

BUILD IT AND THEY WILL COME

By Peter D. Stent

The majority of the early duck season waterfowl habitat where I hunt in the Central Valley of California is artificial in the sense that it must be managed and manipulated by man. The wetlands created by the previous winter's rains, floods and snow melt have all but dried up and must be flooded anew with stored winter water.

On our properties we try to create three principal types of wetlands: permanent, semi-permanent and seasonal. Each marsh type provides varying degrees of the three essentials ducks need: food, cover and water. It must be understood that each managed wetland must compete for ducks not only with other managed wetlands, but 300,000 to 400,000 acres of harvested rice fields that are flooded each autumn for ducks. Also, when we have natural flooding (which occurs to some degree each year), we have thousands of more acres of available habitat.

A working goal for each 100 acres of managed wetlands is to have 60 acres of seasonal marsh, 35 acres of semi-permanent marsh and 5 acres of permanent marsh. The latter 40 acres provide the brood water needed to get the young hatchlings fledged. California is somewhat unique in that we have a resident population of mallards which is quite significant. These mallards provide about 25 percent of the ducks bagged each year. Therefore, we must have adequate year-round habitat for our resident mallard flock.

However, in terms of gross acres, wintering habitat is by far the most important wetland type needed in California because we are home to over 60 percent of all the birds that migrate down the Pacific Flyway in the winter. These 5-6 million birds need plenty of carbohydrates and protein to make it through the winter and to have sufficient reserves to get back to their breeding grounds in Canada and Alaska.

Restoring, enhancing and managing wetlands are as much art as they are science. Indeed, there are certain guiding principles, but each property has its own unique set of conditions that require a continual and flexible adaptive management approach. In the 25 years that I have been involved in wetlands, I have learned some primary keys for success. I also have concluded that if you create a truly productive and attractive marsh, the ducks will come provided they find a reasonable amount of security and disturbance is not excessive.

Water management is the most important factor for a successful marsh. You must be able to water and dewater your marsh in an efficient and cost effective manner in order to produce the optimal amount of food and suppress undesirable marsh plants. Herbicides can be used, but on many marsh weeds they are not very effective and they are very expensive. I prefer to manage my water to control weed growth.

In creating a new wetland, I always begin by leveling the field to make each unit as flat as a billiard table. Once the field is table top level, I often go back in to create a series of potholes with interconnecting sloughs. This gives me an ability to drain quickly and to have varying water depths for different waterfowl and shorebirds that utilize the marsh. For seasonal wetlands I flash flood my fields twice on average in the summer to stimulate the production of watergrass, smartweed, and swamp timothy, which are three of the ducks' most preferred feeds. These plants provide both carbohydrates as well as act as excellent substrates for invertebrate production in the winter and early spring. These invertebrates supply the protein critical for the hens as they undertake the production of the young ducks.

Flood-up of these seasonal wetlands for the hunting season is done in mid to late September. In addition to the roughly 1500 pounds of food per acre these fields supply, they also give the ducks excellent loafing water and cover. We try to have about 50 percent of our water open and the rest with permanent cover like tules and cattails. These areas further provide excellent pair water and brood water in the late winter and spring.

The second factor for success with our wetlands is *periodic disturbance* of the vegetative cover. This can be done by fire, mowing and/or disking. It is necessary to continually retard plant succession or the marsh will become overgrown and relatively non-productive from a waterfowl perspective. Mowing tends to be more cosmetic than practical. Even though the surface vegetation is removed, the foundation remains and regrowth begins as soon as water is applied. Fire can be useful, but it is relatively indiscriminant. I have unintentionally burned too many beautiful trees in the process.

About every third or fourth year the open areas are heavily disked/plowed. Often, parts of the rank, mature tule/cattail areas will also be disturbed to refresh them and keep them from being too invasive into the food-plant areas. It is truly amazing to see the new food-plant growth following this mechanical disturbance. These areas are considerably more productive than flooded rice fields from a food perspective. New stripper header harvesters leave less than 100 lbs. of rice seed in the field and probably no more than 50 percent of that is available to the birds. From just the food perspective alone, the natural wetlands provide at least 10 times more food than rice fields.

Active, adaptive and on-going management of wetlands is a necessity. Each year you must observe the birds carefully and adjust your program to suit their needs for food, cover and water. When done properly it is very possible and probable to raise more ducks each year on your property than you harvest.

A *sanctuary* is a third important factor for success. Some portion of a property must be set aside as an inviolate sanctuary so that the birds will imprint on this secure area and seek harbor in it when they feel threatened. This cannot be overemphasized. Even if you create the most food-rich and attractive wetlands possible, excessive disturbance will keep ducks from using them on a regular basis. Not only do ducks learn to avoid excessively disturbed areas, they also learn to find alternative wetlands and

sanctuaries that are relatively secure. This learned behavior is a combination of survival of the smartest and the comparative attractiveness and lure of the rafts of “live decoys” calling to ducks winging overhead.

Finally, it is critical to develop a program to *minimize overall disturbance*. The long season lengths and higher bag limits in the last few years have resulted in a real increase in the number of hours hunters spend in the field and, hence, a significant increase in the cumulative disturbance on a particular piece of property. The ducks quickly learn where it is unsafe and avoid these areas. We have witnessed this time and time again in the Sacramento Valley where once great hunting areas have become very mediocre because of too much disturbance.

There are numerous programs to minimize overall disturbance. You can limit the actual number of hunt days in the season, limit the number of hours in the field for each hunt, rotate hunting fields, impose lower limits so you get out of the field sooner, and use smaller bore guns and loads and take only birds well within range. I discourage random scouting trips at non-hunt times. The birds need and seek security. This becomes even more critical as the season advances and the birds become very skittish to any kind of disturbance.

There is no question that in California it is possible to build very attractive wetlands in the migrating waterfowl corridors. However, just building them is not enough. You must take an active stewardship role in their management each and every year. You will get a great deal of satisfaction and enjoyment from your hard work and endeavors and will be contributing to the health of our flocks by sustaining waterfowl populations and perpetuating the sport that is so near and dear to all of us. I can think of no better legacy to leave to my children and grandchildren than to say that I put back more than I took.

If we take care of the ducks, the ducks will take care of us.
