

## "WHO DECIDED WILDLIFE AND AGRICULTURE CAN'T WORK TOGETHER?"

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Most of us haven't thought much about it . . . But there are a whole lot of similarities between farming and wildlife management. Farmers and wildlife managers have a whale of a lot of common ground.

Farmers work hard raising crops from the land. Wildlife managers similarly work hard raising a different kind of crop from the land. Farmers face drought, diseases, soil problems, weeds and pest animals. Wildlife managers face most of these same problems as they work to produce high quality wildlife habitat.

Both farmers and wildlife managers have a broad range of outside factors they must deal with such as health, safety and environmental protection laws.

I could continue these comparisons at length. But the bottom line is this: there are many similarities and much common ground to be found between the farmer working on one side of the road and the wildlife refuge manager working on the other side.

. . . So, I ask again: who decided wildlife and agriculture can't work together?

In my experience, I don't think anyone in particular decided that we can't work together. It seems to boil down to more of a mind set. It sometimes seems sort of like a Hatfields and McCoys deal.

But it doesn't need to be this way!

Today, I want to talk about what can be achieved when farmers and wildlife managers are willing to get together to talk about ideas, work out details and get past the negatives. In my experience over the last 17 years as a wildlife refuge manager, its not so tough to make good things happen for both wildlife and agriculture if we will just take the time to visit with each other - to open and maintain a friendly

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relationship.

I'm not presenting the theoretical today. I'm not talking about what might be accomplished sometime in the future. I'm talking about concrete, dollars-and-cents things I and my staff have accomplished on-the-ground in cooperation and partnership with our farmer neighbors.

II. Audubon National Wildlife Refuge is about 65 miles straight north of here. The Refuge is superimposed on about half of a large US Army Corps of Engineers reservoir, Lake Audubon. It's the eastern lobe of the over 180 mile long reservoir named Lake Sakakawea - which is backed up by the Garrison Dam across the Missouri River.

The Refuge water levels - Lake Audubon - are managed, in consultation with the Refuge and several other agencies, by the US Bureau of Reclamation. Lake Audubon is pumped full each spring to serve as the supply pool for Reclamation's Garrison Diversion Irrigation Project. The Project's water supply canal, the McClusky Canal, exits Lake Audubon through Audubon Refuge.

As McClusky Canal water flows east, within the first twenty miles it passes through or beside six large wildlife areas managed by the US Fish and Wildlife Service.

Opportunities to release water from the Canal to improve wildlife habitat are numerous. Better yet, there are many opportunities to release water from the Canal through these wildlife areas to benefit both neighboring farmers and wildlife on privately owned land. All that has been needed is a vision, a dream of what might be possible.

Today, I want to talk about three of these opportunities: three case histories of common sense, discussions and mutual trust between neighbors who just happen to farm for different crops. How these neighbors are pulling off some great cooperative projects for both farming and wildlife.

III. Case History #1: About six years ago, a neighbor farming immediately east of the Refuge brought up the idea of developing a pivot irrigation system for alfalfa and other crops. His was good irrigable land. But he had no access to nearby Lake Audubon across Refuge land.

We talked over the idea. What might be done? Details began to shake out. He worked through permits, water rights and such. He envisioned a short ditch across Refuge land to flow water into a pond on his land. From there an electric pump would supply his irrigation pivots. The Refuge land where the ditch would go was an abandoned gravel pit where the native prairie had been destroyed and minimal grass had regrown. Converting a dry, ex-gravel pit to a wetland - even in the form of a ditch - significantly improved habitat for waterfowl and other wildlife on the Refuge.

To the north of the planned pump station, the Refuge contained two small wetlands formed by an abandoned road grade. They held water only during wet springs and only for short periods of time. So their value to waterfowl was minimal.

To further the wildlife benefits from this project, the farmer agreed to annually fill these two wetlands using his irrigation pump. This produced larger, longer lived wetlands in an area of the Refuge short on wetlands - a big benefit to wildlife.

In addition to access across the Refuge, a couple additional arrangements were worked out with the neighbor. To allow optimum installation of one pivot, a Refuge boundary fence was opened so the outer wheel could complete a full circle. One wheel travels about 30 yards across Refuge grasslands - providing free water on Refuge duck nesting grass with each pass.

A second arrangement involved allowing the placement each spring of a short length of irrigation supply pipe on Refuge land, just inside the boundary fence. There were no other reasonable places to put it. So, what would be the harm with irrigation pipe laying next to the boundary fence? It allowed the farmer the best route to his fields and made no significant impact on Refuge values. So, we allowed it.

