WEBSITE DEVELOPMENT RECOMMENDATIONS FOR MIDWEST STATE WILDLIFE AREAS

by

Jessica Huxmann

A Thesis
submitted in partial fulfillment of the
requirements for the degree

MASTERS OF SCIENCE
NATURAL RESOURCES - ENVIRONMENTAL EDUCATION AND INTERPRETATION

College of Natural Resources
UNIVERSITY OF WISCONSIN
Stevens Point, Wisconsin

December, 2006

APPROVED BY THE GRADUATE COMMITTEE OF

Dr. Dennis H. Yockers, Chairman
Associate Professor of Environmental Education

Dr. Robert Holsman
Assistant Professor of Wildlife Conservation and Law

Dr. Brenda Lackey
Assistant Professor of Environmental Education and Interpretation

Mr. Thomas Meier
Manager of the George W. Mead Wildlife Area

ABSTRACT

Though the specific mission of state managed wildlife areas may differ, many wildlife areas attract similar groups of people interested in outdoor recreation activities, such as hunting, fishing, and wildlife watching. Websites are often the main informational link between state wildlife areas and visitors. The Internet is a powerful tool that provides natural resource personnel with nearly limitless possibilities for information sharing. Unfortunately, users of the Internet are becoming increasingly discerning in their tastes for Internet content.

Wildlife area websites must meet both the content and design demands of their target audiences. This study surveyed wildlife agency personnel from five different states, IN, MN, MI, OH, and WI, to develop a list of recommendations highlighting the most important components of wildlife area websites. Also surveyed were visitors of a state wildlife area in central Wisconsin, the George W. Mead Wildlife Area, to determine what wildlife area visitors felt were the most important components of a wildlife area website. By creating recommendations for the information that should be included in a wildlife area website, this study will allow managers of wildlife areas to access guidelines to follow when creating or updating a website at their own facilities. These guidelines enable the most effective use of time and resources when developing and maintaining a website. Implementing these recommendations may also improve the effectiveness of communication targeting different wildlife stakeholders.

ACKNOWLEDGEMENTS

I would like to say thank you to my wonderful graduate committee. Without the guidance of Dr. Brenda Lackey, Dr. Bob Holsman, Mr. Tom Meier, and especially Dr. Dennis Yockers, this project would not have been possible. Thank you also to Dr. Michael Gross, who helped out greatly in the begining of this project.

The Friends of Mead-McMillan Association, Inc., deserve a huge thank you as well. Their support of this project, both financially and in kind encouragement - went a long way in helping me stay the course to completion. I hope that the George W. Mead Wildlife Area's new website meets all of the Friends' and the Mead's visitors' expectations.

The friends I have made during the past two years will be friends forever, I hope. Thank you to John and Sarah, Ian and Lisa, Cortney and Scott, Erin, Rainey, Abbie, and Yu. Your encouragement and support have not gone un-noticed.

To my absolutely fantastic family, I want to say Gichi Megwich! I am truly blessed to have such loving human beings in my life. Jeff, thank you for the hot chocolate during my late-night writing sessions. Dad, thank you for the offers to do the "grunt work", and for the short, sweet phone calls of encouragement. Mom, thank you for the love you send my way each day. And Cassie, thank you for "diplomatically" telling me to focus on myself and keep my nose to the grindstone. You are all the best.

Last but not least, thank you to the furry lap-warmers in my life. Q, Benji, Frank, and Madison, you kept me from going nutty just by your calm presence. Thank you.

TABLE OF CONTENTS

ABSTRACT.....iii

ACKNOWLEDGEMENTS.....iv

LIST OF FIGURES..... viii

LIST OF TABLES..... ix

CHAPTER ONE: THE PROBLEM AND ITS SETTING
- The Importance of the Study..... 1
- The Statement of the Problem..... 3
- The Objectives..... 3
- The Limitations..... 3
- Definition of Terms..... 4
- Abbreviations 5
- Assumptions..... 5

CHAPTER TWO: THE REVIEW OF THE RELATED LITERATURE
- Wildlife-Related Recreation in the United States..... 6
- Wildlife Areas in Wisconsin..... 7
- Wildlife Areas in Ohio..... 8
- Wildlife Areas in Michigan..... 9
- Wildlife Areas in Minnesota..... 9
- Wildlife Areas in Indiana..... 10
- Case Study: The George W. Mead Wildlife Area..... 10
- Background of the George W. Mead Wildlife Area..... 11
- Major Types of George W. Mead Wildlife Area Visitation and Use..... 11
- George W. Mead Wildlife Area Visitor Interests and Needs..... 12
- The Value of Information Technology..... 12
- Characteristics of an Effective Website..... 13
- Website Content..... 13
- Website Design..... 14
- Evaluation of Websites..... 15
- Chapter Summary.....16

CHAPTER THREE: THE PROJECT METHODOLOGY
- Overview..... 17
- Objective One Methods..... 18
- Objective Two Methods..... 20
- Objective Three Methods..... 21
  - Interviews..... 21
  - Focus Groups..... 22
  - Online Questionnaire..... 22
- Objective Four Methods..... 24
- Objective Five Methods..... 25
- Project Timeline..... 25

CHAPTER FOUR: RESULTS OF THE STUDY
Objective One Results 29
Wisconsin 29
Ohio 31
Indiana 31
Michigan 32
Minnesota 33
Website Evaluation Results 33
Objective Two Results 40
Objective Three Results 46
Friends of Mead-McMillan Assoc., Inc., Focus Group 49
MWA Staff Focus Group 50
Teacher Surveys 51
Objective Four Results 54
Objective Five Results 59

CHAPTER FIVE: SUMMARY, RECOMMENDATIONS, CONCLUSIONS, AND IMPLICATIONS
Summary 62
Review of Objectives and Associated Recommendations 64
Summary of State Wildlife Area Website recommendations 73
Website Development and Upkeep 73
Other Forms of Media 73
Recommendations for State Wildlife Area Websites 73
Website Evaluation 74
Conclusions and Implications 75

REFERENCES 76

APPENDICES
A. Wildlife Area Website Design Evaluation 79
B. Wildlife Area Website Content Evaluation 81
C. Informed Consent to Participate in Human Subject Research 84
D. Interview Questions for Teachers 86
E. Online Survey Pros and Cons 88
F. Website Do's and Don'ts - An Example Guide 91
G. Interview Questions for State Wildlife Agency Personnel 94
H. Interview Questions for Wildlife Area Managers 96
I. Focus Group Guide 98
J. George W. Mead Wildlife Area User Questionnaire 101
K. Wisconsin Wildlife Agency Personnel Interviews 105
L. Ohio Wildlife Agency Personnel Interviews 117
M. Indiana Wildlife Agency Personnel Interviews 131
N. Michigan Wildlife Agency Personnel Interviews 142
O. Minnesota Wildlife Agency Personnel Interviews 145
P. Wisconsin Wildlife Area Website Evaluations 154
Q. Ohio Wildlife Area Website Evaluations 170
R. Indiana Wildlife Area Website Evaluations 187
S. Michigan Wildlife Area Website Evaluations 192
T. Minnesota Wildlife Area Website Evaluations 196

U. George W. Mead Wildlife Area Teacher Interviews..... 201
V. George W. Mead Wildlife Area Visitor Online Survey..... 217
W. George W. Mead Wildlife Area Focus Group Discussions.....227
X. Interview with Federal Wildlife Agency Personnel Member..... 234
Y. Recommendations for State Wildlife Area Websites..... 237

LIST OF FIGURES

Figure	Title	Page
4.1	Activities Performed at the MWA	47
4.2	Occupation of MWA Visitor Online Survey Participants	48
4.3	Original Website Developed for the MWA	59
4.4	Current MWA Website	60
4.5	Sitemap for www.MeadWildlife.org	61

LIST OF TABLES

Table	Title	Page
3.1	Sample Questions	19
3.2	Project Timeline	25
4.1	Comparison of Wildlife Area Website Content by State	35
4.2	Comparison of Wildlife Area Website Design by State	36
4.3	Wildlife Area Website Content Evaluation	37
4.4	Wildlife Area Website Design Evaluation	38
4.5	State Wildlife Area User Audiences	41
4.6	Informational Resources Used by State Wildlife Areas	42
4.7	State Wildlife Agency Personnel Recommendations	42
4.8	Advice for Website Designers	44
4.9	MWA Visitor Opinion	47

CHAPTER 1

THE PROBLEM AND ITS SETTING

The Importance of the Study

American culture is shaped, in large part, by our love of our fish and wildlife resources. Americans spend countless hours fishing, hunting, and watching wildlife. Wildlife recreation is as much a part of our Nation's values as individual freedom, privacy, and the family. In fact, Americans often use their love of the outdoors to enhance the expression of other values: we spend time and effort to introduce children and other newcomers to the enjoyment of the outdoors and wildlife, and we often passionately fight measures that would limit our ability to enjoy nature as we see fit.

A 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation conducted by the U.S. Department of the Interior's U.S. Fish and Wildlife Service quantified the economic impact of wildlife-based recreation. The survey found that Americans spent billions of dollars pursuing their recreational activities, contributing to millions of jobs in industries and businesses that support wildlife-related recreation. Funds generated by hunting and fishing licenses and taxes pay for many of the conservation efforts in this country. Wildlife recreationists are among the United States' most passionate conservationists, contributing both money and time to the promotion of wildlife and natural resource protection efforts (USDOI, 2002).

Approximately 66 million U.S. residents, 31 percent of the U.S. population 16 years old and older, participated in different types of wildlife-watching activities during 2001. People who took an interest in wildlife within 1 mile of their homes numbered 63 million, while those who took trips at least 1 mile away from their homes to watch wildlife numbered close to 22 million people. Drawing Americans outdoors to participate in non-consumptive wildlife-related activities may be becoming more challenging. The number of wildlife-watching participants who took trips at least a mile away from home to observe, feed, or photograph wildlife decreased by 19 percent from 1980 to 2001 (USDOI, 2002).

State wildlife areas have a need to overcome the growing trend of stay-at-home wildlife watchers. State wildlife areas must find ways to attract non-consumptive recreationists to their property. Typical forms of advertisement for such properties are newsletter and newspaper articles, brochures, word-of-mouth, and hunting and fishing guides. A relatively recent addition to the list is the use of websites as visitor attractants. According to a 2003 U.S. Census Bureau report, 61% of U.S. households had access to at least one computer in the home (Cheeseman Day et al, 2005). Websites can contain great volumes of information about a property in an easily-accessible form through the Internet. Many potential visitors can use their home computers to find information about wildlife properties prior to their visit. Such information, which could include hours of operation, maps, directions, and highlights of the property, may help the potential visitor to make the decision to visit the site.

With such potential, websites might seem like an obvious choice as main advertisement mediums for state wildlife area properties. Many properties, however, do not have staff capable of developing and/or maintaining an active website. Some states allocate budgets to central informational technology (IT) teams to oversee websites for all wildlife properties from a main office in the state. These IT personnel may or may not have wildlife backgrounds. Managers of wildlife areas typically do not have IT backgrounds. Communication and collaboration between IT personnel and wildlife area managers could benefit, therefore, from a list of recommendations for what users and managers of wildlife areas find most helpful in a wildlife area website. With such recommendations, a website for a wildlife area could be developed with minimal effort on the part of the wildlife property staff and maximum gain for the users of the property.

The Statement of the Problem

The purpose of this study is to determine what guidelines should be followed when creating and maintaining a website for a Midwest state wildlife area in the United States.

The Objectives

1. Evaluate current state wildlife area websites in Indiana, Michigan, Minnesota, Ohio, and Wisconsin using existing website evaluation techniques.

2. Determine what information and resources state wildlife agency personnel and wildlife area managers believe is important to include for visitors in a website of a state wildlife area.

3. Determine the needs and interests of user audiences and staff of the George W. Mead Wildlife Area (MWA) in Wisconsin in regard to a website for the property (this information is to be used as a case-study for what users and staff of a state wildlife area believe should go onto a website for such a property).

4. Generate a list of recommendations for the creation of a website for a state wildlife area based on the information collected from this project

5. Create a website for the George W. Mead Wildlife Area based on the recommendations collected from this study.

The Limitations

1. This study will not attempt to compare the advantages/disadvantages of a website to other forms of media.

2. This study will not include analysis of state wildlife area visitors other than those of the George W. Mead Wildlife Area in Wisconsin.

3. States chosen for inclusion in this study were not selected randomly.

4. This study will not attempt to compare the needs/interests of users/administrators of wildlife areas beyond the Midwest states of Wisconsin, Ohio, Indiana, Minnesota, and Michigan.

5. Wildlife area managers, agency personnel, and user groups surveyed during this study will not be selected randomly.

Definition of Terms

Consumptive Recreation: Leisure activities that ultimately remove a resource from a site, such as hunting, fishing, and trapping.

Educational Recreation: Activities that take place at a state wildlife area that are learning-based, such as class field trips.

George W. Mead Wildlife Area: a land unit of the Wisconsin Department of Natural Resources made up of approximately 30,000 acres located in central Wisconsin.

Non-consumptive Recreation: Leisure activities that do not remove resources from a site, such as cross-country skiing, hiking, wildlife watching, and biking.

Public Land: land owned by federal, state, or local governments.

State Wildlife Area: parcels of land acquired by states to preserve an important American heritage of wild lands and wild things for hunters, trappers, hikers, wildlife watchers, and all people interested in the out-of-doors. By Wisconsin state statute, the primary purpose of a wildlife area is to provide "areas in which any citizen may hunt, trap or fish".

User: a person who utilizes a state wildlife area by participating in various activities, such as hunting, biking, and bird watching.

Visitor: a person that comes to a state wildlife area site for any purpose other than to provide labor for which he/she is paid.

Web page: a computer file that is encoded in hypertext markup language, (HTML), and contains text, graphic files, and sound files, that is accessible through the World Wide Web.

Website: a group of related web pages.

World Wide Web (WWW): the very large set of linked documents and other files located on computers connected through the Internet and used to access, manipulate, and download data and programs.

Abbreviations

- DNR refers to the Department of Natural Resources
- MWA refers to the George W. Mead Wildlife Area

Assumptions

1. A website will meet the needs and interests of users of wildlife areas.

2. Most user audiences have access to the Internet and will thus be able to use a wildlife area's website.

3. It is possible to incorporate the needs and interests of state wildlife area user audiences into the development of a website for the wildlife area.

4. Administrators of different state wildlife areas within the Midwest have similar needs and interests in regard to a website for their properties.

5. Analysis of the data collected from this study will yield conclusive elements that should be included in a website for a Midwest state wildlife area.

6. Users of the George W. Mead Wildlife Area (MWA) will be willing to offer input regarding information they would like to see on a website for the MWA.

7. Users of the George W. Mead Wildlife Area have similar needs and interests as users of other state wildlife areas in regard to a website for a state wildlife area property.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

The literature review will cover the following topics:

I. Wildlife-Related Recreation in the United States

II. Wildlife Areas in Wisconsin

III. Wildlife Areas in Ohio

IV. Wildlife Areas in Michigan

V. Wildlife Areas in Minnesota

VI. Wildlife Areas in Indiana

VII. Case Study: The George W. Mead Wildlife Area

VIII. Background of the George W. Mead Wildlife Area

IX. Major Types of George W. Mead Wildlife Area Visitation and Use

X. George W. Mead Wildlife Area Visitor Interests and Needs

XI. Value of Information Technology

XII. Characteristics of an Effective Website

XIII. Website Content

XIV. Website Design

XV. Evaluation of Websites

XVI. Chapter Summary

I. Wildlife-Related Recreation in the United States

In 2001, 82 million people participated in wildlife-related recreation. Of those, 37.8 million engaged in some form of consumptive wildlife recreation, such as hunting and fishing, and 66.1 million participated in non-consumptive recreation, such as wildlife watching activities (21.9 million people engaged in both consumptive and non-consumptive wildlife recreation activities). All told, the booming business of wildlife recreation in this country generates $108 billion (USDOI, 2002).

The U.S. Fish and Wildlife Service conducted a comparison of estimates from the 1991, 1996, and 2001 National Surveys of Fishing, Hunting, and Wildlife-Associated

Recreation. While the number of sports persons fell from 40.0 million in 1991 to 37.8 million in 2001, expenditures by sports persons increased from $53 billion (in 2001 dollars) in 1991 to $70 billion in 2001. Participation in wildlife watching (observing, feeding, and photographing wildlife) decreased from 76.1 million in 1991 to 62.9 million in 1996, but it increased to 66.1 million from 1996 to 2001. Expenditures for trips and equipment increased by 21 percent from 1991 to 1996 and 10 percent from 1996 to 2001. The number of wildlife-watching participants who took trips at least a mile away from home to observe, feed, or photograph wildlife decreased, however, by 19 percent from 1980 to 2001 (USDOI, 2002).

Though both public and private areas were used by Americans to observe, feed, or photograph wildlife on trips away from home in 2001, 49% (10.6 million) visited only public areas. 28% (over 6 million), reported having visited both public and private areas. Only 12% (2.5 million) of all participants visited only private areas (USDOI, 2002). Public wildlife recreation areas are clearly important to participants in non-consumptive wildlife activities. State-managed wildlife areas fall directly into this very important category.

II. Wildlife Areas in Wisconsin

According to the Wisconsin Department of Natural Resources, Wisconsin state wildlife areas were acquired to preserve an important American heritage of wild lands and wild things for hunters, trappers, hikers, wildlife watchers, and all people interested in the out-of-doors. They were sought to help protect and manage important habitat for wildlife and to help prevent draining, filling, and destruction of wetlands. They were also purchased to prevent private blocking of important waterways, game lands, and lakes (WDNR, 2004).

Wisconsin has 16 million acres of forestlands. Nearly 70 percent of Wisconsin's forestlands are privately owned. The remaining 4.8 million acres is divided into both federally-owned and state-owned land. Some of the state-owned forestland properties in Wisconsin have been designated as "wildlife areas". By Wisconsin state statute, the primary purpose of a wildlife area is to provide "areas in which any citizen may hunt, trap

or fish" (WDNR, 2003). Other recreational activities can be accommodated where they are compatible and do not detract from this primary objective. Funding for wildlife area establishment comes from the Federal Aid in Wildlife Restoration Act (also known as the Pittman-Robertson Act). Lands acquired and managed with these funds are to be used for wildlife restoration, acquisition and improvement of wildlife habitat. For example, some wildlife properties protect waterfowl areas because they are either ancestral migration stopover points or breeding grounds. Each wildlife area is unique, allowing visitors to appreciate their natural environment and let the wildlife flourish.

As of 1996, there were 215 wildlife areas containing about 467,260 acres in Wisconsin (WDNR, 2004). In addition, about 120,000 acres are leased each year for public hunting purposes (WDNR, 2004). Except for Crex Meadows, Sandhill, Horicon Marsh and Mead, Wisconsin state wildlife areas have only minor facility development. Most do not have formal, designated roads or trails, public rest rooms, drinking fountains, concessions, or large, mowed picnic areas (WDNR, 2004). Forests on wildlife areas are managed by periodically harvesting them to provide lumber as well as to help regenerate specific forest types, such as aspen, that are important for the survival of many game animals (WDNR, 2004).

III. Wildlife Areas in Ohio

The Ohio Department of Natural Resources' Division of Wildlife owns more than 150,000 acres of land (ODNR, 2004). The Division of Wildlife has the responsibility of managing both game and non-game species, improving wildlife habitat, and educating the public. Endangered species management, protection, and restoration have also become an important responsibility for the division. The division strives to acquire public land for hunting, fishing, trapping and other wildlife recreation through purchase, donations, and the development of agreements. Since 1990, the division has added over 60,000 acres of public wildlife area, including the 16,200-acre Tri-Valley Wildlife Area, and the 11,000-acre Crown City Wildlife Area.

IV. Wildlife Areas in Michigan

Within the state of Michigan, State Game Areas, State Wildlife Areas, State Fish and Wildlife Areas, State Wildlife Research Areas, State Wildlife Management Areas, and undedicated State Lands are all either admininstered by the DNR Wildlife Division, or co-managed with another DNR Division or cooperator (MIDNR, 2006). Each game/ wildlife area has a map on the official MI DNR website, http://www.michigan.gov/dnr. The maps are double-sided with a map on the front side and a "standard land rules" page on the back side.

V. Wildlife Areas in Minnesota

Minnesota has 1,380 public wildlife areas with 1.2 million acres of habitat, from prairies and wetlands to forests and swamps, for Minnesota's game and nongame wildlife species (MDNR, 2006). In Minnesota, **"**wildlife management areas" (WMAs) are part of the state's outdoor recreation system and are established to "protect those lands and waters that have a high potential for wildlife production, public hunting, trapping, fishing, and other compatible recreational uses". They are the backbone to DNR's wildlife management efforts in Minnesota. The Minnesota DNR strives to:

- protect wildlife habitat for future generations,
- provide citizens with opportunities for hunting, fishing and wildlife watching, and
- promote important wildlife-based tourism in the state.

Ranging from prairies and wetlands to forests and brush lands, Minnesota's wildlife management areas are used by hundreds of thousands of hunters. Pheasants, waterfowl, deer, and ruffed grouse are the major game species hunted, but the properties also provide wild turkey, sharp-tailed grouse, rabbit, and squirrel hunting. 15 percent of Minnesotans hunt and 52 percent of Minnesota residents watch wildlife, the highest participation rate in the country (MDNR, 2006). Hunting and wildlife watching are a $1 billion dollar industry in Minnesota.

VI. Wildlife Areas in Indiana

Twenty-three wildlife areas are listed on the Indiana Department of Natural Resources website (INDNR, 2004).

Indiana's wildlife areas are managed by the Indiana Department of Natural Resources and permit hunting, wildlife watching, and many other wildlife-related activities on most properties.

VII. Case Study: The George W. Mead Wildlife Area

In addition to collecting data from wildlife areas in WI, IN, MN, MI, and OH, this project will also scrutinize a case study wildlife area in Wisconsin. By looking closely at a specific example of a state wildlife area, it may be possible to project the importance a website might have to a wildlife area facility. The property that was used for this case study was the George W. Mead Wildlife Area near Milladore, Wisconsin.

The George W. Mead Wildlife Area (MWA) near Milladore, Wisconsin, is a state-owned and managed property. Because the MWA is the site of a new education facility and visitor center, it is likely that it will attract many more visitors than have come in previous years. Though the MWA does currently have a webpage on the official WI DNR website, the information it contains is minimal. To inexpensively and effectively reach a growing audience in order to inform users about visitor center hours, directions, special events, and other topics related to the wildlife area, the MWA could utilize an expanded, more comprehensive website.

Due to small budgets and limited staff and volunteers at the MWA, website development has not been a priority (Meier, pers. Comm., 2006). The task of developing and maintaining a website might fall to over-worked state wildlife area employees or volunteers, (such as the MWA's Friends group members). By creating recommendations of the information that should be included in a website for a wildlife area, this study will allow administrators of the MWA and other wildlife areas across the U.S. to access guidelines to follow when creating or updating a website at their own facility. Such guidelines would enable the most effective use of time and resources when developing and maintaining a website.

VIII. Background of the George W. Mead Wildlife Area

The George W. Mead Wildlife Area (MWA) lies approximately mid-way between Wausau, Stevens Point, Wisconsin Rapids, and Marshfield in central Wisconsin. The MWA is located in the Little Eau Pleine River Valley and encompasses areas of Marathon, Wood, and Portage counties.

Glaciers covered the area from about 100,000 to 10,000 years ago (Pielou, 1992). The glaciers scoured the landscape, scraping the area flat and leaving behind drift soil and wind-blown loess. Water eroded the landscape afterward, carving the lacework of valleys we see in the area today.

Because it is located along a climatic area known as the "Curtis tension zone", (an area in which northern arctic air masses meet southern tropical air masses), the MWA is home to a great diversity of habitats (Curtis, 1959). Animal and plant species found here occur in both northern and southern Wisconsin. This ecological uniqueness provides opportunities for wildlife observation and study unlike anywhere else in the state.

IX. Major Types of George W. Mead Wildlife Area Visitation and Use

Over 12,800 people visit the MWA annually (Schwalbach, 2001). Visitors include hikers, bird watchers, historians, hunters, bicyclists, trappers, wildlife watchers, teachers, and students. These audiences can be grouped into three major use categories: consumptive recreation, non-consumptive recreation, and education groups (Buchholz et al, 2005).

Hunters make up the majority of Consumptive Recreation users of the MWA. In fact, hunters made up about 65% of all users of the MWA in 2000 (Schwalbach, 2001). Wildlife and bird watchers, as well as hikers and bicyclists, make up most of the non-consumptive user group. Teachers and their students comprise the third major user group, education (Buchholz et al, 2005).

X. George W. Mead Wildlife Area Visitor Interests and Needs

The George W. Mead Wildlife Area is becoming a well-known area for visitation by many different types of people across the state. With even more people expected to use the MWA in the near future due to the installment of a new visitor center, the MWA staff may be unable to supply the information about the MWA desired by visitors (Meier, pers. Comm., 2006). A website could supply that information in an inexpensive manner that has the potential to reach any user who has access to the Internet. It is the belief of this researcher that input from administrators of state wildlife areas is essential for the full potential of a wildlife area website to be realized.

Two studies to determine the interests and needs of MWA users have been conducted. These are Jones's An Interpretive and Educational Master Plan for the George W. Mead Wildlife Area (1989) and Schwalbach's Renewing the Vision for Education and Interpretation at the George W. Mead Wildlife Area (2001). Neither Jones (1989) nor Schwalbach (2001) asked users the specific question, "What information would you value most in a resource for the Mead Wildlife Area." A more detailed picture of MWA user audiences' interests was needed in order to more completely understand what information should be made available on a website for the MWA.

Jones's (1989) used focus groups, interviews, and paper-based questionnaires to collect data to support her thesis findings. Schwalbach (2001) used interviews with users and focus groups as well. Schwalbach (2001) also interviewed other wildlife area staff, including staff at Sandhill State Wildlife Area, Crex Meadows State Wildlife Area, and Horicon Marsh State Wildlife Area. Internet-based questionnaires were not used for either of the previous user interest studies.

XI. The Value of Information Technology

More and more people are using the Internet as their main mode of communication with each other as well as for gathering information. Sixty-two percent of households had access to a computer in 2003, compared with 56 percent in 2001, according to a U.S. Census Bureaus report (Cheeseman Day et al, 2005). The proportion of households with Internet access more than tripled between 1997 (the first year

data were collected on this topic) and 2003—growing from 18 percent to 55 percent (Cheeseman Day et al, 2005). Using a web-based resource to disseminate information about a wildlife area allows visitors to access the information at their convenience, regardless of the operating hours and schedules of the facility's staff. In order for a website to be successful, however, the needs and interests of the users of the site must be considered (Pan, 1998). One key element to the design of a website for a wildlife area is the ability to make the website entice the visitor to the wildlife property itself. The website should not be the end destination, but a tool used to direct visitors to the real destination, the wildlife area itself. Overuse of technology in places like school classrooms must be avoided in order to encourage students and others to experience the outdoor world firsthand (Levi & Kocher, 1999).

XII. Characteristics of an Effective Website

An effective website engages the site visitor, supplies enrichment materials, and provides access to information sources beyond the website itself (Barker, 1999). How the material on the website is displayed and its organization are critical (Dunlap 1998). Legibility, visibility, recognizability, and site/page layout are also key design factors that influence the overall quality of a website (Dunlap, 1998). Links are the "basic building blocks" of the Web (Dunlap, 1998). Links within web pages that connect to other web pages within or outside of the main site allow users to maneuver throughout the site or to other sites with the click of a mouse button. Website visitors that are unable to easily and quickly navigate through a website will not have a positive experience with that site (Panci, 2003).

XIII. Website Content

As technology improves, the subject of web design continues to get larger and more complex (Williams and Tollett, 2006). Websites can be accessed from any computer that is connected to the Internet. The Internet is a vast collection of computers that store and send out information all over the world (Williams and Tollett, 2006). One single website that has been stored on the Internet may be viewed by millions of people

everywhere. The potential of any organization to reach a wider audience through a website is enormous.

Computers operate using digital information. The communication lines most people use to connect to the Internet, however, use analog information. In order to translate the analog information to a source the computer can use, and vise versa, the signals must be modulated and demodulated between the two systems. A special device called a "modem" is used to accomplish this task. There are different types of modems in use today, but the most common modem is "dial-up", which is connected from the computer to the Internet by a phone line. Each type of modem has a different speed at which it can convert analog to digital and back. This speed is called the "baud rate" and is measured in bits per second (a bit is a digital piece of information). Dial-up modems have baud rates of around 56,000 bits per second, or "56K" in computer lingo. This is actually quite slow compared to other types of modems, such as satellite, cable, T1 lines, DSL, ISDN, and other "broadband" connection systems (Williams and Tollett, 2006). The slower pace of dial-up modems must be taken into account when designing websites. The information on each web page of a website should be able to be quickly downloaded by even the slowest dial-up computer connection. A study comparing download wait times and user frustration levels revealed that users become frustrated, and even abandon a website, after less than 5 seconds of wait time (Galbraith, 2003). For the study, subjects were asked to answer questionnaire questions on a website. The length of time it took for each page of the questionnaire to download was randomly chosen for each participant, and ranged from 0 to 30 seconds. Participants were asked to record their level of frustration with the download speed of each page.

XIV. Website Design

Website design techniques are similar to traditional page layout design and are governed by many of the same guidelines (Williams, 2004). There are four basic concepts that are used in nearly every well-designed job: Contrast, Repetition, Alignment, and Proximity (Williams, 2004). Proximity refers to grouping related items so that they

are in physically close to each other. The principle of alignment states that every item on a page should have a visual connection with something else on that page. Repetition refers to the repeating of some aspect of the design throughout the entire piece; in this case, throughout the entire website. Contrast is the idea that if two items on a page are not exactly the same, then they should be made really different from each other.

Websites are unique forms of media and require the use of guidelines in addition to those listed above. Guidelines created for website design by Monash University, Australia, can be found in the appendices (Monash University, 2005).

XV. Evaluation of Websites

In 1999, the Environmental Education and Training Partnership (EETAP) Resource library, which is funded by the United States Environmental Protection Agency (EPA) and the North American Association for Environmental Education (NAAEE), created Evaluating the Content of Websites – Guidelines for Educators publication, which states:

> There are two different types of evaluations of sites: evaluation of the site itself, and evaluation of the content. Though in some ways interrelated, these are quantitatively and qualitatively different activities and characteristics of sites (EETAP, 1999).

The EETAP guide focuses on the "content" aspect and briefly touches on the construction of the site itself (EETAP, 1999). The EETAP guide makes a few basic assumptions about all websites, including:

- Evaluating a site means applying individual judgment.
- Information on the Web is not the same as articles in academic journals, textbooks, or other sources of scientific data. Anyone can put information on the Web.
- The individual evaluating the content on the website has a bias in how he/she views the information. That bias must be considered when interpreting the information on the site.

- There are two distinct types of website evaluations – evaluation of the site itself, and evaluation of the content within the site. Criteria used in the evaluation of the design of the website itself are:

  Format and appearance

  Functionality

  Searchability

  Uniqueness

  Providing help for visitors

- Criteria used in the evaluation of the content of websites are:

  Authority (who wrote the information displayed on the site?)

  Audience (for whom is the site meant?)

  Context/Coverage (why is this site on the Web?)

  Accuracy (are sources of information on the site verifiable?)

  Currency (is the information on the site up-to-date?)

XVI. Chapter Summary

State wildlife areas and wildlife management areas are islands of preserved land set aside for the enjoyment of people and the survival of animal species. In order to encourage these properties to flourish in the hearts and minds of the people who are in charge of preserving them, the public must be made aware of their existence and of what each unique area has to offer. One of the ways to disseminate information about such properties, especially to remote visitors, is by website. Provided that the website is designed well and contains relevant, current content, visitors can easily access the wildlife area information they desire at their convenience, facilitating the visitor's use of the property in the future.

CHAPTER THREE

THE PROJECT METHODOLOGY

Overview

Websites are like art - beauty is in the eye of the beholder. Each person viewing a website is going to see the site with an individual perspective. Each website visitor is also looking for unique information. A website for a wildlife area must, therefore, be able to meet the needs and interests of a wide variety of audiences. The methods used to achieve the research objectives of this study reflect the need to take into account as many different types of audience member opinions as possible.

This chapter describes the methods used to evaluate existing wildlife area websites, to collect information about what wildlife area users want to see on a website for a wildlife area, to develop recommendations for what should go onto a wldlife area website, and to disseminate the "Recommendations for State Wildlife Area Websites" booklet.

Statement of the Problem

The purpose of this study is to determine what guidelines should be followed when creating and maintaining a website for a Midwest state wildlife area in the United States.

Objective One Methods

Objective 1. Evaluate current state wildlife area websites in Indiana, Michigan, Minnesota, Ohio, and Wisconsin using existing website evaluation techniques.

Wildlife areas exist in many states in America. The reason this study limits the number of states included to Indiana, Michigan, Minnesota, Ohio, and Wisconsin is that the researcher wanted to devote time and resources to the analysis of five states within close geographic proximity and with similar topography in order to better make generalizations about wildlife areas in the Midwest region of the U.S.

Many different website evaluation tools exist. Websites may be evaluated by both their content and by their design. This study evaluated current websites of state wildlife areas for both content and design using modified versions of the WWW CyberGuide Ratings for Content Evaluation for rating the content on websites and the WWW CyberGuide Ratings for Website Design for rating the design of a website.

The "WWW CyberGuide" Internet evaluation forms were originally developed in 1996 informally as a means of introducing the World Wide Web to novice users (Joseph and Resch, 2006). Later, under the guidance of Linda Resch, an Instructional Technology Specialist, and Linda Joseph, a Library Media Specialist with the Columbus (Ohio) Public Schools, the two forms were sent to four hundred and sixty Ohio school librarians who were asked to evaluate four pre-selected Websites using the forms. The data from the returned forms was used to assess the effectiveness of the CyberGuides as Website evaluation tools.

The original WWW CyberGuide evaluation forms were slightly modified for use in this study, and were reviewed and approved by the chair of the researcher's graduate committee. The website evaluation forms used for this study can be found in Appendices A and B.

Four to six wildlife areas were selected from each of the five states included in this study. The wildlife areas were not chosen randomly, but were chosen based on the recommendations of wildlife agency personnel from each state.

Official state wildlife agency websites for each of the wildlife areas included in this study were accessed on the Internet and were evaluated using modified versions of the WWW CyberGuide Ratings for Content Evaluation for rating the content on websites and the WWW CyberGuide Ratings for Website Design for rating the design of a website. The forms used to evaluate the quality of website design and content can be found in Appendix B titled "Wildlife Area Website Design Evaluation" and Appendix A titled "Wildlife Area Website Content Evaluation".

For each wildlife area property, the researcher accessed the website using a personal home computer, mimicing the type of access conditions most wildlife area users would encunter when searching for information on the Internet about a wildlife area property. The researcher then went item by item on the check-off evaluation form for both content and design, answering "Yes" or "No" to each question on the evaluation forms. Sample questions from the form are given below.

Table 3.1: Sample Questions

5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	Y	N
6. Content Presentation		
A. The information is clearly labeled and organized.	Y	N
B. The same basic format is used consistently throughout site.	Y	N
C. Information is easy to find (no more than three clicks, for example).	Y	N
D Lists of links are well organized and easy to use.	Y	N

"Yes" and "No" answers were tallied for each state. Totals for all websites from each state were then compared to totals from each of the other states. The states included in this study were Indiana, Ohio, Wisconsin, Michigan, and Minnesota.

Objective Two Methods

Objective 2. Determine what information and resources state wildlife agency personnel and wildlife area managers believe is important to include for visitors in a website of a state wildlife area.

One-on-one semi-structured interviews with state wildlife agency personnel and wildlife area managers were conducted to gather information from these sources. The wildlife agency personnel from each state were selected based on their positions within their state's department of natural resources, such as Wildlife Education Coordinators, due to the perception that these individuals are most familiar with wildlife area visitor needs in regard to information-gathering from websites. These state wildlife agency personnel were interviewed by phone or by email. A copy of the questionnaire used for the interviews can be found in Appendix G titled "Interview Questions for State Agency Personnel".

Attempts were made to interview wildlife area managers from the four to six wildlife areas selected from each of the five states included in this study (Indiana, Ohio, Michigan, Minnesota, and Wisconsin). The wildlife area manager is an incredibly busy individual. Telephone calls were often proceded by several follow-up calls, as well as emails, before managers were induced to participate in this study by answering a list of pre-determined questions. A copy of the questionnaire used for the wildlife area manager interviews can be found in Appendix H titled "Interview Questions for Wildlife Area Managers".

A semi-structured interview was conducted with one wildlife agency personnel member at the federal level. This agency personnel member was selected based on his duties within his agency as the External Affairs Manager of the United States Fish and Wildlife Service (USFWS) Region 3 office in Minneapolis, Minnesota, and was included in this study because he oversees the website development work by each of the field stations within all of the states that make up that region.

Objective Three Methods

Objective 3. Determine the needs and interests of user audiences and staff of the George W. Mead Wildlife Area (MWA) in regard to a website for the property (this information is to be used as a case study for what users and staff of a state wildlife area believe should go onto a website for such a property).

A descriptive survey approach was used to collect information about what MWA users want to see in a website for the property. A descriptive survey is a method of data gathering in which the ultimate goal is to learn about a large population by surveying a sample of that population (Leedy, 2005). By using the descriptive survey approach, a snap-shot was generated of the views held by MWA visitors in regard to the MWA and to what they would like to see on a website for the MWA. The responses were then summarized with percentages in order to allow inferences to be drawn about the MWA user population as a whole. The descriptive survey approach is also known as the normative survey approach. This information, along with information collected from other state wildlife area managers and agency personnel, was then used to develop a set of guidelines for website development for wildlife areas. The methods that were used to gather this information included face-to-face and telephone interviews, focus groups, and an on-line questionnaire.

