MONTE VISTA NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER

1962

PERSONNEL

Charles R. Bryant, Refuge Manager
George P. Eustis, Assistant Refuge Manager

Robert M. Ballou, Wildlife Management Biologist

Robert W. Stegman, Foreman IV
Wesley E. Parker, Foreman II

Elmer G. Olson, Maintenanceman
Paul A. Plank, Maintenanceman
William O. McDermith, Maintenanceman

Margaret I. Gardner, Clerk-Typist

Temporary

Ewin Harmon, Operator-General

Wayne DePriest, Laborer
Orville Edwards, Laborer
Juan Lopez, Laborer
Eppy Martinez, Laborer
Larry Trujillo, Laborer

CONTENTS

	PAGE
I. GENERAL	
A. Weather Conditions	1
B. Habitat Conditions	2
I I . WILDLIFE	
A. Migratory Birds	3-4-5-6
B. Upland Game Birds	6
C. Big Game Animals	6
D. Fur Animals, Predator, Rodents and other Mammals	7
E. Hawks, Eagles, Owls, Crows, Ravens and Magpies	8
F. Other Birds	8
G. Fish	8
H. Reptiles	8
I. Diseases	8
III. REFUGE DEVELOPMENT AND MAINTENANCE	
A. Physical Development and Maintenance	8-9-10
B. Plantings	10-11
C. Collections and Receipts	11
D. Control of Vegetation	11-12-13 14-15
E. Planned Burning	15
F. Fires	15
IV. RESOURCE MANAGEMENT	
A. Grazing	16
B. Haying	16
C. Fur	16
D. Other Uses	16
V. FIELD INVESTIGATION OR APPLIED RESEARCH	
A. San Luis Valley Mallard Investigation	16
B. Waterfowl Production Study	17
C. Pheasant Inventory Procedure	17
VI. PUBLIC RELATIONS	
A. Recreational Uses	17
B. Refuge Visitors	17-18
C. Refuge Participation	19
D. Hunting	19-20
E. Violations	20
F. Safety	21
VII. OTHER ITEMS	
A. Items of Interest	21
B. Photographs	21
C. Credits	21
NR FORMS	
REPORT ON PHOTOGRAPHIC EXPOSURES	
PHOTOGRAPHS	

I. GENERAL

A. Weather Conditions.

Tabulation of weather conditions is listed below as received from the Bureau of Reclamation, located in Monte Vista, Colorado, approximately six miles north of the refuge.

	Snowfall	Precipitation	Max. Temp.	Min. Temp.
September	0"	1.10"	80°	23°
October	0	0.65	74	20
November	5	0.41	62	0
December	T	0.01	53	-16
	5"	2.17"	80°	-16°

Comparative figures dating back to 1953 are listed:

1961	26.00	3.11	74	-26
1960	10.50	3.80	83	-16
1959	6.24	4.18	83	- 8
1958	12.00	2.10	82	-17
1957	8.50	1.81	78	-22
1956	8.00	.41	82	-18
1955	.50	.49	82	-10
1954	8.00	1.51	84	-21
1953	21.00	2.21	82	-19

Extremely dry weather conditions have been present this fall which has brought about very moderate temperatures for this period of the year. The only snowfall received this period occurred on November 17, when 5" was received. This snow melted quickly and had completely disappeared five days after its occurrence. This is very unusual as snow we receive in November usually holds over until the spring thaw. Traces of snow were received during the last week in December which brought about our first temperatures below zero, with a low of minus 16 below zero being had on the night of December 26. During the month of December we have only had three days when the day time temperatures were below freezing as compared with last December when daytime temperatures were below freezing for 24 days. Snowfall in the surrounding mountains has been very late this year and at the end of December the mountain snow courses were showing a snow pack of 85% of normal. To sum up this period we might say that precipitation was below normal; temperature was moderate with mild weather prevailing throughout the period.

B. Habitat Conditions.

1. Water

Precipitation was below normal this period and no run-off occurred when light showers occurred in September nor was there any run-off from the snow received during mid-November.

Flow from artesian wells is considered to be better than at any time since 1953. This increase in the pressure and flow from artesian wells can be attributed to the high snow fall which was received in the surrounding mountains last winter. Due to the increase in the artesian flow in this area sufficient water has been present to fill all pool areas on the refuge.

During November the Monte Vista Canal delivered water for a five day period during the second week of the month. This canal was able to obtain this water as the Rio Grande Canal in the upper end of the valley had to shut down for repairs. Water received from the canal was used to fill pool areas recently created in Units 6 and 14. This water has been very useful as it gave us a chance to wet up the new dikes in Units 6 and 14, and to check-out all of the structures in these units before icy conditions occurred.

The springs on upper Spring Creek have shown a small increase in flow and there was enough water from this source to fill the pool areas behind the Sheridan north and south structures.

The McLean Drain syphon was replaced with a new structure during October. Since repairing this unit we are getting approximately 5 cfs from this water source which was used to flood grass lands in Unit 3G during the latter part of the period.

A deep well was drilled in the north-west corner of Unit 14, which was completed on December 20. After pump testing we found that it would deliver 2,200 gallons per minute at 29 foot draw-down. This well will be used for irrigation of grass lands in Unit 14G, 14H, farm lands in Unit 14F-1 and 14F-2, and for filling of pool levels in Unit 14H and Unit 6G. This well was drilled for a replacement to our present headquarters well which had shown signs of going bad.

Water available has been above normal and excellent pool level conditions prevail at the end of the period.

2. Food and Cover.

Food conditions for waterfowl this period are probably better than at any time since the refuge was established. Aquatic and emergent plant foods were available in large supply on pool areas throughout the refuge and were available to the birds throughout the period, which is unusual as normally most of the pool areas will be frozen over by mid-November or early December.

Production on refuge croplands was very good this year and has provided a large amount of food for wintering Mallards and a small flock of Canada Geese which moved into the area in the first part of November. During the early part of November the Mallards started using refuge fields in Units 13 and 14 which has been harvested so that these fields might be leveled this fall. The use of these fields was very heavy until the first of December when the birds started using barley fields on the east side of the property in Units 17F-2, 22F-1, and 22F-4. Most of the refuge population continued to use these fields through December with very few flights being noted leaving the refuge for feeding purposes. At the end of the period approximately 40 acres of barley in Unit 18F and 50 acres of barley and peas in Unit 19F were left for feeding of the birds during the rest of the winter. No hand feeding of the birds has been made this period other than in the goose pen area, due to the large amount of grain available to the birds in refuge fields.

6,040 bushels of barley was harvested this fall which will be used for reseeding operations during the coming year and for feeding of the decoy goose flock, Sandhill Cranes, and wintering Mallards.

Cover conditions have been excellent this period for all type of wildlife that use the refuge. Many areas of the refuge have a very dense stand of cover growth which should probably be controlled to some extent or a large part of the area may be ignored by nesting waterfowl during the coming year. We have also found in these same localities that this situation can bring about an intrusion of noxious weeds which will sooner or later have to be controlled if these noxious plants become a problem.

II. WILDLIFE

A. Migratory Birds.

At the start of the period waterfowl populations were slightly below those present during the same period last year. Increases were noted during the early part of September and a very gradual build-up occurred until the week of November 4 to

November 10 when Mallard population increased to 35,000 birds, Pintails to 5,200, with other species showing a small decrease in numbers. Mallards showed a small increase during the middle of November with a small decrease during the early part of December then peaking out with 44,500 birds during the latter part of December. This peak is considerably below that reached last year when approximately 65,000 Mallards were present during the week of November 19 to 23. This decrease in numbers can partly be explained by the lack of hunting pressure exercised on the birds this year and the amount of open water available to the birds throughout the valley which is normally not the case at this time of year. Pintail populations using the area showed some drop during the latter part of November, but more of these birds are staying on the refuge this winter than have been present in the past. Gadwall, Baldpate, Green-winged Teal, Blue-winged Teal, Cinnamon Teal, Shoveller, and Redhead using the refuge this period showed a small increase in waterfowl days use on the area, with Canvasback, Scaup, Goldeneye, Bufflehead, and Ruddy showing a small decrease in waterfowl days use as compared with last years figures.

