

2016

# Greater Des Moines Water Trails Community Engagement



Des Moines Area Metropolitan Planning  
Organization  
4/9/2016

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## Executive Summary

With the founding of Des Moines, and many other cities within the metro, rivers and creeks once were major sources of economic development, transportation and enjoyment for central Iowa communities. Unfortunately, over time communities became detached and, in times of flooding, afraid of our rivers. Reconnecting with waterways has the potential to reinvigorate our communities through increased economic development, ease of access to natural resource amenities, and increased quality of life. The Greater Des Moines Water Trails and Greenways Plan aims to enhance central Iowa waterways as a community asset. There are many ways water trails and a reconnection to waterways can potentially benefit a community, so an essential step in the development of the plan has been gaining understanding of community values and hopes for these rivers and creeks. We engaged with the public in order to learn what residents of Greater Des Moines valued when it came to waterways within the metropolitan area.

### *What Was Done*

The public engagement process included three approaches; paper and online surveys, focus groups and community events. Events included community education and speakers, a fish fry, paddling events, and interactive art displays. In all of these efforts, central Iowans were asked to share their priorities around enhancing rivers and creeks.

Survey participants were recruited through community listservs, water trails events, focus groups and community leaders. Partnerships were built with champions within immigrant and minority communities for additional survey outreach. We recruited focus group participants primarily through recreational and professional organizations. In total, 341 people participated in the paper-based survey, 335 participated in the online survey and 180 participated in focus groups. Finally, 12 public events helped build excitement, collect data and recruit allies for the water trails planning initiative.

### *What Was Learned*

In looking at the online and paper surveys, some of the most frequently selected priority activities were walking, jogging and biking; protecting drinking water; canoeing and kayaking; and protecting wildlife habitat. Increased prioritization of wildlife protection among women and fishing, as well as, playing near the water's edge and relaxing among non-white participants, highlighted how vital it was to have diversity within participants. Concerns about access to waterways and poor water quality were two of the most frequent and in depth conversations that arose in focus groups.

### *Recommendations*

The following recommendations emerged from our outreach efforts. The Greater Des Moines Water Trails and Greenways Plan should:

- Include diverse voices within outreach, programming and decision making processes.
- Expand access to the waterways and greenways.
- Conserve and enhance our natural corridors.
- Create safe and welcoming experiences.
- Encourage governments and local organizations to work together to maintain existing waterways and nearby amenities.
- Connect community members to water.

## Introduction

Waterways have played a critical role in shaping Greater Des Moines. People have been settling along central Iowa rivers for centuries. From pre-historic and Woodland to European and modern day communities, these rivers have been a source of resources, recreation and transportation (Whittaker, 2016; Zeller 2016). Over time, our communities became more disconnected from our waterways. Nationally, water trail development has been an opportunity for communities to reconnect with waterways through recreation. In central Iowa, water trail development has the potential to rekindle our water based recreation, economic and natural history roots.

From spring 2015 to fall 2016 the Des Moines Area Metropolitan Planning Organization (MPO) is developing a water trails plan for central Iowa. Within the planning process, the MPO and partners have used a broad definition of water trails. The MPO defined water trails as,

Water trails are recreational corridors and routes on rivers and lakes that provide a unique experience all water users. Water trails help re-connect Iowans to their waterways' history, heritage, geology, fisheries, and wildlife. Water trails provide adequate access and can include amenities like riverside camping, wild spaces, picnic areas...Water trails help boost local economies and give central Iowans outdoor experiences just out their back doors. (Des Moines Area Metropolitan Planning Organization).

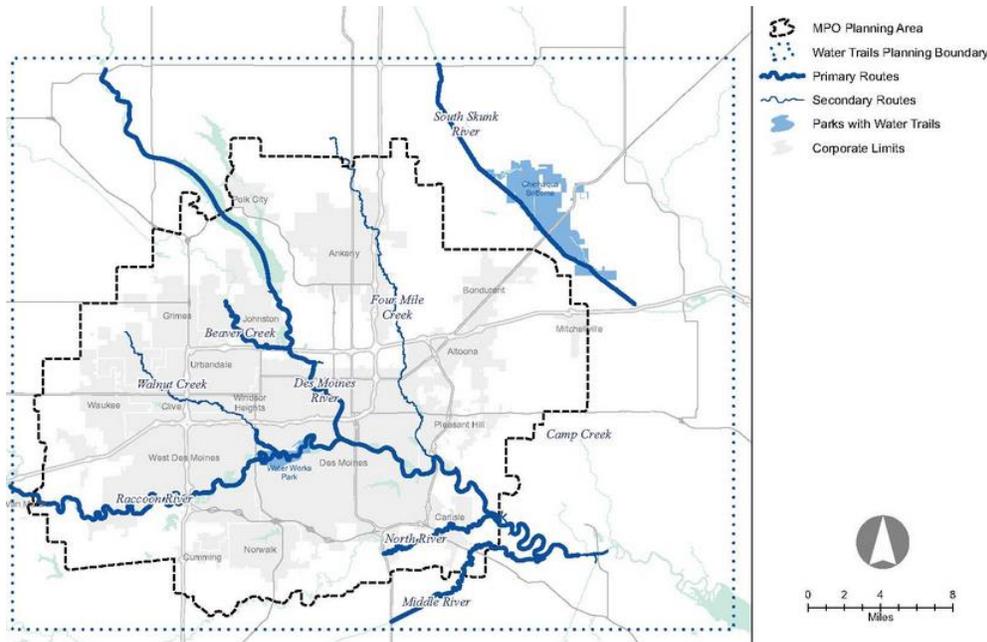
Water trails are partially about building recreational opportunities. Establishing water trails is also about investing in natural capital, place making and local economies. Not all planning efforts, as will be detailed later, have taken this wide of a view. Given the breath of focus water trails planning can have with this local definition, this project is devoted to identifying community priorities so planners and public officials can zero in on and incorporate those priorities into an upcoming regional water trails plan.

Public engagement has been foundational to the planning process. The goal of this effort was to learn what residents of Greater Des Moines valued when it came to rivers and creeks within the metropolitan area. Paper and online surveys, focus groups, and events were designed and implemented. The information that follows explains the planning context, outreach activities, what was learned and recommendations for moving forward.

## Water Trails Planning in Central Iowa

The proposed water trails plan will look at over 150 miles of waterways including the Des Moines River, Raccoon River, South Skunk River, North River, Middle River, Beaver Creek, and Four Mile Creek. This includes the cities of Altoona, Ankeny, Bondurant, Carlisle, Cumming, Des Moines, Grimes, Johnston, Mitchellville, Norwalk, Pleasant Hill, Polk City, Urbandale, Waukee, West Des Moines, and Windsor Heights. These cities are located in Dallas, Polk and Warren counties. Map 1.1 depicts the rivers and cities within the water trails planning area.

## Map 1.1 MPO Water Trails Study Area (Des Moines Area Metropolitan Planning Organization).



### Previous Planning Efforts

This plan is being developed in the context of many larger regional, state and national planning efforts. Nationwide there is a movement towards developing water trails as recreational corridors. Within the state and locally the focus has been more inclusive of other uses of rivers. This section details the local, state, and national planning initiatives that set the stage for a central Iowa water trails plan.

### *Des Moines Area Metropolitan Planning Organization (MPO)*

Communities in the Greater Des Moines Area have a history of coming together to create regional plans. The Greater Des Moines Area engages in a planning effort, led by the MPO, called The Tomorrow Plan. The MPO is a regional planning organization that works with city and county governments and local transportation municipalities in Greater Des Moines<sup>1</sup>. In the recent edition of The Tomorrow Plan Today, an annual newsletter highlighting progress on The Tomorrow Plan, planners outlined the priorities for the coming year. One of the plan’s overall goals is to, “*Improve the region’s environmental health and access to outdoors.*” Within this goal area the authors write,

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1. The MPO includes the following voting member governments: Altoona, Ankeny, Bondurant, Carlisle, Clive, Des Moines, Des Moines Area Regional Transit Authority, Grimes, Johnston, Mitchellville, Norwalk, Pleasant Hill, Polk City, Urbandale, Waukee, West Des Moines, Windsor Heights, Dallas County, Polk County, Warren County. In addition the following are non-voting associate members: Cumming, Indianola, Van Meter, and Madison County. Finally, the following are non-voting advisory members: Des Moines International Airport, Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Iowa Department of Transportation (DOT), and Heart of Iowa Regional Transit Agency (HIRTA) (Des Moines Area Metropolitan Planning Organization).

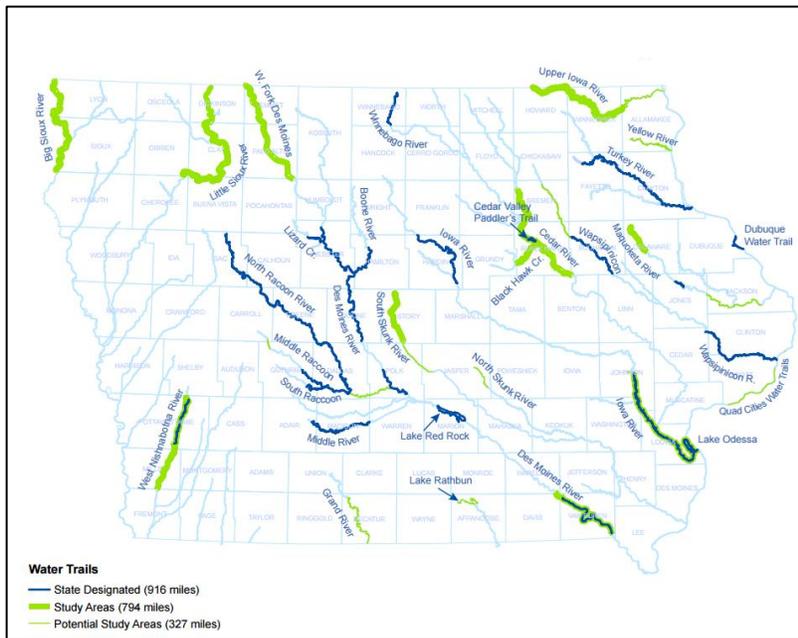
A major focus of 2015 is on better connecting the network of greenspace in Greater Des Moines as envisioned in The Tomorrow Plan. A connected network of urban greenways along the waterways gives people access to nature, recreation and quiet. A greenways network also functions to improve habitat, water quality and flood protection. Ultimately, embracing the region’s creeks and rivers as key natural resources will make the community more resilient and help attract people and employers (Des Moines Metropolitan Planning Organization, 2015, p. 5).