Interviews

Phone interviews and face-to-face interviews were used during this study. One of the greatest advantages of face-to-face interviews is that a relationship can be established with the participant, thus allowing trust and comfort to develop. This trust and comfort can lead to a greater level of cooperation and response rate. Unfortunately, the time and expense of personal interviews is inhibitory. One alternative to a personal interview is a phone interview (Leedy, 2005). Phone interviews are less expensive as well as less time-consuming. The response rate, though considered higher than that for questionnaires,

is not as high as that for personal interviews. Many potential participants are too busy, annoyed to be bothered, and/or not interested in participating (Leedy, 2005).

Focus Groups

The procedure to conduct a successful focus group discussion begins with the selection process (Krueger, 1988). The types of people who should be involved in each focus group were selected. The mixing of people who may have felt they had different levels of expertise about the MWA and/or other wildlife areas was avoided by combining individuals with similar backgrounds and interests. Based on available resources (time and money), two focus group discussions were conducted, each with a different category of participants. Division into categories was determined by participation characteristics, not by age, gender, geographical location, or income. The two focus group categories included:

Audience 1 (employees of the MWA)

Audience 2 (members of the Friends of the MWA advisory group)

Focus group questions were developed with guidance from members of the thesis committee, other university professors, and the George W. Mead Wildlife Area staff. The questions were designed to produce discussion about interests in the MWA and its resources, reasons for visiting the wildlife area, and opinions regarding a website for the MWA. All focus group discussions were recorded. The detailed focus group procedure and questions for this study can be found in Appendix W.

Online Questionnaire

In order to reach a wider audience for participation in this study, an online questionnaire was issued to users of the MWA. Online questionnaires offer several advantages, but are subject to several disadvantages as well. They are usually easy and quick to assemble, cheap to create, send, and receive, and can reach a broad audience quickly (Summit Collaborative, 2003). Online questionnaires can produce high response rates since there is a direct link to your questionnaire in your email announcement and questionnaire tabulation is provided within minutes by the online questionnaire tool. Data

is captured electronically so no manual data entry is necessary. Online questionnaires have a significant advantage over traditional print media in the realm of collecting customer response (Williams and Tollett, 2006). Print media feedback is often collected by sending postage-paid response cards or letters to customers in the hope that they will take the time to fill out the form and mail the document back to the sender. The web, however, allows site visitors to simply click a button once to bring up the questionnaire, fill out the form online, and then click another button to submit the form. The visitor has the chance to respond immediately, increasing the chance that he/she will respond at all (Williams and Tollett, 2006). Online questionnaire considerations by Summit, 2003, are also provided in the Appendices.

Unfortunately, however, questionnaire questions are limited in the amount of information they can collect. Once the questionnaire questions have been devised, the respondent is limited to answering those specific questions. Unlike focus groups, questionnaires provide no room for brainstorming ideas. The questionnaire sample itself may not be big enough or not accurate due to poor quality of email distribution lists, and some people just do not like them — they're shy about providing information online (Summit Collaborative, 2003).

The online questionnaire for this study was developed by the researcher and was sent directly to user audience groups of the MWA, (such as White-tails Unlimited, and The Aldo Leopold Chapter of the Audubon). The survey was also available on the MWA website. A copy of the online survey can be found in the Appendices.

Objective Four Methods

Objective 4. Generate a list of recommendations for the creation of a website for a state wildlife area based on the information collected from this study.

Results of the state wildlife area website evaluations for IN, MI, MN, WI, and OH were compiled and conclusions were drawn based on the contents of those sites as to what is currently being presented on wildlife area websites.

Notes and transcripts from all focus groups and interviews were assembled and analyzed. Common themes and patterns in the interests and perceptions of state wildlife area users, agency personnel, and managers were determined using quantitative techniques to analyze qualitative data. Results from the online questionnaire were compiled in a database and analyzed as well. Due to the nature of the questions that were posed to participants in this study, resulting data is both continuous (i.e. age of participants) and discrete (i.e. seasons in which participants visit the MWA).

The common response patterns of the interests and perceptions of study participants were categorized based on themes. A "theme" could simply be "Maps and Directions" or "Activities". The challenge to the researcher was to ensure proper placement of responses in appropriate theme categories. For instance, the question, "What do you think should be included in a website for the Mead Wildlife Area?" generated the following responses from seven different interviewees:

"Activities available"

"Things to do at the Mead"

"Schedule of activities"

"Schedule of special events"

"The things available to do"

"Calendar of events"

"Current and on-going events"

The theme categories generated from the above responses were "Current Events" and "Available Activities". The recommendation of "Current Events" was interpreted as a

need for a calendar-type listing on a wildlife area website, which would denote weekly, monthly, or seasonal events taking place on the property. "Available Activities" was interpreted as a list of legal recreation possibilities within the wildlife area's property borders, such as canoeing, hiking, bird watching, and hunting. All theme designations were reviewed and approved by the chair of the graduate committee.

Objective Five Methods

Objective 5. Create a website for the George W. Mead Wildlife Area based on the recommendations collected from this project.

The guidelines that were developed based on the recommendations of MWA visitors and state wildlife area agency personnel were used to create a website for the MWA that meets the interests and needs of the MWA user audience. The guidelines were given to a web design student within the Computer Information Systems program department at the University of Wisconsin - Stevens Point. The web designer then translated the guidelines into a collection of web pages for the George W. Mead Wildlife Area. The resulting website was then uploaded onto the Internet and is currently being maintained by the web designer under the direction of the friends of Mead-McMillan Association, Inc. The Friends of Mead-McMillan Association is a non-profit organization dedicated to furthering the mission of the George W. Mead Wildlife Area.

Table 3.2: Project Timeline

In an effort to further define and explain this project, the following timeline is submitted:

Thesis Tasks	**Date Complete**
Obtained IRB approval for this study	5/3/05
Created online survey form	9/1/05
Created prototype web site for the George W. Mead Wildlife Area	12/1/05

Table 3.2: Project Timeline continued...	
Created “Wildlife Area Web Site Design Evaluation” form	3/8/06
Created “Wildlife Area Web Site Content Evaluation” form	3/15/06
Michigan	
Evaluated web sites for MI Wildlife Areas	6/6/06
Interviewed Web Editor for MI DNR	3/10/06
Minnesota	
Interviewed Supervisor for non-game wildlife, MN DNR	7/7/06
Interviewed Communications Director, MN DNR	7/11/06
Interviewed Outreach Section Chief, MN Director of Fish and Wildlife	7/11/06
Interviewed Ed. Coord. for MN DNR	7/7/06
Evaluated web sites for MN Wildlife Management Areas	7/7/06
Interviewed Property Manager of Whitewater WMA, MN	8/14/06
Interviewed Area Wildlife Supervisor of Beaches Lake WMA, MN	8/14/06
Ohio	
Evaluated websites for OH Wildlife Areas	6/6/06
Interviewed Wildlife Webmaster for OH DNR	3/17/06
Interviewed NW District Manager for OH DNR	6/12/06
Interviewed Naturalist for Magee Marsh, OH, Friends of Magee Marsh	6/20/06
Interviewed Wildlife Area Manager of Killdeer Plains Wildlife Area, OH	6/12/06
Indiana	
Evaluated websites for IN Wildlife Areas	7/7/06
Interviewed Ed. Coord. For IN DNR	3/17/06
Interviewed Property Manager of Jasper-Pulaski Wildlife Area, IN	8/14/06
Interviewed Property Manager of Atterbury Wildlife Area, IN	8/14/06
Interviewed Property Manager of Minnehaha Wildlife Area, IN	8/15/06
Interviewed Property Manager of Kankakee, IN	8/14/06
Wisconsin	
Evaluated web sites for WI	10/1/06
Interviewed Wildlife Biologist and Internet Manager for WI DNR	2/3/06

Table 3.2: Project Timeline continued...	
Interviewed agency personnel of Sandhill Outdoor Skills Center and Wildlife Area, WI	April 2006
Interviewed agency personnel of Horicon Marsh Wildlife Area, WI	8/15/06
Interviewed agency personnel of Theresa Marsh Wildlife Area, WI	8/15/06
Interviewed agency personnel of Tiffany Wildlife Area, WI	8/15/06
Focus Groups	
George W. Mead Wildlife Area staff focus group discussion (5 participants)	1/24/06
Friends of George W. Mead Wildlife Area focus group discussion (10 participants)	4/13/06
Online Survey	
Sent online survey to Whitetails Unlimited, Marshfield Chapter	7/6/06
Sent online survey to Izaak Walton League, Fox Valley Chapter	7/6/06
Sent online survey to the Izaak Walton League, Will Dilg Chapter	7/6/06
Sent online survey to Whitetails Unlimited, River Valley Chapter	7/6/06
Sent online survey to Whitetails Unlimited, Stevens Point Chapter	7/6/06
Sent online survey to Whitetails Unlimited, Central WI Chapter	7/6/06
Sent online survey to Ruffed Grouse Society	7/6/06
Sent online survey to Pheasants Forever	7/6/06
Sent online survey to WI trappers Assoc.	7/6/06
Sent online survey to Twelve Apostles Musky Club	7/6/06
Mead Teachers	
Interviewed Director of Wausau School Forest, WI	5/1/06
Surveyed Mr. Paul Rheinschmidt, DC Everest Middle School	5/1/06
Surveyed Ms. Ann Pickett, Port Edwards Elementary	5/1/06
Surveyed Mr. John Birnbaum, Mosinee Middle School	5/9/06
Surveyed Mr. Bruce Maatta, Wausau East High School	8/20/06
Surveyed Mr. Duane Behnke, SPASH, Stevens Point	8/23/06
Stopped accepting online surveys	10/21/06

Table 3.2: Project Timeline continued...	
Gave results of data analysis to web developer to begin creation of George W. Mead Wildlife Area website	10/15/06
Presented preliminary results to the National Association for Interpretation Workshop Conference in Albuquerque, NM	11/11/06
Presented results to at the Midwest Fish and Wildlife Conference in Omaha, NE	12/6/06

CHAPTER FOUR

RESULTS OF THE STUDY

Objective One Results

Objective 1. Evaluate current state wildlife area websites in Indiana, Michigan, Minnesota, Ohio, and Wisconsin using existing website evaluation techniques.

The wildlife area websites evaluated during this study were chosen based on the recommendations of wildlife agency personnel from each state. Below is a list of state wildlife agency personnel who were asked to suggest wildlife areas they believed should be included in this study, and the suggestions they made.

Wisconsin

http://www.dnr.state.wi.us/

Mary Kay Salwey, State Wildlife Education Specialist Wisconsin Department of Natural Resources, recommended:

Sandhill Wildlife Area

Crex Meadows Wildlife Area

Horicon Marsh Wildlife Area

Tiffany Wildlife Area

Brillion Wildlife Area

Theresa Marsh Wildlife Area

The official Wisconsin wildlife agency website provided wonderful information on the Sandhill Wildlife Area and the Horicon Wildlife Area (WIDNR, 2006). Not only were the sites quick to load, easy to read, and easy to navigate, but the sites also contained easily accessible, relevant information, such as contact information and maps, as well as history of the properties and links to more information. The sites, which were accessed October 18, 2006, also were up-to-date, having been revised as recently as July 28, 2006 (Sandhill), and September 29, 2006 (Horicon Marsh). The official Wisconsin

wildlife agency website for the Crex Meadows Wildlife Area contained very little information about the property. The website was easy to access, loaded quickly, and did contain the following headings (not links), and a few corresponding paragraphs of information: History and Habitat, Location, Map of Crex Meadows (PDF).

The Friends of Crex Meadows website, at http://www.crexmeadows.org/, is managed and maintained by the Friends of the Crex Meadows Wildlife Area. This site is up-to-date and provides links to most information users would want to access regarding the Crex Meadows Wildlife Area. Another nice feature of this site is the inclusion of a weather link that gives the current temperature for the town closest to the wildlife area – a very useful tool for birdwatchers, wildlife watchers, and hunters to gauge the conditions they might face when they visit the wildlife area.

The Friends of Sandhill, Inc. website, at http://www.wistateparkfriends.org/parks/sandhill/index.htm, was created by the Friends of Sandhill, Inc. The site includes a Home Page with contact information, information on how to become a member of the friends group, links to 2004 hunting season pictures and deer processing pictures, links to past newsletters, meeting minutes, and to the official Wisconsin Department of Natural Resources Sandhill Wildlife Area website. The site loaded quickly and was easy to read, but only contained information about the friends group, not about the Sandhill Wildlife Area, and was not up-to-date. A few of the word-streaming graphics were not working, as well.

Located on Wisconsin Highway 28 between the cities of Horicon and Mayville and close to major population areas, the Horicon Marsh International Education Center is a very new facility managed by the Friends of Horicon Marsh International Education Center. The education Center's website provides information about the Horicon Marsh Wildlife Area, such as "Horicon Marsh Facts", "Events and Programs", and "Related links". The website is easy to navigate, easy to access, and is up-to-date.

Ohio

http://www.ohiodnr.com/

Corey Cockerill, Ohio DNR – Wildlife Division, Wildlife Webmaster recommended:

Magee Marsh Wildlife Area

Magee Marsh Nature Center

Killdeer Plains Wildlife Area

Killbuck Marsh Wildlife Area

The official Ohio state wildlife agency website is only a PDF map and PDF document for each wildlife area containing a few paragraphs of information and the following headings: Location and Description, History and Purpose, Fish and Wildlife, Watchable Wildlife and Unusual Features, Hunting, Trapping, and Fishing, Waterfowl Hunting – Special Regulations, Public Use Facilities, Additional Information, Turn in a Poacher (ODNRDOW, 2004).

The Tri-Valley Wildlife Area and the Crown City Wildlife Area is each had only a PDF map on the official OH DNR site.

The Friends of Magee Marsh Organization, Oak Harbor, OH, has a website at www.friendsofmageemarsh.org. The Friends of Magee Marsh website was, overall, a very well done website. Information about the website's author could not be located on the site, and the site was not complete in some areas, but the site did contain links to the following pages: Contact info, History, Events (this page contained out-of-date material), Membership, Birding, Merchandise, and Links.

Indiana

http://www.in.gov/dnr

Warren Gartner, Education Coordinator for the IN DNR – Fish and Wildlife Division, recommended:

Jasper-Pulaski Wildlife Area

Atterbury Wildlife Area

Hovey Lake Wildlife Area

Pigeon River Wildlife Area

Minnehaha Wildlife Area

Kankeekee Wildlife Area

Websites for wildlife areas in Indiana consisted of a single web page each (IDNR, 2004). Each page downloaded efficiently, contained a table of contents, and was easy to navigate through. Links to other useful websites were not provided, however, and neither the date of the last revision nor the author of the any of the pages was listed. Topics included on most of the websites included History and Funding, Fishing, Wildlife Watching, Additional Information, Rules and Regulations, Hunting, and Neighboring Lands.

Michigan

http://www.michigan.gov/dnr

Tina Stojakovich, Web editor for the Michigan DNR, recommended:

Au Train Basin State Wildlife Management Area

Rose Lake State Wildlife Area

Sanilac State Game Area

Tobico Marsh Game Unit

Pointe Mouillee State Game Area

Varata plains Wildlife Area

Michigan wildlife area websites consisted of a simple PDF map and a PDF document titled "Special Use and Hunting Rules" (MIDNR, 2006). The pages were geared to specific hunting user audiences and were difficult to read due to their small text. Each document had only contact information, location, and a link to a map of the property with state land rules. The map provided with each document was also created with hunters in mind. The map was not designed to show visitors where they could park, walk, bird watch, or find rest facilities.

Minnesota

http://www.dnr.state.mn.us/index.html

Mark LaBarbera, GIS Coordinator for the MN DNR Section of Wildlife, recommended:

Whitewater Wildlife Management Area

Beaches Lake Wildlife Management Area

Gordie Mikkelson Wildlife Management Area

Sand Prairie Wildlife Management Area

Dawn Flinn, Education Coordinator for the MN DNR, also suggested:

Carlos Avery Wildlife Management Area

The official Minnesota state wildlife agency website had a link to a single PDF document for each Wildlife Management Area that included only a brief description of the property, a cover type map, county, nearest town, acreage area, directions, recreational opportunities, and a graphic of which county in MN the property is located (MDNR, 2006).

Website Evaluation Results

This study evaluated current websites of state wildlife areas for both content and design using modified versions of the WWW CyberGuide Ratings for Content Evaluation and the WWW CyberGuide Ratings for Website Design. Between four and eight websites were evaluated from each of the five states included in this study. The website evaluation forms used for this study can be found in Appendices A and B.

For each website, information about the Site Title, Subject, Uniform Resource Location (URL), Audience, and Web Site Developer was recorded. For the website content evaluation, each website was given a score based on the number of "Yes" or "No" answers it received in certain categories. The categories were "First Look", "Information Providers", Information Currency", "Information Quality", and "Further Information". For the website design evaluation, each website was given a score based on the number of "Yes" or "No" answers it received in other categories: "Speed", "Home Page", "Ease of Navigation", "Use of Multimedia", "Browser Compatibility", "Content Presentation",

"Currency", and "Availability of Further Information". Tables 4.1 and 4.2 provide a summary of the scores each state received.

In regard to content, all states scored highly in the category of "First Look", which included criteria that the user of the website be able to quickly determine the basic content and intended audience of the website. Unfortunately, very few of the wildlife area websites identified the authors of their material. Because website content is increasingly being used as reference material for users, the credibility of the site must be able to be established. Without proper documentation of authorship, this credibility may fall into question. Luckily, all websites evaluated did display the organization sponsoring the site. Users could contact the site sponsor for author information if desired.

Sixty-eight percent of the websites evaluated listed the date of the last revision for the site. Based on these dates, it was determined that only thirty-six percent of the websites were being updated frequently (updates within 6 months of the day the website was evaluated).

The evaluation of the design of the websites revealed that all sites exhibited a speedy download time, (less than 3 seconds), which is very important in a society in which users become frustrated, and even abandon a website, after less than 5 seconds of wait time (Galbraith, 2003).

Other design evaluation result highlights include:

- 100% of the websites were easy to navigate, but none of the websites offered instructions for using the site if a visitor had trouble.
- Only 32% of the websites listed a copyright date or date the website was established.
- 28% of the websites contained out-of-date material.
- Only one website contained a "dead link" (a link that was no longer in operation)

One of the most surprising discoveries made during this study was the incredible variety of websites currently in use for state wildlife areas. Though all states displayed at least some information about their state wildlife areas on their official state wildlife agency websites, a majority of the information displayed lacked even half of the

recommended website content suggested by wildlife agency personnel and wildlife area users.

Table 4.1 below shows the types of content present on the wildlife area websites for each state. Included in this graph are websites maintained by official state department of natural resources as well as websites maintained by non-profit organizations, such as Friends groups. The number to the right of the slash in each column is the total number of websites evaluated for that state. The number to the left of the slash is the number of websites evaluated that displayed the content listed. For instance, eight wildlife area websites were evaluated for the State of Wisconsin. Of those eight, only six listed "Recreational Opportunities" on their sites. Images of the websites can be found in Appendices P through T.

Table 4.1: Comparison of Wildlife Area Website Content by State

Content	WI	IN	MN	MI	OH	Total
Map	7/8	6/6	6/6	5/5	3/4	93%
Rules	3/8	6/6	6/6	5/5	2/4	76%
Current Info.	3/8	0/6	0/6	0/5	1/4	14%
Contact Info.	5/8	6/6	0/6	2/5	4/4	59%
Flora/Fauna	5/8	6/6*	6/6	0/5	4/4	72%*
Habitat	3/8	0/6	6/6	1/5	2/4	41%
Rec. Opps.	6/8	6/6	6/6	1/5	3/4	76%
Facilities	3/8	0/6	0/6	0/5	0/4	10%
History	4/8	6/6	0/6	0/5	2/4	41%
Events	4/8	0/6	0/6	0/5	1/4	17%
Ed. Opps.	2/8	0/6	1/6**	1/5	0/4	7%**

* "Flora/Fauna" for IN consisted of a simple list of huntable mammal and bird species on the property. No natural history information was given.
** In MN, one wildlife area included in this study was designated at an Environmental Education Area.

Table 4.2 below shows a comparison of web design between the five states' wildlife area websites. While many sites displayed simple web pages and were easy to navigate, not a single website offered specially-designed sections that were just for children. Several of the websites listed contact information for their wildlife property, but no website displayed a comments areas where visitors could type comments directly into the website itself.

Table 4.2: Comparison of Wildlife Area Website Design by State

	WI	IN	MN	MI	OH	Total
Simple Pages	6/8	6/6	6/6	5/5	4/4	93%
Easy Navig.	7/8	6/6	6/6	5/5	4/4	97%
Photos	3/8	0/6	0/6	0/5	1/4	14%
No "Under Construction"	7/8	6/6	6/6	5/5	4/4	97%
Parts for Kids	0/8	0/6	0/6	0/5	0/4	0
Comments Section	0/8	0/6	0/6	0/5	0/4	0
Opps. for Involvement	5/8	0/6	0/6	0/5	1/4	21%

The following tables, Table 4.3 and Table 4.4, illustrate the results of a more detailed comparison of wildlife area websites in Ohio, Indiana, Michigan, Minnesota, and Wisconsin. Table 4.3 shows a comparison of content on websites for each state. while Table 4.4 shows a comparison of design features on websites for each state.

Table 4.3: Wildlife Area Website Content Evaluation

	WI n = 4	OH n = 4	IN n = 6	MI n = 5	MN n = 6	Total n = 25
1. First look						
A. User is able to quickly determine the basic content of the site.	3/4	4/4	6/6	5/5	6/6	96%
B. User is able to determine the intended audience of the site.	3/4	4/4	6/6	5/5	6/6	96%
2. Information Providers						
A. The author(s) of the material on the site is clearly identified.	1/4	1/4	0/6	0/5	0/6	8%
B. Information about the author(s) is available.	0/4	0/4	0/6	0/5	0/6	0%
C. According to the info given, author(s) appears qualified to present information on this topic.	0/4	0/4	0/6	0/5	0/6	0%
D. The sponsor of the site is clearly identified.	4/4	4/4	6/6	5/5	6/6	100%
E. A contact person or address is available so the user can ask questions or verify information.	4/4	4/4	6/6	0/5	6/6	80%
3. Information Currency						
A. Latest revision date is provided.	4/4	2/4	0/6	5/5	6/6	68%
B. Latest revision date is appropriate to material.	4/4	2/4	0/6	0/5	6/6	48%
C. Content is updated frequently.	3/4	0/4	0/6	0/5	6/6	36%
D. Links to other sites are current and working properly.	3/4	4/4	6/6	0/5	6/6	76%
4. Information Quality						
A. The purpose of this site is clear: business/commercial – entertainment – informational -news -personal page -persuasion	3/4	4/4	6/6	5/5	6/6	96%
B. The content appears to be complete (no "under construction" signs, for example)	3/4	3/4	6/6	5/5	6/6	92%
C. The content of this site is well organized.	3/4	4/4	6/6	5/5	6/6	96%
D. This site provides interactivity that increases its value.	3/4	4/4	0/6	0/5	6/6	52%
E. The information is consistent with similar information in other sources.	4/4	4/4	6/6	5/5	6/6	100%
F. Grammar and spelling are correct.	4/4	4/4	6/6	5/5	6/6	100%
5. Further Information						
A. There are links to other sites outside of the agency.	4/4	4/4	0/6	0/5	6/6	56%

Table 4.4: Wildlife Area Website Design Evaluation

	WI n = 4	OH n = 4	IN n = 6	MI n = 5	MN n = 6	Total n = 25
1. Speed						
A. The homepage downloads efficiently.	4/4	4/4	6/6	5/5	6/6	100%
2. Home page						
A. The homepage is attractive, has strong eye appeal.	3/4	4/4	0/6	0/5	6/6	52%
B. You can tell where you are immediately (clear title, description, image captions, etc.)	4/4	4/4	6/6	5/5	6/6	100%
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	3/4	4/4	6/6	5/5	6/6	96%
D. Site sponsor/provider is clearly identified.	4/4	4/4	6/6	5/5	6/6	100%
E. Information/method for contacting sponsor/provider is readily available.	4/4	4/4	6/6	5/5	6/6	100%
F. Copyright date or date site was established is easy to determine.	4/4	4/4	0/6	0/5	0/6	32%
3. Ease of navigation						
A. User is able to move around within the site with ease.	4/4	4/4	6/6	5/5	6/6	100%
B. Directions for using the site are provided if necessary.	0/4	0/4	0/6	0/5	0/6	0%
C. Directions are clear and easy to follow.	0/4	0/4	0/6	0/5	0/6	0%
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	3/4	4/4	6/6	5/5	6/6	96%
4. Use of multimedia						
A. Each graphic, audio file, video file, etc., serves a clear purpose.	3/4	4/4	6/6	5/5	6/6	96%
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	3/4	4/4	0/6	0/5	6/6	52%
5. Browser compatibility						
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	4/4	2/4	6/6	0/5	6/6	72%

Table 4.4: Wildlife Area Website Design Evaluation continued...

	WI n = 4	OH n = 4	IN n = 6	MI n = 5	MN n = 6	Total n = 25
5. Browser compatibility						
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	4/4	2/4	6/6	0/5	6/6	72%
6. Content Presentation						
A. The information is clearly labeled and organized.	4/4	4/4	6/6	5/5	6/6	100%
B. The same basic format is used consistently throughout site.	3/4	4/4	6/6	5/5	6/6	96%
C. Information is easy to find (no more than three clicks, for example).	4/4	4/4	6/6	5/5	6/6	100%
D Lists of links are well organized and easy to use.	3/4	4/4	6/6	5/5	6/6	96%
7. Currency						
A. The date of last revision is clearly labeled.	4/4	2/4	0/6	5/5	0/6	44%
B. Out-dated material has been removed.	3/4	3/4	6/6	0/5	6/6	72%
8. Availability of further information						
A. A working link is provided to a contact person or address for further information.	4/4	4/4	6/6	5/5	6/6	100%
B. Links to other useful Web sites are provided.	4/4	4/4	0/6	0/5	6/6	56%

Objective Two Results

Objective 2. Determine what information and resources state wildlife agency personnel and wildlife area managers believe is important to include for visitors in a website of a state wildlife area.

One-on-one semi-structured interviews were held with a total of 19 wildlife agency personnel and wildlife area managers from the five states of IN, MN, MI, OH, and WI. Their occupational titles are listed below:

- Wildlife Biologist (2)
- Senior Wildlife Biologist (2)
- Wildlife Educator and Naturalist
- Naturalist
- Wildlife Area Property Manager (4)
- Division of Wildlife District Manager (2)
- Wildlife Webmaster
- Wildlife Area Supervisor (2)
- Property Manager/Biologist
- Education Coordinator - Fish and Wildlife Division
- Web Editor
- Global Information Systems (GIS) Coordinator - Section of Wildlife

The individuals selected for inclusion in this study were chosen based on their familiarity with the needs and desires of users of state wildlife area properties. The researcher purposefully included individuals of different occupational backgrounds in order to generate opinions from a wide range of perspectives, from property managers' viewpoints to webmasters' viewpoints. This range of input could help to generate a better, more complete picture of the most important aspects of a state wildlife area website. Focusing solely on the recommendations by wildlife area managers, while ignoring opinions from web editors and naturalists, might generate a list of guidelines for state wildlife area websites that are lacking key elements important to a wider range

of user audiences. State wildlife area properties are managed and maintained by a large group of individuals with diverse skills and backgrounds. Biologists, naturalists, web editors, property managers, and site superintendents are all crucial to the success of the property, and should therefore all be included in the development of recommendations for what should go onto a website for a wildlife area property. Though the participants for this study were not chosen randomly, the diversity of their backgrounds offers a valuable broad-spectrum range of opinions for this study.

As seen in Table 4.5 below, when asked, "Who are your wildlife area property's main user audiences (i.e. hunters, Teachers, Birdwatchers, Trappers...)?", more than half of the respondents (58%) listed hunters as their main user audience. Other user audiences mentioned were Birdwatchers (47%), Trappers (32%), Fishers (26%), School Groups (21%), Hikers (16%), and Canoeists (11%) (see Table 4.5 below). Less reported were user audiences such as Wildlife Watchers, Photographers, Dog Trainers, Geocachers, Farmers, Workshop Participants Nature Center Users, Shooting Range Users, and Campers.

Table 4.5: State Wildlife Area User Audiences

Who are your wildlife area's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)? n = 19
• Hunters, (11)
• Birdwatchers (9)
• Trappers (6)
• Fishers (5)
• School Groups (4)
• Hikers (3)
• Canoeists (2)
• Wildlife watchers
• Photographers
• Dog trainers
• Geocachers
• Farmers
• Nature Center Users
• Workshop Participants
• Campers
• Shooting Range Users

When asked how wildlife area property users are made aware of resources available at the site, the most frequent answer given, at 53%, was websites. Other popular forms of information sharing were phone contacts (32%), brochures (32%), Maps (26%), Newspaper Articles (21%), Hunting and Fishing Guides (21%), Newsletters (11%) and Word-of-Mouth (11%) (See Table 4.6 below).

Table 4.6: Informational Resources Used by State Wildlife Areas

How are users of your property informed about the resources available on your property? n = 19
• Department web-site for the property (10)
• Phone (6)
• Brochure (6)
• Maps (5)
• Newspaper Articles (4)
• Hunting and Fishing Guides (4)
• Newsletter (2)
• Word-of-Mouth (2)
• Geocache web-site
• Local municipalities and their resources
• Conservation clubs,
• Dog training groups
• Email
• Checklist
• Television

As indicated in Table 4.7 below, a map, contact information, and "rules and regulations" were suggested as the most important aspects of a website for a wildlife area by wildlife agency personnel. Maps were mentioned by 37% of respondents, while contact information and rules and regulations were mentioned by 26% of respondents.

Table 4.7: State Wildlife Agency Personnel Recommendations

What do you believe are the most important aspects of a website for a wildlife area? n = 19
• Maps (7)
• Contact Information (5)
• Rules and Regulations (5)
• Habitat Types (3)

Table 4.7: State Wildlife Agency Personnel Recommendations continued...

• Access by water and location (3)
• Species Hunted on the Property (3)
• Recreational Opportunities (3)
• History (2)
• Wildlife Species on the Property (2)
• Facilities on the Property (2)
• Current Events (2)
• Viewing sites for Wildlife
• Ponds and Flowages Locations
• Area for Training Dogs
• Soils Types and Other Geological Characteristics
• Local Restaurant and Hotel Information
• What Fish are Biting
• Up-to-Date Reservation Information for Hunting (the wildlife area for which this would apply holds drawings to allow users to go hunting on certain parts of the property).
• Types of Management Being Done on the Property

Simplicity was a recurring theme in the answers to the question, "If you had a chance to give advice to the designers of a website for a state wildlife area, what advice would you give?" (See Table 4.8). Respondents suggested that wildlife area website designers make web pages simple to open, navigate, and update. User-friendliness was important, as well as consistency and good organization. Some interviewees mentioned the challenge of keeping the site updated. One respondent commented that the site "has to be very user friendly and easy to change/update on a daily basis", while another respondent stated, "Update. A lot of sites are not updated enough. Updating requires a lot; it is a massive, full-time job, and is expensive. The state website does not always have its stuff removed in a timely fashion. There must also be good two-way communication between IT (information technology) staff and biologists."

Table 4.8: Advice for Website Designers

If you had a chance to give advice to the designers of a website for a state wildlife area, what advice would you give?
• Make the web page simple to open. Have it user friendly and able to open with a dial up aspect in a few moments and not over ten minutes. That means a smaller amount of memory. If the Biologist is the person in the future for maintaining the site then a simple system designed for upkeep.
• Good photos
• Provide a detailed map that is in a format that is printable for the user.
• Has to be very user friendly and easy to change/update on a daily basis.
• I would say that they should first of all browse other sites to get some ideas of organization, ease of navigation and content as well as general design. Then I would suggest considering that this is an evolving project that will grow as new needs are identified. Also, have others look at your site and provide input. Over time, sites like this will need to change in order to keep them fresh, meet newly identified needs, and provide additional information.
• The home Page must look good, it entices readers to go further.
• Pay attention to the details pertaining to a wildlife area before entering data.
• Make the website user-friendly, nothing too technical. Biologists talk in technical terms but information for the public should be kept at a 6th grade reading level. the site must be attractive, and frequently changed and updated. The website should include waterfowl areas to focus on, the best time of year to see migrant waterfowl, and the times of year and types of species available to hunt on the property. Wildlife area websites should be linked to official websites for the state's Department of Natural Resources. Managers can't give it the attention it needs. The central office should have control.
• Be consistent, simple. If you can't find what you want, it is frustrating.
• A content management system should be employed to allow representatives from wildlife area properties to make updates to their property's website information. That information should then be sent through a central office for approval before being uploaded to the website. Control should be centralized. Templates should be used by everyone within the agency to maintain uniformity in design. Wildlife area managers would have to be forced or required to make updates to their property's website information on a regular basis. The key is control and efficiency.
• Keep information short and concise.
• User friendly, include maps, talk with managers seasonally for new information.
• Have accurate information about the property.
• Update. A lot of sites are not updated enough. Updating requires a lot of work. It is a massive job. A full-time job. It is very expensive. IT people are involved with the web and their communication with biologists was not good. There needs to be two-way conversation.

Table 4.8: Advice for Website Designers continued...
• Include as much information as possible on the website for user benefits as much as for the DNR. Make the site easy to use. Allow managers to have flexibility to change information.
• Talk to the people using the property.
• Navigation should be easy. The Minnesota DNR website is decent in that it allows visitors to navigate from a top-down approach.
• Maintain a logical website, do not require users to go through more than 3 tiers of information to find what they want. Update the site regularly, include seasonal information.
• Make it easy to find publicly accessible areas, and easy to find location information (directions, parking, disabled access), plus a summary of why the unit exists, plus good quality maps.
• Have printable maps with trails, roads, etc. Make it easy to use and visually pleasing. Have links to other resources. Give statistics on animal populations or studies done there on both game and nongame species, plants, etc. Explain how managed, for what, and why. I think there is a lot of confusion out there about what we do and how people can help. Include people on your design committee that don't just have a wildlife background.

A complete list of interview responses of wildlife agency personnel by state can be found in Appendices K though O.

Objective Three Results

Objective 3. Determine the needs and interests of user audiences and staff of the George W. Mead Wildlife Area (MWA) in regard to a website for the property (this information is to be used as a case study for what users and staff of a state wildlife area believe should go onto a website for such a property).

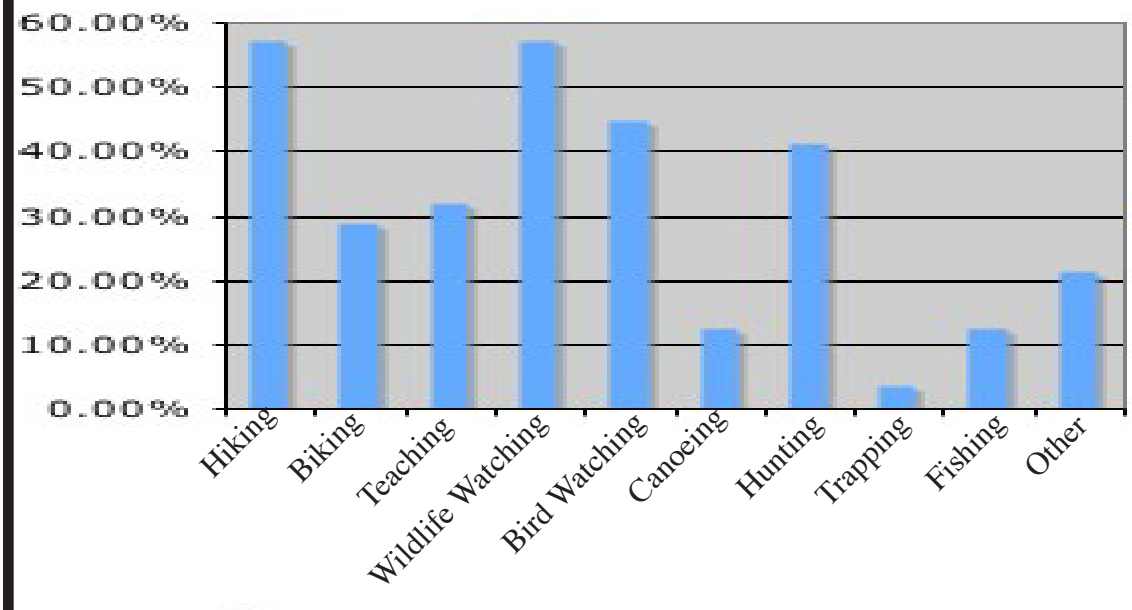
An online survey was set up to collect data from Mead Wildlife Area users from mid-April, 2005, until October 21, 2006. Fifty-six people submitted the survey within that time. Questions included in the online survey were mostly qualitative questions, such as "In what season(s) do you visit the MWA?" and, "If you had a chance to give advice to the designer of this website, what advice would you give?"

