robert E. Wilson (e.o.d. 6/24/73)	Refuge Manager	Guttenberg "
William H. Hutchinson	Refuge Manager	Cassville "
Jay R. Bellinger	Refuge Manager	Savanna "
Steven W. Breeser	Refuge Manager (Asst.)	Savanna "

SUMMER STUDENT STAFF

William J. Thrune	Biological Aid	Winona District
Louis S. George	Biological Aid	Lansing "
Douglas H. Bickel	Biological Aid	Guttenberg "
Patrick Brown	Conservation Aid	Cassville "
Janelle M. Weaver	Summer Aid (YOC)	Winona Office

NATIONAL SIGN SHOP

Benjamin R. Chio	Sign Shop Supervisor
William W. Shaw	Sign Maker (Assistant Supervisor)
Duane A. Gaulke (e.o.d. 8/6/73)	Silk Screen Maker & Printer
Terrence M. Gray	Signmaker Helper

TABLE OF CONTENTS

Page

Part I. Refuge Highlight Statement

a. Environmental Record..... 1
b. Waterfowl Population..... 1
c. Trapping..... 1
d. Enforcement..... 1
e. Public Use..... 2
f. Wilderness Study..... 2
g. Construction Activities..... 2
h. Refuge Safety Program..... 2
i. Dredge Spoil Activities on the River..... 2

Part II. Refuge Accomplishments

a. Wildlife-Wildlands Interpretation..... 3
b. Environmental Education..... 3
c. Wildlife-Wildlands Recreation..... 4
d. Non-wildlife Oriented Recreation..... 4
e. Professional Services..... 4
f. Environmental Preservation..... 5
g. Wildlife..... 5
h. Economic Benefits..... 5

Part III. Appendix

a. Refuge Violations..... 6
b. Fur Harvest Data..... 7
c. Duck Day Use by Species..... 8
d. Comparison of Peak Numbers, Peak Dates and Total Days Use..... 9

District Documentation for Part I in following order:

Winona District

La Crosse District

Lansing District

Guttenberg District

Cassville District

Savanna District

PLANNING AND ACCOMPLISHMENT NARRATIVE

PART I. REFUGE HIGHLIGHT STATEMENT

Temperatures in January and February followed the long term norm, but March dipped below the recorded average. Precipitation was well above normal, especially during April when nearly three times the normal was received--the records indicate that this was the wettest April on record.

The abnormal precipitation received in the spring raised the Mississippi River to flood stage in mid-March. This was the first of four occasions from March to June that the mighty Mississippi reached or exceeded flood stage. This high water forced furbearers to higher ground and destroyed a few duck and Canada goose nests. However, no significant loss in either furbearers or waterfowl were recorded.

Spring water levels finally receded to the desired summer management stage by late June. Normal summer water levels combined with warm days provided the medium and stimulus needed for terrestrial and aquatic plant growth. Both habitat types flourished under these conditions and provided more than an adequate supply of food and cover for resident and migratory wildlife populations. The Cassville district reported an exceptionally good wild rice crop this year.

The peak waterfowl numbers (195,210) and use days (6,310,633) during the spring period decreased 32.75% and 20.52% respectively compared to same period in 1972. The duck use day total increased 19.1% above the five-year average and 29.8% above the ten-year average. Peak numbers, however, decreased 4.3% below the five-year average but held a slim 2.1% increase above the ten-year record. The 1973 coot use (767,466) and peak numbers (37,825) decreased 34.8% and 40.6% from the five-year average and 31.7% and 39.2% from the ten-year average. Canada goose and swan peak numbers and use day totals decreased substantially from the 1972 total. The long term records show that the spring waterfowl populations fluctuate drastically from year to year. (See material in Part III Appendix).

A total of 1,160 trappers harvested an estimated 163,458 muskrats valued at $345,814. These trappers harvested 176 mink, 546 raccoon, 89 oppossum and 20 fox. A total of 898 trappers in the states with an open beaver season reported taking 1,565 beaver valued at $28,511.

Enforcement of game and public use violations on the refuge continued to require a substantial amount of refuge personnel time. During the six month reporting period, 46 cases were successfully prosecuted in state courts. Fines from these cases included $1,710, three days in jail, 36 hours of assigned work projects.

Public use activities, including boating, camping, fishing and hunting have continued to increase with little, if any, encouragement from the refuge. A significant portion of this use is inherent to the refuge program, but the system fails to recognize RBU benefits for the non-wildlife-wildlands activities. The refuge-administered "Hounds Tooth" award has continued to produce positive results in reducing the littering problem.

The wilderness study for the Upper Mississippi Refuge is in its second year. The original proposal has been modified several times to reflect policy changes suggested by the various agencies affected by the study. The modified study now contains provisions for a 8,000-acre proposal instead of the original 45,000 acres. Public hearings on this proposal are tentatively scheduled for early 1974.

Construction activities were held to a minimum because of lack of funding, but those projects completed greatly improved the refuge program. One public overlook was constructed in the Savanna district, and a two-mile auto tour route was begun on the Trempealeau refuge. The local Wisconsin National Guard unit worked on the tour route as a training exercise. Four new 16' flat bottom boats and four Grumman canoes were purchased to replace the 25 year old work boats now in use. Six new outboard motors were also purchased to replace older models.

Bi-monthly safety and staff meetings were conducted for all refuge personnel during the reporting period. There were no lost time accidents during the reporting period.

Dredge spoil and its impact on the ecology of the river has gained regional and national attention this year. A formal dredge spoil survey was initiated in an attempt to gain information to substantiate our past claims of the river's degeneration. Wisconsin court proceedings are pending against the U. S. Corps of Engineers on this subject.

Additional information on refuge highlights are presented in Part I of the attached district statements.

PART II. REFUGE ACCOMPLISHMENTS

A preliminary analysis of our first Planning and Accomplishment Report, Part II, for 1973 strongly indicates that our original estimation of the number of refuge outputs produced on the Upper Mississippi River Wild Life and Fish Refuge were not accurate. Our first attempt at summarizing the refuge outputs was based on our best available information, but the substantiating data for these estimations were lacking. Now, for the first time in the history of the refuge, we have a complete year of fair-to-good information on accomplished outputs. This will be a tremendous aid for future planning. A tremendous amount of effort by the refuge staff went into the accumulation of ultimate summation of this information. We are confident that the large deviation experienced in the 1973 report will not recur in the 1974 submission because of the better information now available.

Following is a breakdown of the major output categories, as summarized in Part II of the P & A report, with a brief explanation of those functions deviating significantly from the planned program.

Wildlife-Wildlands Interpretation:

The accomplished output elements under this category far exceeded the planned units, but this is due, in part, to the inaccurate estimation during the initial planning of the refuge objectives. The much improved output reporting system now established has produced more outputs than originally estimated.

Trails and tour routes were improved on the Trempealeau Refuge with the expenditure of interpretive funds received during the reporting period. Much of the work on this project was done by the Wisconsin National Guard as a weekend training assignment. Public use should increase when the auto route is completed. Walking trails continue to be a popular activity during the fall and spring portion of the school year. Many new school groups are finding and using the Trempealeau Refuge for the various activities in this element.

The other programs category of this major output decreased about 44% from the planned estimation. Again, this decrease must be justified on the basis of inaccurate base information. This is also a category that would normally fluctuate because of the uncontrollable requests throughout the refuge service area.

Environmental Education

Our initial goal for a number of students receiving this educational experience on the refuge was met. However, our estimations for the number of teachers influenced by our program deviated substantially. This deviation is attributed to the Division's change in the environmental education program at this station. Our original total was

based on the projected emphasis generated by the Bureau during this reporting period. Lack of funds and experienced personnel held this activity to the lower figure. Our new projections, however, indicate that we will reach our target during the new reporting period. Trained personnel have been assigned this responsibility and new programs initiated for the Trempealeau Refuge.

The Professional Services element also deviated from the programmed total. Again, this category is dependent upon the specific requests received from the various state, federal and private groups within the service area of the refuge. The refuge has little, if any, influence over this demand. We are confident that as the refuge receives more experience and better base averages so, too, will our future predictions improve.

Wildlife-Wildlands Recreation

The output elements in this category make up a significant proportion of the total refuge outputs. Our original estimations for these elements were surprisingly close to the actual recorded total. We would consider all of the elements in this group within tolerable limits of deviation from the initial estimation. However, the output element, 6-33 (Other Consumptive Recreation) showed a deviation of 89%. This would not be acceptable but is probably understandable when considering the complexity of documenting this type of use.

Non-wildlife Oriented Recreation

The output elements in this public-oriented category are not recognized or encouraged by the refuge system, however, approximately 14% of the accomplished units on this station fall within this group. All of these elements are considered to be inherent to this station and, therefore, a vital part of the O & M operation of the refuge. The costs associated with the administration and operation of these outputs are substantial, but the benefit units are non-existent. We hope that these outputs can be recognized on the UMR in the future.

Any substantial deviations experienced in this grouping are attributable to the climatic factors affecting the anticipated demand on a given day or weekend.

