



Boone River Watershed Management Authority



November 2020

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Current Conditions Report: Public Access

November 2020

Prepared as part of the Boone River Watershed Management Plan

TABLE OF CONTENTS

Table of Contents.....	iv
List of Tables.....	v
List of Figures	v
Introduction and Background	1
Report Overview	1
Introduction to Resource	1
Existing Data	3
State of the Resource	4
Current Conditions	4
Historical Changes.....	11
Current Projects and Programs.....	11
Future Trends	11
Recommendations.....	12
Goals	12
Implementation	13
Education Strategies.....	13
References	14

LIST OF TABLES

Table 1: Location of information on public access areas and policy	3
Table 2: Location of information pertaining to State and Federally protected species that are found in the Boone River Watershed	3
Table 3: Public Access Areas Located in Wright County	6
Table 4: Public Access Areas Located in Hamilton County	6

LIST OF FIGURES

Figure 1: Important Characteristics When Choosing a Lake for Recreation.....	2
Figure 2: Public Lands within the Watershed	5
Figure 3: Overview Map of Boone River Water Trail (IDNR, 2020).....	7
Figure 4: Public Use Estimates for Lake Cornelia and Briggs Woods Lake, Iowa (ISU,2016).....	9
Figure 5: Areas of the Boone River Watershed with Critical Habitat	10

INTRODUCTION AND BACKGROUND

REPORT OVERVIEW

The Boone River Watershed Management Authority (WMA) has identified eight primary resource concerns for the Boone River Watershed; Shorelines and Riparian Areas, Plant and Animal Communities, Sediment, Nutrients, Stormwater, Public Access, Flood Resiliency, and Hazard Mitigation. This report discussed the conditions of Public Access and is one of eight reports developed for each of these concerns. Information contained in this report will facilitate the identification of resource and implementation priorities that will be used in the development of the Boone River Watershed Management Plan. Additionally, data gaps that are limiting such prioritization have been identified for future consideration.

INTRODUCTION TO RESOURCE

Public access to and use of natural areas in the Boone River Watershed provides extensive social benefits to residents that live in and outside the watershed. Access to nature has been related to lower levels of mortality and illness, higher levels of outdoor physical activity, restoration from stress, a greater sense of well-being, and greater social capital (APHA, 2020).

Public access policy dictates the allowable uses of a public resource. This policy can be established by state, county, and/or municipal authorities. Multiple entities are involved in managing natural areas, wildlife areas, public lakes, and public parks within the Boone River Watershed. Access policy for publicly owned natural areas outside municipal jurisdiction is primarily controlled by the Iowa Department of Natural Resources (IDNR) and County Conservation Boards. Counties represented in the Boone River Watershed include: Hamilton, Hancock, Humboldt, Kossuth, Webster, and Wright.

Planning for public access and use of natural areas can be complicated and sometimes controversial. Management authorities need to avoid conflicts between resource protection and public demand for access. In doing so, a coordinated approach must be taken to develop public access plans that reflect public demands and community priorities but are protective of the resource. Public access that is not planned and managed properly can be deleterious on the physical, chemical, and/or biological integrity of a resource. While access concerns generally pertain to the specific access site, broader impacts to such things as downstream water quality and sensitive biota need to be considered. As such, public access plans play a role in watershed management and should be addressed in watershed management plans. Based on current water quality impairments, identified resource concerns, and the presence of sensitive aquatic species, areas of specific concern for public access impacts include;

- Protection of downstream drinking water supplies,
- Protection of critical habitat used by the Topeka Shiner,
- Protection of recreational streams and lakes from bacteria loading, and

- Protection of shorelines, streambanks and riparian areas.
- Protection of private landowners adjacent or near public access areas

A multitude of factors need to be considered when planning public access. An understanding of how the public chooses where to recreate can be helpful when considering expanding access at current sites or developing new access areas. Results from surveys conducted for the Iowa Lakes Valuation Project (Hocheol, Yongjie, & Kling, 2016) indicate the primary factors that dictate where people recreate were water quality and proximity to their residence (Figure 1). Other factors include location of friends, park facilities, and activities in surrounding areas.

