

WAUBESA WETLANDS: A CASE STUDY OF WETLANDS PRESERVATION

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ABSTRACT

General strategies and tools for preservation have been applied to Waubesa Wetlands, 4 miles south of Madison, Wisconsin. Strategies include: individual and organized private ownership; land-use inventories, plans and ordinances; and acquisition by purchase, gift and easement. Tools include: quid pro quo and management agreements; first rights of refusal; "crazy-quilt" ownership patterns; and reverter clauses. Local wetland preservation has positive impacts upon wetland preservation generally and should be widely used.

INTRODUCTION

This paper presents a case study of local wetland preservation and derives from it a set of practical strategies and tools of general use. The case study is for Waubesa Wetlands, 4 miles south of Madison, the state capitol of Wisconsin. These wetlands border the southwest end of Lake Waubesa, one of four major lakes of the Yahara River chain in Dane County. They are in the Town of Dunn, a rapidly growing township community of 5000 people distributed across 34.5 square miles on farms, in scattered subdivisions, and in linear lakeshore developments.

Waubesa Wetlands extends 1.2 miles from the lake-edge and covers several hundred acres. It includes sedge meadows, shrub carrs, emergents, a fen of some 30 acres, an alkaline floating mat of 30—40 acres, an elevated peat mound, and numerous large springs. It supports an extensive and diverse animal population including a breeding pair of Sandhill Cranes, a symbol of the Town of Dunn. The marsh has been under study by numerous University of Wisconsin classes since 1972 and its postglacial formation from a bay in Lake Waubesa has been the subject of a detailed study (Friedman, DeWitt, and Kratz, 1979).

HISTORY OF PRESERVATION

Interest in Waubesa Wetlands extends backwards several thousand years, if the concentration of native American artifacts, campsites and effigy mounds in this and similar areas around Lake Waubesa (McLachlin) are any evidence. From the earliest verifiable accounts we

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know that the mother of two present retired residents on the marsh, Dr. Alice Watts and Mrs. Mary Sondern, was responsible for conveying to her daughters a high degree of respect for the Waubesa Wetlands as well as an interest in protecting them in their natural state (Dr. Alice Watts, 1981, personal communication). Past responsible private use and ownership has been part of the history of this marsh and accounts in part for its good state of preservation.

The major stimulus for what was to become a major preservation project came in 1965 from the actions of Prof. Carl and Julia Bogholt, wetlands residents whose longtime dream was to purchase and preserve the entire wetland. When confronted with an apparently certain condemnation of their land to allow construction of a major power line alongside their home and across their marsh, they quickly arranged to deed the affected land to the DNR. Since the DNR agreed to respect the Bogholts* wishes, and since the power company is not empowered to condemn state land, they were forced to relocate the powerline crossing a quarter mile south. But shortly thereafter the DNR granted permission for a natural gas line along the donated land, an action which raised the ire of the Bogholts and guaranteed that they would not be the recipients of any additional Bogholt land. Nonetheless, 100 acres donated in 1965 was now in DNR ownership to form the nucleus for further wetland preservation.

Table 1 summarizes the subsequent acquisitions by the DNR and The Nature Conservancy (TNC) which followed the Bogholt gift. Additional summaries of the history of Waubesa Wetlands preservation are given by Voigt (1975) and Sauey and Harris (1980).

Table 1. Waubesa Wetlands Land Acquisition by State of Wisconsin Department of Natural Resources (DNR) and The Nature Conservancy (TNC)

	Acres	Year
1. Bogholt Gift to DNR Fisheries	100	1965
2. Berkan Gift to DNR Fisheries	27	1972
3. DNR Transfer of Above 127 Acres from Fisheries to Scientific Areas		1974
4. Bogholt Gift to TNC	40	1974
5. TNC Purchase of Clemans Tract	41	1975
6. DNR Scientific Areas Purchase	51	1981
DNR Scientific Areas Easement	13	1981
Total to Date	272	

The gift of Dorothy and Ted Berkan, Sr. of 27 acres which followed in 1972 was motivated by a love for the marsh and particularly for its nesting pair of Sandhill Cranes which upon return from their annual migration are fed corn by the Berkans in the adjoining pasture and even in the Berkans* barn (Dorothy Berkan, personal communications, 1973-1981; also see Gould, 1972). In 1974 the security of the then 127 acre preserve was increased by its official designation as State Scientific Area No. 114 by the Scientific Areas Preservation Council of the State DNR, thereby making it part of the Wisconsin system of Scientific Areas (See Tans, 1974 for a description of this Agency and its program).