Professional Services

Three of the four output elements in this area deviated in excess of 100% from those outputs programmed. The output elements 6-50 (Studies and Publications) and 6-57 (Other Cooperative Programs) increased 500 and 700% respectively from the programmed units. This departure from the planned total is due, in part, to the base information presented in the original objective-setting process and uncontrollable demand from colleges, universities and contracting companies within the service area.

The deviation reported for 6-56 (Banding) was in error. The two units programmed were achieved, not seven programs as shown on the accomplishment report.

Environmental Preservation

There were no significant deviations recorded on these output elements. An error was recorded in 6-60 (Natural Environments Preserved) as reported in accomplished units. The planned and accomplished units should be the same--195,707 acres. Also, one area should be recorded for element 6-64 (Scientific Sites in Accomplished Units).

Wildlife

A significant departure for the planned units was recorded in 6-71 (Special Recognition Species) and 6-72 (Wildlife Diversity) respectively during the reporting period. In the case of the first, 6-71 (Special Recognition Species) we would justify by indicating that the data collected after the initial estimation was much better than the original data used as planned units. Improved averages will significantly increase the future reporting procedure. The second deviation involving Wildlife Diversity is an error recorded by the system process or in our initial reporting process. The planned and acoomplished units for this element should be the same--253 species--instead of the recorded 1,700 species indicated on the output printout.

Also, a 67% decrease was recorded in accomplished units for species donated. This is a category that is extremely hard to estimate when planning for the year. Any estimate projected would be dependent upon the number of species available for donation during the year. We would consider the deviations recorded in the other output elements as being well within tolerable limits of our original estimation.

Economic Benefits

All elements in this area deviated significantly from the planned units. None of these output elements are considered as benefit producers by the system, however, all of those reported are produced because of refuge commitments. In many cases they are either inherent responsibilities or part of the refuge's General Plan and Cooperative Agreement with the Corps of Engineers.

One area of great concern to the staff has been the neglect of the refuge system to recognize the importance of trapping as a viable refuge output. Each year nearly 1,300 trappers harvest furs valued at $300,000 to $500,000 along the Mississippi River. Management of this resource is a must on this refuge because of the close association with waterfowl habitat management. Fur management is in fact a creditable management function, and the refuge should receive benefit units commensurate with the output.

PART III. APPENDIX

UPPER MISSISSIPPI RIVER WILD LIFE AND FISH REFUGE

Violations

January 1-June 30, 1973

No, Cases	Violation	Fine
27	Littering	$ 1,361.
2	Destruction of Refuge Signs	16 hrs. assigned work
2	Snagging Fish	118.
1	Too Many Fish Lines	19.
1	No Boat Lights	15.
7	Illegal Parking on Access	83.
1	Shoot Song Birds	25.
1	Off Road Vehicle Use	50.
1	Trapping Too Close to Beaver House	39.
43		$ 1,710.

Three juveniles were assigned twenty (20) hours of work in lieu of a fine for littering.

FUR HARVEST DATA
UPPER MISSISSIPPI REFUGE
Fall 1972-Spring 1973
(Based on Reports from 87.5% of Trappers)

Species	State	No. Trappers	Total Fur Take	Average Fur Take	Av. Price	Total Value
MUSKRAT	Minn.	181	24,191	134	1.97	$ 47,759.13
	Wisc.	661	97,035	147	2.13	206,486.73
	Iowa	237	32,093	136	2.19	70,224.79
	Ill.	81	10,139	125	2.11	21,344.20
Total		1,160	163,458	141	2.12	345,814.85
MINK	Minn.	181	22	.12	15.16	333.46
	Wisc.	661	56	.08	13.74	769.44
	Iowa	237	65	.28	11.98	766.66
	Ill.	81	33	.40	10.31	340.24
Total		1,160	176	.15	12.56	2,209.80
BEAVER	Minn.	Closed				
	Wisc.	661	944	1.42	19.25	18,175.65
	Iowa	241*	621	2.57	16.64	10,336.03
	Ill.	Closed				
Total		898	1,565	1.74	18.22	28,511.68
RACCOON	Minn.	181	16	.09	9.75	156.00
	Wisc.	661	160	.24	6.90	1,104.40
	Iowa	237	243	1.02	7.79	1,891.79
	Ill.	81	127	1.56	7.24	919.31
Total		1,160	546	.47	7.46	4,071.50
OTTER	Wisc.		3		50.00	150.00
OPPOSSUM	Minn.	181	0			
	Wisc.	661	12	.02	.75	9.00
	Iowa	237	58	.24	.90	52.35
	Ill.	81	19	.20	.50	9.50
Total		1,160	89	.08	.80	70.85
FOX	Minn.	181	9	.05	17.14	137.14
	Wisc.	661	5	.01	11.50	57.50
	Iowa	237	5	.02	18.33	91.66
	Ill.	81	1	.01	15.07	15.07
Total		1,160	20	.02	15.07	301.37

TOTAL FUR VALUE $ 381,130.05

*Includes four non-resident trappers who got 99 beaver in Iowa and who also trapped Wisconsin, so counted only once in total.

UM-3

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE
Refuge: Upper Mississippi Wild Life and Fish Refuge
Period: January - April 1973

Species	Peak Numbers 1972	Peak Numbers 1973	Percent of Change Decrease	Percent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DUCK DAYS USE 1972	TOTAL DUCK DAYS USE 1973	Percent of Change Decrease	Percent of Change Increase
Mallard	45,111	21,205	52.99%		4/8	3/24	1,322,517	935,529	29.26%	
Black	3,253	3,365		3.44%	4/8	3/24	76,307	106,575		28.40%
Gadwall	1,735	745	57.06		4/8	4/14	40,145	22,890	42.98	
Baldpate	8,479	8,290	2.23		4/8	4/14	179,732	182,007		1.26
Pintail	2,150	3,435		59.76	3/31	4/14	54,096	79,989		47.86
G.w.teal	3,525	2,075	41.13		4/15	4/14	87,654	48,314	44.88	
B.w.teal	6,596	6,755		2.41	4/15	4/28	171,563	119,595	30.29	
Shoveler	4,230	4,090	3.31		4/8	4/14	97,867	60,445	38.24	
Wood duck	3,935	9,760		148.03	4/22	4/21	132,181	281,834		113.22
Redhead	4,565	3,295	27.82		3/31	3/31	98,182	104,524		6.46
Ring-neck	17,738	8,620	51.40		3/31	3/31	407,855	262,731	35.58	
Canvasback	20,748	21,745		4.58	3/31	3/24	553,539	652,330		17.85
L.scaup	149,010	95,720	35.76		3/31	4/14	4,053,987	2,877,525	29.02	
Golden-eye	6,076	4,970	18.20		3/31	3/24	251,944	159,208	36.81	
Bufflehead	2,306	2,110	8.49		4/8	4/14	61,880	72,849		17.73
Ruddy	925	2,570		177.83	4/15	4/14	29,015	46,767		61.18
Mergansers	8,899	9,437		6.04	4/8	3/10	321,146	297,521	7.36	
Old squaw										
Scoters										
Unident.										
TOTALS	260,534	175,210	32.75%		3/31	4/14	7,939,610	6,310,633	20.52	

*Week ending.

Comments:

DUCK DAY USE BY SPECIES FOR REFUGE DISTRICTS
Upper Mississippi River Wildlife and Fish Refuge
Period: January - April 1973

SPECIES	Winona District	La Crosse District	Lansing District	Prairie District	Cassville District	Sav.-Clinton District	Refuge TOTALS
Mallard	276,535	117,320	245,280	79,940	135,408	81,046	935,529
Black	80,815	2,905	15,260	980	4,193	2,422	106,575
Gadwall	16,870	1,190	1,540	1,610		1,680	22,890
Baldpate	29,435	7,805	60,200	14,630	12,089	57,848	182,007
Pintail	10,220	4,620	33,180	8,925	7,294	15,750	79,989
G.w.teal	14,175	1,435	17,920	4,970	630	9,184	48,314
B.w.teal	39,795	3,675	41,020	10,290	2,590	22,225	119,595
Shoveller	10,255	665	34,020	3,080	490	11,935	60,445
Wood duck	122,010	10,997	72,800	23,520	27,405	25,102	281,834
Redhead	23,345	7,665	46,900	7,735	3,850	15,029	104,524
Ring-neck	83,720	38,780	102,200	17,500	14,560	12,271	262,731
Canvasback	245,560	182,630	123,200	54,250	13,510	26,880	652,330
Scaup	121,660	498,120	634,340	506,310	592,550	524,545	2,877,525
Golden-eye	21,805	35,763	48,230	22,610	8,673	22,127	159,208
Bufflehead	15,400	16,100	30,800	6,545	910	3,094	72,849
Ruddy	3,605	2,835	7,770	8,995		23,562	46,767
Mergansers	59,150	56,875	79,800	29,470	24,031	48,195	297,521
Old squaw							
Scoters							
Unidentified							
Totals:	1,174,355	989,380	1,594,460	801,360	848,183	902,895	6,310,633
% of total use:	18.6%	15.7%	25.3%	12.7%	13.4%	14.3%	
Previous year totals:	711,865	1,029,756	1,290,639	1,202,670	1,809,220	1,895,460	7,939,610
% of total use:	8.90%	12.87	16.13	15.03	22.62	23.69	
% of change	+ 65%	- 3.9%	+ 23.5%	- 33%	- 53%	- 52%	- 20.5%