Table 4.9 illustrates the opinions of participants regarding the MWA property and participant feelings regarding a website for the MWA property. Seventy-six percent of participants felt that websites are good sources of information, while eighty-two percent of respondents either agreed or strongly agreed that the MWA needs a website. Eleven percent of respondents said that they strongly disagreed with the statement, "I would enjoy visiting the MWA more if I had a website to visit beforehand", which may be a reflection of the familiarity with the MWA exhibited by a majority of the participants in the survey (95% of respondents stated that they visited the MWA at least one time per year, while 64% stated that they visited the MWA at least three times per year). A complete list of the results of the data collected from the survey can be found in Appendix V.

Table 4.9: MWA Visitor Opinion					
n = 56	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
The MWA is an enjoyable place to visit	4%	0%	2%	29%	66%
Information about the MWA is easy for me to get	5%	14%	25%	38%	18%
Websites are good sources of information	7%	2%	14%	30%	46%
The MWA needs a website	7%	0%	11%	21%	61%
I would use a website for the MWA	4%	0%	11%	28.6%	57%
I would enjoy visiting the MWA more if I had a website to visit beforehand	11%	2%	21%	41%	25%

Figure 4.1 below illustrates the types of activities MWA visitors engage in during trips to the property. Although both consumptive and non-consumptive recreational activities are represented, the majority of online survey respondents participated in non-consumptive activities.

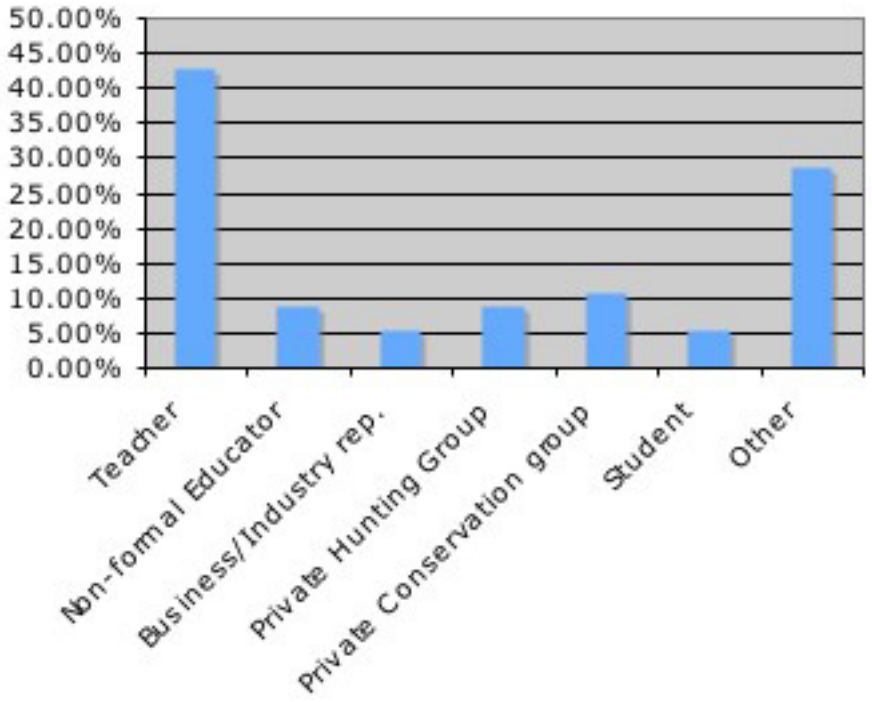
Figure 4.1: Activities Performed at the MWA



The online survey was available between late December, 2005, and October, 2006. During that time, fifty-six individuals responded, as response rate of between five and six responses per month, on average. It is interesting to note that about two weeks after the deadline to accept surveys, the number of surveys submitted spiked to roughly ten per week. This spike in responses coincided with the start of the gun deer season. It is possible that hunters interested in the MWA were checking the website more frequently during that time, and were filling out the survey on the website. The results of this survey might have reflected higher consumptive recreational use if the survey had been accepted beyond October 2006.

Though more than one answer could be selected for the occupation question asked in the online survey, it is clear that the majority of respondents are involved professionally in some type of educational field (see figure 4.2 below). Elementary, Middle, High, and University school teachers were all represented, as well as non-formal educators and students. The possibility that this occurrence might have skewed the results of the survey data is apparent, but this was a case study and was limited to those participants that volunteered to fill out the survey.

Figure 4.2: Occupation of MWA Visitor Online Survey Participants



Friends of Mead-McMillan Assoc., Inc., Focus Group

A focus group discussion involving ten members of the George W. Mead Wildlife Area's Friends of Mead-McMillan, Inc., was held at the George W. Mead Wildlife Area's Visitor Center on April 13, 2006. The complete list of the questions asked, and the responses of the participants, can be found in Appendix W.

Board member positions within the Friends of Mead-McMillan organization are voluntary. Members of this 501 (c) (3) non-profit organization had a few key characteristics in common. First, all but one member stated that he/she visits the MWA at least twelve times per year. During these visits, Friends board members participate in a wide variety of activities on the property, including hiking, biking, canoeing, bird watching, wildlife watching, hunting, berry-picking, dog training, snowshoeing, fishing, botany study, entomology study, and photography. It is clear that such a diverse mix of audience members have a valuable role to play in deciding what should be on a website for the MWA property.

When asked what they felt would be most helpful to them in a website for the MWA, the focus group participants gave the following answers:

- Calendar of events
- Maps
- Children's games, like a simple wildlife game
- Directions on how to get to the Mead
- Educational tours for children (who to contact and the kinds of programs that are offered)
- Basic rules and regulations

One of the drawbacks to including the Friends of Mead-McMillan board members as a major contributing advisory body to this project was that the Friends board members are already so familiar with the MWA property that a website might offer little new information to them. When asked, "Do you think that you would enjoy visiting the MWA more if you had a website to visit beforehand?" members stated, "We're more familiar

with the area, although the website would be good, but for someone away from here I think the website would be fantastic." and, "The website would enhance our visit to the Mead if there were information on the website we didn't know before."

The major advantage to including the Friends board members stems from precisely the same characteristic - as a body so familiar with the MWA, the Friends group offers the unique perspective of a user audience that may not have to rely on a website for basic information about the property. This is a wonderful perspective to have because it allows input to be obtained about what familiar user audiences might want to learn about the inner details of the property. It was the Friends group alone, for instance, that suggested a reminder be posted on the website to help hunters on the property remember their manners when traveling along the borders of the property. The MWA boundary is irregular and is surrounded by private land. Hunters are expected to be courteous and not trespass on private property.

MWA Staff Focus Group

A separate focus group discussion involving four members of the George W. Mead Wildlife Area staff, including the property manager, was held at the George W. Mead Wildlife Area's Visitor Center on January 24, 2006. The complete list of the questions asked, and the responses of the participants, can be found in Appendix W.

The four staff members of the MWA that participated in the focus group discussion listed hiking, hunting, fishing, wildlife watching, photography, and snowshoeing as the activities they enjoy on the property. Obviously, because of their occupations, all four members of the discussion visit the property regularly, and each has an intimate knowledge of the site. The top five most-reported answers to the questions, "What do you think should be included in a website to the MWA?" were:

Fairly detailed map that can be printed off

Restrictions and rules

Phenology calendar for when to see certain things

Types of habitats

Types of plants and animals found here

It is interesting to note that, in light of the financial challenges mentioned by earlier survey participants as a barrier to website development, the MWA staff chose to suggest that information about how the property is funded should be put on the website "so people will understand where our money comes from." The idea seemed to be that visitors needed to be reminded that their contributions to state-managed areas are important and that state funds pay for only a portion of the incredible services and facilities available on the property.

Teacher Surveys

One-on-one semi-structured interviews were conducted with 5 teachers who currently use the Mead Wildlife Area for educational purposes. Two teachers were included from the high school level, two from the middle school level, and one from the elementary school level. One former teacher who is currently the director of a school forest was also included because of his past involvement with the Mead. The complete list of the questions asked, and the responses of each of the participants, can be found in Appendix U.

Teachers of elementary through high school visit the MWA each year. Five of the six teachers surveyed for this project led at least one field trip to the MWA in the 2005-2006 school year. The one individual who did not take students on a field trip to the MWA was a former teacher who is now in charge of a school forest site within an hour drive of the MWA property. He chooses to recommend the MWA property to other teachers because, he said, the MWA offers a different habitat than the school forest site. The school forest contains a wetland and a forested area, while the MWA contains many different types of habitats, including wetlands with better water quality and different types of aquatic invertebrates for students to capture and study.

The activities that the teachers carried out during field trips to the MWA included brush cutting work, duck nest counting, heritage presentations, wetland, grassland, and forestry presentations, alternative energy tours (the visitor center on the property features several types of renewable energy systems), pond studies, and orienteering. The most frequently mentioned reason given for why teachers chose the MWA for their field trips

was the quality of teaching by the MWA staff. “The activities are very inquiry based and designed to generate curiosity”, said one teacher, while another stated, “The staff are very knowledgeable and make the activities fun for kids”, yet another said, “I know (the staff) are short on time. They always make us feel welcome and do a great job!” There is not currently an educator at the MWA. One teacher suggested that the property would benefit from such an individual, “I do feel a full time naturalist would be beneficial so the facilities would best be used. Also, some teachers aren’t comfortable leading a group and it would probably build a comfort zone if there were a naturalist leading.”

Teacher responses to the question of what information about the MWA they would find useful were extremely practical. Teachers wanted to know details of lesson and trip planning, costs per student, and logistical information, such as the location of rest room and meal facilities on the property. When asked, “What do you think should be on a website for the Mead?” the most common answer was “opportunities to learn”, followed by “Comment area for visitors to share their observations”, “A list of activities to choose from”, and, “Links to Project WILD, Project WET, and Project Learning Tree resources.”

Though they did suggest maps be put on a website for the MWA, the teachers did not mention “rules and regulations” as a priority for the website. To summarize his opinion, one teacher surveyed wrote, “I see three types of information, 1. For students, 2. For teaches, 3. About the Mead. My students would like to see pictures and information on the plants and animals there. (I just asked them in class). I would like to see the concepts covered by each activity so I can better prepare them for the trip.”

Several of the teachers said that they would like to see pictures on the website, especially of kids engaged in learning activities, but one teacher also wanted to ensure the safety of children by asking that the MWA website designer follow all confidentiality rules regarding the acquisition of parental permission before displaying children’s faces online. All of the teachers surveyed said that they would visit a website for the MWA, and three stated that the website would enhance their visit to the MWA, (the other three were not asked this question).

One teacher echoed a sentiment shared by the Friends of Mead-McMillan board member group in that the website should be geared toward audience members who are

not already very familiar with the MWA. He said, "Make (the website) appeal to the 90% of teachers who haven't been there and don't know how to teach Mead's lessons. Angle for the 90%, not the 10% who already bring their students to Mead. Make lesson plans available online." This feeling was similar to the Friends of Mead-McMillan group because the Friends acknowledged that their familiarity with the MWA might make the website less useful to them unless it offered novel information.

Objective Four Results

Objective 4. Generate a list of recommendations for the creation of a website for a state wildlife area based on the information collected from this study.

By combining website recommendations from participants in all audiences of this study, (MWA Users, MWA Staff, Friends of Mead-McMillan Board members, Teachers who use the MWA, and State Wildlife Agency Personnel), a comprehensive list of recommendations was generated. The list was divided into two sections: Content and Design. The list was compiled into a document to be distributed to wildlife agency personnel and others interested in creating a website for a wildlife area.

The final document, a handout titled "Recommendations for State Wildlife Area Websites", was created using input from MWA Users, MWA Staff, Friends of Mead-McMillan Board members, Teachers who use the MWA, and State Wildlife Agency Personnel, and was reviewed and approved by the four-member graduate committee of the researcher. The latest revision to the document was conducted on December 10, 2006.

The main messages of "Recommendations for State Wildlife Area Websites" are 1) that American culture is shaped, in large part, by our love of our fish and wildlife resources, and 2) that, because fewer Americans are traveling away from their homes to particiate in wildlife-related recreation, wildlife agency personnel must make efforts to communicate with their visitors to encourage use of wildlife properties. The statistics for wildlife-related recreation participation mentioned in Chapter Two were included in the booklet.

State wildlife areas must find ways to attract visitors to their property. Typical forms of advertisement for such properties were discussed in the booklet, including the relatively recent addition to the list: websites. The point is made in the booklet that more and more people are using the Internet as a main source of information and correspondence. If wildlife areas want to let visitors know about their property and the recreational opportunities they offer, they need to utilize this fast-growing form of

communication with their audiences.Websites can contain great volumes of information about a property in an easily-accessible form. Visitors can use their home computers to find information about wildlife properties prior to their visit. Such information, which could include hours of operation, maps, directions, and highlights of the property, may help the potential visitor to make the decision to visit the site.

The booklet states that many wildlife area properties do not have the staff or the time necessary to develop a quality website. Some states allocate budgets to central informational technology (IT) teams to oversee websites for all wildlife properties from a main office in the state. These IT personnel may or may not have wildlife backgrounds. Similarly, managers of wildlife areas may or may not have technology backgrounds. Communication and collaboration between IT personnel and wildlife area managers could benefit, therefore, from a list of recommendations for what users and managers of wildlife areas find most helpful in a wildlife area website. With these recommendations compiled into booklet form, it is the researcher's hope that wildlife area managers and state wildlife agency personnel will gain access and use the booklet to develop websites with minimal effort on the part of the wildlife property staff, and maximum gain for the users of the property.

The "Recommendations for State Wildlife Area Websites" booklet states that an effective website engages the site visitor, supplies enrichment materials, and provides access to information sources beyond the website itself (Barker, 1999). How the material on the website is displayed and its organization are critical (Dunlap 1998). Legibility, visibility, recognizability, and site/page layout are also key design factors that influence the overall quality of a website. Links are the "basic building blocks" of the Web (Dunlap, 1998). Links within web pages that connect to other web pages within or outside of the main site allow users to maneuver throughout the site or to other sites with the click of a mouse button. Website visitors that are unable to easily and quickly navigate through a website will not have a positive experience with that site (Panci, 2003).

The recommendations for state wildlife area websites are presented in the booklet in two forms: recommendations for website content, (information that should

be displayed on the website), and recommendations for website design, (how the information should be presented on the website). The content recommendations have been further broken down into tiers. The tiers correspond with the level of importance that should be placed on the recommendations. The first tier contains information that was highly recommended for all wildlife area websites. The second content tier contains information less-highly recommended, (information that would enhance a wildlife area website, but may not be feasible due to lack of time or resources).

Website Content

First Tier (these were items mentioned most often by the greatest number and types of individuals surveyed for this study, including both George W. Mead Wildlife Area case study participants as well as wildlife agency personnel from WI, OH. IN, MI, and MN).

- Good Map and Directions (be sure maps are printable and in a format universally-readable by any computer, such as Portable Data File (PDF) format)
- Rules and Regulations
- Contact Information (including telephone number, physical and mailing address, email address, and a name of the person to contact)
- Habitat Types
- Access by water and location
- Species Hunted on the Property
- Recreational Opportunities
- History
- Wildlife Species on the Property
- Facilities on the Property

Second Tier (these were suggestions made by fewer individuals, or by individuals representing a particular sub-group of the overall participant

population of this study, the main idea is that different wildlife areas may include different "Second Tier" themes on their websites, depending on the properties unique user audience interests).

- Calendar of Events
- Educational Opportunities
- Kid-Friendly Activities
- Types of Management Being Done on the Property
- Viewing sites for Wildlife
- Ponds and Flowages Locations
- Area for Training Dogs
- Soils Types and Other Geological Characteristics
- Local Restaurant and Hotel Information
- What Fish are Biting
- Up-to-Date Reservation Information for Hunting

Website Design

- Keep pages simple
- Make navigation easy
- Include good photographs (but be sure to keep the size of pictures small, such as 72 dots per square inch (dpi), because large graphics increase the download time of web pages)
- Design site to be easy to change/update (keep in mind that wildlife area managers and staff may not have informational technology backgrounds)
- Get ideas from other websites
- Determine the needs of your user groups (this could be as simple as having visitors sit down at a computer and give their opinion of your existing website)
- Do not say "under construction" (if a web page is not ready for display, simply leave it out until it is ready, do not create links to unfinished pages)
- Design parts of the site for kids

- Include a comments sections on your website
- List opportunities to get involved at your facility (such as workshops, volunteer opportunities, information about Friends groups, and special upcoming events)

Objective Five Results

Objective 5. Create a website for the George W. Mead Wildlife Area based on the recommendations collected from this project.

The website was originally designed by the researcher in October, 2005, in order to present a preliminary idea of what a website for the George W. Mead Wildlife Area might look like. Beginning in September, 2006, the website was completely revised and recreated by Mr. Nathan Giersdorf, an undergraduate Computer Information Systems student within the Mathematics and Computing Department at the University of Wisconsin – Stevens Point, under the direction of Dr. James Carter. That website is now under the direction of, and maintained by, the Friends of Mead-McMillan Association, Inc. The website incorporates recommendations from this study for both website content and design. It is a model on which other state wildlife areas may base their own websites. Figure 4.3 below illustrates the website that was originally developed by the researcher using intuition and early input from MWA staff members. The website also contained the online visitor survey used to gather information for further website recommendations.

Figure 4.3: Original Website Developed for the MWA in October, 2005.

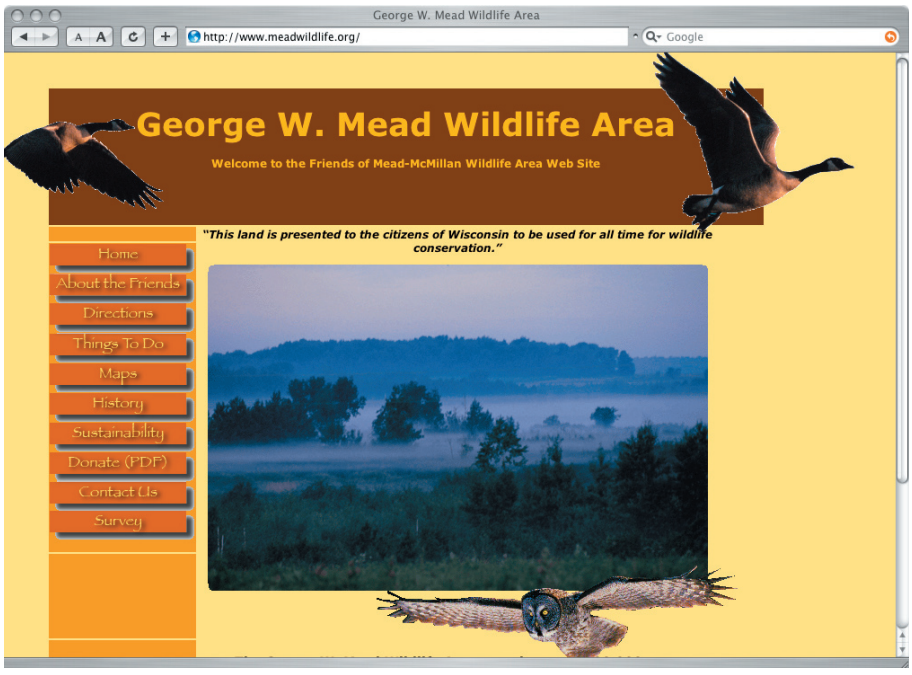
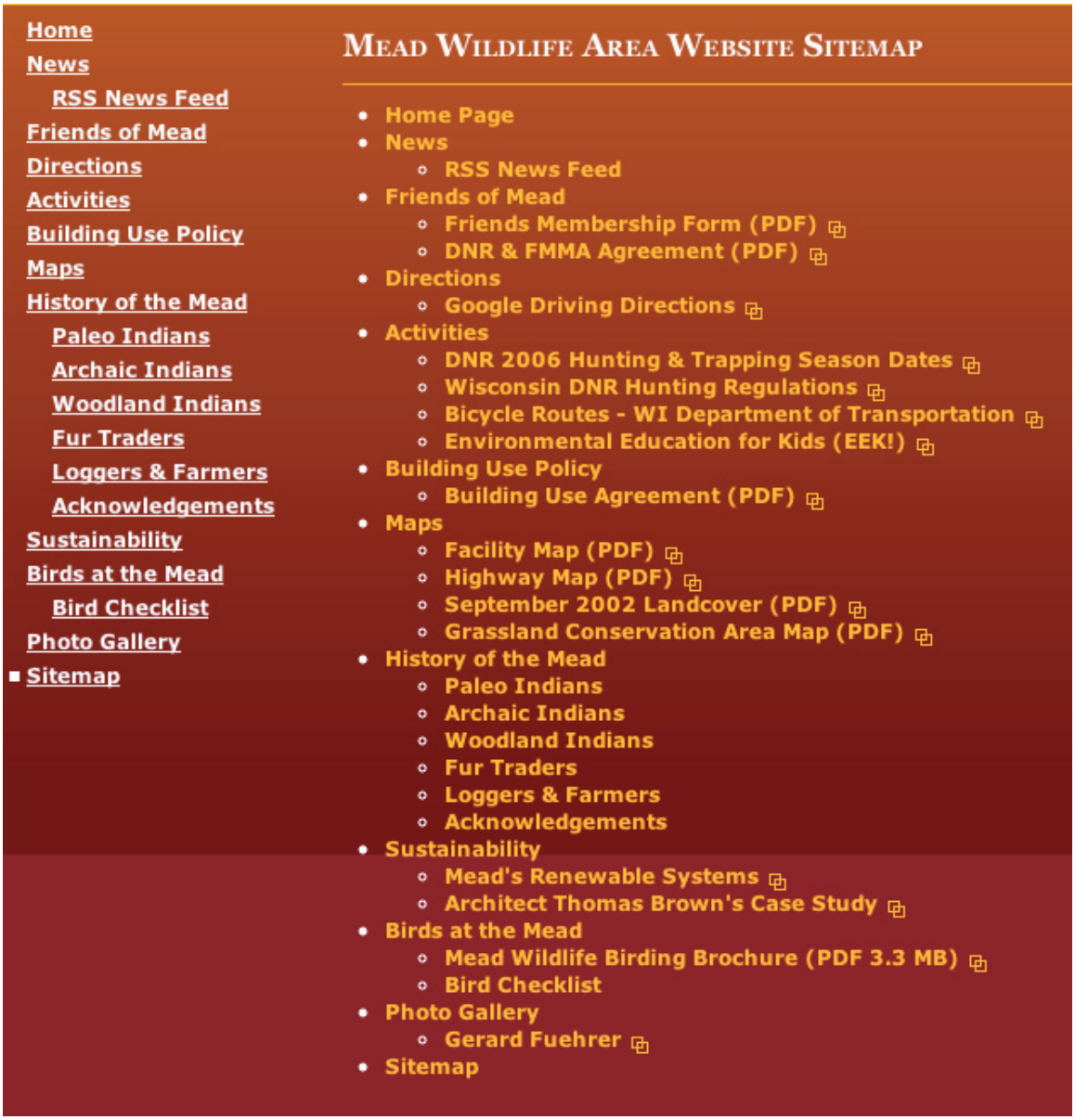


Figure 4.4 below illustrates the current version of the MWA website. The current version was developed by Mr. Nathan Giersdorf, a student at the University of Wisconsin - Stevens Point, using the content and design ideas recommended through this study.

Figure 4.4: Current MWA Website

Figure 4.5 below is a list of the web pages included in the current version of the MWA website. The web page topics reflect the recommendations of the MWA user audiences generated from this study.

Figure 4.5: Sitemap for www.MeadWildlife.org



http://www.meadwildlife.org/sitemap.html

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS, CONCLUSIONS, & IMPLICATIONS

Summary

Though websites may be becoming more and more popular as a means of information-sharing, the challenge of creating a successful webiste is also growing. The content and design possibilities of a website are infinate. From the interviews, surveys, and evaluations conducted during this study, it is apparent that the real key to a successful website for a state wildlife area is knowing the audience most likely to use the site. Visitor audiences of state wildlife areas engage is various activities, both consumptive, (i.e. hunting and trapping) and non-consumptive (i.e. hiking and birdwatching). Maps, rules, and regulations are important universally to these audiences, but each audience group also has unique interests, such as parts of the website created just for kids (suggested by teachers who use the George W. Mead Wildlife Area for field trips), and a listing of the property's mission statement, (mentioned by George W. Mead Wildlife Area staff members). Luckily, websites can easily be tailored to meet all of these interests and needs simply by adding additional web pages to the site.

The time, effort, technical skill, and money needed to create and maintain a website that meets the needs of a state wildlife area's visitor audiences is an even larger challenge to many state agenvies than deciding what information should go onto the site. State wildlife agency personnel surveyed during this study often mentioned lack of time and/or resources as barriers to website development within their agencies. When asked why his property did not have a current website, only PDF pages, one wildlife agency personnel member stated, "We manage multiple properties across several counties... we're asked to spend a great deal of time each year working on Chronic Wasting Disease in deer issues and (our) other core workload leaves little time for extras." Asked about advice he would give to designers of a wildlife area website, another individual employed by a state wildlife agency said, "Update. A lot of sites are not updated enough. Updating requires a lot; it is a massive, full-time job, and is expensive. The state website does not always have its stuff removed in a timely fashion."

One wildlife area site superintendent summed up his description of his interaction with his property's website by saying, "There is no formal procedure for communication between the Site Superintendent and the web technicians. I have no ready access to our site's website or its contents." The frustration with the current state of affairs in regard to wildlife area websites flowed throughout the feedback received during this study. There was enormous enthusiasm to make suggestions for improvements to existing websites, as well as bitter-sounding criticism of barriers to website creation for other properties. It is interesting to note that not a single person surveyed for this study was satisfied with the state wildlife area website for his/her property. Each and every respondant suggested several improvements that could be made to his/her propery's website. Perhaps this says less about the poor state of the websites as it does about the maleable nature of websites - web pages can be added, deleted, and changed, continuously and indefinately. What may be a popular website suggestion to one user audience today may not be popular with that same group next year. If that is the case, the site can be changed. The question is, How should it be changed? Hopefully, with this small collection of suggestions and recommendations by users and agency personnel, this question can begin to be answered.

The results of this study will not help state wildlife agency personnel find more time to keep their property websites current, but the recommendations from this project may help wildlife area website designers to save time when deciding what to put onto their website. In this fast-paced world, when we are challenged to wear as many hats as possible on the job, every minute saved is a minute that can be devoted to other necessary tasks.

Review of the Objectives and Associated Recommendations

Objective 1. Evaluate current state wildlife area websites in Indiana, Michigan, Minnesota, Ohio, and Wisconsin using existing website evaluation techniques.

Current state wildlife area websites for the states of Ohio, Indiana, Michigan, Minnesota, and Wisconsin exhibit a wide range of complexity. From the simple one-to-two-sided PDF sheets of Ohio, Michigan, and Minnesota, to the complex, multi-page sites for a few properties in Wisconsin, the sampling of state wildlife area websites evaluated for this study revealed the non-standardized nature of state wildlife area website development. According to the results of surveys conducted with state wildlife agency personnel, the reason for the differences in website development techniques for each state is a difference in the amount of funding, time and technical skill of wildlife agency staff. When asked why his property did not have its own website, one wildlife area manager stated, "No time to coordinate. We manage multiple properties across several counties. That, and the fact that we're asked to spend a great deal of time on chronic wasting disease in deer issues and other core workload leaves little time for extras." Another wildlife property manager stated, "Wildlife area websites should be linked to official websites for the state's Department of Natural Resources. Managers (of wildlife areas) are not trained in websites. Marketing needs to be involved. Managers can't give it the attention it needs. The central office should have control."

The question of who should have control of a website's development and maintenance is a complex one. Some individuals interviewed felt that managers should have more control over their properties' websites in order to allow for more timely updating of website material. Other individuals expressed concern that managers would not have the time or skills to keep a website updated.

Because websites require frequent updates in order to remain relevant and current, it is recommended that lines of communication are established between internet technology departments of state wildlife agencies and the site superintendents, managers, biologists, and naturalists of the wildlife areas. Further

support for this recommendation will be seen in the review of objective 5 in this chapter, which addresses the creation of a website for the George W. Mead Wildlife Area.

It is also recommended that websites not replace other forms of wildlife property media. When asked how wildlife area property users are made aware of resources available at the site, the most frequent answer given, at 53%, was websites, however, other popular forms of information sharing were phone contacts (32%), brochures (32%), Maps (26%), Newspaper Articles (21%), Hunting and Fishing Guides (21%), Newsletters (11%) and Word-of-Mouth (11%). The trend toward computer use is increasing in the United States, 39% of households in the U.S. did not have computers in 2003 (Cheeseman Day et al, 2005). For those wildlife area visitors that either do not have Internet access, or do not care to use the Internet to acquire information about wildlife areas, other forms of media remain important.

Objective 2. Determine what information and resources state wildlife agency personnel and wildlife area managers believe is important to include for visitors in a website of a state wildlife area.

Nineteen state wildlife agency personnel were interviewed from the states of Ohio, Indiana, Wisconsin, Michigan, and Minnesota to determine what they felt were the most important items to include on a website for a state wildlife area. The result of those interviews is the following list:

1) Maps
2) Contact Information
3) Rules and Regulations
4) Habitat Types
5) Access by water and location
6) Species Hunted on the Property
7) Recreational Opportunities
8) History
9) Wildlife Species on the Property
10) Facilities on the Property
11) Current Events
12) Viewing sites for Wildlife
13) Ponds and Flowages Locations
14) Area for Training Dogs
15) Soils Types and Other Geological Characteristics
16) Local Restaurant and Hotel Information
17) What Fish are Biting
18) Up-to-Date Reservation Information for Hunting
19) Types of Management Being Done on the Property

Though the individuals interviewed were from diverse professional backgrounds, geographic locations, and wildlife area property types, they recommended many of the same content items to be included in a website for a state wildlife area. This suggests that some wildlife area website content items are relatively universal in their desirability, such as maps, rules and regulations, and contact information. Other items, mentioned by only one or two of the nineteen interviewees, may be so specific in nature that only wildlife areas with certain unique features should consider them for inclusion on a website. **It is recommended that the most frequently-mentioned items in the above list, (numbers 1 through 10) be given top priority on a website for a state wildlife area.** The first ten items are ones that would not require frequent updates, and that would apply to all state wildlife areas. The remaining nine items could be reserved for wildlife area websites with the desire to implement them on a website. Not all wildlife areas have areas to train dogs, for instance, and many do not have the staff or time to update lists of current events in a timely manner. It is better to have a simple website without current events than a complex website with out-of-date information.

Objective 3. Determine the needs and interests of user audiences and staff of the George W. Mead Wildlife Area (MWA) in regard to a website for the property.

This study used online surveys to determine the needs and interests of user audiences for one state wildlife area in Wisconsin. Results suggest that MWA users chose to include information on that particular property's website that may not be relevant to other properties. In order for other state wildlife area managers to determine what should go onto a website for their own properties, the users of those particular properties should be consulted. **It is recommended that state wildlife areas survey their user audiences prior to creating a website for their properties.** Each wildlife area is unique. Though all state wildlife areas can benefit from certain website components, such as contact information and maps, visitors will likely want specific information about that property to be included on the property's website.

For properties with existing websites, it is recommended that visitors be allowed to navigate the website and fill out a questionnaire to ascertain their satisfaction with the content and design of the site. Questions from the online survey used for this study can be altered to create such a questionnaire.

This study included members of user audiences for the George W. Mead Wildlife Area only. A more inclusive study that incorporates users of other state wildlife areas could generate an idea of what state wildlife area users in general want to see on a state wildlife area website.

Objective 4. Generate a list of recommendations for the creation of a website for a state wildlife area based on the information collected from this study.

A list of recommendations for the creation of a website for a state wildlife area was generated based on the information collected in this study. The recommendations fell into two tiers. The tiers corresponded with the level of importance that should be placed on the recommendations. The first tier contained information that was highly recommended for all wildlife area websites by each of the groups surveyed. The second tier contained information less-highly recommended, (information that would enhance a wildlife area website, but may not be feasible due to lack of time or resources).

Website Content:

First Tier

- Good Map and Directions
- Rules and Regulations
- Contact Information
- Habitat Types
- Access by water and location
- Species Hunted on the Property
- Recreational Opportunities
- History
- Wildlife Species on the Property
- Facilities on the Property

Second Tier

- Calendar of Events
- Educational Opportunities
- Kid-Friendly Activities
- Types of Management Being Done on the Property
- Viewing Sites for Wildlife

- Ponds and Flowages Locations
- Area for Training Dogs
- Soils Types and Other Geological Characteristics
- Local Restaurant and Hotel Information
- What Fish are Biting
- Up-to-Date Reservation Information for Hunting

Though it is recommended that the first tier of website guidelines be given top priority, it is also recommended that wildlife area managers and agency personnel scrutinize the unique characteristics of the wildlife are itself before creating a list of what should go onto a particular wildlife area website. The guidelines set forth through this study are not set in stone. Because of the unique nature of each wildlife area, website should be tailored to meet the mission statement of the wildlife property, as well as the needs and interests of the wildlife area's user audiences.

A list of guidelines for website design was also generated using data from this study.

Website Design Recommendations:

- Keep pages simple
- Make navigation easy
- Include good photographs
- Design site to be easy to change/update
- Get ideas from other websites
- Determine the needs of your user groups
- Do not say "under construction"
- Design parts of the site for kids
- Include a comments sections on your website
- List opportunities to get involved at your facility

The recommendations in this list are meant to help novice web designers in the task of creating a website from scratch, and in maintaining an existing website. In most cases, internet technology departments with state wildlife agencies will take care of this

aspect of the web design process. For an example of how a collaboration between an internet technology department and a wildlife area property manager might work, Corey Cockerill, Wildlife Webmaster for the Ohio Department of Natural Resources, offered these words of advice during her interview for this study (the complete interview can be found in Appendix L):

> "A content management system should be employed to allow representatives from wildlife area properties to make updates to their property's website information. That information should then be sent through a central office for approval before being uploaded to the website. Control should be centralized. Templates should be used by everyone within the agency to maintain uniformity in design. Wildlife area managers would have to be forced or required to make updates to their property's website information on a regular basis. The key is control and efficiency."

It is recommended that centralized control over websites be maintained, and that managers should have access to easy methods of updating their properties' websites. Templates are also recommended in order to prevent web pages from appearing disjointed or out-of-place. A uniform feel to a website is what allows visitors to know that they are still on the same website, even though the content changes.

Objective 5. Create a website for the George W. Mead Wildlife Area based on the recommendations collected from this project.

Websites are ever-changing. In a way, websites are like living creatures than need attention and nourishment to thrive. The researcher created the first template website for the George W. Mead Wildlife Area in October of 2005. That website was simple and contained little information. Once results began flowing in about what MWA users and wildlife agency personnel wanted to see on a wildlife area website, the researcher realized that greater technical skill would be needed to create the type of website the study audiences wanted to see. For this reason, the researcher contacted a web design professional, Mr. Nathan Giersdorf, to re-create the MWA website using data from this study. The result was a wonderful website that was easy to navigate, worked with multiple browsers, was visually pleasing to look at, and contained the types of information the study participants said they wanted to see on a website for a state wildlife area. Because the website was for the MWA in particular, certain items were added to the website that were unique to the MWA, such as information about the Native American groups that lived in the area, and the story of how the property was acquired by the State of Wisconsin for use as a wildlife area.

It is recommended that a web design professional be consulted during the design and creation of a website for a state wildlife area. Mr. Giersdorf's help and expertise were invaluable during the process of creating the new MWA website. Mr. Giersdorf has also agreed to stay on as the web editor for the MWA website. **It is recommended that plans for website maintenance be included from the beginning of the website design process.** The MWA website will need routine frequent updates in order to remain current and useful to MWA visitors.

Summary of State Wildlife Area Website Recommendations

Website Development and Upkeep

Websites require frequent updates in order to remain relevant and current, therefore it is recommended that lines of communication be established between internet technology departments of state wildlife agencies and wildlife area site superintendents, managers, biologists, and naturalists.

It is also recommended that state wildlife areas survey their user audiences prior to creating a website for their properties.

Centralized control over websites should be maintained by the official state wildlife agency, and property managers should have access to easy methods of updating their properties' websites.

Templates are also recommended in order to prevent web pages from appearing disjointed or out-of-place.

A web design professional should be consulted during the design and creation of a website for a state wildlife area, and plans for website maintenance should be included from the beginning of the website design process.

Other Forms of Media

Websites should not replace other forms of wildlife property media. Many households in the United States still do not have a computer or access to the Internet. For those wildlife area visitors that either do not have Internet access, or do not care to use the Internet to acquire information about wildlife areas, other forms of media remain important.

Recommendations for State Wildlife Area Websites

The most frequently-mentioned items in the list of website recommendations should be given top priority on a website for a state wildlife area. These items are:

- Good Map and Directions
- Rules and Regulations

- Contact Information
- Habitat Types
- Access by water and location
- Species Hunted on the Property
- Recreational Opportunities
- History
- Wildlife Species on the Property
- Facilities on the Property

The remaining items could be reserved for wildlife area websites with the desire to implement them on a website. These remaining items are:

- Calendar of Events
- Educational Opportunities
- Kid-Friendly Activities
- Types of Management Being Done on the Property
- Viewing sites for Wildlife
- Ponds and Flowages Locations
- Area for Training Dogs
- Soils Types and Other Geological Characteristics
- Local Restaurant and Hotel Information
- What Fish are Biting
- Up-to-Date Reservation Information for Hunting

Though it is recommended that the first tier of website guidelines be given top priority, it is also recommended that wildlife area managers and agency personnel scrutinize the unique characteristics of the wildlife are itself before creating a list of what should go onto a particular wildlife area website.

Website Evaluation

For properties with existing websites, visitors should be allowed to navigate the website and fill out a questionnaire in order for the wildlife area staff to ascertain visitor satisfaction with the content and design of the site.