The migratory flight through the valley was very hard to determine as there was no extreme build-up or decreases noted in migratory birds using the area.

A small increase was noted in total days use this period but the peak number of last years were never reached. To show the trend of waterfowl concentration and days-use the following table has been included for comparison:

Year	Peak Population	Total Days Use
1962	49,024	3,910,361
1961	71,280	3,513,013
1960	89,082	4,556,700
1959	70,050	3,324,139
1958	61,000	3,068,004
1957	57,400	3,128,000
1956	40,000	1,592,400

As we have mentioned before feeding by ducks was almost entirely on refuge fields during most of the period, but we did have a few complaints during the early part of September when the grain was windrowed by adjacent owners prior to making the harvest. These complaints were of short duration and no problems were experienced during the latter part of the period which was not the case last year. This again points up the fact that during a year when open weather prevails depredation complaints will be at a minumum but during years of high snow fall when refuge fields of grain are not available to the birds we can expect a high number of complaints unless we go into field feeding operations, which we had hesitated to get involved in up to this time.

We have again noted a small increase in Canada Goose numbers using the refuge this fall. Approximately 292 birds were present on the refuge during the week of December 24 to 29, which is approximately 78 more birds than were present at this time last year. During November we picked up a flight of Canada Geese of approximately 80 birds which contained one Snow Goose. We believe this to be the first migratory geese to visit the refuge during fall migration. A group of Canadas, with one Snow Goose, on Smith Reservoir, which lays on the estreme east side of the valley were noted by state personnel during the early part of October and it is believed that these same birds are the flight which we picked up in November and is still present on the refuge. A number of the necktie banded birds which were released in the early part of the year have been noted in the goose pen area and elsewhere on the refuge throughout the year. This indicates that these birds did not migrate this fall, but this may not apply to the entire group which was released. Twenty five Canada Geese were received from the City Park in Denver, Colorado on December 7. These geese were trapped by Mr. Randall and Mr. Sheldon. Removal of additional birds has been requested by the superintendent of the park, and additional birds will be brought to the refuge if Game Management is able to trap them at this locality. Goose hunting was again closed in this area. The east side of the valley was open to hunting and it is our understanding that a few birds were taken on the Smith Reservoir and on the lower Rio Grande near La Souces, Colorado.

Waterfowl banding was carried on this year with 667 Mallards banded before the hunting season. 614 Mallards and 23 Pintail banded after the hunting season.

Approximately 1,250 Sandhill Cranes were present on the area on November 10 this year, which is considerably below the peak concentration of 2,600 birds which were present last year. It is very difficult to determine whether this population is up or down in this locality as we believe that we have a high interchange of birds moving through the valley from the early part of September through the first part of December. Sandhill Crane again used Units 6, 7, and 16 almost exclusively as a resting area and used adjacent lands and harvested croplands on the refuge for feeding purposes. Five juvenile Sandhill Cranes were received from the Bosque Refuge on November 10 and seven Sandhill Cranes were received on November 23. Mr. Dart, Refuge Manager, delivered these birds to the Monte Vista Refuge. These are to be held in captivity for the research study being conducted on Lesser and Greater Sandhill Cranes in which we are participating. The Lesser and Greater Sandhill Cranes which we previously have had in captivity seem to be doing fine and no unusual observations have been noted.

Coot populations again showed an increase this year with 3,800 being noted during the early part of September. This number held steady through the third week of October.

Almost all species of marsh and water birds showed some decrease this year as far as peak numbers were concerned. The open weather which prevailed may have spread out this migration thereby reducing peak numbers but overall populations may not have changed to any degree.

Shorebird populations showed a small increase among a few species with the Wilson's Phalarope being more common than any of the other species noted.

Mourning Dove numbers were down this year over those reported last year. Hunting pressure on doves in this locality continues to be very low and only six hunters were observed near the refuge this year.

A smallflight of Band-tailed Pigeons were noted on the refuge the week of September 7 and again on September 15 this year. These birds were not noted last year but it is possible that they were present for a short period of time and were not noted. It is our understanding that Band-tailed Pigeons in quite large numbers are still being observed between Del Norte and South Fork, Colorado during the summer months.

B. Upland Game Birds.

A peak number of 5,965 pheasants were estimated using the refuge this period. This information is based on the new Pheasant Inventory Procedure which was worked up 1961-62, which will now be adopted at the refuge. By the end of the period it was estimated that approximately 3,000 of this number remained on the area after considering hunting loss and movement to other areas adjacent to the property. Kill by hunters is considered less than a year ago, as less birds were produced this year than was had last year and also fewer number of hunters used the refuge during pheasant season.

C. Big Game Animals.

Four elk and two mule deer were noted on the refuge this year. The elk were using the area just east of the Empire Canal during the latter part of December and the two mule deer were noted in the willow area in Unit 23. These animals periodically use the area but they stay on the refuge only a few days at a time.

D. Fur Animals, Predator, Rodents and other Mammals.

Muskrat population continues to be high on the refuge. No removals were made this year other than a small number which were causing problems to irrigation ditches, dikes and other water structures.

Skunk numbers on the refuge continue to be low but controls should again be exercised during the coming period.

A few coyotes are still noticed on the refuge but generally speaking their numbers are low and they are not creating any particular problem.

Bobcats have not been noted in the past two years but it may be some are still present.

Badger appear to be on the increase as their mounds and tunnels are becoming more common in refuge grain fields and along ditches roadways, and dikes. Several animals were removed during the past year where they were creating damage to dikes and roadways and more control in the near future may be required.

Weasel numbers seem to be on the increase throughout the refuge as more of the refuge is changed into marsh and water habitat. These animals do not seem to be causing any particular problem at this time and no removals are anticipated.

Ground Squirrel and Chipmunk have been noted this period but numbers seem to remain constant.

Feral cats are still on the refuge in high numbers even though they are being constantly controlled. During the coming period a special effort will be made to get rid of these cats.

Observation of cottontail and jack rabbit populations made during the pheasant inventory indicate a decrease in the number of these animals on the refuge. Again this year pheasant and waterfowl hunters completely ignored the rabbit hunting that was to be had during the period of time that the refuge was open to hunting and not a single kill was noted during this period. Jack rabbits have been hunted extensively adjacent to the property lines this period as they are now being sold for thirty cents each to a local firm who is shipping them our of the state for mink food.

Food and cover conditions have been excellent throughout the period for all of the above species mentioned.

E. Hawks, Eagles, Owls, Crows, Ravens and Magpies.

Very little change in numbers of Hawks, Eagles, Owls, Crows, and Magpies using the refuge this period of those reported last year.

Both Bald and Golden Eagle populations showed a slight decrease from last year's numbers but as they were common along the Rio Grande during this period there may not have been any drop in overall numbers using the valley as a whole.

Magpie numbers are approximately the same as last year and control will be exercised on them during the coming period.

F. Other Birds.

No unusual observations.

G. Fish.

Carp, Sucker, and Minnows are still present in a few ditches on the refuge. There seems to be no increase in these species and they do not seem to be spreading to other larger and permanent pools at this time.

