

MUD LAKE NARRATIVE REPORT

*W. F. Kubichek*

April 26, 1939

R  
Mud Lake  
Improvements

Mr. George Tenkin, Regional Director,  
207-A Federal Building,  
Des Moines, Iowa.

Dear Mr. Tenkin:

In the November 1938--January 1939 Narrative Report from the Mud Lake Refuge we note that a tuber storage cellar is to be constructed at a cost of \$800.00. There is no need for a storage cellar on this refuge and Mr. Vogen should be informed immediately to cancel this item from the development plan. The excellent storage facilities available on the Arrowwood Refuge preclude the necessity of constructing others within the radius of the Mud Lake Refuge.

Very truly yours,

W. F. Kubichek,  
In Charge,  
Section of Habitat Improvement,  
Division of Wildlife Refuges.

WFK/MAB

R  
Mud Lake

April 4, 1939

Mr. George Tonkin,  
Regional Director,  
207-A Federal Building,  
Des Moines, Iowa

Dear Mr. Tonkin:

Reference is made to the Mud Lake Refuge narrative report for the period ending January 31, 1939, wherein Mr. Vogen mentions that the C.C.C. project for cleaning out dead timber and shrubs in the number of thickets on the refuge is already under way.

We feel that this work should be given very careful attention, removing material only in the interests of fire hazard reduction or timber stand improvement, in accordance with recognized practices of wildlife management. Elsewhere in the report Mr. Vogen mentions the desirability of erecting about one hundred nesting boxes for ducks. This office concurs in that recommendation, however, we believe that it may be possible to utilize some of the fallen hollow snags or dead timber now located in the thickets and which would more admirably serve the purpose of nesting sites for those species of ducks commonly nesting in trees. It is also desirable to maintain an optimum distribution of such tan trees on the refuge for other species of wildlife.

Please call these matters to the attention of Mr. Vogen and request him to give every consideration to maintain a proper balance of food and cover for upland game in the areas where thickets are being cleaned out.

Very truly yours,

W. F. Kubichek  
In Charge,  
Section of Habitat Improvement  
Division of Wildlife Refuges

cc attached  
REG:bm

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NARRATIVE REPORT

MUD LAKE REFUGE MINNESOTA

PERIOD: NOVEMBER 1ST, 1938 TO JANUARY 31ST, 1939

*4/2*

*JWC*

I. INTRODUCTORY STATEMENT

(a) PERSONNEL

I. NAMES AND POSITIONS

Carl B.Vogen	Assistant Refuge Manager
Karl Kobes	Junior Refuge Manager
Hilmer D.Davidson	Laborer-patrolman

2. PERSONAL HISTORIES

Carl B.Vogen

Born and reared in Fillmore County, Minnesota ; 47 years old ; high school, commercial and university education; lived in northwestern North Dakota from July 1914 to November 1938; engaged in general banking business from July 1914 to April 1927; engaged in automobile business from April 1927 to Sept. 1933; Land Appraiser for the Federal Land Bank, St.Paul, Minn., from Sept. 1933 to Sept. 1934; Land Appraiser and Negotiator, Division of Land Acquisition, Bureau of Biological Survey, from Sept. 1934 to November 1938 ; appointed Assistant Refuge Manager in August 1938 which became effective Sept. 27, 1938 ; divided time between the Division of Land Acquisition and the Mud Lake Refuge from August 29th to November 16, 1938; took active and full charge of the Mud Lake Refuge on November 16, 1938.

Karl Kobes

Born and reared at New Bedford, Mass.; 26 years old; high school and university education; majored in Forestry, received B.S. degree at the University of Minnesota in 1936; candidate for M.S. degree; timber estimating, mapping, and land acquisition for

the U.S. Forest Service, Cass Lake, Minnesota from Oct. 1933 to February 1934 ; timber estimating, mapping, and office experience with the U.S. Forest Service, Park Falls, Wisconsin from April to June, 1934; chief of party preparing working plans for wild-life management on state forests preceded by work on road building, fire fighting, and silvicultural operations with Massachusetts Department of Conservation from June 1934 to October 1935; land economic survey work with the Forest Survey of Lake States Forest Experiment Station, St. Paul, Minn., from April to Sept., 1936; graduate work in office and field in advanced courses in economic zoology and related subjects from Oct., 1936 to Jan., 1939; received notice of appointment to the position of Junior Refuge Manager, Jan. 12th, 1939, effective Jan. 16, 1939 and reported for duty Jan. 16, 1939 at 8:00 A.M., on the Mud Lake Refuge.

