

QUTVIRA NATIONAL WILDLIFE REFUGE

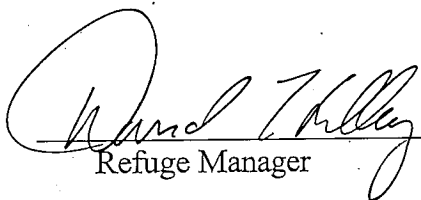
Stafford, Kansas

ANNUAL NARRATIVE REPORT

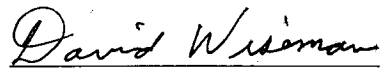
Calendar Year 2005

U.S. FISH AND WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

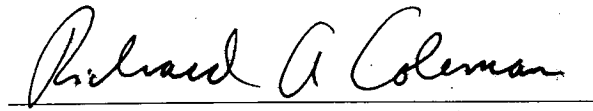
REVIEW AND APPROVAL
QUIVIRA NATIONAL WILDLIFE REFUGE
Stafford, Kansas
ANNUAL NARRATIVE REPORT
Calendar Year 2005


Refuge Manager

7/17/06
Date


Refuge Supervisor

7/20/06
Date


Regional Office Approval

7/21/06
Date

HIGHLIGHTS

2005 HIGHLIGHTS

January

- Water Pack, a local irrigators group, holds their annual meeting in Great Bend, 1/13-14, and issues a warning to farmers that they had better consider the incentive based reductions in water usage within the Rattlesnake Creek Management Plan or face strongly regulated cuts in the future.
- Significant progress is made on the new metal building being constructed by contract labor, to replace the "Tin Shed", lost in an arson fire.

February

- Waterfowl migration was in full swing by the middle of February, as excellent water conditions and good weather urged the birds northward.
- On 2/23, final inspection was made on the new metal building at Headquarters to replace the arson burned "Tin Shed".

March

- Numerous agencies participated in the Retirement seminar in Great Bend, organized by Quivira AO Christine LaRue, on 3/8-9.
- On 3/19, the Friends of Quivira sponsored a volunteer appreciation dinner and their annual meeting at the Hudson Community Center, with about 75 folks attending.

April

- Work starts on development of a snowy plover research project with Ft. Hays State University.
- A meeting was conducted at Quivira between the FWS and Kansas Dept. of Wildlife and Parks personnel on 4/18-19, to discuss options for the modification of the state sandhill crane season, to better protect the endangered whooping cranes.
- The weekend of April 29-May1 was the semi-annual "Wings and Wetlands" birding event, in conjunction with local communities and Cheyenne Bottoms.

May

- On 5/7, the Friends of Quivira sponsored their annual "Fathers Day Out" event for dads and kids to visit the Refuge.
- On 5/20, the "Wetlands and Wildlife Scenic Byway" dedication was conducted in Hoisington, KS. The Refuge has actively participated in the establishment of this byway and is assisting with the federal byway designation.

June

- On June 1, while doing monthly vehicle reports, it was discovered that the Refuge John Deere 444 Hi-Loader had been stolen from the rock pile area. After reporting to the local LE and FBI, all thought the equipment was out of the country by now.
- On June 30, following up on an overheard tip, the Stafford County Sheriff's office recovered our loader from a surrounding county. Sometimes we do win one.
- On 6/4, the Friends of Quivira sponsored their annual "Kid's Fishing Clinic and Derby" with over 200 kids, parents, grandparents and other adults enjoying the event.
- The first ever MUSK THISTLE was discovered along a Refuge highway right-of-way on 6/8/05. We got the sucker, but the search for others has intensified.

July

- On July 18-20, the GPNC sponsored a teachers workshop for 2 hours college credit and visited Quivira NWR on July 19.
- On July 26, RO Engineering was on station to inspect the site for the proposed Little Salt Marsh Observation Tower to be constructed in August.

August

- Contract construction started on the LSM Observation Tower in August.
- On August 23-26, RM Hilley attended RAPP training in Denver, along with a Zone Project Leaders Meeting.

September

- SAMMS, RPI, RAPP, and year end deadlines, all combined to make the Refuge Staff very cheerful and really glad we didn't take that high paying job in the private sector.
- September 9-18, the Refuge coordinated the FWS booth at the Kansas State Fair, with the help of other KS stations. Over 300,000 folks got an introduction to the Refuge System.

October

- The new LSM Observation Tower was completed and a final inspection punch list developed on 10/6.
- On October 15, the Friends of Quivira sponsored a 50th Anniversary celebration for Quivira during NWR Week, with crafts, games, food, and educational exhibits.
- On October 22-23, Quivira NWR hosted an "Introduction to Waterfowling" workshop, in conjunction with KDWP.

November

- Six members of the Refuge staff attended OSHA training at Larned, in conjunction with the NPS, on 11/16-17.
- Sandhill crane season opened outside the Refuge on November 9th, with fears of a repeat of the whooping crane shooting of last year, but all went well.

December

- During December, the firearms deer season outside the Refuge kept Refuge Officers busy. One individual was cited for taking a crack at a huge 13 point that tempted him.
- On 12/13, the Friends of Quivira sponsored a members only "Night Tour", with about 18 folks in 3 vehicles using spotlights to view the nocturnal wildlife.
- A very sad note. On December 19th, Olin Allen, our long time and very dedicated Refuge Volunteer passed away as a result of a heart attack. He will be missed!

MONTHLY ACTIVITY REPORTS

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

JAN05MAR

February 8, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, January, 2005

A. HIGHLIGHTS

- Water PACK, a local irrigators group, holds their annual meeting in Great Bend, 1/13-14, and issues a warning to farmers that they had better consider the incentive based reductions in water usage within the Rattlesnake Creek Management Plan or face strong regulated cuts in the future.
- Significant progress is made on the new metal building being constructed by contract labor, to replace the "Tin Shed", lost in an arson fire.
- As January ended, so did the majority of the hunting seasons for Kansas and the Refuge.

B. CLIMATIC CONDITIONS

High: 69 degrees F Low: 0 degrees F Precip: 0.42 inches

The "official precipitation" for January was 0.42 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for January is 0.57 inches. Weather was unusually mild with only a couple of short cold snaps. A severe ice storm hit the state that cut off power to over 300,000 people in the Wichita area, for several days. Some tree damage occurred on Quivira and the roads were very hazardous but no major damage was experienced.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with waterfowl surveys, prairie restorations, and dozens of other tasks.

6. Safety

On 1/20, the monthly Staff/Safety meeting was conducted, with the topic being CWD in the deer population and it's impacts on how we do business. Safety topics were also discussed at the daily work briefings each morning.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued and water conditions remain the best in several years.

2. Wetlands

Both the Little and Big Salt Marsh, continued to pick up moisture in January. The North salt flats also picked up some more moisture and things continue looking very good for this time of year.

Flows in Rattlesnake Creek continued to be good during January. Water diversions from the Little Salt Marsh were planned to top off wetland units and to reduce the water level in this marsh, our main storage basin, in anticipation of the spring flow increases. All units south of the Highway were topped off during January and even some outlying areas, that only get water in the best years, are now brim full.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for Spring controlled burns. Several large tree piles, resulting from the clearing efforts, were burned during snow events during January.

9. Fire Management

Todd Schmidt and David Hilley responded to a wildland fire adjacent to the south end of the refuge on January 1. This fire was started due to a downed powerline, and was kept small at 0.1 acres.

Bill Waln was lead instructor for the Prescribed Fire Planning and Implementation course held in Sioux Falls, SD, January 10-14.

TJ Rockenbach attended the Prescribed Fire Planning and Implementation course held in Sioux Falls, SD, January 10-14.

The prescribed fire unit, Wildlife Drive, was implemented on January 20. This 660 acre unit is burned annually to maintain optimal habitat for migrating shorebirds.

Brent Waters suppressed a human caused wildland fire occurring on the Refuge on January 21. The fire was kept small at 0.1 acres.

Bill Waln attended the Kansas Interagency Wildland Fire Council annual meeting on January 26th, in Hays.

Monthly Weather Summary for RAWs:

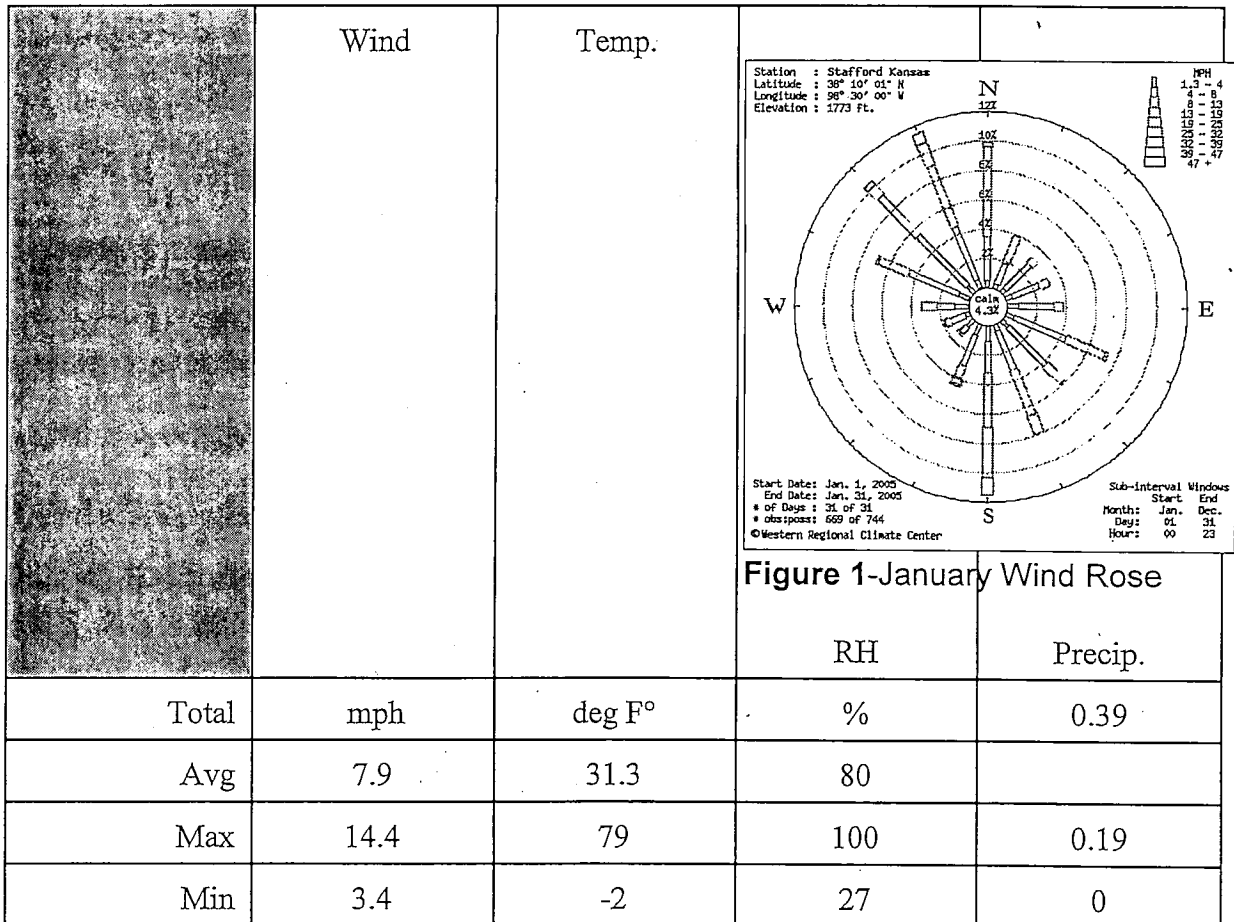


Figure 1-January Wind Rose

G. WILDLIFE

2. Threatened and/or Endangered

Bald eagles numbers were recorded during the bi-weekly waterfowl counts at 3 (1-adults, 2-juveniles) on the 1/4 survey and 10 (2-adults, 8-juveniles) on the 1/18 survey.

The Mid-Winter Standardized Bald Eagle Survey was conducted on 1/7 with 16 bald eagles, 11 Immatures and 5 Adults recorded.

No word has yet been received on the third whooping crane, suspected shot on 11/6 with two other whoopers, that resumed migration from Quivira on 12/10. The bird has not been identified at Aransas but everyone still has hope for it's survival.

3. Waterfowl

Bi-monthly waterfowl counts, conducted in conjunction with the KS Dept. of Wildlife and Parks, continued in January. On the 1/4 survey, a total of 10,225 ducks and 118,950 geese were recorded. The 1/18 survey had only 55 ducks and 260 geese, mainly due to cold conditions and almost 100% freeze up on the Refuge wetlands.

The 1/4 count was conducted to be a part of the FWS Winter Waterfowl Survey.

4. Marsh and Water Birds

Only a few great blue herons attempted to find open water spots along the marsh edges and down the Creek, during the freezing of the marshes and the cold weather.

8. Game Animals

Chronic wasting disease continues to be a concern. During January, a refuge neighbor that deals in exotic animals had a herd of elk escape from a pen west of Quivira. In all, he shot 11 large bulls after unsuccessfully trying to recapture the animals. None of the elk made it onto the Refuge but we feel it is just a matter of time.

H. PUBLIC USE

1. General

Cold temperatures and frozen wetlands cut down on the Refuge visitation in January.

2. Outdoor Classrooms - Students

ORP Terry worked on new environmental education supplies and spent time reworking several Refuge programs with new photos and information.

ORP Beck, GPNC, presented an overview of the JR Duck program to 54 middle school "After School Program" coordinators on 1/12.

Lorrie Beck also sent out over 188 news releases on the 2005 KS Junior Duck Stamp Contest to newspapers throughout Kansas.

ORP Terry worked with a local group on gathering information on Quivira NWR for a Federal Scenic By-Way Application. The state by-way has been approved and the group is now going for the federal designation.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

Lorrie Beck, ORP GPNC, worked on getting replacement exhibit panels for the Koch Habitat Hall to replace some showing a lot of use by little hands.

17. Law Enforcement

Quivira NWR LE officers spent a lot of time and effort during the KS firearms deer season last month and also during the antlerless reduction season in January. While no reduction season was proposed within the management unit surrounding the Refuge, two young men were approached by the local CO and proudly told him they had just shot a doe on Quivira. He unfortunately presented them with a violation and took the deer. Sometimes it pays to read the regulations!

Late duck season closed on 1/2 and reopened from 1/22-30. Pheasant and quail seasons closed on 1/31.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them! A Friend's board meeting was conducted on 1/16 at the St John Methodist Church.

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

With warm winter days, the Refuge crew worked on rehab of portions of several water control structures and dikes damaged by beaver activity.

A new steel gate and steel pipe braces was constructed and installed between C-1 and C-2 water control structures.

The Refuge crew room is being rehabilitated and enlarged to better serve the crew and the fire personnel. Work will continue on this project during bad weather throughout the winter. New walls, work counters and a suspended ceiling were added in January.

Work progressed, in spite of the weather, on the contractor built metal building at the maintenance yard, to replace the old "Tin Shed" destroyed in an arson fire last year.

OTHER ITEMS

3. Training and Items of Interest

On 1/13-14, WaterPACK, a group of local private irrigators, held their annual meeting and a workshop in Great Bend. They issued a warning to farmers within the Basin that they had better consider the incentive based reductions in water usage offered within the Rattlesnake Creek Management Plan or face strong regulated cuts in the future. It helps to have this message come from within the farming community instead of from the Refuge.

A Rattlesnake Creek/Quivira Partnership meeting was conducted on 1/25. Meg Estep, RO Water Resources, attended. The farmers attending were a little shaken when representatives from the Kansas Wildlife Federation attended to check out the progress. The KWF was the group that sued the State to force them to defend their water rights on Cheyenne Bottoms, starting the conflict between farmers and both Quivira and the Bottoms.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

FEB05MAR

March 24, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, February, 2005

A. HIGHLIGHTS

- Waterfowl migration was into full swing by the middle of February as excellent water conditions and good weather urged the birds northward.
- On 2/23, final inspection was made on the new metal building, constructed by contract labor, to replace the "Tin Shed", lost in an arson fire.
- RM Hilley presented the evening's program at the annual meeting and appreciation dinner for the Friends of the Great Plains Nature Center on 2/17.

B. CLIMATIC CONDITIONS

High: 71 degrees F Low: 6 degrees F Precip: 1.96 inches

The "official precipitation" for February was 1.96 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for February is 0.84 inches. Weather was unusually mild with only a couple of short cold snaps. Spring can't be far away!

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with waterfowl surveys, prairie restorations, and dozens of other tasks.

6. Safety

On 2/28, the monthly Staff/Safety meeting was conducted, with the topic being the new storage building and how to securely store the items to be placed in the facility. Safety topics were also discussed at the daily work briefings each morning.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued and water conditions remain the best in several years.

2. Wetlands

Both the Little and Big Salt Marsh, continued to pick up moisture in February. By mid-month, both units had water flowing over the spillways. The North salt flats also picked up some more moisture and things continue looking very good for this time of year.

Flows in Rattlesnake Creek continued to be good during February. Water diversions continued from the Little Salt Marsh to top off wetland units and to reduce the water level in this marsh, our main storage basin, in anticipation of the spring flow increases. All wetland units were topped off by the end of February and even some outlying areas, that only get water in the best years, are now brim full.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for Spring controlled burns.

9. Fire Management

The 7 Strips prescribed fire unit was implemented on February 4th. However due to a wind shift only the south portion of the unit was completed. Approximately 110 acres were treated.

Bill Waln traveled to Kearney, NE, to assist Rainwater Basin WMD in inputting their 2006 NFPORS requests.

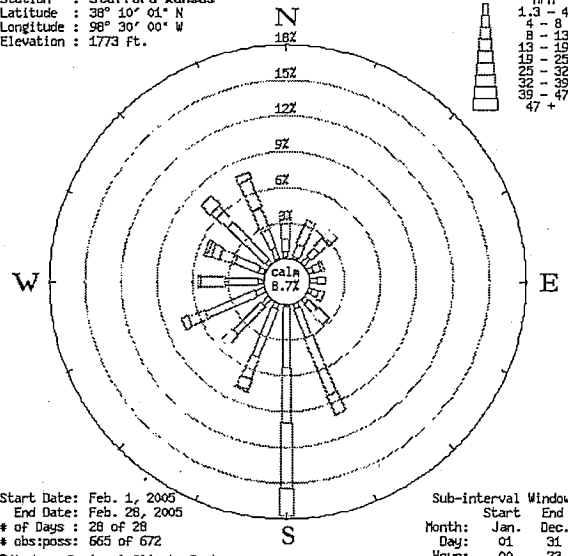
Bill Waln traveled to Hastings, NE, on February 10th to present a program to the National Weather Service Office. This office provides weather forecasts for Rainwater Basin WMD and Kirwin NWR.

Todd Schmidt and David McCauley traveled to the Ozark River National Scenic Riverway Missouri to assist NPS with implementing and preparing for prescribed fires. They were on this detail February 14-25.

TJ Rockenbach, a temporary Range Technician/Firefighter, started on February 21. TJ has worked several seasons at Quivira NWR. His start date was moved up from March to February to better mirror the fire season and meet refuge needs.

Todd Schmidt and David McCauley both completed the written portion of the Kansas Commercial Drivers License process. They will need to complete the driving portion in order to secure a CDL and drive the Type 4 fire engine.

Monthly Weather Summary from RAWS:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	<div data-bbox="852 787 1453 1386"> <p>Station : Stafford Kansas Latitude : 38° 10' 01" N Longitude : 98° 30' 00" W Elevation : 1773 ft.</p>  <p>Start Date: Feb. 1, 2005 End Date: Feb. 28, 2005 # of Days: 28 of 28 # obs: 665 of 672 © Western Regional Climate Center</p> <p>Sub-interval Windows Month: Jan. Dec. Day: 01 31 Hour: 00 23</p> </div>	
			%	1.19
Avg	8.4	40.6	40.1	
Max	37	72.0	100	0.37
Mi.	0	9.0	17	0

G. WILDLIFE

2. Threatened and/or Endangered

Bald eagles numbers were recorded during the bi-weekly waterfowl counts at 3 (All juveniles) on the 2/8 survey and none observed on the 2/22 survey.

No word has yet been received on the third whooping crane, suspected shot on 11/6 with two other whoopers, that resumed migration from Quivira on 12/10. The bird has not been identified at Aransas but everyone still has hope for it's survival.

3. Waterfowl

Bi-monthly waterfowl counts, conducted in conjunction with the KS Dept. of Wildlife and Parks, continued in February. On the 2/8 survey, a total of 29,467 ducks and 825,000 geese were recorded. The 2/22 survey had 20,640 ducks and 105,000 geese, but the weather during the survey period had spotty fog and the count could have been low for that reason.

Four tundra swans used the Big Salt Marsh and Unit 26 from 2/4 through the month's end.

4. Marsh and Water Birds

Great blue herons attempted to find an easy meal along the marsh edges and down the Creek, during February.

5. Shorebirds, Gulls, Terns and Allied Species

By month's end, killdeer were looking over all the Refuge roads and gravel parking lots for potential nest sites. Spring is now officially on the way.

8. Game Animals

Chronic wasting disease continues to be a concern. During February, a refuge neighbor that deals in exotic animals had a herd of 9 elk in a pen just east of the Refuge. Last month this same neighbor shot 11 large bulls, after unsuccessfully trying to recapture the animals, which had escaped from a pen west of Quivira. None of the elk have made it onto the Refuge, that we know of, but we feel it is just a matter of time.

H. PUBLIC USE

1. General

Mild temperatures and large groups of waterfowl on the wetlands brought out visitors trying to escape cabin fever.

2. Outdoor Classrooms - Students

ORP Terry continued to work on new environmental education supplies and spent time reworking several Refuge programs with new photos and information.

ORP Beck, GPNC, worked with staff and playwright on the GPNC theatrical production "HOME SWEET HABITAT" to be performed at the OK Kids event, May 7th.

Lorrie Beck also conducted three JR Duck Stamp workshop during February, and finalized the field trip to the Crystal Festival and Celebration of Birds at Salt Plains NWR in late April.

ORP Terry worked with a local group on gathering information on Quivira NWR for a Federal Scenic By-Way Application. The state by-way has been approved and the group is now going for the federal designation.

ORP Beck presented an all school assembly to Sugar Creek Elementary on owls and snakes and gave two "Suitcase for Survival" programs at Lewis Magnet School, plus two programs on turtles at Starkey, Inc..

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

Lorrie Beck, ORP GPNC, worked on getting replacement exhibit panels for the Koch Habitat Hall to replace some showing a lot of use by little hands.