But the fen and a large and beautiful spring owned by the Bogholts remained outside the preserve. Since the spring produces a creek some 50 feet wide and provides the only water access from the Bogholt farm to Lake Waubesa, it remained vulnerable to development should the farm fall into unfriendly hands. Prof. Bogholt had been approached on several occasions about the addition of his 30—acre fen and large spring to the preserve. But his distrust of and anger toward the DNR did not make them a candidate for such a gift. An attempt to involve the Head Foundation, stewards of the Aldo Leopold Memorial Preserve, also failed. Failure this time was eventually found to be rooted in strongly differing state and national political allegiances. At the recommendation of Reed Coleman of the Head Foundation, Paul Olson of the Wisconsin Nature Conservancy was introduced to the Bogholts, in whom they rapidly developed confidence.

The unexpected posting of a for-sale sign by neighboring farmer Russell Clemans provided the needed impetus for action. Prof. Bogholt agreed to give 40 acres including his fen and spring to The Nature Conservancy on the condition that this organization also purchase the Clemans* 41 acres. And now, with a suitable recipient of the gift, and agreement by TNC to purchase the Clemans* tract, an additional 81 acres was added to the preserve for a new total of 208 acres.

The most recent addition, consisting of a sale of 51 acres and easement of 13 acres to the DNR came in response to a proposal for a small housing development. A new owner of the land between the Bogholts and Berkans proposed to build a bridge across Swan Creek to allow construction of homes on uplands bordering the marsh. Individuals and the Town of Dunn worked to prevent this move using the Town Land Use Plan, testimony to Dane County, and a court challenge to the County on an action that would have allowed the bridge to be built. During this tense period of dispute between the various parties, the DNR, now committed to protect and enhance the new State Scientific Area, entered negotiations with the owner and purchased the land. The 13-acre easement was donated by Robert and Beverly Aberg.

This concludes a summary of the preservation of Waubesa Wetlands to date. It suggests that a major impetus to the formation of the preserve was a series of threats to the integrity of the wetlands. This is true enough, but is not sufficient to explain why it all happened as favorably as it did. These additional reasons are given in the following sections, and are listed in a way that allows ready generalization to other wetland preservation projects.

PRESERVATION STRATEGIES

The proximity of a major urban area and the emergence of new subdivisions here and there throughout the countryside clearly allow little time for preservation of Waubesa Wetlands. This and other such ecosystems face “the preservationist*s dilemma”: not threatened, there may be no need to save it; threatened, there may be no time to save it. Consequently, the following simultaneous strategies and tools were initiated as soon as possible, ready to serve any opportunity for preservation.

1. Responsible Private Ownership and Preservation

Often there are more wetlands or more acreage on a given wetland than are reasonable for preserve acquisition. For Waubesa Wetlands the goal of a 1000-acre preserve represents a land value in excess of \$1,000,000. Private ownership thus is essential, especially in early stages of preserve establishment. And there are cases such as the Aldo Leopold Memorial Preserve in which responsible private ownership is the only approach needed. The strategy of responsible private ownership and preservation includes: identifying all owners of land within the area to be preserved; discussing with each owner their personal attitudes and plans; identifying those owners who are responsive to preservation objectives; establishing, improving, and maintaining communications with these responsive owners; assist Ing~ them in appropriate ways; and making them aware of means for secure transfer of land to other responsible owners when necessary.