Hilmer D. Davidson

Born and reared within a few miles of the Mud Lake Refuge; 44 years old; common school education; farmer and well driller for the past twenty-six years; professional Taxidermist; temporarily appointed to the position of Laborer-patrolman, pending a certified list of eligibles from the Oct. 8, 1938 examination; reported for duty under temporary appointment November 19, 1938 at 8:00 A.M.; received the second best rating in the Civil Service examination held Oct. 8, 1938.

Remarks

Because of the large number of dams, dikes, roads and trails that have been or are under construction on this refuge which will need constant care and because of the large area to patrol, it is thought that one more Laborer-patrolman should be appointed.



(b) REFUGE BUILDINGS-HEADQUARTERS

1. GROUP VIEW



2. RESIDENCE



One story, frame, composition-asphalt shingle roof, full concrete basement, seven rooms including three bed-rooms and bath, rock-wool insulated, fire place, hot water heating system, electric lights, size: 23 x 49 x 9.

3. SERVICE BUILDING



One story, frame, double board walls, composition-asphalt shingle roof, concrete floor thruout, concrete basement 13 x 25 where lighting system, furnace and water system are located, garage storage for three cars, work shop, office, laboratory, Hot water heat, electric lighted and shower bath, size: 26 x 72 x 9.

4. EQUIPMENT BUILDING



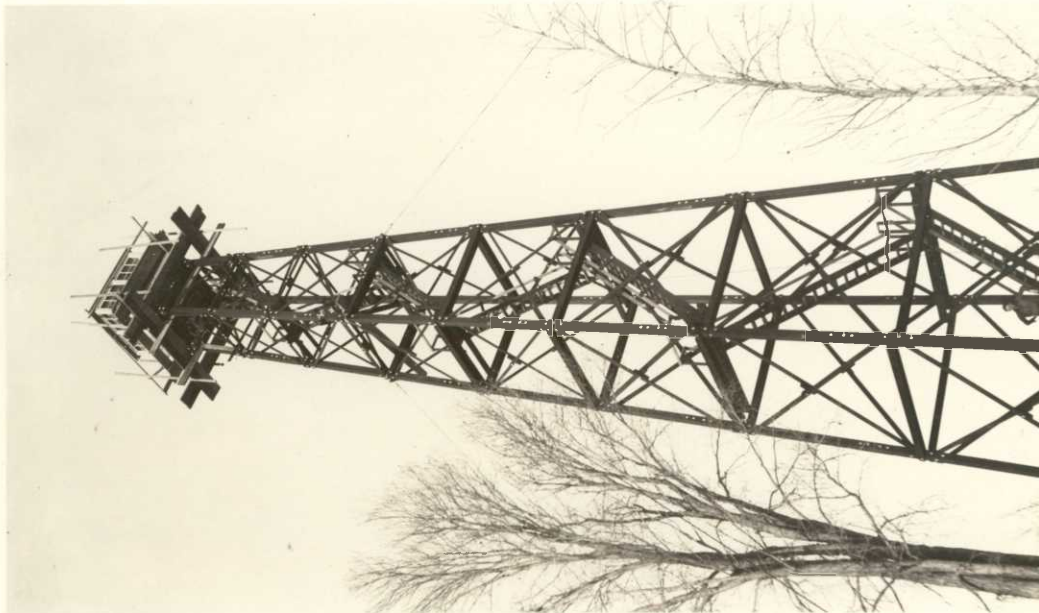
One story, frame, composition-asphalt shingle roof, concrete foundation, dirt floor, not heated nor electric lighted, size: 28 x 106 x 9.

5. BARN



Frame, double board walls, composition-asphalt shingle roof, concrete floor, electric lighted, running water, size: 22 x 40 x 11.

6. TOWER



Wood, 100 feet high.