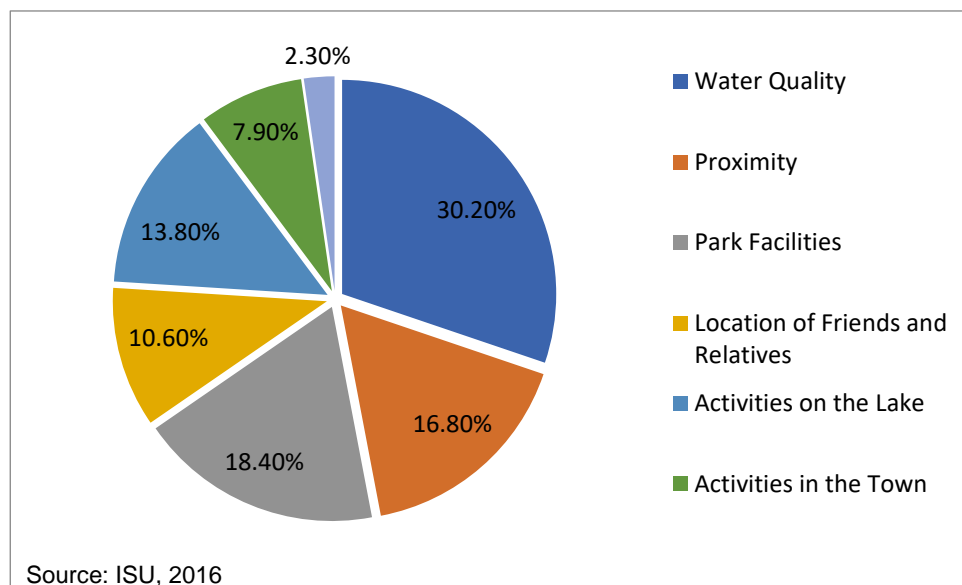


Figure 1: Important Characteristics When Choosing a Lake for Recreation

EXISTING DATA

No formal public access plans specific for the Boone River Watershed were identified through literature review. Background information (where available) of public areas and associated access policy can be found on websites supported by the IDNR, counties, and cities (Table 1). Areas that provide critical habitat utilized by the State and Federally protected Topeka shiner warrants access limitation considerations. The location of critical habitat information related to the Topeka shiner is provided in Table 2. Other plant and animal species found in the watershed that are on State and Federal protection lists also need to be considered for access limitations. The data source for those species are also provided in Table 2.

Table 1: Location of information on public access areas and policy

Description	Source
Iowa State Parks and Recreation	https://www.iowadnr.gov/
Areas Managed by County Conservation Boards	https://www.mycountyparks.com/County/Default.aspx
Webster City Parks	https://webstercity.com/our-community/parks-recreation/parks/
Clarion City Parks	https://www.clarionmunicipal.com/parks-recreation.html
Eagle Grove Parks	https://eaglegroveiowa.org/
Iowa Lake Valuation Project 2014. Report to the IDNR	https://www.card.iastate.edu/lakes/

Table 2: Location of information pertaining to State and Federally protected species that are found in the Boone River Watershed

Description	Source
Natural Areas Inventory database	https://programs.iowadnr.gov/naturalareasinventory/pages/Query.aspx
Designation of critical habitat for the Topeka shiner.	https://www.fws.gov/.../pdf/IowaTshinerRangeMap.pdf

STATE OF THE RESOURCE

CURRENT CONDITIONS

For the purposes of this report, current public access conditions in the Boone River Watershed relate to natural areas and do not include such things as museums or historical buildings. While city parks are important public areas, only those that provide access to the Boone River were included in the summary below.

A map of all public lands is shown in Figure 2. This includes areas that are owned or managed by various entities. Each may have different requirements for public access and allowed activities. The following websites provided interactive, online mappers where more details for each area can be viewed:

- <https://www.fws.gov/refuges/find-a-wildlife-refuge/>
- <https://www.iowadnr.gov/Hunting/Places-to-Hunt-Shoot>
- <https://www.mycountyparks.com/>

Publicly owned natural areas in the watershed fall into the categories of: wildlife areas, refuges, marshes and sloughs, lakes, parks, and walking trails. Several public areas allow for canoe access to the Boone River, which is a focal point for recreation in the watershed. There are access and use limitations in place for each public area.

The watershed is comprised of portions of six counties; Hamilton, Hancock, Humboldt, Kossuth, Webster, and Wright. Hamilton and Wright counties comprise approximately 60% of the watershed and encompass most of the public access areas in the watershed. Nine sites provide canoe access to the Boone River. All sites are located between the Boone Forks Wildlife Management Area and Helmke Wildlife Area near Renwick. In 2009, the Iowa Department of Natural Resources (IDNR) conducted public use surveys on selected navigable rivers in the state (IDNR, 2020). Results of this 2009 survey indicated that the reach of the Boone River below Webster City had between 50 and 200 reported users while the upper portion of the river had less than 50 reported users.