For Waubesa Wetlands this approach has been both essential and successful. A number of responsible owners know much about the wetlands they own and the large wetlands of which theirs are a part. Some have sponsored field trips, meetings, and outings for community and friends to extend the wetlands knowledge base. Some have prepared wills which assure continued preservation of the portions they currently own. As pointed out by Laniti (1979): “Responsible private ownership should be considered the first line of defense in a local open space preservation strategy. The best way for a person to gain a solid understanding of and respect for the environment is to maintain a close, continuous relation with a part of it. If enough people have this opportunity, public environmental protection efforts will enjoy strong local support.”

2. Organized Private Ownership: the Leopold Memorial Preserve Model

Although there are some obvious advantages to private ownership, there clearly are limitations. Two major problems are lack of general agreement on what constitutes good stewardship, and, the possibility of unsupportive ownership following property transfer. These problems can largely be solved using the Aldo Leopold Memorial Preserve dual instruments of a Management Agreement and a First Right of Refusal, details of which are given in the next section. The unsuccessful attempt to use these tools on Waubesa Wetlands may be due to close proximity to Madison, resulting in owners* reluctance to enter an agreement which might restrict their options during an unsettling period of development—induced tax increases. The Leopold Preserve, however, is proof of the effectiveness of this approach.

3. Inventories, Planning Documents, and Ordinances at the Local, County, and State Levels

Inventories are the basis for plans which are the basis for ordinances and acquisitions. Thus it is important to check on the inclusion and accuracy of description for the wetland Identified for preservation, and to assure that this in turn is reflected in subsequent plans, ordinances, and acquisitions. Often, plans and inventories have not been made, in which case the advocates for preservation should encourage such to be done. If they haveS been done, they often must be done at low resolution, and may omit features which can be discovered only after careful and at least year—long observations have been made.

For Waubesa Wetlands, the timing was ideal for assuring that this wetland was adequately described by Dane County. First, the inventory was~ being conducted by Jim and Libbie Zimmerman and Barbara Bedford, which assured careful work from the start. Second, the survey was being conducted at the same time that extensive information being collected on Waubesa Wetlands by University classes was made available to the inventory team.

At the township level the Town of Dunn used the Dane County wetlands inventory (Bedford, Zimmerman, and Zimmerman, 1974) as a basis for the Town of Dunn Open Space Preservation Handbook (Lam, 1979) and Land Use Plan (Town of Dunn, 1979). It was an early version of this plan which in turn was the basis for adoption of Agricultural Conservancy Zoning by the Town of Dunn Board (1978). This zoning limited development to one house per 35 acres on nearly all lands bordering Town of Dunn wetlands. At the county level the Dane County Regional Planning Commission, sponsor of the inventory, used it in part to designate an open space corridor system in the Dane County Land Use Plan. And, following adoption of the Dunn Land Use Plan by the Town Board, the County Board adopted the Dunn Land Use Plan as an amendment to the County Plan.

At the State level, staff members of the Scientific Areas Preservation Council of the Wisconsin DNR were invited to visit Waubesa Wetlands to conduct an inventory and evaluation. Information derived from this inventory and evaluation were essential to the eventual designation of the portions of this wetland owned by the DNR as a State Scientific Area. Knowledge of the features of a given wetland and the careful documentation of that knowledge usually are fundamental to its preservation, And, the more broadly that knowledge is recognized and recorded, the more likely it is to be invoked when the time so requires.

4. Acquisition by Sale, Easement, and Gift

Although extensive purchase of land oftentimes is impossible, purchase often is the only effective course of action. In the case study, the sale of the Clemans farm was induced by the need for money, and although the seller was sympathetic to the idea of a preserve, a gift was out of the question. The prospect of the land coming into unsympathetic ownership had to be met by actual purchase. In a second instance, housing development appeared to be the alternative and apparently there was no recourse but to buy the land. Where this was not desired for a remaining 13 acres, an easement was negotiated which guarantees preservation in return for fencing and limited term firewood rights to adjacent wooded uplands.