7. REMARKS

At the time this is being written (January 27, 1939), the construction status of the buildings are as follows: The barn and equipment building have been completed. The service building, including the office and laboratory, is nearing completion and should be ready for occupancy February 1st. The construction work on the residence is in the final stages, but owing to the fact that the electric light fixtures have not as yet been received, and some unfinished work yet to be done, it will not be ready for occupancy until about March 1st. In this connection it is thought appropriate to mention that storm windows and window screens for dwelling and service building should be ordered. It is especially important to order the window screens so as to have them on hand for installation in the spring. Because of the fact that the head-quarter buildings are located in an area surrounded by water and marsh, the mosquito pest is somewhat of a problem during the summer months. The open porch on the south side of the dwelling, in order to be of any benefit should therefore be screened and it is also thought that it would be a good idea to provide it with a removable winter glass inclosure.

Included in the Development Plan, already submitted, is a recommendation for additional new buildings. It is thought appropriate to include this recommendation in this report also. They are as follows:

*JK* DUCK HOSPITAL

Frame, board walls and roof, dirt floor, salvaged lumber, size: 8 x 100 x 4, to be located northeast of equipment building. Estimated cost \$100.00.

DRAG LINE SHED (see next page)

DRAG LINE SHED

One story, frame, single board walls, composition-asphalt shingle roof, concrete foundation, dirt floor, size: 20 x 40 x 12, to be located east of barn and north of equipment building. Estimated cost \$800.

BOAT HOUSE

Frame, single board walls, concrete foundation and floor, composition-asphalt shingle roof, size : 18 x 24 x 8, to be located near spillway northeast of headquarter site. Estimated cost \$600.

TUBER CELLAR

*2/18* All concrete structure, size: 12 x 18 x 8, to be located east of barn and north of equipment building. Estimated cost \$800.

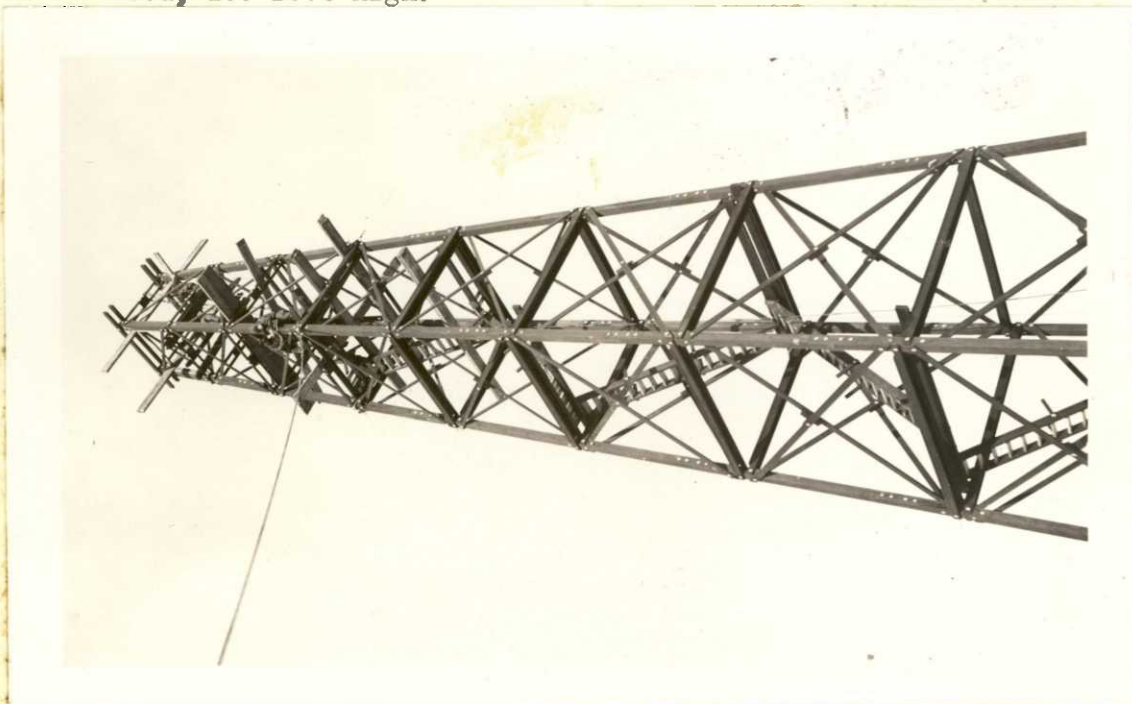
(c) REFUGE BUILDINGS-SECONDARY HEADQUARTERS

1. RESIDENCE

Final plans have been submitted by CCC superintendent and it is anticipated that the construction will be started during April or May.