Greater Des Moines has already made waterways and greenways a priority. The water trails planning process led by the MPO is an outgrowth of the Tomorrow Plan and represents a collaboration on the part of over twenty local governments.

*Iowa Department of Natural Resources State Water Trails Plan*

The MPO planning effort and this project are also working in conjunction with state water trails work. The project is funded through a grant from the Iowa Department of Natural Resources (Iowa DNR). The State of Iowa’s water trail and dam mitigation program has already designated over 900 miles of Iowa waterways as water trails. In addition, they have identified an additional 800 miles as study areas (Iowa Department of Natural Resources, 2015). Map 1.2 shows the water trails funded by the Iowa DNR at different stages of the planning process in 2015. Water trails planning is happening statewide.

**Map 1.2 2015 Iowa Water Trails** (Iowa Department of Natural Resources, 2015).



The Iowa DNR has generated a statewide plan for water trails. Within this plan are seven goals that focus on building public access, enhancing recreation, conservation, and planning for management (Iowa Department of Natural Resources). These goals are more focused in on water trails as recreational corridors, but it still incorporates natural resource conservation and education. Table 1.1 shows all seven

of the statewide water trails goals set forward by the Iowa DNR. These state priorities inform and guide the work of local planners.

**Table 1.1 Iowa Department of Natural Resources Water Trails Goals (Iowa Department of Natural Resources).**

<b>Goal 1</b>	Provide positive water trail experiences meeting user expectations
<b>Goal 2</b>	Use water trail development to strengthen natural resources conservation
<b>Goal 3</b>	Adapt water trail development techniques to the waterway’s individual character
<b>Goal 4</b>	Support public access to water for recreational purposes
<b>Goal 5</b>	Create a robust, resilient system for developing and experiencing water trails
<b>Goal 6</b>	Encourage education in outdoor settings
<b>Goal 7</b>	Support positive water trail experiences by initiating strategies to manage intensively used areas

*Iowa State University Center for Agriculture and Rural Development*

The Iowa DNR water trails work has been done in conjunction with Iowa State University Center for Agriculture and Rural Development’s (ISU-CARD) river recreation study. The ISU-CARD project received input from 4,000 Iowans. Through this input they learned that river based recreation is a common experience for Iowans. The researchers explain their findings by writing, “Approximately 48% of respondents report taking at least one trip to one of the identified segments...The average number of trips reported in the sample is approximately 6 per person to all the river segments...varying from some respondents taking no trips to others with the maximum allowed 52 trips” (Ji, Herriges, & Kling, 2010). The recreational importance of Iowa’s waterways should be considered in water trails planning efforts.

While Iowa waterways are popular sources of recreation, there is great diversity within how they are used. Again, in the ISU-CARD study researchers found, “The most popular activities reported were relaxation, fishing, trail-related activities, and wildlife viewing, although there was variation across river segments and demographic groups” (Iowa State University Center for Agricultural and Rural Development, 2010). When gathering information from central Iowans, it was important to provide opportunities for broad input in order to fully capture how people are interacting with and how they would like to interact with rivers and creeks.

*National Water Trails Systems*

These local and statewide planning efforts have happened within a national context. The National Park Service (NPS) has a National Water Trails Systems initiative. Within this program the NPS define water trails similarly to the Iowa DNR. The NPS writes, “Water trails are recreational routes on waterways with a network of public access points supported by broad-based community partnerships. Water trails provide both conservation and recreational opportunities” (National Park Service). Similar to the state, the NPS focuses on recreation and conservation within water trail development.

## Important Contextual Events

This section covers two important events that were happening at the same time as the planning effort. First, while the community engagement work was happening a lawsuit was filed by the Des Moines Water Works (DMWW) that brought the issue of water quality in Greater Des Moines and the state of Iowa to the forefront. DMWW filed a lawsuit against three rural counties and their drainage districts. In 2015, the nitrate removal facility had to be run a total of 177 days. This exceeds the frequency in past years. As the number of days climbed, the Des Moines Register continued to provide updates of days the plant ran. (Associated Press, 2016). In addition, the summer of 2015 was also filled with significant flooding within the study area. In fact, the water trails planning process was kicked off by an event at Water Works Park along the Raccoon River. Paddling activities had to be canceled and the art installation had to be postponed due to high water and flooding. Both of these ongoing events were happening while outreach was going on.

## Need for Additional Outreach

There is diversity amongst Greater Des Moines communities. As of 2010, Polk County was home to over 430,000 people, 80 percent of which were white, and nearly six percent were African American, and three and a half percent were Asian. In addition, just under eight percent were Hispanic or Latino. Warren County was home to an additional 46,000 people, of which 97 percent are white. Dallas County was home to over 66,000 residents, 92 percent of which are white with African Americans making up the second largest demographic. (U.S. Census Bureau, 2015) Recognizing that many areas of the study area are home to multiple racial and ethnic groups, hearing from these diverse voices is important.

A 2005 study on racial and ethnic preferences in urban parks found that park and recreational space usage and preferences varied across racial and ethnic groups. Differences included if recreation should be prioritized or if the presence of wildlife was important (Ho, Sasidharan, Elemendorf, Willits, Graefe, & Godbey, 2005). While these preferences may overlap in desired projects, this could translate into prioritizing either water trails as continued greenways or waterways as place for sports and recreation. This study sought public input from a wide variety of residents. Knowing that the metro is diverse, a specific effort to engage the many racial and ethnic groups within Greater Des Moines is important in understanding what the full community wants to happen with water trails.

As will be detailed later in the report, initial outreach was made through organizations related to water trails, such as paddlers and birders, and yielded an entirely white group of participants. It was clear that minority communities were not well represented within many traditional recreational and publically recognized organized groups and additional strategies would be vital. Two community groups that were helpful in bringing together more diverse participants were the Tai Village and Latino Forum.

New outreach strategies were necessary in order to include minority populations within the planning process. In 2006 Yancey, Ortega, and Kumanyika conducted a review of studies and participation by minority community members in a large number of studies. They found that one major barrier to participation by racial minority groups has historically been trust or mistrust of the

governmental or research group running the study. One strategy Yancey, Ortega, and Kumanyika recommended for building trust is to approach potential participants via community leaders and community organizations that they already trust (Yancey, Ortega, & Kumanyika, 2006). With this recommendation in mind, we created an outreach strategy that used community leaders and organizations that have historically provided services and done outreach to minority populations within the community.

For effective outreach it is also vital to connect the purpose of the research to the benefit of the community was also vital. Another barrier to participation by minority groups described by Yancey, Ortega, and Kumanyika was a concern, “that data would be used primarily to advance researchers’ careers and portray communities in an unfavorable light rather than to address community health problems” (Yancey, Ortega, & Kumanyika, 2006). The authors went on to explain that trust building and having involved within the community was a major strategy to overcome this barrier. In the outreach process, many community leaders expressed that it was difficult to get people to attend a focus group when they were having a difficult time paying their bills. Recreation wasn’t a priority. Community leaders also explained that members of their community had previously experienced planners coming to their minority group’s meetings, gathering the information they needed and then leaving. They felt used. Building trust and meaningful relationships is important. Attending monthly meetings prior to being placed on the agenda was one strategy aimed to help address this challenge. The need for long term relationships was apparent.

## **Outreach Activities**

Three primary methods this study used to engage the public and identify community priorities related to water trails. An online survey and paper based survey, focus groups and events were all important aspects of the public engagement process. By collaborating with 29 local organizations, we were able to reach 341 people with the paper-based survey, 335 in the online survey and 180 participated in focus groups. In addition, 12 public events helped build excitement, collect data and recruit allies for the water trails planning initiative. The information that follows explains the purpose for public engagement within each of the three outreach strategies, what was done, and who participated.

### **Purpose**

The goal of the public engagement effort was to learn what residents of the Greater Des Moines Area valued when it came to rivers and creeks within the metropolitan area. Each of the methods helped gather critical pieces of information. The online and paper surveys were designed to collect basic information from a large number of central Iowans about their priorities for water trail development. Another purpose of the online and paper surveys was to gain insight from often under-represented communities. Online survey tools have historically aided the MPO in reaching younger residence in Greater Des Moines (Des Moines Area Metropolitan Planning Organization, 2012). The paper survey was easy to use for in person outreach and could more easily be translated into Spanish—both of which were critical in reaching non-English speaking and non-white participants. In addition, the paper survey allowed us to gather information from people who do not typically use or have easy access to

technology. The survey tools offered a numeric count of participant priorities with only two short answer opportunities. In contrast, the focus group participants were able to explain the rationale behind their priorities and provide fuller answers. Focus groups added a deeper understanding of the community priorities around water trails. They also allowed an opportunity for group members to build upon one another through synergy. Finally, booths and events were used to build public awareness of the planning process. Limited data was directly gathered at booths and events, however they were critical in gaining access to some populations. Events helped to set the stage for the other methods utilized.

## **What Was Done**

Surveys, focus groups and community events were important forms of outreach. The following section details what was done in each of the three investigation strategies.

### **Online Survey**

The online survey tool used was modeled after another survey called 'Plan My DSM' previously utilized by the MPO. Participants provided their zip code of residence, sex, and age within pre-created age brackets. The tool then allowed participants to designate stars towards priority water trails activities and coins towards projects that they thought were the most important. A listing of the activities that participants could select can be found in Appendix I.

The online survey was distributed through local listservs and newsletters coordinated by area chambers of commerce, recreational groups, civic groups and city officials. In addition, it was advertised on the MPO facebook page and on all water trails handouts. Finally the online survey was discussed and linked to in a story in the Des Moines Register (Kilen, 2015).

### **Paper Survey**

The paper survey was developed to mirror the online survey tool by including the same water trails activities, such as fishing and relaxing, for participants to prioritize. A copy of the survey in English can be found in Appendix II and in Spanish in Appendix III. The paper based survey was distributed and collected through focus groups, community champions, MPO events, and location based outreach. All focus group participants were asked to complete the surveys. In addition, at events the surveys were given out to participants.