Rainbow trout are present in the goose pen pool and the "Kids" Fishing Pond. The "Kids" Fishing Pond was used very sparingly during the early part of the period when it was open to fishing.

H. Reptiles.

A few Garter snakes were noted during the early part of the period near some of our larger diversions that were created out of rock which they are probably using as winter quarters. No Prairie Rattlesnakes were noted on the refuge this period.

I. Disease.

No disease problems were noted this period. A deposit of lead in the upper Spring Creek area seems to be cleaned up as no losses were noted in this locality.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development and Maintenance.

Southway Construction Company was issued the bid for the replacement of the McLean Drain. This work was started on September 11, with the work being completed on September 19. Mr. William Petrik of the Branch of Engineering acted as inspector on this job.

Sterling Construction Company was issued the bid for working Unit 19, which included the Sanderson and Getz Takeout and the construction of 11.4 miles of dikes and the installation of structures in the dikes and ditches in this unit. This work was started during the early part of September. This work was completed and accepted by the Service on November 17.

It was decided that the work in Units 6 and 14 should be handled by force account, therefore equipment rental bids were issued and the award for rental equipment was made to Quirco and Kane of Alamosa, Colorado. On September 12 work was started in Unit 6 on the construction of 4.4 miles of dike with structures, as outlined in the Master Plan. This work was completed on November 15. Three-fourths mile of ditches in Unit 6 was started in September when the ditch was constructed and the structures were installed in November. 1.55 mile of dikes and ditches with structures in Unit 14 was started in October and this work was completed in November. 6.50 mile of fences in Units 6, 14, and 13 which was started in July was completed with refuge personnel during the latter part of October. 3.80 miles of roads in Units 6 and 14 with 4 culverts was started in the early part of September and was completed during the latter part of October. 1.14 mile of roads in Unit 14 was completed by Sterling Construction Company during November. 8 cattleguards in Units 6 and 14 were installed during the latter part of November and early part of December. The headquarters fill was started with rental equipment during the latter part of September and was worked on at odd times when stripping for gravel for roadways, and this work was completed during the first part of December. The main entrance road to the picnic area was gravelled during December. On November 15 rental equipment was moved into Unit 22 for leveling operations. 40 acres of this unit was levelled with this work being completed on November 30. 110 acres of this unit was deep-chisled, two ways, during this period. Land leveling of 44 acres in Unit 14 was started on December 1 with this work being completed on December 12. 22 acres of this land was deep chisled. All equipment work was shut down on December 12 due to frost conditions in the ground that prevailed at this time.

M & G Equipment Company was issued Contract 14-16-0002-286 for wells SFW2, Colorado state permit No. 1776-F; well SFW3, Colorado state permit No. 13042; well SFW54, Colorado state permit 13042; and well SFW55, Colorado state permit 13043, on December 4, 1962. Well SFW2-52 was started on December 4, 1962 and was completed on December 15, 1962. The well was tested on December 19 and the highest yield check showed 150 gallon per minute being received at 29 foot drawdown. Well SFW-53 was started on December 18 and this well was completed on January 2, 1963.

Two miles of old fence was removed in Unit 22.

Approximately 8 miles of irrigation ditches was cleaned this period.

Posting of the boundary was checked on the entire refuge and new signs were put up around the Eckles and Olson tracts, which were purchased this period.

A large amount of time has been spent this period spreading artesian water from wells and the Monte Vista Canal in grassland and filling of ponds. Due to icing conditions during the latter part of the period pool levels have to be checked daily.

The septic tank at Quarters No. 1 was cleaned and a new top installed during the latter part of the period.

Refuge personnel supervised the construction work that was carried on in Units 6, 14, and 22. We also provided supervision for construction of all fences this year as well as installation of cattleguards. Mr. William Petrik of the Engineering Branch acted as inspector for the bid jobs other than wells, which I handled, and ran grades for all dikes in Units 6 and 14 as well as land leveling operations in Units 14 and 22. We wish to state here that this man performed an outstanding job for us this year.

B. Plantings.

1. Aquatic and Marsh Plants.

No plantings made this period. Aquatic emergent marsh plants have established themselves very rapidly throughout the refuge, therefore, no plantings are necessary or desirable at this time.

2. Trees and Shrubs.

None were planted this period. Previously plants in Unit 13 and 14 are coming along fine at this time, providing good escape cover and food for the pheasant population on the area.

3. Upland Herbaceous Plants.

None this period.

4. Cultivated Crops.

131 acres of Frontier barley were harvested this period with a yeild of 6,040 bushels harvested in Units 13 and 14. This harvest was made during the latter part of the period so that leveling operations might be started in these units. Portions of Units 13, 14, 19, 22, and 23 were plowed and disced so that they might be prepared for spring planting. 205 acres of Frontier barley was left standing for feed for wintering waterfowl. 50 acres of Bald barley and peas were left standing for utilization of wintering birds. Barley fields in Units 13, 14, 22, and 17 have been heavily utilized by the birds at this time but the bald barley and peas in Unit 13 and the Frontier barley in Unit 18 have had relatively little use but will be available

to the birds during the latter part of the winter and early spring. Barley harvested this period will be used for feeding of wintering waterfowl, decoy flock of geese and cranes, and is suitable for reseeding purposes during the coming year. The barley used for reseeding will be cleaned and treated for smut before planting.

C. Collections and Receipts.

1. Seed or other Propagules.

None other than that listed above this period.

2. Specimens.

None taken this period.

D. Control of Vegetation.

Control of vegetation by spraying and mowing was again attempted this year. Again we are finding that our chemicals used are not giving us eradication, nor in some cases full control of seeding, but this work is deemed desirable at this time and a new chemicals will be tried during the coming year.

The main pest plants on the refuge are Canada Thistle (Cirsuim arvense), White Top (Erigeion strigosus), Kochia Weed (Kochia scoperia), and Knapweed (Centaurea repens).

Dates of spraying, acreage, chemical used, rate per acre, method used and results are tabulated below:

Control Date	Acres	Chemical	Applic. Rate/acre	Method of Treatment
5/28,29,30	40	2,4-D,H_2O	1	Fog spray

Remarks: Plant species include Canadian Thistle, White Top, Wild Morning Glory. All three kinds of weeds treated were scattered to a thin stand. About 50% of White Top in bloom stage, rest in very early bud. Canadian Thistle about 4" tall. Wild Morning Glory blooming. Inspection on July 16, '62 showed White Top drying up. Canadian Thistle brown and dry, but some late growth showing up. Apparent dill was 30% on White Top, 25% on Canadian Thistle, 30% on Wild Morning Glory. Total cost was $95.68, $2.38 per acre.

.....

5/31-6/1	35	2,4-D,H_2O	1	Fog spray

Remarks: Plant species sprayed include White Top, Canadian Thistle, Wild Morning Glory. The White Top was thin stand and about 50% in bloom. Canadian Thistle was 4 to 6 inches

in height, also very scattered. Wild Morning Glory in early bloom stage. Apparent kill - White Top 25%, Canadian Thistle was 30%, Wild Morning Glory 40%. Total cost was $103.80, $2.95 per acre.

.....

6/1,4	20	2,4-D H_2O	1	Fog spray

Remarks: Plant species treated include Canadian Thistle, White Top, Wild Morning Glory, Milk Weed. Canadian Thistle was about 8 inches high and scattered. White Top was mostly in bloom. Wild Morning Glory mostly in bloom. Milk Weed about 50% in bloom. Apparent kill was - Canadian Thistle 30%, White Top 25%, Wild Morning Glory 60%, Milk Weed 75%. Total cost, $45.36, $2.26 per acre.