Portions of the watershed fall within the Union Slough National Wildlife Refuge and the Iowa Wetland Management District. These areas cover many counties within Iowa, and therefore additional discussion regarding these resources can be found in the full watershed plan. Further information can be found at the following links:

- https://www.fws.gov/refuge/union_slough/map.html
- https://www.fws.gov/refuge/iowa_wmd/

A brief summary of accessible public lands by county is provided below.



WRIGHT COUNTY

Wright County represents approximately 40% of the Boone River Watershed. Wright County contains numerous natural areas open to public access (Table 3). Three of the five public lakes in the watershed fall in Wright County: Big Wall, Cornelia, and Fishpond. While Big Wall Lake is the largest lake in the watershed at 935 surface acres, public access is limited. Lake Cornelia covers 243 surface acres and accommodates more uses than any other lake in the watershed. Troy Park south of Eagle Grove, Riverside Park in Goldfield, Oakdale Park near Renwick, and Helmke Wildlife Area near Renwick all provide canoe access to the Boone River.

Table 3: Public Access Areas Located in Wright County

Big Wall Lake Wildlife Management Area	River Park-Goldfield
Fishpond Lake & Park-Eagle Grove	Sportsman Park WA
Helmke Wildlife Management Area	St. John's Church Site Wildlife Management Area
Homestead Ridge WA	Three River Trail
Lake Cornelia	Troy Park
Oakdale Park	

HAMILTON COUNTY

Hamilton County represents approximately 20% of the Boone River Watershed. Most of the public areas in this portion of the watershed are on or near the Boone River including the Boone River Water Trail (Figure 3). The watershed's largest community, Webster City, falls in Hamilton County, and is the beginning of the water trail downstream to the confluence with the Des Moines River. Six of the nine areas that provide canoe access to the Boone River are associated with the water trail and are in Hamilton County. A portion of the Boone Forks Wildlife Management Area falls in Hamilton County. This is the farthest downstream area that provides canoe access to the Boone River. It is also the largest Wildlife Management Area in the watershed encompassing more than 4,655 acres. Webster City, located in Hamilton County, is the largest community in the watershed and has eight separate public access areas. One of these areas, Riverside Park, provides public access to the Boone River. One the five public lakes in the watershed, Briggs Woods, falls in Hamilton County. While the lake is only 59 surface acres it sees an extensive amount of use. A listing of public areas located in Hamilton County is provided in Table 4.

Table 4: Public Access Areas Located in Hamilton County

Albrights Canoe Access	Brandrups Timber
Barner Wildlife Management Area	Briggs Woods Park & Lake
Bauer Slough Wildlife Management Area	Butler Wildlife Refuge
Bells Mill Park	Gordons Marsh Wildlife Management Area
Bjorkboda Marsh	Riverside Park
Boone Forks Wildlife Management Area	Tunnel Mills Wildlife Management Area



Figure 3: Overview Map of Boone River Water Trail (IDNR, 2020)

HANCOCK COUNTY

Hancock County represents approximately 18% of the watershed. There are no public access areas within the Boone River Watershed in Hancock County.

KOSSUTH COUNTY

Kossuth County represents approximately 11% of the Boone River Watershed. The only public area in the watershed that is located in Kossuth County is the St. Benedict Wildlife Area. The 164-acre site includes St. Benedict Lake, which encompasses approximately 10 acres.

HUMBOLDT COUNTY

Humboldt County represents approximately 9% of the watershed. Public areas in the Boone River Watershed that are in Humboldt County are limited to the Three Rivers Trail and Renwick City Park. The Three Rivers Trail extends nearly 40 miles across eastern Humboldt County and western Wright County ending at the Boone River just west of Eagle Grove. Renwick City Park is not nature based nor does it provide access to the Boone River or its tributaries. Neither of these locations are shown on Figure 3.

WEBSTER COUNTY

Webster County represents approximately 1% of the Boone River Watershed. The only public area in the watershed that is in Webster County is Boone Forks Wildlife Management Area. A portion of the Boone Forks Wildlife Management Area also falls in Hamilton County. This is the farthest downstream area that provides canoe access to the Boone River. It is also the largest Wildlife Management Area in the watershed encompassing more than 4,655 acres.