Paper surveys became important sources of information when we realized our focus group recruitment had limitations. We realized that focus group outreach was not reaching minority residents and built a partnership was built with the Homes of Oakridge. Three community champions were recruited that spoke Spanish, Arabic and Burmese. These volunteers helped with an evening of outreach at a known popular fishing location, the Scott Street dam. The day of the dam outreach an additional eight people were heard from. In discussing options to move forward with the Oakridge volunteers, they believed a more effective strategy would be for them to take the surveys to people they knew within immigrant and minority communities in Greater Des Moines. The volunteers assisted participants with language barriers to complete the surveys. In total, the collaboration with the Homes of Oakridge helped us hear from 83 people via paper surveys. In addition, a community leader within the Latino

community helped organize a morning of outreach at a predominantly Latino soccer league. An additional 24 surveys were collected and translated through this collaboration. While this did not increase participation in focus groups, this strategy proved significantly more successful in garnering meaningful survey participation.

Some participants took the surveys as a group. When the Homes of Oakridge volunteers reached out, it was important within some cultural groups to have participants discuss and take the survey together. This is echoed in the experience of other researchers. For example Malloy, Albright, Diaz-Loving, Dong and Lee found that people within collectivist cultures tend to make decisions with context and the larger group in mind (Malloy, Albright, Diaz-Loving, Dong, & Lee, 2004). Relating this to water trails outreach work, some participants were more comfortable participating with their peers or family. When participants took the survey as a group, all people present were listed as participants and all of the responses and survey selections were counted for each participant.

### **Focus Groups**

The main method of outreach used for focus groups was identifying a community leader or an organized group and asking them to help recruit participants. A combination of email and phone calls was utilized to reach out to each potential point of contact. In addition, some key stakeholders were reached by making additions to agendas of pre-existing meetings and using the time to ask the focus group questions. In general, the focus groups were facilitated by a two person team. One of the team members took detailed notes of the discussion and the other team member asked the questions and led the activity. Appendix IV includes a full listing of all 23 focus groups completed by theme. Appendix V is a listing of people who helped recruit participants or made space at existing meetings. Appendix VI is a script of the questions asked in full-length focus groups. Appendix VII includes an informed consent document given to and signed by focus group participants.

A challenging population to get participation from was the farming community. Two focus groups were planned and organized, one on the western edge of the metro and one on the eastern edge. The Polk County Soil and Water Conservation District helped identify people to invite. In addition, over 500 invitation postcards were sent to landowners with agricultural property adjacent to a waterway. Unfortunately, there was very little turnout. We worked with our previous contacts as well as Iowa State Extensions, Iowa Soybeans Association, and Heartland Area Co-op and Farm Bureau to help recruit participants for the third and more successful focus group.

Attempts were made to host a focus group specifically with older adults by reaching out to groups such as the AARP. Unfortunately, these contacts were not able to assist in gathering people for focus groups. At that point in the process, initial focus groups had been conducted and a trend was beginning to emerge. Older adults were being represented within the paper surveys and the focus groups at a significant rate. As a reference point, the US Census 2014 estimated 11 percent of Polk County residents were over 65 years old (U.S. Census Bureau, 2015). Within the focus groups, 18 percent were over the age of 65. The paper survey had a 12 percent participation rate among the 65 plus age range. The online survey had a slightly lower rate at eight percent. In addition, older adults over the age of 55 made up 34 percent of all paper survey participants and 45 percent of focus group

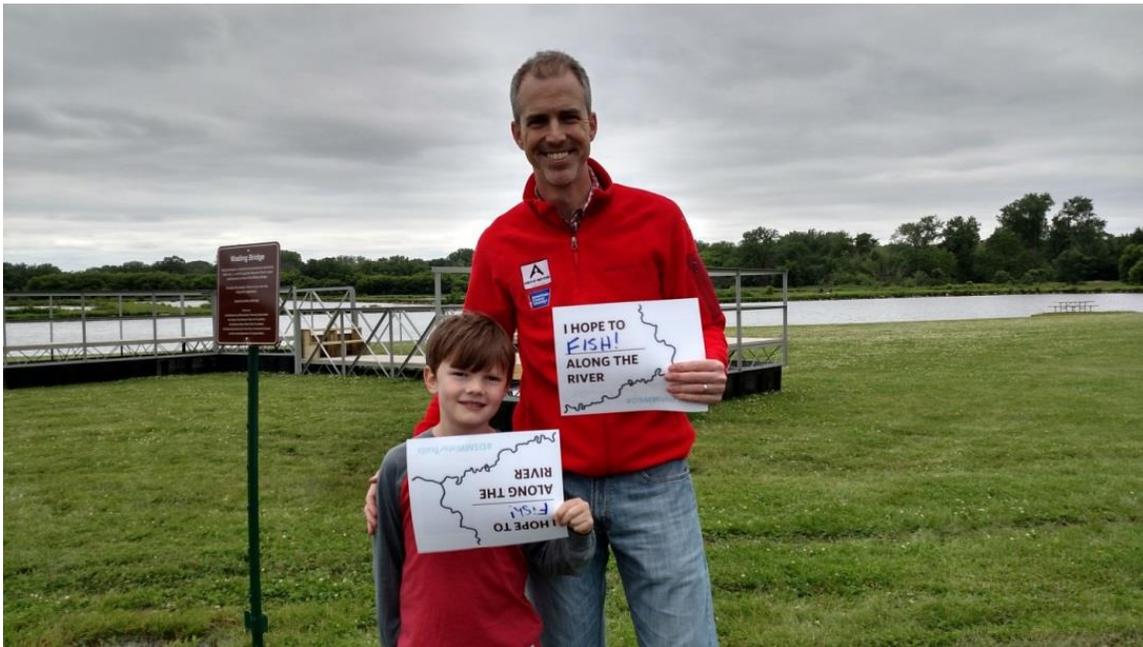
participants. Because of the high level of participation that was organically occurring, it was determined that targeted outreach was not essential and that effort could be placed on the populations that were more clearly unreached.

A history speaker series also played a critical role in the recruitment of focus group participants. In the fall of 2015, efforts were made to reach known leaders within the historical preservation community. The contacts made did not result in any participation or collaboration. In November of 2015 it was solidified that the Hoyt Sherman Place would host the history talks in January. The venue has strong ties with the Des Moines Women’s Club, a group which has had connection to historical preservation in the past. Working with the venue to invite members of this organization as well as advertising through the listserv resulted in high attendance. The day of the history talks a signup sheet for participants interested in the history focus group was shared. This method of recruitment enabled us to host a focus group that incorporated the views of historically minded individuals.

### Booths and Events

From May to January, a total of 12 events related to water trails were hosted by the MPO. A full listing of past 2015-16 events can be found in Appendix VIII. At many of these events, participants were encouraged to take part in our survey and sign up for the water trails listserv. Attendees were also invited to participate in a photo activity where they fill in the end of the statement, “I hope to \_\_\_\_\_ along the river.” Pictures of participants were then posted on the MPO Facebook page. Photo 1.1 is an example of people participating in the photo activity.

### Photo 1.1 River Hopes



(Cody, River Hopes Activity Photo, 2015)

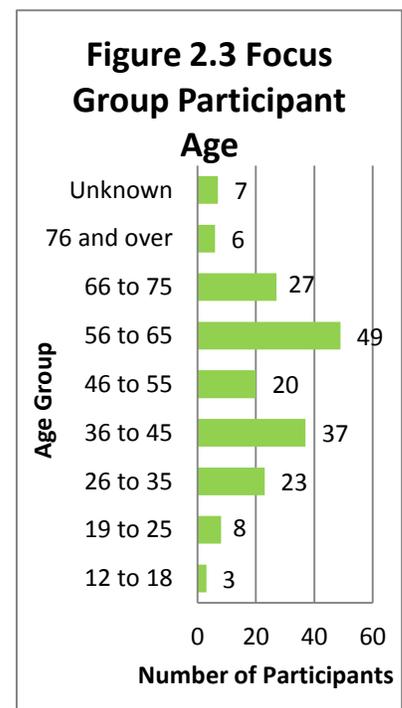
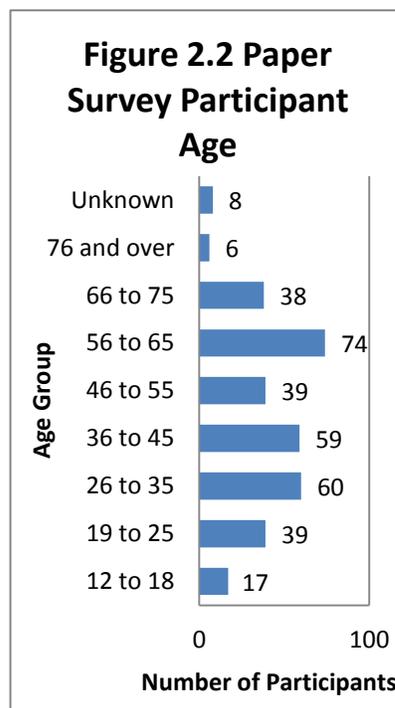
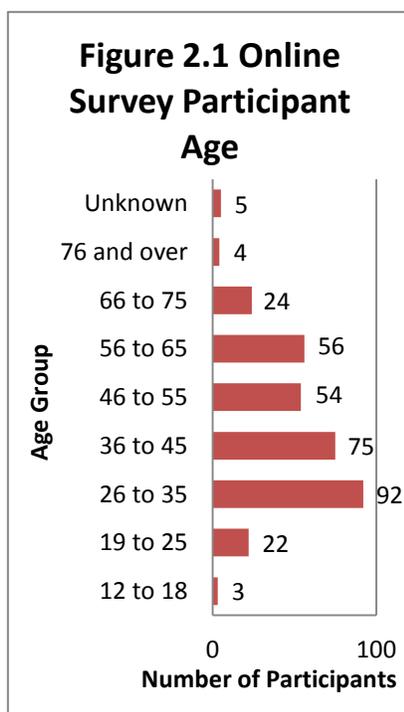
One event that allowed us to gather information was an interactive art activity on July 10<sup>th</sup> and 11<sup>th</sup> at the 80/35 Music Festival in downtown Des Moines. Participants were asked to stencil, draw or write the activities they hoped to enjoy along central Iowa waterways on a 24 foot river mural. This specific event allowed us to gain input as well as reach a large audience.

## Who Participated

This section provides information about who participated in the paper survey, online survey and focus groups. Demographic information was not collected for all people who participated at booths and events. A total of 341 people participated in the paper-based survey. The online survey included 335 participants. Finally, the focus groups have 180 participants. Across surveys and focus groups, 676 people were reached. The sections that follow analyze the demographics trends within the participants.