.....

6/4	5	2,4-D H_2O	1	Hand gun

Remarks: Plant species treated include Canadian Thistle, White Top, Milk Weed. The Canadian Thistle about 8" to 10" high. The White Top was in early to full bloom. The Milk Weed mostly in bloom. Apparent dill was 60% on Canadian Thistle and White Weed. Milk Weed about 35%. Got very good kill on these last year, with same rate of spray. Total cost was $18.58, $3.71 per acre.

.....

6/11	20	2,4-D H_2O	1	Fog spray

Remarks: Plant species treated include White Top, Canadian Thistle, Mouse Ear Poverty Weed. The White Top weed was about all in bloom, Canadian Thistle was 8" to 10" high, Mouse Ear Poverty weed was in early bud. Apparent kill was; White Top 50%, Canadian Thistle 40%, Mouse Ear Poverty weed was 15%. These were sprayed at 5 A.M. with heavy dew but no apparent benefits from early morning spraying. Cost: $45.76, $2.48 per acre.

.....

6/14	20	2,4-D H_2O	1	Fog spray

Remarks: Plant species treated was Russian Knapp, White Top, Mouse Ear Poverty weeds. Russian Knapp weed very early bud stage, White Top in full bloom. Apparent kill was Russian Knappweed about 20%, White Top 30%, Mouse Ear Poverty weed 15%. Total cost was $45.76, $2.48 per acre.

.....

6/15	25	2,4-D H_2O	1	Fog spray

Plant species treated include Russian Knapp, Mouse Ear Poverty weed, White Top, Morning Glory. Russian Knapp weed was in early bud stage. Mouse Ear Poverty weed was in early bud. Wild Morning Glory was in full bloom. Apparent kill - Russian Knapp weed about 30%, Mouse Ear Poverty Weed 20%, Wild Morning Glory 75%. Total cost $51.50, $2.60 per acre.

6/18	45	2,4-D H_2O	2	Fog spray

Remarks: Plant species treated include Russian Knapp weed, White Top, Mouse Ear Poverty weed, Rattle weed. Apparent kill, Russian Knapp weed 30%, White Top 20%, Mouse Ear Poverty weed 30% and Rattle weed about 50%. Russian Knapp was mostly in late bud and early bloom. White Top was in late bloom and early seed stage, Mouse Ear Poverty mostly in bloom, Rattle weed mostly in bloom. Total cost was $101.80, $2.25 per acre.

6/25-29	80	2,4-D H_2O	1	Fog & hand spray

Remarks: Plant species treated include White Top, Mouse Ear Poverty, Canadian Thistle, Russian Knapp, Milk weed. Canadian Thistle and Russian Knapp were both almost in full bloom. While Mouse Ear Poverty and Milk weed were still in bud stage. Apparent kill was Canadian Thistle 50%, Russian Knapp weed 30%, Mouse Ear Poverty 20%, and Milk weed 50%. This was ditch and roadways sprayed to and from fields. Total cost of $173.00, $2.16 per acre.

7/9,10	25	Weedazol	8	Hand spray

Plant species treated were Canadian thistle, White Top. Canadian Thistle was mostly in bloom, White Top was in late bloom, mostly seed stage. Apparent kill Canadian Thistle 80%, White Top 25%. Too late for White Top. Total cost $433.00, $17.70 per acre.

7/9,10	5¼ Mi. ditch	Weedazol	8	Hand spray

Remarks: Plant species treated were Canadian Thistle and some White Top. Canadian Thistle was mostly in bloom, White Top was mostly gone to seed. Apparent kill Canadian Thistle 80% and very low on White Top. Total cost $112.00, $2.24 per mile of ditch.

7/11	3½ mi. ditch 4½ mi. road	2,4-D H_2O	2	Hand spray

Remarks: Plant species treated include Canadian Thistle, White Top, Milk weed, Mouse Ear Poverty weed, Wild Morning Glory. Canadian Thistle was mostly in bloom. White Top mostly in seed stage. Mouse Ear Poverty weed going to seed. Milk weed mostly in bloom. Wild morning Glory almost past bloom stage.

7/13,16	30	2,4-D H_2O	2	Fog spray

Plant species treated include Canadian Thistle, Russian Knapp, Mouse Ear Poverty, White Top. Canadian Thistle was in full bloom. Russian Knapp was mostly in bloom. Mouse Ear Poverty going to seed. White Top gone to seed. Apparent kill Canadian Thistle 70%, Russian Knapp 60%, Mouse Ear Poverty 25% White Top 10%. Total cost $106.20, $3.54 per acre.

7/9-13 50 2,4-D H_2O 1# acid Fog spray

Remarks: Plant species treated include Russian Knapp weed, Canadian Thistle, White Top weed. Russian Knapp, Canadian Thistle were in full bloom while White Top had gone to seed. Apparent kill, Russian Knapp 50%, and Canadian Thistle about 45%. Not much kill on White top since plants were almost matured. This is roadways sprayed to and from different fields. Total cost was $73.70, $1.47 per acre.

.....

7/17 10 2,4-D H_2O 4 Fog spray

Remarks: Plant species treated include Russian Knapp weed, Mouse Ear Poverty weed. Russian Knapp in full bloom while Mouse Ear Poverty weed was gone to seed. Apparent kill about 50% on Russian Knapp weed, while on Mouse Ear Poverty there was very little reaction. Total cost was $48.80, $4.88 per acre.

.....

7/18 60 2,4-D H_2O 2 Fog spray

Remarks: Plant species treated include White Top weed, Canadian Thistle, Russian Knapp weed. White Top in late bloom (due to dry conditions). Canadian Thistle in full bloom. Apparent kill, White Top 30%, Canadian Thistle 80%, and Russian Knapp about 30%. Total cost was $166.80, $2.78 per acre.

.....

8/1-10 150 Mowed Tractor mower & roto-cutter

Canada Thistle was mowed in Units 22F-2, 23F-2, 19G-2, 20G-1, 21G-1, and 22H-2. In locations where previous spraying with 2,4-D had not given us very good results. This mowing caught plants that were in late bloom and prevented them or part of them from seeding.

During the past year Rio Grande County Weed Control District No. 1 which covers the area in which the refuge is located was set up with the board stating that Canada Thistle would be the first plant that would be worked on. By setting up this district it is mandatory that all land owners in the district to carry on weed control operations on Canada Thistle or otherwise the board has the right to control this thistle on a persons place and charge such control work to the tax assessment on the property concerned. Federal lands laying within the district are excluded from the district but all other lands are included. In the past we have had very good relations with the people who were tyring to farm this district and our relations were good with the board and the weed control inspector until the middle of August when we were contacted by the inspector, Mr. B. O. Austin, who lives just south of the refuge. Mr. Austin demanded that we make an additional

application of spray on the Canada Thistle which we had sprayed previously. Admittedly we did not get the control which we wanted but as we had already set up funds for weed control we could not comply with this request at this time. We explained to Mr. Austin that we did have a large control program going but the control of Canada Thistle, Russian Knapp weed, White Top, Field Bind weed, and Mouse Ear Poverty weed and that we would attempt to control all of the plants with the money that was made available to us through regular channels. We also notified him at this time that we considered Knapp weed and White Top to be more of a problem to us than Canada Thistle as generally speaking we find the first two species mentioned in farmlands, while the Canada Thistle is generally restricted to grasslands. This apparently did not satisfy him as he would like to see us expend all of the money we are getting at the present time for the control of Canada Thistle only. During the past year we have on several occasions talked to Mr. Abe Relyea, technician for the soil conservation service located in Alamosa, Colorado and have asked for his recommendations regarding weed control operations on the refuge. Mr. Relyea has recommended that during the coming year Trysben-638 be sued on Canada Thistle and continue with the 2,4-D application on farmlands that are being used to produce grain. Before working out a program for the coming year we are waiting to see how Trysben has worked out on several test plots in the near vicinity of the refuge.