Comments:

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: Upper Mississippi Fish and Wildlife
Period: January - April 1973

Week of Period:	1969	1970	1971	1972	1973
1	1,004	1,557	3,820	4,881	1,036
2	918	1,427	3,823	4,406	973
3	859	1,459	3,755	4,338	1,302
4	1,023	1,557	2,592	4,313	1,330
5	954	1,526	2,408	3,642	1,376
6	1,275	1,512	1,599	2,592	1,673
7	1,158	1,871	1,815	2,435	2,284
8	1,247	2,373	2,312	2,404	3,289
9	3,012	8,996	3,772	3,304	9,302
10	5,850	27,013	8,425	10,687	31,813
11	9,000	40,065	22,303	19,931	62,961
12	71,298	97,230	47,037	128,914	131,440
13	165,551	210,891*	151,845	260,534 *	132,835
14	216,211 *	186,673	200,525*	252,342	138,560
15	142,660	157,130	180,810	226,823	175,210*
16	62,233	96,940	59,815	135,141	122,065
17	37,124	37,475	27,218	67,543	84,070
18	20,460				
TOTAL DAYS USE	4,575,229	5,258,672	4,583,059	7,939,610	6,310,633

* Indicates peak concentration

COMMENTS:

UM-3

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE
Refuge: Upper Mississippi Refuge
Period: May - August, 1973

Species	Peak Numbers 1972	Peak Numbers 1973	Percent of Change Decrease	Percent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DUCK DAYS USE 1972	TOTAL DUCK DAYS USE 1973	Percent of Change Decrease	Percent of Change Increase
Mallard	17,175	12,400	28%		9/2	9/1	1,230,670	885,535	28%	
Black	505	870		72%	9/2	5/5	16,359	48,055		100%+
Gadwall	10	90		100	9/2	5/5	1,575	1,260	20	
Baldpate	2,650	1,140	57		9/2	9/1	30,877	20,181	35	
Pintail	345	250	28		9/2	5/5	5,285	5,215	1	
G.w.teal	1,370	1,390		1	9/2	9/1	49,525	35,567	28	
B.w.teal	12,825	10,865	15		9/2	9/1	364,245	368,830		1
Shoveler	561	895		60	5/6	5/5	10,234	16,065		57
Wood duck	15,000	18,700		25	9/2	9/1	1,317,575	1,498,210		14
Redhead	75	110	47		5/6	5/5	581	1,015		75
Ring-neck	180	805		100+	5/6	5/5	1,344	8,610		100+
Canvasback	556	2,400		100+	5/6	5/5	4,522	25,473		100+
L.scaup	15,039	26,310		75	5/6	5/5	137,305	264,250		92
Golden-eye	30	20	33		5/6	5/5	357	140	61	
Bufflehead	100	550		100+	5/6	5/5	805	4,445		100+
Ruddy	85	160		88	5/6	5/5	980	1,547		58
Mergansers	1.080	2,080		93	7/29	5/5	104,965	135,905		29
Old squaw										
Scoters	1	0	100				42	0	100	
Unident.										
TOTALS	50,980	56,080		10%	9/2	5/5	3,277,246	3,320,303		1%

*Week ending.

Comments:

UM-3

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE
Refuge: Upper Mississippi River Fish and Wild Life Refuge
Period: January - April 1973

Species	Peak Numbers		Percent of Change		Peak Dates*		TOTAL DUCK DAYS USE		Percent of Change	
	19 72	19 73	Decrease	Increase	1972	1973	19 72	19 73	Decrease	Increase
Mallard	45,111	21,205	53%		4/8	3/24	1,322,517	935,529	29%	
Black	3,253	5,365		3%	4/8	3/24	76,307	106,575		40%
Gadwall	1,735	745	57%		4/8	4/14	40,145	22,890	43%	
Baldpate	8,479	8,290	2%		4/8	4/14	179,732	182,007		1%
Pintail	2,150	3,435		60%	3/31	4/14	54,096	79,989		48%
G.w. teal	3,525	2,075	41%		4/15	4/14	87,654	48,314	45%	
B.w. teal	6,596	6,755		2%	4/15	4/28	171,563	119,595	30%	
Shoveler	4,230	4,090	3%		4/8	4/14	97,867	60,445	38%	
Wood duck	3,935	9,760		100%	4/22	4/21	132,181	281,834		100%
Redhead	4,565	3,295	28%		3/31	3/31	98,182	104,524		6%
Ring-neck	17,738	8,620	51%		3/31	3/31	407,855	262,731	36%	
Canvasback	20,748	21,745		5%	3/31	3/24	553,539	652,330		18%
L. scaup	149,010	95,720	36%		3/31	4/14	4,053,987	2,877,525	29%	
Golden-eye	6,076	4,970	18%		3/31	3/24	251,944	159,208	37%	
Bufflehead	2,306	2,110	9%		4/8	4/14	61,880	72,849		18%
Ruddy	925	2,570		100%	4/15	4/14	29,015	46,767		62%
Mergansers	8,899	9,437		6%	4/8	3/10	321,146	297,521	7%	
Old squaw										
Scoters										
Unident.										
TOTALS	260,534	175,210	33%		3/31	4/14	7,939,610	6,310,633	21%	

*Week ending.

Comments:

PERCENTAGE COMPOSITION BY SPECIES OF TOTAL DUCK DAY USE
Refuge: Upper Mississippi Refuge
Period: January-April 1973

Species	Percent of total duck day use					
	1971		1972		1973	
	% of use	Order	% of use	Order	% of use	Order
Mallard	18.15	2	16.65	2	14.78	2
Black duck	1.49	10	.96	13	1.68	10
Gadwall	.61	16	.50	16	.36	17
Baldpate	3.95	7	2.26	7	2.88	7
Pintail	1.23	12	.68	15	1.26	12
G.w.teal	1.18	13	1.10	12	.76	15
B.w.teal	2.45	9	2.16	8	1.89	9
Shoveler	1.41	11	1.23	11	.96	14
Wood duck	2.83	8	1.66	9	4.45	5
Redhead	1.18	14	1.24	10	1.65	11
Ring-neck	4.75	5	5.14	4	4.15	6
Canvasback	5.50	3	6.97	3	10.31	3
Lesser scaup	44.48	1	51.04	1	45.46	1
Golden-eye	4.55	6	3.17	6	2.52	8
Bufflehead	.61	15	.78	14	1.15	13
Ruddy	.28	17	.37	17	.74	16
Mergansers	5.14	4	4.04	5	4.70	4
Old squaw	trace	18	trace	18		
Scoters						

Comments:

UM-5

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: Upper Mississippi River Fish & Wild Life Refuge
Period: January - April 1973

Week of Period:	19 69	19 70	19 71	19 72	19 73
1	1,004	1,557	3,820	4,881	1,036
2	918	1,427	3,823	4,406	973
3	859	1,459	3,755	4,338	1,032
4	1,023	1,557	2,592	4,313	1,330
5	954	1,526	2,408	3,642	1,376
6	1,275	1,512	1,599	2,592	1,673
7	1,158	1,871	1,815	2,435	2,284
8	1,247	2,373	2,312	2,404	3,289
9	3,012	8,996	3,772	3,304	9,302
10	5,850	27,013	8,425	10,687	31,813
11	9,000	40,065	22,303	19,931	62,961
12	71,298	97,230	47,037	128,914	131,440
13	165,551	210,891*	151,845	260,534*	132,835
14	216,211*	186,673	200,525*	252,342	138,560
15	142,660	157,130	180,810	226,823	175,210
16	62,233	96,940	59,815	135,141	122,065
17	37,124	37,475	27,218	67,543	84,070
18	20,460				
TOTAL DAYS USE	4,575,229	5,258,672	4,583,059	7,939,610	901,519

* Indicates peak concentration

COMMENTS:

DUCK DAY USE BY SPECIES FOR REFUGE DISTRICTS
Upper Mississippi River Wildlife and Fish Refuge
Period: January - April 1973

SPECIES	Winona District	La Crosse District	Lansing District	Prairie District	Cassville District	Sav.-Clinton District	Refuge TOTALS
Mallard	276,535	117,320	245,280	79,940	135,408	81,046	935,529
Black	80,815	2,905	15,260	980	4,193	2,422	106,575
Gadwall	16,870	1,190	1,540	1,610		1,680	22,890
Baldpate	29,435	7,805	60,200	14,630	12,089	57,848	182,007
Pintail	10,220	4,620	33,180	8,925	7,294	15,750	79,989
G.w.teal	14,175	1,435	17,920	4,970	630	9,184	48,314
B.w.teal	39,795	3,675	41,020	10,290	2,590	22,225	119,595
Shoveller	10,255	665	34,020	3,080	490	11,935	60,445
Wood duck	122,010	10,997	72,800	23,520	27,405	25,102	281,834
Redhead	23,345	7,665	46,900	7,735	3,850	15,029	104,524
Ring-neck	83,720	38,780	102,200	17,500	14,560	12,271	262,731
Canvasback	245,560	182,630	123,200	54,250	13,510	26,880	652,330
Scaup	121,660	498,120	634,340	506,310	592,550	524,545	2,877,525
Golden-eye	21,805	35,763	48,230	22,610	8,673	22,127	159,208
Bufflehead	15,400	16,100	30,800	6,545	910	3,094	72,849
Ruddy	3,605	2,835	7,770	8,995		23,562	46,767
Mergansers	59,150	56,875	79,800	29,470	24,031	48,195	297,521
Old squaw							
Scoters							
Unidentified							
Totals:	1,174,355	989,380	1,594,460	801,360	848,183	902,895	6,310,633
% of total use:							
Previous year totals:							
% of total use:							
% of change							