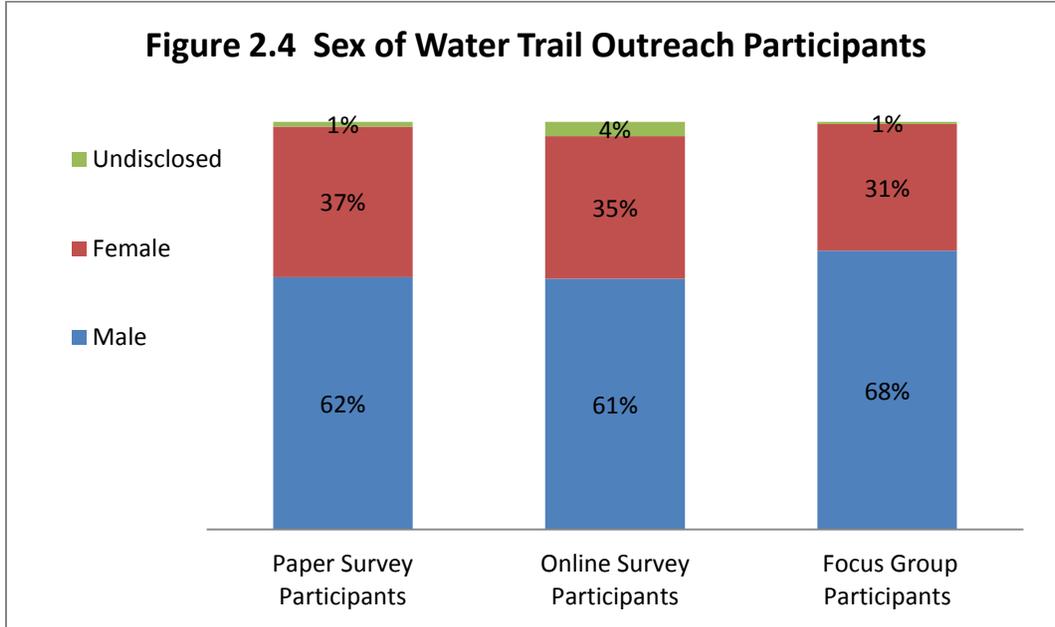
### Age

The online survey tool asked participants to identify their age within pre-set age ranges. Figure 2.1 includes the participants of the online survey by age range. Interestingly, younger adults aged 26-35 made up the largest group of participants within the online survey. On the paper survey, participants were asked to list a specific age. Participants ranged from 4 to 85 years old with an average age of 45 years old. Figure 2.2 shows the breakdown of paper survey participants within age ranges. All participants in the focus groups were asked to also participate in the paper survey, so similar data is available. Focus group participants ranged from 12-85 with an average age of 50 years old. Figure 2.3 shows the number of focus group participants in age ranges. Within both the paper survey and the focus groups, participants aged 56-65 were the largest age group. Those aged 36-45 were the second largest group within the focus groups. Within the paper survey, nearly the same number of 26-35 year olds participated as 36-45 year olds. While the paper survey and focus groups reached an older audience, the online survey tool was effective in reaching younger residence within the study area.



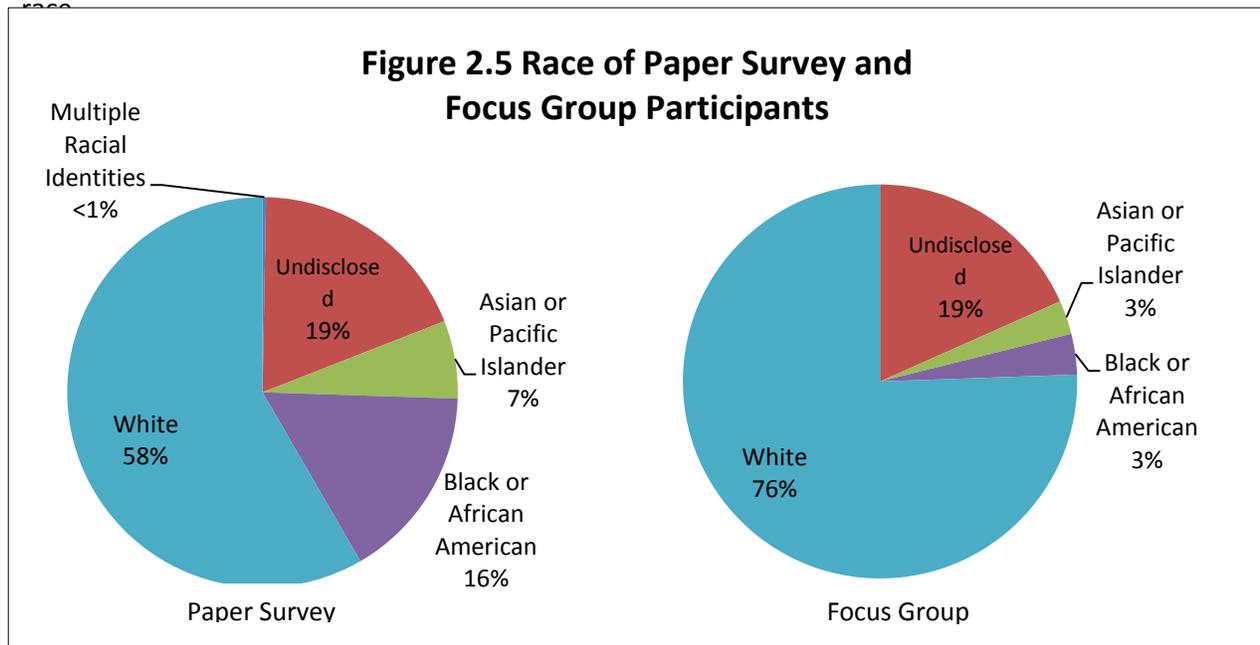
## Sex

Participants of the paper survey, online survey, and focus group were all asked to disclose their sex. Figure 2.4 includes the number and percentage of participants across each research strategy. Across all three research methods, males made up over 60 percent of the participants.

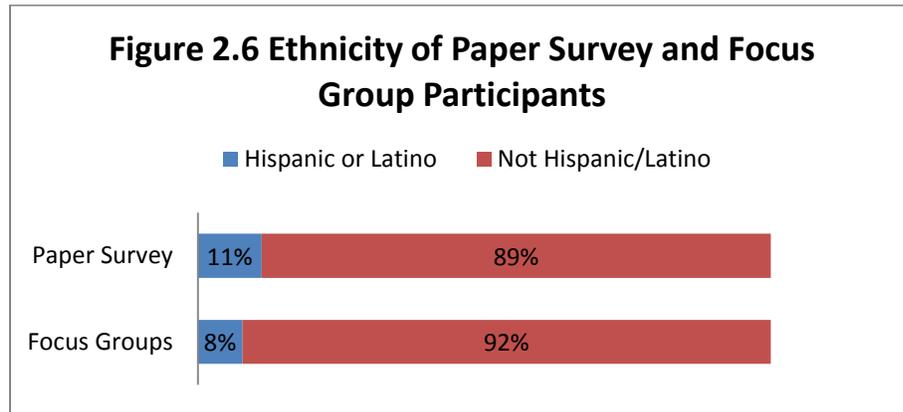


## Race and Ethnicity

Participants of the paper survey and focus group were asked to share their race and ethnicity. Similar data was not collected from the online survey. White central lowans were the largest participant group within both paper surveys and focus groups, however the targeted outreach with paper surveys resulted in higher racial minority participant rates. Figure 2.5 shows the breakdown of participants by



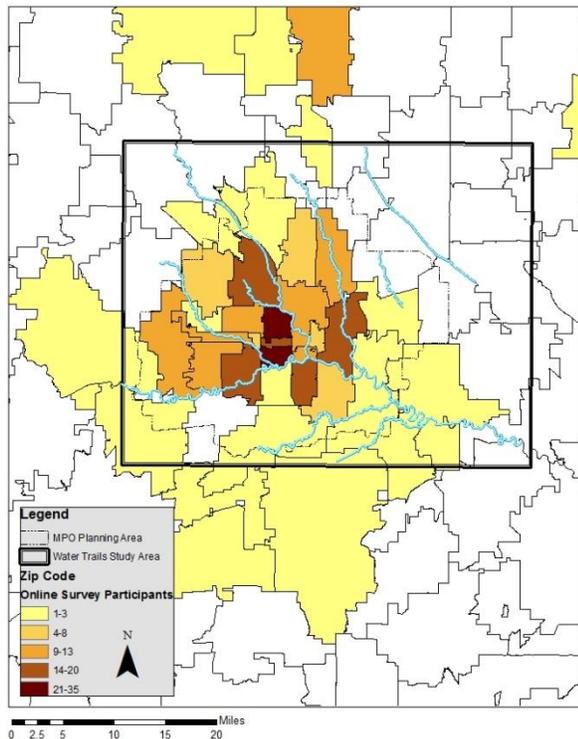
When looking at ethnicity, Hispanics and Latinos made up 11 percent of paper survey participants and eight percent of focus group participants. Figure 2.6 shows the breakdown of paper survey and focus group participants. It should be noted that the decision to collapse Arab participants within the not Hispanic or Latino group, discussed in the analysis section, obscures the two percent of paper survey participants that identified as Arab.



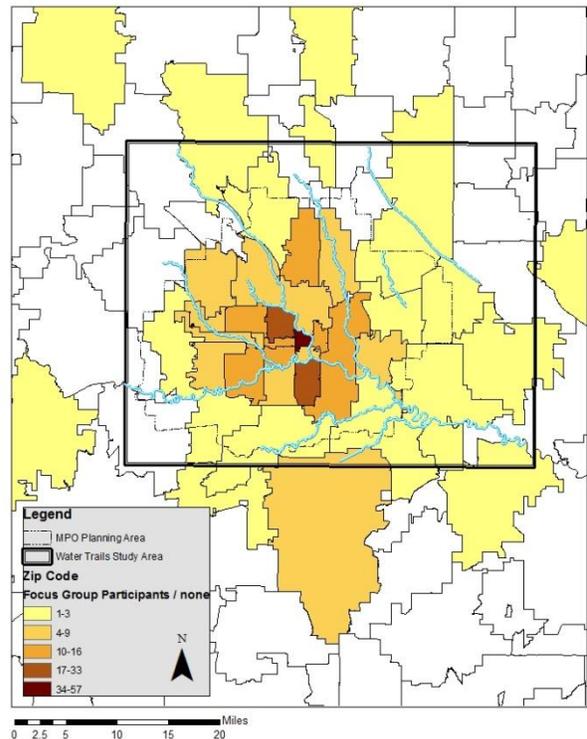
### Residence

Participants within the paper survey, online survey and focus groups were all asked their zip code of residence. Map 2.1 shows the residence of online survey participants. Map 2.2 depicts the zip codes of the paper survey participants. Finally, map 2.3 details the zip codes of the focus group participants.