On 2/1, the Refuge participated in the Scenic By-Way meeting in Great Bend. The new state by-way has been designated and now the committee is seeking the federal designation.

17. Law Enforcement

On February 28th, all hunting seasons for 2004-05 came to an end on Quivira NWR.

DPL Sellers attended Refuge LE Inservice on 2/1-6 in Arizona.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them! A Friend's board meeting was conducted on 2/16 at the Quivira Visitors Center.

RM Hilley was the featured program for the annual Friends of the Great Plains Nature Center appreciation meeting on 2/17.

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

With warm winter days, the Refuge crew worked on rehab of portions of several water control structures and dikes damaged by beaver activity.

The Refuge crew room is being rehabilitated and enlarged to better serve the crew and the fire personnel. Work will continue on this project during bad weather throughout the winter. New walls, work counters and a suspended ceiling were added in January to the Fire side and work started on the Crew side in February.

The final inspection occurred on 2/23, on the contractor built metal building at the maintenance yard, to replace the old "Tin Shed" destroyed in an arson fire last year. A punch list was developed with the help of RO Engineering.

Gravel was added to several roads, previously covered with AB-3 crushed limestone. The gravel should help the road by preventing any water settling and resulting rutting.

OTHER ITEMS

3. Training and Items of Interest

On 2/9, Professor Max Thompson was on site to help clean out the dead critters in our Refuge freezers and transfer the materials to KU to be used for educational mounts.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

MARCH05MAR

April 6, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, March, 2005

A. HIGHLIGHTS

- Numerous agencies participated in the Retirement Seminar in Great Bend, organized by Quivira AO Christine LaRue, on 3/8 -9.
- Members of the Refuge Crew travel to Las Vegas for Maintenance Workshop on 3/14 -18. No one lost their plane ticket home so they were happy.
- On 3/19, the Friends of Quivira sponsored a volunteer appreciation dinner and their annual meeting at the Hudson Community Center, with about 75 folks attending.

B. CLIMATIC CONDITIONS

High: 82 degrees F Low: 19 degrees F Precip: 1.10 inches

The "official precipitation" for March was 1.10 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for March is 1.40 inches. Warmer weather and the strong Kansas winds were the normal for March, meaning spring can't be far away!

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Volunteers started the annual shorebird surveys in March.

6. Safety

No formal monthly Staff/Safety meeting was conducted in March. Safety topics were discussed at the daily work briefings each morning.

On 3/11, the entire staff had training in the proper use of AED's to help victims survive heart attacks. Stafford County EMS is placing a AED at Quivira and providing the training as the result of a grant and a desire to have this protection at the site of the most visitors to the county.

All station fire extinguishers were serviced and certified during March.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued and water conditions remain the best in several years.

2. Wetlands

Both the Little and Big Salt Marsh, continued to pick up moisture in March, and both units had water flowing over the spillways. The North salt flats also picked up some more moisture and things continue looking very good for this time of year. Water was drawn off the tern nesting area to allow it to dry and permit rehab of the fence and nest pads.

Flows in Rattlesnake Creek continued to be good during March. Water diversions were essentially stopped from the Little Salt Marsh and water diverted back into the Creek to reduce the water level in this marsh, our main storage basin, in anticipation of the spring flow increases. All wetland units were topped off by early March and even some outlying areas, that only get water in the best years, are now brim full.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for Spring controlled burns.

9. Fire Management

Quivira NWR's ICS Type 4X engine with Bill Waln and Todd Schmidt plus two others from other refuges assisted Alamosa-Monte Vista NWR in implementing two prescribed fire units February 28-March 4.

Steve Kirk, a temporary Range Technician/Firefighter, started to work on March 7. This is Steve's first year as a wildland firefighter.

Steve Kirk completed S-130/190, March 7-10.

The required annual fireline safety refresher was held at Quivira NWR March 11.

David McCauley traveled to Kirwin NWR to facilitate their annual fireline safety refresher on March 12.

Bill Waln submitted the final draft of his Technical Fire Management for review on March 11.

The 7-Strips prescribed fire unit was implemented on March 14.

The West Little Salt March, Block A, was implemented on March 16.

Quivira NWR requested and was approved activation of the Emergency Preparedness account on March 18th.

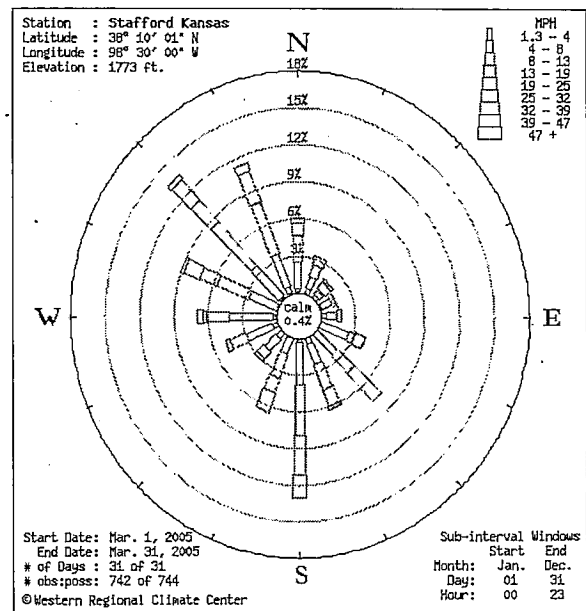
Quivira NWR firefighters responded to two wildland fires on March 19. The Keenan fire which was 80 acres in size and the DeWerth fire which was 90 acres in size. Both fires were a result of an escaped private controlled burn.

Bill Waln and Todd Schmidt traveled to Wilson Reservoir to provide technical assistance and recommendations to US Army Corps of Engineers. This agency desires to treat a portion of the land they manage to reduce invasion of juniper trees using fire.

The northeast section of the Darrynane prescribed fire unit was implemented on March 31.

Bill Waln, Todd Schmidt, David McCauley, TJ Rockenbach and Steve Kirk successfully completed required IT Security training.

Bill Waln entered FY-06 prescribed fire requests into NFPORS for all units in the Mid Plains Fire Management District.



Monthly Weather Summary from RAWS:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	%	1.82"
Avg	10.6	46.0	62.2	
Max	44.0	79.0	98.0	1.10
Min.	0.0	18.0	13.0	

G. WILDLIFE

2. Threatened and/or Endangered

Bald eagles numbers were recorded during the bi-weekly waterfowl counts. No eagles were observed on the 3/8 survey and one adult was observed on the 3/22 survey.

No word has yet been received on the third whooping crane, suspected shot on 11/6 with two other whoopers, that resumed migration from Quivira on 12/10. The bird has not been identified at Aransas but everyone still has hope for it's survival.

3. Waterfowl

Bi-monthly waterfowl counts, conducted in conjunction with the KS Dept. of Wildlife and Parks, continued in March. On the 3/8 survey, a total of 25,409 ducks and 11,075 geese were recorded. The 3/22 survey had 12,725 ducks and 422 geese.

Four tundra swans used the Big Salt Marsh and Unit 26 from 2/4 through mid-March.

4. Marsh and Water Birds

Great blue herons attempted to find an easy meal along the marsh edges and down the Creek. By the end of the month, white-faced ibis and American bitterns were observed on the wetlands.

5. Shorebirds, Gulls, Terns and Allied Species

In March, lots of killdeer were looking over all the Refuge roads and gravel parking lots for potential nest sites. Spring is now officially on the way.

8. Game Animals

Chronic wasting disease continues to be a concern. During March, the Refuge received funding to start a deer monitoring survey, in conjunction with a local University. With a refuge neighbor that deals in exotic animals having a herd of 9 elk in a pen just east of the Refuge, we remain worried and watchful.

H. PUBLIC USE

1. General

Mild temperatures and large groups of waterfowl on the wetlands brought out visitors trying to escape cabin fever. Everyone feel spring on the way!

2. Outdoor Classrooms - Students

ORP Terry continued to work on new environmental education supplies and reworking several Refuge programs with new photos and information.

ORP Beck, GPNC, worked with staff and playwright on the GPNC theatrical production "HOME SWEET HABITAT" to be performed at the OK Kids event, May 7th.

On March 30, Lorrie Beck also conducted a program for Jackson Elementary, three "Suitcase for Survival" presentations for 80 students and teachers, also a program for 10 adults from the Kansas Farm Bureau.

ORP Terry continued to work with a local group on gathering information on Quivira NWR for a Federal Scenic By-Way Application. The state by-way has been approved and the group is now going for the federal designation.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

The Kansas judging for the Junior Duck Stamp Contest was conducted on 687 entries on March 22 at the GPNC. The Wichita Eagle covered the event. Zach Steves, from Chanute High School won Best of Show with a teal painting. Color copies for display were made of the 100 winners. The Best of Show entry will be used to make a unique "Certificate of Participation" by the Coleman Company. The top 36 winners were sent invitations to attend an awards ceremony on May 7 in the GPNC Coleman Auditorium.

Bob Gress, GPNC Director and ORP Lorrie Beck met with representatives from the Rocky Mountain Arsenal NWR to discuss the cooperative partnership at the GPNC and answer questions on their upcoming partnering efforts for a visitors center.

On March 28, RM Hilley led a Refuge tour for 20 members of the Wendelburg family, a neighbor group celebrating the 80th birthday of family member. It was nice to have a family appreciate the Refuge enough to include us in their celebration.

ORP Terry presented a power point program to the Shepherd's Center, from Hutchinson, KS , with 45 folks attending the 3/30 event.

17. Law Enforcement

RM Hilley attended his last Law Enforcement Inservice on 3/2 - 7 in Arizona.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

On 3/19, the Friends held their annual meeting and volunteer appreciation dinner at the Hudson Community Center. Over 75 folks took part in the meal, door prizes, fellowship, and election of new board members.

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

During March, the Refuge crew continued work on rehab of portions of several water control structures and dikes damaged by beaver activity.

The Refuge crew room is being rehabilitated and enlarged to better serve the crew and the fire personnel. New walls, suspended ceiling, work counters and storage cabinets have been installed and the effort is a great improvement.

Gravel was added to several roads, previously covered with AB-3 crushed limestone. The gravel should help the road by preventing any water settling and resulting rutting.

OTHER ITEMS

3. Training and Items of Interest

The Refuge crew attended the Maintenance Workshop in Las Vegas from 3/14 - 18. Everyone learned a lot, all got to take their families, and no one lost too much money on the slot machines.

On 3/8 -9, the Refuge hosted a Retirement Seminar at Great Bend for staff from Quivira, Salt Plains, and Washita NWR's, ES, Park Service, and Forest Service employees. AO Christine LaRue organized the seminar and it was very well received.

On 3/15, the Rattlesnake Creek/Quivira Partnership met to discuss the addendum to the Management Plan. RM Hilley and Meg Estep, RO Water Resources represented the FWS.

On March 26, Dave McCauley, well known local firefighter, went all the way to California to get married.

On 3/29, a TV film crew from Channel 5, Kansas City, were on Quivira and Cheyenne Bottoms to do a piece on tourism destinations.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

APR05MAR

May 16, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, April, 2005

A. HIGHLIGHTS

- Work starts on development of a snowy plover research project with Ft. Hays State University.
- A meeting was conducted at Quivira between the FWS and Kansas Dept. of Wildlife and Parks personnel on 4/18-19, to discuss options for the modification of the state sandhill crane season, to better protect the endangered whooping cranes.
- The weekend of April 29-May1 was the semi-annual "Wings and Wetlands" birding event, in conjunction with local communities and Cheyenne Bottoms.

B. CLIMATIC CONDITIONS

High: 89 degrees F Low: 28 degrees F Precip: 1.59 inches

The "official precipitation" for April was 1.59 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for April is 2.19 inches, slightly more than received this month.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Volunteers worked on the annual shorebird surveys in April.

6. Safety

The formal monthly Staff/Safety meeting was conducted on April 12, with security being a major topic. Safety topics were also discussed at the daily work briefings each morning.

One accident occurred during April when a firefighter was slightly burned on the legs when his ATV stalled during an ignition operation on a prescribed burn. He was taken off the fire line and went to the hospital as a precaution, returning to work the next day.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued and water conditions remain the best in several years.

2. Wetlands

The levels of both the Little and Big Salt Marsh have maintained during April with good rains and adequate Creek flows. The North salt flats picked up some more moisture and things continue looking very good for this time of year. Water, once again had to be drawn off the tern nesting area to allow it to dry and permit rehab of the fence and nest pads.

Flows in Rattlesnake Creek continued to be good during April. Water diversions were essentially stopped from the Little Salt Marsh and water diverted back into the Creek to reduce the water level in this marsh, our main storage basin, in anticipation of the spring flow increases. All wetland units were topped off last month and the units will be allowed to draw down naturally over the next few months.

Because of a desire to mow out some of the thicker cattail stands on several wetlands that were just too wet last summer, water is being passed by several of these units in hopes that they will dry enough to work this year.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for Spring controlled burns.

9. Fire Management

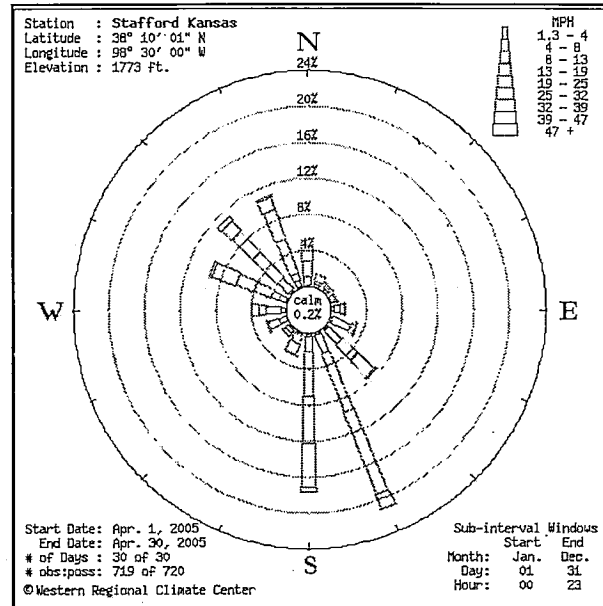
Fire Management Officer Bill Waln presented his final Technical Fire Management Project to a review board in Portland, OR, on April 13.

Quivira NWR assisted BIA, Horton Agency, on one wildland fire April 8-10.

The Darrynane Prescribed fire unit was implemented on April 14. The Black Hills FUM and an engine from Lake Meridith NRA assisted with implementing this unit.

Quivira NWR firefighters assisted the National Park Service at Ft. Larned N.H.S. with implementation of 3 prescribed fire units on April 18-20.

Bill Waln attended FPA-PCHA training in Las Vegas, NV, April 27 and 28. This training provided background information on the new fire budget analysis tool.



Monthly Weather Summary from RAWs:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	%	2.13
Avg	12.3	56.5	63.0	
Max	44.0	89.0	99.0	0.86
Min.	6.2	33.0	16.0	

G. WILDLIFE

2. Threatened and/or Endangered

Bald eagles are nesting in several locations in Kansas but no nests have been recorded on or near Quivira.

With the high shorebird numbers, several sightings of peregrine falcons were reported, chasing a shorebird lunch.

Several piping plovers were seen on the north salt flats during the month.

Several whooping crane sightings were reported, both on and off the Refuge. A pair stayed in Pawnee county, west of Quivira, for several days which is unusual during Spring migration when the visits are usually very short.

Work was completed on the endangered least tern nesting area, including rehab of the nesting pads and erection of the predator exclusion fence. Students from Ft. Hays State University helped with this effort on 4/22-23.

3. Waterfowl

Bi-monthly waterfowl counts, conducted in conjunction with the KS Dept. of Wildlife and Parks, were discontinued in April. The majority of the migrating waterfowl have passed through Quivira with teal, some mallards, wood ducks and a few other species staying around to start nests.

4. Marsh and Water Birds

During April, Great blue herons, white-faced ibis, common, cattle and snowy egrets and American bitterns were much in evidence around the Refuge wetlands. Black crowned night herons also returned to the Refuge in April.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

5. Shorebirds, Gulls, Terns and Allied Species

In April, the good water conditions on Quivira attracted a huge migration of shorebirds through the Refuge. Sightings included Hudsonian godwits, long-billed curlews, willets, snowy plovers, black-necked stilts, semi-palmated plovers, western sandpipers, and thousands of Wilson's phalaropes, some estimated as many as 80,000 phalaropes.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with a local University. With a refuge neighbor that deals in exotic animals having a herd of 9 elk in a pen just east of the Refuge, we remain worried and watchful.

H. PUBLIC USE

1. General

Mild temperatures, good wetland conditions, and lots of shorebirds made for a lot of very happy birders. Everyone feels spring in the air, the mosquitos as well.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, continued to work with staff and playwright on the GPNC theatrical production "HOME SWEET HABITAT" to be performed at the OK Kids event, May 7th.

April programs for ORP Terry included 32 for a Girl Scout Jr Refuge Manager program, 20 for a POE birding opportunity program, 70 folks from Newton High School and 40 from Park School for an "Everything Connected" activity.

ORP Beck, GPNC conducted programs for 3rd graders at Bickerdyke Elem, a plant program for a pre-school, general program for special ed kids at Derby Rec. Center, nature hike for Chisolm Elem., habitats with Cloud Elem. 2nd graders and programs with home schoolers, Andale Elem., Maize Elem, Seltzer Elem. and Andover High School.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

Adult programs included Lorrie Beck presenting at the Clearwater Manor Nursing Home where a therapy dog and cat startled the kestrel she had taken for the program. The kestrel spooked the therapy canaries, resulting in one fatality as the canaries tried to fly through the wall of their cage to escape. Some programs just don't work out like you wish!!!

Lorrie also presented at the "Prairie Heritage Days at Wichita's Cowtown, with over 646 school kids in two days and she also assisted with Salt Plains NWR's Crystal Festival on 4/30-5/1.

On April 29, 30 and May 1 the semi-annual "Wings and Wetlands" weekend was conducted on Quivira NWR and Cheyenne Bottoms WMA. This event, sponsored by the Great Bend CVB drew over 140 folks to take part in the birding festival and the opportunities provided by these two "Wetlands of International Importance".

On 4/29-30, The Ornithology Class from Ft Hays State University was on Quivira for a field trip and overnighted at the Bunkhouse.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

During April, the Refuge crew continued work on rehab of portions of several water control structures and dikes damaged by beaver activity.

The Refuge crew room is being rehabilitated and enlarged to better serve the crew and the fire personnel. New walls, suspended ceiling, work counters and storage cabinets have been installed and the effort is a great improvement.

Gravel was added to several roads, previously covered with AB-3 crushed limestone. The gravel should help the road by preventing any water settling and resulting rutting.

OTHER ITEMS

3. Training and Items of Interest

Christine LaRue, AO, attended the Administrative Workshop in Denver on 4/4 - 8.

RM Hilley attended the Region 6 Project leaders meeting in Rapid City, SD on 4/25 - 29.

On 4/11, a meeting was conducted at Quivira with representatives from Ft Hays State University to discuss a snowy plover research project planned for the Refuge.

As a result of the shooting of the whooping cranes last November near Quivira, a meeting between the Kansas Dept of Wildlife and Parks and FWS was conducted on 4/18 -19 at the Refuge. Representatives from the Service Migratory Bird Office, Tom Stehn, Whooping Crane Coordinator, and Refuge staff as well as KDWP staff met to try and develop actions that would prevent another such incident during the Kansas sandhill crane season.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

MAY05MAR

June 8, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, May, 2005

A. HIGHLIGHTS

- On 5/7, the Friends of Quivira sponsored their annual "Fathers Day Out" event for dads and kids to visit the Refuge.
- Two groups of Nature Photographers used the Refuge and the EEC during May for their meetings and for photo opportunities.
- On 5/20, the "Wetlands and Wildlife Scenic By-Way" dedication was conducted at Hoisington, KS. The Refuge has actively participated in the establishment of this by-way and is assisting with federal designation.

B. CLIMATIC CONDITIONS

High: 98 degrees F Low: 28 degrees F Precip: 3.44 inches

The "official precipitation" for May was 3.44 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for May is 3.77 inches, slightly less than "officially" received this month. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the May rainfall total was 7.02 inches, while the EEC received 6.05 inches, and the Big Salt Marsh had 4.78 inches.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Volunteers continued working on the annual shorebird surveys in May.

Robin Drake-Woods and Tyler McVay entered on duty on 5/2 as 1040 Tractor Operators.

6. Safety

No formal monthly Staff/Safety meeting was conducted in May. Safety topics were discussed at the daily work briefings each morning.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued and water conditions remain the best in several years.

2. Wetlands

The levels of both the Little and Big Salt Marsh have maintained, and even overtopped the spillways, during May with good rains and adequate Creek flows. The North salt flats picked up more moisture and things continue looking very good for this time of year. Water from the heavy thunderstorms was a problem on the least tern nesting area, washing out both tern and snowy plover nests, especially those not on an elevated nesting structure.

Flows in Rattlesnake Creek were excellent during May. Water diversions were essentially stopped from the Little Salt Marsh and water diverted back into the Creek to reduce the water level in this marsh, our main storage basin, in anticipation of the spring flow increases. All wetland units were topped off last month and the units will be allowed to draw down naturally over the next few months.

Because of a desire to mow out some of the thicker cattail stands on several wetlands that were just too wet last summer, water is being passed by several of these units in hopes that they will dry enough to work this year.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for Spring controlled burns.

7. Grazing

May 1 marked the opening of the Quivira grazing season and most livestock was moved into the grazing cells on this date.

9. Fire Management

Bill Waln completed a 2 week detail to the National Office in Arlington, VA, May 16-20. During this detail he briefed staff for Senator Brownback and Senator Robertson on the fire management program in Kansas. In addition to Kansas congressional staff he briefed Senator Nelson and Congressman Osbourne's staff from Nebraska.

Todd Schmidt, David McCauley, TJ Rockenbach and Steve Kirk completed the S-234, Ignition Operations, course. This course was offered during the Mid Plains Interagency Handcrew preseason training and orientation session. This was held at the Nebraska State 4-H Camp located on the Bessey Ranger District of the Nebraska NF near Halsey, NE.