Comments:

COMPARISONS OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: January-April, 1973

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change: Decrease	Per cent of Change: Increase	Peak Dates*: 1972	Peak Dates*: 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change: Decrease	Per cent of Change: Increase
CANADA GEESE										
Winona	625	395	36.8%		4/15	3/24	14,175	7,070	50.1%	
La Crosse	500	570		14.0	3/31	3/24	15,939	14,140	11.3	
Lansing	85	100		17.6	3/25	3/10-17	1,701	1,960		15.2
Prairie	56	75		33.9	3/18	3/10	567	1,134		100+
Cassville	100	34	66.0		3/18	3/10	1,015	238	76.6	
Sav.-Clinton	6,500	6,000	7.7		3/11	3/3	108,150	48,538	55.1	
TOTALS:	6,606	6,080	8.0%		3/11	3/3	141,547	73,080	48.4%	
BLUE & SNOW GEESE										
Winona	100	5	95.0%		3/25	3/24	700	49	93.0%	
La Crosse										
Lansing	1	10		100+	3/25	3/17-31	7	217		100+
Prairie										
Cassville	40	0	100+		3/4		280	0	100+	
Sav.-Clinton	80	0	100+		3/11		840	0	100+	
TOTALS:	101	15	85.2%		3/25	3/24	1,827	266	85.5%	
WHITEFRONT GEESE										
Winona										
La Crosse										
Lansing	37	0	100+		4/8		259	0	100+	
Prairie										
Cassville										
Sav.-Clinton										
TOTALS:	37	0	100%		4/8		259	0	100%	
ALL GEESE COMBINED										
TOTALS:							143,374	73,346	48.8%	

*Week ending.

Comments:

COMPARISON OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: January-April, 1973

Species: Swan

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
Winona	7,100	375	94.7%		4/15	4/21	101,815	9,114	91.1%	
La Crosse	700	90	87.2		4/8	4/14	7,154	637	91.1	
Lansing	116	30	74.1		4/8	3/24 4/7	1,162	966	16.9	
Prairie	38	0	100+		3/31		266	0	100+	
Cassville	-	-		+						
Sav.-Clinton	16	0	100+		3/25 3/31		252	0	100+	
TOTALS:	7,360	400	94.6%		4/15	4/14	110,649	10,717	90.3%	

*Week ending.

Comments:

COMPARISON OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: January-April, 1973

Species: Coot

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
Winona	9,500	10,000		5.3%	4/22	4/14	176,120	168,735	4.2%	
La Crosse	8,300	5,480	34.0%		4/29	4/28	142,520	107,380	24.7	
Lansing	7,917	8,000		1.0	4/15	4/14	173,551	178,570		2.9%
Guttenberg Prairie	860	5,455		100+	3/31	4/14	8,575	103,705		100+
Cassville	7,000	2,200	68.6		4/22	4/21	117,250	324,424	72.4	
Sav.-Clinton	6,500	10,770		65.7	4/22	4/14	105,700	176,652		67.1%
TOTALS	35,283	37,825		7.2%	4/22	4/14	723,716	767,466		6.0%

*Week ending.

Comments:

5 Yr. & 10 Yr. COMPARISON OF PEAK NUMBERS AND TOTAL DAYS USE BY WATERFOWL

Refuge: Upper Mississippi Refuge
Period: January-April, 1973

Year	DUCKS		COOTS		ALL CANADA GEESE		SWANS	
	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use
1963	165,745	4,335,716	62,750	1,442,007	2,309	52,381	1,900	27,398
1964	208,401	5,381,364	62,700	936,991	1,049	29,834	1,933	19,149
1965	178,680	4,071,179	97,800	1,612,175	2,558	40,405	1,591	21,407
1966	172,710	4,832,800	41,700	637,030	2,565	47,550	6,230	74,570
1967	166,375	3,514,373	38,900	724,070	1,395	21,600	5,355	20,564
1968	132,030	4,144,108	59,000	1,179,400	730	16,288	342	2,114
1969	216,211	4,575,229	50,945	1,173,390	2,547	44,197	1,550	15,529
1970	210,891	5,258,672	95,890	1,622,000	9,857	200,407	3,142	32,177
1971	200,525	4,583,059	77,340	1,190,168	4,640	111,674	5,126	53,601
1972	260,534	7,939,610	35,283	723,716	6,606	141,547	7,360	110,649
Current Year 1973	195,210	6,310,633	37,825	767,466	1,159	73,080	400	10,717
Previous 5-Yr. Average	204,038	5,300,135	63,691	1,177,734	4,876	102,822	3,504	42,814
Previous 10-Yr. Average	191,210	4,863,611	62,230	1,124,094	3,426	70,588	3,453	37,716
% Change from 5 Yr. Average	- 4.3%	+ 19.1%	- 40.6%	- 34.8%	- 76.2%	- 28.9%	- 88.6%	- 75.0%
% Change from 10 Yr. Average	+ 2.1%	+ 29.8%	- 39.2%	- 31.7%	- 66.2%	+ 3.5%	- 88.4%	- 71.6%

Comments:

UM-4

PERCENTAGE COMPOSITION BY SPECIES OF TOTAL DUCK DAY USE
Refuge: Upper Mississippi Refuge
Period: May 1 to August 30, 1973

Species	Percent of total duck day use					
	1971		1972		1973	
	% of use	Order	% of use	Order	% of use	Order
Mallard	37.85	2	37.55	2	26.65	2
Black duck	.58	8	.50	8	1.45	6
Gadwall	.03	10	.05	12	.04	15
Baldpate	.72	7	.94	7	.61	9
Pintail	.12	10	.16	10	.16	12
G.w.teal	1.46	5	1.51	6	1.07	7
B.w.teal	10.46	3	11.11	3	11.10	3
Shoveler	.60	8	.31	9	.48	10
Wood duck	45.33	1	40.20	1	45.10	1
Redhead	trace	13	.02	16	.03	16
Ring-neck	.04	11	.04	13	.26	11
Canvasback	trace	15	.14	11	.77	8
Lesser scaup	.83	6	4.19	4	7.95	4
Golden-eye	trace	14	.01	17	.01	17
Bufflehead	trace	12	.03	14	.13	13
Ruddy	-	-	.03	15	.05	14
Mergansers	2.08	4	3.20	5	4.09	5
Old squaw						
Scoters						

Comments:

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: Upper Mississippi Refuge
Period: May 1 - August 30, 1973

Week of Period:	1969	1970	1971	1972	1973
1	11,980	15,460	17,243	33,851	56,080
2	10,505	12,245	12,829	19,240	32,775
3	9,962	10,430	11,409	14,212	22,130
4	9,640	10,210	10,800	13,358	17,645
5	9,730	10,195	10,430	12,868	16,370
6	10,445	10,425	10,725	18,021	16,215
7	10,535	11,185	10,595	22,752	16,070
8	13,475	14,255	10,895	23,800	16,665
9	14,225	15,205	11,954	24,455	19,945
10	17,190	18,295	18,999	25,946	20,538
11	25,630	22,865	24,143	26,445	22,267
12	25,960	25,020	24,335	26,955	23,622
13	26,715	26,060	27,700	27,645	24,047
14	28,115	26,495	30,060	26,375	25,650
15	29,840	27,775	34,095	28,520	27,245
16	33,905	30,480	38,630	33,210	31,955
17	41,020	38,200	44,015	39,505	38,175
18				50,980	46,935
TOTAL DAYS USE	2,202,985	2,119,655	2,423,423	3,277,246	474,329

* Indicates peak concentration

COMMENTS:

DUCK DAY USE BY SPECIES FOR REFUGE DISTRICTS
Upper Mississippi River Wildlife and Fish Refuge
Period: May - August 1973

