

UNITED STATES GOVERNMENT

Memorandum

TO : Refuge Manager, Winona, Minnesota

DATE: January 21, 1977

FROM : District Manager, Cassville, Wisconsin

SUBJECT: District Highlights July 1 -- December 31, 1975

Precipitation for the period amounted to 15.43 inches which is 4.77 inches below normal. Temperatures ranged from a high of 91 degrees on July 31 to a low of minus 4 degrees on December 18.

Because of unusually high water conditions in early July, brood counts were unsuccessful. The high water came late enough that it did not have an adverse effect on nesting mallards, except possibly a few late nesting birds. From general observations in the field, wood duck production was estimated at 7,000. This is about the same as last year. Mallard production was estimated at 1,000 and hooded merganser, 100. For the first time in several years, one Canada goose brood of four was observed on the Iowa side of Pool 11. Another brood was reported in the Gremore Lake area of Pool 10.

Banding success was very poor this year. Only 71 of the 200 quota of wood ducks were banded. Faulty wiring of the rocket net accounted for misfires on two different occasions. The rest of the period the birds would not cooperate.

Fall migration got into high gear about the third week in September and peaked the third week in November. Unusually mild weather resulted in birds remaining on the district until the third week in December. As usual, scaup headed the list with the highest percentage present. Their primary area of concentration was the large open water between Potosi and Dubuque. The third week in November there were nearly 11,000 mallards feeding in picked corn fields adjacent to the district.

This year Iowa elected a split waterfowl season using the point system. The season opened 10/4 and ran through 10/11. The second part of the season was from 10/25 through 11/30. The Wisconsin waterfowl season opened on 10/1 and ran continuously through 11/19. During the season a total of 407 bag checks were made. These 407 hunters harvested a total of 714 ducks for a 1.75 hunter success ratio. This is comparable with past years. Blue-winged teal accounted for 39% of kill, followed closely by wood ducks (38%). Mallards were 12% and green-winged teal, 6%. The presence of a good population of blue-winged teal during the opening weeks of the season helped take some of the pressure off the wood ducks.



5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

Hunting pressure compared to past years with heavy pressure during the opening and the first few weekends and then tapering off fast.

This fall the old warehouse on 12-Mile Island was declared surplus property. Sealed bids were advertised in various localities along the river. The highest bidder was Herman Benskin from Guttenberg. The building is to be removed next spring during high water.

On 12/14, the district manager received a call from an individual north of Dubuque who reported finding an injured immature bald eagle along the railroad tracks near Mud Lake. The eagle appeared to have an injured wing. The eagle was kept at the manager's residence where it was given liquids and food until arrangements were made with the Regional Office to get the bird to the Raptor Rehabilitation Center at the University of Minnesota. On 12/17, the eagle was crated up and taken to LaCrosse where it was shipped by air freight to Minneapolis. Carl Madsen picked the eagle up at the Twin Cities airport and took it to the Rehabilitation Center where it was x-rayed and given medication.

Robert E. Wilson

UPPER MISSISSIPPI RIVER WILDLIFE AND FISH REFUGE
CASSVILLE DISTRICT
Cassville, Wisconsin

ANNUAL NARRATIVE REPORT
Calendar Year 1976

*Good Report, Robert
EOD*

NATIONAL WILDLIFE REFUGE SYSTEM
Fish and Wildlife Service
U.S. DEPARTMENT OF THE INTERIOR



Robert E. Wilson
District Manager
GS-9

His history when we get it Bob.
6/55/82
L

*Bob - you've made
a few seasonal moves
since this station!
Still look w/ your new
good luck w/ your new
passenger.*
*James M. M.
Montgomery
11/82*

Review and Approvals

Robert E. Wilson, 1/24/77
Submitted by Date

Area Office Date

Upper Mississippi, Cassville District
Refuge

Regional Office Date

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I. GENERAL

A. Introduction

The Cassville District of the Upper Mississippi Wildlife and Fish Refuge comprises 36,372 acres of water, wooded islands, and marsh. Located in Pools 10 and 11 of the Upper Mississippi River, 21,371 acres are in the State of Wisconsin while the remaining 15,001 acres are in Iowa. The district runs from Dubuque, Iowa north to Lynxville, Wisconsin, a distance of 64 river miles.