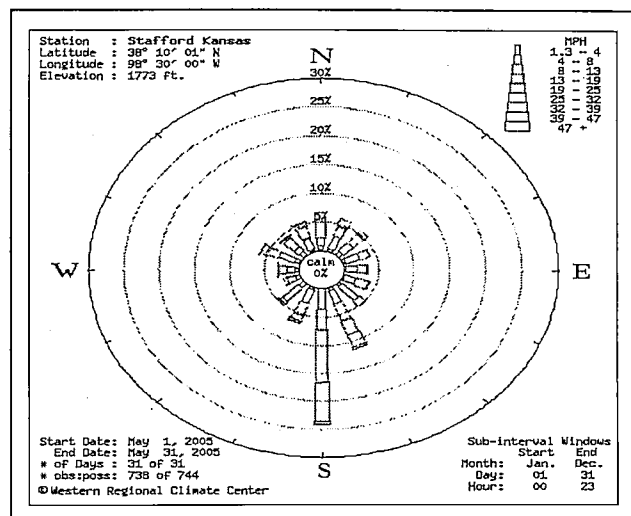
Todd Schmidt and Steve Kirk traveled to Minnesota to assist FWS in implementing 6 prescribed fires for 1,000 acres total.

Bill Waln, TJ Rockenbach and David McCauley assisted Kirwin NWR in completing their planned prescribed fires. Six prescribed fire units were implemented for 300 acres.

David and TJ returned to Kirwin NWR on May 17-19 to assist in holding operations on a burn that was conducted two weeks earlier in a units with flooded timber. Extreme wind speeds and warm temperatures forced crews to increase holding action on this prescribed fire unit which had been in monitor status.

TJ Rockenbach installed emergency lights, suction line holders, and other small rehabilitation items on Kirwin NWR's fire engine.

Todd Schmidt was presented the Paul Gleason Leadership Award on May 19. Todd was nominated and selected to receive this award in the area of Mentoring and Teamwork. This annual award was created to honor Paul Gleason whose career as a wildland firefighter spawned several decades. Paul was best known for developing the L.C.E.S. (Lookouts, Communications, Escape Routes and Safety Zones) concept which has become the foundation for wildland firefighter safety.



The award honors Paul's influence on and contribution to wildland fire management, while honoring those who demonstrate the spirit of leadership for which he was known.

Monthly Weather Summary from RAWS:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	%	5.93
Avg	9.5	65.7	66.0	
Avg. Max	47.0	97.0	98.0	3.05
Avg. Min.	5.3	34.0	18.0	

G. WILDLIFE

2. Threatened and/or Endangered

Several piping plovers were seen on the north salt flats early in the month.

The endangered interior least terns returned to Quivira in May to initiate nesting activities. Terns were reported selecting artificial nest pads within the predator exclusion fence on the North Flats.

Endangered least terns have been discovered nesting near Wichita, much to the delight of the birding community. On May 27, ORP Lorrie Beck and personnel from the GPNC installed 1500 feet of fence netting around the site to provide some protection for the terns and they will monitor the birds.

3. Waterfowl

The majority of the migrating waterfowl have passed through Quivira, with teal, some mallards, wood ducks and a few other species staying around to nest and raise young.

4. Marsh and Water Birds

During May, Great blue herons, white-faced ibis, common, cattle and snowy egrets and American bitterns were much in evidence around the Refuge wetlands. Black crowned night herons also returned to the Refuge.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

5. Shorebirds, Gulls, Terns and Allied Species

In May, the good water conditions on Quivira still contained a good variety of shorebirds if not the huge numbers. Sightings included Hudsonian godwits, black-bellied and American golden plovers, whimbrels, ruddy turnstones and lots of the more common white-rumped sandpipers and the other late spring migrants. One pair of birders reported 100 species in less than 3 hours on the Big Salt Marsh.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with a local University. With a refuge neighbor that deals in exotic animals having a herd of 9 elk in a pen just east of the Refuge, we remain worried and watchful.

H. PUBLIC USE

1. General

Mild temperatures, good wetland conditions, and lots of shorebirds made for a lot of very happy birders.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, was very busy during May with school groups as teachers reach the end of the book before they reach the end of the school year. Programs included 1st graders from Anderson, Conway Springs, and Franklin Elementary's, special ed kids from Bostic, 12 classes of 5th graders from the Goddard schools, Smith Center 1st and 4th graders, 8 presentations to 2nd graders at Park elementary and 2 classes of 3rd graders from Inman.

May school programs for ORP Terry included 86 folks in two groups from McPherson schools on 5/9, and 79 more from the same school on 5/11.

On May 7, the OK Kids event and the Junior Duck Stamp Awards Ceremony was conducted with 116 winners/parents attending.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

The KS Junior Duck Stamp display was erected at the Pratt Nature Center and will be exhibited until June 1.

Lorrie Beck also traveled to Kirwin NWR to assist with Girl Scout Camps at Webster Lake.

On May 7, the annual Friends of Quivira "Father's Day Out" event was conducted at the Kid's Pond. This event is the day before Mother's Day and designed to get the dad's and kids to the Refuge and give Mom a day off. The kids fished, studied nature, and made Mother's Day gifts. The highlight is that the kids then cook the lunch for themselves and their fathers. Dad's will eat anything!!!

Two different groups of Nature Photographers used Quivira as photo opportunities and then used the Bunkhouse/EEC to over night on 5/6-8 and 5/15.

On 5/20, the dedication of the Kansas "Wetlands and Wildlife Scenic By-Way" was conducted at Hoisington, KS. This By-Way passes through Quivira NWR and Cheyenne Bottoms WMA. Over 100 folks attended the dedication and luncheon. The sponsors are now trying for federal designation of this route past the two "Wetlands of International Importance".

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

The FOQ Board Meeting was conducted on 5/11 with new President Christie Snyder elected.

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

During May, the Refuge crew continued work on rehab of portions of several water control structures and dikes damaged by beaver activity.

The Refuge crew room is being rehabilitated and enlarged to better serve the crew and the fire personnel. New walls, suspended ceiling, work counters and storage cabinets have been installed and the effort is a great improvement. By the end of May, the majority of the rehab was completed and folks had moved into their new space.

OTHER ITEMS

3. Training and Items of Interest

ORP Terry's daughter, DPL Seller's son and RM Hilley's daughter all graduated from assorted institutes of higher education in May. Smiles were evident all around!

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

JUN05MAR

July 7, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, June, 2005

A. HIGHLIGHTS

- On June 1, while doing monthly vehicle reports, it was discovered that the Refuge John Deere 444, Hi-Loader had been stolen from the rock pile area. After reporting to the local LE and the FBI, all thought the equipment was out of the country by now.
- On June 30th, following up on an overheard tip, the Stafford County Sheriff's office recovered our loader from a surrounding county. Sometimes we do win one.
- On 6/4, the Friends of Quivira sponsored their annual "Kid's Fishing Clinic and Derby" with over 200 kids, parents, grandparents, and other adults enjoying the activities.
- The first ever, musk thistle was discovered along a Refuge highway right-of-way on 6/8/05. We got the sucker, but the search for others has intensified.

B. CLIMATIC CONDITIONS

High: 100 degrees F Low: 51 degrees F Precip: 5.30 inches

The "official precipitation" for June was 5.30 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for June is 3.67 inches. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the June rainfall total was 4.73 inches, while the EEC received 4.90 inches, and the Big Salt Marsh had 5.93 inches.

On 6/16, a thunderstorm with heavy rains and 70-80 mph straight winds passed through the Refuge and tree belts took a powerful hit. Some shelterbelts looked like a war zone. A lot of time was spent removing and repairing storm damage. Lightening was heavy and took out the Refuge Internet Service during this storm.

E. ADMINISTRATION

2. Youth Programs

On 6/6, Celena Sherrell, our YCC leader, received her charges for the year as Addie Cole, Laredo, and Wade Fishel, Stafford, entered on duty. They appear to be making a good crew.

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Volunteers continued working on the annual shorebird surveys in June.

6. Safety

On 6/14, the monthly staff and safety meeting was conducted, with a potluck lunch to boost interest and attendance. No one misses the meeting when we have food.

The topic of the meeting was the 4 hour First Aid Refresher training for the entire staff, presented by the Stafford County EMS.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued with the heavy thunderstorms and water conditions remain the best in several years.

2. Wetlands

The levels of both the Little and Big Salt Marsh have maintained at FULL, and even overtopped the spillways, during most of June, with good rains and adequate Creek flows. The North salt flats have flooded several times, resulting in tough nesting for ground nesting shorebirds, and especially the least terns and snowy plovers.

Flows in Rattlesnake Creek were excellent during June. Water diversions were essentially stopped from the Little Salt Marsh and water diverted back into the Creek to reduce the water level in this marsh, our main storage basin. All wetland units were topped off last month and the units would have been allowed to draw down naturally over the next few months, but the rains may change that plan.

Because of a desire to mow out some of the thicker cattail stands on several wetlands that were just too wet last summer, water is being passed by several of these units in hopes that they will dry enough to work this year.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

The first ever MUSK THISTLE was discovered in a road ditch of the highway passing through the center of Quivira. We found the varment and pulled and sprayed and hope this will be the end, at least for a while. This noxious weed inches closer to Quivira each year and we keep a sharp lookout.

7. Grazing

Grazing season is going well as the cattle find lush growth resulting from the frequent rains. The high winds mi-month resulted in numerous trees over fences and required a lot of repair work to contain the cattle where we wanted them. The heavy rains even drowned out several electric fences and made a few areas too wet for event the cattle.

9. Fire Management

David McCauley and Todd Schmidt moved into a newly renovated fire office. This move will greatly increase efficiency and communication for the program and refuge.

Interagency Fire Program Management standard position cross walks were completed and forwarded to Personnel for all permanent fire staff on the refuge.

Bill Waln attended Fire Program Analysis-Preparedness Module training in Boise, ID, June 6-9. This training is required for those individuals who are tasked with implementing Fire Program Analysis for their area.

Bill Waln attended the USFWS Fire Management Mentoring Program selection meeting in Anchorage, AK, June 13-17. The steering committee for this program selected participants to attend this years mentoring program.

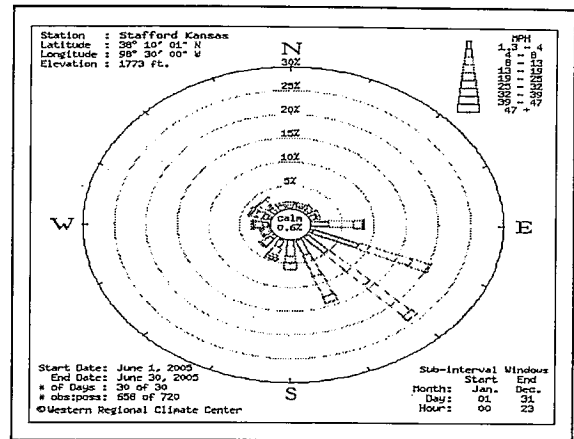
David McCauley completed the S-271, Helicopter Crewmember, training at the Colorado Wildfire Academy June 12-14. David is now qualified as a helicopter crewmember (HECM) trainee.

Two wildland fires were reported adjacent to the refuge with an appropriate response to both incidents. The Cheat Fire on June 8, and the Markle Fire on June 18 both threatened the refuge.

David McCauley, TJ Rockenbach and Steve Kirk went on a fire severity detail to Havasu NWR in Arizona. They departed on June 21.

Todd Schmidt and David McCauley successfully completed the Kansas Commercial Driving License examination allowing them to operate a Class B vehicle.

Todd Schmidt, with the Mid Plains IAC, were mobilized to the Westside Fire Complex in Utah on June 25.



David McCauley, with assistance from Cindy Terry, completed construction of a fire management page on Quivira NWR internet site.

Monthly Weather Summary from RAWs:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	%	5.44
Avg	10.2	75.3	72	
Avg. Max	65.0	101.0	100	1.92
Avg. Min.	5.7	52.0	25	

G. WILDLIFE

2. Threatened and/or Endangered

The endangered interior least terns have had difficulty during this nesting season due to the heavy downpours that have occurred. Those nesting on the elevated artificial nest pads have been somewhat more successful but the extreme rains have even flooded some of the pads. About 21 pairs of least terns have been attempting to nest on the Refuge this spring.

The state threatened snowy plovers have also been having problems with the rains but over 400 plovers have been recorded and there are little plovers all over the roads, making driving very slow in some spots.

Endangered least terns have been discovered nesting near Wichita, much to the delight of the birding community. ORP Lorrie Beck and personnel from the GPNC installed 1500 feet of fence netting around the site to provide some protection for the terns and they will monitor the birds. High wind during June destroyed much of the fencing, but the terns continue to try and the fencing is being replaced.

3. Waterfowl

The majority of the migrating waterfowl have passed through Quivira, with teal, some mallards, wood ducks and a few other species staying around to nest and raise young.

4. Marsh and Water Birds

During June, Great blue herons, white-faced ibis, common, cattle and snowy egrets and American bitterns were much in evidence around the Refuge wetlands. Black crowned night herons and a few yellow-crowned were also reported in June.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

5. Shorebirds, Gulls, Terns and Allied Species

June shorebird sightings included Hudsonian godwits, black-bellied and American golden plovers, whimbrels, ruddy turnstones and lots of the more common white-rumped sandpipers and the other late spring migrants. One pair of birders reported 100 species in less than 3 hours on the Big Salt Marsh.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with a local University. Contracting paperwork between USGS and FWS have created some problems in getting the study funding into the proper hands but by months end it looked like things had worked out.

With a refuge neighbor that deals in exotic animals having a herd of 9 elk in a pen just east of the Refuge, we remain worried and watchful.

H. PUBLIC USE

1. General

Mild temperatures, good wetland conditions, and lots of shorebirds made for a lot of very happy birders. Mosquitos were the only set back for folks, due to the abundant moisture.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in June presented Girl Scout environmental camp programs at Oberlin, St. Francis, and Hays. Lorrie also gave "turtle" programs to Catholic Charities Adult Day Care and at St. Andrew's Lutheran Church vacation bible school.

June programs for ORP Terry included 34 folks from the St. John Elementary School Summer School Program.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

The Kansas Junior Duck Stamp Display was set up at the Chanute Art Gallery, since Chanute is the home of this years Best of Show winner, Zach Steves. The display spent two weeks at the West Ridge Mall in Topeka where an estimated 10,300 visitors viewed the exhibit.

On June 4, the annual Friends of Quivira "Kid's Fishing Clinic and Derby" was conducted. Over 200 kids and adults attended this very popular event. First the group goes through a series of educational stations on various topics like knot tying, fish ID and handling, equipment, how to cast, and boating safety. Then the group moved to the Refuge Kid's Fishing Pond where a lot of worms sank and a lot of fish were caught. KS Wildlife and Parks assisted with stocking the pond with catfish up to eight pounds just prior to the event which greatly helps the fishing success. The Friends provided a hot dog and hamburger lunch to all fisher persons and a lot of door prized were given out to some very happy kids. The event was a great success!

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

On June 1, while doing monthly vehicle reports, it was discovered that the Refuge John Deere model 444 Hi-Loader was missing from the rock pile area. The investigation discovered evidence the loader had been placed on a trailer and removed from the closed area of the Refuge. Reports were filed with the FBI, and all local law enforcement agencies. Everyone was guessing the loader had been taken outside of the country. We had little hope of it's return.

However, on June 30, following up on a over heard conversation and tip, the Stafford County Sheriff's office located our loader only about one mile into Pratt County, south of the Refuge about 30 miles. We now have the loader back, even though it is still held as evidence, and the bad guys are known and will be charged soon. Sometimes the good guys do win!

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

The FOQ sponsored Kid's Fishing Clinic and Derby, on June 4, brings a lot of visitors and good press to the Refuge.

After many hours of work, several drafts, and assorted problems, ORP Terry was very pleased to finally get a signed and sealed Memorandum of Agreement with the Friends of Quivira to allow them to develop a sales outlet at Refuge Headquarters.

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

During June, the Refuge crew continued work on rehab of portions of several water control structures and dikes damaged by beaver activity. The high water running over the stop logs really stimulates the beaver to work and they have been very busy since early spring.

The Refuge crew room is being rehabilitated and enlarged to better serve the crew and the fire personnel. New walls, suspended ceiling, work counters and storage cabinets have been installed and the effort is a great improvement. The majority of the rehab has been completed and folks have moved into their new space. Just a few small projects remain.

Clean up of the tree damage from the thunderstorms of June took a lot of time and effort for the Refuge crew. Some areas look like war zones as a result of the over 60mph winds.

The Refuge crew also started on the prep work for the new storage shed, to be force account constructed, at the EEC/Bunkhouse area.

OTHER ITEMS

3. Training and Items of Interest

ORP Terry's daughter Samantha was married in Oklahoma on June 25. We were glad to get the bride's mother through this.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

JUL05MAR

August 15, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, July, 2005

A. HIGHLIGHTS

- On July 18-20, the GPNC sponsored a teachers workshop for 2 hrs. college credit and visited Quivira NWR on July 19th.
- On July 26, RO Engineering was on station to inspect the site for the proposed Little Salt Marsh Observation Tower to be constructed in August.
- RO Engineering staff visited the GPNC in late July to review a floor settling problem and other construction needs on the partnership facility.

B. CLIMATIC CONDITIONS

High: 101 degrees F Low: 62 degrees F Precip: 4.52 inches

The "official precipitation" for July was 4.52 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for July is 2.93 inches. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the July rainfall total was 6.68 inches, while the EEC received 5.82 inches, and the Big Salt Marsh had 4.42 inches.

E. ADMINISTRATION

2. Youth Programs

On 7/29, Celena Sherrell, our YCC leader, and her crew, Addie Cole, and Wade Fishel, ended their summer on Quivira. They were a good group and their efforts were appreciated with a pot luck breakfast (they had to leave early).

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Due to health problems we were informed that long time volunteers, Olin and Donna Allen will have to cut back on their volunteering activities. They will be missed as they have done thousands of things for the Refuge over the years.

6. Safety

On 7/12, the monthly staff and safety meeting was conducted, with the topic being presented by the YCC crew on tick borne diseases.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued with the heavy thunderstorms and water conditions remain the best in several years, for this time of year.

2. Wetlands

The levels of both the Little and Big Salt Marsh have maintained at FULL, and even overtopped the spillways, during most of July, with good rains and adequate Creek flows. The North salt flats have flooded several times, resulting in tough nesting for ground nesting shorebirds, and especially the least terns and snowy plovers.

Flows in Rattlesnake Creek were excellent during July. Water diversions were essentially stopped from the Little Salt Marsh and water diverted back into the Creek to reduce the water level in this marsh, our main storage basin. All wetland units had been topped off and the units will be allowed to draw down naturally over the next few months, if we get some drying weather which we should have at this time in Kansas.

Because of a desire to mow out some of the thicker cattail stands on several wetlands that were just too wet last summer, water is being passed by several of these units in hopes that they will dry enough to work later this year.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed when and where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

After last months discovery of the first ever MUSK THISTLE on Quivira the crew has taken a very hard line on this noxious weed and made an extensive search of remote areas of the Refuge in search of more musk thistles. To date only two other musk thistle plants have been located and destroyed. This noxious weed inches closer to Quivira each year and we keep a sharp lookout.

7. Grazing

Grazing season is going well as the cattle find lush growth resulting from the frequent rains. The heavy rains have resulted in enough growth to cause problems with reducing the charge on our electric fences.

9. Fire Management

Bill Waln participated on a severity detail to Lower Rio Grande NWRC in Texas, June 30-July 15. Bill Waln completed his ICT3 taskbook.

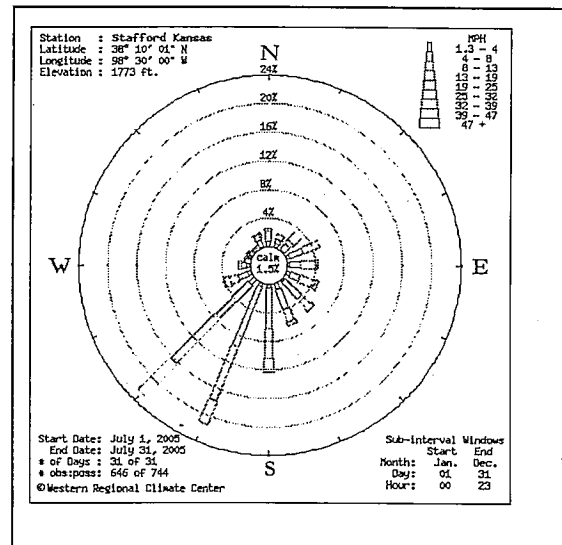
Quivira E4325 with Todd Schmidt and Krista Hostetler, Treavor Weston and Lenord Jacobowski from Rainwater Basin WMD were detailed to severity in Texas from July 22-23.

Steve Kirk and TJ Rockenbach traveled with Mid Plains Interagency Handcrew to Colorado for a wildland fire detail on July 19. Crew was assigned initial attack for Pike-San Isabel NF.

Mid year performance reviews were completed for fire staff.

David McCauley, Todd Schmidt and Bill Waln completed 4 hour annual EEO refresher training on July 26 at Flint Hills NWR.

Bill Waln completed "No Fear" training via the internet on July 13.



Monthly Weather Summary from RAWS:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	%	5.50
Avg	8.5	78.6	80	
Avg. Max	68.0	99.0	100	3.85
Avg. Min.	3.4	52.0	40	

G. WILDLIFE

2. Threatened and/or Endangered

The endangered interior least terns have had difficulty during this nesting season due to the heavy downpours that have occurred. Those nesting on the elevated artificial nest pads have been somewhat more successful but the extreme rains have even flooded some of the pads. About 21 pairs of least terns have been attempting to nest on the Refuge this spring.

The state threatened snowy plovers have also been having problems with the rains but over 400 plovers have been recorded and there are little plovers all over the roads, making driving very slow in some spots. A research project with Ft Hays State University has been providing the Refuge with valuable data on the snowy plovers, the primary research species, but also with the least terns as well.

Endangered least terns have been discovered nesting near Wichita, much to the delight of the birding community. ORP Lorrie Beck and personnel from the GPNC installed 1500 feet of fence netting around the site to provide some protection for the terns and they will monitor the birds. High wind destroyed much of the fencing, but the terns continue to try and the fencing is being replaced.

3. Waterfowl

The majority of the migrating waterfowl have passed through Quivira, with teal, some mallards, wood ducks, and a few other species staying around to nest and raise young.

4. Marsh and Water Birds

During July, Great blue herons, white-faced ibis, common, cattle and snowy egrets and American bitterns were much in evidence around the Refuge wetlands. Black crowned night herons and a few yellow-crowned were also reported.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

On 7/18, RM Hilley recorded a common moorhen on the Big Salt Marsh.