TOWER

Wood, 100 feet high.



REMARKS

Included in the Development Plan, already submitted, is a recommendation for additional new buildings. It is thought appropriate to include this recommendation in this report also. They are as follows:

SERVICE BUILDING

One story, frame, double board walls, composition-asphalt shingle roof, concrete foundation and floor, concrete basement (size 13 x 25), hot air heat, size: 26 x 50 x 9. Estimated cost \$2500.

EQUIPMENT BUILDING

Frame, single walls, composition-asphalt shingle roof, concrete foundation, dirt floor, size: 24 x 50 x 9. Estimated cost \$1200.

BARN

Frame, double board walls, composition-asphalt shingle roof, concrete floor and foundation, stalls and pens, size: 22 x 40 x 11. Estimated cost \$1500.

(d) EQUIPMENT

1. ON HAND

- 1- - Boat, skiff, 14', flat bottom, square stern, serial #13676, complete with : one anchor, grappel type, one 20' mooring line, one pair of oars, 8', leathared copper tip, two sets oarlocks and two sets oar-sockets.
- 175- Bags, Beemis "A", seamless, seed and grain.
- 2- Chairs, office, wood, without arms, wood seats, slat back.
- 1- Compass, Leitz Standard, Forest Service, with Jacob Staff.
- 1- Disc, serial No. RIDH, 1937 model, Oliver.
- 1- Drill, grain, 1938 model, serial #P2-6, Minneapolis Moline.
- 3- Extinguishers, fire, 2½ gal. soda & acid type, No. 58-E-220.
- 1- Harrow, peg tooth, 1938 model.
- 1- Harrow, spring tooth, 1938 model, serial # 23-25-PB, Oliver.



- 1- Plant, generator, 1500 watt, gas engine, serial #0-35854, Kohler.
- 1- Plant, generator, 1500 watt, gas engine, serial #0-35870, Kohler.
- 1- Plant, generator, 1500 watt, gas engine, serial #18342-12 $\frac{1}{2}$  United States Motor Corporation.
- ✓ 1- Plow, 3 bottom, 16", 1937 model, serial # 316.
- ✓ 1- Tractor, Fafmall, 20 H.P. serial # FB25487, Motor #AA25601, USDA tag # 59-518, McCormick-Deering.
- ✓ 1- Tractor, Cletrac, 22 H.P., serial # 19422, USDA tag #55-182, Cletrac Cleveland Trac Co.
- 1- Truck, pick-up, Chevrolet, serial #21HC06-6468, motor # K 1826636 and USDA tag # 64-916.
- 1- Truck, 1 $\frac{1}{2}$  ton, Chevrolet, serial #21 VD122987, motor # T2162025 and USDA tag # A2-888.
- 1 Typewriter, Royal, standard, elite type, model KMM14-2308656.

2, NEW EQUIPMENT NEEDED

- 1- Harvester and thresher, six foot. ?
- 1- Drag-Line, 3/4 yard.
- 1- Tractor, caterpillar type, 40 H.P., snow plow attachments.
- 1- Grader, ten foot blade.
- 1- Automobile, sedan-delivery.
- 1- Rake, hay, ?
- 1- Planter, corn ←
- 1- Cultivator, corn, two row. *How about attachment for Fafmall*
- 1- Sheller, corn, motor.
- 1- Tractor, garden, lawn mower and garden attachments.
- 1- Hose, garden, 200 feet, six water sprayers.
- 3- Pumps, pack-back, fire.
- 1- Pump, high pressure, portable, fire, 2500 feet of hose.



(e) TELEPHONE LINES

The telephone line from headquarters to the town of Holt is under way. About onehalf of the posts have been set. It is expected that this line will be completed for service about March 1st.

It is planned to establish telephone connection between head and secondary quarters as soon as it becomes necessary to do so, by building a line connecting the two points.