Although it appears obvious, It must be said: For gifts of land to be made there must be both a willing donor, and a recipient acceptable to the donor. It was clear from the case of the Bogholts that there was a willing donor. But some obvious potential recipients were unacceptable. The DNR was highly suspect due to their permitting a natural gas line across wetlands previously given by the donor. Prof. Bogholt was also concerned that the University might put his lands to uses other than preservation if he should deed them over. And, he was hesitant about giving land to a foundation whose members had political views different from his own. These reservations about recipients emerged during numerous conversations with the Bogholts about the dream of a Waubesa Wetlands Preserve. Fortunately The Nature Conservancy was an acceptable recipient, was represented by a person with similar political views, and was willing to enter into a “quid pro quo” agreement with the Bogholts: “If I give 40, you buy the Clemans 40.”

SPECIFIC TOOLS FOR SUPPORTING PRESERVATION STRATEGIES

In implementing the various strategies presented above the following useful tools were identified.

1. Scientific and Educational Use

To substantiate a case for wetland preservation information is needed on its size, biotic communities, presence of unusual species, processing of water and nutrients, and land ownership patterns. Although desirable to gather this information by interested citizens, it is useful to do so by encouraging wetland use in teaching and research by schools, colleges, universities and agencies. Both educators and researchers are pleased to find undisturbed natural areas available for their work.. Information gathered by such use can be used for inventories and informing interested parties. In the case study both educational and scientific use by university, schools, and naturalist*s organizations served to refine inventories and led to conversations, talks, lectures, papers, and newspaper articles which helped gain support of individuals, organizations and government for preservation of Waubesa Wetlands.

2. Feedback to Donors and Supportive Parties

Information about the wetland and progress being made on its preservation is owed to donors and is important in assuring other Individuals, the public and various agencies that the project remains an active one. For the Waubesa project, feedback to donors includes a spring binder notebook, nicely done, with scientific and esthetic descriptions of the donated land, maps and photos. Supportive parties are also visited periodically and are given published papers and articles resulting from work on the wetlands.

3. Selection and Support of Candidates for Local Public Office

What happens to a community*s wetlands is not independent of persons elected to public office. Candidates should be invited to attend “teas” at which their views on the preserve can be explored along wi-th other items. If not supportive, new candidates must be found who favor preservation of wetlands and know their values. Arrangements should be made so that the views of candidates can be widely heard throughout the community. In Dunn, preservation of prime agricultural lands and wetlands has been the major issue since 1972. Candidates were chosen based on their support for natural and agricultural systems preservation and these successfully ran for office. The town*s land use plan and agricultural conservancy zoning are a direct result. Newspaper articles describing this effort have been compiled by. the Environmental Awareness Center (1981).

4. Formation of Plan Commission and Keeping Wetlands on the Agenda

A local plan commission can be a very important asset for preservation of natural areas. Suggestions on its formation are given by Lamm (1980). The early work of a commission includes a careful inventory of natural areas, followed by the writing of a land use plan with areas to be preserved indicated. The plan is used

as a basis for writing and adopting subdivision and zoning ordinances to make preservation of designated areas legally defensible. Finally, the Plan Commission enforces the ordinances in the courts. In Dunn all of these steps have been taken since 1972, including a legal challenge to Dane County's approval of a permit for bridge construction across Swan Creek.

5. Quid pro Quo Agreements

Sometimes a person hesitates giving land to a preserve because others might not do their part. Or a person might be concerned that a vulnerable parcel outside his personal control also be added to the preserve. In such cases a conditional gift is possible—a gift which is given only if another gift or purchase is certain. Such “quid pro quo” agreements offer the advantages of interesting a potential donor and providing a means for spurring others to act. This approach proved successful in arranging the gift of the remarkable “Bogholt Deep Spring Tract” to INC.

6. Management Agreements

A management agreement is a quasi-legal document which specifies policies for a jointly-owned preserve. It is drawn up interactively between supportive owners and signed by each. The result is mutual restriction of rights for the preserve's benefit and for the security of knowing that adjoining property will not be abused. Although this tool has been unsuccessful for Waubesa, the Aldo Leopold Memorial Preserve uses this instrument along with the First Right as the primary means of preservation in the rural sand country.