5. Shorebirds, Gulls, Terns and Allied Species

July shorebird sightings included black-necked stilts, American avocets, greater and lesser yellowlegs, willets, red knots, and least, Baird's, pectoral, stilt, spotted, upland, and semi-palmated sandpipers. Also present were lots of dowitchers and phalaropes.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with a local University. Contracting paperwork between USGS and FWS have created some problems in getting the study funding into the proper hands. We keep our fingers crossed as the accountant types sort out the details.

A lone axis deer doe was spotted twice on the Refuge during July, but was very difficult to re-locate. No information where this exotic came from but this is probably the same one sighted a couple of years ago east of Quivira. No one in the area has mentioned losing the exotic deer.

H. PUBLIC USE

1. General

Mild temperatures, good wetland conditions, and lots of shorebirds made for a lot of very happy birders. Mosquitos were the only set back for folks, due to the abundant moisture, but by months end they were starting to thin out and people were able to visit the refuge without needing a transfusion.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in July presented EE programs to Starkey, Inc., Cerebral Palsy Ranch, the Augusta Public Library, and 363 Boy Scouts and adults at two sessions at Camp Hiawatha.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

Messages were sent out to 98 county extension offices to try to involve 4-H kids in the Kansas Junior Duck Stamp Contest.

Lorrie Beck attended a planning committee meeting on 7/26, organizing the book - "Kansas Critters: Mammals", written and illustrated by Kansas kids.

On July 18 - 20, ORP Beck and Suzanne Fellows, RO Migratory Birds presented a teacher education course "USFWS: Students, Standards and Stewardship". The course had 2 hours of college credit through Friends University and included a field trip to Quivira NWR on 7/19.

On 7/20, Manager Hilley met with a contractor working on eco-tourism possibilities with the Great Bend Convention and Visitors Bureau.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

I. EQUIPMENT AND FACILITIES

1. New Construction

RO engineers were on station on 7/26 to review the plans and site for the Little Salt Marsh Observation Tower project, to start soon.

While in the area the RO engineers visited the Great Plains Nature Center to inspect and develop ideas to answer a floor cracking and sinking problem on that facility.

2. Rehabilitation

During July, the Refuge crew continued work on rehab of portions of several water control structures and dikes damaged by beaver activity. The high water running over the stop logs really stimulates the beaver to work and they have been very busy since early spring.

The Refuge crew started work on the force account built storage shed at the EEC. They prepared the site poured the floor and set all of the upright posts. This open sided shed will provide much needed storage without moving heavy equipment to the HQ area.

During the month it was discovered that beaver damage and resulting erosion had weakened the wall at the RC-B water control structure on Rattlesnake Canal.. This important structure could have failed with the coming fall water diversions so rehab was started immediately. Hopefully the structure will be functional by early September. High water levels are hampering the effort.

3. Major Maintenance

During July, one of the major lightening storms hit our phone system and fried almost everything. Luckily, we had the expertise on staff and Joe Kocher and Jim Sellers ordered materials and installed a new system and got us back in business.

OTHER ITEMS

3. Training and Items of Interest

On 7/14, a contractor and a representative from EPA were on Quivira to discuss the need to develop a oil and gas sub-unit plan to use in case of an emergency. Representatives from Cheyenne Bottoms and The Nature Conservancy were also present.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

AUG05MAR

September 14, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, August, 2005

A. HIGHLIGHTS

- On August 23-26, RM Hilley attended RAPP training in Denver, along with a Zone Project Leaders meeting.
- LaRue, Waters, and Kocher attended SAMMS training at NCTC from 8/22-26.
- Contract construction started on the LSM Observation Tower in August.

B. CLIMATIC CONDITIONS

High: 101 degrees F Low: 59 degrees F Precip: 3.77 inches

The "official precipitation" for August was 3.77 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for August is 2.59 inches. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the August rainfall total was 4.15 inches, while the EEC received 4.56 inches, and the Big Salt Marsh had 3.77 inches.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks.

6. Safety

The August monthly staff and safety meeting was cancelled due to pressing database tasks, but safety was discussed at the daily morning work meetings.

F. HABITAT MANAGEMENT

1. General

Good flows in Rattlesnake Creek have continued with the locally heavy thunderstorms and water conditions remain the best in several years, for this time of year. By month's end some wetlands were showing a drying edge,, normal for this time of year.

2. Wetlands

The levels of both the Little and Big Salt Marsh have maintained at FULL, and even overtopped the spillways, during most of August, with adequate rains and Creek flows. The North salt flats started to dry in August as the shallow water could not take the heat and winds during the month.

Flows in Rattlesnake Creek were excellent during August. Water diversions were started from the Little Salt Marsh, our main storage basin, to fill adjacent wetland units. All wetland units had been topped off earlier and the units were allowed to draw down naturally to produce waterfowl food plants. During August, water was started moving into these drawn down areas to allow ducks access to the plant seeds available.

Mowing of thick cattail stands has been delayed this summer due to frequent rain events. During August, the weather allowed the mowing of Unit 40, parts of North 40 units, portions of Dead Horse slough and a couple of smaller areas. Attempts were made on other wetland units but the water conditions would exclude the mowing equipment, so some areas will wait till next year.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed when and where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

After last month's discovery of the first ever MUSK THISTLE on Quivira the crew has taken a very hard line on this noxious weed and made an extensive search of remote areas of the Refuge in search of more musk thistles. To date only two other musk thistle plants have been located and destroyed. This noxious weed inches closer to Quivira each year and we keep a sharp lookout.

7. Grazing

Grazing season is going well as the cattle find lush growth resulting from the frequent rains. The heavy rains have resulted in enough growth to cause problems with reducing the charge on our electric fences.

9. Fire Management

The Mid Plains Interagency Handcrew returned from a wildland fire assignment in Colorado on August 2nd.

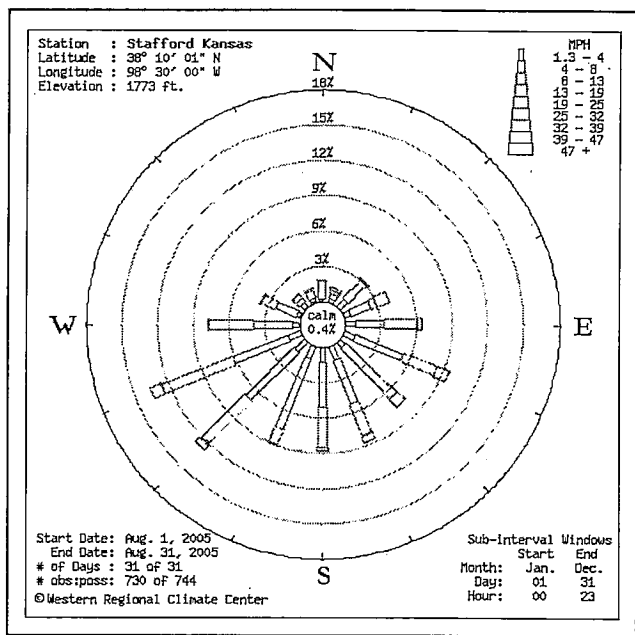
The Whooper Pad prescribed fire unit was implemented on August 10th for four acres.

Todd Schmidt, Supervisory Range Technician, accepted a new position at Medicine Lake NWR in Montana. Todd's last day Quivira NWR was August 20th.

David McCauley completed his Helicopter Crewmember position taskbook at the Grand Canyon Helicopter Academy.

Bill Wain attended a Fire Program Analysis workshop in Rapid City, SD.

David McCauley, TJ Rockenbach and Steve Kirk completed "No Fear" training via the internet this month.



Monthly Weather Summary from
RAWS:

	Wind	Temp.	RH	Precip.
Total	mph	deg F°	%	2.7
Avg	7.2	76.8	82	
Avg. Max	110.0	99.0	100	0.84
Avg. Min.	3.8	56.0	32	

G. WILDLIFE

2. Threatened and/or Endangered

The endangered interior least terns have had difficulty during this nesting season due to the heavy downpours that have occurred. Those nesting on the elevated artificial nest pads have been somewhat more successful but the extreme rains have even flooded some of the pads. About 21 pairs of least terns have been attempting to nest on the Refuge this spring.

The state threatened snowy plovers have also been having problems with the rains but over 400 plovers have been recorded. A research project with Ft Hays State University has been providing the Refuge with valuable data on the snowy plovers, the primary research species, but also with the least terns as well.

The endangered least terns, discovered nesting near Wichita, finished out the season and after consultation with T&E folks, the area was released back to the developer that owned the property. Probably the terns will find houses on their previous nest sites next year but there was no money to purchase the area. These birds are endangered for a reason and in this case fate has struck them once more.

3. Waterfowl

Some waterfowl moved into the Refuge, as the smaller wetlands on surrounding private ground dried up in August. The majority of the waterfowl on Quivira were teal, some mallards, and wood ducks. By months end, some teal were returning from northern nesting grounds.

4. Marsh and Water Birds

Great blue herons, white-faced ibis, common, cattle, and snowy egrets, and American bitterns were much in evidence around the Refuge wetlands. Black crowned night herons and a few yellow-crowned were also reported.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

An immature white Ibis caused quite a stir among local birders when it was spotted on the Big Salt Marsh on 8/14.

5. Shorebirds, Gulls, Terns and Allied Species

August shorebird sightings included black-necked stilts, American avocets, greater and lesser yellowlegs, willets, red knots, and least, Baird's, pectoral, stilt, spotted, upland, and semi-palmated sandpipers.

Birders reported several black-bellied plovers and two long-billed curlews on the Big Salt Marsh in August.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with Kansas State University. Contracting paperwork between USGS and FWS has created some problems in getting the study funding into the proper hands. In August the paperwork started to flow and we were successful in getting the deal set for this year.

H. PUBLIC USE

1. General

Heavy hatches of mosquitos discouraged folks from venturing far from their car in August. Most visitors, after a short trial run on the mosquitos, settled for a drive through the Refuge with their windows tightly closed. With good water conditions, you get mosquitos, but the birds had a feast and that was some consolation for the blood offering each time we went outside.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in August presented EE programs to Haysville Health Care and four Lewis and Clark programs to Maize South Middle School 7th graders.

7. Other Interpretive Programs

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

ORP Lorrie Beck and Bob Gress, GPNC Director, presented 10 minute "commercials" to ten groups of USD 259 teachers on the services offered by the Great Plains Nature Center.

The Junior Duck Stamp display was erected at the Chanute Art Gallery during August.

A three piece turkey sculpture (tom plus three hens) has been constructed for the GPNC and will be dedicated in October during the 2nd annual "Art on the Trail" event.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

On 8/11-12, the Refuge hosted the semi-annual law enforcement firearms re-qualification for Kansas officers. The 11th was the night fire exercise, followed on the 12th by the rifle, shotgun, and pistol qualifications. Officers from Flint Hills, NPS, Quivira and the State of Kansas participated.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them! A Friends Board meeting was conducted on 8/16 to plan fall events.

I. EQUIPMENT AND FACILITIES

1. New Construction

Refuge crew worked on the rehab of the RC-B water control structure, one of the main distribution structures on the Refuge. New walls were needed and a new flood, to replace damaged concrete caused by erosion and undercutting by beaver actions.

The crew assisted with the caulking around the Observatory of the Great Plains Nature Center to stop leaks that had developed during recent heavy rains in Wichita.

2. Rehabilitation

The Refuge crew continued work on the force account built storage shed at the EEC. They had to postpone this shed project when the damage to the RC-B water control structure was discovered and took priority. This open sided shed will provide much needed storage without having to move heavy equipment all the way south to the HQ area.

OTHER ITEMS

3. Training and Items of Interest

On 8/23-26, RM Hilley attended a Zone Project Leaders meeting and RAPP training in Denver.

On 8/22-26, AO Christine LaRue, and Maintenance Workers Brent Waters and Joe Kocher attended SAMMS training at NCTC.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

SEPT05MAR

October 17, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, September, 2005

A. HIGHLIGHTS

- SAMMS, RPI, RAPP, and year end deadlines, all combined to make the Refuge staff very cheerful and really glad we didn't take that high paying job in the private sector.
- September 9 - 18 the Refuge coordinated the FWS Booth at the Kansas State Fair, with help from the other KS stations. Over 300,000 folks got an introduction to the Refuge System.
- Contract construction continued in September on the LSM Observation Tower, which is taking shape and will be a very attractive addition for the Refuge visitors.

B. CLIMATIC CONDITIONS

High: 99 degrees F Low: 37 degrees F Precip: 0.70 inches

The "official precipitation" for September was 0.70 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for September is 2.42 inches. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the September total was 0.51 inches, while the EEC received 0.30 inches, and the Big Salt Marsh had 0.50 inches.

Warm temperatures and high winds during the month of September took away water that we had previously been very proud of putting into the Refuge wetlands. Such is life on the Great Plains.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks.

6. Safety

The September monthly staff and safety meeting was cancelled due to other pressing duties, but safety was discussed at the daily morning work meetings.

F. HABITAT MANAGEMENT

1. General

Flows in Rattlesnake Creek decreased during September as the rains stopped and high winds took water from the wetlands. The south end of the Refuge is in good shape but the north end could use some much needed moisture.

2. Wetlands

The levels of both the Little and Big Salt Marsh were maintained at FULL for most of the summer, but high winds, little rainfall, and drying conditions sucked out the valuable water. The North salt flats were completely dry by the end of September, however some water remained in North Lake.

Flows in Rattlesnake Creek were excellent up until September and then with the decreased rainfall, the Creek declined. All wetland units had been topped off earlier and the units were allowed to draw down naturally to produce waterfowl food plants. In early September water diversions from the Little Salt Marsh were started into these drawn down areas to allow ducks access to the plant seeds available. Units south of the Hwy 484 and Units 40/62 further north were filled before the declining Creek stopped diversions and efforts started to conserve water to ride out the reduced rainfall period.

Mowing of thick cattail stands has been delayed this summer due to frequent rain events. During September, the weather allowed the mowing of Unit 40, parts of North 40 units, portions of Dead Horse slough and a couple of smaller areas. Attempts were made on other wetland units but the water conditions would exclude the mowing equipment, so some areas will wait till next year.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed when and where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

7. Grazing

Grazing season went well this year as the cattle found lush growth resulting from the frequent rains. The Refuge grazing season ended at the end of September and most cattlemen were happy with their results this year and the Refuge grasslands look very good following the grazing treatment.

9. Fire Management

Quivira NWR firefighters responded to a fire on the Stafford and Reno County line north of Hudson, KS. The Hudson fire was an escaped prescribed fire and burnt approximately 21 acres. This fire occurred on September 9.

Brent Waters was dispatched to Louisiana to assist with Hurricane Katrina clean up and serve as an initial attack firefighter.

The Hudson South prescribed fire unit was implemented on September 13th. This unit was burned to set back tree and brush encroachment. Also this unit was treated during late summer to stimulate native forb production to diversify species composition.

Quivira NWR Engine 4325, staffed by firefighters from other refuges, was dispatched to Casper, WY, to assist BLM with prescribed fire implementation.

Bill Waln attended IQCS training in Albuquerque, NM, September 19-23. Bill completed both the Training Specialist and Account Manager training portion of this program.

David McCauley traveled to Kirwin NWR to assist with a project there on September 19th.

Quivira NWR hosted members of the Kansas Forest Service and US Forest Service on September 21. This was a team inspecting fire equipment purchased by local VFD's through a grant program sponsored by both agencies.

Steve Kirk's last day was September 30th. This was Steve's first year as a wildland firefighter. Steve was placed in non-pay status.

G. WILDLIFE

2. Threatened and/or Endangered

The endangered interior least terns have, after a difficult nesting season due to heavy downpours, migrated southward. About 21 pairs of least terns, nested or attempted to nest on the Refuge this season.

The state threatened snowy plovers also had problems with the rains but over 400 plovers were recorded. A research project with Ft Hays State University has provided the Refuge with valuable data on the snowy plovers, the primary research species, but also with the least terns as well.

3. Waterfowl

Some waterfowl moved into the Refuge, as the smaller wetlands on surrounding private ground dried up. Early arriving teal found good wetland conditions and made up the majority of the waterfowl on Quivira during September.

Two mottled ducks were reported by birders on 9/5

4. Marsh and Water Birds

Great blue herons, white-faced ibis, common, cattle, and snowy egrets, and American bitterns were much in evidence around the Refuge wetlands. Black crowned night herons and a few yellow-crowned were also reported.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

Eight common moorhens and 3 red-necked phalaropes were reported by Refuge birders.

5. Shorebirds, Gulls, Terns and Allied Species

September shorebird sightings included black-necked stilts, American avocets, greater and lesser yellowlegs, willets, red knots, and least, Baird's, pectoral, stilt, spotted, upland, and semi-palmated sandpipers.

Birders reported a Sabine's gull on Unit 49 during September.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with Kansas State University. Contracting paperwork between USGS and FWS has created some problems in getting the study funding into the proper hands. This was finally resolved, then we discover that the Safety Office will not allow observers in the back of pickups, so the survey protocol has to be modified. We have met the enemy and he is us!!!!

H. PUBLIC USE

1. General

As the rains stopped in September, the mosquitos also disappeared and more visitors ventured out to Quivira.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in September presented 22 "Suitcase for Survival" programs to eight elementary schools and a total of 613 students. mostly 4th and 5th graders.

ORP's Terry and Beck , plus Christie Snyder, President of the Friends of Quivira kicked off the "When will the eagles land?" contest by presentations to all Stafford county schools, over 550 kids. Students pick the date and time the first bald eagle of the fall migration will be observed on Quivira NWR.

ORP Terry presented, on September 8, to over 175 students at the annual Rice County Water Festival. On September 22, she also presented to over 200 students at the Stafford County Water days.

7. Other Interpretive Programs

ORP Beck presented EE programs to over 106 adults during 4 September presentations at Catholic Charities Adult Day Services, Olivet Baptist Church, and Clearwater Manor.

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day. Problems that had developed with security have improved and we can now better service this site.

Lorrie Beck mailed out advertising flyers to 157 5th grade teachers on 9/2 on the services offered by the Great Plains Nature Center and her Suitcase for Survival program. The flyers must have worked by the number of programs listed above!

A three piece turkey sculpture (tom plus three hens) has been constructed for the GPNC and will be dedicated in October during the 2nd annual "Art on the Trail" event.

The Kansas State Fair was in Hutchinson from 9/9 - 9/18. Quivira staff coordinated the FWS booth and received assistance from the other KS Refuges.

On September 22, the NRCS annual Conservation Field Day was conducted on Quivira NWR for all the schools in Stafford County. The event went well except for some damage to a Visitor Center restroom that caused some hard feelings with a local school.

The Wetlands and Wildlife Scenic Byway was officially designated a National Scenic Byway on September 22 at a ceremony in DC. Cheyenne Bottoms WMA and Quivira NWR are keystones for this Byway.

On September 24, the Friends of Quivira annual "Monarch Mania" butterfly tagging event was conducted. The very popular event drew over 250 folks, armed with nets, to tag the crafty monarch butterfly. In years past the butterflies have been hard to obtain but this year things were right and the crowd tagged 199 butterflies in less than 45 minutes. We ran out of tags long before we ran out of butterflies.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

On 9/21, charges were finally filed against the shooters of the endangered whooping cranes last November. On 9/30, the seven shooters were sentenced, receiving \$3000 fines each, 2 years probation with no hunting, 50 hrs each of community service and restitution of about \$2600 for the care of the wounded whoopers. The birder community was not happy with the sentences and wanted blood, but this was probably sufficient considering all circumstances.

Early teal season was conducted from 9/17 to 9/25, with fewer hunters than expected but good success.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them! Friends Board meetings were conducted on 9/6 and 9/27 to plan fall events.

I. EQUIPMENT AND FACILITIES

1. New Construction

Refuge crew finished work on the rehab of the RC-B water control structure, one of the main distribution structures on the Refuge. New walls were needed and a new flood, to replace damaged concrete caused by erosion and undercutting by beaver actions.

2. Rehabilitation

The Refuge crew continued work on the force account built storage shed at the EEC. They had to postpone this shed project when the damage to the RC-B water control structure was discovered and took priority. This open sided shed will provide much needed storage without having to move heavy equipment all the way south to the HQ area.

OTHER ITEMS

3. Training and Items of Interest

From 9/13 till 9/29, Maintenance Worker Brent Waters, under a fire dispatch, assisted in Louisiana with Hurricane Katrina relief.

All folks completed the "No Fear " training to get the ROWO off our backs.

On the September 10th deadline , then September 17th, and then September 24th, the Refuge submitted the RAPP exercise.

Todd and Amy Schmidt were given a send off by the Refuge Staff at a party at FMO Waln's home on 9/11. They are transferring to the cold north at Medicine Lake NWR.

Refuge Supervisor Dave Wiseman was on station on September 29th.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

OCT05MAR

November 18, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, October, 2005

A. HIGHLIGHTS

- The new Observation Tower on the Little Salt Marsh was completed and a final inspection punch list developed on 10/6.
- On October 15, the Friends sponsored a 50th Anniversary celebration for Quivira during NWR Week, with crafts, games, food and educational exhibits.
- On October 22-23, the Refuge hosted an "Introduction to Waterfowling" workshop, in conjunction with KS Dept. of Wildlife and Parks.

B. CLIMATIC CONDITIONS

High 91 degrees F Low: 25 degrees F Precip: 1.76 inches

The "official precipitation" for October was 1.76 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for October is 1.80 inches. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the October total was 2.62 inches, while the EEC received 2.22 inches, and the Big Salt Marsh had 2.16 inches.

Warmer than normal temperatures and high winds during the month of October continued to take away water that we had previously been very proud of putting into the Refuge wetlands. Such is life on the Great Plains.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Two volunteers, Mark and Tracey Rawlings, used the new trailer pads at the EEC and "paid rent" by doing a variety of needed chores during the month.

6. Safety

The October monthly staff and safety meeting was cancelled due to other pressing duties, but safety was discussed at the daily morning work meetings.

F. HABITAT MANAGEMENT

1. General

Flows in Rattlesnake Creek continued to decrease during October. The south end of the Refuge is in good to fair shape but the north end could use some much needed moisture.

2. Wetlands

The levels of both the Little and Big Salt Marsh were maintained at FULL for most of the summer, but high winds, little late summer rainfall, and drying conditions sucked out the valuable water. The North salt flats were completely dry in early October however some water remained in North Lake.

