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The Minnesota Partners for Wildlife Program

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Introduction

The Partners for Wildlife Program is active throughout the United States - including Minnesota. The Minnesota division is part of an eight state region called the Great Lakes - Big Rivers Region. "Partners in restoration efforts include the United States Department of Agriculture, State resource agencies, conservation organizations, and private landowners" (U.S. Fish and Wildlife Service 1996). Partners for Wildlife is a restoration program that focuses on prairie pothole wetland restorations. Through these restorations, this program tries to improve habitat for migratory birds protected by the Federal government. This program is focused on "restoring and protecting Federal "trust species" habitats, especially those on private lands" (U.S. Fish and Wildlife Service 1996). Programs such as Partners for Wildlife have been put in place in response to the decline of the wetlands that used to be found in Minnesota. A growing consciousness of this decline by natural resource professionals as well as private landowners has significantly increased project numbers as well as the number of programs.

History

The U.S. Fish and Wildlife Service's Partners for Wildlife program began in 1985. The program was a part of the 1985 Food Security Act (Farm Bill) that provided assistance to the Wetland Conservation provisions and Farm Service Agency conservation easements in addition to other USDA programs. The Wetland Conservation and Farm Service Agency programs are a part of the restoration efforts of prairie pothole wetlands in Minnesota (U.S. Fish and Wildlife Service 1996). In addition to providing assistance to these programs, the Partners for Wildlife program is part of the Federal Trust Fund. The Federal Trust Fund is designed to monitor and improve conditions for waterfowl that are considered resources such as ducks, geese, and other migratory birds (Kuester 1998). The goals of the Partners for Wildlife program is two-fold: one is that of technical assistance for programs that are a part of the USDA, and the other is habitat restoration. Technical assistance is provided in the form of project application review, consultations on projects, inspections of sites, and project planning support to landowners (U.S. Fish and Wildlife Service 1996).

Wetlands in Minnesota

Minnesota has lost approximately sixty percent of its native wetlands most, in part to drainage of agricultural land (Kuester 1998). The drainage of these wetlands were done through employing networks of surface drainage ditches and subsurface tile drains (Galatowitsch and van der Valk 1996). Since the drainage of some wetlands was done up to one hundred years ago, current landowners may not be aware of their land's history. Western Minnesota has had the highest number of wetlands lost - although restoration efforts have been conducted throughout the state.

Selection of Restoration Sites

To generate interest in the Partners for Wildlife Program, the agency works with the USDA to send out mass mailings. Over time, more people have become aware of the program by talking with others in their community. People who enroll in the program typically have been farming their land for many years and want to retire, or they are people who simply want to return something to the environment. The general rule says Kuester is, "If you have degraded wetland, we will restore it at no cost". Although this may be the case, a potential site must be evaluated against a list of criteria before the project is accepted. First, a feasibility assessment is conducted to determine ift the agency can restore the site back to its historical condition. The Partners for Wildlife program does not convert land to wetlands that did not exist on the site historically. "We try to get the landowner to appreciate the functions and values of their wetlands", says Kuester. In addition, a site is rejected if it will flood neighboring land after restoration. The range of site size is from half an acre to one hundred acres - with the average being around three acres. A site is not turned down based on size or expense. Kuester says, " Our investment needs to be commensurate with the project...if this means spending more than the average amount, we will see the benefits of our money in the end result" - or in simple terms, the improved outcome from the extra money spent is seen in the restoration. The average amount of money spent on restoration of a site is $450 per acre. If a site is selected, the agreement between the Partners for Wildlife program and the landowner is that the landowner will keep the land in the restored state for a minimum of ten years. The only stipulation to this agreement is landowners must reimburse the program for all costs incurred in restoration if land reverts to agricultural within the ten year lease.

Restoration Techniques

Once a site has been accepted and engineered, a local construction company is contracted to remove underground tile drains and ditch plugs. After this is done, water control dikes or dams are installed to retain the amount of water in the wetland and to control any excess water that may go onto a neighbor’s land. The area around the water control structure may be seeded to prevent erosion.