Typical Habitat Found in Cassville District
REW 7/76

B. Climatic and Habitat Conditions

The year 1976 will be remembered for significant weather extremes--extremely dry summer and record cold winter.

Total precipitation for the year was 23.24 inches. This is a departure from normal of minus 17.03 inches. The total was 9.27 inches below the total precipitation for 1975. The low amount of rainfall created severe drought conditions, resulting in much of Wisconsin being declared a disaster area. The fall of the year found conditions critical. An emergency fire ordinance was put into effect. All open fires and smoking in the out of doors were prohibited. Camping, hunting, and fishing in critical Wisconsin counties were banned. Many state

parks were closed.

When rain did fall, it came in a deluge. On July 28, five inches of rain fell in a three hour period. In the Cassville area the heavy rain resulted in flash floods along the lower Grant River and smaller streams. In several areas, roads were mud-covered and culverts blocked. Debris from the swollen Turkey River across from Cassville entered the Mississippi River, making navigation hazardous for the following three days. Large quantities of silt also entered the river.

Winter arrived early this year. By mid-November backwater areas were frozen over. A record low of minus 11 degrees was recorded on November 29. By this time the river had completely frozen over, except for a small area below the Locks and dams and the upper power plant at Cassville. December brought even colder weather. Lows of minus 20 were common and chill factors ranged from minus 30 to minus 50 degrees.

The early freeze caught many tows still up river. The last tow came through Lock and Dam 10 at Guttenberg on December 19 and the Lock officially closed on December 19.



Tows Caught in Ice at Cassville
REW 12/77

Because of lack of rain, the river flow was extremely slow throughout the summer and fall. Following the freeze-up in late November, the rate of flow at Lock and Dam 11 at Dubuque, Iowa was the lowest since the Lock and Dam was built in 1937.

The dry weather naturally produced a change in what would be normal habitat conditions. Many shallow backwater areas dried up during the summer. Many of these dried out areas produced excellent crops of smartweed, wild millet and other good duck food. However, most of it was unused by ducks in the fall because of the low water levels.

American lotus continues to thrive and is becoming dominant in many backwater areas. The wild rice crop in the Bagley Bottoms was the best in many years. Some of it was consumed by red-winged blackbirds; however, ducks also made good use of the area.



Rice Crop in Bagley Bottoms
REW 7/76

C. Land Acquisitions

1. Fee Title

Nothing to report.

2. Easements

Nothing to report.

D. System Status

1. Objectives

See Winona Office report.

2. Funding

See Winona Office report.

II. CONSTRUCTION AND MAINTENANCE

A. Construction

There was no significant new construction on the district this year.

B. Maintenance

The four overhead fiberglass doors on the district warehouse were replaced with steel doors. Prior to replacement several break-ins and theft of gasoline had occurred. There have been no problems since the old doors were replaced.

The Lynn Hollow access road and parking area were completely rocked and gravelled. The road to the district warehouse was also gravelled.

Routine maintenance of boundary and closed area signs was accomplished. The Johns at Lynn Hollow and Bagley Bottoms landings were stained and painted.

C. Wildfire

Nothing to report.

III. HABITAT MANAGEMENT

A. Croplands

District croplands are farmed by seven permittees, five in Iowa and two in Wisconsin. The primary purpose of the program is to provide food for migrating ducks and geese during spring and fall. Because of the fluctuating water levels most duck utilization takes place in the spring when the fields are flooded. What little use by geese occurs in the fall.

This year 181 acres of corn and 20 acres of grain sorghum were planted. In spite of the lack of precipitation, production was good. The district's share was 60 acres of corn and all the grain sorghum. All of this was left standing in the field.

B. Grasslands

Nothing to report.

C. Wetlands

Nothing to report.

D. Forestlands

Nothing to report.

E. Other Habitat

Nothing to report.

F. Wilderness and Special Areas

At the present time there are three areas within the district under study for wilderness status. The areas, all located in Iowa, are Twelve-Mile Island, Sny Magall Bottoms, and the Harpers Slough Island Group. The total acreage involved is approximately 8,900 acres.

G. Easements for Waterfowl Management

Nothing to report.