Flows in Rattlesnake Creek decreased in late September and early October. All wetland units had been topped off earlier in the summer and the units were allowed to draw down naturally to produce waterfowl food plants. In early September water diversions from the Little Salt Marsh were started into these drawn down areas to allow ducks access to the plant seeds available. Units south of the Hwy 484 and Units 40/62 further north were filled before the declining Creek stopped diversions and efforts started to conserve water to ride out the reduced rainfall period.

In October there was some rainfall but the wetlands continued to decline. The one bright prospect was that the "underflow", as the locals call the groundwater recharge, started in mid October and provided some water to the saltflats, BSM and North Lake.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed when and where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

7. Grazing

Grazing season went well this year as the cattle found lush growth resulting from the frequent rains. The Refuge grazing season ended on October 1 and most cattlemen were happy with their results this year and the Refuge grasslands look very good following the grazing treatment.

9. Fire Management

Refuge firefighters responded to a wildland fire threatening the Refuge on October 3rd. This 1,300 acre fire started in Reno County and is thought to be human started. Very extreme fire behavior observed during the fire with multiple homes threatened as well as oil and gas production facilities.

Bill Waln hosted a Mid Plains Fire Planning Unit budget meeting in Hutchinson, KS, October 4 - 6. This interagency meeting was used to update data needed to operate this program.

David McCauley and Steve Kirk traveled to Kirwin NWR to work on fire equipment on October 12.

National Fire Prevention Week was October 9 - 15. During the month fire management staff presented several programs to area schools including; Lyons, Stafford, Macksville, Sylvia, and St. John. Also staff participated in a Safety Day at the Home Depot Store in Hutchinson.

Annual maintenance was performed on refuge RAWs station on October 25. Each year the weather sensors must be sent in for calibration.

The North Lake East prescribed fire unit was implemented on October 26. This 103 acre unit was treated to reduce the density of saltgrass which dominates the site. Firefighters from the KS Forest Service, BIA-Horton Agency, and Maris des Cygnes NWR assisted with the burn.

G. WILDLIFE

2. Threatened and/or Endangered

The endangered whooping cranes have started to trickle through, being very scattered and not spending much time on Quivira. Maybe they heard about our shooting incident last year and are giving us a wide detour.

By the end of October only 10 confirmed and 2 unconfirmed whooping crane sightings had been recorded for the Quivira NWR and area.

3. Waterfowl

Two bi-monthly waterfowl counts were conducted in October as part of a statewide effort to monitor migration and populations. On 10/11 27,385 ducks and 700 geese were counted and on the 10/27 survey a total of 5545 ducks and 5670 geese were recorded.

Warm temperatures further north in the flyway appear to be keeping birds in those areas and reducing the migration to Kansas.

A lot of interest was generated for the Refuge birders when a EURASIAN WIGEON was sighted on Unit 58, resulting in a lot of folks looking over the area to add this life bird.

4. Marsh and Water Birds

Great blue herons, white-faced ibis, common, cattle, and snowy egrets, and American bitterns were much in evidence around the Refuge wetlands.

Virginia and King rails were abundant and the black rail was present and provided sightings for a few lucky birders.

Sandhill cranes have been slow in building up on Quivira with none recorded on the 10/11 survey and only 4200 on the 10/27 count. Last year by this time we were over 200,000 sandhills on the Refuge.

5. Shorebirds, Gulls, Terns and Allied Species

September shorebird sightings included black-necked stilts, American avocets, greater and lesser yellowlegs, willets, red knots, and least, Baird's, pectoral, stilt, spotted, upland, and semi-palmated sandpipers.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with Kansas State University. Contracting paperwork between USGS and FWS has created some problems in getting the study funding into the proper hands. This was finally resolved, then we discover that the Safety Office will not allow observers in the back of pickups, so the survey protocol has to be modified. We have met the enemy and he is us!!!!

H. PUBLIC USE

1. General

Nice Fall weather resulted in a lot of visitors that decided to drive through the Refuge this month.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in October presented 9 "Suitcase for Survival" programs and 6 "Lewis and Clark" programs to eleven elementary schools and a total of 500 students. mostly 5th and 8th graders.

ORP Terry presented, on October 20, to 35 students and 5 adults from the Sterling 5th Grade and on 10/26 to 15 students and 2 adults from the Russell 10th grade.

7. Other Interpretive Programs

ORP Beck displayed the KS Junior Duck Stamp display at Dillon Nature Center, Hutchinson, Chaplin Nature Center, Arkansas City, and the Lee Richardson Zoo, Garden City, in addition to sending out over 850 JDS brochures to KS 4-H kids and advisors.

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day.

Lorrie Beck also assisted on ECO meets at Milford Lake, Lakewood Discovery Center, Salina, Wilson Lake, Webster Lake, Dillon Nature Center, and Sternberg Museum, Hays. Lorrie also assisted with the Hays Annual Water Festival on October 10/22.

A three piece turkey sculpture (tom plus three hens) entitled "Through the Woods" by local artist John Parsons, has been installed at the GPNC. The sculpture, in memory of Dick Dilsaver, was dedicated on October 15, during the 2nd annual "Art on the Trail" event.

On 10/15, the annual Friends of Quivira event celebrating NWRS Week was conducted at the Kid's Pond area. This year the event centered on the 50th anniversary of Quivira and was called "50 Years of Golden Memories, On the Pond". Visitors were carried, by our new trolley, to learning stations staffed by the Great Plains Nature Center, Sternberg Museum, Ft Hays State Wildlife Students, and "Thor, the Wonder Dog". Tours, crafts, and games, and a cookout supper, followed by story telling around the fire for the kids and Amelia Earhart, from the KS History Alive program, for the adults, completed the day. The crowd was down to about 150 folks, due to other events and high gas prices, but everyone had a fun time.

On 10/22, the Hunter Education folks from KDWP presented an "Introduction to Waterfowling" course, a new program to 35 students at the Kid's Pond. Calling, ethics, shooting, decoy placement and all other aspects of duck and goose hunting were covered. At the same time other hunter educators presented the state hunter ed course at the Visitors Center to over 25 kids and adults. Both groups joined for lunch provided by the Friends of Quivira.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

Duck season started on 10/29 and with Cheyenne Bottoms WMA essentially dry we had a lot of hunters that have normally hunted the Bottoms. Success was good even with a little crowding.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

I. EQUIPMENT AND FACILITIES

1. New Construction

Refuge crew finished final dirt work on the rehab of the RC-B water control structure, one of the main distribution structures on the Refuge. New walls were needed and a new floor, to replace damaged concrete caused by erosion and undercutting by beaver actions.

The final work on the Little salt Marsh observation tower was completed during October.

2. Rehabilitation

The Refuge crew continued work on the force account built storage shed at the EEC. They had to postpone this shed project when the damage to the RC-B water control structure was discovered and took priority. This open sided shed will provide much needed storage without having to move heavy equipment all the way south to the HQ area. All that remains is to put the top tin in place and do some trim work. Wire doors will be added later for security.

OTHER ITEMS

3. Training and Items of Interest

A meeting was conducted with the EPA on October 6, to discuss the development of a Sub-Area Oil and Gas Contingency Plan. Several local emergency teams and fire departments were involved in the Great Bend meeting, along with Quivira NWR, Manhattan ES, and Cheyenne Bottoms WMA staff.

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

NOV05MAR

December 21, 2005

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, November, 2005

A. HIGHLIGHTS

- During November, hunting seasons start to open on and around the Refuge requiring a lot of time for the Refuge Officers.
- Six members of the Refuge staff attended OSHA training at Larned in conjunction with the NPS, on 11/16-17.
- Sandhill crane season opens outside the Refuge on November 9, with fears of a repeat of the whooping crane shooting of last year, but all goes well.

B. CLIMATIC CONDITIONS

High 84 degrees F Low: 20 degrees F Precip: 2.32 inches

The "official precipitation" for November was 2.32 inches at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for November is 0.93 inches. However, storms in Kansas often have a tight path and not many miles of separation can mean much difference in rainfall totals. "Unofficially", at Refuge headquarters the November total was 1.09 inches, while the EEC received 1.40 inches, and the Big Salt Marsh had 1.40 inches.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks. Two volunteers, Mark and Tracey Rawlings, had used the new trailer pads at the EEC and "paid rent" by doing a variety of needed chores. They left on November 21 for southern climes.

6. Safety

The November monthly staff and safety meeting was cancelled due to other pressing duties, but safety was discussed at the daily morning work meetings.

Six members of the Refuge staff took the OSHA introductory course at Larned, KS, with personnel from Ft Larned and local businessmen, on 11/16-17.

F. HABITAT MANAGEMENT

1. General

Flows in Rattlesnake Creek increased slightly in November due to groundwater recharge into the stream. The south end of the Refuge is in good to fair shape but the north end could use some much needed moisture.

2. Wetlands

The levels of both the Little and Big Salt Marsh were maintained at FULL for most of the summer, but high winds, little late summer rainfall, and drying conditions sucked out the valuable water. The North salt flats were completely dry last month however some water remained in North Lake.

Flows in Rattlesnake Creek decreased in late September and early October. All wetland units had been topped off earlier in the summer and the units were allowed to draw down naturally to produce waterfowl food plants. In early September water diversions from the Little Salt Marsh were started into these drawn down areas to allow ducks access to the plant seeds available. Units south of the Hwy 484 and Units 40/62 further north were filled before the declining Creek stopped diversions and efforts started to conserve water to ride out the reduced rainfall period.

In October there was some rainfall but the wetlands continued to decline. The one bright prospect was that the "underflow", as the locals call the groundwater recharge, started in mid October and provided some water to the saltflats, BSM and North Lake.

Underflow continued in November and provided water for the Big Salt Marsh and the North flats. Rain within the watershed in late November provided a needed surge of water in the Creek and helped put moisture in wetlands throughout the Refuge.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed when and where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

7. Grazing

Grazing season went well this year as the cattle found lush growth resulting from the frequent rains. The Refuge grazing season ended last month and most cattlemen were happy with their results this year and the Refuge grasslands look very good following the grazing treatment.

9. Fire Management

Refuge firefighters responded to two wildland fires threatening the Refuge on November 3rd and 14th. The Hayes Cemetery fire on November 3, located south of the Refuge, was 40 acres in size. The Oil Well Road fire on November 14 was 5 acres in size and located north of the Refuge.

David McCauley and Steve Kirk traveled to Kirwin NWR to assist with prescribed fire implementation several times throughout the month.

Bill Waln assisted with suppression of a wildfire on Kirwin NWR on November 18-20.

Bill Waln completed the FY-07 preparedness budget through the Fire Planning Analysis tool on November 15.

David McCauley completed purchase card training and was given purchase card approval on November 28th.

G. WILDLIFE

2. Threatened and/or Endangered

The endangered whooping cranes migration was slow this year, mainly due to nice weather further north allowing the birds to stay longer. A total of 38 whoopers were confirmed sighted in 2005, along with 2 unconfirmed reports, down from last year. The last whooper was reported on 11/14.

Bald eagles began to show up with the migrating waterfowl. Two eagles were recorded on the 11/10 survey and 12 on the 11/22 count.

3. Waterfowl

Two bi-monthly waterfowl counts were conducted in November as part of a statewide effort to monitor migration and populations. On 11/10, 8,382 ducks and 123,075 geese were counted and on the 11/22 survey a total of 19,310 ducks and 750,000 geese were recorded.

Warm temperatures further north in the flyway appear to be keeping birds in those areas and reducing the migration to Kansas.

The EURASIAN WIGEON remained in the area and was spotted on 11/3 on the Big Salt Marsh, much to the delight of local birders.

4. Marsh and Water Birds

Great blue herons remained on the Refuge but most other water birds headed south.

Virginia, and King rails were present and provided sightings for a few lucky birders. Black rails were heard during the month but as usual were hard to spot.

Sandhill cranes have been slow in building up on Quivira with only 12,500 recorded on the 11/10 survey and only 1500 on the 11/22 count. Last year by this time we were over 200,000 sandhills on the Refuge.

5. Shorebirds, Gulls, Terns, and Allied Species

Lesser yellowlegs, stilt sandpipers, western sandpipers, semi-palmated sandpipers, black-bellied plovers, and sanderlings were recorded on the Refuge in November.

The big excitement for the birders was the discovery of a RUFF on Unit 49, adjacent to a good viewing spot on a Refuge road. This brought out a lot of visitors to add this life bird. This bird is the 8th state record for this species.

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with Kansas State University. Contracting paperwork between USGS and FWS has created some problems in getting the study funding into the proper hands. This was finally resolved, then we discover that the Safety Office will not allow observers in the back of pickups, so the survey protocol has to be modified. We have met the enemy and he is us!!!!

K-State personnel assisted with the pre-firearms season deer spotlight survey on 11/22. A total of 285 deer were recorded on the survey. K-State folks wanted to observe first hand our survey routes and techniques to assist in our deer monitoring efforts.

H. PUBLIC USE

1. General

Nice Fall weather resulted in a lot of visitors that decided to drive through the Refuge this month.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in November, assisted Earhart Environmental Magnet Schools' 5th graders as they researched and collected data for "green" remedies in their new school.

ORP Beck also presented eight "Suitcase for Survival", two "Owl" and two "Turtle" programs to over 460 students.

ORP Terry presented, on November 16 to 60 students and 5 adults from the Sterling 5th Grade.

7. Other Interpretive Programs

ORP Beck displayed the KS Junior Duck Stamp display at the Lee Richardson Zoo, Garden City, Blue Valley Library, Overland Park, Antioch Library, also Overland Park where it was viewed by over 2300 patrons.

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day.

Lorrie Beck also assisted on the State ECO meet at Fort Larned as judge on the Interpretive event.

On 11/3, KACEE was on the Refuge to tour and view what we can provide for environmental education opportunities.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

Sandhill crane season started off the Refuge on 11/9 and both the Refuge LE and KDWP officers spent a lot of time telling hunters to be sure to ID their targets, to avoid the whooping crane shooting problem that occurred last year.

Goose, pheasant and quail seasons started on 11/12. Success was fair but with Cheyenne Bottoms WMA essentially dry we had a lot of hunters that have normally hunted the Bottoms, causing some crowding.

Firearms deer season started on 11/30, outside the Refuge.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them! They conducted a FOQ Board Meeting on 11/15.

I. EQUIPMENT AND FACILITIES

1. New Construction

Refuge crew finished final dirt work on the rehab of the RC-B water control structure, one of the main distribution structures on the Refuge. New walls were needed and a new floor, to replace damaged concrete caused by erosion and undercutting by beaver actions.

The final work on the Little Salt Marsh observation tower was completed last month. During November new rock, culverts, parking lot shaping, and other finishing touches were completed to allow public access to the site.

2. Rehabilitation

The Refuge crew continued work on the force account built storage shed at the EEC. They had to postpone this shed project when the damage to the RC-B water control structure was discovered and took priority. This open sided shed will provide much needed storage without having to move heavy equipment all the way south to the HQ area. All that remains is to put the top tin in place and do some trim work. Wire doors will be added later for security.

OTHER ITEMS

3. Training and Items of Interest

Pete Meggers traveled to Texas for training in oil and gas monitoring programs on 11/28-12/2.

FMO Bill Waln and his wife and two children welcomed a newcomer to their family with the arrival of Ava Grace, a 7lb.4oz. baby girl on 11/3. She's a keeper!!!

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
QUIVIRA NATIONAL WILDLIFE REFUGE

DEC05MAR

January 17, 2006

Memorandum

To: Refuge Supervisor, (KS, NE, CO), Region 6 (60130)
From: Refuge Manager, Quivira National Wildlife Refuge (64620)
Subject: Monthly Activity Report, December, 2005

A. HIGHLIGHTS

- During December, the firearms deer season outside the Refuge kept Refuge officers busy. One individual was cited for taking a crack at a huge 13 point that tempted him.
- On 12/13, the Friends of Quivira sponsored a members only "Night Tour" with about 18 folks in 3 vehicles using spotlights to view the nocturnal wildlife.
- A very sad note. On December 19th, Olin Allen, our long time and very dedicated Refuge Volunteer passed away as a result of a heart attack. He will be missed!

B. CLIMATIC CONDITIONS

High 64 degrees F Low: -8 degrees F Precip: 0.66 inches

The "official precipitation" for December was 0.66 inches (all moisture from snow) at the Hudson, KS weather station, eight miles west of HQ. The long term average precipitation for December is 0.77 inches. "Unofficially", at Refuge headquarters the December total was 10 inches of snow in four separate snowstorms.

E. ADMINISTRATION

4. Volunteer Program

Volunteers continued to help the Refuge in many ways, including assisting with wildlife surveys, prairie restorations, and dozens of other tasks.

The Refuge lost a very good friend on December 19, when Olin Allen, a long time volunteer, passed away due to a heart attack. Olin, and his wife Donna were some of the first volunteers at Quivira, each earning the "Volunteer of the Year " award. He will be missed!

6. Safety

The December monthly staff and safety meeting was cancelled due to other pressing duties, but safety was discussed at the daily morning work meetings.

F. HABITAT MANAGEMENT

1. General

Flows in Rattlesnake Creek increased slightly in December due to groundwater recharge into the stream.

2. Wetlands

During December, flows in Rattlesnake Creek were sufficient to allow diverting water from the Little Salt Marsh to top off wetland units 14A, 14B, 14C, 16, 25 and start filling 26. The levels of both the Big Salt Marsh and the North flats were improved in December by the underflow or ground water recharge that occurs on the north end of the Refuge, following irrigation season and after the trees in the area go dormant.

5. Grasslands

Trees, mostly salt cedar, Russian olive, and eastern red cedar, continued to be removed when and where possible on Quivira grasslands. Over 20,000 trees have been removed from Quivira in the past three years and plans are to continue, especially in areas scheduled for controlled burns.

9. Fire Management

Site preparation continued in December for the 2006 planned prescribed fire units.

Bill Wain, FMO, attended the Regional Fire Management Officer meeting in Rapid City, SD, December 6 and 7.

Bill Wain attended the Kansas Interagency Wildland Fire Committee meeting in Elkhart, KS, on December 20-21.

G. WILDLIFE

2. Threatened and/or Endangered

Bald eagles began to show up with the migrating waterfowl. The eagles are counted during the bi-monthly waterfowl surveys and during December 14 (A-5, I-9) were recorded on the 12/8 survey and 13 (A-8, I-5) on the 12/21 count.

3. Waterfowl

Two bi-monthly waterfowl counts were conducted in December as part of a statewide effort to monitor migration and populations. On 12/8, 10,800 ducks and 455,000 geese were counted and on the 12/21 survey a total of 390 ducks and 4,900 geese were recorded, the latter count being decreased due to cold weather and freeze up conditions.

4. Marsh and Water Birds

Great blue herons remained on the Refuge but most other water birds headed south with the arrival of cold weather and frozen wetlands.

Six Virginia rails were counted on the annual Christmas Bird Count

8. Game Animals

Chronic wasting disease continues to be a concern. The Refuge has received funding and is coordinating with the State to start a deer monitoring survey, in conjunction with Kansas State University.

K-State personnel assisted with the pre-firearms season deer spotlight survey on 11/22. The deer survey during the firearms season was scheduled on 12/6 but was cancelled due to very low temperatures, strong north winds and snow.

H. PUBLIC USE

1. General

Cold temperatures early in the month and frozen wetlands severely reduced the visitors numbers but by months end warmer weather had once again brought the public to Quivira.

2. Outdoor Classrooms - Students

ORP Beck, GPNC, in December, presented the Lewis and Clark program to 158 8th graders at Pleasant Valley Middle School, snakes program to 59 adults at the Catholic Charities Adult Day Care.

7. Other Interpretive Programs

ORP Beck attended a meeting, on December 15, to discuss the upcoming national NAI meeting in Wichita in 2007.

The Quivira NWR website receives thousands of hits, many of which once were phone calls that we had to answer each day.

The Friends of Quivira sponsored a "Night Tour" for Friends members only, on December 13. About 18 folks in three cars, equipped with spotlights, roamed the Refuge to see the nocturnal sights. It was a very successful event and gathered some new members for the FOQ.

17. Law Enforcement

RM Hilley and RO Sellers continue to work law enforcement to achieve the magic 25% required for dual function officers.

Firearms deer season ran from 11/30 to 12/11, outside the Refuge. Refuge Officers spent a lot of time trying to keep the hunters outside away from the trophy deer inside the Refuge. Two juveniles were tempted by a very large 13 point and took one shot (missed!), but were detained by locals until Officers arrived. The young hunters were turned over to the local State Officer due to his better means to handle juvenile cases.

18. Cooperating Associations

The Friends of Quivira continue to serve the Refuge in numerous ways. We could not do the job without them!

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

The Refuge crew continued work on the force account built storage shed at the EEC. They had to postpone this shed project when the damage to the RC-B water control structure was discovered and took priority. This open sided shed will provide much needed storage without having to move heavy equipment all the way south to the HQ area. The top tin was put in place and all that remains is some trim work. Wire doors will be added later for security.

Two surplus vehicles, a pickup and a van, were picked up by the successful bidders this month.

OTHER ITEMS

3. Training and Items of Interest

The annual Audubon Society Christmas Bird count was conducted on Quivira NWR on December 14 by 17 sturdy observers. The Refuge was 85%-95% ice covered making for a rough count. A total of 78 species were tallied, down from 101 last year.

A lot of use or lose annual leave was consumed in December to beat the January deadline.