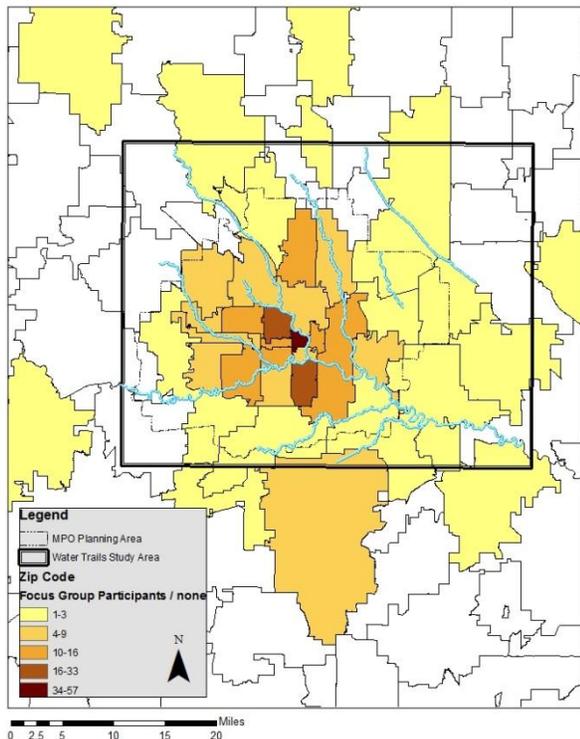
**Map 2.1 Online Survey Participation by Zip Code**



**Map 2.2 Paper Survey Participation by Zip Code**



**Map 2.3 Focus Group Participation by Zip Code**



## Analysis

A large amount of information was gathered between the online and paper surveys, focus groups and events. This section will describe how the information gathered was processed along with a discussion of challenges within the data.

## Paper and Online Surveys

Paper and online survey results were compiled into excel documents and analyzed. The following sections detail how the survey data were analyzed.

### *Demographic information*

Sex and zip code of residence did not require any special analysis techniques. All zip codes were considered valid participants, even those beyond the study area. Three sex categories were utilized including male, female and undisclosed. In processing the race and ethnicity data gathered, the categories used by the US Census were used as a guide. Major racial categories included White, Black or African American, Asian or Pacific Islander, Undisclosed and Multiple Racial Identities.

The US Census focuses on Latino and Hispanic or Non-Latino or Hispanic as the major ethnicity analysis. Because the survey asked for race and ethnicity with a blank line to write in, many people did not include one or the other. When someone identified an ethnicity, they often did not also identify a race. For example, if someone wrote in Latino, a racial group was rarely also listed. The US Census considers being Hispanic or Latino an ethnicity and a person of any race could potentially be Hispanic or

Latino (US Census Bureau, 2011). When somebody listed themselves as Hispanic or Latino and did not provide a race, they were coded within that ethnic group and within the undisclosed race category. This happened 38 times on the paper survey. All participants who did not list an ethnicity were put into the category of Non-Latino or Hispanic.

There were seven participants who identified as Arab and two participants who identified as Haitian. These participants made up less than two percent and less than one percent of participants. Because of the low participation rate, when it came time to analyze priorities by ethnicity, the participants listing Arab and Haitian were combined with the Non-Latino or Hispanic participants. A similar collapsing of categories was needed for race. The US Census says that Arab individuals are considered to be White. It also lists Haitian individuals as Black or African American (US Census Bureau, 2011). These racial designations were mirrored in the data analysis for this project.

### *Priorities*

The paper survey priorities were analyzed by a count of the total times an activity was selected as well as a per capita calculation. This was generated by dividing the number of times the activity was selected by the number of total participants. Within the online survey, the total of all stars an activity was given was looked at as well as the number of five stars it received. Similar to the paper survey, a per capita rate was calculated for online survey responses. For this, anytime an activity was given any number of stars it was given credit for one person making it a priority. The number of people making it a priority was divided by the total number of people. Similar per capita calculations were done within race, ethnicity, sex and river segment subsets.

In analysis, the responses for the paper survey and online survey had to be kept separate because of the way the information was gathered. Paper survey participants were asked to select their top three priorities. Online survey participants were given the list of priorities that were similar to the paper survey, but they were given a total of 20 stars to designate in one to five star increments. The star designations allowed the online survey results to include a rating system where the paper survey could not. In order to maintain the ranking, the data was kept separate.

Within the paper survey, all responses were included even when the respondents did not fully follow the numbers within the prompt. This became important when analyzing the information by race. Participants were asked to select three activities that they would prioritize. Within the Asian and Pacific Islander participants, a handful of participants decided not to select any priority activities. All of the remaining survey participants only selected one or two options. It is unclear if the small selection was made for emphasis or if the activities listed were not comprehensive enough to include a third selection or, in some cases, any selection at all. Continued inclusion of these surveys was essential in providing at least a small amount of information from the Asian and Pacific Islander participants.

The responses were sorted and compared by the sex, race and ethnicity of participants. As mentioned in the previous section, because the data set of Arab participants was so small, this ethnic group's recreational priorities were combined with the participants that did not disclose an ethnicity to form a 'Non-Latino' subset.

Priorities were also analyzed by their proximity to waterway segments. The zip codes that touched or crossed a waterway were grouped together. Appendix IX includes a listing of zip codes by segment. Some zip codes were adjacent to multiple waterways, so participants living in these areas had their responses counted in both places. For example, 50131 is adjacent to both the Des Moines River and Beaver Creek. Respondents from this zip code contributed to the priorities for both stream segments.

In looking at the priorities by segment, numbers for some segments were also too low. Specifically, only three participants in the online survey lived along the Skunk River. In looking at the information, two of these participants lived along the Skunk River outside of the study area. Because of the low number and the outside the study area location, these respondents were combined with the participants who did not live in a zip code adjacent to a waterway. A number of these non-adjacent participants also lived outside of the main study area.

### *Amenities*

Within the paper-based survey, two qualitative questions were asked including, “What has surprised you in your experiences along the river?” and “What is one improvement that could enhance your experience along the river?” The responses to the improvements question were added to the responses to a similar question asked in the focus groups. A list of all of the types of responses listed can be found Appendix X. The list is sorted along themes, however the listings are in no particular order or ranking and is not necessarily exhaustive. Looking over the list, it is very clear that central Iowans see a wide variety of opportunity along our waterways.

### **Focus Groups**

Three sources were used for analysis. First, all of the focus groups included a person taking detailed and typed notes of the discussion. Second, for the main question analyzed participants wrote responses on sticky notes. These written responses were then typed. Finally, all of the focus groups were audio recorded. Five of these audio recordings were transcribed. Two main points were analyzed; participant priorities and desired amenities.

### *Priorities*

The main question analyzed within the focus group data was, “Knowing that a water trails plan is going to be developed, what are three things you hope planners will keep in mind?” Initial themes or codes were created based on trends recognized by focus group facilitators. Using the notes and transcripts, the responses were coded within the themes. After three sets of focus group responses were coded, the codes were reviewed for additional trends and adjusted. The final themes that emerged were then transformed into a listing of guiding principles.

### *Amenities*

Focus group participants were also asked, “Are there any specific amenities that we should be thinking about for your user group that would improve your experience?” The responses to this

question were added to the amenities question on the paper survey. A full listing can be found in Appendix X.

## **Booths and Events**

There were limited opportunities for data collection and analysis for booths and events. A count of responses from the 80/35 mural by category was one place where data could be analyzed. A list of general categories was made to count the symbols and phrases placed on the mural. For example, when a picture of a bike was drawn or the word bike was written, the count under the category 'bike' increased. The initial list was very long, so some categories were collapsed that seemed aligned. When deciding what was aligned, the activity categories within the online and paper survey were considered in an attempt to have consistency. Within the final categories there was some diversity. For example the category 'Nature, Plants and Animals' included 26 birds along with eight trees or people climbing trees. Irrelevant responses such as twitter handles were excluded.

## **Issues and Concerns**

The tools developed were not perfect for all cultures. In some cultures, surveys and focus groups are not the most comfortable tool to be utilized. After many attempts to engage the refugee, Latino, Asian and Pacific Islander communities within the metro, it was clear that our strategies were not working. One major barrier was language and access. Once those barriers were addressed, it was also realized that these communities provide their input in a different way. They were much more comfortable being approached as a group or family unit and discussing their answers to a survey question. They were resistant or often opposed to filling out a survey form or being approached individually. Because of this, the volunteers from the Homes of Oakridge met with groups of people, asked the survey questions and recorded all of the responses on one joint survey for participants. All 83 participants—even small children who were present—were recorded as taking part in the survey. These surveys came from 53 conversations, many of which were group conversations. This yielded much more participation and helpful input.

The tools also had technical challenges. The paper survey tool asked for both race and ethnicity on one line, resulting in most participants only responding with one or the other. The online tool did not ask about race and ethnicity. In addition, the online survey had some technical glitches and failed to capture data when it should have been collected. For example, it had been set up to collect income information but then had not actually collected the information when the data was downloaded. In addition, it only collected the responses for ten of the activity categories. The tools themselves had limitations.

Focus groups reach leaders and the easy to access. Focus groups are good because they allow you to hear a more flushed out statement than a survey, however there are limits. We recruited 180 people to participate in focus groups. The vast majority of those individuals were leaders of organized groups, community leaders, or active participants in organized groups. Because of who participates in focus groups with the outreach strategy utilized, there is a possibility that we are missing a dynamic that would have been illuminated by speaking with less formally connected residents. The benefit to reaching these people is that they often had been thinking about central Iowa waterways, had ideas and

were informed. This may not have been true for a wider net. There are benefits and limitations to focus groups and they are tied to who is able to participate.