Conclusions and Implications

More and more people are using websites as their main source of information. Computer and Internet use is increasing in the United States and around the world. A quality website is now expected of most businesses and organizations.

Because of these trends and expectations, websites are more important now than ever before for organizations hoping to attract visitors, including state wildlife areas. Many state wildlife areas are managed by individuals with more knowledge of biology than technology. For this reason, a set of guidelines about what should go onto a website for a wildlife area can save time and effort for wildlife area managers.

Many wildlife area managers and agency personnel recognise the need for good websites for their properties. They also understand the expense, time commitment, and skill levels required to create and maintain a quality website. These recommendations will save wildlife agency personnel time and money by eliminating some of the front-end research work that must be completed before final decisions can be made about what should go onto a website for a state wildlife area.

In addition to the recommendations serving as a useful tool for wildlife agency personnel, they will also help smooth the way for state wildlife agency personnel to become familiar with the information wildlife area users are searching for. By understanding the needs and desires of their property's visitors, wildlife area staff can better focus on the areas of their facility or program that need work. If, for instance, a wildlife area manager were to read the recommendation that maps are important to visitors, then she might realize the need to update the maps of her property.

State wildlife agency staff are being pulled in many different directions at once, at all times, it seems. Any amount of time and expense saved over the course of a workday is time and money that can be put to other worthy uses. These guideline, by saving time and money, will help other programs get a bit more of the attention they need, wile making at least one part of a state wildlife agency personnel member's job a little easier.

REFERENCES

Barker, B.O. (1999). A Visual Literacy Tool which Engaged Learning for Teachers and Students. Paper presented at the Annual National Conference on creating the Quality School (8th, Memphis, TN, March 26-28, 1999).

Buchholz, J., Gross, M., and Zimmerman, R. (2005). The George W. Mead Interpretive Master Plan. University of Wisconsin, Stevens Point, Wisconsin.

Cheeseman Day, J., A. Janus, and J. Davis. (2005). Computer and Internet Use in the United States: 2003 U.S. Department of Commerce Economics and Statistics Administration, U.S. Census Bureau.

Curtis, J.T. (1959). The Vegetation of Wisconsin. Madison, Wisconsin: University of Wisconsin Press.

Dunlap, J.C. (1998). The 3 Ls of Introductory Web-based Instructional Design: Linking, Layout, and Learner Support. In: WebNet 98 World Conference of the WWW, Internet, and Intranet Proceedings (3rd, Orlando, FL, November 7-12, 1998).

Environmental Education and Training Partnership (EETAP). (1999). Evaluating the Content of Websites – Guidelines for Educators. The Ohio State University Extension. Columbus, Ohio

Galbraith, S. (2003) Quantifying the relationship between website download time and abandonment by users. http://www.red-gate.com. Accessed June 6, 2006.

Indiana Department of Natural Resources (IDNR). (2004). http://www.in.gov/dnr/fishwild/publications/maps.htm Accessed November 4, 2006.

Jones, E.O. (1989). An interpretive and educational master plan for the George W. Mead Wildlife Area. M.S. Thesis. College of Natural Resources, University of Wisconsin, Stevens Point.

Joseph, L.C., and L. Resch (2006). Cyberbee. http://www.cyberbee.com. Last updated August 3, 2006.

Krueger, R.A. (1988). Focus Groups: A Practical Guide for Applied Research. Newbury Park, CA: Sage Publications, Inc.

Leedy, P.D., Ormrod, J.E. (2005). Practical Research Planning and Design (8th ed.). Columbus, Ohio: Merrill Prentice Hall.

Levi, D.; Kocher, S. (1999). Virtual Nature – The Future Effects of Information Technology on Our Relationship to Nature. Environment and Behavior. 31(2). 203-224.

Meier, Tom. George W. Mead Wildlife Area. Personal Communication. June 4, 2006.

Michigan Department of Natural Resources (MIDNR). (2006). http://www.michigan.gov/dnr.

Minnesota Department of Natural Resources (MDNR). (2006). http://www.dnr.state.mn.us/wmas/description.html Accessed November 4, 2006.

Monash University. (2005). web@education.monash.edu.au Website Do's and Don'ts – an Example Guide. http://insite.education.monash.edu.au/resources/web/dosDonts.shtml Last revised 20 October 2005.

Ohio Department of Natural Resources - Division of Wildlife. (ODNRDOW). (2004). Wildlife Division Fact Sheet Columbus, Ohio. http://www.dnr.ohio.gov/factsheets/wildlife.htm Last updated 12/7/04 Accessed November 4, 2006.

Pan, A.C. (1998). Optimize the web for better Instruction. SITE 98: Society for Information Technology & Teacher Education International Conference Proceedings (9th, Washington, D.C., March 10-14, 1998).

Panci, J. (2003). Developing a School Forest Resources Website for Wisconsin Educators. M.S. Thesis. College of Natural Resources, University of Wisconsin, Stevens Point.

Pielou, E.C. (1991). After the Ice Age : The Return of Life to Glaciated North America. University Of Chicago Press.

Schwalbach, R.P. (2001). Renewing the vision for education and interpretation at the George W. Mead Wildlife Area. M.S. Thesis. College of Natural Resources, University of Wisconsin, Stevens Point.

Summit Collaborative. (2003). info@summitcollaborative.com. Conducting Online Surveys. http://www.dotorgmedia.org/Publications/Publications.cfm?ID=79&c=18.

U.S. Department of the Interior (USDOI), Fish and Wildlife Service and U.S. Department of Commerce, U.S. Census Bureau. 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. (2002).

Williams, R. (2004). The Non-Designer's Design Book. Berkeley, California: Peachpit Press.

Williams, R., and Tollett, J. (2006). The Non-Designer's Web Book. Berkeley, California: Peachpit Press.

Wisconsin Department of Natural Resources (WDNR). (2004). Park, Wildlife Area, State Forest... What's the Difference? Madison, Wisconsin. http://www.dnr.state.wi.us/org/land/wildlife/reclands/difference.htm. Accessed October 18, 2006.

Wisconsin Department of Natural Resources (WIDNR). (2003). Statutory Designation. Madison, Wisconsin. http://72.14.203.104/search?q=cache:3NpCUYuuOx4J:www.dnr.state.wi.us/master_planning/Powell/FactSheets/Overview.html+%22a+wildlife+area+is%22&hl=en&gl=us&ct=clnk&cd=10 Accessed October 18, 2006.

Wisconsin Department of Natural Resources (WIDNR). (2006). http://www.dnr.state.wi.us/ Accessed October 18, 2006.

Appendix A

Wildlife Area Web Site Design Evaluation

Wildlife Area Web Site Design Evaluation

Site Title: _____ Subject: _____ URL:_____

_____ Audience:_____ Web

Site Developer: _____

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	Y	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	Y	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	Y	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	Y	N
D. Site sponsor/provider is clearly identified.	Y	N
E. Information/method for contacting sponsor/provider is readily available.	Y	N
F. Copyright date or date site was established is easy to determine.	Y	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	Y	N
B. Directions for using the site are provided if necessary.	Y	N
C. Directions are clear and easy to follow.	Y	N
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	Y	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	Y	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	Y	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	Y	N
6. Content Presentation		
A. The information is clearly labeled and organized.	Y	N
B. The same basic format is used consistently throughout site.	Y	N
C. Information is easy to find (no more than three clicks, for example).	Y	N
D Lists of links are well organized and easy to use.	Y	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	Y	N
B. Out-dated material has been removed.	Y	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	Y	N
B. Links to other useful Web sites are provided.	Y	N
Totals		

Comments:

Appendix B

Wildlife Area Web Site Content Evaluation

Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	Y	N
B. User is able to determine the intended audience of the site.	Y	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	N
B. Information about the author(s) is available.	Y	N
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	N
D. The sponsor of the site is clearly identified.	Y	N
E. A contact person or address is available so the user can ask questions or verify information.	Y	N
3. Information Currency		
A. Latest revision date is provided. Date last revised_____	Y	N
B. Latest revision date is appropriate to material.	Y	N
C. Content is updated frequently.	Y	N
D. Links to other sites are current and working properly.	Y	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news -personal page -persuasion	Y	N
B. The content appears to be complete (no "under construction" signs, for example)	Y	N
C. The content of this site is well organized.	Y	N
D. This site provides interactivity that increases its value.	Y	N
E. The information is consistent with similar information in other sources.	Y	N
F. Grammar and spelling are correct.	Y	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	N
Totals		

Site Title: _____ Subject: _____

URL: _____

Audience: _____ Web Site Developer:_____

Purpose for exploring this site:_____

Notes on possible uses of this site and URLs for useful linked sites: _____

To determine the worth of the Web site you are considering, evaluate its content according to the criteria described below. Circle "Y" for "Yes", "N" for "No". Based on the total

Comments:

Link Category	Uniform Resource Locator (URL)	Comments
About Us		
Contact info.		
History		
Events		
Things to Do		
Map		
Directions		

Appendix C

Informed Consent to Participate in Human Subject Research

Informed Consent to Participate in Human Subject Research

Jessica Huxmann, a graduate student at the University of Wisconsin – Stevens Point, and Dr. Dennis Yockers, Associate Professor of EE with the Wisconsin Center for EE at UWSP, are conducting a study on what users of state wildlife areas would like to see included in a website for the wildlife areas. We would greatly appreciate your participation in this study.

Wildlife areas are wonderful outdoor destinations for people of many interests. Web sites could provide users of wildlife areas with in-depth information about the location. Your input as to what you feel should be included in such a website will help make it a useful tool for yourself and others who visit state wildlife areas.

As part of this study, we would like to obtain your ideas in at least one of three ways. We will be sending out an on-line survey to those who wish to participate electronically; we will be interviewing users of one specific state wildlife, (the George W. Mead Wildlife Area); and we will be holding several focus group discussions. With your permission, interviews and focus group discussions will be video/audio-recorded and transcribed at a later date.

This study will pose no risk to you other than the inconvenience of the extra time required for you to answer the questions.

For the purpose of this study, your interview or focus group tape and transcript will be lettered so that your name will not appear anywhere. If you chose to fill out a survey, either electronically or on paper, you will have the option of disclosing personal information. Regardless of whether or not you decide to include personal information on your survey form, your survey will be lettered so that your personal information will not appear anywhere. No information about you will be released to any one other than yourself. Publication or presentation of the study data would in no way identify you as a participant. Only Ms. Huxmann will have access to the audiotapes/videotapes, surveys, and the names associated with the letters. This information will be kept in a locked file cabinet at the University and destroyed at the end of the study. In the case of on-line surveys, all electronic information will be kept in a secure electronic database to which only Ms. Huxmann has access, and will be deleted at the end of the study.

If you wish to withdraw from the study at any time, you may do so. Any information that you provided up to that point would be destroyed.

Once the study is complete, you may receive results of the study. If you would like these results, or if you have any questions, please contact:

Jessica Huxmann
College of Natural Resources
University of Wisconsin – Stevens Point
Stevens Point, WI 54481
(715) 345-0493
jhuxm121@uwsp.edu

Dr. Dennis Yockers
WCEE CNR 110E
UWSP
Stevens Point, WI 54481
(715) 346-4943
dyockers@uwsp.edu

If you have any complaints about your treatment as a participant in this study, please call or write:

Institutional Review Board for the Protection of Human Subjects
Dr. Sandra Holmes, Chair
Department of Psychology
University of Wisconsin – Stevens Point
Stevens Point, WI 54481
(715) 346-3952
sholmes@uwsp.edu

I have received a complete explanation of the study and I agree to participate.

Name _____ Date _____
(Signature of subject)

This research has been approved by the Institutional Review Board for the Protection of Human Subjects.

Signature	Date

Appendix D

Interview Questions for Teachers

Interview Questions for Teachers

Interviewer:_____Date:_____

Interview Method (Circle One): Phone In-Person

Location:_____Start Time:_____End Time:_____

Person Interviewed:_____

Phone: _____E-Mail:_____

School:_____

Grade(s) Taught: _____

1. How often do you visit the Mead site with students? How many years have you been leading trips to the Mead?
2. What activities do you do with students at the Mead?
3. What is it about the Mead that encourages you to choose it over other locations for field trips?
4. What information about the Mead would be useful to you as a teacher?
5. What do you think should be on a web site for the Mead?
6. Of the things listed above, what do you perceive as being the most important for this website?
7. Would you visit a web site for the Mead?
8. Do you believe that having a web site to visit would enhance your experience at the Mead?
9. What advice do you have for the designer of this website?
10. Would you be interested in receiving information from this study when it is completed?
11. Is there anything that you would like to add?

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix E

Online Survey Pros and Cons

ONLINE SURVEY PROS AND CONS

Online Surveys: Pros

- Online surveys are often easily and quickly assembled
- They are usually low cost or free
- Distribution can be very broad and quick (Assuming you have an up-to-date list of email addresses)
- Online surveys can produce high response rates since there is a direct link to your survey in your email announcement
- Survey tabulation is provided within minutes by the online survey tool
- Data is captured electronically so no manual data entry is necessary

Online Surveys: Cons

- .Survey questions are limited in the amount of information they can collect. Once the survey questions have been devised, the survey-taker is limited to answering those specific questions. Unlike focus groups, surveys provide no room for brain-storming ideas
- The survey sample may not be big enough or not accurate due to poor quality of email distribution list.
- Most online survey tools are limited in how their appearance can be customized
- You may need a high-speed Internet connection to efficiently develop your online survey and work with the data
- Some people really don't like them — they're skittish about providing information online

Online Survey Considerations (Summit, 2003):

- How will you get people to participate in the online survey? Should inducements like prizes be offered?
- As with any type of survey, it takes practice to learn how to set up questions to get the right kinds of results. You really need to think through the end results and what you are going to do with them.
- You need to streamline and focus your questions so that they are as few in number as

possible. If your survey is too long, people won't finish it.

- Deeper analysis of survey data is labor intensive, and requires certain skills, but necessary in some cases to get the full story from your data.
- How can you take advantage of your relationships to encourage participation in an online survey?
- How do you create a feedback loop between asking people to take a survey and then sharing the survey results with them?

Summit Collaborative. (2003). info@summitcollaborative.com. Conducting Online Surveys. http://www.dotorgmedia.org/Publications/Publications.cfm?ID=79&c=18

Appendix F

Website Do's and Don'ts - An Example Guide

WEB SITE DO'S AND DON'TS – AN EXAMPLE GUIDE

These guidelines were created for web site design by Monash University, Australia (Monash, 2005).

Do:

- Do know your audience
- Do write about the subject
- Do use short sentences
- Do use correct spelling
- Do use a descriptive title
- Do use the first screen
- Do use small pages
- Do comment on your links
- Do updates and show it
- Do ask for feedback
- Define your organization's goals

Don't:

- Embedded Music
- Linking to Images (or other files) on Another Server
- Centered Text
- Default Font Face
- Random Capitalization or full capitalization
- Screen Resolutions, Monitor Sizes, Etc.
- Excessive Animations or Special Effects
- Reliance on the "Back" Button for Navigation
- Missing ALT Tags on Images
- Numerical "Hit" Counter
- Clichés and Stereotypes
- Pointless Splash Pages

- Teeny-weeny, low-contrast font face
- Don’t use meaningless words
- Don’t use jargon
- Don’t split topics
- Don't show pages under construction

Monash University. web@education.monash.edu.au Web site Do’s and Don’ts – an Example Guide

http://insite.education.monash.edu.au/resources/web/dosDonts.shtml Last revised 20 October 2005.

Appendix G

Interview Questions for State Wildlife Agency Personnel

Interview Questions for State Wildlife Agency Personnel

Interviewer:_____Date:_____

Interview Method (Circle One): Phone In-Person

Interview Location:_____

Start Time:_____End Time:_____

Person Interviewed:_____

State/Agency: _____

1. What is your position within your state's agency?
2. How long has your agency web site been in existence?
3. Who maintains or updates your agency web site? Who decides what should go on a web site for your agency?
4. How has your agency web site evolved since it was first developed to meet the needs of your users? What specific requirements must be met for your agency's web site?
5. How important is your web site to your agency? Are their studies on this?
6. Do you believe that your agency's web site is successful?
7. What do think are the most important aspects of a web site?
8. How are users of your state's wildlife area properties informed about the resources available at those sites?
9. Do all of the wildlife area properties in your state have web sites?
10. Who maintains or updates the state wildlife area web sites for each property?
    How much flexibility do individual wildlife area managers have regarding their web sites?
11. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?
12. Would you be interested in receiving information from this study when it is complete?
13. Is there anything that you would like to add?

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix H

Interview Questions for Wildlife Area Managers

Interview Questions for Wildlife Area Managers

Interviewer:_____Date:_____

Interview Method (Circle One): Phone In-Person

Interview Location:_____

Start Time:_____End Time:_____

Person Interviewed:_____

State/Agency: _____

Wildlife Area: _____

1. What is your position within your state's agency?
2. How are users of your wildlife property informed about the resources available at your site?
3. Does the property have a website? (If the interviewee answers "No" to this question, the interviewer will skip to question 8).
4. Does your property have a Friends site or other "external" web site?
5. How long has your website been in existence?
6. Who provides financial support for your website?
7. Who maintains or updates your website?
8. How has your website evolved since it was first developed to meet the needs of your users?
9. Have you or your agency conducted research to evaluate the success of your website that you are aware of?

   If yes, how can I obtain access to hat research/data?

10. Are you aware of any other research about websites being done by other agencies?
11. Do you personally believe that your wildlife area's website is successful?
12. What do you perceive as being the most important aspects of a website?
13. If you had a chance to give advice to the designers of this website, what advice would you give?
14. Would you be interested in receiving information from this study when it is completed?
15. Is there anything that you would like to add?

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix I

Focus Group Guide

Focus Group Guide for the Development of a Website for the George W. Mead Wildlife Area

Group #: _____

Interviewer: _____

Participant Identification Letters: _____

Location: _____

Date: _____

Start Time: _____ **End Time:**_____

Briefing/Introductory Statements

Good day, and thank you for coming. Jessica Huxmann, a graduate student at the University of Wisconsin – Stevens Point, and Dr. Dennis Yockers, Associate Professor of EE with the Wisconsin Center for EE at UWSP, are proposing to create a website for the MWA. You have been chosen to participate in this study. Your answers are very valuable to us and will help us to create a website for the MWA that will be useful to you and other users of the MWA.

Your participation is voluntary but we truly hope that you will help us with this project. Even if you have not been to the MWA recently it is important to answer relevant questions because your input is important to us. You are not required to answer any question that you do not wish to answer. There are no risks to you from participating in this study. Today's discussion should take about one hour. If you have questions about your rights concerning the study, please feel free to contact the UWSP Institutional Review Board for the Protection of Human Subjects, Department of Psychology, University of Wisconsin – Stevens Point, Stevens Point, WI 54481.

We urge you to respond openly and honestly, there are no wrong answers. All of your answers are important to us. This is a wonderful opportunity for you to influence the design and content of the new MWA website, which may benefit yourself and others.

We would like to record your discussion so that we may go back and hear precisely what was said. Your conversation will be lettered so that your name will not appear anywhere. We will not release information that could identify individuals who participate in the survey. All responses will be confidential. Do we have your permission to record this discussion?

Questioning Route

A. Opening Question:
    1. "We will go around the room and I'd like each of tell us your name and your favorite hobbies."
B. Introductory Question:
    1. "What is the first thing that comes to your mind when you hear the phrase "George W. Mead Wildlife Area"?"
    2. "How many times a year do you visit the MWA?"
    3. "Why do you visit the MWA as often, or as seldom, as you do?"
    4. "In what season(s) do you visit the MWA?"
    5. "What activities are you most interested in doing while visiting the MWA?"
C. Transition Questions:
    1. "Think back to the last time you visited the MWA. What did you observe there that you wanted to learn more about?"
    2. "Picture your favorite website. What is it about that website that makes it useful to you?"

D. Key Questions:
    1. "What do you think should be included in a website to the MWA? Why?"
    2. "What do you think should not be included in a website to the MWA? Why not?"
    3. "What would you find most helpful in a website to the MWA?"
    4. "Do you think that you would enjoy visiting the MWA more if you had a website to visit beforehand?"

E. Ending Questions:
    1. "If you had a chance to give advice to the designer of this website, what advice would you give?"
    2. (Facilitator will read paraphrased notes taken during the discussion to the group) "How well does that sum up what was said here today?"
    3. "Is there anything that we left out? Have we discussed everything that we should have discussed?"
    4. "This is one of a series of similar meetings. Do you have any advice for how we can make improvements?"

Appendix J

Online Questionnaire

George W. Mead Wildlife Area User Questionnaire

University of Wisconsin - Stevens Point
College of Natural Resources
Stevens Point, WI 54481

The purpose of this questionnaire is to determine what users of the George W. Mead Wildlife Area, (MWA), would most like to see on this website for the MWA. We thank you for sharing your ideas with us. We will use this information to help create a website that will be as useful as possible to visitors of the MWA. Even if you have never visited the MWA, your ideas are very important to us. Please complete this survey and hit the "Submit Survey" button. Thank you!

George W. Mead Wildlife Area

1. How many times a year do you visit the MWA? Please click on the answer of your choice.
0 times per year
1-2 times per year
3-4 times per year
5-10 times per year
11 or more times per year

2. In what season(s) do you visit the MWA? Please select all that apply.
Spring
Summer
Fall
Winter

3. What activities do you do while visiting the MWA? Please select all that apply.
Hiking
Biking
Teaching
Wildlife watching
Bird watching
Canoeing
Hunting
Trapping
Fishing
Other:

If you selected 'Other' in the question above, please specify:

4. Think back to the last time you visited the MWA. What did you observe there that you wanted to learn more about? Please select all that apply.
Cultural history of the area
Controlled burning
Animals
Plants
Geological history of the area
Maps of the area
Recreational opportunities available at the MWA

Schedules for special events taking place at the MWA
Wildlife food plots
Water level management
Invasive species control
Habitat restoration
Other

If you selected “Other” in the question above, please specify:

Website for the MWA

5. Please rate your level of agreement with each of the following statements:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
The MWA is an enjoyable place to visit	1	2	3	4	5
Information about the MWA is easy for me to get	1	2	3	4	5
Websites are good sources of information	1	2	3	4	5
The MWA needs a website	1	2	3	4	5
I would use a website for the MWA	1	2	3	4	5
I would enjoy visiting the MWA more if I had a website to visit beforehand	1	2	3	4	5

6. What do you think should be included in a website for the MWA?

7. Of the above, what would you find most helpful to you in a website for the MWA?

8. If you had a chance to give advice to the designer of a website for the MWA, what advice would you give?

9. If you would like to comment further on a website for the MWA, or explain your responses, please do so here:

General Information

10. What is your gender?
Female
Male

11. How would you describe yourself?
American Indian
Asian
Black or African American
Hispanic or Latino
White
Multi-racial
Other:

12. What is your occupation or affiliation? (You may check more than one)
Elementary School Teacher
Middle School Teacher
High School Teacher
College/University Educator
Non-formal Educator
Business/Industry Representative
Extension Service
State or Federal Wildlife Agency
State or Federal Agency other than Wildlife
School Administrator
Private Conservation Group
Private Hunting Group
Retired
Other:

13. In what state do you live?

14. In what city or town do you live?

Please use the box below to make any additional comments concerning a website for the MWA:

Thank you very much for your thoughtful responses.

Survey Powered By SolTerra Communications, LLC

Appendix K

Wisconsin Wildlife Agency Personnel Interviews

Appendix K: Wisconsin Wildlife Personnel Interviews

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 9/1/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Richard Nikolai

State/Agency: Wisconsin Department of Natural Resources

Wildlife Area: Brillion Wildlife Area

1. What is your official position within the Wisconsin DNR?

   I am the Wildlife Biologist out of Appleton.

2. Who are Brillion's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)?

   Brillion WA's main users are hunters, birdwatchers, photographers, dog trainers, geocachers, farmers, trappers and the Brillion Nature Center (BNC) users. The BNC users are a wide variety including schools, Non-hunters wanting to experience nature, trail walkers or hikers, birdwatchers, sometimes workshops (prescribe burning, prairie restoration, forestry aspects-harvesting, marking & maintaining a healthy forest), maple syruping, handicap accessible trails for all users, Halloween get together for families on the forest/prairie trail System using nature based aspects, and adults with a wide variety of backgrounds other than hunting.

3. How are users of Brillion informed about the resources available on your property?

   Users are informed through the newspaper primarily and other media, newsletter from the BNC, media sources asking for information, annual hay auction, Geocache web-site, local municipalities and their resources, Conservation clubs, Dog training groups, and now the Department web-site for the property.

4. Does your property have a web site (such as a Friend's site)? If not, why not?

   The BNC has a web-site and they are a Friends Group.
   http://www.brillionnaturecenter.net

   http://www.wi-geocaching.com/

5. What do you believe are the most important aspects of a website for a wildlife area?

Most important aspects for a web-site for the Wildlife Area are these: Maps showing parking, trails, closed areas, who to contact for the property as well as the Friends Group, Important features of the property, important habitat, historical accounts of the property, access by water and location, what type of wildlife uses the property, where are the viewing sites for wildlife, ponds and flowages locations, area for training dogs, rules and regulations pertaining to the wildlife area like dogs on leaches from April 15 to July 31, species hunted on the property, where the property lies within management zones for hunting, soils types and other geological significance, facilities on the property, etc.

6. If you had a chance to give advice to the designers of a website for a state wildlife area, what advice would you give?

Make the web page simple to open. Have it user friendly and able to open with a dial up aspect in a few moments and not over ten minutes. That means a smaller amount of memory. If the Biologist is the person in the future for maintaining the site then a simple system designed for upkeep.

7. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

Definitely would be interested in the recommendations from this study.

8. Is there anything that you would like to add?

Keeping us informed of the progress. Thanks.

Appendix K: Wisconsin Wildlife Personnel Interviews continued...

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/15/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Jeff Pritzl

State/Agency: Wisconsin Department of Natural Resources

Wildlife Area: Collins Marsh Wildlife Area

1. What is your official position within the Wisconsin DNR?

Senior Wildlife Biologist

2. Who are Collins Marsh's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)?

By far hunters, primarily waterfowl, followed by deer. Also steady, but not intense use by fishers, birdwatchers and canoeists. Some school groups use it as a field trip destination (4-6/yr)

3. How are users of Collins Marsh informed about the resources available on your property?

We have a single page brochure. Most inquiries come as phone contacts to my office (30/yr). Most people
probably learn by word of mouth and first hand experience.

4. Does your property have a web site (such as a Friend's site)? If not, why not?

No. No one to oversee it.

5. What do you believe are the most important aspects of a website for a wildlife area?

Good map (both directions to property and detail of property) and aerial photo of the property, list of acceptable and restricted activities, info on recreational opportunities.

6. If you had a chance to give advice to the designers of a website for a state wildlife area, what advice would you give?

Use good photos depicting landscape of the property to accent the info listed in the previous question.

7. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

Not necessary

8. Is there anything that you would like to add?

Good luck! This will be good information.

Appendix K: Wisconsin Wildlife Personnel Interviews continued...

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/15/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Kris Johansen

State/Agency: Wisconsin Department of Natural Resources

Wildlife Area: Tiffany Wildlife Area

1. What is your official position within the Wisconsin DNR?

-Wildlife Biologist with responsibilities in Buffalo and Trempealeau Counties

2. Who are Tiffany's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)?

-Main users are duck hunters and deer hunters and to a smaller degree trappers. Trapping use has decreased over the years. There has been an increase in nonconsumptive users, which consist of birdwatchers and general wildlife viewers. Camping by permit is allowed on the Tiffany and every year there is an increase in the permits given out during the summer time to canoeists, hikers and nature watchers.

3. How are users of Tiffany informed about the resources available on your property?

-Best information source seems to be the internet for general information. Usually users call the office for more specific information and we also have a detailed brochure with history, description, regulations and a map that we send out.

4. Does your property have a web site (such as a Friend's site)? If not, why not?

-There is currently no Friends group. Tiffany is advertised on our DNR website along with all of the other state WMA's.

5. What do you believe are the most important aspects of a website for a wildlife area?

-General description of the habitat types, what species of animals/plants are common, any special regulations and above all a detailed map showing property boundaries, parking areas and trails.

6. If you had a chance to give advice to the designers of a website for a state wildlife area, what advice would you give?

-Provide a detailed map that is in a format that is printable for the user.

Appendix K: Wisconsin Wildlife Personnel Interviews continued...

7. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

-Yes

8. Is there anything that you would like to add?

-Glad to hear this project is in the works. Providing solid information on the web should be beneficial to property managers and users of the properties as well.

Appendix K: Wisconsin Wildlife Personnel Interviews continued...

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/15/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Thomas Isaac

State/Agency: Wisconsin Department of Natural Resources

Wildlife Area: Theresa Marsh Wildlife Area

1. What is your official position within the Wisconsin DNR?

SENIOR WILDLIFE BIOLOGIST

2. Who are Theresa Marsh's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)?

(IN ORDER OF HIGHEST TO LOWEST USE) HUNTERS, FISHERS, TRAPPERS, HIKERS, AND OTHER USERS.

3. How are users of Theresa Marsh informed about the resources available on your property?

HARD COPY MAPS/INFORMATION SHEETS AND HUNTING REGULATIONS AVAILABLE AT DNR OFFICES, WEBSITE INFORMATION, EMAILS AND PHONE CALLS TO ME, NEWS ARTICLES, WORD OF MOUTH.

4. Does your property have a web site (such as a Friend's site)?

NO

If not, why not?

NO TIME TO COORDINATE. WE MANAGE MULTIPLE PROPERTIES ACROSS SEVERAL COUNTIES. THAT, AND THE FACT THAT WE'RE ASKED TO SPEND A GREAT DEAL OF TIME EACH YEAR WORKING ON CHRONIC WASTING DISEASE IN DEER ISSUES AND OTHER CORE WORKLOAD LEAVES LITTLE TIME FOR ESTRAS (sic).

5. What do you believe are the most important aspects of a web site for a wildlife area?

USER FRIENDLINESS, UP TO DATENESS (PARDON THE GRAMMER), ACCURACY.

6. If you had a chance to give advice to the designers of a web

site for a state wildlife area, what advice would you give?

HAS TO BE VERY USER FRIENDLY AND EASY TO CHANGE/UPDATE ON A DAILY BASIS.

7. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

YES

8. Is there anything that you would like to add?

NO

Thank you so much for your time. Your answers are very valuable to us.

Appendix K: Wisconsin Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 8/15/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Bill Volkert

State/Agency: Wisconsin Department of Natural Resources

Wildlife Area: Horicon Marsh Wildlife Area

1. What is your official position within the Wisconsin DNR?

I am the wildlife educator and naturalist at Horicon Marsh for the wildlife management program

2. How long has your property's DNR web site been in existence? The Friend's web site?

I believe that I worked on the DNR website within the past 7 years or so.

Our Friends website was developed just last summer.

3. Who maintains or updates your DNR web site?

Tia Kropf Beringer is the web master for wildlife management.

4. Who maintains or updates your Friend's web site?

This was designed by McDill Associates (an advertisement and marketing firm in the Milwaukee area)

5. Who decides what should go on either web site for your property?

I do. For the Friends website, I will run things past them, but again I do most of this work. I also did all the work to organize and develop the contents in cooperation with the staff of McDill.

6. How have your web sites evolved since they were first developed to meet the needs of its users?

The DNR website did go through some reorganization for the entire wildlife program. I tend to review the contents with my assistant naturalist each year and ask for input and ideas to keep it fresh or expand the content.

7. In your opinion, how important are your property's web sites to your agency? To your visitors?

The website is a good first contact for many people and help to introduce them to the marsh and our education program services. Many of the phone calls and email I receive are from people who found information on the website first. We have tried to develop the site so that it provides information and answers many of the most commonly asked questions. Also, when I receive email requests for information, I commonly go to our website and paste the link to the correct page into my reply to direct them to the information they are looking for.

8. Who are Horicon Marsh's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)?

Many teachers search the site as well as their students. We also get replies for more information from hunters and birders as well as other marsh visitors looking for more information in order to plan their visit.

9. Do you believe that Horicon Marsh's DNR web site is successful? Why or why not?

Yes, since it helps provide information to a lot of people, saving me time from answering some of the basic questions over and again.

10. Do you believe that Horicon Marsh's Friend's web site is successful? Why or why not?

This is a rather new tool for them and therefore it is hard to evaluate the level of use or the usefulness to those who may visit the site. However, based on the success of the DNR site, I believe that it will grow to meet additional needs and provide more as it evolves.

11. How are users of Horicon Marsh informed about the resources available on your property?

In addition to the website, we have developed a variety of maps, brochures, checklists and other information to help them. All of this has been included in the website. Participation in the naturalist programs is the best way to learn about the marsh and our frontline staff also help a lot of visitors during office hours.

12. How much flexibility do you have regarding your property's web sites?

A lot - I guess. I have never had any rejection of ideas. Anything I

have wanted posted has been done. I do, however, get advise on the best place or manner of posting some of this material.

13. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

I would say that they should first of all browse other sites to get some ideas of organization, ease of navigation and content as well as general design. Then I would suggest considering that this is an evolving project that will grow as new needs are identified. Also, have others look at your site and provide input. Over time, sites like this will need to change in order to keep them fresh, meet newly identified needs and provide additional information.

14. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

Sure.

15. Is there anything that you would like to add?

Not at this time.

Appendix L

Ohio Wildlife Agency Personnel Interviews

Appendix L: Ohio Wildlife Personnel Interviews

Interviewer: Jessica Huxmann Date: 6/20/06

Interview Method: Phone

Interview Location: Questions were answered by phone.

Person Interviewed: Mary Warren

State/Agency: Ohio Department of Natural Resources

Wildlife Area: Magee Marsh Wildlife Area

1. What is your position within your state's agency?

   Naturalist

2. How are users of your wildlife property informed about the resources available at your site?
3. Does the property have a website? (If the interviewee answers "No" to this question, the interviewer will skip to question 8).

   Yes

4. Does your property have a Friends site or other "external" web site?

   Yes.

5. How long has your website been in existence?

   Since 2005.

6. Who provides financial support for your website?

   The Friends of Magee Marsh group.

7. Who maintains or updates your website?

   A research personnel member.

8. How has your website evolved since it was first developed to meet the needs of your users?

   The website hasn't changed a lot since it started last year (2005). A "Volunteers Needed" page was added.

9. Have you or your agency conducted research to evaluate the success of your website that you are aware of?

If yes, how can I obtain access to that research/data?

10. Are you aware of any other research about websites being done by other agencies?
11. Do you personally believe that your wildlife area's website is successful?

Yes, the Friends website is successful. People are logging on.

12. What do you perceive as being the most important aspects of a website?

Contact information is number one. Background or history of the property, and that the information is current are also important.

13. If you had a chance to give advice to the designers of this website, what advice would you give?

The Home Page must look good, it entices readers to go further.

14. Would you be interested in receiving information from this study when it is completed?

Yes.

15. Is there anything that you would like to add?

Nope.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix L: Ohio Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 6/12/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Fred Dierkes

State/Agency: Ohio Department of Natural Resources

Wildlife Area: Killdeer Plains Wildlife Area

1. What is your position within the OH DNR?

My title/position is Wildlife Area Manager

2. How are users of your wildlife property informed about the resources available at your site?

ODNR website or the kiosk at the area headquarters, area personnel and phone requests

3. Does your property have a web site other than the information provided by the official OH DNR web site, such as a Friends site or other "external" web site? If "no", please skip to Question 9.

No.

4. How long has your website been in existence?

5. Who provides financial support for your website?

6. Who maintains or updates your website?

7. How has your website evolved since it was first developed to meet the needs of your users?

8. Do you personally believe that your wildlife area's website is successful?

9. What do you perceive as being the most important aspects of a website?

I perceive the most important aspect of a website would be to provide up to date and accurate info. and changes that may take place on a wildlife area throughout a season.

10. If you had a chance to give advice to the designers of a website for a state wildlife area property, what advice would you give?

Pay attention to the details pertaining to a wildlife area before entering data.

11. Would you be interested in receiving information from this study when it is completed?

I am not interested in results of the study and have nothing else to add. Thank You.

12. Is there anything that you would like to add?

Interview # _____

Appendix L: Ohio Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 6/15/06

Interview Method: Phone

Interview Location: Questions were answered by phone.

Person Interviewed: Jeff Herrick

State/Agency: Ohio Department of Natural Resources

1. What is your position within your state's agency?

Ohio Department of Natural Resources Division of Wildlife District 3 Manager

2. How long has your agency web site been in existence?

3. Who maintains or updates your agency web site? Who decides what should go on a web site for your agency?

The website is maintained by a central office, by Corey Cockerill. Each wildlife area has a PDF or GIF page, there are no actual websites for individual properties.

4. How has your agency web site evolved since it was first developed to meet the needs of your users? What specific requirements must be met for your agency's web site?

5. How important is your web site to your agency? Are their studies on this?

6. Do you believe that your agency's web site is successful?

Very. It is getting better all the time.

7. What do think are the most important aspects of a web site?

User-friendly information.

8. How are users of your state's wildlife area properties informed about the resources available at those sites?

There are a variety of ways we inform people about our properties, including publications, news releases, the Ohio DNR website, outdoor writers' articles, newspaper articles, and hunting digests. We also have a guide for all public hunting and fishing locations, and local maps can be downloaded from our website.