TABLES

Table 1. Quivira NWR Personnel FY 2005

	Name	Title	Appt.	EOD
1.	J. David Hilley	Project Leader	PFT	5/89
2.	James Sellers	Deputy Project Leader	PFT	9/00
3.	William W. Waln	FMO	PFT	2/99
4.	Lorrie Beck	ORP – GPNC	PFT	11/01
5.	Gary F. Meggers	Rangeland Mgmt. Tech	PFT	5/85
6.	Cynthia E. Terry	ORP- Quivira	PFT	7/96
7.	Christine LaRue	Administrative Assistant	PFT	3/03
8.	Brent Waters	Maintenance Worker	PFT	10/01
9.	Joe Kocher	Maintenance Worker	PFT	5/03
10.	Doug Howell	Maintenance Worker	PFT	5/03
11.	R. Todd Schmidt	Range Tech/Fire Fighter	PFT	05/01-8/05
12.	David McCauley	Range Tech/Fire Fighter	PFT	7/03
13.	T.J. Rockenbach	Range Tech/Fire Fighter	TFT	2/05
14.	Steve Kirk	Range Tech/Fire Fighter	TFT	3/05
15.	Robin Drake-Woods	Tractor Operator	TFT	4/05
16.	Tyler McVay	Tractor Operator	TFT	4/05

Table 2. Quivira NWR Staffing, FY 2001-2005

Year	Permanent		Temporary	YCC	Total
	Full Time	Part Time			
2005	12	0	4	3	19
2004	12	0	5	2	19
2003	10	2	5	4	21
2002	9	2	5	2	18
2001	9	1	2	2	14

Table 3. Quivira NWR Funding, FY 2001-2005

Account	2005	2004	2003	2002	2001
1121	\$0.00	\$15,400.00	\$0.00	\$0.00	\$0.00
1130	\$0.00	\$0.00	\$0.00	\$0.00	\$2,000.00
1261	\$68,0345.00	\$655,250.00	\$614,900.00	\$607,200.00	\$528,000.00
1262	\$369,465.00	\$475,567.00	\$353,012.00	\$335,435.00	\$163,000.00
2821	\$103,461.00	\$0.00	\$0.00	\$0.00	\$0.00
4524	\$1,102.00	\$2,350.00	\$0.00	\$0.00	\$0.00
6860	\$29,600.00	\$29,600.00	\$29,600.00	\$29,600.00	\$28,000.00
8555	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
8610	\$4,118.00	\$5728.00	\$5,065.00	\$10,839.00	\$9,325.00
9131	\$114,991.00	\$211,997.00	\$0.00	\$0.00	\$0.00
9251	\$0.00	\$0.00	\$319,031.00	\$183,766.00	\$104,000.00
9261	\$0.00	\$0.00	\$0.00	\$63,059.00	\$0.00
9263	\$82,401.00	\$219,602.00	\$94,167.00	\$0.00	\$40,000.00
9264	\$76,377.00	\$2200.00	\$0.00	\$0.00	\$0.00

Table 4. Quivira NWR Grazing Program, FY 2005

Permittee	Livestock No. & Class	AUMS	Acres Grazed	AUMS/Acre	Cost/AUM \$13.00	Total Grazing Fee	Amount To Grazing Cell	Amount To USFWS
Hamilton	180 Yearlings 11 Bulls	662.56	3,551	0.18	\$12.00	\$7,950.72	\$5,797.40	\$2,153.32
Hornbaker	70 CC/PR 3 Bulls	484.5	1,076	0.45	\$12.00	\$5,814.00	\$4,239.37	\$1,574.63
Miller	175 CC/PR 5 Bulls	1,177.20	1,760	0.66	\$12.00	\$14,126.40	\$10,300.50	\$3,825.90
Schweizer G	160 C/P fall 2 Bulls	921.88	2,075	0.44	\$12.00	\$11,602.56	\$8,066.45	\$2,996.11
Schweizer B	110 CC/PR 5 Bulls	748.20	1,661	0.45	\$12.00	\$8,978.40	\$6,546.75	\$2,431.65
Grazing Fee For 2005 - 13.00								
Total	180 Yrl 515 CC/PR 26 Bulls	3,994.34	10,123	0.39*		\$47,932.08	\$34,950.47	\$12,981.61

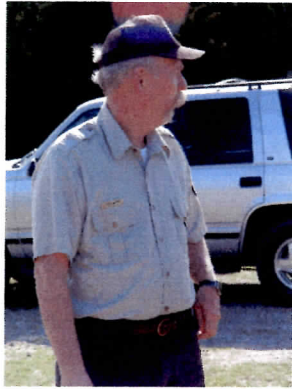
* Average aums/acre

Table 5. Quivira NWR Fire Log, FY 2005

Name	Start Date	Wildland Fire		Prescribed Fire		Fire Code/FMIS Number	IQCS Incident Number
		FWS Acres	Other Acres	FWS Acres	Other Acres		
Powerline	1/05	0.1				BJ0T	00000037846
Bucket	1/21	0.1				BJ51	00000021588
Wildlife Drive	1/5			660		6303	00000026752
7-Strips	2/3			419		6304	00000026062
West LSM-A	3/16			364		6306	00000037852
DeWorth	3/19		80			BL08	00000025239
Keenan	3/19		90			BL09	00000037854
Darrynane-NE	3/21			85		6325	00000025950
Darrynane	4/13			1,333		6326	00000037856
Miller-A	4/14			640		6327	00000037857
Hamilton-SE	4/15			16		6291	00000037858
Cheat	6/8	0.1				BT00	00000037859
Markel	6/18		15			BU6M	00000033203
Hudson	9/9		21			B59S	00000046175
Hornbaker South	9/13			65		6415	00000046176
Whooper Pad	8/10			4.0			

PHOTOS

Staff Photos



Refuge Manager, Dave Hilley



Assistant Refuge Manager, Jim Sellers



Rangeland Management Specialist,
Gary "Pete" Meggers



Fire Management Officer, Bill Waln



Maintenance Worker, Brent Waters



Lorrie Beck, Outdoor Recreation Planner,
Great Plains Nature Center



**Maintenance Worker, Joe Kocher,
working on trail with YCC.**



**Outdoor Recreation Planner, Cindy Terry
awards door prizes at Fishing Derby.**



**Seasonal Tractor Operator, Robin Drake-
Woods volunteers at Mother's Day Off.**



Firefighter, T.J. Rothenbach



Firefighter, Dave McCauley



Seasonal Tractor Operator, Tyler McVey



Maintenance Worker, Doug Howell



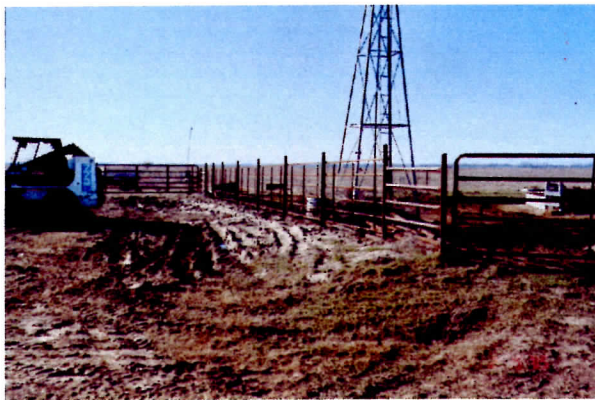
Administrative Support Assistant, Christine LaRue,
without whom we could not function.

2005 Narrative Photo Captions

A. Haying is used as a management tool on selected areas, here on the Richardson Tract, to improve habitat for the black rail and bob-o-links. 05-GM



B. High intensity/short duration grazing is used to improve Refuge grasslands. Here a new cell center is being constructed to allow proper rotation of the cattle between paddocks. 05-GM



C. The endangered whooping cranes migrate through the Quivira NWR and surrounding area, often feeding in the fields of local farmers. 05-GM



D. Black-bellied whistling-ducks, rare visitors, were photographed by birders using Quivira NWR during 2005.



E. The Friends of Quivira sponsor an annual Kid's Fishing Clinic and Derby the first weekend in June. Kids start the day by moving through several learning stations, such as boating safety.

05-CL



F. The kids learn how to cast with the help of Brent Waters, our able Maintenance Worker.
05-CL



G. With the help of the Sandhill Bass Club, kids get first hand experience with proper equipment, fish handling and ID.
05-RDW



H. Following the clinic, the kids move to the Kids' Fishing Pond and try their new knowledge on some very willing catfish. 05-CL



I. (1155) The fish, stocked with the assistance of Kansas Dept. of Wildlife and Parks, are the hit of the event. 05-CL



J. The pond also yields some “little fish for Little Kids” but they still bring a smile.
05-CL



K. After giving out prizes for largest and smallest fish for several years the sponsors decided to teach kids to enjoy the fishing , not just the prizes. Now each fish caught gets the fisherman a certificate and the only prizes are door prizes.
05-CL



L. Over 200 folks, kids and adults, attended the 2005 Kids Fishing event. 05-CT



M. (1221) The Friends of Quivira do not charge for any events and even provided a hamburger and hot dog lunch for everyone attending. 05-CL



N. Monarch Mania, another Friends event, is the butterfly tagging highlight of the fall. The activities include crafts for the children, butterfly biology lessons and

05-CL



O.then the hunt begins for the elusive Monarch butterfly.

05-CL



P. In 2005, the timing was perfect and many more butterflies were caught than we had tags. Over 300 butterflies were tagged for the southward journey. 05-CL



Q. The Monarch Mania event is getting more popular each year and over 200 folks attended in 2005. 05-CL



R. During NWR Week, the Friends of Quivira annually sponsor an event, in 2005 it was to celebrate the 50th year of Quivira NWR. Lorrie Beck and “friend” from the Great Plains Nature Center staffed one of several learning sites during the celebration. 050CL



S. Wildlife students from Ft. Hays State University staffed a very popular wildlife exhibit during the NWR week event. 05-RDW



T. A blacksmith from Ft Larned NHS provided smithing instructions to the visitors.

05-RDW



U. Staff from the Sternburg Museum, Hays, KS, have supported the fall event for several years and are a very popular addition, discussing everything from snakes to dinosaurs. 05-RDW



V. Historic characters have often visited the NWR week event, courtesy of the Kansas Council for the Humanities, and in 2005, “Amelia Earhart” dropped in to entertain the visitors.

05-RDW



W. Other educational programs in 2005 included the Junior Refuge Manager Program, where students, in this case Girl Scouts, work for a special recognition Junior Refuge Manager patch.

05-CL



X. Education is a big part of what we do each year and numerous school groups participate in activities and programs throughout the year. 05-CL



Y. The Kansas State Fair in Hutchinson, KS, only 30 miles away, allows the Refuge to inform over 300,000 folks about Quivira and the other NWR's in Kansas. 05-GM



Z. The Kansas Junior Duck Stamp contest winners are displayed at the State Fair as part of the FWS booth. Lorrie Beck, from the GPNC, is the state coordinator for the contest. 05-GM



AA. Construction starts on an accessible observation tower on the south edge of the Little Salt Marsh. 05-GM



BB. The elevated tower will give visitors a birds eye view across the flat Kansas landscape and improve wildlife viewing opportunities. 05-GM



CC. (1568) The new LSM observation tower was finished in time for the formal opening during the NWR Week event in October and has been very well received by the public. 05-RDW



DD. A new storage shed was contracted in 2005 on the north edge of the service yard. 05-GM



EE. The new storage facility will replace an older tin shed that was destroyed in an arson caused fire. 05-GM



FF. Work starts on an open sided equipment shed, being constructed by force account, to better protect equipment without having to transport a the entire length of the Refuge. 05-GM



GG. Quivira's Posi-track, tree saw, and brush mower were transferred to Kirwin NWR to assist in their vegetation management, after we were able to order new equipment from dedicated funds. 05-GM



HH. A tram was acquired from a local organization by the Friends of Quivira and donated to the Refuge for use in our various public education programs. We had borrowed the tram for several years, feared it would be sold outside the community, and now it is ours. 05-RDW



GG. Range Tech/Firefighter Todd Schmidt, now of some Montana Refuge, won the Paul Gleason Leadership Award for his work with the Mid-Plains Interagency Handcrew. 05-BW



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U.S. Fish & Wildlife Service

Quivira

*National Wildlife
Refuge*





For untold years, the Big and Little Salt Marshes of Quivira National Wildlife Refuge have attracted thousands of migratory waterfowl, providing them with food, cover, and a place to rest during their long flights between breeding and wintering areas.

About the Refuge



This goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

A Place Known for Wildlife

Quivira National Wildlife Refuge (NWR) located in south central Kansas, lies in an area where the eastern and western prairies meet and blend. In 1955, the Migratory Bird Commission approved the purchase of land to create the Refuge, thus providing food, water, and nesting areas for migratory waterfowl in this area of Kansas. Quivira NWR is one of a network of over 540 refuges across the United States. Refuges are vitally important, providing habitat for hundreds of species of birds, mammals, reptiles, amphibians, fish, and plants. National Wildlife Refuges are managed to protect endangered plants and animals, to provide for the needs of migratory birds, to preserve natural diversity, and to provide places for people to understand and enjoy wildlife.

The name "Quivira" comes from a Native American tribe living in the area when the Spanish explorer, Coronado, visited in 1541. In quest of gold, treasures, and the fabled "Seven Cities of Cibola," he found instead fertile grasslands, abundant wildlife, and small agricultural villages. The Native Americans, and later, the early settlers, hunted waterfowl in these marshes. Shortly after the turn of the century, commercial hunting provided wagon loads of waterfowl to Kansas City restaurants and other eastern cities.

With the decline of commercial hunting came the establishment of hunting clubs. The lands bought up by these clubs helped preserve valuable waterfowl habitat from further development. Moreover, these hunting clubs worked to improve the habitat to attract migrating birds. Canals and water control structures were later added, providing the entire area with a more dependable water supply. Today, these marshlands remain a major stopover for thousands of migrating birds.

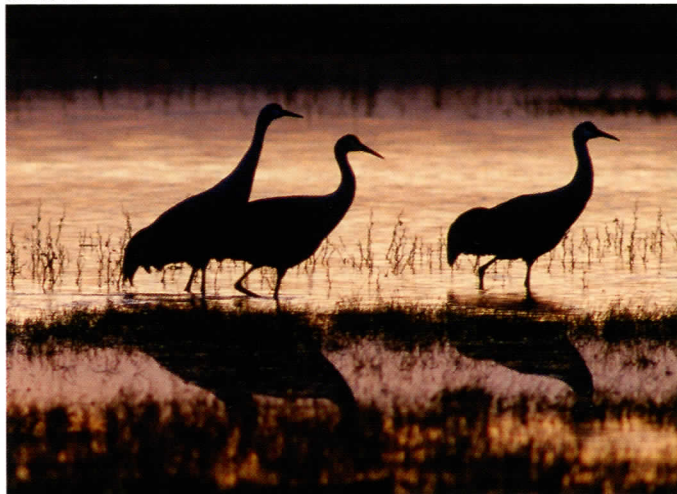
Wildlife Throughout the Seasons

Located where the relatively lush vegetation of the east blends into the more arid grasslands of the west, Quivira NWR supports numerous and varied plant communities. This variety of plant communities attracts birds common to both eastern and western North America. Over 300 bird species have been observed on the Refuge.

Fall Flights

Thousands of Canada geese, ducks, and other migratory birds, such as sandhill cranes and shorebirds, pass through the Refuge from September to December. The shallow west edge of the Big Salt Marsh is a favorite roosting area for the sandhill cranes. Endangered whooping cranes may make a brief visit as they move along their migration routes from mid-October through November. This is the best time to view these rare visitors. The whooping cranes may make a return visit in mid-March through mid-April on their way north to nesting areas.

Sandhill cranes silhouetted at sunset.



© Bob Gress

Winter and Spring Visitors

Bald and golden eagles winter on the Refuge from November until March. Over 800,000 ducks and geese visit the Refuge until severe weather drives them southward to winter along the Gulf Coast and in Mexico. During March and April, the Refuge becomes a staging area once again for ducks, geese, shorebirds, American white pelicans, gulls, and other migrants en route to traditional nesting grounds in the prairie potholes of the north central United States and Canada.

American white pelicans in the marsh.



© Bob Gress

Summer Residents

Summer residents include Swainson's hawks and Mississippi kites, while northern harriers, American kestrels, and red-tailed hawks are common throughout the year. Ring-necked pheasants and bobwhite quail are often seen in the Refuge grasslands and grain fields. Look for wild turkey along the edge of tree groves and shelter belts where they often seek food and cover.



Wild turkey (above left), black-tailed prairie dog (above right), white-tail deer (middle), mallards (far right)

Managing Land for Wildlife - the Work of the Refuge

Common summer nesting species on the Refuge include snowy plovers, American avocets. Black-necked stilts and white-faced ibis. In addition, a colony of endangered least terns use the salt flats at the north end of the Refuge as nesting habitat. Other wildlife frequently seen on the Refuge include white-tailed deer, black-tailed prairie dogs, beaver, raccoons, badgers, and coyotes. Bird watchers can pick up a Refuge bird list containing more detailed information at the Refuge headquarters.

Quivira NWR is managed primarily to provide migratory waterfowl with food, water, and shelter. Other migratory birds, endangered species, and resident wildlife, such as deer and pheasant, also benefit from habitat management programs. Primary habitat management programs conducted on the Refuge include cooperative farming, grazing, prescribed burning, and water control.



© Bob Gress

Dave Hilley / USFWS



Farming for Wildlife

In the cooperative farming program, crops are planted on the Refuge by local farmers who work on a share basis. Over 1,300 acres are planted with crops to provide food for the migrating birds and resident wildlife. The fields are rotated between winter wheat and milo, with cow peas planted periodically to enrich the soil.

The farmers harvest their two-thirds share of the milo, leaving the Refuge share standing in the field as food for wildlife. Wheat fields are completely harvested, with the farmers receiving a three-quarters share. The remaining quarter of the harvest is left on the Refuge as food and cover for wildlife. Migrating geese browse on the tender young shoots of wheat growing in these harvested fields.

Grazing Now and Then

Historically, great herds of bison grazed the grasslands of this area. They would graze an area only for a short time, then move on, thus allowing the native grasses to regrow and continue the cycle. Since bison no longer roam the Great Plains, Quivira NWR imitates this natural cycle of high intensity grazing over a short



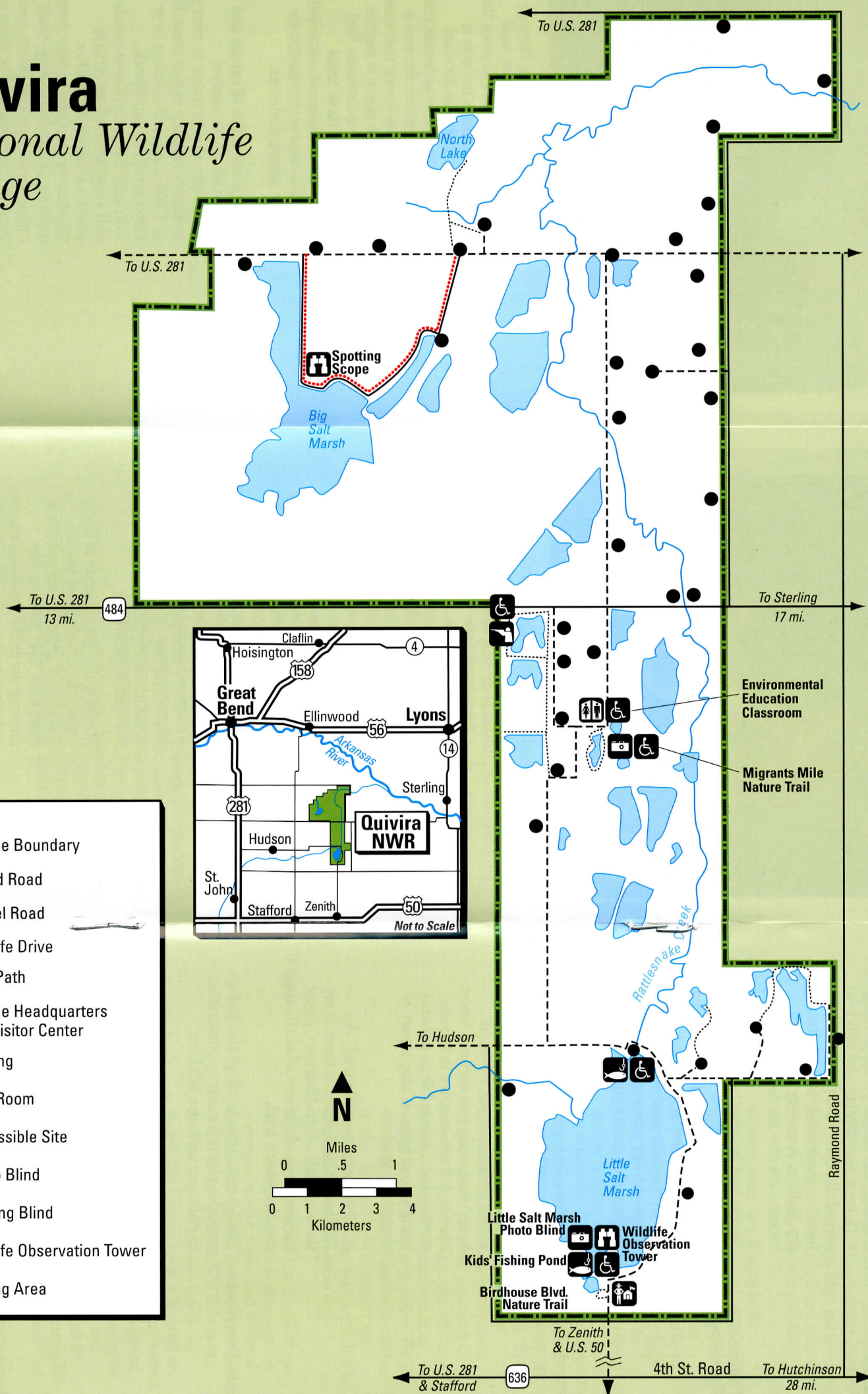
period of time with cattle. Through this management program, local ranchers are permitted to graze their cattle on the Refuge, but only in specially chosen areas for short periods of time, often no longer than a few days. Once grazed, the area is seldom used again during that season, thus allowing the plants to regrow. Grassland birds and animals feed, nest, and rest in these areas. Deliberate, well-planned controlled burns also improve the habitat for wildlife nesting and cover.

Water for Wildlife

Twenty-one miles of canals and numerous water control structures divert water to over 34 wetlands ranging in size from 10 to 1,500 acres and totaling over 7,000 acres of marshlands. Through the use of these canals and water control structures, water management, either flooding or removing water from an area, allows the Refuge staff to influence the types of plants that grow in the wetland. For example, by manipulating the water levels, large stands of cattails that have limited value to wildlife can be replaced by waterfowl food plants.

Quivira

National Wildlife Refuge



**Enjoying the
Refuge
Visitor Center**

Located in the Refuge Headquarters building, the visitor center is filled with hands-on displays for children and adults. The interpretive exhibits focus on the wildlife and habitats of the Refuge. A variety of wildlife mounts are also on display.

*Wildlife
Observation*

Spring and fall are the best seasons to visit Quivira NWR since wildlife, especially waterfowl, is abundant and more easily viewed at these times. Try to schedule your visit early or late in the day when wildlife is most active and more frequently seen.

*Interpretive
Nature Trails*

A 1.2-mile nature trail, the Migrants Mile, is located south of the Environmental Education Classroom. It loops through shaded woodlands, along marshy edges, and through native grasslands. An elevated boardwalk takes you across a large marsh. A three-quarter mile loop, surfaced and accessible to persons using wheelchairs, is also a part of the nature trail.