IV. WILDLIFEA. Endangered and/or Threatened Species

Nothing to report.

B. Migratory Birds1. Waterfowl

Because of an early break-up of the river ice, the first spring migrant goldeneyes arrived in the district two weeks earlier than the February 21 date last year. Peak population during the spring migration was down nearly 30,000 from the 97,645 of the previous year. The drop in the peak came from fewer scaup and ringnecks stopping over. I feel the early thaw may have resulted in many of these birds going straight through without stopping in the district.

Early cold weather kicked the fall migration off to an early start, with the peak of 43,120 birds occurring the last week of October. The peak was nearly three times more birds than last year. Increases were observed in all species; however, the largest increase was canvasbacks, up from a peak of 100 in 1975, to a peak of 4,000 in 1976. Scaup increased from 7,000 to 15,000; and ringnecks from 1,000 to 8,000. Divers were not the only species showing marked increases. Mallards

were up from last year's peak of 3,100 to 10,000 the last week in October.

Perhaps one explanation for the increase is the drought conditions that existed in northern Minnesota and Wisconsin. These conditions may have forced a greater number of birds to the river.

The only significant difference from past years in feeding behavior was observed in mallards. The last week of November up to 6,000 mallards were spending the day in open water below the Platte River. About 3 o'clock every afternoon they would fly up river approximately 30 river miles to feed in the large picked corn fields east of Glen Haven, Wisconsin.

Brood counts on the district were conducted between 6/22 and 7/9. A total of 60 wood duck broods and 20 mallard broods were observed. An estimated 5,928 wood ducks, 1,472 mallards, and 200 hooded mergansers were produced this year. With the low water conditions, brooding habitat was excellent. The excellent cover, however, made counts difficult. Some areas were inaccessible. The production estimate is, therefore, probably low.

The district banding operation began on 8/9 when bait traps were closed. Success was limited, with a total of 64 wood ducks banded in a week. Because of the lack of success, the rocket net was set up. The remainder of the 200 wood duck quota was banded in three shots; the quota being reached on 8/31. An additional 28 woodies were banded for the Lansing District. At the request of the State of Iowa, an attempt was made to band 200 wood ducks for them. A total of 159 woodies were banded. Assistance was provided by Lowell Van Horn, Wildlife Technician, from Decorah, Iowa. Banding operations ceased on 9/13, when the banding equipment was removed from the rocket net site.

During the 1976 waterfowl hunting season wood ducks were the number one species bagged. Throughout the season 309 hunters' bags were checked. A total of 516 ducks were taken for a 1.67 average. Crippling loss amounted to 60 birds. Wood ducks accounted for 44% of the total kill, followed by blue-winged teal, 21%; mallards, 16%; and green-winged teal, 15%.

Once again the District Manager participated in the State of Wisconsin statistical bag check and car count project. The program required quite a bit of time, involving pre-determined times and areas for car counts and bag checks. Because of this participation and the shortage of manpower, law enforcement and non-statistical bag checks suffered.



Use of One of the Turkey River Bottoms Farm Fields
REW 4/76

2. Marsh and Water Birds

There are five active great blue heron rookeries in the district. Data from the summer census follow:

Butler Lake Rookery -- Pool 10--Iowa
Estimated total active nests -- 200

Vogt Lake Rookery -- Pool 10 --Iowa
Estimated total active nests -- 99

12-Mile Island North Rookery -- Pool 11 - Wisconsin
Estimated total active nests -- 64

12-Mile Island South Rookery---Pool 11--Wisconsin
Estimated total active nests -- 113

The Glenn Lake rookery, located in the Wisconsin portion of Pool 10, was first discovered in July while making a Wilderness survey flight over the district. The rookery has yet to be censused.

Approximately 99% of the active nests are those of the great blue heron. The great white egret comprises the remainder of the nests. The total population of great blue herons is

estimated at 2,085. Except for the 12-Mile Island South rookery, the rookeries are maintaining a stable population. The 12-Mile Island South rookery was severely damaged during a storm in the summer of 1974. It has yet to recover.

3. Shorebirds, Gulls, Terns and Allied Species

Nothing significant to report.