E. Planned Burning.

Seventy acres of barley stubble and weeds in Unit 13F and seventy seven acres of barley stubble and weeds in Unit 14F were removed by burning during the latter part of the period so that this accumulation of material would not be present when land leveling operations were performed on these lands. Unit 14F was leveled during the first part of December and 13F will be leveled during the coming period.

F. Fires.

On October 11, one acre of grass in Unit 6G was burned. This fire was started by contractor who was welding on a ditcher unit. On October 22 one-fourth acre of grass was burned in Unit 14G. It is believed that this fire was caused by children playing with matches. The fire hazard was high on the refuge during the early part of the period due to the dry conditions that prevailed and heavy accumulation of grass that was present throughout the refuge. This danger was lessened to some extent when snow fall was received during the early part of November.

IV. RESOURCE MANAGEMENT

A. Grazing.

Grazing units on the refuge as far as vegetation available is concerned has been in excellent shape this period. Moisture conditions could have been better which would have prolonged the growing season and made the grass more palatable to the cattle. Eleven grazing permits were in effect during the period. The grazing season extended from August 1 to November 30 except for one permit which was extended for grazing from December 1 tp December 31. Approximately 905 cattle were grazed on the refuge this period for a total of 2,744 animal use months being involved. Again we are finding that not enough vegetation is being removed from a large majority of our grazing units, therefore we shall recommend a modification in our grazing plan in the near future. Grazing land was again in high demand this year and more requests were received than we could possibly handle.

B. Haying.

Most of our haying operations were completed last period but late haying operations were permitted in Units 28, 22H-2, and 7H.

Due to the dry conditions prevailing this period regrowth is not as extensive as it might have been had we had good water conditions. Regrowth is not desirable as it tends to bring in nesting birds which are immediately flooded out when irrigation is started in the coming months. A total of 14 haying permits were issued this year with 1,250 tons being harvested.

C. Fur.

No fur removal was made this period as it is almost impossible to interest a trapper in removing Muskrats from the area.

D. Other Uses.

One bee-keeping permit has been in effect this period.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

A. San Luis Valley Mallard Investigation.

A total of 23 Pintail and 667 Mallards were banded prior to the hunting season. 614 Mallards were banded after the hunting season to carry on this study. It is believed that the returns from these banded birds will be considerably below normaldue to the restricted hunting season in the Central Flyway this year.

B. Waterfowl Production Study.

The final report on the waterfowl production study was completed during the period and this will be put into effect as soon as the transect area can be marked. Part of this work will be attempted this spring with the final transect being installed in the fall months.

C. Pheasant Inventory Procedure.

A final report on the pheasant inventory procedure was completed during the period. This procedure will be followed from now on in estimating pheasant present on the refuge.

VI. PUBLIC RELATIONS

A. Recreational Uses.

The Kid's Fishing Pond received very little use this period. It was closed to fishing on October 31.

Waterfowl flights leaving Upper Spring Creek and ponds on the east side of the refuge and going into refuge farmlands was again a major attraction for the visiting public.

The number of hunters using the refuge dropped considerably this year due to the restricted season present in the Central Flyway. We will discuss this in greater detail under the hunting section of the report.

Depredation problems this period have been very limited as most of the birds are feeding on refuge fields. Such was not the case during the past year as most of the feed was unavailable to the birds due to snow that prevailed at that time.

B. Refuge Visitors.

Date	Name and Address	Organization	Purpose
9/4	Mr. Tony Opstedal Regional Office	Engineering Branch	Check w/ contractor
9/5	Mr. Grier Illinois	Audbon Society Member	Visit
9/5	Mr. Tupple Washington Office	Fisheries Branch	Visit
9/5	Mr. Tom Nelson Regional Office	Fisheries Branch	Visit
9/5	Mr. Lee Bacus Denver, Colo.	Predator & Rodent Control	Visit
9/5	Mr. Bill Garner Regional Office	Engineering Branch	Water problems.
9/5	Mr. Jack Frost Lamar, Colo.	Game Mgmt. Agent	Depredation.

Date	Name and Address	Organization	Purpose
9/10	Mr. Ernie Morris Regional Office	Engineering Branch	Check on refuge construction .
9/17	Mr. Gatlin, Regional Director Regional Office		Refuge Inspection.
9/17	Mr. Krummes, Assistant Regional Director Regional Office		Refuge Inspection.
9/17	Mr. Chuck Hayes Denver, Colo.	Game Mgmt. Agent	Procedures for depredation control.
9/19	Dr. J. P. Linduska Nilo Farms, Illinois	Olin Mathieson Ind.	Courtesy visit.
9/19	Mr. Bud Smith Denver, Colo.	I & E Branch Colo. Game & Fish	Refuge Inspection.
9/26	Mr. Barclay, Refuge Supervisor Regional Office		Refuge Inspection.
10/8	Mr. Phil Morgan Regional Office	Branch of Refuges	Visit
10/10	Group from Regional Office		Visit
10/11	Mr. Tony Opstedal Regional Office	Engineering Branch	Check on contract work.
10/17	Mr. Lyle Stemmerman Dugway, Utah	Refuge Manager Fish Springs Refuge	Visit enroute to Fish Springs.
10/17	Mr. Don Redfearn Vernal, Utah	Refuge Manager Ouray Refuge	Visit.
10/17	Mr. Vinard L. Paris Washington, D.C.	Businessman	Owns property near Alamosa area.
11/2	Mr. Jack Frost Lamar, Colo.	Game Mgmt. Agent	Law enforcement
11/14	Mr. Jack Frost Lamar, Colo.	Game Mgmt. Agent	Law enforcement.
11/23	Mr. Skeet Dart San Antonio, New Mexico	Refuge Manager Bosque Refuge	Transfer Greater Sandhill Cranes.
12/4	Mr. Lee Bacus Denver, Colo.	Supervisor PARC	Visit
12/4	Mr. Vic Keenan Monte Vista, Colo.	PARC	Visit
12/4	Mr. Austin Beard Regional Office	Branch of Realty	Visit
12/6	Mr. Ernie Morris Regional Office	Engineering Branch	Check w/ contractor on well jobs.
12/13	Mr. Red Sheldon Denver, Colorado	Research Branch	Present award to Bryant.
12/13	Mr. Chuck Hayes Denver, Colorado	Game Mgmt. Agent	Pick up trapping supplies.
12/21	Mr. Austin Beard Regional Office	Realty Branch	Visit
12/13	Mr. Kenne Baer Regional Office	Realty Branch	Bring supplies to Mr. Hayes.

C. Refuge Participation.

10/19 Mr. George Eustis, Assistant Refuge Manager, presented program to local Farm Bureau Group.
11/1 Mr. George Eustis, Assistant Refuge Manager, presented slide-talk to members of La Jara Rotary Club.
11/6 Mr. George Eustis, Assistant Refuge Manager, made tour of refuge with students from Waverly School.
11/18 Mr. Robert Stegman, Foreman IV, presented slide-talk to Daughters of American Revolution group of Alamosa.
12/5 Bryant attended Monte Vista Water Users Association meeting as a representative of Mr. Gatlin.
12/7 Mr. Robert Stegman, Foreman IV, picked up Canada Geese at Denver City Park and transported them to Monte Vista Refuge.
12/18-21 Mr. Stegman and Mr. McDermith made trip to Hill Air Force Base in Utah for surplus pipe.