9. Do all of the wildlife area properties in your state have web sites?

10. Who maintains or updates the state wildlife area web sites for each property?

11. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Make the website user-friendly, nothing too technical. Biologists talk in technical terms, but information for the public should be kept at a 6th grade reading level. The site must be attractive, and frequently changed and updated. The website should include waterfowl areas to focus on, the best time of year to see migrant waterfowl, and the times of year and types of species available to hunt on the property. Wildlife area websites should be linked to official websites for the state's department of Natural Resources. Managers (of wildlife areas) are not trained in websites. Marketing needs to be involved. Managers can't give it the attention it needs. the central office should have control.

12. Would you be interested in receiving information from this study when it is complete?

Yes.

13. Is there anything that you would like to add?

Events should be listed by county or by a calendar of when the events will take place. It is tough to keep a website updated.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix L: Ohio Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 6/12/06

Interview Method: Phone

Interview Location: Questions were answered by phone.

Person Interviewed: John Daugherty

State/Agency: Ohio Department of Natural Resources

1. What is your position within your state's agency?

Ohio Department of Natural Resources Division of Wildlife NW District Manager

2. How has your agency web site evolved since it was first developed to meet the needs of your users? What specific requirements must be met for your agency's web site?

There were no maps on the website when it was first developed.

3. Do you believe that your agency's web site is successful?

Yes. The most important thing is to keep the website updated and improved. It is a living thing.

4. What do think are the most important aspects of a web site?

Today we rely on the Internet for information. It is important for information that people want. Navigation within a website must make it easy to find information. Websites are good because phone calls cannot always be answered right away. Websites offer the best means to provide service.

5. How are users of your state's wildlife area properties informed about the resources available at those sites?

Through routine publications, such as hunting and fishing rule booklets, and through handouts at high-use facilities.

6. Do the wildlife area properties in your state have web sites maintained by private individuals uch as Friends groups?

Just Magee Marsh.

7. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Be consistent, simple. If you can't find what you want (on a website), it is frustrating.

8. Would you be interested in receiving information from this study when it is complete?

Yes.

9. Is there anything that you would like to add?

A website is the most important method of reaching customers.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Interview Questions for State Wildlife Agency Personnel

Interviewer: Jessica Huxmann Date: 3/17/06

Interview Method: Phone

Start Time: 11:03am End Time: 11:28am

Person Interviewed: Corey Cockerill

State/Agency: OH DNR – Wildlife Division

1. What is your position within your state's agency?

   Wildlife Webmaster

2. How long has your agency web site been in existence?

   About 8-9 years. Corey has been with the agency for 2 years.

3. Who maintains or updates your agency web site?

   There are 12 divisions within the OH DNR. Corey manages the Wildlife division's web site. She does this herself with the help of 1 intern.

4. How has your agency web site evolved since it was first developed to meet the needs of your users?

   The web site has transitioned from a pool of information that was already in print form, to an interactive experience that fit's each user's needs. It is a "tailor-fit experience".

5. Has your agency conducted research to evaluate the success of your web site?

   Yes. Contract researchers in marketing and internet communications have been hired in the past to evaluate the web site. The OH DNR also does research on best practices through their consultants.

   If yes, how can I obtain a copy of the research?

   Corey will send flow diagrams of how the public interacts with the web site, as well as the recommendations that the researchers came up with for their web site.

6. Are you aware of any other research about web sites being done by other agencies?

   Corey has attended a state wildlife agency regional marketing conference (IN, OH, WV, PA, KY) at which web techniques were discussed. She is aware of other states that have conducted their own studies, such as PA's 2004 "Increasing Participation of hunting in PA" by the PA Game Commission, authored by Responsive Management Group (RMG).

The RMG phone number is 540-432-1888.

7. Do you personally believe that your agency's web site is successful?

   Yes. The web site got 1.5 million visits 2 years ago and that number has doubled to 3 million visits by 2005. There has been an increase in visitation by 40-46% each year. Compared to other marketing efforts, the web site is the most successful.

8. What do you perceive as being the most important aspects of a web site?

   "Experience of the web site." Visiting a web site is a very personal experience and the visitor must have his/her needs satisfied. Those needs could be informational, entertainment, or other. The experience that the visitor has is based on looks, organization, and quality of the site.

9. How are users of your state's wildlife area properties informed about the resources available at those sites?

   The main Division of Wildlife site is searchable by district. Each wildlife area has a map, directions, list of amenities, and list of scheduled events. The wildlife areas do not have their own sub-websites, but OH state parks do have separate sub-websites.

10. Do all of the wildlife area properties in your state have web sites?

    All wildlife areas have at least the above-mentioned information listed within the official OH DNR Division of Wildlife site, unless the property is less than a year old (recently established).

    The Division of Parks has had experience with external web sites for its properties, but there were problems with the sites because of advertising liabilities. The OH DNR cannot be seen to support advertisers and therefore does not endorse external web sites for its state-run properties.

11. Who maintains or updates the state wildlife area web sites for each property?

    Corey and her intern maintain the wildlife area information. Graphic designers are employed to create the maps.

12. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

    A content management system should be employed to allow representatives from wildlife area properties to make updates to their property's web site information. That information should then be sent through a central office for approval before being uploaded to the web site. Control should be centralized. Templates should be used by everyone within the agency to maintain uniformity in design. Wildlife area managers would have to be forced or required to make updates to their property's web site information on a regular basis. The key is control and efficiency.

13. Would you be interested in receiving information from this study when it is complete?

    Yes.

14. Is there anything that you would like to add?

    No.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Best State Wildlife Areas (emailed 3/23/06):
Magee Marsh
Killdeer
Killbuck
Tri-Valley
Crown City
Delaware
Spring Valley

Appendix L: Ohio Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 6/19/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Denis Franklin

State/Agency: Ohio Department of Natural Resources

Wildlife Area: Magee Marsh Wildlife Area

1. What is your position within the OH DNR?

Wildlife Area Supervisor

2. How are users of your wildlife property informed about the resources available at your site?

Division of Wildlife website, television show "Wild Ohio",
printed materials and telephone contacts.

3. Does your property have a web site other than the information provided by the official OH DNR web site, such as a Friends site or other "external" web site? If "no", please skip to Question 9.

Yes

4. How long has your website been in existence?

Approx. 1 year

5. Who provides financial support for your website?

Friends of Magee Marsh

6. Who maintains or updates your website?

Friends group volunteers

7. How has your website evolved since it was first developed to meet the needs of your users?

Adding additional links to other sites and updating calendar of events.

Appendix L: Ohio Wildlife Personnel Interviews continued...

8. Do you personally believe that your wildlife area's website is successful?

Yes.

9. What do you perceive as being the most important aspects of a website?

Directions to the area, general area information and local hotel/ restaurant info.

10. If you had a chance to give advice to the designers of a website for a state wildlife area property, what advice would you give?

Keep information short and concise.

11. Would you be interested in receiving information from this study when it is completed?

Yes.

12. Is there anything that you would like to add?

Good luck with your project.

Appendix M

Indiana Wildlife Agency Personnel Interviews

Appendix M: Indiana Wildlife Personnel Interviews

Interviewer: Jessica Huxmann Date: 8/15/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Ron Ronk

State/Agency: Indiana Department of Natural Resources

Wildlife Area: Minnehaha Wildlife Area

1. What is your official position within your state's agency?

Property Manager.

2. How long has the Minnehaha Wildlife Area's web page been in existence?

Approx 5 years.

3. Who maintains or updates the Minnehaha Wildlife Area's web page?

Central Office IT.

4. Who decides what should go on a web page for a Wildlife Area in MN?

Central Office Supervision.

5. How has the Minnehaha Wildlife Area's web page evolved since it was first developed to meet the needs of its users?

Minimal evolution. Needs help.

6. In your opinion, how important is the Minnehaha Wildlife Area's web page to your agency? To its visitors?

Agency-minimal. Visitors-potential to be very important.

7. Who are the Minnehaha Wildlife Area's main user audiences (i.e. Hunters, Teachers, Birdwatchers, Trappers...)?

Hunters, fishermen, bird watchers other visitors.

8. Do you believe that Indiana's state wildlife area properties' web pages are successful? Why or why not?

Somewhat, need to be updated.

Appendix M: Indiana Wildlife Personnel Interviews continued...

9. What do think are the most important aspects of a web site for a wildlife area?

Maps, update users of new regs, events, etc

10. How are users of your state's wildlife area properties informed about the resources available at those sites?

Unsure.

11. Do all of the wildlife area properties in your state have web pages?

Yes.

12. How much flexibility do individual wildlife area managers have regarding their property's web pages?

Zero.

13. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

User friendly, include maps, talk w/ managers seasonally for new info.

14. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

Yes.

15. Is there anything that you would like to add?

I have traveled to other states and some are very limited as to what is available from web. Indiana is somewhere in the middle.

Appendix M: Indiana Wildlife Personnel Interviews continued...

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/14/06

Interview Method: Phone

Interview Location: Questions were answered by phone.

Person Interviewed: Jim Bergens

State/Agency: Indiana Department of Natural Resources

Wildlife Area: Jasper-Pulaski Wildlife Area

1. What is your position within your state's agency?

Property Manager/Biologist.

2. How long has your agency web site been in existence?

8 years.

3. Who maintains or updates your agency web site? Who decides what should go on a web site for your agency?

Nobody maintains it. recent changes have made it complicated to keep it updated. All updates have to go through IT people.

4. How has your agency web site evolved since it was first developed to meet the needs of your users? What specific requirements must be met for your agency's web site?

Each year, the weekly counts (of cranes) are changed during fall and early winter.

5. How important is your web site to your agency? Are their studies on this?

To visitors, fairly important. Hard to say, depends on who's doing the searching. I have had difficulty finding some information on our website.

6. Who are Jasper-Pulaski's main user audiences?

Crane-watchers make up most of our users, shooting range users are second, and hunters are third. Our main mission is to provide hunting opportunities on public land.

7. What do think are the most important aspects of a web site?

Keeping the overall format the same is important, as well as changing parts of the site, like

changing pictures.

8. How are users of your state's wildlife area properties informed about the resources available at those sites?

A one-page publication is used.

9. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Have accurate information about the property. Cranes are important for us.

10. Would you be interested in receiving information from this study when it is complete?

Yes.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix M: Indiana Wildlife Personnel Interviews continued...

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/14/06

Interview Method: Phone

Interview Location: Questions were answered by phone.

Person Interviewed: Glen McCormick

State/Agency: Indiana Department of Natural Resources

Wildlife Area: Kankeekee Wildlife Area

1. What is your position within your state's agency?

Manager.

2. How long has your agency web site been in existence?

5-10 years.

3. Who maintains or updates your agency web site? Who decides what should go on a web site for your agency?

Not sure. The IT department for the DNR used to run it, then there was a governmental change and now the agency website is state-run.

4. How has your agency web site evolved since it was first developed to meet the needs of your users? What specific requirements must be met for your agency's web site?

Every year Kankeekee sends updated information to be added to the website, including a property description, map, and directions.

5. How important is your web site to your agency? Are their studies on this?

Pretty important to the agency. People are using it more. There is still not enough information on the website to prevent people from needing to call the wildlife area.

6. Who are Kankeekee's main user audiences?

People come to Kankeekee to use the hunting area, the state parks, and the nature reserve. A lot of non-game species live on the property. Kankeekee is more varied than other properties.

7. What do think are the most important aspects of a web site?

Up-to-date reservation information for hunting is important because there are drawings to get to go huning on parts of the property. What fish are biting is also important.

8. How are users of your state's wildlife area properties informed about the resources available at those sites?

A newsletter can be written for the website, and news releases can also be written about things going on in the wildlife area. All writings must be apporved by the IN DNR's PR department.

9. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Update. A lot of sites are not updated enough. Updating requires a lot of work. It is a massive job. A full-time job. It is very expensive. Information on a website shoud be fresh. The state site does not always take stuff off in a timely fashion. IT people are involved with the web and their communication with biologists was not good. There needs to be two-way conversation.

10. Would you be interested in receiving information from this study when it is complete?

Yes.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix M: Indiana Wildlife Personnel Interviews continued...

Interview Questions for Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/14/06

Interview Method: Phone

Interview Location: Questions were answered by phone.

Person Interviewed: Cary Schuler

State/Agency: Indiana Department of Natural Resources

Wildlife Area: Atterbury Wildlife Area

1. What is your position within your state's agency?

Manager.

2. How long has your agency web site been in existence?

6-7 years.

3. Who maintains or updates your agency web site? Who decides what should go on a web site for your agency?

I make decisions about what goes on our website. All of the property webpages are set up generically.

4. How has your agency web site evolved since it was first developed to meet the needs of your users? What specific requirements must be met for your agency's web site?

We have gone through changes. There are no IT people in Fish and Wildlife division. The web page is not very functional. All it lists are the acreages of the properties and opportunities available. It is very basic.

5. How important is your web site to your agency?

Very important to visitors. People find us through our website. Lots of the calls we receive refer to the webpage and the maps.

6. Who are Atterbury's main user audiences?

Hunters and fishermen, some trappers, not a lot. Secondary use for birdwatchers.

7. What do think are the most important aspects of a web site?

To attract and inform users. It is also important for managers to be able to have flexibility to change information.

8. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Include as much information as possible on the websitenfor user beneits as much as for the DNR. Make the site easy to use. Allow managers to have flexibility to change information.

9. Would you be interested in receiving information from this study when it is complete?

Yes.

10. Is there anything you would like to add?

There is a lot of current information that managers could put onto a website for their property.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix M: Indiana Wildlife Personnel Interviews continued...

Interview Questions for State Wildlife Agency Personnel

Interviewer: Jessica Huxmann Date: 3/17/06

Interview Method: Phone

Interview Location: I called from Dr. Yockers' office; Mr. Gartner was at work.

Start Time: 1:45pm End Time: 2:00pm

Person Interviewed: Warren Gartner

State/Agency: Indiana Department of Natural Resources

1. What is your position within your state's agency?

   Education Coordinator for IN DNR – Fish and Wildlife Division

2. How long has your agency web site been in existence?

   At least 10 years (Warren has been with the Fish and Wildlife Division for 10 years).

3. Who maintains or updates your agency web site?

   The Fish and Wildlife Division web site is maintained by a central office headed by Kim Brant (317-233-3046, kbrant@dnr.in.gov), who oversees 16 people in the Communications Office for the entire IN DNR. Noah Coffey is the webmaster for the IN DNR 317-232-4109 ncoffey@dnr.in.gov

4. How has your agency web site evolved since it was first developed to meet the needs of your users?

   The web site has changed a lot. Warren is not as familiar with the changes as Noah or Kim will be. The URL address has been simplified, the pages have been made similar to each other, and within the last year, the managers for web sites for all divisions within the DNR have been centralized.

5. Has your agency conducted research to evaluate the success of your web site?

   Only counting the number of hits the site gets each year.

   If yes, how can I obtain a copy of the research?

6. Are you aware of any other research about web sites being done by other agencies?

   No.

7. Do you personally believe that your agency's web site is successful?

   To a point, yes. It could always be better. The web site gets a lot of use. It is a contact point for the division. Online license purchases are available, and E-recruiting for jobs within the agency is being developed.

8. What do you perceive as being the most important aspects of a web site?

   Simplicity and ease of navigation.

9. How are users of your state's wildlife area properties informed about the resources available at those sites?

   The wildlife area properties give out information in the form of hunting and fishing guide publications. The IN DNR has a recreation guide that includes all DNR properties in all divisions with detailed information about what can be done at each property.

10. Do all of the wildlife area properties in your state have web sites?
    All have a map and directions, some have more information than others.

11. Who maintains or updates the state wildlife area web sites for each property?
    Noah Coffey, Webmaster, takes care of requests and information updates.

12. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?
    Talk to the people using the property.

13. Would you be interested in receiving information from this study when it is complete?
    Yes.

14. Is there anything that you would like to add?
    5 Wildlife Area properties in IN to look at:
        Jasper-Pulaski
        Attereury Wildlife Area – Mr. Cary Schuler, Manager, 812-526-2051
        Hovey Lake – Mark Pochon, Manager, 812-838-2927
        Pigeon River – Jeff Hampshire, Manager, 260-367-2164
        Minnehaha – Ron Ronk, Manager, 812-268-5640
        Kankeekee Wildlife Area – Glen McCormick, 574-896-3522

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix N

Michigan Wildlife Agency Personnel Interviews

Appendix N: Michigan Wildlife Personnel Interviews

Interview Questions for State Wildlife Agency Personnel

Interviewer: Jessica Huxmann Date: March 10, 2006

Interview Method: Phone

Interview Location: Interviewer called from home

Start Time: about 12:30pm End Time: about 12:55pm

Person Interviewed: Tina Stojakovich

State/Agency: Michigan DNR

1. What is your position within your state's agency?

   Web Editor for the MI DNR

2. How long has your agency web site been in existence?

   Since 1992

3. Who maintains or updates your agency web site?

   Tina does, along with a team of web liaisons from the 3 major resource divisions (hunting, fishing, recreation/camping).

4. How has your agency web site evolved since it was first developed to meet the needs of your users?

   The MI DNR started out as a web site separated by the 3 divisions, but, based on mostly informal suggestions from users, the site now bases its navigation on categories. The site now gets 1.8 million hits per month (average), and the average user looks at 3 pages on the site and views each page for about 3 minutes (Tina says this is a very successful use rate). The FAQ section is one of the most popular features on the site, getting about 23,000 hits (per month ?) and of those 23,000, only 700 people write in questions, (which suggests that most people find the answers they are looking for).

5. Has your agency conducted research to evaluate the success of your web site?

   The MI DNR has conducted camping studies, about what campers would like to see on the web site, but not on other users, as far as Tina knows.

   If yes, how can I obtain a copy of the research?

Appendix N: Michigan Wildlife Personnel Interviews continued...

6. Are you aware of any other research about web sites being done by other agencies?

   No

7. Do you personally believe that your agency's web site is successful?

   Yes, but there is always room for improvement. Some users still complain about certain aspects of the site, but you cannot make everyone happy.

8. What do you perceive as being the most important aspects of a web site?

9. How are users of your state's wildlife area properties informed about the resources available at those sites?

10. Do all of the wildlife area properties in your state have web sites?

11. Who maintains or updates the state wildlife area web sites for each property?

12. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

13. Would you be interested in receiving information from this study when it is complete?

    Yes, definitely.

14. Is there anything that you would like to add?

    5 MI Wildlife Areas to evaluate:
    AuTrain
    Rose Lake State Wildlife Area
    Sanilac
    Tobico Marsh
    Pointe Mouuillee
    Varata Plains

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix O

Minnesota Wildlife Agency Personnel Interviews

Appendix O: Minnesota Wildlife Personnel Interviews

Interview Questions for State Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/14/06

Interview Method: Phone

Person Interviewed: Donovan Petrusewski

State/Agency: Minnesota Department of Natural Resources

Wildlife Area: Beaches Lake Wildlife Management Area

1. What is your position within your state's agency?

   Area Wildlife Supervisor

2. How long has your agency web site been in existence?

   Less than 2 years. The site gets updated through a rigorous process of cover typing to show where roads, campsites, and hunting habitats are located. We use infrared imaging to give hunters an idea of where hunting habitats can be found. The web people put the nformation on the website.

3. Who maintains or updates your agency web site?

   Web people put the information on the website. We work with global information systems people in Grand Rapids. Managers can update "Master Shape Files" and send them to the central office for approval and uploading to the website.

4. How important is your web site to your agency?

   Farly important, especially maps. Cover type is very important for hunters and aerial photos are important too. The infrared pictures of cover type save time, especially for first-time hunters.

5. Who are Beaches Lake WMA's main user audiences?

   Hunting is number one, trapping is number two, and birdwatching is number three.

6. What do you perceive as being the most important aspects of a web site?

Good maps. Good directions for access into and through wildlife management areas. Rules for use. Recreational opportunities. Non-consumptive stuff should be explained. Wildlife species that are huntable on the property should be listed. Should be able to search by species. Detailed information is very important to me. Boat access points should be given. Navigation through the website should be easy.

7. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Navigation should be easy. The Minnesota DNR website is decent in that it allows visitors to navigate from a top-down approach.

8. Would you be interested in receiving information from this study when it is complete?

   Yes.

9. Is there anything that you would like to add?

   Rules and regulations are important. In Minnesota, ATV issues are a hot topic right now. There is a push to allow ATVs in wildlife management areas. Currently WMAs are designated as ATV-free, except specific times of the year and specific areas. General statements should be made upfront on a website, so visitors know the rules before they go to the WMA.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix O: Minnesota Wildlife Personnel Interviews continued...

Interview Questions for State Wildlife Area Managers

Interviewer: Jessica Huxmann Date: 8/14/06

Interview Method: Phone

Person Interviewed: Jon Cole

State/Agency: Minnesota Department of Natural Resources

Wildlife Area: Whitewater Wildlife Management Area

1. What is your position within your state's agency?

   Manager

2. How long has your agency web site been in existence?

   Around 5 to 7 years for the MN DNR website.

3. Who maintains or updates your agency web site?

   The Education Information Center in Minnesota.

4. Who are Whitewater WMA's main user audiences?

   Hunters, fishermen, birdwatchers, education school groups get tours, a few times a year, and trappers.

5. What do you perceive as being the most important aspects of a web site?

Include a boundary of the wildlife management area that can be laid over topographical maps. Also include a conatct phone number, name, list of huntable species in the area, description of the area, habitat types, types of management being done on the property, types of public hunting and recreation that can be done on that particular wildlife management area, and special regulations. Some rules on WMS properties are more restrictive than in other state areas.

6. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Maintain a logical webiste, do not require users to go through more than 3 tiers of information to find what they want. Update the site regularly, include seasonal information.

7. Would you be interested in receiving information from this study when it is complete?

Yes.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix O: Minnesota Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 7/11/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Steve Benson

State/Agency: Minnesota Department of Natural Resources

1. What is your position within your state's agency?

GIS Coordinator for the MN DNR Section of Wildlife.

2. How long has your agency web site been in existence?

1996.

3. Who maintains or updates your agency web site?

A web team does the maintenance work, while a wide variety of people provide data, graphics and information.

4. Who decides what should go on a web site for your agency?

Depends on the project. Some web content is the result of formal planning, some is the result of informal collaboration and innovation.

5. How has your agency web site evolved since it was first developed to meet the needs of your users?

The site has expanded to thousands of pages, using MapServer to provide a map-and-graphic rich interactive environment.

6. How important is your web site to your agency? Are their studies on this?

The web site is quite important for business operations, public information, data downloads, transactions, news and press releases.

7. Do you believe that your agency's web site is successful?

Yes. In June 2006 we logged 7,000,000 hits and 95 GB of data downloads.

8. What do think are the most important aspects of a web site?

Public information; information about access to public lands, waters and facilities.

9. How are users of your state's wildlife area properties informed about the resources available at those sites?

MN DNR hosts web applications that provide information and interactive maps for each of 1,400 Wildlife Management Areas (WMAs). Some public facilities are included in the maps. Users can search for WMAs based on a list of recreation choices.

10. Do all of the wildlife area properties in your state have web sites?

Yes. Each WMA has a home page, with additional links.

11. Who maintains or updates the state wildlife area web sites for each property?

The web team maintains the application, and Wildlife GIS Staff maintain and update the data.

12. How much flexibility do individual wildlife area managers have regarding their web sites?

The 40+ managers do not have programming access to the web site, but have full flexibility to determine text descriptions of goals, management practices, restrictions and recreation opportunities for each WMA in their work area.

13. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Make it easy to find publicly accessible areas, and easy to find location information (directions, parking, disabled access), plus a summary of why the unit exists, plus good quality maps.

14. I would like to interview MN Wildlife Management Area managers for their input about web sites. Please list 5 MN Wildlife Management Areas that you believe would be good candidates for this study.

Whitewater WMA, Beaches Lake WMA, Gordie Mikkelson WMA, Sax - Zim WMA, Sand Prairie WMA, Swan Lake WMA.

14. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

Yes.

15. Is there anything that you would like to add?

Contact me with any questions.

Appendix O: Minnesota Wildlife Personnel Interviews continued...

Interviewer: Jessica Huxmann Date: 7/7/06

Interview Method: Email

Interview Location: Questions were answered by email

Person Interviewed: Dawn Flinn

State/Agency: Minnesota Department of Natural Resources

1. How has your agency web site evolved since it was first developed to meet the needs of your users?

We are always changing an updating our web site but it is very dependent on staff availability and budgets both of which have been lacking over the past years. We recently did a usability study of our site overall and are making changes based on those recommendations.

2. How important is your web site to your agency? Are their studies on this?

I would say extremely important and believe we should have a lot more resources dedicated to this. I don't know if we have done any studies but we do keep track of the number of hits to our site and it is a lot.

3. Do you believe that your agency's web site is successful?

Yes and no. People say they like it but it is easy to get lost in the hugeness of it. We have a lot of information there. Also, it is often outdated because we don't have the staff to check and keep everthing accurate. Often things are put developed with a lot of research, put up, and then forgotten about. Some divisions are willing to put additional resources toward the web such as forestry who will be hiring their own web designer. That creates a varience of "look" and quality of info available.

4. What do think are the most important aspects of a web site?

Useability - make it easy to find what your are looking for with a great search engine. Some type of human contact information. It is so frustrating if you can't find what you need and can't ask anyone either. We are lucky at MN DNR in that we have our own information center that fields thousands of calls from the public.

5. How are users of your state's wildlife area properties informed about the resources available at those sites?

We have printed brochures/maps on each wildlife management area I believe, two general printed maps of their locations and some info on the web. There is also a manager living on many of the bigger units people can contact or again call our information center.

Appendix O: Minnesota Wildlife Personnel Interviews continued...

6. If you had a chance to give advice to the designers of a web site for a state wildlife area, what advice would you give?

Have printable maps with trails, roads, etc. Make it easy to use and visually pleasing. Have links to other resources. Give statistics on animal populations or studies done there on both game and nongame species, plants, etc. Explain how managed, for what and why. I think there is a lot of confusion out there about what we do and how people can help. Include people on your design committee that don't just have a wildlife background.

7. I would like to interview MN Wildlife Management Area managers for their input about web sites. Please list 5 MN Wildlife Management Areas that you believe would be good candidates for this study.

I would say probably most managers don't spend tons of time thinking about the web but I could be wrong. Contact Carlos Avery Wildlife Management Area. Carlos is a large management area close to the Twin Cities so I would also contact some smaller areas out of the city and in different parts of the state too.

8. A list of recommendations for wildlife area web sites is the ultimate goal of this study. Would you be interested in receiving information from this study when it is complete?

Yes

9. Is there anything that you would like to add?

Call me if you need clarification or more specifics.

Appendix P

Wisconsin Wildlife Area Website Evaluations

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

The Brillion State Wildlife Area did not have a website of its own. This may be due to the Brillion Nature Center's website, which includes much information about the Brillion State Wildlife Area property. The official Wisconsin department of Natural Resources website included a brief description of the Brillion property, seen below, as well as a link to a PDF map of the property, also below.

---

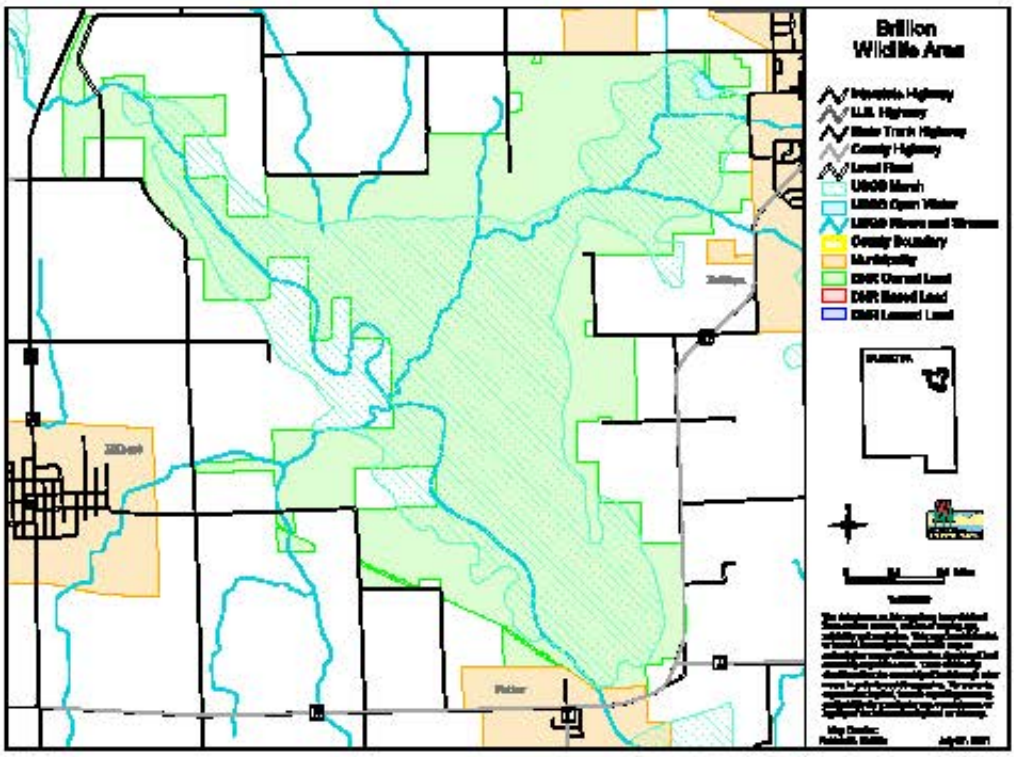
45. Brillion Wildlife Area

Calumet County

PDF map

Use the Web Mapping Tool for current property boundaries

Size:	5,159 acres, (4,802 owned, 357 leased).
Location:	1/2 mile southwest of **Brillion**.
Principal Wildlife:	Deer, pheasants, Hungarian partridge, waterfowl, raccoons, squirrels.
Other Recreation:	Site has a School run nature center at the northeast corner of the property.
Habitat:	Marsh, forest, brush.
Contact:	Appleton DNR.



Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Sandhill Wildlife Area Web Site Design Evaluation

Site Title: Sandhill Wildlife Area Subject: About the Sandhill Wildlife Area

URL: http://www.dnr.state.wi.us/Org/land/wildlife/reclands/sandhill Audience:: Users of the Sandhill Wildlife Area

Web Site Developer: Wisconsin Department of Natural Resources

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	20	2

Comments: The Sandhill State Wildlife Area website is not very easy to find from the Home Page of the Wisconsin DNR. A v
interested in Sandhill must click on the "Outdoor Recreation" link, then navigate to the "Watchable Wildlife" link to get to the final li
the Sandhill site. There are other methods to find the Sandhill site available, however, including entering the wildlife area's name in th
DNR website's search window.

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Sandhill Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	Y	N
B. User is able to determine the intended audience of the site.	Y	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	N
B. Information about the author(s) is available.	Y	N
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	N
D. The sponsor of the site is clearly identified.	Y	N
E. A contact person or address is available so the user can ask questions or verify information.	Y	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: Friday, July 28, 2006	Y	N
B. Latest revision date is appropriate to material.	Y	N
C. Content is updated frequently.	Y	N
D. Links to other sites are current and working properly.	Y	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	Y	N
B. The content appears to be complete (no "under construction" signs, for example)	Y	N
C. The content of this site is well organized.	Y	N
D. This site provides interactivity that increases its value.	Y	N
E. The information is consistent with similar information in other sources.	Y	N
F. Grammar and spelling are correct.	Y	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	N
Totals	15	3

Site Title: Sandhill Wildlife Area Subject: About the Sandhill Wildlife Area

URL: http://www.dnr.state.wi.us/Org/land/wildlife/reclands/sandhill Audience:: Users of the Sandhill Wildlife Area

Web Site Developer: Wisconsin Department of Natural Resources

Purpose for exploring this site: To learn more about the Sandhill Wildlife Area

Notes on possible uses of this site and URLs for useful linked sites:

Comments:

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Link Category	Uniform Resource Locator (URL)	Comments
About Us	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/index.htm	
Contact info.	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/staff.htm AND http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/index.htm	
History	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/historymain.htm	
Events	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/calendar.htm	
Things to Do	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/recreation.htm	
Map	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/directions.htm	
Directions	http://www.dnr.state.wi.us/org/land/wildlife/reclands/sandhill/directions.htm	

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Friends of Sandhill Wildlife Area Web Site Design Evaluation

Site Title: Friends of Sandhill, Inc. Subject: About the Sandhill Wildlife Area and the Friends of Sandhill Group

URL: http://www.wistateparkfriends.org/parks/sandhill/index.htm Audience:: Users of the Sandhill Wildlife Area

Web Site Developer: Friends of Sandhill, Inc.

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	Y	(N)
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	Y	(N)
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	Y	(N)
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	Y	(N)
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	Y	(N)
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	Y	(N)
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	Y	(N)
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	Y	(N)
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	12	10

Comments: The Friends of Sandhill, Inc. website is an eclectic set of information ranging from an invitation to join the Friends g to outdated pictures of "Learn to Hunt Deer Harvest" from 2004. Several of the links lead to dead ends.

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Friends of Sandhill Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	Y	(N)
B. User is able to determine the intended audience of the site.	Y	(N)
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	(Y)	N
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	(Y)	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: September 12, 2006	(Y)	N
B. Latest revision date is appropriate to material.	(Y)	N
C. Content is updated frequently.	Y	(N)
D. Links to other sites are current and working properly.	Y	(N)
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	Y	(N)
B. The content appears to be complete (no "under construction" signs, for example)	Y	(N)
C. The content of this site is well organized.	Y	(N)
D. This site provides interactivity that increases its value.	Y	(N)
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	(Y)	N
Totals	8	10

Site Title: Friends of Sandhill, Inc. Subject: About the Sandhill Wildlife Area and the Friends of Sandhill Group

URL: http://www.wistateparkfriends.org/parks/sandhill/index.htm Audience:: Users of the Sandhill Wildlife Area

Web Site Developer: Friends of Sandhill, Inc.

Purpose for exploring this site: To learn more about the Friends of Sandhill Wildlife Area

Notes on possible uses of this site and URLs for useful linked sites:

Comments:

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Friends of Sandhill Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	http://www.wistateparkfriends.org/parks/sandhill/index.htm	
Contact info.	http://www.wistateparkfriends.org/parks/sandhill/index.htm	
History	http://www.wistateparkfriends.org/parks/sandhill/index.htm	
Events	http://www.wistateparkfriends.org/parks/sandhill/index.htm	Most recent event listed was a workday scheduled for september, 2006, (out-dated by 1.5 months)
Things to Do		
Map		
Directions		

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Horicon Marsh State Wildlife Area Web Site Design Evaluation

Site Title: Horicon Marsh State Wildlife Area Subject: About the Horicon Marsh Wildlife Area

URL: http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/index.htm Audience:: Users of the Horicon Marsh Wildlife Area

Web Site Developer: Wisconsin Department of Natural Resources

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	20	2

Comments: The Horicon Marsh State Wildlife Area website is not very easy to find from the Home Page of the Wisconsin DNR. A visitor interested in Horicon must click on the "Outdoor Recreation" link, then navigate to the "Watchable Wildlife" link to get to the final link to the Horicon Marsh site. There are other methods to find the Horicon site available, however, including entering the wildlife area's name in the WI DNR website's search window.

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Horicon Marsh State Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	(Y)	N
B. User is able to determine the intended audience of the site.	(Y)	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	(N)
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	(Y)	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: September 29, 2006	(Y)	N
B. Latest revision date is appropriate to material.	(Y)	N
C. Content is updated frequently.	(Y)	N
D. Links to other sites are current and working properly.	(Y)	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	(Y)	N
B. The content appears to be complete (no "under construction" signs, for example)	(Y)	N
C. The content of this site is well organized.	(Y)	N
D. This site provides interactivity that increases its value.	(Y)	N
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	(Y)	N
Totals	14	3

Site Title: Horicon Marsh State Wildlife Area Subject: About the Horicon Marsh Wildlife Area

URL: http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/index.htm Audience:: Users of the Horicon Marsh Wildlife Area

Web Site Developer: Wisconsin Department of Natural Resources

Purpose for exploring this site: To learn more about the Horicon Marsh Wildlife Area

Notes on possible uses of this site and URLs for useful linked sites:

Comments:

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Horicon Marsh State Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/index.htm	
Contact info.	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/Nathist/	The contact information was located within the Natural History page of the website, as well as on other pages, but not on a page specifically labeled "Contact Info.".
History	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/Nathist/	
Events	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/edcntr/index.htm	Education programs available were listed, but not a calendar of events.
Things to Do	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/edcntr/index.htm	
Map	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/MAPS/	A variety of maps types were available through this link, including both a map for lay visitors and for hunters on the property.
Directions	http://www.dnr.state.wi.us/org/land/wildlife/reclands/horicon/MAPS/	

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Crex Meadows Wildlife Area Web Site Design Evaluation

Site Title: Crex Meadows Wildlife Area Subject: About the Crex Meadows Wildlife Area

URL: http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm Audience:: Users of the Crex Meadows Wildlife Area

Web Site Developer: Wisconsin Department of Natural Resources

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	20	2

Comments: The Crex Meadows State Wildlife Area website is not very easy to find from the Home Page of the Wisconsin DNR. A visitor interested in Crex Meadows must click on the "Outdoor Recreation" link, then navigate to the "Watchable Wildlife" link to get to the final link to the Crex Meadows site. There are other methods to find the Crex Meadows site available, however, including entering the wildlife area's name in the WI DNR website's search window.