PUBLIC USE ESTIMATES

Current annual public use estimates for all individual areas were not obtained for this report.

Historic data was available for Lake Cornelia and Briggs Woods Lake. This data was collected as part of a statewide lake valuation study (Hocheol, Yongjie, & Kling, 2016). Annual day trips to Lake Cornelia were estimated for 2002-2005. Day trips ranged from 49,566 in 2002 to 89,593 in 2004 (Figure 4). The use of Cornelia Lake was above the statewide average for the years studied. As mentioned, Lake Cornelia offers an extensive list of public uses including no boating restrictions.

Public use was also estimated for Briggs Woods Lake from 2002-2005 (ISU, 2016). Annual day trips ranged from 47,688 in 2002 to 80,572 in 2004 (Figure 4). While use at Briggs Woods Lake was below the statewide average for the years studied, it only comprises 59 acres.

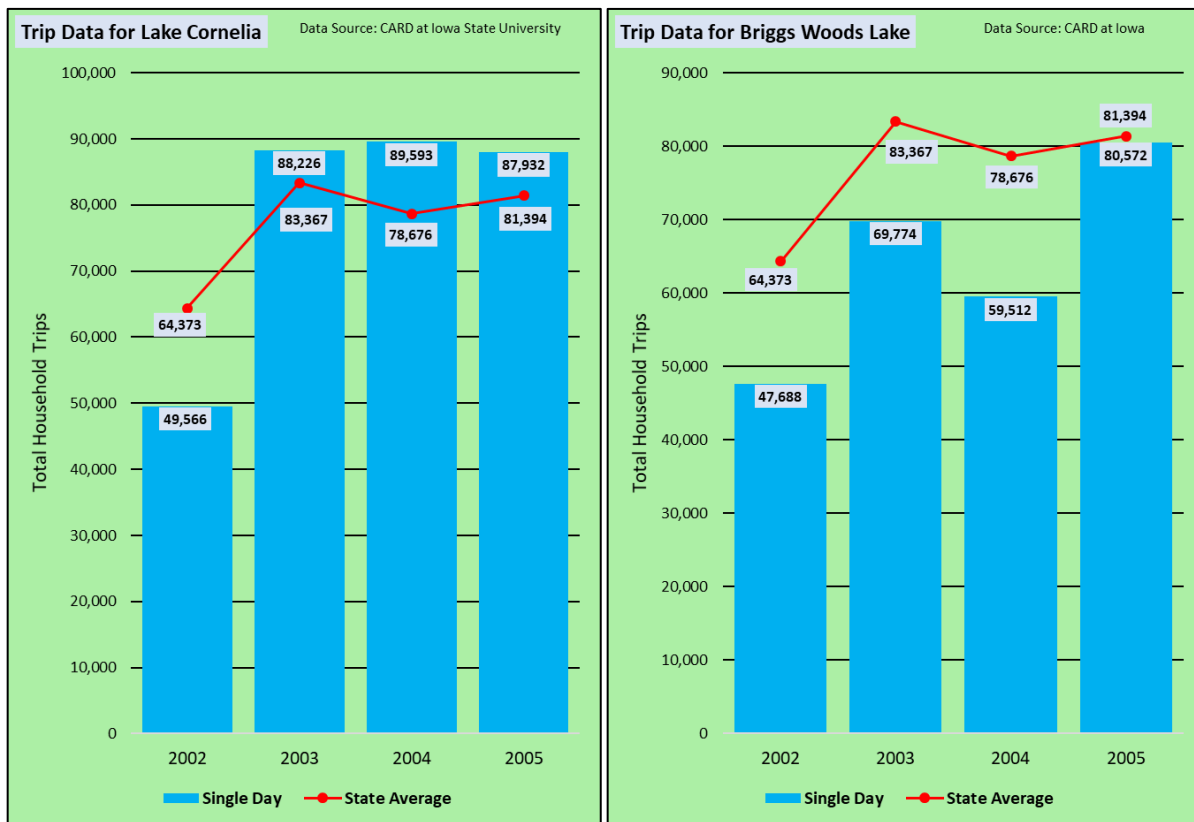


Figure 4: Public Use Estimates for Lake Cornelia and Briggs Woods Lake, Iowa (ISU, 2016)

SENSITIVE AREAS AND ACCESS CONCERNS

Public access planning should take into account threatened and endangered species. The Topeka Shiner is designated as a federal endangered species and a threatened state species (USDOL, 2004). Areas of critical habitat have been identified in the Drainage Ditch 3 and the Eagle Creek subwatersheds, which are in Humboldt, Webster, Wright, and Hamilton Counties (Figure 5).