Mr. Stegman, Foreman IV, is still very active in Lion's Club at Monte Vista, Colorado.

Refuge Manager Bryant became a member of Monte Vista Chamber of Commerce during period.

Refuge Manager Bryant sponsered two Fish and Wildlife Bowling Teams this period. One team is composed of women and one of men.

Refuge Manager Bryant was elected Vice-president of Monte Vista Country Club at annual meeting held during latter part of December.

D. Hunting.

Pheasant hunting was permitted on 40% of the refuge this year. The season started on November 10th and extended through November 18th. A large turnout of hunters were present the first two days of the season and then dropped off rapidly the rest of the season. The number of hunters using the refuge and the total kill showed a decrease this year.

The following provides a comparison for past hunting seasons:

Year	Estimated Total Hunters	Average Bag Per man-day	Estimated Total Kill
1962	415	.38	159
1961	448	.65	290
1960	676	.42	289
1959	814	.37	300
1958	278	.53	148
1957	417	.60	250

The waterfowl hunting season as set by the service was received with mixed emotions by hunters in this locality. Many felt that

the season should have been closed completely. Others felt that the valley should have been placed in the Pacific Flyway while the majority felt that a special season should have been set up for the valley.

A request for an extended season was made by Director Woodard of the State Fish and Game Department. When this request was not granted many hunters voiced their opinion that they would not hunt this year and would not purchase a duck stamp if there was not a change in the season.

The state chose to have a season from November 9th to December 3rd. here in the valley with goose hunting prohibited on the west side of the valley where the refuge is located.

Fourty percent of the refuge was opened to the hunting of ducks with the same area opened as in past years. The hunters were permitted to enter the area in six locations and were not required to receive a permit but were required to park their vehicles at the parking area.

On opening day and the days following it was very apparent that the hunters were true to their word as very few hunters used the area open to hunting even through there was an abundance of birds in the area open to hunting. Due to this the kill and number of hunters using the refuge decreased to a great extent over that which had occurred in past years.

The following provides a comparison for the last five hunting seasons:

Year	Estimated Total Hunters	Average Bag Per Man-day	Estimated Total Kill
1962	233	.98	228
1961	1,374	2.27	3,125
1960	999	1.73	1,729
1959	1,133	1.75	2,386
1958	1,213	1.76	2,035

E. Violations.

It was believed that violations might be up this year due to the feelings of a great many hunters prior to the hunting season. This was not the case as only one violation occurred this period which is listed below.

Date	Name	Charge	Fine	Court Cost
11/22/62	William M. Clark	Illegal possession of 1 mallard.	$20	No court cost as penalty assessment was issued.

F. Safety.

Three regular safety meetings were held during the period. We also held safety meetings with employees in the field when a new job was being started, such as fencing, installation of cattle-guards, installation of structures.

During the early part of the period a check was made of all buildings on the property, checked for fire hazards which might be corrected before winter conditions occurred.

At this time we have a record of 381 accident free days.

VII. OTHER ITEMS

A. Items of Interest.

On September 8, Mr. Robert C. Brown, Assistant Refuge Manager, was promoted and transferred to the Buffalo Lakes National Wildlife Refuge, at Umbarger, Texas, where he takes over as Refuge Manager. We wish Mr. Brown the best of luck in his new position.

On September 10, Mr. Marcus Nelson, Assistant Refuge Supervisor, presented Bryant with a check for $150.00 for award made last period.

On December 13, Mr. Red Sheldon presented Bryant Achievement plaque which had been granted by Wildlife Society last period.

Mr. Jim Roberts, SCS Technician, again assisted with grades for land leveling operations carried on this period.

Several meetings were held with Mr. Bud Sweet, Project Engineer for Bureau of Reclamation, of Monte Vista, Colorado regarding Closed Basin Project which includes the Mishak area and will run through the Alamosa area.

First option on land for Alamosa area was taken December 4, 1962. This land is owned by Mr. W. A. McEntyre, of Alamosa, Colorado.

B. Photographs.

Photographs were prepared by Mr. George P. Eustis, Assistant Refuge Manager.

C. Credits.

Vegetation Control - Wesley E. Parker, Foreman II.
Waterfowl Counts - Robert W. Stegman, Foreman IV.
Typing of narrative - Margaret I. Gardner, Secretary

Mr. George Eustis, Assistant Refuge Manager, assisted in gathering up information for the report.

Dated: January 18, 1962

Submitted by:

Charles R. Bryant,
Refuge Manager

Reviewed:

_____

3-1750
Form NR-1
(Rev. March 1953)

WATERFOWL

REFUGE Monte Vista National Wildlife Refuge MONTHS OF September TO December, 1962

(1) Species	(2) Weeks of reporting period 9/2-8/62 1	9/9-15 2	9/16-22 3	9/23-29 4	9/30-10/6 5	10/7-13 6	10/14-20 7	10/21-27 8	10/28-11/3 9	11/4-10 10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	248	248	248	248	248	248	248	247	247	247
Cackling	1	1	1	1	1	1	1	1	1	1
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	9,500	10,000	12,200	14,000	15,000	16,000	17,000	18,500	20,500	35,000
Black										
Gadwall	1,350	1,100	900	700	700	600	600	600	400	100
Baldpate	30	30	30	30	30	20	20	20	20	20
Pintail	5,500	5,500	4,500	4,400	4,400	4,600	4,600	5,600	5,800	5,200
Green-winged teal	650	500	450	450	450	350	350	350	350	300
Blue-winged teal	200	120	100	75	75	60	60	60	60	60
Cinnamon teal	75	60	40	30	30	10	10	10	10	2
Shoveler	900	900	600	550	550	500	500	500	300	200
Wood										
Redhead	90	90	110	110	110	110	110	110	110	100
Ring-necked							4	4	4	4
Canvasback										
Scaup	80	100	140	140	140	140	140	140	120	100
Goldeneye	4	12	12	12	12	10	10	10	10	10
Bufflehead	20	20	20	10	10	12	12	12	12	20
Ruddy	90	100	100	100	100	24	24	24	24	24
Other										
Coot	2,000	2,200	3,800	3,800	3,800	3,800	3,800	3,800	2,400	97

3 -1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Monte Vista National Wildlife Refuge MONTHS OF September TO December, 1962

(1) Species	(2) Weeks of reporting period: 11/11-17 (11)	11/18-24 (12)	11/25-12/1 (13)	12/2-8 (14)	12/9-15 (15)	12/16-23 (16)	12/24-29 (17)	(18)	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada	247	247	247	247	272	272	292		30,107		
Cackling	1	1	1	1	1	1	1		119		
Brant											
White-fronted											
Snow				1	1	1	1		28		
Blue											
Other											
Ducks:											
Mallard	40,000	40,000	39,500	39,500	39,500	41,500	44,500		3,165,400		
Black											
Gadwall	300	300	0	0	0	0	0		33,550		
Baldpate	20	20	20	20	20	20	5		2,625		
Pintail	4,800	4,800	4,200	4,200	4,200	4,200	4,200		564,900		
Green-winged teal	300	300	200	200	200	200	200		40,600		
Blue-winged teal	60	60	50	50	50	50	25		8,505		
Cinnamon teal	10	10	0	0	0	0	0		2,079		
Shoveler	200	200	20	20	20	20	0		41,860		
Wood											
Redhead	100	100	50	50	50	50	30		10,360		
Ring-necked	4	4	2	2	2	2	2		224		
Canvasback	8	8	2	2	2	2	2		238		
Scaup	80	80	40	40	40	40	20		11,060		
Goldeneye	10	10	10	10	10	10	10		1,204		
Bufflehead	20	20	20	20	20	20	10		1,946		
Ruddy	20	20	40	40	40	40	20		5,810		
Other											
Coot:	97	97	50	0	0	0	0		208,187		

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	30,294	294	
Ducks	3,910,361	49,024	
Coots	208,187	3,800	

SUMMARY

Principal feeding areas Croplands in Unit 13, 2?, 17, and 18, and pools in Unit 7, 14, and 17.