4. Raptors

On 4/7, an active Bald eagle's nest was discovered in the McCartney Lake area which is on the Wisconsin side of Pool 11. The nest, located in an elm tree, is on a small island on the west side of McCartney Lake, approximately one mile above the McCartney Lake landing. At the time of discovery one of the birds was in the nest, while the mate was observed soaring overhead. On 5/5, the nest was again checked and two eaglets were observed being fed by one of the adults. The young birds apparently left the nest in early June. The nest is the southern most recorded in Wisconsin.



McCartney Lake Eagle Nest---Center of Photo
REW 4/77



Eagle on Nest--McCartney Lake (1000 mm Lens)
REW 4/77

The winter population of bald eagles arrived the first week in November. The early freeze-up of the river concentrated the birds at the only open water in the district below the upper power plant at Cassville. On 12/4, an all time high 115 eagles were counted at the above location.



Bald Eagles-- Cassville, Wisconsin
REW 12/77



Bald Eagle--Cassville, Wisconsin
REW 12/77

5. Other Migratory Birds

A flock of approximately 40 snow buntings were observed at the Potosi, Wisconsin, boat launch in early October. The snow bunting is an uncommon species on the district.

C. Mammals and Non-Migratory Birds and Others

1. Game Mammals

Prior to the fall 1975-76 trapping season, the muskrat population was estimated to be 29,660. This is a decrease from the 53,492 the previous year. The population, for some reason, has been declining since a record high of 89,961 was recorded in 1973. Trappers this year harvested 14,744 rats as compared to 26,688 last year. Prices for pelts averaged about \$3.00. Trappers in the district realized a total of \$43,947 from the sale of rat skins.

The district's beaver population has been increasing the last few years with a decline in their market value. Prior to the trapping season there were an estimated 800 beaver on the district. Trappers harvested 148 and sold them at an average price of \$11.00 each.

Also harvested during the trapping season were raccoon, 108; mink, 28; opossum, 21; and one red fox. Although there are no population figures on these species, all but the mink appear to be stable or increasing slightly. The mink population may be stable, but it certainly is small.

2. Other Mammals

Sightings of coyotes are becoming more frequent adjacent to the district in Iowa and Wisconsin. Several were taken during the deer season. Tracks of two coyotes were observed by the district manager this winter in the Berton Lake area.

3. Resident Birds

Grouse appear to be increasing on the district. They are now seen regularly on some of the wooded islands.

4. Other Animal Life

Although there are no substantiating studies at the present, there appears to be a noticeable decline in the snapping and soft shell turtle population. I believe studies should be initiated in the near future to determine the status of these species.

V. INTERPRETATION AND RECREATION

A. Information and Interpretation

1. On-Refuge

There are no interpretive trails, visitor centers, or environmental study areas on the district at the present time. During the year various groups came to the refuge for tours of the great blue heron rookery and for duck trapping and banding demonstrations.

Adjacent to the district are three State parks and one National Monument. All have well developed walking and interpretive trails. These areas well satisfy the demand for this type of activity.

2. Off-Refuge

During the year the district manager was called upon by various organizations to present programs on refuge activities as well as general wildlife topics.

Presentations were made to students at all schools in

Cassville and Guttenberg during National Wildlife Week.

B. Recreation

1. Wildlife Oriented

Fishing is a year-round activity on the district. This year fishing accounted for nearly 950,000 activity hours. This amounts to 30% of the total use for the year. Fishing was some 300,000 activity hours below 1975. I think the low water levels must have resulted in the loss of activity hours. Backwater navigation was difficult and many of the favorite spots were too shallow to get back into.

This year both Iowa and Wisconsin elected to have a split waterfowl season, using the point system. Iowa's season opened on-half hour before sunrise on 10/2 and ran through 10/7. The second part of the season ran from 10/23 through 12/5. The Wisconsin season opened at 12 noon on 10/1 and ran through 10/10. The second part of the season ran from 10/16 through 11/24. After opening day, shooting hours began one-half hour before sunrise. Hunters were greeted opening day with near 80 degree temperatures. As in the past, hunting pressure was high opening weekends and continued through the first week. Following the second opener, pressure dropped drastically. Through the week it was difficult to find hunters to check.