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Crex Meadows Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	Y	N
B. User is able to determine the intended audience of the site.	Y	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	N
B. Information about the author(s) is available.	Y	N
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	N
D. The sponsor of the site is clearly identified.	Y	N
E. A contact person or address is available so the user can ask questions or verify information.	Y	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: june 15, 2006	Y	N
B. Latest revision date is appropriate to material.	Y	N
C. Content is updated frequently.	Y	N
D. Links to other sites are current and working properly.	Y	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	Y	N
B. The content appears to be complete (no "under construction" signs, for example)	Y	N
C. The content of this site is well organized.	Y	N
D. This site provides interactivity that increases its value.	Y	N
E. The information is consistent with similar information in other sources.	Y	N
F. Grammar and spelling are correct.	Y	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	N
Totals	14	3

Site Title: Crex Meadows Wildlife Area Subject: About the Crex Meadows Wildlife Area

URL: http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm Audience:: Users of the Crex Meadows Wildlife Area

Web Site Developer: Wisconsin Department of Natural Resources

Purpose for exploring this site: To learn more about the Crex Meadows Wildlife Area

Notes on possible uses of this site and URLs for useful linked sites:

Comments: The Crex Meadows website consisted of a single page with links to pages outside of the Crex webpage. One link to a PDF map of the wildlife area was given.

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Crex Meadows Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm	
Contact info.	http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm	A phone number to make reservations for bird blinds on the crex Meadows property was listed, but no address, name, email, or phone number of an office or person to contact was given.
History	http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm	
Events		No events schedule link was given.
Things to Do	http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm	
Map	http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm	
Directions	http://www.dnr.state.wi.us/org/land/wildlife/reclands/crex/index.htm	

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...

Tiffany Wildlife Area

Tiffany Wildlife Area was a very difficult property to find information about. The Wisconsin Department of Natural Resources' official website did not come up with "Tiffany Wildlife Area" in its search engine. It did come up with a number of pages and articles about the Tiffany Bottoms Natural Area, however. A search for Tiffany Wildlife Area on the webpage for regional wildlife areas was frustrating for two reasons: first, nowhere is the visitor told which region contains which wildlife areas, and, second, within each state public wildlife recreation lands region, the wildlife areas are not listed alphabetically.

A land aquisition form found during a search of the Tiffany Wildlife Area on the WI DNR website revealed the following information about the property (From http://dnr.wi.gov/org/nrboard/agenda/August06/3B10.pdf):

> "The Tiffany Wildlife Area is located in west-central Wisconsin along the Chippewa River about 60 miles north of La Crosse and 50 miles south of the Twin Cities of Minneapolis and St. Paul. It contains the lower 14 miles of the Chippewa River, above the Mississippi River in Buffalo and Pepin Counties. The wildlife area is part of the largest contiguous lowland hardwood forest in the Midwest and is adjacent to the northern end of the 200,000 acre Upper Mississippi River National Wildlife and Fish Refuge. Land in the project area was first purchased in 1946. The purpose of the project is to manage the 15,650-acre wetland habitat area primarily for waterfowl and wetland wildlife and for public recreation. The property is used by the public for hunting, fishing, trapping, cross-county skiing, hiking and other outdoor recreation. In 2000, the Department of Natural Resources recognized the importance the entire area surrounding the Tiffany Wildlife Area with the establishment of the Lower Chippewa River State Natural Area. The area contains the highest number of rare species (125) of any area of comparable size in Wisconsin."

Appendix P: Wisconsin Wildlife Area Website Evaluations continued...
Theresa Marsh Wildlife Area

The Theresa Marsh Wildlife Area did not have a website of its own. The official Wisconsin department of Natural Resources website included a brief description of the Theresa Marsh Wildlife Area property, seen below, as well as a link to a PDF map of the property.

---

6. Theresa Marsh Wildlife Area

Washington and Dodge Counties

PDF map

Use the Web Mapping Tool for current property boundaries

Size:	5,499 acres, (5,263 owned, 236 leased).
Location:	30 miles north of Milwaukee on U.S. Hwy 41. Access on Hwys. D and 28. Refuges closed Sept. 1 - Dec. 31.
Principal Wildlife:	Ducks, geese, deer, pheasants, rabbits, squirrels, great egrets, raptors, shorebirds, common terns.
Other Recreation:	Wildlife viewing (especially along Hwy. 28 and marsh overlooks on Mowhawk Rd.), fishing, trapping, snowmobiling (only on designated trails) and hiking.
Habitat:	Marsh, flowage, stream, lowland forest.
Contact:	Pike Lake State Park.

Appendix Q

Ohio Wildlife Area Website Evaluations

Appendix Q: Ohio Wildlife Area Website Evaluations

Magee Marsh Wildlife Area Web Site Design Evaluation

Site Title: Northwestern Ohio Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northwest/northwa.htm Audience:: Wildlife Area information seekers

Web Site Developer: Ohio Department of Natural Resources Division of Wildlife

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	20	2

Comments: The Magee Marsh Wildlife Area information was not easy to find from the Home Page of the Ohio DNR. A visitor interested in Magee Marsh must click on the "Recreation: Fish & Wildlife" link, then the "Find a Map: Wildlife" link, then navigate to the "Northwestern Ohio" link to get to the final link to the Magee Marsh PDF link

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Magee Marsh Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	Y	N
B. User is able to determine the intended audience of the site.	Y	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	N
B. Information about the author(s) is available.	Y	N
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	N
D. The sponsor of the site is clearly identified.	Y	N
E. A contact person or address is available so the user can ask questions or verify information.	Y	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: 2005	Y	N
B. Latest revision date is appropriate to material.	Y	N
C. Content is updated frequently.	Y	N
D. Links to other sites are current and working properly.	Y	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	Y	N
B. The content appears to be complete (no "under construction" signs, for example)	Y	N
C. The content of this site is well organized.	Y	N
D. This site provides interactivity that increases its value.	Y	N
E. The information is consistent with similar information in other sources.	Y	N
F. Grammar and spelling are correct.	Y	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	N
Totals	14	3

Site Title: Northwestern Ohio Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northwest/northwa.htm Audience::

Wildlife Area information seekers

Web Site Developer: Ohio Department of Natural Resources Division of Wildlife

Purpose for exploring this site: To learn more about the Wildlife Areas in Northwestern Ohio

Notes on possible uses of this site and URLs for useful linked sites:

Comments: The Magee Marsh Willdife Area property had only two PDF pages consisting of a map of the property on one side and 12 paragraphs of information about the property on the other side.

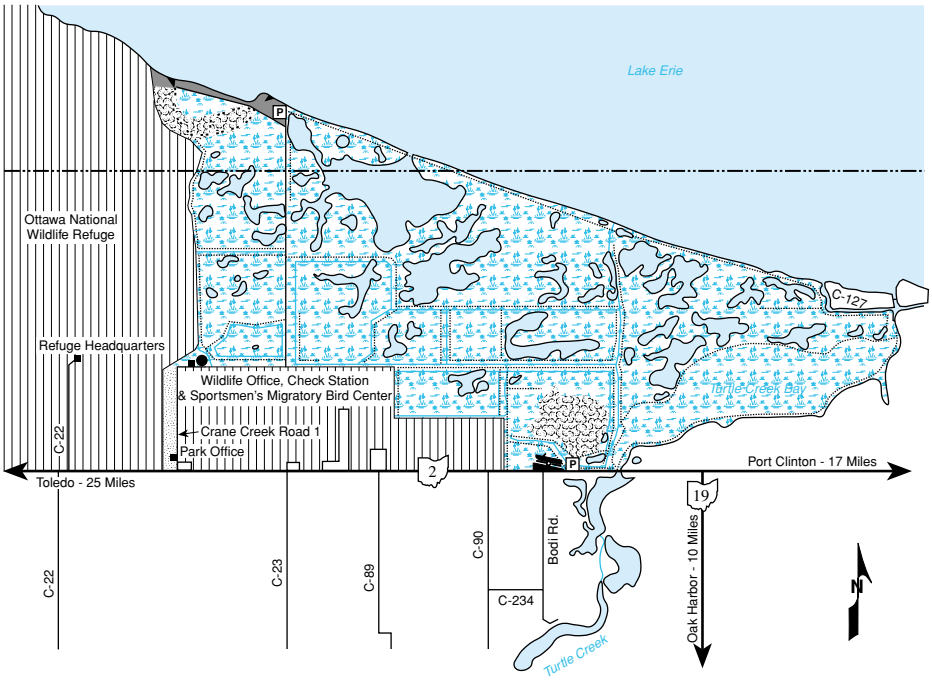
Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Magee Marsh Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	Not applicable	The Magee Marsh did not have an actual website within the Ohio DNR's official website. It had just 2 PDF pages (a description of the property and a map)
Contact info.	Not applicable	
History	Not applicable	
Events	Not applicable	
Things to Do	Not applicable	
Map	http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northwest/northwa.htm	
Directions	Not applicable	

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Magee Marsh Wildlife Area

Publication 45
(R696)



Division of Wildlife
Ohio Department of Natural Resources

MAGEE MARSH WILDLIFE AREA

Lucas and Ottawa Counties

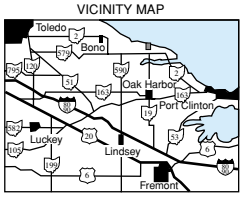
Public Hunting & Fishing
2,000 Acres

LEGEND

P Parking		Boat Ramp	
Marshland		Dike	
Woodland		Observation Tower	
Grassland			

0 1/2 1
Scale in Miles

VICINITY MAP



WILDLIFE AREA
Public Hunting - Fishing

MAGEE MARSH WILDLIFE AREA

Lucas and Ottawa Counties

DISTANCE FROM MAJOR POPULATION CENTERS

25 miles from Toledo
95 miles from Cleveland
125 miles from Akron
130 miles from Columbus
250 miles from Cincinnati

LOCATION AND DESCRIPTION

This 2,000-acre controlled waterfowl hunting area is located 17 miles west of Port Clinton on State Route 2, and 10 miles north of Oak Harbor on State Route 19.

HISTORY AND PURPOSE

The Lake Erie marshes gained fame during the late 1800s as some of the best waterfowl hunting areas in the United States. Wealthy sportsmen vied to purchase choice hunting sites, and as early as 1890 much of the wetland area was being operated for private shooting. By the end of 1951 the entire 30,000 acres of remaining marshland along Lake Erie, from Toledo to Sandusky, was under private club ownership. Today, the region still supports some of the most intensively developed and managed waterfowling clubs in the Midwest.

The Magee Marsh Wildlife Area, purchased by the Ohio Division of Wildlife in August 1951, lies in some of Ohio's finest remaining wetlands. The marsh complex has historically been inhabited by large numbers of waterfowl, waterbirds, shorebirds, and songbirds. The primary responsibility at Magee Marsh is the development and maintenance of high quality wetland habitat for a diverse array of wetland wildlife species.

During the 1960s, a small flock of Canada geese was released and goose nesting tubs were erected at Magee Marsh as part of Ohio's Canada goose reintroduction program. Other goose management areas included Killdeer Plains, Mercer, and Mosquito wildlife areas. Between 9,000-11,000 goslings are produced on these areas annually, making Ohio's goose production program the most successful program in the nation.

The Crane Creek Wildlife Research Station, headquarters for the Division of Wildlife's wetland wildlife research, is housed on the second floor of the Sportsmen's Migratory Bird Center which is located on the Magee Marsh Wildlife Area. Biologists at the research station are responsible for statewide research and management of wetland dependent wildlife including waterfowl, furbearers, and endangered wetland species, such as the bald eagle.

WILDLIFE

Waterfowl. During fall migration, thousands of Canada geese, mallards, black ducks, widgeon, and green-winged teal will use this portion of Lake Erie's Western Basin marshes. Other common species found in Magee Marsh include pintails, gadwalls, shovelers, blue-winged teal, wood ducks, ring-necked ducks, and red-breasted mergansers. Lesser numbers of redheads, scaup, bufflehead, ruddy ducks, and canvasbacks also frequent Magee Marsh during migration. Fall duck populations usually peak around mid-November.

These shallow marshes usually freeze over during the third week of November, but Sandusky Bay and Lake Erie normally remain open until mid-December. This open water, combined with an abundance of waste cereal grains in nearby fields, tends to hold relatively large populations of ducks in the area until late in the hunting season.

Spring flights of migrating waterfowl become apparent after the frozen marshes begin to thaw in February. Early flights of pintails, mallards, and black ducks follow the freeze line. Local giant Canada geese, along with a small population of wintering migratory geese, will stay through the winter in the vicinity of Magee Marsh. Flocks of migrating tundra swans, sometimes numbering 2,000-3,000 appear in late March and remain in the area until the end of April.

Other birds. Spring and fall migrations are spectacular at Magee Marsh, with more than 300 species of birds being recorded on the area. Bald eagles, peregrine falcons, osprey, and a large variety of hawks can be seen at Magee Marsh during the spring. A forested beach ridge located on Magee provides a critical feeding and resting habitat for more than 150 species of migrating songbirds, including 36 species of warblers, as they rest and refuel before continuing on their journey. An accessible boardwalk that meanders through this beach ridge provides some of the best bird watching opportunities in the Midwest. During the summer, herons, egrets, pied-billed grebes, ducks, and Canada geese can be seen in the marsh and along the waterways, and a variety of migrating shorebirds can be spotted as they feed in the mudflats during late summer and early fall. Always remember to keep you eyes open for a glimpse of the bald eagles that frequent the marsh.

Mammals. The most common furbearers found in the wetland include muskrats, raccoons, skunks, mink, and foxes. Cottontail rabbits, fox squirrels, and white-tailed deer are also present, and coyotes have been spotted nearby.

HUNTING AND TRAPPING

Waterfowl hunting on Magee Marsh Wildlife Area is done on a controlled, hunt-by-permit basis. Special youth waterfowl hunts are also offered, by permit, on the first Saturday of waterfowl season. Application forms are available at all wildlife district offices. Controlled furbearer trapping and special youth trapping opportunities are also allowed on Magee Marsh by permit. Information and bidding requirements may be obtained by contacting Magee Marsh Wildlife Area.

PUBLIC USE FACILITIES

A small boat ramp at the Turtle Creek fishing access provides access to Lake Erie, and a parking lot for anglers is also located there. The Sportsmen's Migratory Bird Center, built in 1970, houses a comfortable lounge with a fireplace, various displays depicting the history of Magee Marsh, and is surrounded by a display pond full of fish, frogs, turtles, and snakes. A 42-foot observation deck near the bird center gives a commanding view of the display ponds, marsh and lake.

ADDITIONAL INFORMATION

The accessible Sportsmen's Migratory Bird Center is open year-round, Monday-Friday, 8:00 a.m. - 5:00 p.m., and on Saturday and Sunday during the spring and summer from noon -6:00 p.m. The accessible boardwalk bird trail and entire wildlife area are also open year-round from dawn to dusk. Restricted hours do apply during the controlled waterfowl hunts that are carried out on Magee Marsh from early October through early December. For further information, write the Magee Marsh Wildlife Area, 13229 West State Route 2, Oak Harbor, Ohio 43449, or call (419)898-0960. Information may also be obtained from the Division of Wildlife's District Two Office at 952 Lima Avenue, Box A, Findlay, OH 45840; telephone (419)424-5000.

TURN IN A POACHER

Ohio's TIP, "Turn In a Poacher," program is helping to curtail poaching throughout the state. TIP is designed to involve the public in reporting wildlife violations. Citizens who observe wildlife violations should call the TIP toll-free hotline, 1-800-POACHER.

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Friends of Magee Marsh Wildlife Area Web Site Design Evaluation

Site Title: Friends of Magee Marsh Subject: Magee Marsh Wildlife Area

URL: http://www.friendsofmageemarsh.org/ Audience:: Magee Marsh info seekers

Web Site Developer: Laurie Cleaver 2005

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	Y	(N)
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	19	3

Comments:

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Friends of Magee Marsh Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	(Y)	N
B. User is able to determine the intended audience of the site.	(Y)	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	(Y)	N
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	(Y)	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: 1/26/06	(Y)	N
B. Latest revision date is appropriate to material.	(Y)	N
C. Content is updated frequently.	Y	(N)
D. Links to other sites are current and working properly.	(Y)	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	(Y)	N
B. The content appears to be complete (no "under construction" signs, for example)	Y	(N)
C. The content of this site is well organized.	(Y)	N
D. This site provides interactivity that increases its value.	(Y)	N
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	(Y)	N
Totals	14	4

Site Title: Friends of Magee Marsh Subject: Magee Marsh Wildlife Area

URL: http://www.friendsofmageemarsh.org/ Audience:: Magee Marsh info seekers

Web Site Developer: Laurie Cleaver 2005

Purpose for exploring this site: To learn more about the Magee Marsh Wildlife Area and the Friends of Magee Marsh group

Notes on possible uses of this site and URLs for useful linked sites:

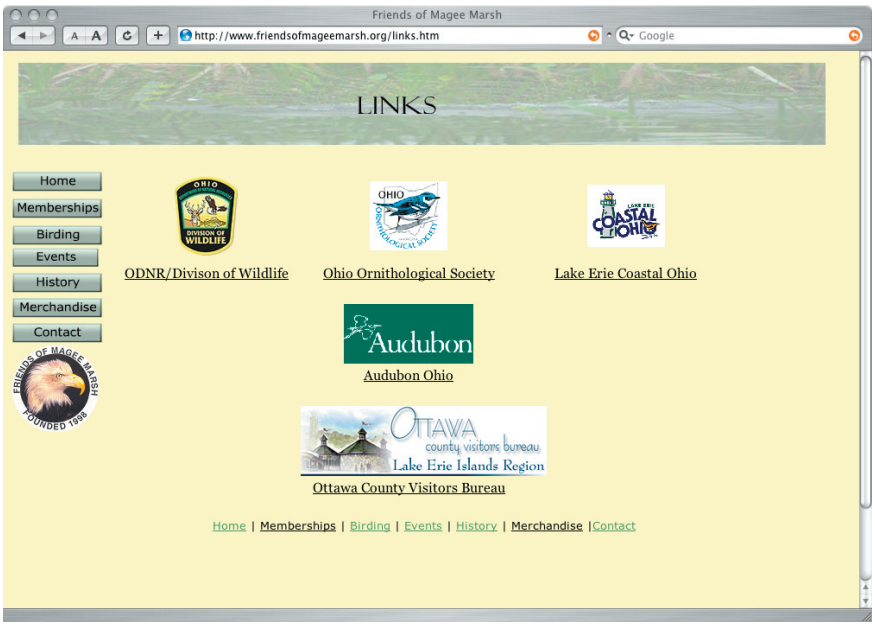
Comments:

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Friends of Magee Marsh Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	http://www.friendsofmageemarsh.org/history.htm	
Contact info.	http://www.friendsofmageemarsh.org/contacts.htm	Naturalist info, including email address, was given, as well as board member names.
History	http://www.friendsofmageemarsh.org/history.htm	
Events	http://www.friendsofmageemarsh.org/events.htm	
Things to Do	http://www.friendsofmageemarsh.org/birding.htm	
Map	http://www.friendsofmageemarsh.org/contacts.htm	
Directions	http://www.friendsofmageemarsh.org/contacts.htm	

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Pictured here are two pages of the friends of Magee Marsh website at http://www.friendsofmageemarsh.org and http://www.friendsofmageemarsh.org/links.htm. The design of the website is consistent with the design principles of print media: contrast, repetition, alignment and proximity of elements on each web page are taken into account.



Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killdeer Plains Wildlife Area Web Site Design Evaluation

Site Title: Northwestern Ohio Wildlife Areas Subject: Killdeer Plains Wildlife Area information, photographs, and maps

URL: http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northwest/northwa.htmAudience:: Wildlife Area information seekers

Web Site Developer: Ohio Department of Natural Resources Division of Wildlife

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	Y	(N)
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	20	2

Comments: The Killdeer Plains Wildlife Area information was not easy to find from the Home Page of the Ohio DNR. A visitor interested in Killdeer Plains must click on the "Recreation: Fish & Wildlife" link, then the "Find a Map: Wildlife" link, then navigate to the "Northwestern Ohio" link to get to the final link to the Killdeer Plains PDF link

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killdeer Plains Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	Y	N
B. User is able to determine the intended audience of the site.	Y	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	N
B. Information about the author(s) is available.	Y	N
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	N
D. The sponsor of the site is clearly identified.	Y	N
E. A contact person or address is available so the user can ask questions or verify information.	Y	N
3. Information Currency		
A. Latest revision date is provided. Date last revised:	Y	N
B. Latest revision date is appropriate to material.	Y	N
C. Content is updated frequently.	Y	N
D. Links to other sites are current and working properly.	Y	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	Y	N
B. The content appears to be complete (no "under construction" signs, for example)	Y	N
C. The content of this site is well organized.	Y	N
D. This site provides interactivity that increases its value.	Y	N
E. The information is consistent with similar information in other sources.	Y	N
F. Grammar and spelling are correct.	Y	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	N
Totals	14	3

Site Title: Northwestern Ohio Wildlife Areas Subject: Killdeer Plains Wildlife Area information, photographs, and maps

URL: http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northwest/northwa.htmAudience:: Wildlife Area information seekers

Web Site Developer: Ohio Department of Natural Resources Division of Wildlife

Purpose for exploring this site:To learn more about the Wildlife Areas in Northwestern Ohio

Notes on possible uses of this site and URLs for useful linked sites:

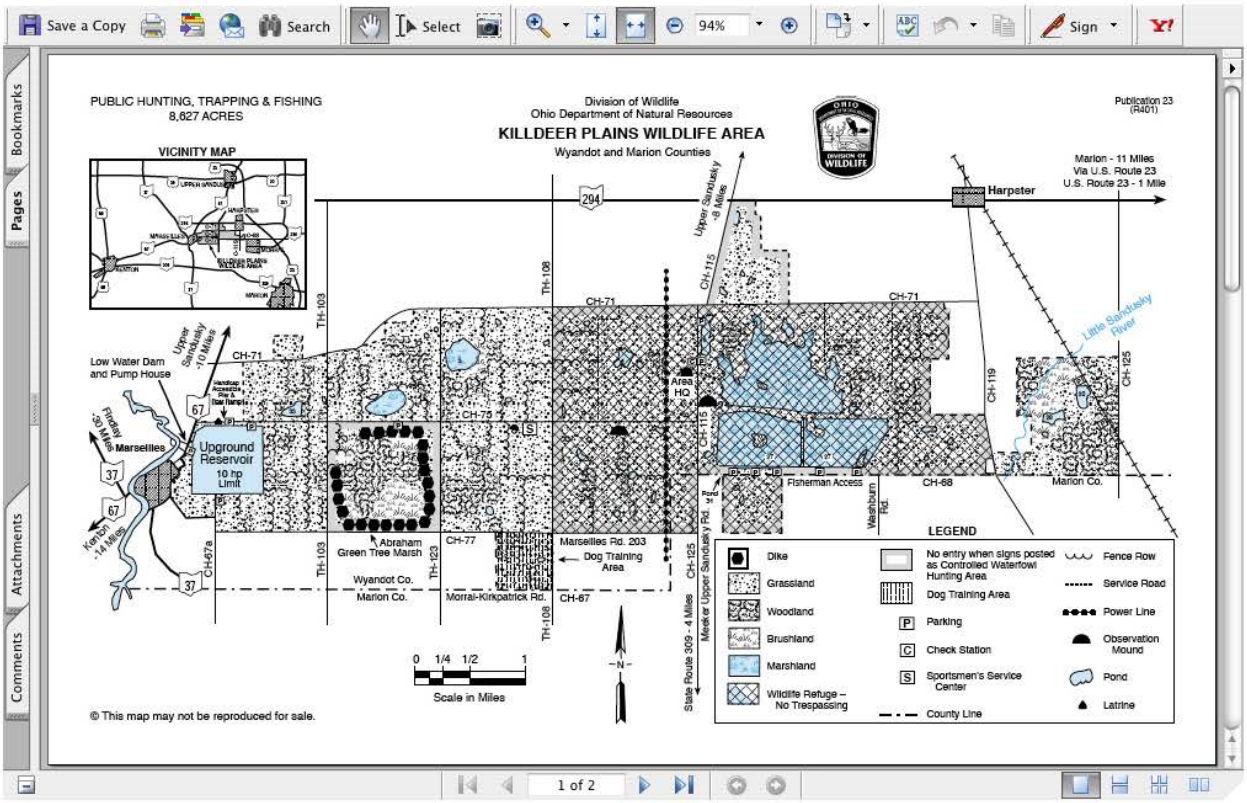
Comments: The Killdeer Plains Willdife Area property had only two PDF pages consisting of a map of the property on one side and information about the property on the other side.

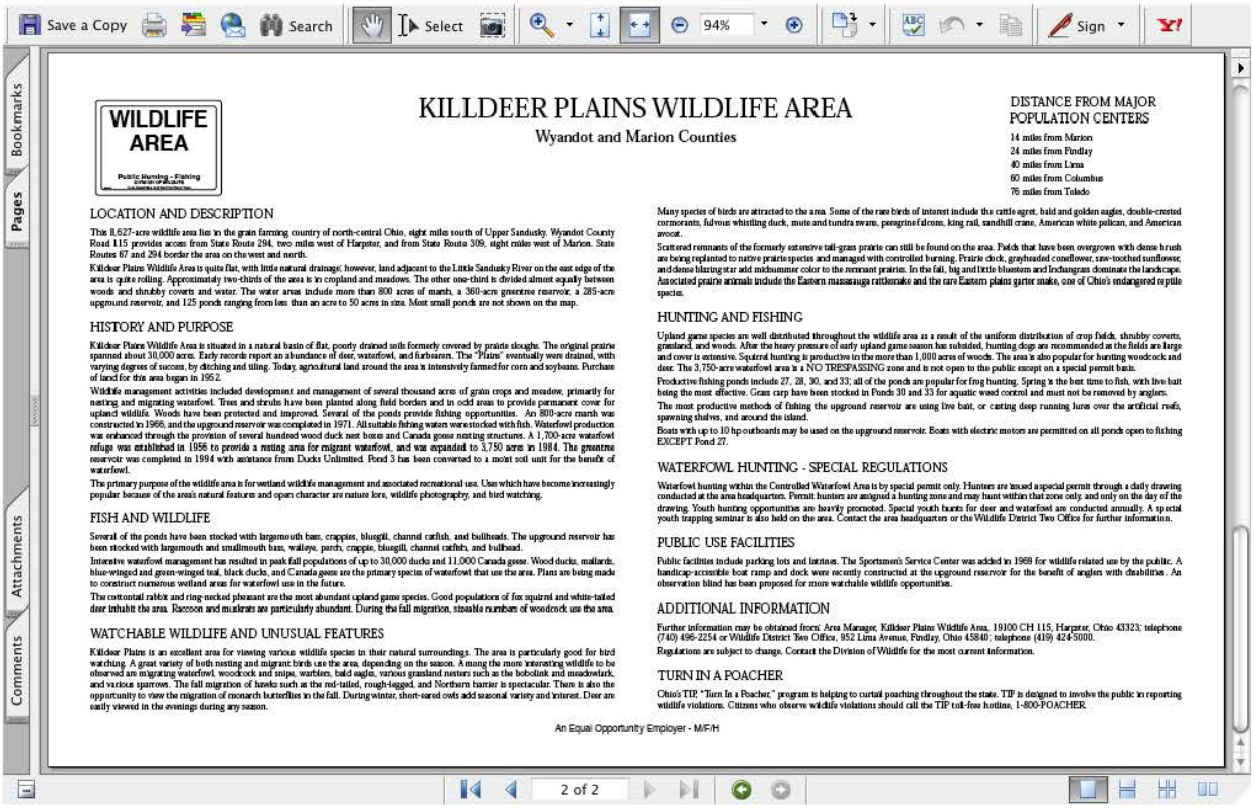
Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killdeer Plains Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	Not applicable	Killdeer Plains did not have an actual website within the Ohio DNR's official website. It had just 2 PDF pages (a description of the property and a map)
Contact info.	Not applicable	
History	Not applicable	
Events	Not applicable	
Things to Do	Not applicable	
Map	http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northwest/northwa.htm	
Directions	Not applicable	

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killdeer Plains Wildlife Area





Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killbuck Marsh Wildlife Area Web Site Design Evaluation

Site Title: Northeastern Ohio Wildlife Areas Subject: Killbuck Marsh Wildlife Area information, photographs, and maps

URL: http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northeast/northea.htm Audience:: Wildlife Area information seekers

Web Site Developer: Ohio Department of Natural Resources Division of Wildlife

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	(Y)	N
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	Y	(N)
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	Y	(N)
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	18	4

Comments: The Killbuck Marsh Wildlife Area information was not easy to find from the Home Page of the Ohio DNR. A visitor interested in Killbuck Marsh must click on the "Recreation: Fish & Wildlife" link, then the "Find a Map: Wildlife" link, then navigate to the "Northeastern Ohio" link to get to the final link to the Killbuck Marsh PDF link The PDF links to the informational pages were not working when a Safari browser was used.

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killbuck Marsh Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	(Y)	N
B. User is able to determine the intended audience of the site.	(Y)	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	(N)
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	(Y)	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: ???	Y	(N)
B. Latest revision date is appropriate to material.	Y	(N)
C. Content is updated frequently.	Y	(N)
D. Links to other sites are current and working properly.	(Y)	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	(Y)	N
B. The content appears to be complete (no "under construction" signs, for example)	(Y)	N
C. The content of this site is well organized.	(Y)	N
D. This site provides interactivity that increases its value.	(Y)	N
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	(Y)	N
Totals	12	5

Site Title: Northeastern Ohio Wildlife Areas Subject: Killbuck Marsh Wildlife Area information, photographs, and maps

URL: http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northeast/northea.htm Audience:: Wildlife Area information seekers

Web Site Developer: Ohio Department of Natural Resources Division of Wildlife

Purpose for exploring this site: To learn more about the Wildlife Areas in Northeastern Ohio

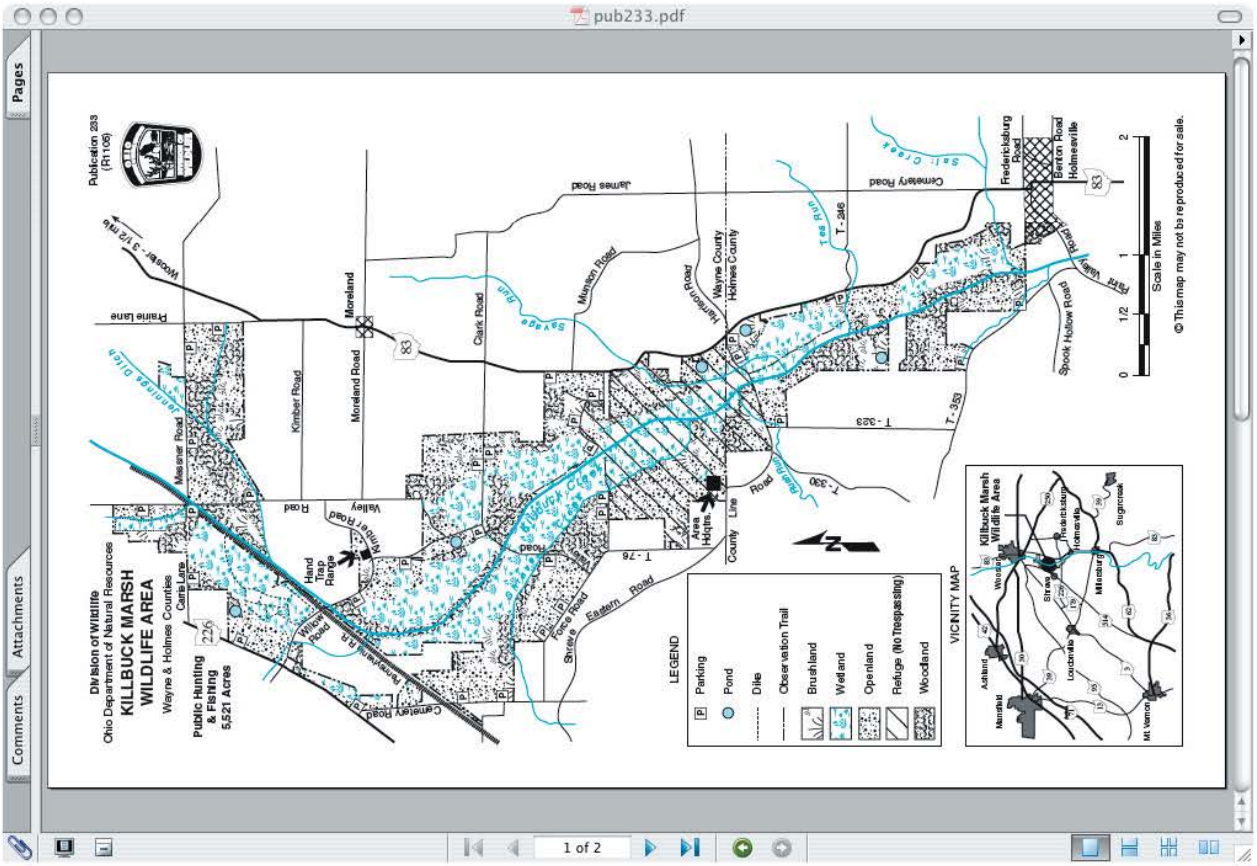
Notes on possible uses of this site and URLs for useful linked sites:

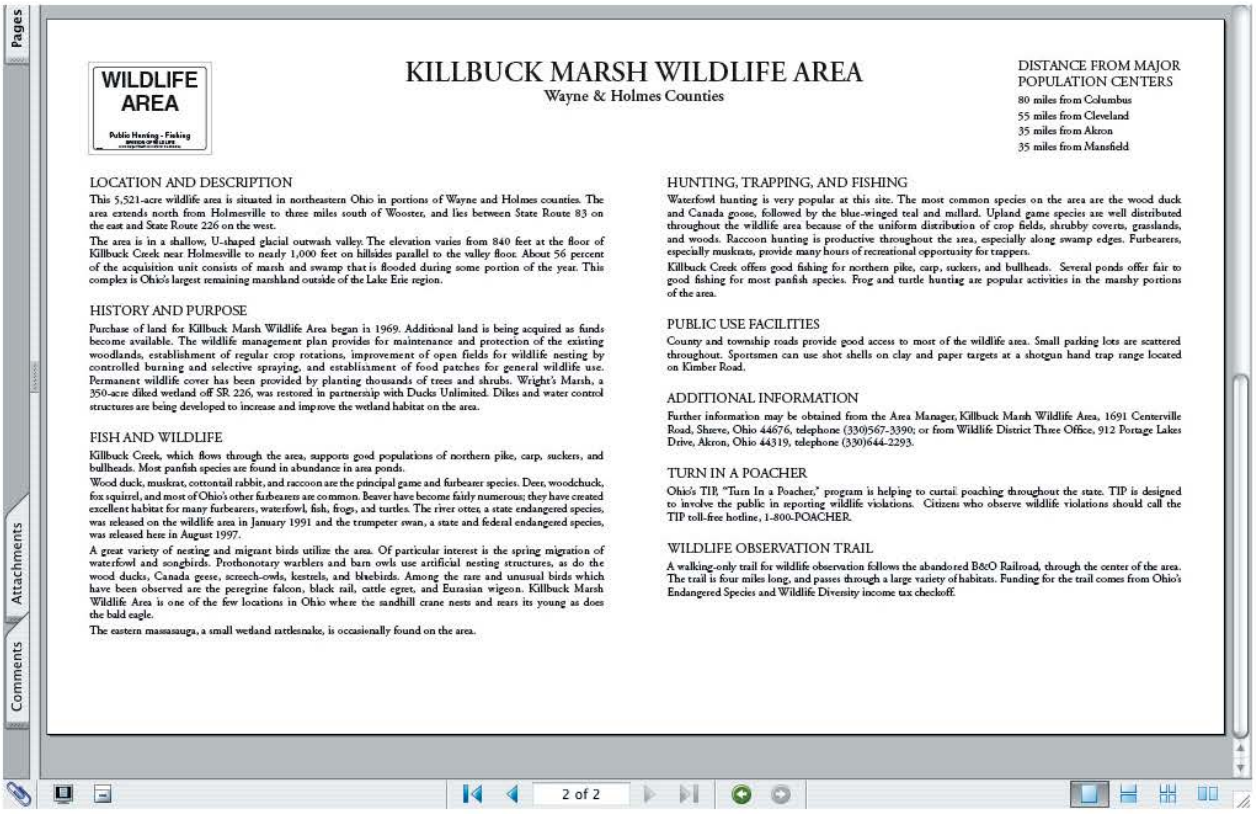
Comments: The Killbuck Marsh Willdife Area property had only two PDF pages consisting of a map of the property on one side and information about the property on the other side.

Appendix Q: Ohio Wildlife Area Website Evaluations continued...

Killbuck Marsh Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
About Us	Not applicable	Killbuck Marsh did not have an actual website within the Ohio DNR's official website. It had just 2 PDF pages (a description of the property and a map)
Contact info.	Not applicable	
History	Not applicable	
Events	Not applicable	
Things to Do	Not applicable	
Map	http://www.ohiodnr.com/wildlife/Hunting/wildlifeareas/northeast/northea.htm	
Directions	Not applicable	

Appendix Q: Ohio Wildlife Area Website Evaluations continued...





WILDLIFE AREA
Public Hunting - Fishing

KILLBUCK MARSH WILDLIFE AREA

Wayne & Holmes Counties

DISTANCE FROM MAJOR POPULATION CENTERS
80 miles from Columbus
55 miles from Cleveland
35 miles from Akron
35 miles from Mansfield

LOCATION AND DESCRIPTION

This 5,521-acre wildlife area is situated in northeastern Ohio in portions of Wayne and Holmes counties. The area extends north from Holmesville to three miles south of Wooster, and lies between State Route 83 on the east and State Route 226 on the west.