7. First Rights of Refusal

A first Right of Refusal is a legal instrument used to protect a party's interests in property not their own. For the exchange of a small fee, the holder of a First Right has 30 days to purchase property at the price offered by another party. During this period the holder of the right can investigate intentions of that party including willingness to sign a Management Agreement. If the party supports the preserve, the sale proceeds. If not, the holder of the First Right purchases the property. This tool was unsuccessfully tried on Waubesa Wetlands.

8. “Crazy-quilt” Ownership Patterns

As the Waubesa project progressed, it became apparent that land never is fully secure in a preserve no matter what the ownership. An agency might allow a transmission line or may “improve” a natural area for the benefit of a species. Such actions may discourage potential donors and researchers interested in long-term study. “Crazy-quilt” patterns of ownership can discourage actions by

different adjoining owners since such actions mutually affect each other. And interspersing public and private lands can be done so that crossings by roads and transmission lines always involve public land, thus gaining protection from lands which cannot be condemned. Additional discouragement for such crossings can take the form of a pattern of ownership which, no matter what the route, clearly results in difficult legal problems. Although land in private ownership may pose few legal problems for the party building the road or line, land in a mix of public, corporate, and individual ownership presents a legal challenge best avoided. A pattern for maximizing discouragement for crossing of linear services is not in place at Waubesa, but is possible for a new project.

9. Reverter Clauses on Property Deeds

Reverter clauses are added to deeds and result in a parcel reverting to the previous owner, typically TNC, if the purposes of the preserve are violated. Thus, if donors with parcels of the quality required of TNC wish to make gifts of land to universities, government agencies or conservation groups they might do so via TNC.

GENERALIZATIONS FOR WETLAND PRESERVATION

This case study of the preservation of Waubesa Wetlands identifies two aspects of wetlands protection at the local level: its site-specific peculiarities; and its broadly applicable generalities. By recognizing and appropriately responding to what is site-specific, and what is broadly applicable, this study advocates using local approaches as effective means for wetlands preservation.

Adaptation of Strategies and Tools to the Peculiarities of the Local Situation

Each local situation is unique. The wetland itself differs from all others, and so do the people. The values and perceptions of people differ widely, as applied not only toward the wetland itself, but also toward neighbors, government, and politics. For a preservation project to be successful, it is essential that the strategies and tools be carefully adapted to these values and perceptions. Difficulties, and what appear to be impossible situations often develop. These should be viewed as challenges to endurance and creativity. In the process of meeting these challenges, all done in the context of a wetland's vibrant life and drama, one finds satisfaction. The work, once recorded as it is here, appears to be overwhelming. It is not. It is a means of personal fulfillment; it is an opportunity to learn about nature and human nature; it is a valuable public service.

General Strategies and Tools

Within the context of the individual peculiarities of a given time and place, the generalities remain conspicuous. These are listed as five strategies, and nine tools in the sections above. For a given project at its very beginning, a listing of these strategies and tools might be made, together with the names and telephone numbers of the persons to be contacted for each. A description following each of these might then be written and adapted to the local situation. And now the project has a “launching pad,” adaptive to situations as they arise, responsive to opportunities as they emerge, instructive to new recruits as they enlist for the project~

The Importance of Wetlands Preservation at the Local Level

If the comprehensive systems approach to wetland preservation at the local level as advocated in this paper is adopted, its positive effects go well beyond the target wetland. The other major wetlands in Dunn—Mud Lake Marsh, Hook Lake Bog, Grass Lake, and Door Creek Marsh—have also benefitted. Findings from Waubesa Wetlands have contributed to understanding the need for wetlands preservation at the county and state levels. Even at the national level, this local case has made some contribution to understanding of wetlands as three-dimensional “organisms” of which we only see the “skin” (Friedman and DeWitt, 1978).

A local approach to wetlands preservation is a good one because it provides a focus: an opportunity to explore an ecosystem in depth with all its ecological, political and human behavioral interactions. But the fact is that it's really not local after all. Its effect is broad and wide, and its impact extends well beyond its boundaries to other towns, counties, and states. A local approach is worthy of anyone interested in wetlands preservation. And the beauty of it all is that local projects are within the grasp of local citizens.

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