Finally, there were limits in the participation rate within the surveys, however they served a vital role. Just over 300 people participated in each of the individual surveys. A total of 600 people is barely one percent of the Greater Des Moines metropolitan area. There are limitations in the results of the surveys because of the small sample size. Despite the small number of people, the surveys were critical in bringing forward the voices of populations not reached through the focus groups. The surveys represented greater age and racial diversity than the focus groups. While consideration of the small sample size must be kept in mind in the analysis, the value in the more inclusive approach and information gathered within surveys helps counterbalance the limitations of the focus groups.

## Findings

This section provides an overview of what was learned from the public outreach efforts. It includes overall trends, differences within groups and a discussion of the significance of the findings.

### What was learned

As we heard from survey and focus group participants, major trends emerged. These were organized in the form of guiding principles. These principles represent the community's values and will be referred to as recommendations are developed. A total of five guiding principles were identified. Each guiding principle had multiple sub themes. Appendix XI provides a fuller listing, including sub-themes of the guiding principles. Appendix XII includes the coding guide used to group responses. The sections that follow provide an overview of each guiding principle and their associated subthemes.

There is crossover between the guiding principles. For example, addressing the dams is a subtheme listed in two guiding principles. For some participants, the dams represented a safety risk. For others, the dams disrupted the connectivity of the river and they were concerned about fish migration and other aquatic creatures being able to naturally move up and down the stream. Another subtheme that crossed multiple guiding principles was the need to embrace diversity. Having access to waterways does not look the same for all residents. Being safe enjoying water trails will require a range of supports. Including these subthemes in multiple places was intentional so that the range of meanings was captured. While each of the guiding principles adds a unique element to how water trails must be viewed, there is valuable overlap.

#### *Guiding Principle 1: Expand access to the waterways and greenways*

Coming up in nearly every focus group was the need to increase access to our waterways. Table 3.1 summarizes the four subthemes for this guiding principle.

There are a large number of ways central lowans envision interacting with our waterways, and nearly all of them require some way to gain entrance to the water or area near the water. Access meant a lot of different things to different recreational users. Making rivers more accessible included traditional options like boat ramps, but it also included building more fishing spots, parks, overlooks, and restaurants near the water. One interesting subtheme was the idea of interconnecting water trails and bike trails as a way to increase access. This would allow for people who are not interested in recreation on the water to be nearby. In addition, it would allow for the possibility of self-shuttling when canoeing. Another important subtheme was a concern for consistent water level in the segment upstream from Center Street Dam on the Des Moines River. Rowing and powerboating depend on a pool deep enough for their boats. When considering access we should consider the needs for a range of recreational possibilities.

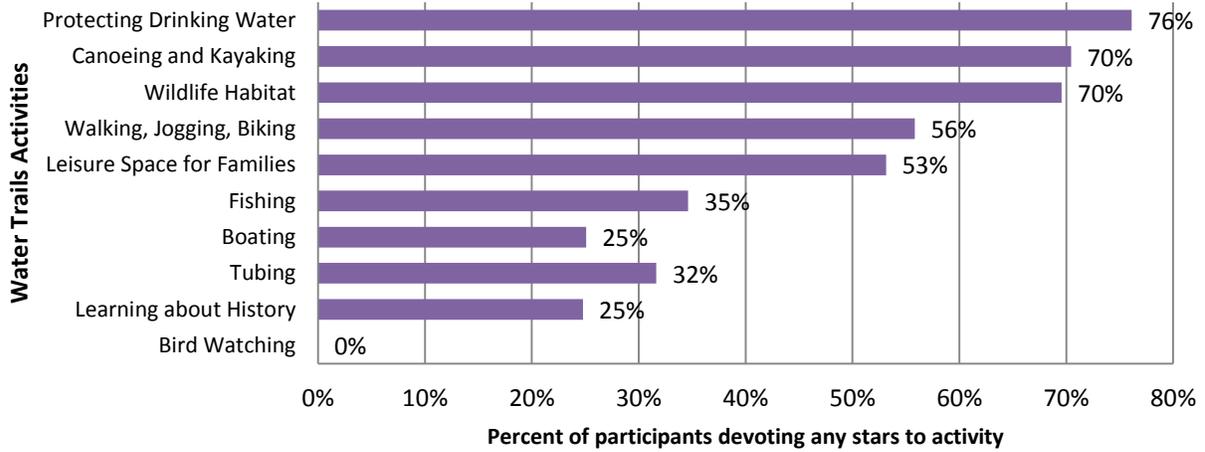
**Table 3.1 Subthemes for Guiding Principle 1: Expand access to the waterways and greenways**

1.1 Increase number of public access points
1.2 Interconnect water trails and bike trails
1.2 Maintain consistent water levels in certain areas
1.4 Embrace diversity. Water trails must be accessible to a variety of age groups and families, people with a variety of different physical abilities, members of all socio-economic statuses, and are welcoming of the racial, ethnic and cultural diversity within the Greater Des Moines Area

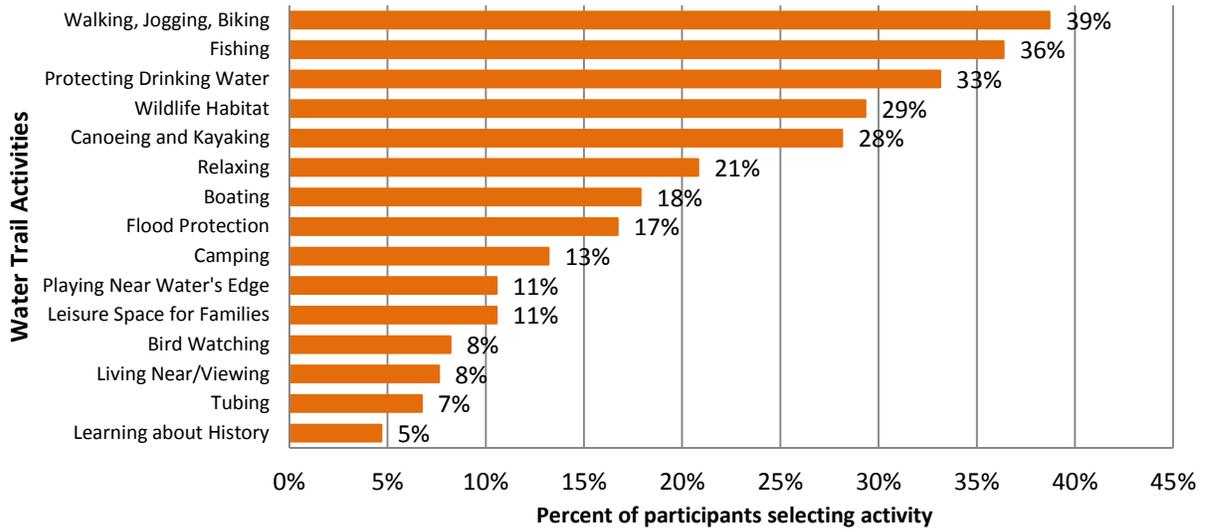
When thinking about access, we must also embrace the diverse needs within our community members. This means amenities that are family friendly, affordable, easy to get to and safe for people with limited mobility. It also means accommodating a range of cultural needs of users of our collective resources. Central Iowa is diverse, so we must provide information in multiple languages. There are a wide range of experience levels. A large number of paper survey participants, especially within the minority communities reached, had never had an experience on central Iowa waterways. Lack of information, transportation, and concern for safety were cited as major reasons for not going to the water. Lack of desire was not a barrier. Remembering to be inclusive of the wide range of needs within our community is important to successfully make our waterways more accessible.

The survey responses revealed a diverse range of access was needed. When looking at the results from the online survey, there are some differences, but still a larger percentage of participants prioritize water trail activities that require access. Canoeing and kayaking was selected by 70 percent of online survey participants. Walking, jogging and biking as well as leisure space for families both received support from over 50 percent of participants. Access to get on the water is important, but access to be near the water was equally important. Walking, jogging, biking and fishing were the top priorities within paper survey participants, again making a diverse range of water trails access—beyond boat ramps—important. Figure 3.1 shows the activities ranked by the number of people who devoted any number of stars to each activity in the online survey. Figure 3.2 shows the results from the paper survey. Walking, jogging and biking followed by fishing and protecting drinking water were the most frequently selected priorities.

**Figure 3.1 Priorities of Online Survey Participants**



**Figure 3.2 Priorities of Paper Survey Participants**



*Guiding Principle 2: Conserve and enhance our natural corridors*

The second guiding principle Central lowans shared was focused on our waterways as natural resources. Table 3.2 details the subthemes associated with guiding principle two.

**Table 3.2 Subthemes for Guiding Principle 2: Conserve and enhance our natural corridors**

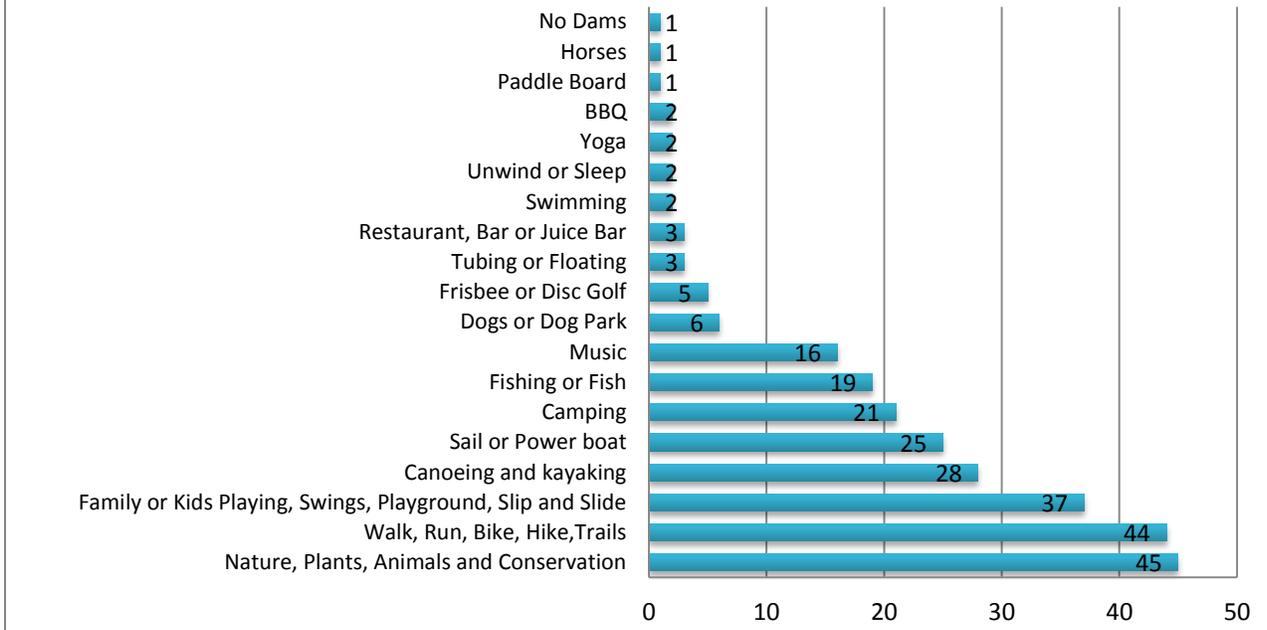
2.1 Improve water quality
2.2 Remove trash and plan for trash disposal
2.3 Naturally restore and stabilize waterways
2.3 Improve and protect wildlife habitat and wild areas
2.5 Address flooding and flood plains
2.6 Address the dams and build connectivity for animals and plants