Principal nesting areas

Reported by Charles W. Bryant

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
1953

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Monte Vista Wildlife Refuge Months of September to December 1962

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Eared Grebe	2	9/9	2	9/9	2	9/9				30
Pied-billed Grebe	40	9/2	75	10/6	4	12/9				80
Great Blue Heron	3	9/29	4	11/2	2	12/1				12
Snowy Egret	80	9/2	80	9/2	2	11/24				100
Black-crowned Night Heron	120	9/2	120	9/2	1	11/24				400
American Bittern	75	9/2	75	9/2	2	11/24				125
Sandhill Crane	120	9/9	1,250	11/10	20	12/8				2,000
Virginia Rail	6	9/2	10	12/29	10	12/29				20
Sora Rail	12	9/2	12	10/27	12	10/27				40
II. Shorebirds, Gulls and Terns:										
Killdeer	250	9/2	300	10/13	20	12/29				500
Wilson's Snipe	35	9/2	50	12/29	50	12/29				300
Spotted Sandpiper	20	9/9	20	9/9	2	11/17				150
Greater Yellowlegs	40	9/9	50	9/29	50	9/29				300
Long-billed Dowitcher	12	10/21	12	10/28	10	11/17				100
Western Sandpiper	20	9/2	20	9/9	2	11/17				80
Avocet	230	9/2	300	9/9	10	11/17				600
Black-necked Stilt	20	9/16	2	9/2	1	10/27				20
Wilson's Phalarope	45	9/2	100	9/16	20	11/17				600
Black Tern	20	9/16	20	9/16	20	10/6				40
Willett	40	9/16	40	9/16	1	10/6				80

(over)

(1)	(2)		(3)		(4)		(5)			(6)
III. Doves and Pigeons:										
Mourning dove	150	9/2	400	10/6	20	12/29				900
White-winged dove										
Bandtailed Pigeon	40	9/2	40	9/2	30	9/15				40
IV. Predaceous Birds:										
Golden eagle	4	9/2	6	12/29	6	12/29				10
Duck hawk	4	9/2	6	12/1	4	12/29				6
Horned owl	16	9/2	22	12/1	20	12/29				22
Magpie	350	9/2	600	12/29	600	12/29				1,000
Raven										
Crow	20	9/2	250	12/1	100	12/29				400
Bald Eagle	1	9/2	7	12/29	7	12/29				7
Western Red-tailed Hawk	2	9/2	4	12/29	4	12/29				40
American Rough-legged Hawk	25	9/2	35	11/3	32	12/29				70
Ferruginous Rough-legged Hawk	4	9/2	4	12/29	4	12/29				20
Marsh Hawk	48	9/2	60	12/29	60	12/29				200
Prairie Falcon	2	9/2	2	12/1	1	12/29				40

Reported by Charles R. Bryant

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Monte Vista Wildlife Refuge Months of September to December 1962

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
		CONTINUATION SHEET. SEE REVERSE SIDE.								
II. Shorebirds, Gulls and Terns:										

(over)

(1)	(2)		(3)		(4)		(5)			(6)
III. Doves and Pigeons:										
Mourning dove										
White-winged dove										
IV. Predaceous Birds:										
Golden eagle										
Duck hawk										
Horned owl										
Magpie										
Raven										
Crow										
Short-eared Owl	12	9/2	14	11/3	10	12/29				20
Flammulated Screech Owl	6	9/2	6	9/15	2	12/1				8
Barn Owl	12	9/2	12	11/3	10	12/29				15
Long-eared Owl	10	9/2	20	12/29	20	12/29				30
Sparrow Hawk	6	9/2	12	9/29	1	12/1				40
Western Burrowing Owl	4	9/2	4	9/15	4	9/15				8

Reported by Charles H. Bryant

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Monte Vista Wildlife Refuge Months of September to December 1952

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
		CONTINUATION SHEET. SEE REVERSE SIDE.								
II. Shorebirds, Gulls and Terns:										

(over)

3-1750c
Form NR-1C
(Sept. 1960)

WATERFOWL HUNTER KILL SURVEY

Refuge Monte Vista National Wildlife Refuge

Year 1962

(1) Weeks of Hunting	(2) No. Hunters Checked	(3) Hunter Hours	(4) Waterfowl Species and Nos. of Each Bagged	(5) Total Bagged	(6) Crippling Loss	(7) Total Kill	(8) Est. No. of Hunters	(9) Est. Total Kill
1962								
11/9-15/62	40	116	Mallard (28), Green-winged Teal (4), Gadwall (3), Pintail (3).	38	4	42	58	61
11/16-22/62	22	67	Mallard (14), Blue-winged Teal (1), Pintail (1).	16	2	18	68	56
11/23-12/1/62	52	156	Mallard (41), Pintail (6), Green-winged Teal (3).	50	6	56	71	76
12/2-3/62	30	90	Mallard (24), Pintail (3), Green-winged Teal (1).	28	1	29	36	35
Totals	144	429	Mallard (107), Pintail (13), Green-winged Teal (8), Gadwall (3), Blue-winged Teal (1).	132	13	145	233	228

(over)

3-1750c
Form NR-1C
(Sept. 1960)

WATERFOWL HUNTER KILL SURVEY

Refuge Monte Vista National Wildlife Refuge

Year 196 2

(1) Weeks of Hunting	(2) No. Hunters Checked	(3) Hunter Hours	(4) Waterfowl Species and Nos. of Each Bagged	(5) Total Bagged	(6) Crippling Loss	(7) Total Kill	(8) Est. No. of Hunters	(9) Est. Total Kill
1962								
11/10-16/62	397	1,101	113 Pheasants	113	22	135	389	142
11/17-18/62	23	69	12 Pheasants	12	3	15	26	17
Totals	390	1,170	125 Pheasants	125	25	150	415	159

(over)

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

Refuge Monte Vista Wildlife Refuge Months of September to December, 19 62

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked Pheasant	Agricultural, 1122 Sedge Meadow, 8440 Brush, 2363 Upland Prairie, 800	2.1			30% Cocks 70% Hens	159			5,965	Numbers shown were based on the new pheasant inventory procedure which was worked up during 1961 and 1962.

3-1753
Form NR-3
(June 1945)

BIG GAME

Refuge Monte Vista Wildlife Refuge Calendar Year 1962

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re-stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
Elk	Agricultural 1122	.....	.....	.....	.....	NONE	.....	.....	.....	.....		4	0	
Deer	Sedge Meadow 3440											2	0	
	Brush 2363													
	Prairie 800													

Remarks: Big game occasionally use the refuge but are not permanent residents. Elk numbers were highest during January.

Reported by Charles R. Bryant

3-1755
Form NR-5
60701

DISEASE

Refuge Monte Vista Wildlife Refuge Year 19[illegible]

Botulism

Period of outbreak None

Period of heaviest losses _____

Losses:

	Actual Count	Estimated
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Number Hospitalized	No. Recovered	% Recovered
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Areas affected (location and approximate acreage) _____

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.