II. WEATHER CONDITIONS

The rain fall during the period from July to Oct., was very light. The ground was extremely dry when the first snow fell in the latter part of Oct. The first snow that fell in Oct., together with additional snow falls, now amounting to about sixteen to twenty inches on the level, is still on the ground. The ground was too dry to freeze before the snow came and after the snow came it prevented freezing and, consequently, there should be no excess run-off in the spring because the ground is in shape to absorb the moisture as the snow thaws. This theory, of course, does not take into consideration heavy rain falls that may occur in the spring.

III. WILDLIFE

(a) WATERFOWL

As yet there has been no opportunity to observe migrations, concentrations or to make a count of the birds on the refuge during the summer season. It has been roughly estimated by persons, more or less well acquainted on the refuge, that during each of the past two seasons, there were from two hundred to five hundred thousand birds on the refuge. It was noted during the late fall season that the birds preferred barley fields to any other feeding places.

There have been a few damage complaints from nearby farmers. To date there has been no sickness, predation or parasites on this refuge. There are no birds on the refuge during the winter. The personnel is now sufficient so that all these matters can and will be given carefully attention and study in the future.

(b) UPLAND GAME BIRDS

1. SPECIES

GROUSE: Ruffed grouse, Shap-tailed and Prairie Chicken.

It is estimated, from observations made by Laborer-patrolman and CCC personnel, tha there are about five hundred grouse on the refuge. The Shapr-tailed are the most numerous.

PHEASANTS : Ring-necked. From observations made during the past year or so by Laborer-patrolman and C<sup>U</sup>C personal it has been determined that the only pheasants on the refuge are the Ring-necked and that they number about fifty.

PARTRIDGES: Hungarian. There are about one hundred of these on the refuge.

All of these species live on the refuge the year around.

2. SHELTERS

( There are numerous natural shelters on the refuge, such as thickets on former farmsteads, brush and tall grass areas.

we The present shelters, it is believed, are sufficient, in fact, they are excellent. )

3. FEEDING STATIONS

Some of these will be provided in case they are needed. To date there has been no need for artificial feeding.

*Cardinal  
Barn*

(c) PREDATOR & RODENT CONTROL

1. Several farmers living in the vicinity of Mud Lake have made trapping and hunting their winter occupation for a good many years and for that reason predatory animals and rodents are well under control. There are a considerable number of skunks on the refuge, but because trapping did not get under way until in January and because they hibernate during the cold winter months, there has been no catch to date. No outside trappers are permitted on the refuge. Approval has been received from Washington to do trapping.

(d) FUR TAKE

1. One red fox and two minks.
2. Monthly records are kept.

(e) FUR TAKE BY OTHER TRAPPERS : None

(f) OTHER ANIMALS

1. From sixty to seventy deer and three moose are on the project.
2. No damage to game bird and mammal population by predators and other species.

(g) BIRD BANDING

1. Necessary approval has not as yet been requested from Washington.
2. It is thought that some of this work should be done during the spring and summer months.

III. REFUGE DEVELOPMENT AND MAINTENANCE

(a) PHYSICAL DEVELOPMENT

1. Seventeen miles of dikes ( 5 miles by contracts and 12 miles by CCC) with locks and spillways have been constructed which impounds water and creates a water area of about twenty thousand acres and a marsh area of about fifteen thousand acres.

*awarded  
Blom*

There are numerous natural islands for nesting purposes and it is not thought necessary to construct any artificial ones.

(b) PLANTINGS

1. AQUATIC AND MARSH PLANTS

✓  
veg  
side

The only plants that apparently survived the long period of drainage on this refuge and give promise of producing highly desirable seeds are the (water smartweed and Muhlenberg's smartweed, both of which are very local in distribution, but where established, are abundant.) Wild millet is locally common but nowhere located where the bed would be available to birds even with a slight increase in water level. pale smartweed is abundant throughout the uplands on the refuge. The most luxuriant stand of any vegetation on the refuge at the present time consists of sweet clover of which there are at least two thousand acres.) The above is from Mr. Kubichek's report of August 8, 1938. No aquatic plantings have been done to date. It is planned to plant some wild rise, sago and busy pond weeds in the spring. OK  
WAK

2. CULTIVATED CROPS

About 160 acres of barley was planted last year and it was left standing and furnished excellent food for the waterfowl during the fall months. For the coming year, it is planned to plant about three hundred acres of barley, 20 acres of speltz and ten acres of corn, some of which will be left standing and some harvested for winter feed for upland species, if needed.