SPECIES	Winona District	La Crosse District	Lansing District	Prairie District	Cassville District	Sav.-Clinton District	Refuge TOTALS
Mallard	294,875	241,500	79,800	26,250	98,700	144,410	885,535
Black	35,350	4,305	4,620			3,780	48,055
Gadwall	1,260						1,260
Baldpate	4,935	2,156	11,690	280		1,120	20,181
Pintail	1,295		2,940	525		455	5,215
G.w.teal	23,415	1,232	5,600			5,320	35,567
B.w.teal	119,175	52,675	117,600	10,570	22,400	46,410	368,830
Shoveller	6,755		8,190			1,120	16,065
Wood duck	472,150	86,100	320,600	205,310	173,600	240,450	1,498,210
Redhead	525	70	420				1,015
Ring-neck	5,950	840	1,130			700	8,610
Canvasback	21,595	2,828	1,050				25,473
Scaup	6,895	149,975	81,270	2,975		23,135	264,250
Golden-eye		70	70				140
Bufflehead	595	3,150	700				4,445
Ruddy	105	602	420			420	1,547
Mergansers	77,315	3,920	36,120	5,110	8,540	4,900	135,905
Old squaw							
Scoters							
Unidentified							
Totals:	1,072,190	549,423	672,210	251,020	303,240	472,220	3,320,303
% of total use:	32.27%	16.54%	20.23%	7.56%	9.13%	14.21%	100%
Previous year totals:	483,833	1,190,126	606,417	235,620	493,215	336,490	3,277,246
% of total use:	14.76%	36.30%	18.50%	7.19%	13.40%	10.26%	100%
% of change	+121.60%	- 53.83%	+10.84%	+ 6.53%	-30.95%	+40.33%	+ 1.31%

Comments:

COMPARISONS OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: May through August 1973

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
CANADA GEESE										
Winona	10	-	100%		5/6		105	-	100%	
La Crosse	90	100		11%	7/8-9/2	5/5-9/1	9,863	12,600		28%
Lansing	-	-					-	-		
Prairie	-	-					-	-		
Cassville	2	-	100%		5/13		14	-	100%	
Sav.-Clinton	112	270		100%	7/29	7/7-9/1	9,800	25,620	100%	
TOTALS:	202	370		83%	7/29	7/7-9/1	19,782	38,220		93%
SNOW GEESE										
Winona										
La Crosse										
Lansing										
Prairie										
Cassville										
Sav.-Clinton										
TOTALS:	None									
BLUE GEESE										
Winona										
La Crosse										
Lansing										
Prairie										
Cassville										
Sav.-Clinton										
TOTALS:	None									
ALL GEESE COMBINED										
TOTALS:							19,782	38,220		

*Week ending.

Comments:

COMPARISON OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: May - August 1973

Species: Swan

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
Winona	275	75	73%		5/6	5/5	2135	735	66%	
La Crosse										
Lansing										
Prairie										
Cassville										
Sav.-Clinton										
TOTALS:	275	75	73%		5/6	5/5	2135	735	66%	

*Week ending.

Comments:

M-8

COMPARISON OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: May - August 1973

Species: Coot

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
Winona	3,000	1,500	50%		5/6	5/5	68,460	59,325	13%	
La Crosse	5,000	3,000	40%		5/6	5/5 & 9/1	78,680	135,450		72%
Lansing	2,408	2,500		4%	5/6	5/5	63,581	70,000		10%
Guttenburg Prairie	530	700		32%	5/6	5/5	7,140	7,840		10%
Cassville	2,500	400	84%		5/6	5/5-6/2	50,260	26,600	47%	
Sav.-Clinton	1,000	1,200		20%	5/6	5/5	10,990	38,710		100%
TOTALS:	14,438	9,300	36%		5/6	5/5	279,111	337,925		21%

*Week ending.

Comments:

5 Yr. & 10 Yr. COMPARISON OF PEAK NUMBERS AND TOTAL DAYS USE BY WATERFOWL

Refuge: Upper Mississippi Refuge
Period: May-August, 1973

Year	DUCKS		COOTS		ALL CANADA GEESE		SWANS	
	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use
1963	43,247	2,716,266	15,550	262,500	150	13,559	0	0
1964	33,970	2,187,623	5,750	166,285	91	9,270	1	26
1965	32,550	1,618,911	8,750	126,725	60	5,615	0	0
1966	43,146	2,393,127	13,130	153,530	39	3,771	0	0
1967	59,740	2,705,223	25,000	441,400	60	4,397	0	0
1968	37,735	2,239,333	17,183	317,791	77	6,271	0	0
1969	41,020	2,202,985	2,350	113,150	45	3,820	1	7
1970	38,200	2,119,655	7,000	159,190	112	9,751	5	47
1971	44,015	2,423,423	8,550	219,725	130	10,599	0	0
1972	50,980	3,277,246	14,438	279,111	202	19,782	275	2,135
Current Year 1973	56,080	3,320,303	9,300	337,925	370	5,460	75	735
Previous 5-Yr. Average	42,390	2,452,528	9,904	217,793	113	10,044	56	437
Previous 10-Yr. Average	42,460	2,388,379	11,770	223,940	97	8,684	28	222
% Change from 5 Yr. Average								
% Change from 10 Yr. Average								

Comments:

UM-3

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE
Refuge: Upper Mississippi Refuge
Period: September 1, to December 30, 1973

Species	Peak Numbers 1972	Peak Numbers 1973	Percent of Change Decrease	Percent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DUCK DAYS USE 1972	TOTAL DUCK DAYS USE 1973	Percent of Change Decrease	Percent of Change Increase
Mallard	37,725	47,200		25%	10-7	11-24	2,777,320	3,283,203		18%
Black	3,845	4,026		5%	10-14	10-13	187,075	254,198		36%
Gadwall	2,140	1,850	14%		10-21	10-27	90,965	92,183		1%
Baldpate	52,680	50,281	5%		10-7	10-13	1,650,635	1,825,124		11%
Pintail	6,165	5,765	6%		10-21	11-3	205,240	314,811		53%
G.w.teal	4,685	6,530		39%	10-21	10-6	219,380	232,939		6%
B.w.teal	15,035	16,970		13%	9-16	9-29	509,250	548,429		8%
Shoveler	1,405	1,010	28%		10-7	10-20	46,550	47,404		2%
Wood duck	25,020	29,340		17%	9-30	10-6	968,940	1,320,669		36%
Redhead	5,385	3,810	29%		10-28	10-20	195,265	89,880	54%	
Ring-neck	10,960	27,020		100%+	10-28	11-3	402,290	776,118		93%
Canvasback	48,210	76,395		58%	11-4	11-3	1,694,035	2,260,958		33%
L.scaup	90,955	87,200	4%		11-4	11-3	3,015,705	2,130,135	29%	
Golden-eye	4,260	5,990		41%	11-25	11-17	128,205	123,473	4%	
Bufflehead	2,420	1,820	25%		11-25	11-17	88,935	62,377	30%	
Ruddy	805	1,540		91%	10-28	11-10	29,995	56,350		88%
Mergansers	8,780	7,395	16%		11-25	12-23	201,964	59,101	71%	
Old squaw	-	70		100%	-	11-24		70		100%
Scoters	115	-	100%		11-11	-	1,400	0	100%	
Unident.										
TOTALS	216,265	272,255		26%	10-28	11-3	12,413,149	13,631,632		10%

*Week ending.

Comments:

PERCENTAGE COMPOSITION BY SPECIES OF TOTAL DUCK DAY USE
Refuge: Upper Mississippi Refuge
Period: September-December 1973

Species	Percent of total duck day use					
	1971		1972		1973	
	% of use	Order	% of use	Order	% of use	Order
Mallard	27.00	1	22.36	2	23.97	1
Black duck	1.26	11	1.51	12	1.86	9
Gadwall	.81	14	.73	14	.67	12
Baldpate	17.52	2	13.29	4	13.32	4
Pintail	2.15	8	1.65	9	2.30	8
G.w.teal	1.97	9	1.77	8	1.70	10
B.w.teal	3.95	6	4.10	6	4.00	7
Shoveler	.24	17	.38	16	.35	17
Wood duck	7.15	5	7.80	5	9.64	5
Redhead	.90	13	1.57	11	.66	13
Ring-neck	3.56	7	3.24	7	5.67	6
Canvasback	11.91	4	16.64	3	16.51	2
Lesser scaup	17.32	3	24.28	1	15.55	3
Golden-eye	.80	15	1.03	13	.90	11
Bufflehead	1.10	12	.72	15	.46	14
Ruddy	.43	16	.24	17	.41	16
Mergansers	1.94	10	1.63	10	.43	15
Old squaw	trace	18	-	-	trace	18
Scoters	trace	19	.01	18	-	-

Comments:

UM-5

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: Upper Mississippi Refuge
Period: September 1 to December 30, 1973

Week of Period:	1969	1970	1971	1972	1973
1	56,365	42,515	50,120	67,270	57,905
2	66,980	54,770	60,145	85,950	82,745
3	71,590	68,230	67,785	99,645	97,810
4	80,950	80,115	75,415	119,225	119,770
5	99,415	106,630	101,020	141,610	137,970
6	109,185	106,340	124,495	152,220	159,724
7	146,275	141,800	167,040	198,380	212,001
8	169,500	164,025	197,805	216,265*	220,005
9	180,935*	185,832*	228,585*	208,975	272,255*
10	170,970	146,800	188,885	198,770	163,848
11	148,317	119,558	171,465	106,765	129,803
12	72,375	86,895	146,605	100,030	123,323
13	23,380	43,600	69,530	60,775	104,403
14	37,440	41,365	39,655	9,140	33,290
15	16,810	16,870	43,290	3,645	16,029
16	7,905	6,810	32,180	2,641	12,015
17	3,495	2,455	9,880	2,001	4,480
18	2,350	1,440	4,220		
TOTAL DAYS USE	8,821,735	8,568,971	12,122,110	12,413,149	13,631,632