The area is in a shallow, U-shaped glacial outwash valley. The elevation varies from 840 feet at the floor of Killbuck Creek near Holmesville to nearly 1,000 feet on hillsides parallel to the valley floor. About 56 percent of the acquisition unit consists of marsh and swamp that is flooded during some portion of the year. This complex is Ohio's largest remaining marshland outside of the Lake Erie region.

HISTORY AND PURPOSE

Purchase of land for Killbuck Marsh Wildlife Area began in 1969. Additional land is being acquired as funds become available. The wildlife management plan provides for maintenance and protection of the existing woodlands, establishment of regular crop rotations, improvement of open fields for wildlife nesting by controlled burning and selective spraying, and establishment of food patches for general wildlife use. Permanent wildlife cover has been provided by planting thousands of trees and shrubs. Wright's Marsh, a 350-acre diked wetland off SR 226, was restored in partnership with Ducks Unlimited. Dikes and water control structures are being developed to increase and improve the wetland habitat on the area.

FISH AND WILDLIFE

Killbuck Creek, which flows through the area, supports good populations of northern pike, carp, suckers, and bullheads. Most panfish species are found in abundance in area ponds.

Wood duck, muskrat, cottontail rabbit, and raccoon are the principal game and furbearer species. Deer, woodchuck, fox squirrel, and most of Ohio's other furbearers are common. Beaver have become fairly numerous; they have created excellent habitat for many furbearers, waterfowl, fish, frogs, and turtles. The river otter, a state endangered species, was released on the wildlife area in January 1991 and the trumpeter swan, a state and federal endangered species, was released here in August 1997.

A great variety of nesting and migrant birds utilize the area. Of particular interest is the spring migration of waterfowl and songbirds. Prothonotary warblers and barn owls use artificial nesting structures, as do the wood ducks, Canada geese, screech-owls, kestrels, and bluebirds. Among the rare and unusual birds which have been observed are the peregrine falcon, black rail, cattle egret, and Eurasian wigeon. Killbuck Marsh Wildlife Area is one of the few locations in Ohio where the sandhill crane nests and rears its young as does the bald eagle.

The eastern massasauga, a small wetland rattlesnake, is occasionally found on the area.

HUNTING, TRAPPING, AND FISHING

Waterfowl hunting is very popular at this site. The most common species on the area are the wood duck and Canada goose, followed by the blue-winged teal and mallard. Upland game species are well distributed throughout the wildlife area because of the uniform distribution of crop fields, shrubby covers, grasslands, and woods. Raccoon hunting is productive throughout the area, especially along swamp edges. Furbearers, especially muskrats, provide many hours of recreational opportunity for trappers.

Killbuck Creek offers good fishing for northern pike, carp, suckers, and bullheads. Several ponds offer fair to good fishing for most panfish species. Frog and turtle hunting are popular activities in the marshy portions of the area.

PUBLIC USE FACILITIES

County and township roads provide good access to most of the wildlife area. Small parking lots are scattered throughout. Sportsmen can use shot shells on clay and paper targets at a shotgun hand trap range located on Kimber Road.

ADDITIONAL INFORMATION

Further information may be obtained from the Area Manager, Killbuck Marsh Wildlife Area, 1691 Centerville Road, Shreve, Ohio 44676, telephone (330)567-3390; or from Wildlife District Three Office, 912 Portage Lakes Drive, Akron, Ohio 44319, telephone (330)644-2293.

TURN IN A POACHER

Ohio's TIP, "Turn In a Poacher," program is helping to curtail poaching throughout the state. TIP is designed to involve the public in reporting wildlife violations. Citizens who observe wildlife violations should call the TIP toll-free hotline, 1-800-POACHER.

WILDLIFE OBSERVATION TRAIL

A walking-only trail for wildlife observation follows the abandoned B&O Railroad, through the center of the area. The trail is four miles long, and passes through a large variety of habitats. Funding for the trail comes from Ohio's Endangered Species and Wildlife Diversity income tax checkoff.

Appendix R

Indiana Wildlife Area Website Evaluations

Appendix R: Indiana Wildlife Area Website Evaluations continued...

Indiana Wildlife Area Web Site Design Evaluation

Site Title: Indiana DNR Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.in.gov/dnr/fishwild/publications/maps.htm Audience:: Wildlife Area information seekers

Web Site Developer: Indiana Department of Natural Resources Division of Fish and Wildlife

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	Y	(N)
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	Y	(N)
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	Y	(N)
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	Y	(N)
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	Y	(N)
Totals	15	7

Comments: Beacuse all Indiana wildlife areas reviewed had identical formats, only one evaluation form was used for content and one form for design. The wildlife areas reviewed were Jasper-Pulaski, Pigeon River, Minnehaha, Kankakee, Atterbury, and Hovey Lake.

Indiana Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	(Y)	N
B. User is able to determine the intended audience of the site.	(Y)	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	(N)
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	(Y)	N
3. Information Currency		
A. Latest revision date is provided. Date last revised:	Y	(N)
B. Latest revision date is appropriate to material.	Y	(N)
C. Content is updated frequently.	Y	(N)
D. Links to other sites are current and working properly.	(Y)	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	(Y)	N
B. The content appears to be complete (no "under construction" signs, for example)	(Y)	N
C. The content of this site is well organized.	(Y)	N
D. This site provides interactivity that increases its value.	Y	(N)
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	(N)
Totals	10	8

Site Title: Indiana DNR Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.in.gov/dnr/fishwild/publications/maps.htm Audience:: Wildlife Area information seekers

Web Site Developer: Indiana Department of Natural Resources Division of Fish and Wildlife

Purpose for exploring this site: To learn more about the Wildlife Areas in Indiana

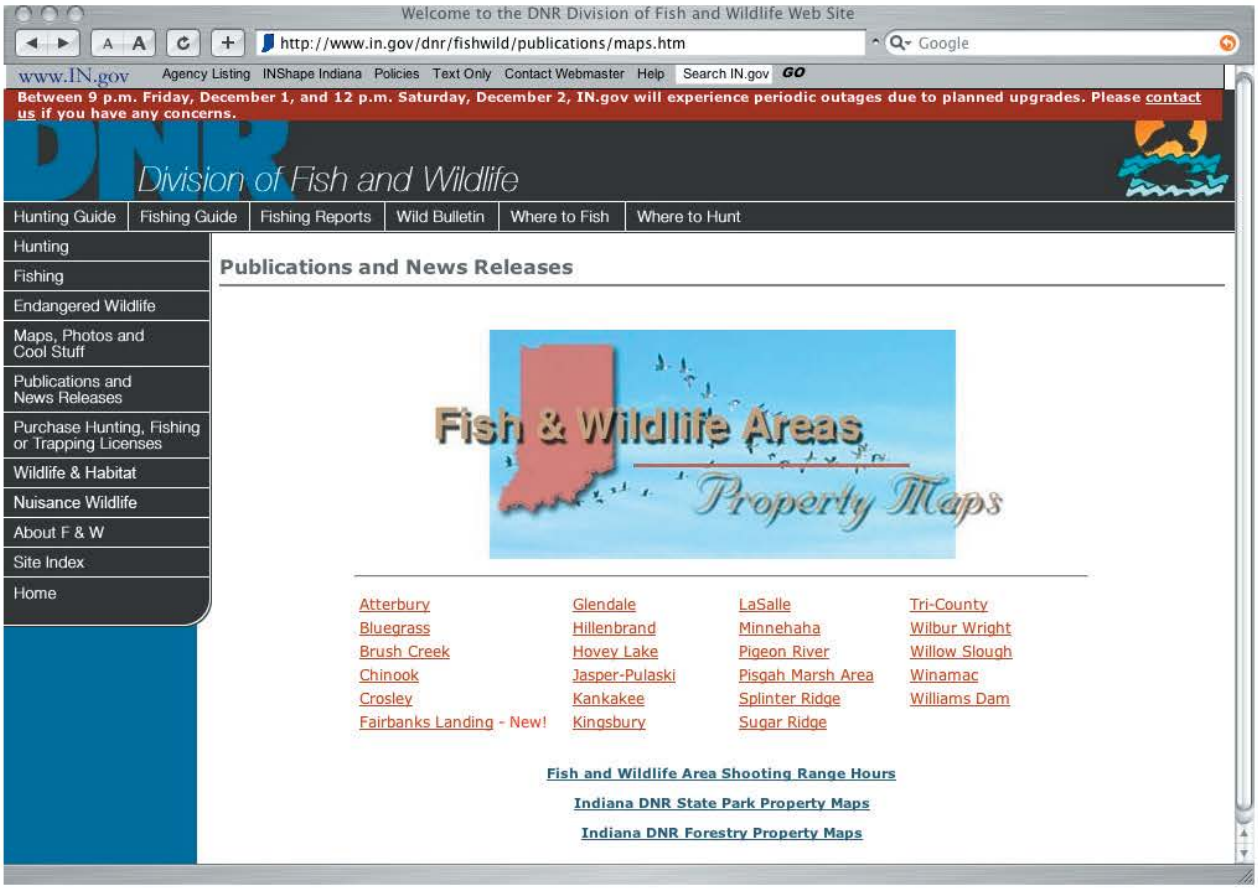
Notes on possible uses of this site and URLs for useful linked sites:

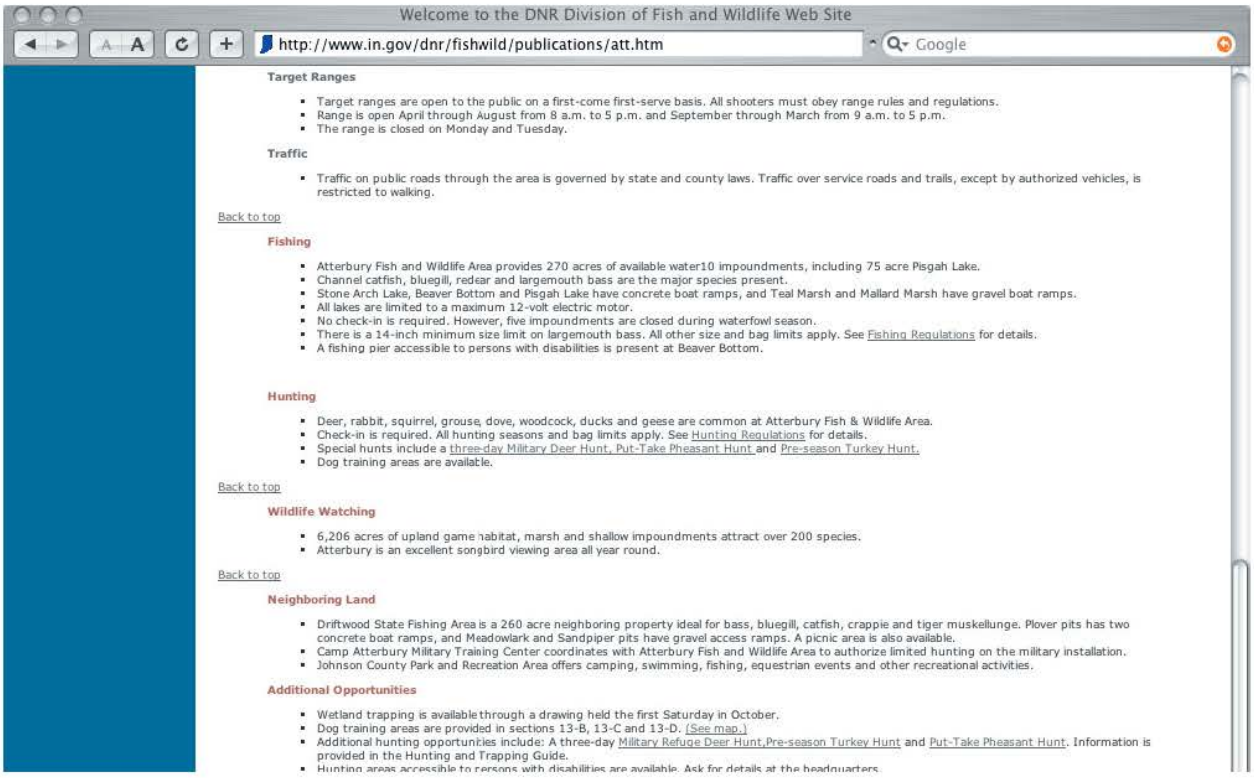
Comments: The websites for willdife area properties in Indiana had only one web page each consisting of about 15 paragraphs of information about the property.

Appendix R: Indiana Wildlife Area Website Evaluations continued...

Killbuck Marsh Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
Wildlife Watching	http://www.in.gov/dnr/fishwild/publications/att.htm http://www.in.gov/dnr/fishwild/publications/jasper.htm http://www.in.gov/dnr/fishwild/publications/hovey.htm http://www.in.gov/dnr/fishwild/publications/kank.htm http://www.in.gov/dnr/fishwild/publications/minn.htm http://www.in.gov/dnr/fishwild/publications/pigeon.htm	Indiana wildlife areas did not have more than one web page each.
Contact info.	Same as above.	No email or web link given, just an address and a phone number.
History and Funding	Same as above.	
Rules and Regulations	Same as above.	
Fishing **Hunting**	Same as above.	
Map	Same as above.	Available in online HTML format and as an Acrobat Reader form.

Appendix R: Indiana Wildlife Area Website Evaluations continued...





Appendix S

Michigan Wildlife Area Website Evaluations

Appendix S: Michigan Wildlife Area Website Evaluations continued...

Michigan Wildlife Area Web Site Design Evaluation

Site Title: Michigan DNR Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.michigan.gov/dnr/0,1607,7-153-10363-31657--,00.html Audience:: Wildlife Area information seekers

Web Site Developer: Michigan Department of Natural Resources

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	Y	(N)
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	Y	(N)
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	Y	(N)
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	Y	(N)
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	(Y)	N
B. Out-dated material has been removed.	Y	(N)
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	Y	(N)
Totals	15	7

Comments: Beacuse all Michigan wildlife area websites reviewed had similar formats, only one evaluation form was used for content and one form for design. The state wildlife area websites reviewed were Au Train Basin, Rose Lake, Sanilac, Tobico Marsh, and Pointe Mouillee. Finding information for specific wildlife areas within Michigan was difficult. From the official Michigan Department of Natural Resources website, a visitor must click on "Publications and Maps", then on "On-line Maps", then on the "Public Land Survey System - State Game Areas and Other Wildlife Areas" link. Then the site requires the visitor to locate the desired wildlife area by choosing either "Area Names by Alphabetical List" or "Area Names by County List". This method leaves little opportunity for a visitor unfamiliar with Michigan wildlife properties the chance to explore the various regions of the state and the wildlife area properties within those regions.

Appendix S: Michigan Wildlife Area Website Evaluations continued...

Michigan Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	(Y)	N
B. User is able to determine the intended audience of the site.	(Y)	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	(N)
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	Y	(N)
3. Information Currency		
A. Latest revision date is provided. Date last revised: 7/2001	(Y)	N
B. Latest revision date is appropriate to material.	Y	(N)
C. Content is updated frequently.	Y	(N)
D. Links to other sites are current and working properly.	Y	(N)
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	(Y)	N
B. The content appears to be complete (no "under construction" signs, for example)	(Y)	N
C. The content of this site is well organized.	(Y)	N
D. This site provides interactivity that increases its value.	Y	(N)
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	Y	(N)
Totals	9	8

Site Title: Michigan DNR Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.michigan.gov/dnr/0,1607,7-153-10363-31657--,00.html Audience:: Wildlife Area information seekers

Web Site Developer: Michigan Department of Natural Resources

Purpose for exploring this site: To learn more about the Wildlife Areas in Michigan

Notes on possible uses of this site and URLs for useful linked sites:

Comments: The websites for willdife area properties in Michigan had only 2 printable PDF pages each consisting of a brief outline of cantact information, such as Au Train Basin State Wildlife Management Area in Alger County contact: Gladstone Field Office, 6833 Hwy. 2, 41, and M-35, Gladstone, MI 49837; phone (906) 786-2351, along with a link to a PDF map. The PDF maps for each property would not work with a Safari browser.

Appendix S: Michigan Wildlife Area Website Evaluations continued...

Michigan Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
Things to Do	Not applicable	Michigan wildlife areas did not have more two PDF pages each.
Contact info.	http://www.michigan.gov/dnr/0,1607,7-153-10363-31657--,00.html#Adams_Township	No email or web link given, just an address and a phone number.
History	Not applicable.	
Rules and Regulations	http://www.michigan.gov/dnr/0,1607,7-153-10363-31657--,00.html#Adams_Township	
Events	Not applicable	
Map	http://www.michigan.gov/dnr/0,1607,7-153-10363-31657--,00.html#Adams_Township	
Directions		No directions were given, just a map.

Appendix T

Minnesota Wildlife Area Website Evaluations

Appendix T: Minnesota Wildlife Area Website Evaluations

Minnesota Wildlife Area Web Site Design Evaluation

Site Title: Minnesota DNR Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.dnr.state.mn.us/wmas/a_to_z_list.html?map=/usr/local/www/docs_maps/wildlife/wma/a_to_z_list.map&qlayer=wmas&qitem=unitname&qstring=/^B/&mode=itemnquery Audience:: Wildlife Area information seekers

Web Site Developer: Minnesota Department of Natural Resources

Evaluate the Web site you have selected according to the criteria described below. Circle "Y" for "Yes", "N" for "No".

1. Speed		
A. The homepage downloads efficiently.	(Y)	N
2. Home page		
A. The homepage is attractive, has strong eye appeal.	(Y)	N
B. You can tell where you are immediately (clear title, description, image captions, etc.)	(Y)	N
C. There is an index, table of contents, or some other clear indicator of the contents of the site.	(Y)	N
D. Site sponsor/provider is clearly identified.	(Y)	N
E. Information/method for contacting sponsor/provider is readily available.	(Y)	N
F. Copyright date or date site was established is easy to determine.	Y	(N)
3. Ease of navigation		
A. User is able to move around within the site with ease.	(Y)	N
B. Directions for using the site are provided if necessary.	Y	(N)
C. Directions are clear and easy to follow.	Y	(N)
D. Internal and external links are working properly (no dead ends, no incorrect links, etc.)	(Y)	N
4. Use of multimedia		
A. Each graphic, audio file, video file, etc., serves a clear purpose.	(Y)	N
B. The graphics, animations, sounds clips, etc., make a significant contribution to the site.	(Y)	N
5. Browser compatibility		
A. Site is equally effective with a variety of browsers such as Netscape and Internet Explorer.	(Y)	N
6. Content Presentation		
A. The information is clearly labeled and organized.	(Y)	N
B. The same basic format is used consistently throughout site.	(Y)	N
C. Information is easy to find (no more than three clicks, for example).	(Y)	N
D Lists of links are well organized and easy to use.	(Y)	N
7. Currency		
A. The date of last revision is clearly labeled. Date last revised _	Y	(N)
B. Out-dated material has been removed.	(Y)	N
8. Availability of further information		
A. A working link is provided to a contact person or address for further information.	(Y)	N
B. Links to other useful Web sites are provided.	(Y)	N
Totals	18	3

Comments: Because all Minnesota wildlife management area websites reviewed had similar formats, only one evaluation form was used for content and one form for design. The state wildlife management area websites reviewed were Whitewater, Beaches Lake, Gordie Mikkelson, Sax, Sand Prairie, and Carlos Avery. Finding information for specific wildlife areas within Minnesota was fairly easy. From the official Minnesota Department of Natural Resources website home page, a visitor must click on "Outdoor Activities and Places", then on "Wildlife Management Areas", then the visitor may choose how he/she would like to find a management area's information. A management area may be looked up by county, by alphabetical listing, or by a feature called the "Recreation Compass" which incorporated a color-coded land map of the state of Minnesota to help visitors find areas of land designated for various outdoor activities.

Appendix T: Minnesota Wildlife Area Website Evaluations continued...

Minnesota Wildlife Area Web Site Content Evaluation

1. First look		
A. User is able to quickly determine the basic content of the site.	(Y)	N
B. User is able to determine the intended audience of the site.	(Y)	N
2. Information Providers		
A. The author(s) of the material on the site is clearly identified.	Y	(N)
B. Information about the author(s) is available.	Y	(N)
C. According to the info given, author(s) appears qualified to present information on this topic.	Y	(N)
D. The sponsor of the site is clearly identified.	(Y)	N
E. A contact person or address is available so the user can ask questions or verify information.	(Y)	N
3. Information Currency		
A. Latest revision date is provided. Date last revised: 2006	(Y)	N
B. Latest revision date is appropriate to material.	(Y)	N
C. Content is updated frequently.	(Y)	N
D. Links to other sites are current and working properly.	(Y)	N
4. Information Quality		
A. The purpose of this site is clear: business/commercial – entertainment – informational -news - personal page -persuasion	(Y)	N
B. The content appears to be complete (no "under construction" signs, for example)	(Y)	N
C. The content of this site is well organized.	(Y)	N
D. This site provides interactivity that increases its value.	(Y)	N
E. The information is consistent with similar information in other sources.	(Y)	N
F. Grammar and spelling are correct.	(Y)	N
5. Further Information		
A. There are links to other sites outside of the agency.	(Y)	N
Totals	15	2

Site Title: Minnesota DNR Wildlife Areas Subject: Wildlife Area information, photographs, and maps

URL: http://www.dnr.state.mn.us/wmas/a_to_z_list.html?map=/usr/local/www/docs_maps/wildlife/wma/a_to_z_list.map&qlayer=wmas&qitem=unitname&qstring=/^B/&mode=itemnquery Audience:: Wildlife Area information seekers

Web Site Developer: Minnesota Department of Natural Resources

Purpose for exploring this site: To learn more about the Wildlife Areas in Minnesota.

Notes on possible uses of this site and URLs for useful linked sites:

Comments:

Appendix T: Minnesota Wildlife Area Website Evaluations continued...

Minnesota Wildlife Area Web Site Content Evaluation continued...		
Link Category	**Uniform Resource Locator (URL)**	**Comments**
Recreational Opportunities	The following link is to the web page for the Carlos Avery Wildlife Management Area only. Similar links are present for the other Minnesota Wildlife Management properties. http://www.dnr.state.mn.us/wmas/detail_report.html?map=COMPASS_MAPFILE&mode=itemquery&qlayer=bdry_adwma2py3_query&qitem=uniqueid&qstring=WMA0900101	
Contact info.	Same as above.	
History	Not applicable.	
Rules and Regulations	Not applicable	
Events	Not applicable	
Map	The following link is to the web page for the Carlos Avery Wildlife Management Area only. Similar links are present for the other Minnesota Wildlife Management properties. http://www.dnr.state.mn.us/wmas/detail_report.html?map=COMPASS_MAPFILE&mode=itemquery&qlayer=bdry_adwma2py3_query&qitem=uniqueid&qstring=WMA0900101	

Appendix T: Minnesota Wildlife Area Website Evaluations continued...

WMA detail report: Minnesota DNR

http://www.dnr.state.mn.us/wmas/detail_report.html?map=COMPASS_MAPFILE&

Google

DNR DEPARTMENT OF NATURAL RESOURCES — Wildlife Management Areas

Enter Keywords search

A-Z List | Site Map | Contact the DNR | What's New? | Newsroom | Events & Seasons

> MN DNR Home > Outdoor activities > Wildlife management areas (WMAs) >

WMA detail report

Beaches Lake WMA : Main Unit

County: Kittson
Nearest Town: Lancaster
Area: 27,915 ac

Directions: From Lancaster 6 miles east and 1 mile north on County Road #4, then 1 mile east on a township road.

Description: This WMA is one of the largest in the state. Several isolated tracts are separated from the main unit by private land. This unit is in the Aspen Parkland Landscape and is a mixture of wetlands, aspen timber, brush prairie, brush lands and old fields.

This WMA is a very large unit with many unique features. A rich fen is located in the northwest. Rare birds found in the sedge meadows include marbled godwit, sharp-tailed sparrow and yellow rail, including several rare butterflies.

This unit is managed as aspen parkland. The prairie vegetation will be maintained with fire, mowing, and controlled grazing. The aspen woodlands and brush land will be burned or cut to keep them in a young stage. This WMA was established in 1968.

Elk occasionally are found on this unit. There is a wide-ranging elk herd in this area, and you may occasionally be able to spot them on this WMA. In September and October, elk can be spotted in openings, especially at dawn and dusk.

Recreation Opportunities:

Hunting options include: deer, bear, small game, forest game birds, sharptail grouse, and waterfowl.

Wildlife viewing options include: wetland wildlife, prairie wildlife, and forest wildlife.

RELATED PAGES:
Wildlife Management Areas
Main page
Hunting information
Hunting regulations

Additional Information:
- printable detail sheet
- interactive covertype map
- recreation compass

Back to top

© 2006 Minnesota Department of Natural Resources. Copyright Notice.
Web site policies: Accessibility, Linking, Privacy

MINNESOTA DNR DEPARTMENT OF NATURAL RESOURCES — Wildlife Management Areas

Enter Keywords search

A-Z List | Site Map | Contact the DNR | What's New? | Newsroom | Events & Seasons

> MN DNR Home > Outdoor activities > Wildlife management areas (WMAs) >

WMA detail report

Carlos Avery WMA : Carlos Avery Unit

County: Anoka
Nearest Town: Forest Lake
Area: 16,501 ac

Directions: The office is 7 miles west of Forest Lake on Anoka Co. 18. The unit can be accessed from Forest Lake, Wyoming or Stacy exits off of interstate 35.

Description: Carlos Avery WMA is Approximately 23,000 acres. It consists of about 2/3 wetland 1/3 upland and is managed primarily for Deer, Waterfowl and Turkeys. There are 20 Pools where water is actively managed to produce habitat for waterfowl.

Very popular area for Bird Watching

4,500 acres of the area are posted as Wildlife Sanctuary and closed to all trespassing.

18 Wheelchair accessible blinds are available for use during the Turkey season or as part of a special Deer hunt conducted by Capable Partners.

Trapping permits are required to trap any species on the WMA. Area is closed from 10:00pm to 4:00am each night.

This WMA contains a managed dove field. These designated fields are manipulated to attract doves. Managed dove fields may only be hunted with non-toxic shot and are closed to waterfowl hunting. Contact Area staff at 651-296-5290 for more information.

Recreation Opportunities:

Hunting options include: deer, bear, small game, forest game birds, pheasant, waterfowl, and doves.

Wildlife viewing options include: wetland wildlife, prairie wildlife, and forest wildlife.

RELATED PAGES:
Wildlife Management Areas
Main page
Hunting information
Hunting regulations

Additional Information:
- interactive covertype map
- recreation compass

Back to top

© 2006 Minnesota Department of Natural Resources. Copyright Notice.
Web site policies: Accessibility, Linking, Privacy

Appendix U

George W. Mead Wildlife Area Teacher Interviews

Appendix U: George W. Mead Wildlife Area Teacher Interviews

Interview Questions for Teachers

Interviewer: Jessica Huxmann Date: 8/23/06

Interview Method: Phone

Person Interviewed: Duane Behnke

School: Stevens Point Area High School

1. How often do you visit the Mead site with students? How many years have you been leading trips to the Mead?

Two times per year. We have been going for 3-4 years now.

2. What activities do you do with students at the Mead?

Activities with the Manager of the Mead, like brush cutting work and duck nest counting.

3. What is it about the Mead that encourages you to choose it over other locations for field trips?

The Mead is an awesome site with over 30,000 acres of land for the students to research.

4. What information about the Mead would be useful to you as a teacher?

Wetlands, wetland studies, managing of wetlands, and information on Greenwing Teal duck banding.

5. What do you think should be on a web site for the Mead?

A list of opportunities to learn,
would be helpful. I would like to have the students be able to find out about ways they can help the Mead, like what types of data collection studenst could do to help with the management of the property. A page on the website with results posted of the data would be great. One section of the website could be called the "Mead Report" and could feature what is going on currently at the Mead, such as the best viewing times for birds and other wildlife, species that are out there now, and reports on the flowages. A "Comments" area of the website would also be great because people could write in things they've noticed, which could clue the staff in on areas of the property they might not have been able to get to.

6. Of the things listed above, what do you perceive as being the most important for this website?

Appendix U: George W. Mead Wildlife Area Teacher Interviews continued...

What's going on currently on the property and posted results of data collection.

7. Would you visit a web site for the Mead?

definately.

8. Do you believe that having a web site to visit would enhance your experience at the Mead?

Yes.

9. What advice do you have for the designer of this website?

Oppotunities to be involved should be on the website, like Greenwing Days, when banding is open to the public, and a Comments section to write what you're seeing are important.

10. Would you be interested in receiving information from this study when it is completed?

Yes.

11. Is there anything that you would like to add?

Also include current water levels at the wildlife area.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Interview Questions for Teachers

Interviewer: Jessica Huxmann Date: 5/9/06

Interview Method: Email

Person Interviewed: John Birnbaum

School: Mosinee Middle School

1. How often do you visit the Mead site with students? How many years have you been leading trips to the Mead?

Our 7th grade visits once a year as a class and we have 5th grades visit with our Outdoor Education class.

2. What activities do you do with students at the Mead?

Heritage, Wetlands, Grasslands, Forestry, Alternative Energy tour.

3. What is it about the Mead that encourages you to choose it over other >locations for field trips?

The quality of instruction and the cost.

4. What information about the Mead would be useful to you as a teacher?

A list of activities available to plan a trip, Maps, Some pre trip activities that I could do with my students before we visit. The concepts that would be covered in the activities my students would be involved with. If I know the terms and concepts that are going to be covered I can figure out how to teach them before we show up.

5. What do you think should be on a web site for the Mead?

PDF files of Maps and activities to do before we visit. A list of activities to chose from. A short Bio. of the staff. A student comment section where kids could e mail in comments. Pictures and field guides of the wildlife and plants they could see on their trip. Games matching the sound to the animal, some fun activities for kids.

6. Of the things listed above, what do you perceive as being the most important for this website?

I see three types of information 1 for students, 2. for teachers, 3. about the mead. My students would like to see pictures and information on

the plants and animals there. (I just asked them in class). I would like to see the concepts covered by each activities so I can better prepare them for the trip.

7. Would you visit a web site for the Mead?

Yes I would. My students would be required to also if it is good enough.

8. Do you believe that having a web site to visit would enhance your experience at the Mead?

Absolutely

9. What advice do you have for the designer of this website?

Lots of pictures. Kid orientated

10. Would you be interested in receiving information from this study when it is completed?

Sure let me know how it is going and if I can help.

11. Is there anything that you would like to add?

Lots of great possibilities here it could really enhance my teaching.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Interview Questions for Teachers

Interviewer: Jessica Huxmann Date: 4/28/06

Interview Method: Phone

Person Interviewed: Paul Rheinschmidt

School: DC Everest Middle School (Wausau, WI) 6th Grade

1. How often do you visit the Mead site with students? How many years have you been leading trips to the Mead?

The students each visit once per year, but I go four times a year with different classes. I've been taking students to the Mead for 4 years.

2. What activities do you do with students at the Mead?

Pond Study - Invertebrates
Wetland ecosystems
Orienteering
History of Trapping lesson
Prairie ecology

3. What is it about the Mead that encourages you to choose it over other locations for field trips?

The staff; they are extremely cooperative and flexible. Also, the 30,000 acres of land to explore, the proximity to the school, and the varieties of habitat and ecosystems available.

4. What information about the Mead would be useful to you as a teacher?

What is offered on the property, hours of operation, "coined" activities (unique to the Mead), sights and sites to see, heron rookery information, details about the Spring Floral Walk, what is required to take a class out for the day.

5. What do you think should be on a web site for the Mead?

Area to do list (a list of what a visitor to the Mead should do and see while there)
Programs offered at the Mead
Dichotymous key to plant species on the website
Lessons from Project WILD workbook
User-friendly design
The website should be geared to the 90% of teachers who do not take classes to the Mead,

so that they can learn more about it and have access to resources, like lesson plans, that would make it easier for them to start going there on field trips.

6. Of the things listed above, what do you perceive as being the most important for this website?

Current events at the Mead
Nature notes
Project WILD link, Project WET link, and a Project Learning Tree link from the Mead website

7. Would you visit a web site for the Mead?

Yes, definately.

8. Do you believe that having a web site to visit would enhance your experience at the Mead?

Yes. Having a website would make it easier to plan field trips.

9. What advice do you have for the designer of this website?

Design it to be user-friendly and invite kids to come out and do things at the Mead. Make the website appeal to the 90% of teachers who haven't been there and don't know how to teach Mead's lessons. Angle for the 90%, not the 10% that already take field trips there. Make lesson plans available online.

10. Would you be interested in receiving information from this study when it is completed?

Yes.

11. Is there anything that you would like to add?

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Interview Questions for Teachers

Interviewer: Jessica Huxmann Date: 5/1/06

Interview Method: Phone

Person Interviewed: Jerry Maney, Environmental Educaton Director

School: Wausau School Forest (Wausau, WI)

1. How often do you visit the Mead site with students? How many years have you been leading trips to the Mead?

I don't actually take students to the Mead anymore. I do give the Mead's information to other teachers if they want to go.

2. What activities do you do with students at the Mead?

N/A

3. What is it about the Mead that encourages you to recommend it over other locations for field trips?

The Mead has different habitats than the Wausau school forest. There are no wetlands or rookeries at the school forest. Water quality and insects are different at both sites.

4. What information about the Mead would be useful to you as a teacher?

I was in the classroom for 13 years before my current position. I would like to know what supervision and teaching the Mead can provide to a visiting class. How much will the trip cost per student? Are there bathroom and meal facilities available? What lessons are available to teach to students before the actual trip (pre-trip lessons)? I would want a map. I would also want to know what the earliest and latest times I could stay would be.

5. What do you think should be on a web site for the Mead?

All of the above.
Links to other websites (REI, for example).
Lesson plans appropriate to certain grade levels.
A list of guest speakers available for a fee.
A current schedule of when schools will be coming would be important. Teachers could check the schedule so they know when to come.

6. Of the things listed above, what do you perceive as being the most important for this

website?

Pictures are important, like pictures of kids doing activities at the Mead. Confidentiality must be maintained with pictures of kids, though.

7. Would you visit a web site for the Mead?

Yes, for sure.

8. Do you believe that having a web site to visit would enhance your experience at the Mead?

Yes, definately. It is hard to find people to put up a website, but it pays off.

9. What advice do you have for the designer of this website?

Whatever is on the site, keep it current. Do not make the site so big that it cannot be kept up. Start small and do well.

10. Would you be interested in receiving information from this study when it is completed?

Yes.

11. Is there anything that you would like to add?

Good luck.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Interview Questions for Teachers

Interviewer: Jessica Huxmann Date: 5/9/06

Interview Method: Phone

Person Interviewed: John Birnbaum

School: Mosinee Middle School

1. How often do you visit the Mead site with students? How many years have you been leading trips to the Mead?

Maximum once per school year

2. What activities do you do with students at the Mead?

Ecology and other natural history activities including grassland studies, pond, forestry. The activities are very inquiry based and designed to generate curiosity.

3. What is it about the Mead that encourages you to choose it over other locations for field trips?

Its location and natural diversity...getting kids out of the city

4. What information about the Mead would be useful to you as a teacher?

Topics that are available for exploration...ready made activities that could be used at the high school level

5. What do you think should be on a web site for the Mead?

Possible workshop /activity topics...site makeup...what is available for exploration at the site

6. Of the things listed above, what do you perceive as being the most important for this website?

workshop/activity topics

7. Would you visit a web site for the Mead?

yes

8. Do you believe that having a web site to visit would enhance your experience at the

Mead?

yes...it would greatly aid in planning a field experience for students

9. What advice do you have for the designer of this website?

10. Would you be interested in receiving information from this study when it is completed?

yes

11. Is there anything that you would like to add?

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix U: George W. Mead Wildlife Area Teacher Interviews continued...

Interview Questions for Teachers

Interviewer: Jessica Huxmann Date: 5/1/06

Interview Method: Email

Person Interviewed: Ann Pickett

School: Port Edwards Elementary

1. How often do you visit the Mead site with students?

We go out there every year for Earth Day.

How many years have you been leading trips to the Mead?

4 years

2. What activities do you do with students at the Mead?

Actually (the Mead staff) do the teaching. We usually do wetlands (pond dipping) grasslands (migration) and a tour of the building of course meet Mobly (Great Horned Owl)

3. What is it about the Mead that encourages you to choose it over other locations for field trips?

The beautiful facilities, (the manager) and his staff are very knowledgeable and make the activities fun for the kids.

4. What information about the Mead would be useful to you as a teacher?

Currently I think the "green building" is educational.

5. What do you think should be on a web site for the Mead?

For teachers: a list of educational opportunities would be great!

6. Of the things listed above, what do you perceive as being the most important for this website?

Current activities.

7. Would you visit a web site for the Mead?

Yes

Appendix U: George W. Mead Wildlife Area Teacher Interviews continued...

8. Do you believe that having a web site to visit would enhance your experience at the Mead?

Yes, especially if it had background information about the area/activities.

9. What advice do you have for the designer of this website?

Be creative

10. Would you be interested in receiving information from this study when it is completed?

Yes

11. Is there anything that you would like to add?

I know (the Mead staff) are short on time. They always make us feel welcome and do a great job! I do feel a full time naturalist would be beneficial so the facilities would best be used. Also, some teachers aren't comfortable leading a group and it would probably build a comfort zone if there was a naturalist leading.

Thank you so much for your time. Your answers are very valuable to us.

Interview # _____

Appendix U: George W. Mead Wildlife Area Teacher Interviews continued...

Compilation of Teacher Interviews

One-on-one semi-structured interviews were conducted with 5 teachers who currently use the Mead Wildlife Area for their lessons. Two teachers were included from the high school level, two from the middle school level, and one from the elementary school level. One former teacher who is currently the director of a school forest was also included because of his past involvement with the Mead.