Condition of vegetation and invertebrate life _____

Remarks _____

Lead Poisoning or other Disease

Kind of disease None

Species affected _____

Number Affected Species	Actual Count	Estimated

Number Recovered _____

Number lost _____

Source of infection _____

Water conditions _____

Food conditions _____

Remarks No lead poisoning was noted this year which is the first time that we have not had some loss on Upper Spring Creek.

3-1756
Form NR-6
(Rev. August 1957)

PUBLIC USE

Refuge Monte Vista Wildlife Refuge

Calendar Year 1962

Total Use Visitor-Days	Hunting Use	Fishing Use	Miscellaneous Use
5,215	641	75	4,500

Where practical, by means of occasional spot checks, or other methods, show by percent and visitor-days the breakdown of the above figures and other related information:

Hunting (on refuge lands):	Percent	Visitor-Days	Acres
Waterfowl	75%	228	4,720
Upland Game	65%	413	4,720
Big Game			

Supervised by refuge X by State ____ No. of blinds ____

Hunting (off refuge lands): Estimated man-days of hunting on lands adjacent to the refuge 320 (These figures should not be included in hunting-use totals above).
(Primarily pheasant hunters.)

Fishing:

Acres of ponds or lakes 1 and miles of streams ____ open to fishing.
(limited to "kids", age 15 and under.)

Miscellaneous:	Percent	Visitor-Days
Recreation *	75%	1,400
Official	13%	650
Economic Use	12%	450
Other		

Comments:
Viewing wildlife by the general public shows a small increase.
Use by waterfowl hunters shows a terrific drop from last year and upland game hunters shows a small decrease.

*(including picnicking, swimming, boating, camping, viewing wildlife, and photographing)

3-1757
Form NR-7
(April 1946)

PLANTINGS
(Marsh - Aquatic - Upland)

Refuge Monte Vista Wildlife Refuge Year 1956

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Planting	Survival	Cause of Loss	Remarks
		NONE THIS YEAR						

TOTAL ACREAGE PLANTED:

Marsh and aquatic.....
Hedgerows, cover patches.....
Food strips, food patches.....
Forest plantings.....

Interior--Duplicating Section, Washington, D. C.

24315

3-1758
Form NR-8
(Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Monte Vista National Wildlife Refuge County Rio Grande State Colorado

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Water-fowl Browsing Crops Type and Kind	Total Acreage
			Harvested		Unharvested				
	Acres	Bu./Tons	Acres	Bu./Tons	Acres	Bu./Tons			
Barley, "Frontier"			131	6,040	205	8,710	336	Sweet clover and barley stubble	486
Barley, "Beld and Peas"					50	2,000	50		
								Fallow Ag. Land	486

No. of Permittees: Agricultural Operations 0 Haying Operations 14 Grazing Operations 11

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle	305	2,744	$4,116	6,138
				2. Other	1 Beekeeping permit		11.50	
				1. Total Refuge Acreage Under Cultivation				872
Hay - Wild	1,250 ½	2,135	$7,434	2. Acreage Cultivated as Service Operation				872

3-1570
NR-8a

REFUGE GRAIN REPORT

Refuge Monte Vista Wildlife Refuge Months of January through December, 1962

(1) Variety*	(2) On Hand Beginning of Period	(3) Received During Period	(4) Total	(5) Grain Disposed of				(6) On Hand End of Period	(7) Proposed or Suitable Use*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Barley "trebi"	600	0	600	0	0	600	0	0	None on hand.		
Barley "frontier"	0	6,740	6,740	0	640	560	1,200	5,540	700	4,840	0
Barley "bald"	0	50	50	0	50	0	50	0	None on hand.		
Milo	250	0	250	0	0	250	250	0	None on hand.		
Sweet Clover	8	0	8	0	8	0	8	0	None on hand.		
Wheat	130	180	310	0	0	10	10	300	0	300	0
Canada Field Peas	0	60	60	0	60	0	60	0	None on hand.		

All grain reported in bushels.

(8) Indicate shipping or collection points 180 bushel of wheat received from Kirwin Refuge, August. 30, '62. Purchased 700 bu. Frontier barley seed, 50 bu. Bald barley and 60 bu. Canada field peas from local sources. Harvested 6,040 Frontier barley from Refuge fields. Grain is stored at Headquarters

(9) Grain is stored at grainary in Unit 2F. Frontier barley is satisfactory for seed.

(10) Remarks

*See instructions on back.

16—61482-1

3-601
(Sept. 1940)

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

REPORT ON PHOTOGRAPHIC EXPOSURES

NOTE.—This form is to be prepared from field memoranda and forwarded with all films, whether developed or undeveloped. If developed negatives are submitted, the proper roll number and exposure number should be put on the edge of each negative—in ink. It is important to give adequate information regarding each expoures—date taken, locality, name of refuge if appropriate, and what the picture is intended to illustrate, if not obvious.

Author Charles H. Bryant *Date submitted* Jan 20, 1963, 19

Address *Films issued or purchased* , 19

PERMANENT NUMBER (LEAVE BLANK)	TEMPORARY NUMBER ROLL	TEMPORARY NUMBER EXPOSURE	DESCRIPTION OF VIEW, DATE TAKEN, LOCALITY, AND PURPOSE (USE MORE THAN ONE LINE FOR EACH, IF NECESSARY)
	75	1	House well being drilled just north of new headquarters fill.
		2	Well rig for deep well north of headquarters.
		3	Drilling platform on deep well rig.
		4	H-brace detail on current fencing.
		5	Well rig for deep well north of headquarters.
		6	House well rig north of headquarters fill.
		7	Deep well rig - general view.
	76	1	Fencing crew at work.
		2	"Before" view of a takeout on the Empire Canal.
		3	New fence built this period.
		4	"Before" view of a takeout on the Empire Canal.
		5	Ditto.
		6	New fence built this period.
		7	Ditto no. 4.
		8	Rehabilitation of the McLean Drain.
	77	1	Ditto.
		2	DW-20 "High-speeds" used on construction this period.
		3	Ditto.
		4	Ditto.
		5	Fencing crew at work.

U. S. GOVERNMENT PRINTING OFFICE 16—18285

3-601
(Sept. 1940)

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

REPORT ON PHOTOGRAPHIC EXPOSURES

NOTE.—This form is to be prepared from field memoranda and forwarded with all films, whether developed or undeveloped. If developed negatives are submitted, the proper roll number and exposure number should be put on the edge of each negative—in ink. It is important to give adequate information regarding each expoures—date taken, locality, name of refuge if appropriate, and what the picture is intended to illustrate, if not obvious.

Author Charles R. Bryant *Date submitted* Jan 20, 1963, 19

Address *Films issued or purchased* , 19

PERMANENT NUMBER (LEAVE BLANK)	TEMPORARY NUMBER		DESCRIPTION OF VIEW, DATE TAKEN, LOCALITY, AND PURPOSE (USE MORE THAN ONE LINE FOR EACH, IF NECESSARY)
	ROLL	EXPOSURE	
	77	6	Rehabilitation on the McLean Drain.
		7	Fencing crew at work.
		8	New fence built this period.

U. S. GOVERNMENT PRINTING OFFICE 16—18285

Figure 3.

Dike work after completion in Unit 6. Dikes on left side of Spring Creek recently constructed; dikes on right showing previous construc- in 1957 and 1960. Town of Monte Vista in background.

7-18

Figure 1.

Headquarters area showing extension of headquarters fill for new buildings. San Juan Mountains, the Continental Divide, in the background.

B-7

Figure 2.

Dike work in Unit 19 completed this fall. Additional dike work underway and completed, respectively, in Units 14 and 6 visible to the north and east. Town of Monte Vista in upper left background.