* Indicates peak concentration

COMMENTS:

DUCK DAY USE BY SPECIES FOR REFUGE DISTRICTS
Upper Mississippi River Wildlife and Fish Refuge
Period: September - December 1973

SPECIES	Winona District	La Crosse District	Lansing District	Guttenberg Prairie District	Cassville District	Sav.-Clinton District	Refuge TOTALS
Mallard	352,940	666,015	613,200	161,028	145,600	1,344,420	3,283,203
Black	96,425	18,620	76,650	3,353	10,290	48,860	254,198
Gadwall	42,385	8,337	21,070	4,956	-	15,435	92,183
Baldpate	79,100	735,210	900,200	25,564	11,900	73,150	1,825,124
Pintail	107,240	79,450	42,700	19,166	12,950	53,305	314,811
G.w.teal	43,715	25,480	96,250	5,439	5,075	56,980	232,939
B.w.teal	84,840	124,950	248,150	31,024	11,725	47,740	548,429
Shoveller	8,610	12,040	11,970	1,309	2,170	11,305	47,404
Wood duck	169,785	116,914	582,400	99,540	108,500	243,530	1,320,669
Redhead	22,330	22,610	30,940	210	1,120	12,670	89,880
Ring-neck	127,575	350,840	218,400	3,143	1,148	72,170	776,118
Canvasback	263,340	1,897,070	65,800	4,235	3,290	30,415	2,260,958
Scaup	100,030	546,245	442,820	25,655	107,800	907,235	2,130,135
Golden-eye	33,565	3,220	66,500	1,708	11,900	6,580	123,473
Bufflehead	13,300	16,450	19,600	462	8,785	3,780	62,377
Ruddy	6,755	15,890	2,030	420	1,750	29,505	56,350
Mergansers	17,850	18,095	17,150	2,471	5,110	3,850	59,101
Old squaw		70					70
Scoters							
Unidentified							
Totals:	1,696,450	4,657,506	3,460,030	390,803	452,788	2,974,055	13,631,632
% of total use:	12.38%	34.00%	25.26%	2.85%	3.31%	21.71%	100%
Previous year totals:	1,278,200	3,978,884	3,848,005	470,225	640,045	2,197,790	12,413,149
% of total use:	10.30%	32.05%	30.99%	3.79%	5.16%	17.71%	100%
% of change							

Comments:

COMPARISON OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: September - December 1973

Species: Swan

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
Winona	7,770	2,620	67%		11/18	11/24	204,211	89,124	56%	
La Crosse	367	380		4%	11/25	11/17	7,532	7,294	3%	
Lansing	183	300		100%	11/25	11/24	2,205	3,325		51%
Prairie	1	-	100%		11/25		7	-	100%	
Cassville	2	2	0%	0%	11/4 11/11	10/6	28	14	50%	
Sav.-Clinton	11	17		55%	11/18	11/10	413	196	53%	
TOTALS	8,334	3,170	62%		11/18	11/24	214,396	99,953	53%	

*Week ending.

Comments:

COMPARISON OF PEAK NUMBERS-PEAK DATES-TOTAL DAYS USE
Upper Mississippi River Wildlife and Fish Refuge
Period: September - December, 1973

Species: Coot

District	Peak Numbers 1972	Peak Numbers 1973	Per cent of Change Decrease	Per cent of Change Increase	Peak Dates* 1972	Peak Dates* 1973	TOTAL DAYS USE 1972	TOTAL DAYS USE 1973	Per cent of Change Decrease	Per cent of Change Increase
Winona	30,000	50,000		67%	9/30	10/13	1,219,400	1,645,770		35%
La Crosse	55,000	52,800	4%		10/28	10/6	1,752,450	1,899,234		8%
Lansing	58,750	40,000	32%		10/7	10/6	1,898,610	1,033,200	46%	
Prairie	14,100	27,300		94%	10/14	10/20	488,075	525,420		8%
Cassville	25,000	1,800	93%		10/21 10/28	9/22 9/29	736,890	78,750	89%	
Sav.-Clinton	9,000	13,700		52%	10/21	10/27	236,250	375,410		59%
TOTALS:	191,850	155,200	19%		10/28	10/20	6,331,675	5,557,804	12%	

*Week ending.

Comments:

UM-8A

5 Yr. & 10 Yr. COMPARISON OF PEAK NUMBERS AND TOTAL DAYS USE BY WATERFOWL

Refuge: Upper Mississippi River Fish and Wildlife Refuge
Period: September - December , 1973

Year	DUCKS		COOTS		ALL CANADA GEESE		SWANS	
	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use
1963	222,600	13,046,096	202,100	7,570,220	1,625	68,994	211	3,171
1964	186,978	10,108,499	196,100	7,395,906	1,196	50,805	96	883
1965	196,695	10,660,270	170,500	5,088,250	1,643	83,168	132	3,091
1966	198,055	9,719,695	244,000	4,774,030	2,400	58,793	1,038	20,396
1967	160,445	8,219,388	131,800	4,123,230	1,705	61,850	730	11,782
1968	117,912	6,507,257	126,500	3,716,045	2,530	89,068	925	16,769
1969	180,935	8,821,735	168,860	5,226,870	3,775	142,201	753	19,479
1970	185,832	8,568,971	202,700	5,782,420	4,000	162,481	1,080	27,348
1971	228,585	12,122,110	174,000	5,730,060	4,593	185,461	1,418	36,335
1972	216,265	12,413,149	147,905	6,331,675	2,657	153,594	8,153	214,396
Current Year 1973	272,255	13,631,632	155,200	5,557,804	3,165	187,103	3,170	99,953
Previous 5-Yr. Average	185,905	9,686,644	163,993	5,357,414	3,511	146,561	2,465	62,865
Previous 10-Yr. Average	189,430	10,018,717	176,446	5,573,870	2,612	105,641	1,453	35,365
% Change from 5 Yr. Average	+46.5%	+40.7%	-5.4%	+3.7%	-9.8%	+27.6%	+28.6%	+59%
% Change from 10 Yr. Average	+43.7%	+75.4%	-12.0%	-.3%	+21%	+77%	+118.2%	+182.6%

Comments:

5 Yr. & 10 Yr. COMPARISON OF PEAK NUMBERS AND TOTAL DAYS USE BY WATERFOWL

Refuge: Upper Mississippi River Fish and Wildlife Refuge
Period: January - December, 1973

Year	DUCKS		COOTS		ALL CANADA GEESE		SWANS	
	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use	Peak Nos.	Days Use
1963	222,600 F	20,098,078	202,100 F	9,274,727	2,309 S	134,934	1,900 S	30,569
1964	208,401 S	17,677,486	196,100 F	8,499,082	1,196 F	89,909	1,933 S	20,058
1965	196,695 F	16,350,360	170,500 F	6,827,150	2,538 S	129,188	1,591 S	24,498
1966	198,055 F	16,945,622	244,000 F	5,564,590	2,565 S	110,114	6,230 S	94,966
1967	166,375 S	14,438,984	131,800 F	5,288,700	1,705 F	87,847	5,355 S	32,346
1968	132,030 S	12,890,698	126,500 F	5,213,236	2,350 F	111,627	925 F	18,883
1969	216,211 S	15,599,949	168,860 F	6,513,410	3,775 F	190,218	1,550 S	35,015
1970	210,891 S	15,947,298	202,700 F	7,563,610	9,857 S	372,639	3,142 S	59,572
1971	228,585 F	19,128,592	174,000 F	7,139,953	32,544 S	349,827	5,126 S	89,950
1972	260,534 S	23,630,005	147,905 F	7,334,502	5,226 S	314,923	7,360 S	327,180
Current Year 1973	272,255 F	23,262,568	155,200 F	6,663,195	3,165 F	265,643	3,170 F	111,405
Previous 5-Yr. Average	209,650	17,439,308	163,993	6,752,942	10,786	267,846	3,620	106,120
Previous 10-Yr. Average	204,038	17,270,707	176,446	6,921,896	6,424	189,122	3,511	73,304
% Change from 5 Yr. Average	+29.9%	+33.4%	-5.4%	-1.4%	-70.7%	-.8%	-12.4%	+5.0%
% Change from 10 Yr. Average	+33.4%	+34.7%	-12.0%	-3.8%	-50.8%	+40.5%	-9.8%	+52.0%

Comments:

PLANNING AND ACCOMPLISHMENT REPORT
FY-73
PART I - FINANCIAL

UPPER MISS R W&F REFUGE
03-3527-00

WE CODE	WORK ELEMENT	WE UNITS	**********PLANNED********** UNITS	FUNDS	PMM	******ACCOMPLISHED****** UNITS	FUNDS	PMM	*DEVIATION (+/-%)* UNITS	FUNDS	PMM
CAPITAL INVESTMENT											
TOTAL CAPITAL INVESTMENT											
	TOTAL										
OPERATION AND MAINTENANCE											
OPERATIONS											
2-01	OPERATION-ANALYSIS	NO. TESTS				6			+999%		
2-02	OPERATION-SURVEYS	NO. SURVEY	655	55,000	31.9	11,072	12.4	-100%	-80%	-61%	
2-03	OPERATION-FARMING	A. FARMED	425	2,900	2.0	273	.3	-100%	-91%	-85%	
2-04	OPERATION-GRASSLD PRAC	A. TREATED	200	3,500	1.7			-100%	-100%	-100%	
2-05	OPERATION-PEST PLT CON	A. TREATED	310	4,100	1.5	232	.3	-100%	-94%	-83%	
2-07	OPERATION-WAT LEVEL MGT	A. MANAGED	1,100	41,800	26.0	1,355	.6	-100%	-97%	-98%	
2-08	OPERATION-PRESCRIB BURN	A. BURNED	250	1,400	.5			-100%	-100%	-100%	
2-11	OPERATION-ANIMAL CONT	NO. AN CON	50	1,050	1.0	328	.4	-100%	-69%	-60%	
2-12	OPERATION-DISEASE CONT	NO. PROGMS				44			+999%		
2-14	OPERATION-BIRD MARKING	NO. MARKED				31			+999%		
2-16	OPERATION-ANIM COLLECT	NO. COLCTD				31			+999%		
2-18	OPERATION-FEEDING	LBS. FED				24			+999%		
2-20	OPERATION-LITTER CONT	NO. PROJCT	7	17,300	11.0	2,222	2.5	-100%	-87%	-77%	
2-21	OPERATION-PUBLIC INQ	NO. RESPON	1,000	3,100	4.0	400	.3	-100%	-87%	-93%	
2-22	OPERATION-PUBLIC PROG	NO. PROGMS	300	11,500	7.1	6,705	7.1	-100%	-42%		
2-23	OPERATION-PROTECTION	AS APP		22,100	11.0	8,564	8.7		-61%	-21%	
2-25	OPERATION-BUREAU ACT	NO. PROJCT	6	4,800	2.5	4,532	6.1	-100%		+144%	
2-26	OPERATION-SPECIAL SER	NO. PROJCT	3	1,900	2.0	974	.9	-100%	-49%	-55%	
2-27	OPERATION-OTH OPERATION	AS APP		3,900	11.8	4,964			+27%	-100%	
SUPPORTING FACILITIES											
2-40	SUP FAC-BLDG-QTRS	SQ. FT	2,894	500		165	.2	-100%	-67%	+999%	
2-41	SUP FAC-BLDG-GEN NON-RC	SQ. FT	31,223	3,800	1.0	6,912	5.3	-100%	+82%	+430%	
2-42	SUP FAC-BLDG-RECREATION	SQ. FT	3,232	1,900		88	.1	-100%	-95%	+999%	
2-45	SUP FAC-S&I-RECREATION	AS APP		9,600	14.5	3,821	2.3		-60%	-84%	
2-46	SUP FAC-S&I-TRANS NON-R	AS APP				236	.3		+999%	+999%	
2-47	SUP FAC-S&I-WATER	AS APP				1,015	1.1		+999%	+999%	
2-49	SUP FAC-S&I-OTHER	AS APP		34,500	29.5	5,613	4.2		-84%	-86%	
SUPPORTING SERVICES											
2-60	SUP SER-PLANNING	NO. PLANS	6	1,050	6.0	13,323	11.3	-100%	+999%	+8%	
2-61	SUP SER-TRAINING	HRS TRAING	120	900	1.0	308	.3	-100%	-66%	-70%	

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF SPORT FISHERIES AND WILDLIFE
FEB 19 1974

PLANNING AND ACCOMPLISHMENT REPORT
FY-73
PART I - FINANCIAL

UPPER MISS R W&F REFUGE
03-3527-CC

WE CODE	WORK ELEMENT	WE UNITS	**********PLANNED********** UNITS	FUNDS	PMM	******ACCOMPLISHED****** UNITS	FUNDS	PMM	*DEVIATION (+/-%)* UNITS	FUNDS	PMM
2-62	SUP SER-ADMINISTRATION	AS APP		10,500	21.0		80,077	76.2		+663%	+263%
2-64	SUP SER-REALTY	AS APP					121	.1		+999%	+999%
2-65	SUP SER-BUREAU OVERHEAD	AS APP					40			+999%	
SUPPORTING EQUIPMENT											
2-70	SUP EQUIP-AIRCRAFT	HRS OPERTD					107	.1		+999%	+999%
2-71	SUP EQUIP-AUTO EQUIP	MI OPERTD	155,000	9,900	12.0		9,668	4.6	-100%		-62%
2-72	SUP EQUIP-FARM EQUIP	HRS OPERTD	20	100	.6		6		-100%	-94%	-100%
2-73	SUP EQUIP-HEAVY EQUIP	HRS OPERTD	20	200	.6		1,243		-100%	+999%	-100%
2-74	SUP EQUIP-WATERCRAFT	HRS OPERTD	500	500	3.0		7,841	4.5	-100%	+999%	+50%
2-75	SUP EQUIP-OTH MOTOR EQ	HRS OPERTD	100	100	.8		140	.2	-100%	+40%	-75%
MISCELLANEOUS											
2-80	INVALID W.E. FOR FIELD	(INVALID)					45			+999%	
TOTAL OPERATIONS & MAINTENANCE											
	TOTAL			247,900	204.0		181,526	150.5		-27%	-26%
EXPENDITURES BY PLANNING ALLOWANCE											
3-01	ACTIVITY-0113	N/A		247,900						-100%	
3-15	ACTIVITY-1116	N/A					181,526			+999%	
3-16	ACTIVITY-2720	N/A					181,526			+999%	

NATIONAL WILDLIFE REFUGE SYSTEM

REPORT OF UNIT PRODUCTION COSTS

UPPER MISS R W&F REFUGE

3-5527-00

PROCESSING DATE 01/28/74

COST DATA BASE FINAL FIELD STATIONFY-73 ALL QUARTERS
OUTPUT DATA BASE PRODFILE ADJUSTED12/12/73

OE	OUTPUT ELEMENT	OE UNITS	UNITS PRODUCED	O&M DOLLARS SPENT	MAN-HOURS UTILIZED	DOLLARS PER UNIT PRODUCED	MAN-HOURS PER UNIT PRODUCED
38	PUBLIC AFFAIRS			11189.00	160		
		ORGANIZATION TOTAL		11189.00	160		

PLANNING AND ACCOMPLISHMENT REPORT
FY-73
PART II - OUTPUT PRODUCTION

UPPER MISS R W&F REFUGE
03-3527-00

OE CODE	OUTPUT ELEMENT	OE UNITS	PLANNED UNITS	ACCOMPLISHED UNITS	ACCOMPLISHED RBU'S	DEVIATION
WILDLIFE-WILDLANDS INTERPRETATION						
6-10	TRAILS	ACT HOURS	628	2,643	233,700	+321%
6-11	TOUR ROUTES	ACT HOURS	125	299	29,900	+139%
6-14	EXHIBITS - DEMONSTRATNS	ACT HOURS	50	11,712	960,375	+999%
6-15	OTHER PROGRAMS	ACT HOURS	30,620	17,115	964,125	-44%
ENVIRONMENTAL EDUCATION						
6-20	STUDENTS	ACT HOURS	2,038	2,411	361,650	+18%
6-21	TEACHERS	ACT HOURS	1,440	6	1,500	-100%
6-22	PROFESSIONAL SERVICES	ACT HOURS	302	67	16,750	-78%
WILDLIFE-WILDLANDS RECREATION						
6-30	HUNTING MIGRATORY BIRDS	ACT HOURS	351,007	395,008	19,750,400	+12%
6-31	HUNTING RESIDENT GAME	ACT HOURS	40,626	24,750	662,995	-39%
6-32	FISHING	ACT HOURS	3,950,899	3,498,030	87,450,750	-11%
6-33	OTHER CONSUMPTIVE REC	ACT HOURS	4,810	546	5,460	-89%
6-34	WILDLIFE OBSERVATION	ACT HOURS	171,400	110,351	5,500,350	-36%
6-35	WILDLIFE APPRECIATION	ACT HOURS	538,820	566,707	8,500,605	
6-36	PHOTOGRAPHY	ACT HOURS	21,170	24,532	1,226,600	+16%
6-37	FIELD TRIALS	ACT HOURS	300			-100%
6-38	PUBLIC AFFAIRS	PROGRAMS	129	83	66,550	-36%
NON WILDLIFE ORIENTED RECREATION						
6-40	CAMPING	ACT HOURS	2,973,407	3,133,661		
6-41	PICNICKING	ACT HOURS	308,638	561,211		+82%
6-42	SWIMMING	ACT HOURS	637,962	916,235	2,146,076	+44%
6-43	BOATING	ACT HOURS	1,271,444	1,492,845	2,427,125	+17%
6-44	WATER SKIING	ACT HOURS	295,973	388,461	1,555,650	+31%
6-45	OFF ROAD VEHICLING	ACT HOURS		3,796		+999%
6-46	OTHER NON W/W ORIENTED	ACT HOURS		45,848	301,600	+999%
PROFESSIONAL SERVICES						
6-50	STUDIES & PUBLICATIONS	EACH	1	6	180,000	+500%
6-55	ECOLOGICAL MONITORING	PROGRAM	20	15	1,270,000	-25%
6-56	BANDING	PROGRAM	2	~~72~~	218,500	+250%
6-57	OTHER COOPERATIVE PRGMS	PROGRAM	1	8	170,000	+700%
ENVIRONMENTAL PRESERVATION						
6-60	NATURAL ENVRNMT PRESRVD	ACRE	195,707	~~152,568~~ 195,707	3,051,360	-22%
6-61	NATURAL AREAS	AREA	3	3	3,000,000	
6-64	SCIENTIFIC SITES	AREA	1	1		-100%