When prioritizing natural corridor management, central lowans thought about stream bank stabilization, addressing erosion and protecting the floodplain. Building connectivity between segments of the river and addressing the dams was also seen as an important part of corridor management. Central lowans also saw water trails as an opportunity to improve and protect wildlife habitat and wild areas. Naturally restoring and stabilizing waterways was a major theme.

It was very clear that central lowans believe that natural stewardship is tied to their desire to access waterways. Concerns about water quality came up nearly as frequently as requests for improved access. Water quality is seen as a barrier to safety and recreation as well as connected to flooding. People are afraid to fish, swim, and let their kids near the water for fear of getting sick. For many, concern about water quality includes addressing trash removal. The joy of paddling on the river or taking in a scenic view is diminished when the water is brown and filled with garbage. Natural corridor management, conservation and addressing water quality were all important to people in our region.

The importance of conservation also emerged within our interactive 80/35 mural. Figure 3.3 includes the counted contributions to the mural. Central lowans see our rivers as a place to access nature. Plants, animals and nature were the most frequently listed category on the mural. A close second was bikes and bike trails. Interconnecting bike trails was one of the sub themes identified in guiding principle one. The third most frequent category want space that is safe for families and multiple types of recreational users. These responses align well with the sub theme for principle one of embracing diversity and making water trails family friendly. The final mural can be seen in Photo 3.1.

**Figure 3.3 80/35 Mural Responses**



**Photo 3.1 80/35 Water Trails Mural (Cody, 80/35 Mural Photo, 2015)**



### *Guiding Principle 3: Create safe and welcoming experiences*

Central lowans value safety. This includes addressing the dams and managing hazards like log jams and snags. Table 3.3 depicts the subthemes that emerged within this guiding principle.

**Table 3.3 Subthemes for Guiding Principle 3: Create safe and welcoming experiences**

3.1 Address the dams
3.2 Manage hazards
3.3 Embrace diversity. Water trails must be accessible to a variety of age groups and families, people with a variety of different physical abilities, members of all socio-economic statuses, and are welcoming of the racial, ethnic and cultural diversity within the Greater Des Moines Area
3.4 Increase wayfinding and signage
3.5 Provide safety education

When thinking about safety, we are encouraged to plan for multiple types of users with different physical needs and skill levels. Because of this diversity we should make safety education, wayfinding tools, and proper signage priorities. Safety was critically linked to a space being kid-friendly. Making space for families and kids—some of which are unaccompanied was really important to central lowans. With kids in mind, safety was also often linked to water quality and concerns about health when interacting with the water. Planning for safety must be linked to the needs of potential users.

Having multiple user groups sharing some of the same stretches of river can cause conflict and safety concerns. There is a tension between increased activity, access, and safety. The more people on the river, the more risk. While there are 150 miles of waterways in central Iowa, it became clear that not all of them are appropriate for all users. In addition, not all areas are appropriate for recreation. Preserving space for wildlife should be considered when safety is a barrier. Finally, when thinking about safety in rural areas, it is important to remember that mixing trails with farming and livestock can pose risks. When planning for safety, every mile of our waterways does not need to become a recreational hotspot.

Safety means more than safe paddling. Two safety concerns were prevalent within the surveys. Receiving support from 76 percent of participants, protecting the source of our drinking water was the most frequently selected priority within the online survey. Safe drinking water was also ranked highly within the paper survey and was prioritized by one third of respondents. In addition, 17 percent of paper survey participants prioritized flood protection. In many ways these concerns for safety connect to the conservation and natural resource priorities in principle two. Remembering the wide variety of safety issues, including flooding and drinking water protection will be important.

There were distinctive themes within the paper survey short answer responses that were not heard in the focus groups. Safety is one area where the short answer questions on the surveys provided additional definitions than the focus groups. This was in part because of the demographic differences

within survey and focus group participants. Within the surveys, safety meant being physically safe and welcome in public spaces. It also meant having opportunities for kids that required no parental supervision. This fuller definition of safety was only brought up a few times in focus groups, so it was important to hear it within the paper surveys.

*Guiding Principle 4: Work together to maintain what we have*

It will take the whole community to make central Iowa water trails a reality. Within this guiding principle there were three subthemes that emerged. Table 3.4 includes the subthemes.

**Table 3.4 Subthemes for Guiding Principle 4: Work together to maintain what we have**

4.1 Communicate about who will manage and upkeep projects.
4.2 Secure sustainable funding
4.3 Connect water trails recreation to other initiatives and economic development

There are concerns about who will maintain any projects and where the money will come from. There is a perception, accurate or inaccurate, that the waterways are currently largely maintained by users. In moving forward it will be essential to figure out management of projects and upkeep.

A related concern about management arose within landowners. We must have landowners at the table—especially when considering projects that would increase users in more rural areas. Though legislation has been strengthened in recent years, landowner concerns about liability and user confusion about access and trespassing can create barriers that should be discussed as the planning effort moves forward.

This will mean asking local governments to do more. For government entities, water recreation has not been a previously prioritized service. Not everyone has an experience with Iowa waterways. There are a lot of people who will be important within the water trails planning and implementation process that have had little to no experience on or near central Iowa waterways. In asking governments and people with limited experience to do more, we must identify and secure sustainable funding for training, enhancements, upkeep and emergency response. In addition, some of these projects will take a coordinated effort across multiple jurisdictions. Governments will have to take on new responsibilities and strengthen relationships with other governments.

Finally, when thinking about coordination we must also remember to connect water trails with other initiatives and economic development. This could include new outfitters, shops and restaurants near waterways and increased regional tourism. Economic development related to water trails could be a point for communities to come together.

### *Guiding Principle 5: Connect community members to water*

Central lowans want to be involved. This final guiding principle captures the importance of further community engagement and creating opportunities for central lowans to interact with our waterways. Table 3.5 includes the subthemes within this guiding principle.

**Table 3.5 Subthemes for Guiding Principle 5: Connect community members to water**

5.1 Build programming and amenities including events, classes, education about fishing and boating laws and rental opportunities
5.2 Embrace diversity. Water trails work should reflect the variety of age groups and families, people with a variety of different physical abilities, members of all socio-economic statuses, and the racial, ethnic and cultural diversity within the Greater Des Moines Area
5.3 Improve wayfinding and signage
5.4 Build upon citizen’s personal and the city’s river history
5.5 Increase marketing and information about our waterways

Most people saw our waterways as an asset and were excited about an intentional planning effort. There is an expectation and hope from users that this planning process will create momentum for implementation. Moving forward, it is important to remember that there is also a lot of history and investment with central Iowa waterways by current users. There is potential for a small number of people who have a deep sense of ownership that may be very vocal around change. These same individuals have the potential to be leaders in bringing together current user groups. Community engagement that connects to citizen’s personal investment in the rivers will be important.

Community engagement includes programing and information. If people don’t know about resources they will not come. Increased marketing, signage and easy to access information are critical pieces of community engagement. From the focus groups we learned that our community is interested in safety education, events, recreational classes, rentals and education on fishing and boating laws.

Another interesting lesson learned was that there are many people within the metro that do not have experience with our water ways. This came up in a number of the focus groups, specifically with some of the government workers. It also came up in the paper survey short answers. There were a large number of people who said they had not been to the nearby rivers and that they wished there was somebody who would take them or give them advice for their first time. It did not appear that recreational preferences were correlated to this response. This means, it was not just people saying they had never been boating or canoeing before, but wanted to. When creating a water trails plan, it will be important to remember the people who have previously been disconnected from our waterways.

Finally, when engaging the community we must plan for and be intentional about incorporating the diversity of central Iowa. There are a variety of experience levels, income levels, cultures and ages

within the population of any place. Programing for the community will be effective when it is family friendly, affordable, safe for people with limited mobility and available in multiple languages.

## Differences across groups

While there were major themes that emerged, there were differences across participants. The following section explores the trends by sex, race and ethnicity.

### *Priorities by Sex*

There were some distinctions within the priorities when analyzing by sex. This section will review the responses of both online and survey participants by sex for trends that emerged. While these data sources differed by age diversity and had subtle differences in questions asked, there were a few points in which they overlapped.

Male and female participants shared some priorities, but diverged on others. For female identified paper survey participants, the top three most frequently selected priorities were walking, jogging and biking; protecting drinking water; and protecting wildlife habitat. For male identified participants, the top three most frequently selected priorities were fishing; walking, jogging and biking; and protecting drinking water. While both males and females prioritized walking, jogging and biking, females prioritized it at a significantly higher rate. Males and females prioritized protecting drinking water at nearly the same rate, or about one third of the time. One third of females also valued protecting wildlife habitat. Fishing was by far the most prominent answer among males with nearly half making it a priority area. Table 3.1 includes the top three most frequently selected activities by sex. Appendix XIII include charts that show the overall ranking of water trail activities by sex. Also included in Appendix XIII is a chart that provides a side by side comparison of the water trails priorities by sex.