Data compiled by the USDA-NRCS in 2007 indicated 53 State and Federally listed species reside in the watershed (NRCS, 2008). The composition of the listed species was; 28 plants, six freshwater mussels, six insects, five birds, five fish, three species of reptiles and amphibians, and one mammal. Additional information on threatened and endangered species can be found in the *Plant and Animal Communities Current Condition Report*.

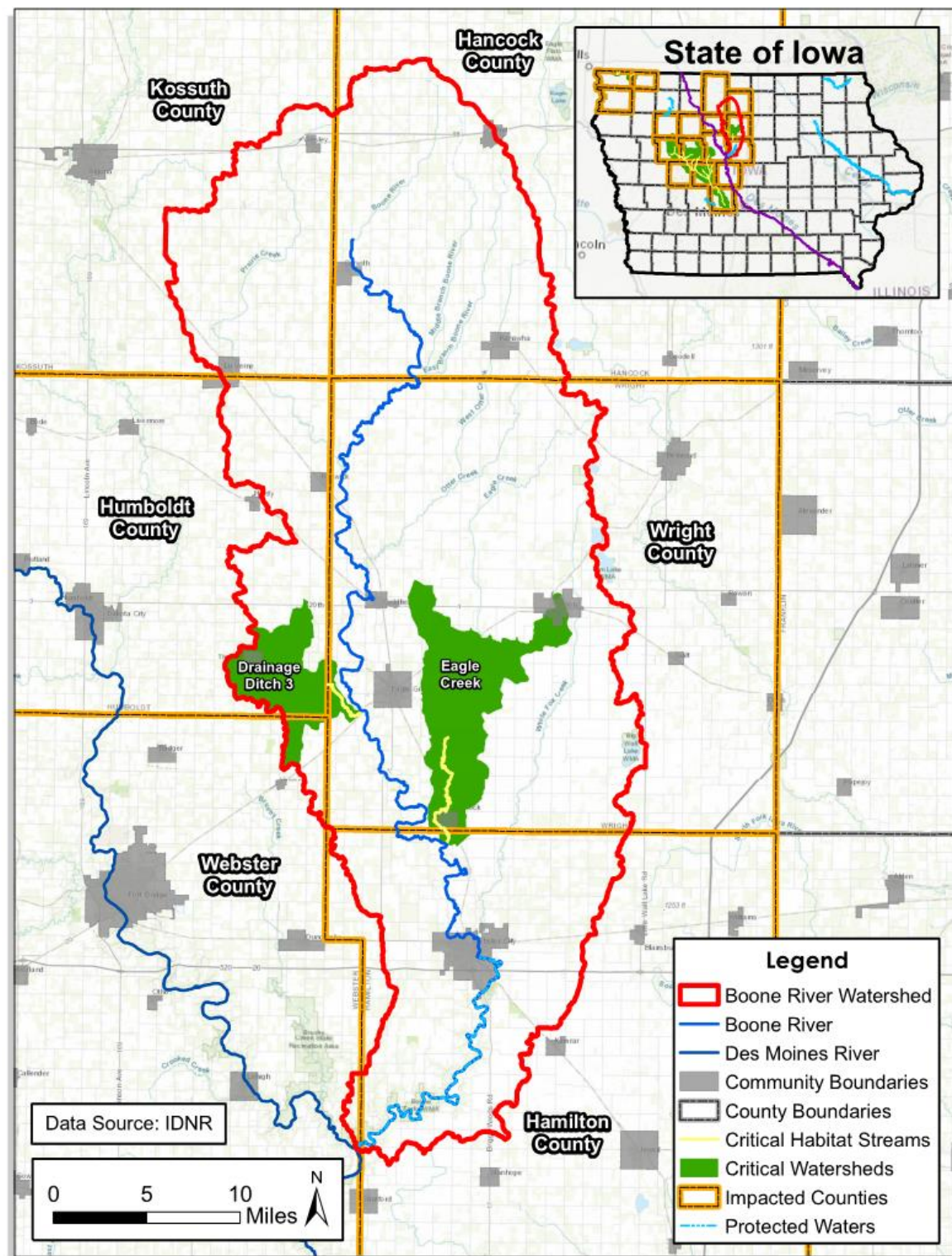


Figure 5: Areas of the Boone River Watershed with Critical Habitat

HISTORICAL CHANGES

While data or reports on current and historical use of public areas in the watershed were not evaluated for this report, it is safe to say the demand for publicly accessible natural areas has increased along with population. While Webster City is the largest population center in the watershed, other larger communities, including Ames and Des Moines, are located within 50 miles of the watershed. One conclusion drawn from surveyed Iowa lake users was visitors traveled an average of 46.3 miles (Hocheol, Yongjie, & Kling, 2016). This encompasses a large pool of potential users of public areas in the watershed that will increase over time.

CURRENT PROJECTS AND PROGRAMS

Organizations that currently establish public use policy in the watershed include the IDNR, County Conservation Boards, and municipalities. There are a multitude of organized groups that promote certain recreational uses including; fishing, hunting, hiking and biking, boaters, etc. These groups can provide useful input in the development of access plans. The Cornelia Lake Improvement Association is a non-profit organization that is focused on protecting the future of the lake.

FUTURE TRENDS

As human populations increase so does the demand for more recreational opportunities. These demands can be achieved by a combination of expanding access and opportunities in existing areas and developing new areas. Increased public use will also increase the potential for environmental impacts to natural resources.

As a part of the watershed planning process for the Boone River Watershed, the possible expansion of the Boone River Water Trail will be explored. Multiple meetings with various stakeholders are planned to be held. The findings from this public input will help to determine what, if any, future expansion may consist of. These findings will be summarized separately from this current condition report and will be included with the final Boone River Watershed Management Plan.

RECOMMENDATIONS

The following goals have been developed for initial discussion with the WMA regarding public access concerns. It is anticipated that these goals may be modified for inclusion in the final Boone River Watershed Management Plan.

GOALS

To date, no comprehensive Public Access Plan has been developed for the Boone River Watershed. A coordinated plan that reflects the needs of municipalities, counties, and state agencies and addresses public access demands would be beneficial to managing the watershed as a whole.