Iowa squirrel season opened 9/4 this year after the Conservation Commission was criticized by hunters for the mid-August opening the past two years. Small game hunters enjoyed a fair rabbit and squirrel season this year. About the only upland habitat on the district lies between the railroad tracks and shoreline of the river. Because of the seasonal flooding, few rabbits are found on the islands.

Raccoon hunting on the district islands and bottoms continued to gain in popularity. Coon skins brought up to \$25.00, which, I'm sure, resulted in the increased interest in the activity.

This year Iowa had an 11-day split shotgun deer season. The season ran from 11/27-30 and 12/4-10. The majority of the permits issued in the 10 zones were for antlered deer only. Wisconsin's Grant County had a 3-day buck only season this year. Only 327 deer were harvested in the county. The district receives little use for this activity in either state.

The high price of pelts brought a crowd of trappers on to the

river. This district issued 283 permits. Each trapper is allowed a maximum of 50 traps, which must be tagged with a Federal trapping tag issued at the time trappers get their permit. Weather was near perfect for trapping. When the ice formed, it was clear and rat runs were easy to locate. Many of the prime areas were trapped at least by three different parties throughout the season.

2. Non-Wildlife Oriented

There is very little management of non-wildlife oriented public use on the district; however, there is an attempt to regulate the use that does occur. Most of this type of use-- camping, boating, waterskiing, swimming, picnicking-- occurs on, or adjacent to, sandbars along the navigational channel. The district has no developed areas for this type of use. Non-wildlife oriented public use is heavy on the district. Last year this type of use amounted to slightly over two million activity hours. The past two years this type of use has remained about the same.

C. Enforcement

One man with over 36,000 acres to cover makes enforcement difficult and frustrating. Maximum enforcement efforts were made during the waterfowl and trapping seasons. Typical violations encountered during the trapping season are setting traps too close to rat house, trapping without a Federal permit, and trapping early.

This past year vandalism was a problem at the Bagley Bottoms boat launch. Two times during the summer the doors were ripped off the johns. The second time three stainless steel paper hangers were ripped off the wall and the fourth was smashed. A weekend night patrol of the area by the Township Police Officer has seemed to eliminate the problem.



*Burn it
Down and Let
The Township
Take care of
The area
H*

VI. OTHER ITEMS

A. Field Investigations

At the present time there are no on-going research projects on the district.

B. Cooperative Programs

The Great River Environmental Action Team (G.R.E.A.T.) was very active during the year. The team, which is made up of personnel from State and Federal agencies, was established to try to find a solution to the deposit of dredge spoil within the flood plain. Spoil, composed almost entirely of sand, is the result of the maintenance of the nine foot navigational channel by the U.S. Army Corps of Engineers. Prior to the establishment of G.R.E.A.T., the spoil was deposited on the closest island to the dredge site. The majority of the islands are at capacity. Dredge spoil is overflowing and filling in backwater areas that are prime waterfowl habitat. Presently, prior to the dredging season, the Corps issues maps of the probable areas that will need to be dredged. When the exact area to be dredged is decided upon, members of G.R.E.A.T. go to the site and along with Corps personnel try to decide the least detrimental area to deposit the dredge spoil. The problem is far from being solved, but the establishment of G.R.E.A.T. is a step in the right direction.



Dredging Operation in the East Channel at Prairie du Chien

REW 7/76

C. Items of Interest

This spring the old warehouse on 12-Mile Island was removed by Herman Benskin of Guttenberg, Iowa. Mr. Benskin had purchased the building last fall.

The past summer the District Manager was fortunate to have two work-study students from the University of Wisconsin at Platteville; Tom Christman, a sophomore majoring in zoology; Steve Sagehorn, a senior also majoring in zoology.

This report was written by Robert E. Wilson and typed by Sue Wilson.

D. Safety

There was no lost-time accidents this year. Safety meetings were held in conjunction with staff meetings throughout the year. The work-study students were given on-the-job safety instructions throughout their employment.

UNITED STATES GOVERNMENT

Memorandum

TO : Refuge Manager
Winona, Minnesota

FROM : District Manager
Savanna, Illinois

SUBJECT: Narrative Report, Savanna District, July - December, 1975.