With the exception of the dike, the rest of the site is allowed to revegetate naturally. "We think of these projects as low maintenance or walk away projects," says Kuester. Boiled down, the core of the program is "just add water" - and the Partners for Wildlife program seems to think it works. They say common wetland species come back readily while the uncommon species tend to come back over time depending on the viability of the seed bank. With the idea that representative wetland species come back readily, the need to seed and/or plant is not recognized. As a result of this thinking, the general rule is that prairie pothole wetlands are not planted in this program. Interestingly, it has been pointed out by researchers that seed banks are not as abundant and viable as one might think, which can lead to undesirable species colonizing the restored area. It is recommended that sedge meadow and wet prairie wetlands be actively revegetated to avoid invasive species such as *Phalaris arundinacea* (Galatowitsch and van der Valk 1994). "Restorations most likely to benefit from active revegetation are those that were thoroughly drained with tiles and cultivated for more than 20 years" (Galatowitsch and van der Valk 1994). Although these are the types of wetlands the Partners for Wildlife program is

restoring, Kuester says, "It is important to recognize that prairie pothole wetlands evolve over time - the vegetation responds in accordance with weather and climate". Since it is the belief of the Partners for Wildlife program that seed banks provide the vegetation for a restored site, one could wonder why there is such a reliance on the seed bank given the long agricultural history, including excessive sedimentation.

Restoration Evaluation

Upon completion of a restoration, there is not an evaluation of success or failure. The restoration is geared towards the goals of the landowner and if that seems to have been met, then the restoration is deemed a success. The landowner might not see anyone from the program again unless he or she has questions or problems. Kuester says that, "Success is measured by the number of sites, the number of acres, and the number of satisfied landowners." He says that the first two criteria are weighed more heavily by the agency because most of the time the landowner hasn't been contacted to see whether he or she is indeed satisfied. Since the start of the program in 1987, 10,295 sites have been restored in Minnesota - totalling 34,676 acres (U.S. Fish and Wildlife Service 1996). Of the 10,295 sites, very few have been visited or evaluated by someone from the program. Drawbacks of the program identified by Kuester include the fact that the program is a relatively informal one. The agreement between the agency and the landowner is a "kitchen table" affair and there is a very informal monitoring program. (Kuester 1998) The program tends to focus on moving on to other projects rather than concentrating on follow-up. In addition, there are no stipulations for control of exotic and/or invasive species that may take up residence on the site due to the passive revegetation method that is taken. A landowner may be forced to control some exotic or invasive species if they are ones that are under the noxious weed law that requires the landowner to remove them. Perhaps the biggest drawback of the program is that "there is no follow-up to determine if the project was carried to completion or whether it achieved the restoration goals" (National Research Council 1992). If this is not done, then success or failure really cannot be measured.

Comments and Suggestions

Since the Partners for Wildlife program is focused on providing habitat for migratory birds and endangered species, there is a need for this program to develop a restoration evaluation method. A study conducted by Philip Delphey and James Dinsmore at Iowa State University in 1993 discovered that restored wetland sites do not support the same amount of birds as natural wetlands do. Also, more diverse bird populations were present in natural restoration sites. Since migratory bird habitat is a central focus of this program, perhaps more care and thought should be given to the restorations. More planting and planning of vegetation could be used to try to increase the numbers of breeding birds that may colonize the new area. In addition to this, regular monitoring of some of the sites should be conducted to determine what kinds vegetation is coming in and what birds are using the sites. Also, since the start of the Partners for Wildlife program in 1987, there has been significant research on wetland restoration. For example, it has been discovered that direct planting and seeding is quite successful in revegetation of desired plant species (Galatowitsch and van der Valk 1994). Planting of wetland vegetation is feasible and currently used in some restoration efforts. It seems that the methods and techniques of this program have not evolved and that new scientific information has not been considered or used.

Perhaps more resources should be spent on investigation of quality instead of quantity of restorations done by this program. The National Research Council says that "wetland restoration needs to move from a trial-and-error process to a predictive science." Since the Partners for Wildlife program does such a high volume of restorations in Minnesota, this program has the potential to establish sound restoration techniques. If attention to scientific studies and findings could be incorporated, the Partners for Wildlife program could be one of the leaders in wetland restoration in Minnesota for which other programs could follow. Also, a ten year commitment to the program may seem like a long time to a landowner, but in reality, it is not a very big time frame from and ecological standpoint. Galatowitsch and van der Valk (1996) point out that time for recolonization of some plant species is not yet known and may take years. A ten year time frame may prove to be too short for the establishment of a functional wetland, which in turn may affect the number and species of birds and waterfowl that may take up residence. Since some of these sites may remain intact for more than ten years, they would provide an excellent research tool as to what vegetation and wildlife is present. Documentation, as well as comparison of these sites would provide a basis for understanding the importance of monitoring and evaluating sites. Evaluation of these sites could help the program interpret whether these restorations truly are a success.

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