The primary public access goal for the Boone River Watershed is to develop a Public Access Plan. A comprehensive Public Access Plan can be used by the WMA, communities, conservation partners, resource agencies, or any other management authority to guide the management of current and future public access. Public access plays a role in watershed management warranting its inclusion in future watershed management plans.

Public access goals should be developed to ensure the preservation, protection, and enhancement of access to public land and facilities. Specifically, these goals should be developed to:

- Protect natural resources from public access impacts,
- Protect historic and prehistoric sites within the watershed,
- Maintain long-term ecosystem health and biological diversity within the watershed
- Assure that public access is safe and supportive of any water quality and/or regulatory goals.
- Protect of private landowners adjacent or near public access areas

IMPLEMENTATION

If the goal is to develop a Public Access Plan for the Boone River Watershed the following action steps need to be accomplished:

1. Establish a public access “working group” for the Boone River Watershed.

The working groups primary responsibility would be to facilitate the development of a Public Access Plan for the Boone River Watershed. The working group should represent a cross section of state, county, and municipal interests.

2. Define public access management units.

Recreational needs and opportunities differ across the watershed allowing for Public Access Planning Units. Canoeing on the Boone River, specifically the lower portion, provides an outdoor recreation experience unique to the watershed. The current amount of public access and the extensive use of those access sites along the river corridor may warrant different expertise and input throughout the plan development. This Boone River corridor generally stretches from the river’s confluence with the Des Moines River upstream to Goldfield. The communities of Webster City, Woolstock, Eagle Grove, and Goldfield are located along this corridor.

3. For each public access management unit, the following should be identified:

- Develop Public Access Goals and Objectives
- Define Current Conditions
- Identify Public Access Limitations
- Identify Sensitive Areas or Biota
- Conduct a Public Needs Assessment
- Identify Priorities
- Develop and Implementation Plan
 - Maintaining Existing Public Access Areas
 - Preserving Public Access for Each Site
 - Identifies Proposed Sites, Location, and Uses of New Access
 - Enforcement
 - Signage

EDUCATION STRATEGIES

One of the functions of “education” as it relates to access is informing the public of allowable uses, site limitations, and special conditions surrounding the site. This is primarily accomplished through signage at the site or management authority websites. Opportunities to include environmental education should be explored for all sites. This may be as complex as developing specific educational facilities or easy as installing interpretive signage.

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