DATE: January 20, 1977

PERSONNEL

Atkins, Thomas D., District Manager
Breeser, Steven W., Asst. District Manager
Jensen, John A., Biological Aid, Intermittent, EOD Oct. - Term. Nov.
Hesseling, Steve J., Biological Aid, Intermittent, EOD Oct.-Term. Nov.

I. GENERAL

A. Introduction

The Savanna District of the Upper Mississippi River Wildlife and Fish Refuge consists of nearly 43,000 acres of bottomlands located along the Mississippi River between Dubuque and Rock Island.

B. Climatic and Habitat Conditions

Weather conditions were generally normal for the reporting period with no extremes in temperature or precipitation prevailing. River levels remained stable at normal pool levels and backwaters were low at freeze-up. Backwaters were ice-covered by the last of November and the main channel was ice-covered 20 December which also was the last day of commercial navigation for the season.

II. CONSTRUCTION AND MAINTENANCE

A. Construction

Damage to the Spring Lake dike caused by high water and resultant wave action has continued. The dike is still useable, however, the safety aspects of the situation are becoming paramount. The regional safety officer inspected the eroded dike section and indicated that future public use on the dike would not be permitted if the condition of the dike continued to deteriorate.

Loss of the dike will result in a significant reduction in certain district outputs. The unit was developed primarily for waterfowl and loss of the dike will eliminate our management capability for this objective. In addition, use by numerous tour groups and the Thomson Eco Center will be lost. Repair necessary to retain these



2.

aspects of the district program will include resloping of 1300 feet of the dike and should also include revetment of the repaired section to provide a measure of permanence to the facility.

B. Maintenance

Fill around both water control structures at Spring Lake has eroded during high water periods and thus, both controls were ripped to provide protection from further erosion. Numerous other items of maintenance were accomplished but were of a minor nature.

III. HABITAT MANAGEMENT

A. Croplands

A total of five cooperative farming agreements covering 162 acres were in effect during the period. Crops grown included corn and millet and with one exception the refuge share of crops remained in the field. Approximately 200 bushels of corn were harvested and transferred to other refuge districts for use in banding programs.

B. Wetlands

The water level in the Spring Lake impoundment continued to recede and reached a low of 583.4 msl in November. At this time the river level raised allowing release of water into the unit via the west control. The water level in the unit was raised approximately .6 feet and stood at 583.9 msl at the end of the year.

The primary objective of water management in this unit is to reverse vegetative succession that has taken place during past years. Low river levels and a lack of precipitation prevented holding water levels specified in the management plan. However, inspite of these conditions some progress toward objectives was achieved.

Due to deterioration of water management facilities at Pleasant Creek we are now unable to exert effective control over water levels on these bottomland lakes. At the end of the year, both Golden and Flat lakes were nearly dry and Bonnie lake was also low.

IV. WILDLIFE

A. Migratory Birds

1. Waterfowl

Waterfowl production was below normal this year due to spring flooding which destroyed the first nesting attempt. Not only were ground nesting birds affected but the crest of spring flood waters was high enough to flood a number of wood duck and hooded merganser nests. The timing of high water was such that Canada geese were flooded during the late stages of incubation and thus few renested. Most duck nests were flooded during late laying and early incubation stages and thus most ducks probably renested as waters receded.

Wood duck banding was accomplished using two floating traps.

placed in Spring Lake. A total of 408 wood ducks was banded. The age ratio of birds banded favored adults and the sex ratio favored males. Little difficulty was experienced in trapping the quota of 400 birds however, attaining an even age and sex ratio was not nearly so easy.

Six wood duck roosts were censused during September and indicated a 43% reduction from the previous year's counts. This census is an attempt to determine the trend of the wood duck population however, there is serious doubt that this objective can be achieved with the present census procedure. There appear to be numerous factors affecting roosting habitat that significantly influence the counts independent of wood duck population trends. In some cases, these factors affect counts to such a degree that any change in wood duck population trends would be masked. At present, it would appear that these counts do not contribute to achievement of district objectives and thus must be re-evaluated.

Fall waterfowl use was the highest it has been in recent years. During the hunting seasons nearly all waterfowl use was confined to closed areas during the daylight hours. A record number of birds used the Spring Lake closed area and peaked at 113,000 birds on 17 November. This peak population consisted primarily of scaup and mallards. Fall duck use of this area has continued to increase during the past eight years. The Elk River closed area also held several thousand mallards during November but the Pleasant Creek closed area held few birds after the wood ducks and blue-winged teal had migrated from the district. The goose population peaked at 1900 birds and most geese used the Spring Lake area.