A 1,000-foot accessible trail, the Birdhouse Boulevard, is located on the west side of the Visitors Center parking area. A variety of birdhouses line this scenic trail.

Auto Tour Routes

The 14-mile drive through the Refuge provides visitors many opportunities to pull over and view wildlife.

The 4-mile Wildlife Drive, at the north end of the Refuge, offers wildlife watching opportunities and views of the Big Salt Marsh and surrounding habitats. An accessible spotting scope is provided to assist visitors in watching wildlife.

*Observation
Tower*

An accessible wildlife observation tower is located on the south edge of the Little Salt Marsh. This tower allows visitors to get a better view of the Refuge wildlife.

*Wildlife
Photography*

Photography blinds are located at the Little Salt Marsh and on the Migrants Mile nature trail. The photography blind on the Migrants Mile nature trail is accessible. Both blinds are available on a first-come, first-served basis.

*Environmental
Education*

Guided tours are available for schools and other groups. Educators are encouraged to investigate one of the many different educational activities for field trips available at the Refuge. Please call the Refuge staff for more information or to schedule guided tours, field trips, and/or teacher workshops.

Hunting

Hunting is permitted on 8,000 acres of the Refuge. The hunting program is managed in accordance with State and Federal regulations. Only waterfowl, pheasants, quail, dove, snipe, rails, squirrels, and rabbits may be hunted on Quivira NWR. Special Refuge regulations also apply, as listed in the Quivira NWR hunting and fishing leaflet available at the Refuge visitor center. An accessible waterfowl hunting blind is available by reservation only.

Fishing

Fishing is permitted on the Refuge. The fishing program is managed in accordance with State and Federal regulations. Special Refuge regulations, listed in the Quivira NWR hunting and fishing leaflet, also apply. An accessible fishing area is located on the north end of the Little Salt Marsh. The "Kids Fishing Pond" is located west of the visitor center. This pond is reserved for kids 14 years and younger. An accompanying adult may fish with the youth. An accessible pier is also located at this pond.

Refuge Regulations

Although the following rules and regulations may seem inconvenient or overly restrictive to some, they are necessary for the protection of wildlife and their habitats, and, in some instances, for the safety of visitors. By observing these rules, visitors will make the Refuge a better place for themselves and the wildlife they come to enjoy.

Visiting Hours

The Refuge is open to visitors from daylight to dark. The visitor center is open from 7:30 am to 4:00 pm, Monday through Friday, except on Federal holidays.

Access and Parking

Motorized vehicles are permitted only on developed roads and parking areas. Driving off-road or on roads closed by signs or barriers is prohibited. Parking in front of gates, on bridges, or on water control structures is prohibited.

Rest Rooms

There are rest rooms at the visitor center, inside the environmental education classroom building, and just outside the classroom building. All rest rooms are fully accessible.

Access for Visitors with Disabilities

Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of physical or mental ability. Dial 7-1-1 for a free connection to the State transfer relay service for TTY and voice calls to and from the speech and hearing impaired. For more information or to address accessibility needs, please contact the Refuge staff at 620 / 486-2393 or the U.S. Department of the Interior, Office of Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20240.

Hiking

All of the Refuge is open to hiking.

Camping

Overnight camping is not permitted. All visitors must leave the Refuge at the end of each day.

Bicycling

Bicycling is permitted on the Refuge, but is restricted to established roads and trails. Bicycles are prohibited on both interpretive nature trails.

Horseback Riding

Horseback riding is permitted, but for safety purposes, Refuge staff must be notified before any riding activities take place. Horses are restricted to established roads and trails. Horses are prohibited on both interpretive nature trails.

Boating

The use of boats and canoes is not allowed on the Refuge.

Fires

No fires of any type are permitted within the Refuge.

Firearms

The possession of firearms is prohibited except as authorized during the hunting season.

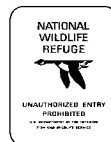
Littering

Littering is prohibited on the Refuge. Please remove all trash from the Refuge.

Nearby Accommodations

Gas, food, and lodging can be found in the nearby communities of Stafford, Sterling, Hutchinson, and Great Bend.

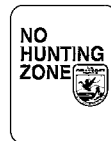
Refuge Signs and Their Meaning



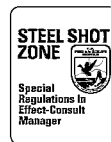
Refuge Boundary - Authorized entry only.



Public Hunting Area - Area behind this sign open to hunting.



No Hunting Zone - Area behind this sign closed to all hunting.



Non-toxic Shot Zone - Non-toxic shot must be used for all hunting.

**Would You
Like To Help?**
*Friends
of Quivira*

The Friends of Quivira is a nonprofit group established in 1998 to assist the Refuge with their environmental education and stewardship goals. This group sponsors and volunteers at educational events held throughout the year. Some annual events include: the "Peeps and Pastries" birding tour; "Fathers' Day Out," a father and child event; the Kids' Fishing Clinic; "Monarch Mania," a butterfly tagging event; and a week-long celebration of National Wildlife Refuge Week. For more information about the Friends of Quivira, contact:

Friends of Quivira
c/o Quivira National Wildlife Refuge
RR #3, Box 48A
Stafford, KS 67530



Gary Meggers
USFWS

Quivira National Wildlife Refuge
RR 3, Box 48A
Stafford, KS 67578-9532
620 / 486 2393
quivira@fws.gov
<http://quivira.fws.gov>

For State transfer relay service
TTY / Voice: 711

U.S. Fish and Wildlife Service
<http://www.fws.gov>

For Refuge Information
1 800 / 344 WILD

December 2005



Long-billed Dowitcher
© Bob Gress

U.S. Fish & Wildlife Service

Quivira

*National Wildlife
Refuge*

Bird List



About the Refuge

Quivira National Wildlife Refuge (NWR) is located in south-central Kansas within the transition zone of the Great Plains. In this zone, the relatively lush vegetation of the eastern prairie blends with the more arid grasslands of the western prairie. The blend of varied plant communities and the presence of the Big and Little Salt Marshes, major water features on the Refuge, attract birds common to both eastern and western North America. Over 300 species of birds have been observed in the marshes, grasslands, farmlands, and low sandhills of Quivira NWR.

Seasonal Highlights

Fall Flights and Winter Visitors

From September to December, up to 500,000 Canada geese and ducks pass through Quivira NWR on their way to wintering grounds along the Gulf Coast and in Mexico. Other migratory birds, such as sandhill cranes and shorebirds, can also be seen. Endangered whooping cranes may make a brief visit as they move along the Central Flyway. Both bald and golden eagles winter on Quivira NWR from November until March.

Spring Staging

During March and April, Quivira NWR becomes a staging area for over 200,000 ducks and geese. Shorebirds, American white pelicans, gulls, and other migrants can also be seen. The majority of these birds stopover on their way to traditional nesting grounds in the prairie potholes of the north-central United States and Canada.

Spring and Summer Residents

Snowy plovers, American avocets, black-necked stilts, and white-faced ibis are some of the more common nesting species found on the Refuge. A colony of endangered interior least terns use the salt flats on the north end of Quivira NWR as nesting habitat. Swainson's hawks and Mississippi kites are common during the summer months, while northern harriers, American kestrels, and red-tailed hawks are commonly seen throughout the year. Look for ring-necked pheasants and bobwhite quail in

Watching Wildlife

the grasslands and grain fields. Wild turkey can be seen along the edge of tree groves and shelter belts where they often look for food and shelter.

Spring and fall are the best seasons to visit Quivira NWR since wildlife, especially waterfowl, is abundant and more easily viewed during these times. Try to schedule your visit early or late in the day when wildlife is most active and more frequently seen. Take a drive through the Refuge and along its boundaries; the best viewing is along the scenic tour route and the Wildlife Drive. See the Refuge general information leaflet for a map and more information.

The U.S. Fish and Wildlife Service seeks to afford persons with disabilities full accessibility or reasonable accommodation. Contact Refuge staff for information or to address accessibility needs. For the hearing impaired, use your State Relay System for the Deaf.

About this Checklist

This list of 311 birds follows the format of the Seventh A. O. U. Checklist (1998). Accidental species appear at the end of the checklist. Since most birds are migratory, their seasonal occurrence and relative abundance are coded as follows:

Seasons:

Sp	Spring (March-May)
Su	Summer (June-August)
F	Fall (September-November)
W	Winter (December-February)

Seasonal Abundance:

a	abundant—a common species which is numerous
c	common—a species certain to be seen in suitable habitat
u	uncommon—a species which is present but not certain to be seen
o	occasional—a species seen only a few times during the season
r	rare—a species seen at intervals of 2 to 5 years

Other Codes

- birds that nest on the Refuge
italicized name = endangered species in the United States

	Sp	Su	F	W
Loons				
___ Common Loon	o	r	o	r
Grebes				
___ •Pied-billed Grebe	c	c	c	o
___ Horned Grebe	u		u	o
___ •Eared Grebe	c	u	c	r
___ Western Grebe	r	r	o	o
Pelicans				
___ American White Pelican	a	a	a	o
Cormorants				
___ Neotropic Cormorant	o	o		
___ •Double-crested Cormorant	a	c	a	u
Hérons				
___ •American Bittern	u	u	u	o
___ •Least Bittern	o	u	o	
___ •Great Blue Heron	c	c	c	u
___ •Great Egret	c	c	c	
___ •Snowy Egret	c	c	c	
___ •Little Blue Heron	c	c	u	
___ Tricolored Heron	r	r		
___ •Cattle Egret	a	a	c	
___ •Green Heron	u	u	o	
___ •Black-crowned Night-Heron	c	c	c	
___ •Yellow-crowned Night-Heron	u	u	u	
Ibises				
___ White Ibis	r	r	r	
___ Glossy Ibis	r	r	r	
___ •White-faced Ibis	c	c	c	
Vultures				
___ Turkey Vulture	c	u	u	
Whistling Ducks				
___ Black-bellied Whistling Duck		r		
Geese				
___ Greater White-fronted Goose	c	r	a	a
___ Snow Goose	c		u	c
___ Ross' Goose	o		u	u
___ •Canada Goose	c	c	a	a
___ Brant	r		r	r
Swans				
___ Trumpeter Swan			r	r
___ Tundra Swan	o		o	r

	Sp	Su	F	W
Ducks				
___ •Wood Duck	c	u	u	o
___ •Gadwall	a	u	c	c
___ •American Wigeon	a	u	c	c
___ American Black Duck	r		r	r
___ •Mallard	a	c	a	a
___ Mottled Duck	r	r		
___ •Blue-winged Teal	a	c	a	
___ •Cinnamon Teal	u	o	o	o
___ •Northern Shoveler	a	u	a	c
___ •Northern Pintail	a	u	c	a
___ •Green-winged Teal	a	o	a	c
___ •Canvasback	c	o	c	c
___ •Redhead	a	c	c	a
___ Ring-necked Duck	c	r	c	u
___ Greater Scaup	o			o
___ •Lesser Scaup	c	o	c	c
___ Oldsquaw	r		o	r
___ Bufflehead	c		c	c
___ Common Goldeneye	c	r	c	c
___ •Hooded Merganser	u	o	u	o
___ Common Merganser	u			c
___ Red-breasted Merganser	r	r	o	
___ •Ruddy Duck	a	c	a	u
Hawks, Kites, Eagles				
___ Osprey	o	r	o	
___ •Mississippi Kite	u	u		
___ Bald Eagle	u		u	u
___ •Northern Harrier	c	o	c	c
___ Sharp-shinned Hawk	u		o	u
___ •Cooper's Hawk	u	o	u	u
___ Northern Goshawk			r	r
___ Red-shouldered Hawk			r	
___ Broad-winged Hawk			r	
___ •Swainson's Hawk	c	c	u	
___ •Red-tailed Hawk	c	c	c	c
___ Ferruginous Hawk	o		o	o
___ Rough-legged Hawk	u			u
___ Golden Eagle	o		o	o
Falcons				
___ •American Kestrel	c	u	c	u
___ Merlin	o	r	o	o
___ <i>Peregrine Falcon</i>	o	o	o	o
___ Prairie Falcon	o	r	o	o

	Sp	Su	F	W
Gallinaceous Birds				
— •Ring-necked Pheasant	c	c	c	c
— •Greater Prairie-Chicken	r	r	r	r
— •Wild Turkey	c	c	c	c
— •Northern Bobwhite	c	c	c	c
Rails, Gallinules				
— •Black Rail	u	u		
— •King Rail	u	u	o	
— •Virginia Rail	c	c	o	
— •Sora	u	u	o	
— •Common Moorhen	o	u	o	
— •American Coot	a	c	a	u
Cranes				
— Sandhill Crane	a		a	o
— Whooping Crane	o		o	r
Plovers				
— Black-bellied Plover	u	u	u	r
— American Golden Plover	u	o	o	
— •Snowy Plover	c	c	c	
— Semipalmated Plover	c	c	u	
— Piping Plover	u	o	o	
— •Killdeer	c	c	c	o
— Mountain Plover	r		r	
Stilts, Avocets				
— •Black-necked Stilt	c	c	u	
— •American Avocet	c	c	c	
Sandpipers				
— Greater Yellowlegs	c	c	c	o
— Lesser Yellowlegs	a	c	a	r
— Solitary Sandpiper	u	u	u	
— Willet	u	u	u	
— Spotted Sandpiper	c	c	u	
— •Upland Sandpiper	c	u	u	
— Whimbrel	o	o	o	
— Long-billed Curlew	o	o	o	
— Hudsonian Godwit	u	r		
— Marbled Godwit	u	u	u	
— Ruddy Turnstone	o	o	o	
— Red Knot	o	o	o	
— Sanderling	c	o	c	
— Semipalmated Sandpiper	a	c	a	
— Western Sandpiper	c	c	c	
— Least Sandpiper	a	c	a	
— White-rumped Sandpiper	a	a	o	

	Sp	Su	F	W
— Baird's Sandpiper	a	c	a	
— Pectoral Sandpiper	c	c	c	
— Dunlin	u	o	u	r
— Stilt Sandpiper	a	c	a	
— Buff-breasted Sandpiper	o	r	o	
— Ruff	r	r		
— Short-billed Dowitcher	u	u	o	
— Long-billed Dowitcher	c	c	c	
— Common Snipe	u	o	u	
— American Woodcock	r		r	
Phalaropes				
— •Wilson's Phalarope	a	c	a	
— Red-necked Phalarope	o	r	o	
— Red Phalarope	r		r	
Jaegers				
— Parasitic Jaeger		r	r	
Gulls				
— Laughing Gull	r	o		
— Franklin's Gull	a	u	a	
— Bonaparte's Gull	r	r	o	o
— Ring-billed Gull	c	u	c	u
— Herring Gull	o		o	o
— Sabine's Gull		r	r	
Terns				
— Caspian Tern	r	o	r	
— Common Tern	o	o	o	
— •Forster's Tern	c	c	u	
— •Least Tern	u	u	o	
— •Black Tern	c	c	u	
Pigeons, Doves				
— •Rock Dove	u	u	u	u
— •Mourning Dove	a	a	a	o
Cuckoos				
— Black-billed Cuckoo	r	r		
— •Yellow-billed Cuckoo	o	u	r	
Owls				
— •Eastern Screech-Owl	u	o	o	o
— •Great Horned Owl	u	u	u	u
— Snowy Owl			r	r
— •Burrowing Owl	o	o		
— •Long-eared Owl	r	r	r	o
— Short-eared Owl	r		r	r

	Sp	Su	F	W
Goatsuckers				
— • Common Nighthawk	u	c	u	
— Common Poorwill	o	o		
— • Chuck-will's-widow	o	o		
Swifts				
— • Chimney Swift	u	u	u	
Hummingbirds				
— Ruby-throated Hummingbird		r		
Kingfishers				
— Belted Kingfisher	u	u	u	o
Woodpeckers				
— • Red-headed Woodpecker	c	a	u	
— • Red-bellied Woodpecker	u	u	u	u
— • Downy Woodpecker	u	u	u	u
— • Hairy Woodpecker	u	u	u	u
— • Northern Flicker	c	c	c	c
Flycatchers				
— Olive-sided Flycatcher	o		o	
— • Eastern Wood-Pewee	u	u		
— Willow Flycatcher	o		o	
— Least Flycatcher	u		u	
— • Eastern Phoebe	u	u		
— Say's Phoebe	o		o	
— • Great-Crested Flycatcher	u	u		
— • Western Kingbird	c	c	o	
— • Eastern Kingbird	c	c	o	
— • Scissor-tailed Flycatcher	u	u		
Shrikes				
— • Loggerhead Shrike	u	u	u	o
— Northern Shrike	r		o	o
Vireos				
— • Bell's Vireo	u	u		
— • Warbling Vireo	u	u		
— Red-eyed Vireo	o	o	r	
Jays, Magpies, Crows				
— • Blue Jay	c	u	c	u
— • Black-billed Magpie	o	o	o	o
— • American Crow	c	u	c	u
Larks				
— • Horned Lark	c	u	u	c
Swallows				
— • Purple Martin	o	o		

	Sp	Su	F	W
— • Tree Swallow	u	o	o	
— • Northern Rough-winged Swallow	u	o	u	
— • Bank Swallow	c	a	o	
— • Cliff Swallow	a	a	o	
— • Barn Swallow	a	a	c	
Chickadees, Titmice				
— • Black-capped Chickadee	c	u	u	c
— Tufted Titmouse			o	o
Nuthatches				
— • White-breasted Nuthatch	u	o	o	o
Creepers				
— Brown Creeper			o	o
Wrens				
— Carolina Wren	o			o
— • Bewick's Wren	o	o		
— • House Wren	c	c	u	
— Sedge Wren	o		o	
— Marsh Wren	u		u	u
Kinglets				
— Golden-crowned Kinglet	o			o
— Ruby-crowned Kinglet	u		u	o
Gnatcatchers				
— • Blue-gray Gnatcatcher	u	u	r	
Thrushes, Bluebirds				
— • Eastern Bluebird	u	u	u	o
— Mountain Bluebird				r
— Townsend's Solitaire	r			o
— Swainson's Thrush	o		o	
— Wood Thrush	r			
— • American Robin	c	c	c	u
Thrashers				
— • Gray Catbird	c	u	o	
— • Northern Mockingbird	u	u	u	o
— • Brown Thrasher	c	c	o	r
Starlings				
— • European Starling	c	c	c	c
Pipits				
— American Pipit	u		u	
Waxwings				
— Cedar Waxwing	r	o	o	o

	Sp	Su	F	W
Warblers				
— Tennessee Warbler.....	r			
— Orange-crowned Warbler	u		u	
— Nashville Warbler	o		o	
— Yellow Warbler	u	r		
— Yellow-rumped Warbler.....	u	r	u	
— Palm Warbler	o			
— Blackpoll Warbler	r			
— Black-and-white Warbler	r		r	
— American Redstart	o		o	
— Northern Waterthrush	o			
• Common Yellowthroat.....	c	c	u	o
— Wilson's Warbler	o		o	
— •Yellow-breasted Chat.....	o	r	r	

Towhees, Sparrows

— Spotted Towhee	u		c	u
— American Tree Sparrow	u		c	a
— Chipping Sparrow	c	r	c	
— Clay-colored Sparrow	c		o	
• Field Sparrow	c	u	u	u
— Vesper Sparrow	u	r	o	r
• Lark Sparrow.....	c	o	o	
— Lark Bunting	o	r		
— Savannah Sparrow.....	u	r	u	o
• Grasshopper Sparrow	u	u	o	
— LeConte's Sparrow	o		o	r
— Nelson's Sharp-tailed Sparrow	o		o	
— Fox Sparrow	o		o	
— Song Sparrow	c		c	u
— Lincoln's Sparrow	o		u	
— Swamp Sparrow	u		u	u
— White-throated Sparrow.....	o		u	o
— Harris' Sparrow	c	r	c	c
— White-crowned Sparrow	u		u	o
— Dark-eyed Junco	c		c	c
— Lapland Longspur	r		o	u
— Chestnut-collared Longspur	r			r

Grosbeaks, Buntings

— •Northern Cardinal.....	c	u	u	c
— Rose-breasted Grosbeak.....	o			
• Black-headed Grosbeak	o	r		
— Blue Grosbeak	o	o		
— Lazuli Bunting	r			
• Indigo Bunting	u	o		
— Dickcissel	c	c	r	

Blackbirds, Orioles

— •Bobolink	u	u		
— •Red-winged Blackbird.....	a	a	a	a
— •Eastern Meadowlark.....	c	c	c	c
— •Western Meadowlark	c	c	u	c
— •Yellow-headed Blackbird.....	a	a	c	r
— Brewer's Blackbird	o	o	o	o
— •Common Grackle	c	c	c	o
— •Great-tailed Grackle	c	c	c	r
— •Brown-headed Cowbird	c	c	c	c
— •Orchard Oriole	u	u	o	
— •Baltimore Oriole.....	c	c	r	

Finches

— •House Finch	o	o	o	o
— Pine Siskin.....	o		o	u
— •American Goldfinch	c	o	u	c

Old World Sparrows

— •House Sparrow.....	c	u	u	u
-----------------------	---	---	---	---

Accidentals

— Clark's Grebe	— Red-breasted Nuthatch
— Brown Pelican	— Rock Wren
— Greater Flamingo	— Winter Wren
— Fulvous Whistling Duck	— Veery
— Surf Scoter	— Gray-cheeked Thrush
— White-winged Scoter	— Sprague's Pipit
— Black Scoter	— Bohemian Waxwing
— Barrow's Goldeneye	— Golden-winged Warbler
— Curlew Sandpiper	— Magnolia Warbler
— Black-legged Kittiwake	— Blackburnian Warbler
— Gull-billed Tern	— Prothonotary Warbler
— Greater Roadrunner	— Worm-eating Warbler
— Groove-billed Ani	— Ovenbird
— Barn Owl	— Mourning Warbler
— Barred Owl	— Canada Warbler
— Northern Saw-whet Owl	— Summer Tanager
— Whip-poor-will	— Henslow's Sparrow
— Yellow-bellied Sapsucker	— McCown's Longspur
— Pileated Woodpecker	— Smith's Longspur
— Yellow-bellied Flycatcher	— Snow Bunting
— Yellow-throated Vireo	— Painted Bunting
— Philadelphia Vireo	— Rusty Blackbird
— Western Scrub Jay	— Bullock's Oriole
— Violet-green Swallow	— Purple Finch
— Carolina Chickadee	— Common Redpoll
	— Evening Grosbeak

Quivira National Wildlife Refuge
RR 3, Box 48A
Stafford, KS 67578
620 / 486 2393
quivira@fws.gov
<http://quivira.fws.gov>

For State transfer relay service
TTY / Voice: 711

U.S. Fish & Wildlife Service
<http://www.fws.gov>

For Refuge Information
1 800 / 344 WILD

September 2003





This goose, designed by J.N. "Ding Darling, has become the symbol of the National Wildlife Refuge System.