This irrigation project has been in operation for about four years. Wildlife habitat has been improved and irrigated crops have been grown each year. A good, neighborly arrangement. Drive by today: Refuge to the west, irrigated farmland to the east, a good deal for all.

. . . I want to clarify one thing: Audubon National Wildlife Refuge is managed by the US Fish and Wildlife Service - my outfit. But the land is owned by the US Army Corps of Engineers. All of the above agreements were approved and facilitated by the Corps. They too

have been good partners in this project.

**Case History #2:** Here in the grasslands of North Dakota, waterfowl management means, in most cases, grassland management. Over the years our Refuge Biologist has learned from neighboring farmers, researchers and his own observations that short-duration cattle grazing can be used to improve both native and tame grasslands and wetlands. Plant species diversity and vigor can be improved with proper grazing sequences.

We use cattle grazing to clip off or trample grass plants simulating the effects of bison grazing, one of the major conditions under which our native grasses evolved.

We also use cattle to improve wetlands. Eating and trampling cattails and other marsh plants opens dense, choked areas, improving them for water birds. Also, the manure fertilizes the wetland increasing aquatic insect life upon which waterfowl and other water birds feed. Grazing wetland vegetation to create openings is a much improved technique compared to spraying herbicides - both by reducing costs and by not introducing chemicals into the environment.

Neighboring farmers pay to graze Refuge grasslands and wetlands according to specifications in annual grazing contracts. Refuge grazing supplements their own pastures making business more profitable for the farmer.

During dry years, many of our grazing units lack water. The solution has been simple but very effective. The Refuge loans the rancher a tractor driven pump so he can pump Lake Audubon water into dry wetlands for his cows to drink. During the recent drought years these wetlands provided some of the Refuge's best wildlife habitat. Ducks, grebes, deer, pheasants, song birds and many other wildlife species found these wetlands very attractive.

Pumping wetlands full for cow water also improved the surrounding upland grass habitat by allowing planned grazing to be conducted. This invigorated the grasslands which are so important to nesting ducks as well as many other wildlife species.

Pretty simple concept but somewhat unusual: refuge tractor, dry refuge wetlands, refuge water, rancher's cattle and rancher's labor. It all fit together. Improves wildlife habitat - both wetlands and uplands -

and improves the rancher's bottom line, especially in drought years when his own pastures may be short.

**Case History #3:** This last case history again involves a simple arrangement. . . but a mutually profitable one: releasing water from the McClusky Canal onto Fish and Wildlife Service lands to be passed through to flood irrigate a neighbor's hay land.

For years, a neighboring farmer has received water early in the spring, as soon as the Canal turnouts can be freed from lingering ice. This early water is flowed out into large, flat hay meadows up to a depth of about one foot. Migrating ducks, geese, shorebirds and other wildlife find these early flooded hay meadows extremely valuable for feeding or resting. Nearly all deep wetlands are still ice covered while the shallow wetlands are often dry, yet to be filled by spring run-off if any occurs.

During our recent drought years nearly all wetlands were dry for several years. These early flooded hay meadows provided outstanding feeding and resting areas for flocks of waterfowl numbering in the tens of thousands. It was truly a sight to gladden winter-weary eyes.

The early flooding isn't required to produce a hay crop. But it doesn't hurt hay production either and it certainly produces major benefits to waterfowl. As spring comes on the water sinks in and the grass grows lush and tall. In early July a control gate is opened and the remaining water released downstream. Typically, the hay is cut in mid to late September. This irrigation arrangement always improves hay production. And in the drought years, the abundant hay crop is doubly valuable.

As a bonus, many newly hatched waterfowl and shorebirds find the shallow waters of the drying hay meadow to be prime feeding habitat before they move on to adjacent, deeper wetlands.

. . . So, not really an earth shattering procedure or concept. Just some good common sense and down to earth working together for the benefit of both parties.

IV. To wrap this up; I reiterate, Who decided wildlife and agriculture can't work together?

When we give up our preconceived notions and listen to the other guy, the neighboring farmer on the other side of the fence, we can find many ways to improve both operations.

A key factor is to listen. We often are good talkers but not so strong on the listening. . .

There are many ways and possibilities in which agriculture and wildlife can and should work together. I've presented three case histories. They range from a complicated, expensive pivot irrigation venture to the simple loaning of refuge equipment to a rancher to improve both his grazing and our wetland habitat. Both commercial farming and wildlife farming benefit significantly by these partnerships.

My neighbors and I do it. Simple, common sense, trust building, down-to-earth dialogue, problem solving and challenge grabbing.

We can do it more!