The pattern of fall waterfowl use is affected directly by hunting pressure and the closed areas. Before hunting seasons begin migrant birds are scattered throughout the district. However, when hunting seasons open, birds are concentrated in the closed areas and adjust daily feeding behavior to avoid hunting pressure. The closed areas do not have enough feed to meet the need of these concentrations of birds and thus feeding flights of grain feeding birds to off-refuge fields and of divers to pool areas, especially Pool 13, have developed. Feeding flights are made after shooting hours close in the evening and most birds have returned to closed areas by opening of morning shooting hours. This pattern of feeding flight behavior seems to be affected little by weather conditions.

Hunting seasons opened in October and the fair weather and large numbers of birds attracted heavy hunting pressure. Iowa had a split season and with the Illinois season opening between the Iowa split there was in effect three openings of the waterfowl hunting season. Both states had point system regulations in effect. Hunting success during opening days resulted in success of approximately 1.1 ducks/hunter/day. The birds reacted quickly to hunting pressure and thus following opening days hunting success dropped to .5 ducks/hunter/day. Species composition of the bag consisted primarily of wood duck and blue-winged teal early in the season but then shifted

to mallard, green-winged teal and scaup as the season progressed.

An attempt was made to collect gizzards and wings from 250 immature mallards at the Green Island area. Two students from Loras College, Dubuque, Iowa, were hired to assist in collection during weekends. A total of 1,525 hunters were contacted with a bag of 1,306 ducks. Of the total bag checked, only 268 were mallards and of the mallards only 63 were immature birds. In spite of a great deal of effort and expense we were unable to meet the objectives of the sampling framework.

2. Marsh and Water Birds

Double-crested cormorants are of particular interest in this part of Illinois as Pool 13 has the only remaining nesting colony. Mortality of this bird during the fall hunting season appeared to be reduced from previous years possibly a result of enforcement efforts. Fall use of cormorants is concentrated in Pool 13 and the Spring Lake area which is used as a primary feeding area.

An observation of particular interest was made 23 December, when 25 white pelicans were sighted near Sabula.

3. Raptors

Bald eagles arrived during late fall and the population exceeded 200 birds by the end of the period. Concentrations were observed below locks and dams and the Cordova power plant. No dead or injured eagles were noted during the period.

B. Mammals and Non-Migratory Birds and Others

1. Mammals

Much concern was expressed by trappers that furbearer populations, especially muskrat, were declining. This was true for muskrats as evidenced by census transects that indicated a 30% decline in the muskrat population. Trapping take of muskrats did not decrease as much with only a 19% reduction indicated in catch reports. Beaver transects indicated a drop in population of 10%. This is attributed to the opening of the Illinois portion of the district to beaver trapping and a resultant large catch of this furbearer in Pool 12. Trapping interest has remained rather stable in recent years in spite of increasing fur values. Trapping catch has tended to follow the trend of the furbearer population but value of the catch has remained stable due to the increasing value of the fur.

2. Other Animal Life

Low levels in backwater areas have set the stage for an above normal fish kill during the winter period. Fish kill has already been observed in some backwater areas in the district. Species of fish observed winter killed include sunfish, crappie, largemouth bass, bullhead, shad and carp.

The conditions present at freeze-up resulted in clear ice that permitted an above normal turtle harvest during the early winter period. These ideal conditions persisted in many backwater areas and resulted in over harvest of an already over harvested resource.

V. INTERPRETATION AND RECREATION

A. Information and Interpretation

1. On-Refuge

Various bird groups toured the Spring Lake area to view waterfowl concentrations. The Thomson Eco Center utilized the Spring Lake area in their environmental education program. This period, they took 536 students from surrounding schools through the area.

2. Off-Refuge

The district participated in a weekly radio show at local station, WCCI, Savanna, in cooperation with personnel from the Illinois Department of Conservation. The refuge hosted the half hour program every fourth week. During October the management of the station reorganized personnel and completely revised programing with one of the results being that the "Outdoor Show" was eliminated because it didn't fit the new format.