PLANNING AND ACCOMPLISHMENT REPORT
FY-73
PART II - OUTPUT PRODUCTION

UPPER MISS R W&F REFUGE
03-3527-0C

WE CODE	OUTPUT ELEMENT	OE UNITS	PLANNED UNITS	ACCOMPLISHED UNITS	ACCOMPLISHED RBU'S	DEVIATION
WILDLIFE						
6-72	THREATENED SPECIES	USE DAYS	1,113	1,389	18,790	+25%
6-71	SPECIAL RECOG SPECIES	USE DAYS	3,581,039	12,689,587	6,716,837	+254%
6-72	WILDLIFE DIVERSITY	NO. SPECS	253	1,700	56,166,666	+572%
6-73	WATERFOWL MAINTENANCE	USE DAYS	16,425,681	21,926,040	21,926,040	+33%
6-80	WATERFOWL PRODUCTION	EA. ANIMAL	14,691	19,397	14,643,400	+32%
6-82	SPECIES DONATED	EA. ANIMAL	12	4	7,000	-67%
ECONOMIC BENEFITS						
6-91	FOREST PRODUCTS	DOLLARS	3,130	4,153		+33%
6-93	GRAZING	DOLLARS	372	21		-94%
6-94	FURBEARERS	DOLLARS	3,571	2,301		-36%
6-96	CONCESSIONS	DOLLARS	250	1,036		+314%
6-98	OTHER (WATER FEES ETC)	DOLLARS	6,727	2,081	1,258	-69%
PROGRAM ANALYSIS						
8-10	TOTAL ANNUAL BENEFITS	RBU'S	226,577,000		239,532,412	

NWRS COST INFORMATION SYSTEM
OUTPUT ELEMENT COST REPORT
WITH WORK ELEMENT DETAIL

OFINAL OFIELDOSTATION DATA BASE
FY-73 ALL QUARTERS

UPPER MISS R W&F REFUGE

03-3527-00

PROCESSING DATE 12-11-73

OE CODE	OUTPUT ELEMENT	WE CODE	WORK ELEMENT	WE UNITS	UNITS ACCOMPLSHD	TOTAL MAN-HOURS	TOTAL O&M COST	MAN HOURS PER UNIT	O&M COST PER UNIT
38	PUBLIC AFFAIRS	22	OPERATION-PUBLIC PROG	NO. PROGMS	0	0	150.00		
		27	OPERATION-OTH OPERATION	AS APP	0	0	11.00		
		41	SUP FAC-BLDG-GEN NON-RC	SQ. FT	0	0	4.00		
		62	SUP SER-ADMINISTRATION	AS APP	0	160	667.00		
		71	SUP EQUIP-AUTO EQUIP	MI OPERTD	0	0	69.00		
		73	SUP EQUIP-HEAVY EQUIP	HRS OPERTD	0	0	10200.00		
		74	SUP EQUIP-WATERCRAFT	HRS OPERTD	0	0	88.00		
				OUTPUT ELEMENT TOTALS		160	11189.00		
3	OBJECTIVE FUNCTION TOTALS FOR RECREATION - WILDLIFE WILDLANDS					160	11189.00		
				ORGANIZATION TOTALS		160	11189.00		

NWRS COST INFORMATION SYSTEM
OBJECTIVE FUNCTION COST REPORT
FINAL FIELD STATION DATA BASE
FY-73 ALL QUARTERS

UPPER MISS R W&F REFUGE
03-3527-00

PROCESSING DATE 12/15/73

OF CODE	OBJECTIVE FUNCTION	TOTAL MAN-HOURS	TOTAL O&M COST
3	RECREATION - WILDLIFE WILDLANDS	160	11,189.00
	ORGANIZATIONAL TOTAL	160	11,189.00

HEADQUARTERS DISTRICT
03-3527-07

WE CODE	WORK ELEMENT	WE UNITS	PLANNED UNITS	PLANNED FUNDS	PLANNED PMM	ACCOMPLISHED UNITS	ACCOMPLISHED FUNDS	ACCOMPLISHED PMM	DEVIATION (+/-%) UNITS	DEVIATION (+/-%) FUNDS	DEVIATION (+/-%) PMM
OPERATION AND MAINTENANCE											
OPERATIONS											
2-02	OPERATION-SURVEYS	NO. SURVEY					438	.4	+999%	+999%	
2-11	OPERATION-ANIMAL CONT	NO. AN CON					13		+999%		
2-14	OPERATION-BIRD MARKING	NO. MARKED					31		+999%		
2-20	OPERATION-LITTER CONT	NO. PROJCT					339	.1	+999%	+999%	
2-21	OPERATION-PUBLIC INQ	NO. RESPON					394	.3	+999%	+999%	
2-22	OPERATION-PUBLIC PROG	NO. PROGMS					2,378	2.5	+999%	+999%	
2-23	OPERATION-PROTECTION	AS APP					711	.6	+999%	+999%	
2-25	OPERATION-BUREAU ACT	NO. PROJCT					36	.1	+999%	+999%	
2-26	OPERATION-SPECIAL SER	NO. PROJCT					57	.1	+999%	+999%	
2-27	OPERATION-OTH OPERATION	AS APP					2,308		+999%		
SUPPORTING FACILITIES											
2-41	SUP FAC-BLDG-GEN NON-RC	SQ. FT					3,029	1.8	+999%	+999%	
2-45	SUP FAC-S&I-RECREATION	AS APP					304	.2	+999%	+999%	
2-49	SUP FAC-S&I-OTHER	AS APP					2,202		+999%		
SUPPORTING SERVICES											
2-60	SUP SER-PLANNING	NO. PLANS					11,657	9.2	+999%	+999%	
2-61	SUP SER-TRAINING	HRS TRAING					160	.2	+999%	+999%	
2-62	SUP SER-ADMINISTRATION	AS APP					43,834	39.8	+999%	+999%	
2-64	SUP SER-REALTY	AS APP					121	.1	+999%	+999%	
SUPPORTING EQUIPMENT											
2-70	SUP EQUIP-AIRCRAFT	HRS OPERTD					80		+999%		
2-71	SUP EQUIP-AUTO EQUIP	MI OPERTD					3,710	1.4	+999%	+999%	
2-74	SUP EQUIP-WATERCRAFT	HRS OPERTD					4,071	1.1	+999%	+999%	
2-75	SUP EQUIP-OTH MOTOR EQ	HRS OPERTD					126	.2	+999%	+999%	
TOTAL OPERATIONS AND MAINTENANCE											
	TOTAL						75,999	58.2	+999%	+999%	
EXPENDITURES BY PLANNING ALLOWANCE											
3-15	ACTIVITY-1116	N/A					75,999		+999%		
3-16	ACTIVITY-2720	N/A					75,999		+999%		

NATIONAL WILDLIFE REFUGE SYSTEM

REPORT OF UNIT PRODUCTION COSTS

HEADQUARTERS DISTRICT

PROCESSING DATE 01/28/74

COST DATA BASE FINAL FIELD STATIONFY-73 ALL QUARTERS
OUTPUT DATA BASE PRODFILE ADJUSTED12/12/73

CODE	OUTPUT ELEMENT	CO UNITS	UNITS PRODUCED	O&M DOLLARS SPENT	MAN-HOURS UTILIZED	DOLLARS PER UNIT PRODUCED	MAN-HOURS PER UNIT PRODUCED
11	FIELD ROUTES			369.00	55		
12	CENTERS			705.00	94		
13	CONTACT STATIONS			808.00	115		
14	EXHIBITS - DEMONSTRATNS			1998.00	303		
15	OTHER PROGRAMS			9842.00	1383		
16	STUDENTS			320.00	43		
30	HUNTING MIGRATORY BIRDS			1664.00	207		
32	FISHING			48.00	7		
34	WILDLIFE OBSERVATION			659.00	95		
36	PUBLIC AFFAIRS			3840.00	511		
38	BOATING			40.00	5		
39	OFF-ROAD VEHICLING			27.00	5		
41	STUDIES & PUBLICATIONS			14909.00	1828		
50	ECOLOGICAL MONITORING			44.00	6		
56	BANDING			416.00	66		
57	OTHER COOPERATIVE PRGMS			635.00	92		
61	NATURAL AREAS			1105.00	139		
62	WILDERNESS AREAS			31464.00	4127		
70	MANAGED GRAZING			2366.00	313		
72	WILDLIFE DIVERSITY			83.00	9		
73	MATERIAL MAINTENANCE			143.00	20		
91	FOREST PRODUCTS			368.00	47		
94	PURCHASES			1957.00	287		
96	CONCESSIONS			519.00	64		
97	RECREATION USE FEES			1670.00	248		
		ORGANIZATION TOTAL		75999.00	10069		