1. How often do you visit the Mead with students? How many years have you been leading trips to the Mead?
   - Two times a year for 3 or 4 years.
   - Our 7th grade visits once a year as a class and we have 5th grades visit with our outdoor education class.
   - The 6th graders go one time per year, but this teacher takes 4 groups of 6th graders, so the educator goes four times per year and has been going for four years now.
   - We go out there every year for Earth Day. We have been going for four years now.
   - Maximum once per school year.

2. What activities do you do with students at the Mead?
   - Activities with (the property manager), brush cutting service work, mallard nest counts.
   - Heritage, Wetlands, Grasslands, Forestry, Alternative Energy tour.
   - Pond Study, Wetland Ecosystems, Orienteering, History of Trapping, and Prairie Ecosystems.
   - Actually, (the Mead staff) do the teaching. We usually do wetlands (pond dipping), grasslands
     (migration), a tour of the building, and of course meet Mobly (the Great Horned Owl).
   - Ecology and other natural history activities including grassland studies, pond, forestry. The activities are very inquiry based and designed to generate curiosity.

3. What is it about the Mead that encourages you to choose it over other locations for field trips?
   - Awesome site. 30,000 acres for research.
   - The quality of instruction and the cost.
   - The staff is cooperative and flexible, there are 30,000 acres of property, and the property is close to the school and offers a variety of habitats to study.
   - Different habitat than school forest. The water quality and insects are different.
   - The beautiful facilities, and the staff are very knowledgeable and make the activities fun for kids.
   - Its location and natural diversity... getting kids out of the city.

4. What information about the Mead would be useful to you as a teacher?
   - Wetland information, such as wetland studies, information on the management of wetlands, and green-winged teal banding information.
   - A list of activities available to plan a trip, maps, some pre-trip activities that I could do with my students before we visit. The concepts that would be covered in the activities my students would be involved with. If I know the terms and concepts that are going to be covered, I can figure out how to teach them before we show up.
   - What's offered, hours of operation, coined activities, sites to see, heron rookery

information, spring flora walk information.

- I want to know what supervision and teachers does the Mead have? Are bathrooms and meal facilities

  available? What pre-trip lessons are available? What is the cost per child? I would l ike a map of the property, hours of operation, and a schedule of the earliest the students can arrive and the latest they

  can stay.
- Currently, I think the "green building" is educational.
- Topics that are available for exploration... ready made activities that could be used at the high school level.

5. • What do you think should be on a website for the Mead? (Listed from most to least reported)

- Opportunities to learn (3)
- Comment area for visitors to share their observations, ("Nature Notes") (2)
- A list of activities to choose from (2)
- Links to Project WILD, Project WET, and Project Learning Tree sites (2)
- Information on how kids can get involved and help the Mead
- Data collection, such as flowage water levels
- Posted results of water collection data, water levels, and rice production
- "Mead Report" about what's going on right now
- Best viewing times for different species
- Management report – what types of management are being conducted and why
- PDF files of maps
- PDF files of activities to do before we visit
- A short biography of each of the staff
- A student comment section where kids could email in comments
- Pictures and field guides of the wildlife and plants they could see on their trip.
- Games matching the sound to the animal
- Some fun activities for kids
- Dichotomous key to plants
- Lessons from the Project WILD book
- User friendly design
- What supervision and teachers does the Mead have?
- Are bathrooms and meal facilities available?
- Pre-trip lessons
- Cost per child
- Map of the property
- Hours of operation
- Schedule of the earliest the students can arrive and the latest they can stay
- Guest presenters that are available and the fee they'd charge
- Current activities
- Possible workshop/activity topics... site makeup... what is available for exploration at the site.

6. Of the things listed above, what do you perceive as being the most important for this website?

- What's going on. Results of data collection.

- I see three types of information, 1. For students, 2. For teaches, 3. About the mead. My students would like to see pictures and information on the plants and animals there. (I just asked them in class).

  I would like to see the concepts covered by each activity so I can better prepare them for the trip.
- Current events at the Mead and nature notes, Project WILD link, as well as Project WET, and Project Learning Tree links.
- Pictures are important. Have pictures of kids doing things at the Mead, but keep in mind confidentiality issues. Post a schedule of which schools will visit the Mead. Teachers can look at the schedule online and can decide when they want to visit.
- Current activities.
- Workshop/activity topics.

7. Would you visit a website for the Mead?

   Definitely.
   - Yes I would. My students would be required to also if it is good enough.
   - Yes, definitely.
   - Yes, for sure.
   - Yes. (2)

8. Do you believe that having a website to visit would enhance our experience at the Mead?
   - Yes.
   - Absolutely.
   - Yes, especially if it had background information about the area/activities.

9. What advice do you have for the designer of this website?
   - List opportunities to be involved, like green-wing teal banding day, on the website and have banding open to the public. Have a comments section on the website.
   - Lots of pictures. Kid-orientated.
   - Design it to be user-friendly and invite kids to come out and do things at the Mead. Make it appeal to the 90% of teachers who haven't been there and don't know how to teach Mead's lessons. Angle for the 90%, not the 10% who already bring their students to Mead. Make lesson plans available online.
   - Whatever is on the website, keep it current. Don't make it so big that you can't keep up. Start small and do it well.
   - Be creative.

10. Would you be interested in receiving information from this study when it is completed?
    - All participants indicated that yes, they would like to receive information from this study when it was completed.

11. Is there anything you would like to add?
    - Lots of great possibilities here it could really enhance my teaching.
    - Good luck.
    - I know (the staff) are short on time. They always make us feel welcome and do a great job! I do feel a full time naturalist would be beneficial so the facilities would best be used. Also, some teachers aren't comfortable leading a group and it would probably build a comfort zone if there were a naturalist leading.

Appendix V

George W. Mead Wildlife Area Visitor Online Survey

Appendix V: George W. Mead Wildlife Area Visitor Online Survey

An online survey was set up to collect data from Mead Wildlife Area users from mid-April, 2005, until October 21, 2006. Fifty-six people submitted the survey within that time. Below are the results of the data collected from the survey.

1. How many times a year do you visit the MWA? Please put an check mark next to your answer choice (see Figure 1):

- 5.4% 0 times per year
- 30.4% 1-2 times per year
- 14.3% 3-4 times per year
- 16.1% 5-10 times per year
- 33.9% 11 or more times per year

2. In what season(s) do you visit the MWA? Check all that apply (see Figure 2):

- 73.2% Spring
- 41.1% Summer
- 83.9% Fall
- 37.5% Winter

3. What activities do you do while visiting the MWA? Check all that apply (see Figure 3):

- 57.1% Hiking
- 28.6% Biking
- 32.1% Teaching
- 57.1% Wildlife watching
- 44.6% Bird watching
- 12.5% Canoeing
- 41.1% Hunting
- 3.6% Trapping
- 12.5% Fishing
- 21.4% Other - please specify:
  - Photography
  - Hunting (lining) feral honey bee colonys (sic) – just for fun
  - Tour building, meetings
  - Dog training
  - Forestry education
  - Search and rescue training
  - Geocaching
  - Visitor center visit
  - Visit
  - Berry picking
  - Woodcraft
  - Mushroom picking

4. Think back to the last time you visited the MWA. What did you observe there that you wanted to learn more about?

- 25% Cultural history of the area
- 8.9% Controlled burning

Appendix V: George W. Mead Wildlife Area Visitor Online Survey continued...

58.9% Animals
42.9% Plants
21.4% Geological history of the area
35.7% Maps of the area
32.1% Recreational opportunities available at the MWA
39.3% Schedules for special events taking place at the MWA
19.6% Wildlife food plots
12.5% Water level management
21.4% Invasisve species control
30.45 Habitat restoration
8.9% Other - please specify:
Open hunting areas
Maps related to specific activities
Hunting info.
Wildlife management
Making firewood

5. Please rate your level of agreement with each of the following statements.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
The MWA is an enjoyable place to visit	3.6%	0%	1.8%	28.6%	66.1%
Information about the MWA is easy for me to get	5.4%	14.3%	25.0%	37.5%	17.9%
Websites are good sources of information	7.1%	1.8%	14.3%	30.4%	46.4%
The MWA needs a website	7.1%	0%	10.7%	21.4%	60.7%
I would use a website for the MWA	3.6%	0%	10.7%	28.6%	57.1%
I would enjoy visiting the MWA more if I had a website to visit beforehand	10.7%	1.8%	21.4%	41.1%	25.0%

6. What do you think should be included in a website for the MWA?
- Pictures taken by Dennis Yockers!
- An updated listed of activities that occur at the Mead--must be kept updated;

information on the bike trail at Berkhan Flowage--almost no one knows about it. Continual update of the hunting/fishing seasons occurring; bird observations recently seen (from Audubon CBC's; staff feeder observations, Whooping Cranes, etc.)

- General description of area, activities available, facilities available, map, hours of building openings, wildlife viewing possibilities
- UPDATED aerial maps of the MWA (within the last 2 years - updated annually every August) activities of things to do at the Mead and what hours of operation they are available. endangered plants and animals such as Gray Wolves, Northern Pitcher Plants, etc.
- The hours that the visitor center is open to the public.
- Schedule of activities (field trips etc).
- Maps.
- A non pdf format map, a map with more detail on which things can be done on what part of the wildlife area, calendar of events
- activies updated events
- Addition information about the more detailed maps and brochures that can be obtained on-site or through the mail.
- more on the history of the area, also some activities that children/students can do when the visit the site
- If a website is fun - younger individuals will visit it more
- Schedules of special events, news about what management activites are taking place (so I don't schedule a Boy Scout hike during a prescribed burn, for example), links to other area wildlife areas, parks, etc.
- Activities
- How to get there
- I think the website should inlclude all the same things you have on any state or national park. Examples: Location, times open, size, wildlife opportunities, camping?, fishing?, hunting?, along with educational opportunities available.
- Activities available, times shelter house is available, any applicable costs, dates when hunting, trails, etc. are allowed
- The things available to do at the Mead, a schedule of the events happening there, resources available to teachers and others.
- careers, lessons/activities, reservation information of the area, contact info phone etc, calendar of events, virtual tour, web cam of view of marsh or other view of area
- Calendar of Events.
- Maybe a hunting and fishing almanac that tells you what types of fish you could catch where, and how successful hunters have been with different species of animals throughout the wildlife area.
- Times that the new center are open.
- 1. a update and the location of any interesting site or species that may be on the property, i.e. a migrating snowy owl
  2. a link to all merchandise that is being sold, i.e. friends of Mead Wildlife shirts, caps, etc
  3. a calendar of upcoming events, work parties, and current seasonal functions that are scheduled
  4. tours that are scheduled by either a DNR personal or one of the Friends volunteers
- Current and on going events.
- Upcoming events, times of the events
- Information on special programs at MWA.
- Map, directions to MWA. Activities available at MWA.
- Pictures of MWA, focusing on wildlife, plants.

Appendix V: George W. Mead Wildlife Area Visitor Online Survey continued...

- Information about the habitat and management practices at MWA. Information on why the MWA is important.
- A checklist of the birds of MWA,also special events that are happening there.
- Detailed maps of the open areas/fields
- A better map. For instance where is the Berkham Flowage" versus the "Teal Flowage"
- What species of birds/animals would I find in the MWA?
- Visitor Center hours. I have family from out-of-town here for the holiday, but probably will not drive from Wausau to the Mead as I don't want to get there and find it closed.
- Both consumptive and nonconsumptive user information. Species, habitat, landscapes of interest.
- Historical vignettes, maps, local points of interest, links to visitor information (surrounding area).
- Overview of what the MWA is used for, it's vision, and how I might enjoy use of the area through various activities.
- Specific information about hunting seasons so i can avoid hiking/kayaking in various seasons, and information about the wildlife refuge closings/openings.
- There should be more in depth of where hunting is permited. which trails are ok to hunt from .can you hunt ducks from the dikes. just a better overall explaination of where you can hunt there are a lot of signs down in the field and I am not sure where to be legal. i have hunted deer here for years. I really enjoy the area.but find that information is very iffy.maybe more info on different lakes or ponds as to how to get to or what is refuge and what isnt. i love your new vistor station. please send me more answers thank you.cptrapper@sbcglobal.net
- A map of the restricted access areas should be made available.
- Comprehensive mapping including access, refuges, trails special projects, Ect. (sic) The maps currently available are somewhat of a joke considering the complexity of rules surrounding access rights. The refuge boundaries need to be clearly defined. Links to topographical info would be quite
  useful as well.
- Hunting areas: maps of restricted areas
- Topo maps, aerial photos, more stuff about the wildlife
- Species lists.
- Available hours and what else do they offer
- Pictures of kids having fun

7. Of the above, what would you find most helpful in a website for the MWA?
   - Everything but the hunting seasons.
   - Location and general description of land areas and wildlife
   - Activities
   - Schudule (sic) of field trips.
   - All of them (referring to "a non pdf format map, a map with more detail on which things can be done
     on what part of the wildlife area, calendar of events")
   - Events occuring (sic) and dates
   - Contact information
     schedule of events
   - Event schedules
   - Activities available
   - Dates for activities and trail openings

- Available resources and things available to do at the Mead.
- contact, reservation info, calendar of events
- Calendar of Events
- Current bird or animal visitors. It could also be linked up to other sites such as the WSO website.
- Pictures and information about why it is important. And a Map/directions to MWA.
- Both of the above (referring to "a checklist of the birds of MWA,also special events that are happening there.")
- A better map.
- Listing of all the activities
- Maps of the area, resources, trails, and roads. Access considerations and sensitivities.
- A FAQ section would be great for quick and easy question/answers.
- hunting location, better understanding of refuge borders, and seasons openings or rules.
- Boundary and access info
- Maps
- All (referring to "topo maps, aerial photos, more stuff about the wildlife")
- Flora and fauna information other than game species.
- Migratory (sic) bird patterns

8. If you had a chance to give advice to the designer of a website for the MWA, what advice would you give?

- Make the website as comprehensive as possible but use as much feedback as you can from the "Friends"
- Make it easy to get to the links
- A few photos would be good if possible
- 1) include pdf membership form for Friends of Mead
  2) include email link to Mead on Contact page
  3) include a link to volunteer to help at new Education building
- Clarity
- Get some photos of rare species such as above mentioned. I see no mention of Boreal Owl on the Owl

  list. I have pictures of a Boreal at Mead, and I have Wolf pictures, and pitcher plant photos. These oncommon (sic) things are more interesting than everyday things.
- Keep it well organized (not busy).
- No horizontal scroll bars, make your navigation so its in the same place on every page, don't have a new page open up everytime some one clicks on a link. only open a page in a new browser when some one clicks on an external link.
- The color of the type for clicking to another link should be a different color - it is hard to see/read
- List activities for grade levels
- Keep it simple and user friendly.
- make it simple to navigate and have contact info on front
- The recreational opportunities page took a really long time to download on my dial-up internet. I did not even wait to see all the pictures.
- If this site is dealing with friends and volunteers of MWA, I would expect the designer to be one of the same character. Not one to capitalize on an opportunity because the money is available.
- The goal should be to educate the public including the surrounding schools to the

available resource that MWA provides. The future of all wetlands not protected by some gov't agency is at risk unless the public is educated on there significance.

- Continue the beauty from the present site. The deer reflected in a pool on the Wildlife Watching page is priceless.
- Include some good pictures of MWA to inspire people to want to visit it.
- Don't know
- List Visitor Center Hours.
- Follow standard web development protocols. Don't make it to complicated, keep it clean and professional, avoid flashing gizmos, use logical navigation.
- Include pictures of the area and make the site easy to navigate .
- A picture is worth a thousand words
- Include what kind of wildlife would be exspected to be seen
- Keep it simple
- Provide more links to additional information that would help educate about McMillan/ Mead wildlife and their needs. What people are doing wrong in the world today and how they could improve.
- Get to work

9. If you would like to comment further on a website for the MWA, or explain your responses, please do so here:

- I grew of on property touching the Mead Wildlife. I enjoy the beauty of the area in all the seasons. I enjoy the winter season best when all the hunters are gone. It is the remoteness of the area that I love.
- I worked as a volunteer in the Horicon marsh and visualize this center as opportunity to educate another region of the state on the importance of wetlands. If we use their system as a model, this center can be running quite smoothly in a short time.
- You might want to define a stakeholder group that can act in a review capacity for your alpha and beta sites.
- Many people don't realize the recreational possibilies availablke to them through wildlife areas, I'd be sure the website expressed these options in an easy to navigate manner. There's more to wildlife areas than hunting, let the public know this.
- McMillan Marsh State Wildlife Area has a tendency to be forgotten, and when it is remember it should be in a way that protects and improves McMillan Marsh for wildlife and NOT for People.

General Information

10. What is your gender?

60.7%___Male
39.3%___Female

11. How would you describe yourself?

0%___ American Indian
0%___ Asian
0%___ Black or African American

0%___ Hispanic or Latino
94.6%___ White
0%___ Multi-racial
1.8%___Other:
Multi-ethnic
(Non-respondent: 3.6%)

12. Your occupation or affiliation:
    16.1%___ Elementary School Teacher
    3.6%___ Middle School Teacher
    7.1%___ High School Teacher
    16.1%___ College/University Educator
    8.9%___ Non-formal Educator
    5.4%___ Business/Industry Representative
    0%___ Extension Service
    0%___ State or Federal Wildlife Agency
    0%___ State or Federal Agency other than Wildlife
    0%___ School Administrator
    10.7%___ Private Conservation Group
    8.9%___ Private Hunting Group
    10.7%___ Retired
    5.4% Student
    28.6%___ Other:
        I've been hiking/hunting Mead for more than 42 years. A great place.
        Multi-media Developer
        Cub scout leader
        Self employed IT Consultant
        Nature lovers
        University Program Director (non teaching)
        Substitute teacher, former Black Hills FS employee
        Paper Mill worker
        Disabled
        Healthcare
        Construction
        Farmer

13. In what state do you live?
    94.6% Wisconsin
    1.8% Illinois
    3.6% No response given

15. In what city or town do you live?
    Stevens Point (13)
    Auburndale (5)
    Marshfield (4)
    Milladore (4)
    Wausau (3)

Plover (2)
Wisconsin Rapids (2)
Amherst (1)
Arpin (1)
Cross Township (1)
Linwood (1)
Lockport (1)
Madison (1)
Merrill (1)
Milwaukee (1)
Mosinee (1)
Rhinelander (1)
Rib Mountain (1)
Richland Center (1)
Scandinavia (1)
Spencer (1)
Stratford (1)
Town of Grand Rapids – Wood County (1)
Waterford (1)
Watertown (1)

Please use the space below to make any additional comments concerning a website for the MWA.

- Looks good to me!
- I am happy that I was able to get this today, on Netscape. I'll now check the Internet Explorer. I hope the site will be available to all--I think that would be important.
- Info on which ponds are drawn down, what bird species are current, and which if any areas are off limits would be helpful.
- great start!!!!!
- Great job so far, good luck in the future
- Great beginning, Jessie! Things to do page: Great pictures, but it takes a long time to load all.
- Eventually perhaps each activity could have it's own page so one could go to activities of interest only.
- The Mead is a great place to bike and take a nice quiet walk. We enjoy the Mead very much.
- I would like to see an affilation with the Rolling Readers of America started at MWA. <www. rollingreaders.org>
- These are volunteers that go to schools and educate elementary students on the importance of wetlands, wildlife etc. using a varity of means, especially books.
- At the Horicon, thematic trunks were available for Rolling Reader volunteers to use. These would hold books, videos, examples of vegetation or stuffed animals and more that represented the theme. If you need more information email Dennis at: Dennis rock-cut@tds.net
- Not all people have the time nor the computers. I still rely on news articles in the newspapers, Magazines, and tourist info material.
- A very enjoyable Mother's day bird watching with my daughter!

- I would enjoy viewing a website for the MWA, hope it happens.
- I think this is going to be a great website if they use what the people ask for.the better understanding of rules the less problems we all have.i am not sure what is open for duck season .and where.etc.i like to be sure where i am is not refuge .a little more help and this area will be used by more people bringing more money to this area .we all benefit.thank you very much
- Foot travel only - feet on the ground - on all wildlife area trails. Eliminate bike trails and help concentrate on noticing and appreciating wildlife not cruising past it or over it at 10+mph - even if insects are numerous and biting unprotected people.

Appendix W

George W. Mead Wildlife Area Focus Group Discussions

Appendix W: George W. Mead Wildlife Area Focus Group Discussions

A focus group discussion involving 10 members of the Friends of Mead-McMillan, Inc., was held at the George W. Mead Wildlife Area's new Visitor Center on April 13, 2006. The questions asked, and the responses of the participants, are given below.

1. "What is the first thing that comes to your mind when you hear the phrase "George W. Mead Wildlife Area"?"
   - Education of youth
   - McMillan Marsh
   - Mr. George Mead
   - The variety of species found here
   - Preservation of natural resources
   - The hunting I have done there.
   - History of the place
   - Wildlife
   - Diversity of environments
   - Birds
   - Passing the legacy of a love of the environment on to future generations.

2. "How many times a year do you visit the MWA?"
   - Twenty-five times
   - Fifteen times
   - I used to come about two to three times, then I got involved with the friends group and I've come several more times.
   - At least twenty-five times a year.
   - About a dozen time.
   - At least three dozen times a year.

3. "Why do you visit the MWA as often, or as seldom, as you do?"
   - Biking and bird watching are the reasons I come. Those are my interests.
   - New building
   - I am participating in educational efforts here.
   - I bring my kids (students) on field trips here.
   - Canoeing.
   - I walk the trails to get away.

4. "In what season(s) do you visit the MWA?
   - Summer (7)
   - Spring (All)
   - Fall (ALL)
   - Winter (5)

5. "What activities are you most interested in doing while visiting the MWA?"
   - Hiking
   - Biking
   - Canoeing
   - Bird watching
   - Wildlife watching

- Hunting
- Berry picking
- Dog training
- Snowshoeing
- Fishing
- Botany study
- Entomology study
- Photography

6. "Think back to the last time you visited the MWA. What did you observe there that you wanted to learn more about?"
   - Renewable energy
   - Hunting stories (like they have on the Outdoor Wisconsin website)
   - Video clips of what's going on at the Mead
   - Archaeology
   - Past history of this area
   - Mead Conifer Bogs State Natural Area
   - Exotic/Invasive species of the Mead (what they are, how to identify them, how to prevent their spread)
   - What projects are going on at the Mead (what are the biologists and wildlife managers up to)
   - Educational opportunities for groups (who to contact, what lessons are available, when is a good time to come)

7. "Picture your favorite website. What is it about that website that makes it useful to you?"
   - Current information is provided
   - The site has an hourly weather report
   - The site has a broad range of topics that appeal to a lot of people
   - The site is easy to navigate and search
   - Short download time
   - The site is designed simply, for the computer illiterate
   - The site contains a calendar of events
   - The site has both internal links and external links to other sites

8. "What do you think should be included in a website to the MWA?"
   - Detailed maps (trails, access points)
   - Bike trail maps for both the Mead and McMillan bike trails
   - Times of year trails are open
   - Restroom facility locations and availability when main building is closed
   - Rules and regulations (no picnicking, etc.)
   - Hours of operation
   - Calendar of events and upcoming activities (2 calendars, one for things that don't change, like dates of hunting seasons and hours of operation, and one for things that change monthly, like school groups coming to the Mead for field trips, and special events at the Mead)
   - Reminder to be a good neighbor while at the Mead (The Mead boundaries are very irregular and trespassing is a problem. Visitors to the Mead should have a good map and/or GPS coordinates of the boundaries to avoid straying onto private property)

- Link to aerial photos of the Mead, or to Google Earth
- Lists of species of plants and animals available at the Mead
- Educational opportunities for groups (who to contact, what lessons are available, when is a good time to come)
- Children-friendly activities, like simple wildlife games

9. "What do you think should not be included in a website to the MWA? Why not?"
   - No hit counter visible to website visitors, just a way to track website visitation behind-the-scenes, because hit counters don't always work with all browsers.
10. "What would you find most helpful in a website to the MWA?"
   - Calendar of events
   - Maps
   - Children's games, like a simple wildlife game
   - Directions on how to get to the Mead
   - Educational tours for children (who to contact and the kinds of programs that are offered)
   - Basic rules and regulations

11. "Do you think that you would enjoy visiting the MWA more if you had a website to visit beforehand?"
   - We're more familiar with the area, although the website would be good, but for someone away from here I think the website would be fantastic.
   - The website would enhance our visit to the Mead if there were information on the website we didn't know before.

12. "If you had a chance to give advice to the designer of this website, what advice would you give?"
   - Never have a site that says "Under construction"
   - Have a part that's just for kids
   - Make sure all forms and documents on the website are printable
   - Make the Mead website come up first on search engines like Google.

13. "Is there anything that we left out? Have we discussed everything that we should have discussed?"
   - Everything was covered.

Appendix W: George W. Mead Wildlife Area Focus Group Discussions continued...

A focus group discussion involving four members of the George W. Mead Wildlife Area staff, including the Property Manager, was held at the George W. Mead Wildlife Area's new Visitor Center on January 24, 2006.

The questions asked, and the responses of the participants, are given below.

1. "What is the first thing that comes to your mind when you hear the phrase "George W. Mead Wildlife Area"?"
   - The size of the area
   - A place to get away
   - Wetlands
   - History
   - I picture a map of the area, how big and different it is from other places.
   - It is our livelihood.
   - It is a place that is a joy to come to.
   - It's this place that, if you've ever seen it from the air, its this gem in the middle of fragmented farm fields and woodlands.

2. "How many times a year do you visit the MWA?"
   - Two to three times per year II
   - Twenty or more times per year II

3. "Why do you visit the MWA as often, or as seldom, as you do?"
   - Distance – I live far away.
   - I live so close anyways, its practically my backdoor and it's the biggest piece of public land around.
   - Because I'm familiar with it, I like exploring laces I haven't been on the property in a while – or ever.
   - The times when I'm down here, I enjoy showing it off to other people and especially people that have never been here before. People that don't realize that this wildlife area is here. There's a lot of people, even close by, that have never been here.

4. "In what season(s) do you visit the MWA?"
   - Fall
   - All seasons, but a little bit heavier use in the spring and fall.
   - When the birds arrive in the springtime, that's one of my favorite times.

5. "What activities are you most interested in doing while visiting the MWA?"
   - Hiking
   - Hunting
   - Fishing
   - Wildlife Watching
   - Photography
   - Snowshoeing

6. "Think back to the last time you visited the MWA. What did you observe there that you wanted to learn more about?"
   - History (everyone mentioned this)
   - More time to explore the property, get to know the nooks and crannies.

7. "Picture your favorite website. What is it about that website that makes it useful to you?"
   - Attractiveness, visually appealing to look at.
   - Somewhat simple, not cluttered.
   - Easy to do things on.
   - Provides the information I'm looking for.
   - Does not list everything right on the Home Page, but has links so I can go deeper into the site if I want more information.
   - Colorful
   - Has lots of pictures

8. "What do you think should be included in a website to the MWA?"
   - Fairly detailed map that can be printed off. (4)
   - Restrictions and rules (4)
   - Phrenology calendar for when to see certain things. (3)
   - Types of habitats (2)
   - Types of plants and animals found here (2)
   - Some of the activities you can do here.
   - Facility information
   - Types of management we do on the property
   - Historical information
   - Bird list
   - Friends group information, along with membership information and a membership application
   - Directions, and a map of our location in relation to the major highways nearby
   - Pictures of scenes on the property taken at different times of the year
   - Link to the DNR's official website
   - Our mission statement
   - Upcoming events
   - Information about our education programming
   - Something that says how many kids we put through here and educate
   - Information about McMillan Marsh, and a map and history of McMillan Marsh
   - Contact information
   - Email address
   - Information about the renewable energy features of the new building
   - Map of the property's boundaries that shows refuge land, private land, and public land

9. "What do you think should not be included in a website to the MWA? Why not?"
   - Our names
   - Our pictures
   - The good hunting and fishing spots on the property – we urge people to seek those out for themselves
   - No license information that is on the official DNR site – we don't want to duplicate the DNR site.
   - No sign-in function for people to post what they've seen on the property – after what we've seen on the sign-in board on the building, we don't want to give people that option on the website.

Appendix W: George W. Mead Wildlife Area Focus Group Discussions continued...

10. "What would you find most helpful in a website to the MWA?"
    - Map
    - Rules
    - How to get here
    - List of allowed activities

11. "Do you think that you would enjoy visiting the MWA more if you had a website to visit beforehand?"
    - Yes, I think a lot of people would find it useful.

12. "If you had a chance to give advice to the designer of this website, what advice would you give?"
    - Keep it simple, easy to use, colorful, lots of pictures.
    - Things that stir the imagination to come here.
    - A picture of the (new visitor) building, that should be in there somewhere.

13. "Is there anything that we left out? Have we discussed everything that we should have discussed?"
    - We should put in something about how we fund the property, so people will understand where our money comes from.
    - Pictures that can be downloaded to people's desktops or for student reports should be on the website.

Appendix X

Interview with Federal Wildlife Agency Personnel Member

Appendix X: Interview with federal Widlife Agency Personnel Member

Interview with Larry Dean, External Affairs and Internet Topics Manager for the USFWS Region 3

Interview Date: 11/28/05

Questions asked:

1. Who decides what should go on a website for the USFWS?
2. How much flexibility do individual USFWS properties have regarding their web sites?
3. Explain the debate between proponents of standardizing web sites and non-standardizing.
4. Who should I contact regarding web sites for the USFWS in WI, IL, MN, and MI?
5. What generally goes into every web page for a USFWS property or topic?
6. How important are web sites to USFWS properties? Why? Are there studies on this?

Results of the interview:

- Content is up to managers of the USFWS sites, geared to their audience.
- Web Publishing Council (WPC) – oversees creation of sites. Are trying to get consistency, but initially wanted to give USFWS staff free reign to encourage creativity and participation in web site development.
- WPC has developed 4 guiding documents that specify what should go on every web page/site for the USFWS.
- USFWS web pages must have
    - i. USFWS logo
    - ii. Reverse bar with text USFWS
    - iii. Links to USFWS main national page
    - iv. Link to USFWS Disclaimer page
    - v. Link to USFWS Policy and Guidance page
    - vi. Link to an active email address
    - vii. Rest of page has recommendations, but not requirements
- Section 508 – coding law for graphic files that mandates tags on the codes of web page content so that people with special assistance devices can read the web page.
- Alternate Text Only Page – a page with no “bells and whistles” that can be accessed from a web page so that users can manipulate the text for their eyesight (can make text larger, if desired). This is not a preferred practice, but does keep pages “legal”.
- Accessibility Test – USFWS uses a service called BOBBY to make sure that its web pages are accessible to all persons.
- BOBBY – a non-profit company that creates software to check accessibility of web pages
- Government rates exist to purchase software such as Dreamweaver
- Dreamweaver – web authoring software that incorporates Alternate Text Only pages into every web page it is used to design
- From USFWS regional web sites, folks update their web pages and send

them to Larry Dean for proofreading and posting (Larry posts the pages himself, everyone has to go through him)

- Most images on USFWS sites are public domain photos and can be used by anyone as long as USFWS is given credit.
- USFWS personnel at the national level worry about web site standards being met.
- Mandatory standards for web pages may not extend to regional field office web sites
- USFWS does not want visitors to be confused about whose site they are at. Official site logo tells people they are on a USFWS site, but the page background itself may need to be more uniform.
- There is a certification process that ensures that web managers are reviewing heir entire sites for outdated items
- A name should accompany an email address, in Larry Dean's opinion
- Generic office email accounts can be created, but someone needs to keep track of messages sent to the account and respond
- An email link should be present on every page
- A site map and/or a search engine are/is very helpful for a web site. Key words can be embedded into pages to help with navigation.
- Each USFWS field office has one Internet person that is responsible for web site upkeep. This person may not actually do the web site updating him/herself, but he/she can delegate the duties to an outside individual, such as a volunteer or web design company.
- Region 3 was the first USFWS region, besides Washington DC region, to go online. Larry Dean was partially responsible for this.
- eCommerce – buying/selling items on-line. Friends groups can perform this function for USFWS, but it would be better if rules changed to allow USFWS to sell items directly from their sites.

Appendix Y

Recommendations for State Wildlife Area Websites

Recommendations for State Wildlife Area Websites

Based on a Case Study of the George W. Mead Wildlife Area in Central Wisconsin

Huxmann, J.A., D.H. Yockers, B.K. Lackey, R. Holsman, and T. Meier

Last Revised December 10, 2006

Recommendations for State Wildlife Area Websites

American culture is shaped, in large part, by our love of our fish and wildlife resources. Approximately 66 million U.S. residents, 31 percent of the U.S. population 16 years old and older, participated in different types of wildlife-watching activities in 2001. People who took an interest in wildlife within 1 mile of their homes numbered 63 million, while those who took trips at least 1 mile away from their homes to watch wildlife numbered close to 22 million people. Drawing Americans outdoors to participate in non-consumptive wildlife-related activities may be becoming more challenging. The number of wildlife-watching participants who took trips at least a mile away from home to observe, feed, or photograph wildlife decreased by 19 percent from 1980 to 2001 (USDOI, 2002).

State wildlife areas must find ways to attract visitors to their property. Typical forms of advertisement for such properties are newsletter and newspaper articles, brochures, word-of-mouth, and hunting and fishing guides. A relatively recent addition to the list is the use of websites as visitor attractants. More and more people are using the Internet as a main source of information and correspondence. If wildlife areas want to let visitors know about their property and the recreational opportunities they offer, they need to utilize this fast-growing form of communication with their audiences.Websites can contain great volumes of information about a property in an easily-accessible form. Visitors can use their home computers to find information about wildlife properties prior to their visit. Such information, which could include hours of operation, maps, directions, and highlights of the property, may help the potential visitor to make the decision to visit the site.

Many wildlife area properties do not have the staff or the time neccessary to develop a quality website. Some states allocate budgets to central informational technology (IT) teams to oversee websites for all wildlife properties from a main office in the state. These IT personnel may or may not have wildlife backgrounds. Similarly, managers of wildlife areas may or may not have technology backgrounds. Communication and collaboration between IT personnel and wildlife area managers could benefit, therefore, from a list of recommendations for what users and managers of wildlife areas find most helpful in a wildlife area website. With these recommendations, it is our hope that wildlife area websites will be developed with minimal effort on the part of the wildlife property staff, and maximum gain for the users of the property.

Recommendations for State Wildlife Area Websites

An effective website engages the site visitor, supplies enrichment materials, and provides access to information sources beyond the website itself (Barker, 1999). How the material on the website is displayed and its organization are critical (Dunlap 1998). Legibility, visibility, recognizability, and site/page layout are also key design factors that influence the overall quality of a website. Links are the "basic building blocks" of the Web (Dunlap, 1998). Links within web pages that connect to other web pages within or outside of the main site allow users to maneuver throughout the site or to other sites with the click of a mouse button. Website visitors that are unable to easily and quickly navigate through a website will not have a positive experience with that site (Panci, 2003).

The following recommendations for state wildlife area websites are presented in two forms; recommendations for website content, (information that should be displayed on the website), and recommendations for website design, (how the information should be presented on the website). The content recommendations have been further broken down into tiers. The tiers correspond with the level of importance that should be placed on the recommendations. The first tier contains information that was highly recommended for all wildlife area websites. The second content tier contains information less-highly recommended, (information that would enhance a wildlife area website, but may not be feasible due to lack of time or resources).

Website Content:

First Tier (Must-haves for a wildlife area website)

- Good Map and Directions (be sure maps are printable and in a format universally-readable by any computer, such as Portable Data File (PDF) format)
- Rules and Regulations
- Contact Information
- Habitat Types
- Access by water and location
- Species Hunted on the Property
- Recreational Opportunities
- History
- Wildlife Species on the Property
- Facilities on the Property

Second Tier (Not as critical, but very nice to include)

- Calendar of Events
- Educational Opportunities
- Kid-Friendly Activities
- Types of Management Being Done on the Property
- Viewing sites for Wildlife
- Ponds and Flowages Locations
- Area for Training Dogs
- Soils Types and Other Geological Characteristics
- Local Restaurant and Hotel Information
- What Fish are Biting
- Up-to-Date Reservation Information for Hunting

Website Design:

- Keep pages simple
- Make navigation easy
- Include good photographs (but be sure to keep the size of pictures small, such as 72 dots per square inch (dpi), because large graphics increase the download time of web pages)
- Design site to be easy to change/update (keep in mind that wildlife area managers and staff may not have informational technology backgrounds)
- Get ideas from other websites
- Determine the needs of your user groups (this could be as simple as having visitors sit down at a computer and give their opinion of your existing website)
- Do not say "under construction" (if a web page is not ready for display, simply leave it out until it is ready, do not create links to unfinished pages)
- Design parts of the site for kids
- Include a comments sections on your website
- List opportunities to get involved at your facility (such as workshops, volunteer opportunities, information about Friends groups, and special upcoming events)

References Cited and Additional Resources:

Dunlap, J.C. (1998). The 3 Ls of Introductory Web-based Instructional Design: Linking, Layout, and Learner Support. In: WebNet 98 World Conference of the WWW, Internet, and Intranet Proceedings (3rd, Orlando, FL, November 7-12, 1998).

Environmental Education and Training Partnership (EETAP). (1999). Evaluating the content of Websites – Guidelines for Educators. The Ohio State University Extension. Columbus, Ohio

Panci, J. (2003). Developing a School Forest Resources Website for Wisconsin Educators. M.S. thesis. College of Natural Resources, University of Wisconsin, Stevens Point.

Williams, R., and Tollett, J. (2006). The Non-Designer's Web Book. Berkeley, California: Peachpit Press.