U.S. Fish & Wildlife Service

Quivira

National Wildlife Refuge

Fishing and Hunting Regulations

Welcome

Quivira National Wildlife Refuge (NWR) is one of a system of 530 refuges administered by the U.S. Fish and Wildlife Service. Quivira NWR is primarily managed to provide food, water, and resting areas for migratory waterfowl. A system of canals and water control structures diverts water from Rattlesnake Creek to 34 water units ranging in size from 10 to 1,500 acres.

General Refuge Regulations

Vehicles and Parking

Motorized vehicles are permitted only on developed roads and parking areas. Driving off roads or on roads closed by signs or barriers is prohibited. Parking in front of gates or on bridges or water control structures is prohibited.

Camping

Overnight camping is not permitted. All visitors must leave the area at the end of each day. The Refuge is open daylight to dark.

Boating

The use of boats, canoes, and other watercraft is not permitted.

Fires

No fires of any type are permitted within the Refuge.

Firearms

Possession of firearms is prohibited except within the hunting areas during hunting season.

Littering

Littering is prohibited. Please remove all trash, including spent shell casings, from the Refuge.

Caution - Deep Water

Water levels fluctuate from one season to the next. Use caution when crossing open water areas as deep channels may not be visible.

Fishing Regulations

Fishing Areas

All Refuge waters are open to sportfishing in accordance with State fishing regulations with the exceptions listed below.

Exceptions

Fishing with trotlines and setlines is prohibited. The use of seines for taking bait is not permitted. Fishing from water control structures and bridges is prohibited.

Legal Species

Fish species listed in the State fishing regulations may be taken. All other wildlife species, including turtles, frogs, and snakes, are protected on the Refuge.

Hunting Regulations

Hunting is permitted on 8,000 of the Refuge's 22,135 acres in accordance with applicable State and Federal regulations and the following special regulations.

Seasons

Refuge hunting areas are open September 1 through February 28. Refuge hunting areas may be closed to hunting without notice when whooping cranes are present or if emergencies arise.

Legal Species

Waterfowl, pheasants, quail, doves, snipe, rails, squirrels, and rabbits may be hunted during the regular State seasons, except when the Refuge is closed to all hunting from March 1 through August 31. No hunting is permitted for deer, turkey, sandhill cranes, or other species not listed.

Guns

Only shotguns are permitted for hunting on the Refuge. The possession of rifles or handguns on the Refuge is prohibited.

Non-Toxic Shot

Steel shot, bismuth, or other non-toxic shot is required in all gauges when hunting any game on the Refuge. The possession of lead shot in the field is prohibited.

Hunting Areas

Parts of the Refuge are posted as "Public Hunting Area" and are shown on the map. Hunting is not permitted outside these shaded areas or from or across roads, trails, and parking areas.

Retrieving

Retrieving game from areas closed to hunting is prohibited. Regulate your shooting so that game does not fall into no hunting zones of the Refuge.

Dogs

The use of dogs for hunting and retrieving is encouraged.

Blinds

Portable devices or temporary blinds of natural vegetation are permitted. Permanent blinds or pits may not be constructed.

An accessible hunting blind is available on Unit 30. The blind is available by reservation only by contacting staff at the Refuge Headquarters.

Hours

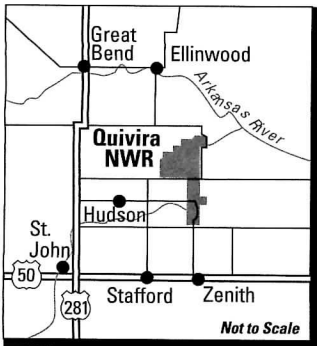
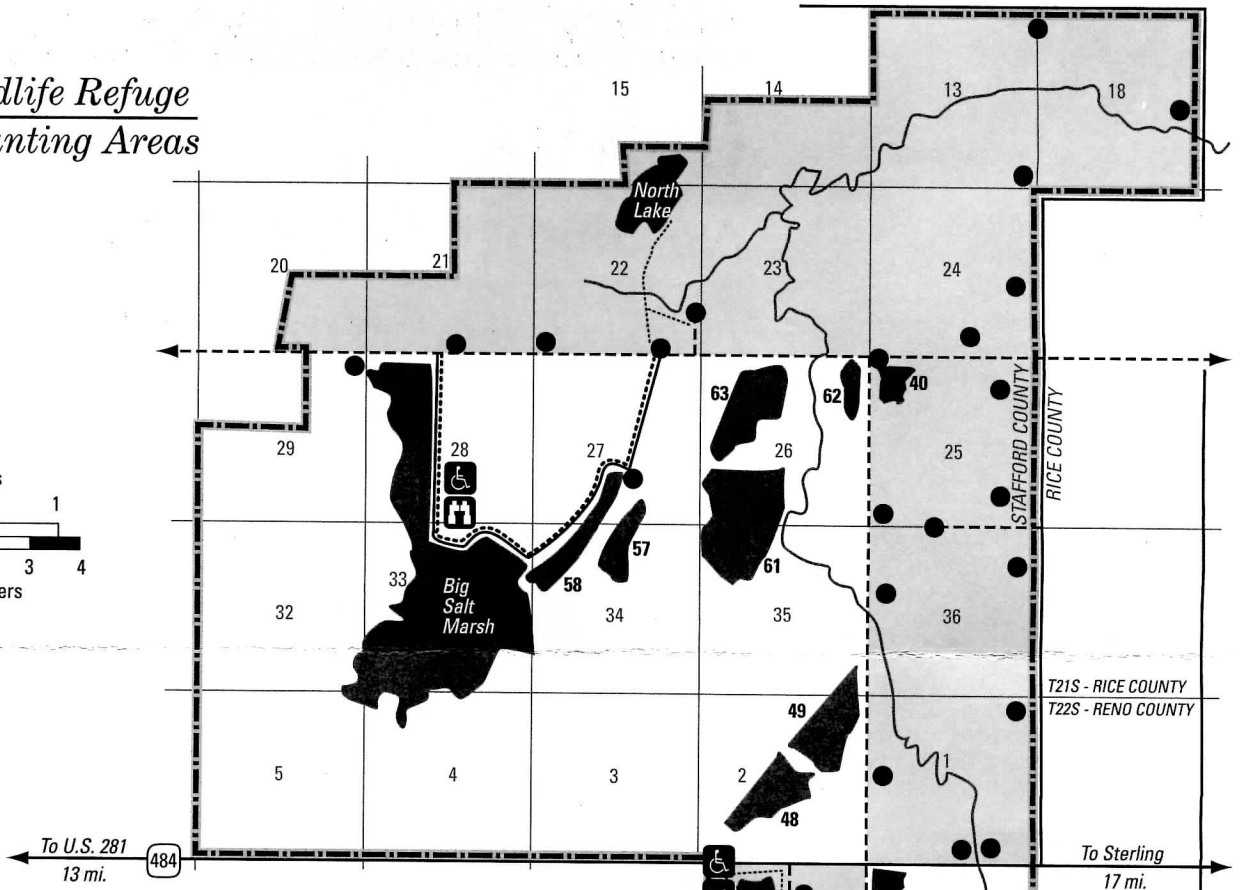
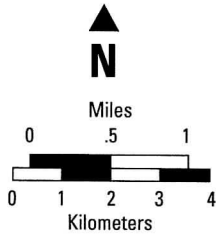
Hunters may not enter Refuge hunting areas to set up decoys, etc., until 1 hour prior to legal shooting time. All decoys must be removed within 1 hour following the end of the legal shooting time.

Accessibility Information

Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of physical or mental ability. Dial 7-1-1 for a free connection to the State transfer relay service for TTY and voice calls to and from the speech and hearing impaired. For information or to address accessibility needs, please contact Refuge staff at 620 / 486 2393 or the U.S. Department of the Interior, Office of Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20240."

Quivira

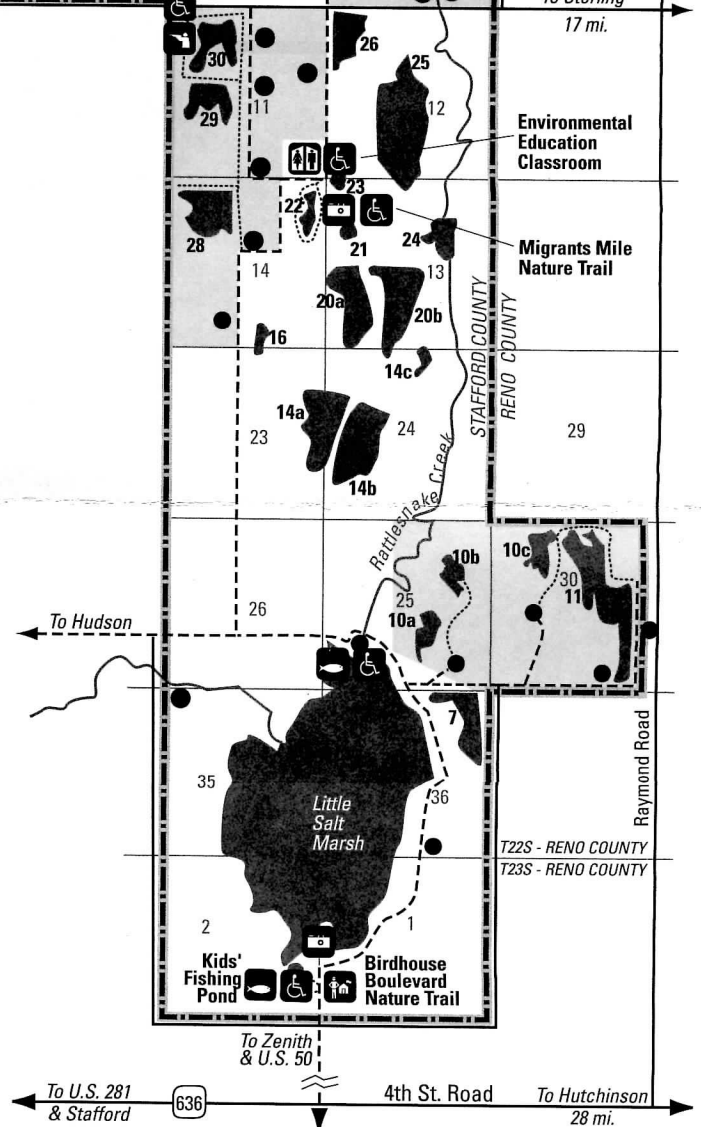
*National Wildlife Refuge
Fishing & Hunting Areas*



Read all regulations on the reverse side of this leaflet before you hunt.

Quivira National Wildlife Refuge

- Refuge Boundary
- Paved Road
- Gravel Road
- Wildlife Drive
- Foot Path
- Section Line
- Public Hunting Area
- Water Unit
- Refuge Headquarters and Visitor Center
- Parking
- Rest Room
- Accessible Site
- Photo Blind
- Hunting Blind
- Spotting Scope
- Fishing Area



Quivira National Wildlife Refuge
RR 3, Box 48A
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For Relay Service Connection
TTY / Voice: 711

U.S. Fish and Wildlife Service
<http://www.fws.gov>

For Refuge Information
1 800 / 344 WILD

June 2005



KANSAS

WETLANDS AND WILDLIFE

Scenic Byway

As the Byway moves through glistening wetlands exploding with wildlife, endless blue skies and the changing color of prairie grasses and trees, you'll also find the charm and vibrancy of the rural communities shaped by nature and the entrepreneurial spirit. Along the Byway you'll discover Great Bend and the Central Kansas Raptor Rehab Education Facility, the railroad town of Hoisington, and the underground tunnels at Ellinwood. Travel the Byway and be amazed at the wonder and variety of Kansas' natural landscape.



For more information about the Wetlands and Wildlife Scenic Byway contact:
Great Bend Convention and Visitors Bureau
1-877-427-9299 or www.visitgreatbend.com
Kansas Scenic Byways Clearinghouse
1-800-684-6966 or ksbyways.org

This brochure has been funded in part by the Kansas Department of Transportation and the Federal Highway Administration through the Kansas Scenic Byways Program.



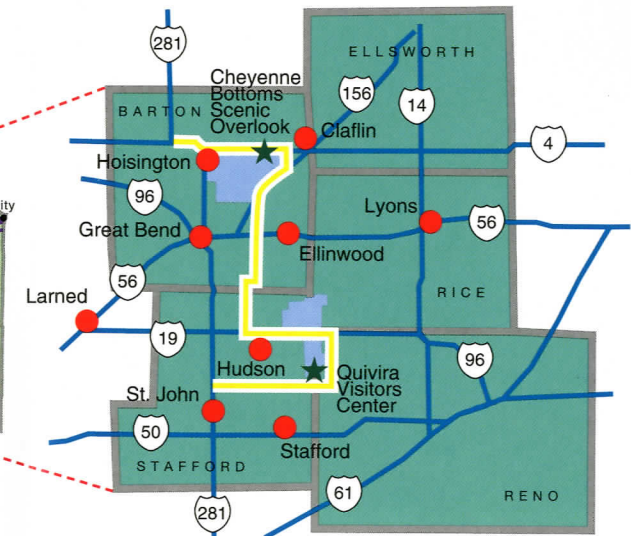
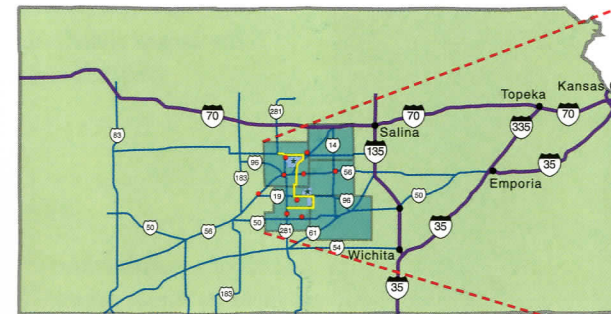
photo by Mike Blair

KANSAS

WETLANDS AND WILDLIFE

Scenic Byway

WETLANDS AND WILDLIFE AREA MAP



Points of Interest Near the Byway

Scenic Places

Cheyenne Bottoms Scenic Overlook, K-4 Highway (2006)
Cheyenne Bottoms Wildlife Area, US-156 Highway at NE 50 Road
The Nature Conservancy Cheyenne Bottoms Preserve, Hoisington
Quivira National Wildlife Refuge, Stafford

Natural and Recreational Sites

Brit Spough Park, Great Bend
Brit Spough Zoo, Great Bend
Arkansas River Hike/Bike Trail, Great Bend
Central Kansas Raptor Rehab Education Facility, Great Bend
Cheyenne Bottoms Wildlife Area, Great Bend
- Wildlife Area Nature Trail
- Driving Tour
- Kansas Wetlands Education Center (opening 2006/2007)
- Public Hunting and Fishing Areas
Quivira National Wildlife Refuge, Stafford
- Visitors Center
- Migrant's Mile Nature Trail (1.2 miles)
- Birdhouse Boulevard (1000 ft accessible trail)
- Photo Blinds
- Spotting Scope (accessible)
- Driving Tours
- Public Hunting and Fishing Areas
The Nature Conservancy Cheyenne Bottoms Preserve, Hoisington
- Kiosks
- Observation Area
- Driving Tour
Bi-Centennial Park, Hoisington

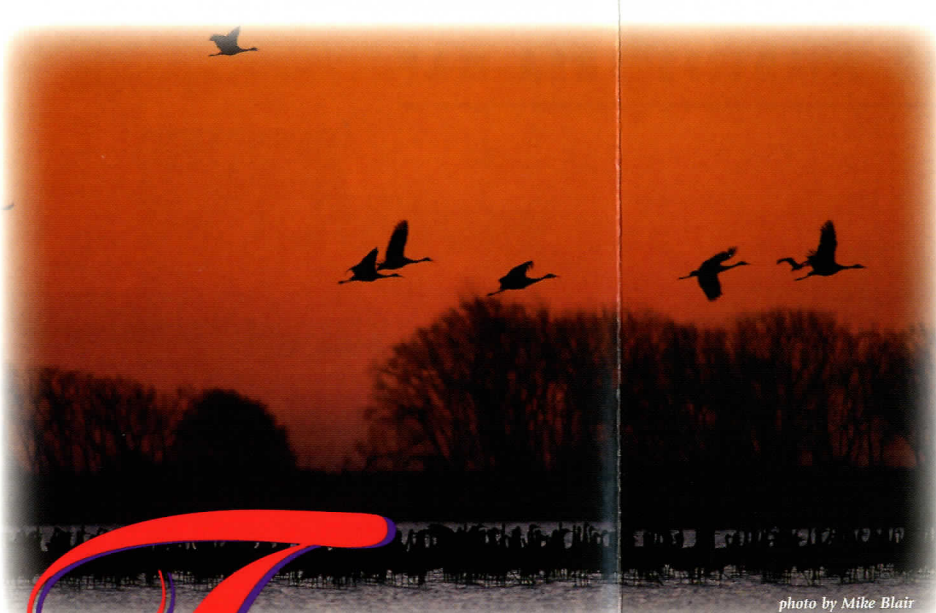
Urban Songbird Habitat, Hoisington
Wolf Pond, Ellinwood
Prairie Walk at Dozier Winery - Ellinwood

Historic Sites and Museums

Barton County Historical Village and Museum (designated Santa Fe Trail interpretive center), Great Bend
Hoisington Historical Museum, Hoisington
Hoisington Post Office Depression Art Murals, Hoisington
Kansas Quilt Walk, Great Bend
Crest Theater (national historic site), Great Bend
Old Fashioned Main Street, Clafin
Shafer Art Gallery, Barton County Community College, Great Bend
Underground Tunnels, Ellinwood
Stafford County Flour Mill, Hudson
Wolf Park Band Shell (national historic site), Ellinwood
Starr-Wolf Hotel (national historic site), Ellinwood
Historic Downtown Square, St. John
First United Methodist Church (national historic site), Stafford
Covenant Church (national historic site), Stafford

Events

After Harvest Festival, Ellinwood (third week in July)
National Wildlife Refuge Week, Quivira (Month of October)
Wings N Wetlands Birding Festival, Cheyenne Bottoms & Quivira (Last weekend in April of odd-number years)
Labor Day Celebration, Hoisington (Labor Day weekend)
St. John Jubilee, St. John (Memorial Day Weekend)
Octoberfest, Stafford (first week in October)
Holiday Trail of Lights/Santa World, Great Bend (November & December)



The long-billed curlew is the largest shorebird in North America.

A flock of sandhill cranes in flight as sunset comes to the wetlands.

photo by Mike Blair

Discover the Wetlands and Wildlife Scenic Byway



photo by Bob Gress

the face of the Refuge's population of predators including raptors, coyotes, red foxes, bobcats and badgers.

The Refuge has an educational Visitors Center, as well as several hiking trails including the wheelchair accessible Migrant's Mile Nature Trail and the gentle and scenic Birdhouse Boulevard to bring you closer to nature.

The Nature Conservancy Cheyenne Bottoms Preserve

The Nature Conservancy Cheyenne Bottoms Preserve located in the Cheyenne Bottoms basin northwest of the Wildlife Area, encompasses 7,200 acres. Like the Cheyenne Bottoms and Quivira National Wildlife Refuge, it is a jewel in nature's crown. These wetlands have received designation as Ramsar Convention Wetlands of International Importance.

The wildlife areas that anchor this byway provide an ideal habitat for coyotes.

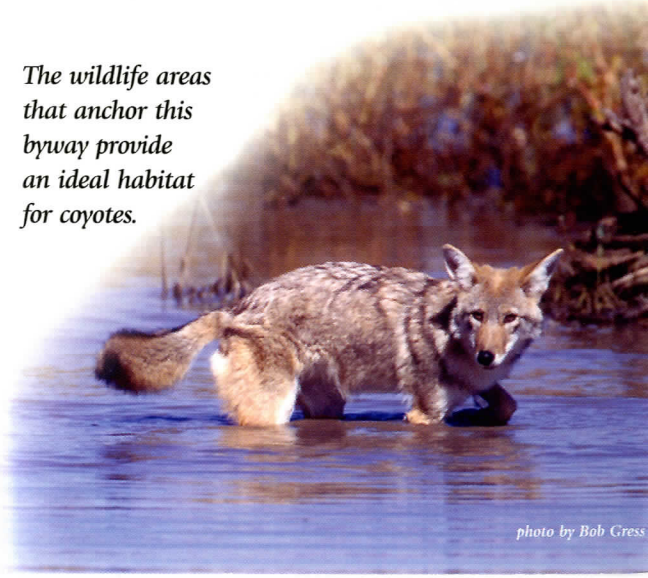


photo by Bob Gress

Travel Nature's Super Highway

Traveling the Wetlands and Wildlife Scenic Byway brings you face-to-bill with North America's grandest collection of avian species. Stretching some 77 miles from beginning to end, the Wetlands and Wildlife Scenic Byway reveals a natural experience that is second to none.



Flocks of egrets are common sights.



"Birds of Prey" demonstration during National Wildlife Refuge Week in October.

A Birdwatcher's Paradise Awaits

The Byway is anchored by two of the largest wetland ecosystems in the world – Cheyenne Bottoms Wildlife Area and Quivira National Wildlife Refuge. These giant marshes draw clouds of sandhill cranes, squadrons of pelicans, fierce and majestic bald and golden eagles, scurrying shorebirds, elegant whooping cranes and many more waterbirds.

Cheyenne Bottoms Wildlife Area

Each year, Cheyenne Bottoms attracts 45% to 90% of North America's shorebirds. In fact, in the words of a Byway area naturalist, "There are 650 bird species in the United States, 417 in Kansas and 320 in Cheyenne Bottoms." Many naturalists believe that Cheyenne Bottoms is the most important migration stopover point in the Western hemisphere.

Besides birds, the Bottoms is also home to 23 species of mammals, 19 species of reptiles and 9 species of amphibians sharing the 41,000 acre wetland basin.

Quivira National Wildlife Refuge

Quivira National Wildlife Refuge is 22,135 acres of prairie grass, salt marshes, sand dunes, canals, dikes and timber. Little Salt Marsh and Big Salt Marsh are ancient basins that play host to over 500,000 birds during spring migration. The marsh waters teem with crabs, crayfish and frogs while prairie dogs scatter in