3. TREES AND SHRUBS (see next page )



3. TREES AND SHRUBS

Since this refuge lies within the breeding range of many of the tree ducks, we should take steps to construct and erect at least 100 nesting boxes such as the one described in the Standard Construction Specifications. All the dead trees and shrubs as well as those that are permanently inundated or flooded should be removed next winter. The wood stock so removed can be used in the construction of upland game bird shelters. We do not anticipate maintaining a nursery on this refuge. A quantity of various seeds and fruits of trees and shrubs were planted by Mr. Krumm within the past year. These plots should be carefully checked next spring, and if any growth results, from this planting, it must be given necessary care in order to insure its further development. The above is from Mr. Kubichek's report of August 8, 1938. Work is already under way by the CCC cleaning out dead timber and shrubs in the number of thickets on the refuge and from the inundated and flooded areas. The matter of caring for the plantings will be attended to at the proper time.

X

OK.  
WAK

4. GRASSES

There is no part of the refuge suitable for grazing and it is therefore recommended that the refuge be closed for this purpose. The grass coverage is excellent in most parts of the refuge.

(c) COLLECTION

1. SEEDS COLLECTED :

260 bushels of sweet clover collected and 315 pounds of Bushy pondweed seeds received from the Tamarack Refuge, all of which are on hand at the present time.

milk stalks  
WAK

2. TREATMENT-STORAGE

The sweet clover seeds collected and the Bushy pondweed seeds received from the Tamarack Refuge, have been put in bags and stored in the equipment building on the refuge. 200 hundred bushels of the sweet clover are available for shipment to other refuges.

3. COLLECTION AND PRESERVATION OF BIRD SKINS ETC. None

(d) DISTRIBUTION OF SEED AND NURSERY STOCK

1. RECEIPTS

(a) Species: Bushy pondweed seeds and plant fragments.

(b) Amount : 315<sup>✓</sup> pounds - with chaff. stalks etc. *W.R.K.*

(c) Where secured: Tamarack Refuge.

(d) Delivery: freight.

2. TRANSFER TO OTHER PLACES

(a) Species: Wild Millet, Wild Rose, Black Haw, Wild Cranberry and Hawthorn.

(b) Amount: Wild Millet 270 lbs., Wild Rose 500 lbs., Black Haw 60 lbs., Wild Cranberry 25 lbs., Hawthorn 200 lbs.

(c) To whom sent:

Winona 170 lbs. Millet; Lower Souris 100 lbs. wild Millet, 500 lbs., wild rose, 60 lbs black haw, 25 lbs. wild cranberry and 200 lbs. hawthorn.

(d) Delivery: By truck.

V. PUBLIC RELATIONS

(a) RECREATIONAL USES

I. At the present time there is no public camp facilities. It has been recommended ( in the Development plan) that facilities of this kind be established.

*Reported on seed collection report - R.H.J.*

2. FISHING

There is no fish<sup>ing</sup> on this refuge. Even if it was stocked, the fish could not live thru the winter because all of the water pools freeze to the bottom.

3. HUNTING

The refuge is closed for hunting.

4. VISITORS

Visitors on the refuge will be encouraged in the future.

(b) REFUGE VIOLATIONS : None


VI. ECONOMIC USES OF REFUGE

(a) GRAZING: None

(b) HAYING: None

(c) TIMBER REMOVAL : None

(d) SHARE CROPPING : None

  
C.B. Vogen  
Refuge Manager

Feb. 2, 1939

2. FISHING

There is no fish on this refuge. Even if it was stocked, the fish could not live thru the winter because all of the water pools freeze to the bottom.

3. HUNTING

The refuge is closed for hunting.

4. VIATORS

Visitors on the refuge will be encouraged to the extent...

(f) WILSON WILSON

VI. ECONOMIC USES OF REFUGE

- (a) GRAZING: None
- (b) HAYING: None
- (c) TIMBER: None
- (d) BEAVER DAMMING: None

*[Handwritten signature]*  
 C. E. Vernon  
 Refuge Manager

Feb. 2, 1939