B. Recreation

Hunting, fishing and trapping were the primary activities taking place during the period. There were slight increases in these activities this period due to favorable late fall weather.

C. Enforcement

Enforcement efforts were concentrated during the fall hunting seasons. During the Illinois early teal season six federal and two state agents were present on the refuge. Only two violations were processed. The low number of violations was attributed to lack of hunter participation and compliance with regulations by those who did.

During the regular duck season a decrease in violations was observed in the West Lake area of Pool 13. This area received heavy hunter pressure and it would appear past enforcement efforts have had an effect in reducing violations in this area. Scull boaters in Pool 13 have not recieved due attention in past years so an effort was made to work this area. Numerous citations were issued primarily for operating boats with uncased-loaded guns.

VI. OTHER ITEMS

A. Cooperative Programs

Great II has been organized and is in the process of working to obtain funding and official recognition. District personnel participated in work groups, dredging recommendation formulation and dredging accomplishment inspection. Further progress of Great II will be enhanced upon authorization of funds to begin planned programs of study.

The Rock Island Corps of Engineers accomplished dredging in two locations in this district. The amount of dredging accomplished this year was less than normal. One of the sites was located adjacent

to the Green Island area in Pool 13 and dredging was accomplished with a minimum of adverse impacts. The other site was located in Beaver Slough in Pool 14 and the effects of this operation are a matter of conjecture. The spoil was placed in open water along the edge of the slough. It is the opinion of district personnel that the spoil will not remain but will move downstream. The Corps contends that the spoil will remain and will be used to construct the Clinton floodwall scheduled for construction in 1976.

Art Gill, East Dubuque, Illinois, was granted a permit to dredge a channel across refuge land from Frenress Lake to a flooded gravel pit he owns. He completed the project in accordance with the terms of the permit and has developed harbor facilities for small boats and houseboats in the gravel pit. As a testimony to the need for this sort of development in this area Mr. Gill had rented nearly all his newly developed facilities by the end of the period.

Commonwealth Edison was granted a permit to construct a barge slip at the upper end of Savanna Slough, Savanna, Ill. This facility will be used for transporting materials to power plants under construction. Construction of the slip required dredging from the slip out to the main channel. To contain spoil from the dredging operation, the contractor was required to construct a diked holding pond on upland owned by the Savanna Park Commission to prevent filling of adjacent wetlands.

B. Items of Interest

During November a small oil spill occurred at Savanna when approximately 150 gallons of waste oil was spilled and allowed to enter the river via a storm sewer. The oil that entered the river caused a slick downstream but dissipated before it reached the pool area above L&D 13 where 50,000 diving ducks were feeding at night. The responsible individual, Mr. Wayne Williams, cleaned up the oil that remained in the sewer. The Coast Guard was notified and investigated the incident.

The towboat Blue Ridge with eight barges was tied-up at the lower end of Lock 12 waiting to be locked thru 9 November. At this time an explosion occurred in one of the barges rupturing it below the waterline. The barge was cut loose and allowed to float approximately 1,000 yards downstream and come to rest in twelve feet of water. It was then tied-off to the shore to prevent further movement downstream. The barge was loaded with salt and salvage operations were observed 11 November. Due to the fact the barge was ruptured below waterline and due to spillage during the salvage operation an undetermined quantity of salt entered the river. The barge was removed from the river following salvage operations. The incident was investigated by the Iowa Conservation Commission and the Coast Guard.


During December an explosion occurred at the Clinton Corn Processing Co. facility at Clinton, Iowa. The explosion injured a number of employees and caused the release of approximately 30 - 50 gallons of 60% PCB solution which entered the river. EPA investigated the incident.

7.
A A fish kill occurred 21 December in a settling basin in Dubuque, Iowa. The basin is fed by storm sewers and the Dubuque Packing Plant and opens directly into the river. The kill was apparently caused by ammonia. An estimated 50,000 fish were killed consisting mostly of mooneye (95%). The incident was investigated by the Iowa Conservation Commission and EPA.

B. Safety

During November regional safety officer Earl Markwell inspected district facilities. Except for a few small items, Mr. Markwell seemed to think district facilities were in order.

Prepared and Submitted by:


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