**Table 3.1 Top Three Activities by Sex in Paper Survey**

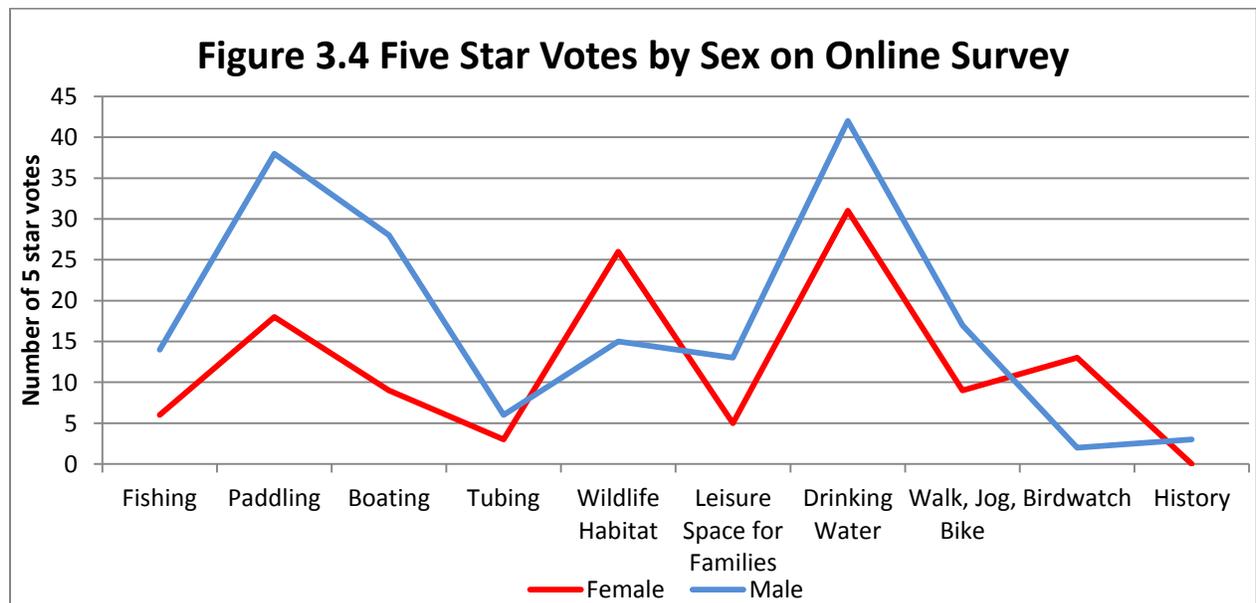
<b>Males</b>	
Fishing	49%
Protecting Drinking Water	32%
Walking, Jogging, Biking	32%
<b>Females</b>	
Walking, Jogging, Biking	50%
Wildlife Habitat	33%
Protecting Drinking Water	33%

When looking at the results from the online survey, the priorities by sex were more inline. Table 3.2 shows the top star earner; activity with the most five star ratings; and the activities with the most people devoting any number of stars. Appendix XI includes charts which provide a full listing of total starts, number of five star ratings and the percent of participants designating any stars for each activity.

**Table 3.2 Top Priorities by Sex in Online Survey**

<b>Males</b>			
<b>Top Total Stars</b>	Protecting Drinking Water	<b>Top Three Per Capita</b>	Protecting Drinking Water
<b>Most 5 Stars</b>	Protecting Drinking Water		Canoeing and Kayaking Wildlife Habitat
<b>Females</b>			
<b>Top Total Stars</b>	Protecting Drinking Water	<b>Top Three Per Capita</b>	Protecting Drinking Water
<b>Most 5 Stars</b>	Protecting Drinking Water		Wildlife Habitat Canoeing and Kayaking

The online survey’s star ranking system results supported a message from the paper survey. Figure 3.4 shows the number of five star ratings each activity was given by sex. The difference between females and males in the importance of wildlife habitat was an interesting overlap with the paper survey. Knowing that females made up one third and males made up two thirds of respondents, it makes sense for males to generally have a higher total number of five star distributed. When looking at how participants used their five star ratings, males and females generally had elevated numbers on similar activities. Two exceptions were protecting wildlife habitat and bird watching. In both of these categories, females dedicated significantly more total five stars than males, despite their lower participation rate. Connecting this with the paper survey trend and the importance of wildlife habitat protection among some female participants seems significant.



*Priorities by Race and Ethnicity*

Within the paper survey racial and ethnic information was collected. When filtering the priorities by race and ethnicity, important trends emerged. Table 3.3 provides a summary of the top three most frequently selected activities within each racial group. Table 3.4 shows the top priorities by

ethnicity. Appendix XIV includes charts that show the frequency of selection of all the activity areas within each of the racial groups. In the same appendix is a table that compares the full listing of priority activities by race. Appendix XV includes charts that show the extended list of frequency of priority selection by ethnicity. Within all of these charts, the percent of people within the subgroup that selected the activity were utilized as a way to more easily see the trends. Comparing racial and ethnic groups highlights that the overall data obscures the diverse ways in which central lowans use or would like to use our water ways.

**Table 3.3 Most Selected Activities by Race**

<b>Asian or Pacific Islander</b>	
Fishing	77%
Playing Near Water's Edge	27%
<b>Black of African American</b>	
Fishing	31%
Walking, Jogging, and Biking	31%
Relaxing	25%
<b>Unknown Race of Multiple Races</b>	
Walking, Jogging, and Biking	46%
Fishing	38%
Relaxing	34%
<b>White</b>	
Walking, Jogging, and Biking	43%
Protecting Drinking Water	42%
Canoeing	39%

**Table 3.4 Most Selected Activities by Ethnicity**

<b>Latino or Hispanic</b>	
Walking, Jogging, Biking	53%
Fishing	37%
Relaxing	34%
<b>Non-Latino or Hispanic</b>	
Walking, Jogging, Biking	37%
Fishing	36%
Protecting Drinking Water	33%

One lesson learned that was not clear prior to filter, comes from within the Asian and Pacific Islander (API) participants. A handful did not select any priorities. Of the 17 that did select priority activities, all selected fishing. Many only selected one priority and those that made an additional selection only also selected playing near the water's edge. Fishing was very important for many communities, but it should be remembered that for some communities it might be even more important.

Another interesting activity is playing near the water's edge. It was one of only two activities receiving any selections within the API participants. In addition, nearly a quarter of African American participants prioritized playing near the water's edge. When looking at total participants, this priority area received a lower total response rate. It should be remembered that within some communities, playing near the water's edge is important.

Another interesting trend was the rate in which relaxing was prioritized. Relaxing was frequently prioritized water trails activity within African American participants and participants with undisclosed or multiple races. In addition, when looking at the responses by ethnic groups Latinos and Hispanics also selected relaxing frequently. Because of their importance within these sub groups,

activities such as fishing, playing near the water’s edge and relaxing should be considered within water trails plan development.

Finally, another interesting trend emerged when comparing across ethnicity. While walking, jogging and biking was the most common selection across the board, a significantly higher percent of Latino or Hispanic participants select it as a priority compared to Non-Latinos. Similar to fishing, it should be remembered that some activities may have increased significance and popularity within subsets of our community.

### *Priorities by River Segment*

Data collected within the surveys was also analyzed based on the zip code of residence and its proximity to water ways within the study area. Because of the increased level of detail gathered within the online survey, this section will focus on the results by segment within the online survey. Table 3.5 includes the top three priorities by river segment within paper survey participants. Table 3.6 focuses on responses from the online survey participants and includes the activity with the highest total stars, the activity with the most five star ratings, and the three activities that received the most people giving the activity any number of stars. The final count of the three activities receiving any number of stars most closely correlates to the methodology used to analyze the paper survey results.

**Table 3.5 Priorities by River Segment within Paper Survey Participants**

	Des Moines	Raccoon	Beaver	North and Middle	Four Mile, Mud, and Walnut	South Skunk and Not Adjacent
<b>Fishing</b>	34%	46%	23%	56%	20%	24%
<b>Canoeing and Kayaking</b>	35%	34%	49%	44%	43%	12%
<b>Boating</b>	23%	15%	23%	6%	27%	16%
<b>Tubing</b>	11%	12%	11%	0%	7%	12%
<b>Wildlife Habitat</b>	40%	39%	54%	17%	40%	28%
<b>Leisure Space for Families</b>	16%	10%	3%	22%	13%	20%
<b>Protecting Drinking Water</b>	40%	34%	54%	28%	43%	60%
<b>Walking, Jogging, Biking</b>	47%	49%	43%	61%	50%	36%
<b>Bird Watching</b>	10%	12%	11%	17%	7%	12%
<b>Learning about History</b>	3%	7%	3%	0%	0%	12%
<b>Camping</b>	19%	10%	17%	39%	5%	8%
<b>Relaxing</b>	16%	17%	11%	28%	13%	8%
<b>Flood Protection</b>	24%	29%	23%	6%	27%	32%
<b>Playing Near Water's Edge</b>	8%	12%	9%	0%	15%	4%
<b>Living Near/Viewing</b>	11%	7%	3%	6%	7%	4%

In reviewing the online survey data by river segment, one interesting lesson that was learned was that at times an activity could receive a low number of total stars, however simultaneously be the largest five star earner. An example of this is boating for participants living along the Des Moines River. While it was not the most star earner and did not have the most total participants selecting it, boating is

very important to those that prioritize it. A lesson that can be taken from this is, there are subsets of people along the river who are very passionate about certain activities. This aligns with experiences from the focus groups. It was very clear that there are many central lowans who are very passionate about some aspect of water trails. If these sub-groups can be recognized within the larger desires of the population, there is an opportunity to align with their passion and energy to move projects forward.

**Table 3.6 Priorities by River Segment within Online Survey Participants**

<b>Des Moines</b>			
<b>Top Total Stars</b>	Canoeing and Kayaking	<b>Top Three Per Capita</b>	Protecting Drinking Water Canoeing and Kayaking Wildlife Habitat
<b>Most 5 Stars</b>	Boating		
<b>Raccoon</b>			
<b>Top Total Stars</b>	Protecting Drinking Water	<b>Top Three Per Capita</b>	Protecting Drinking Water Wildlife Habitat Canoeing and Kayaking
<b>Most 5 Stars</b>	Protecting Drinking Water		
<b>Beaver</b>			
<b>Top Total Stars</b>	Protecting Drinking Water	<b>Top Three Per Capita</b>	Canoeing and Kayaking Protecting Drinking Water Wildlife Habitat
<b>Most 5 Stars</b>	Protecting Drinking Water		
<b>North/Middle</b>			
<b>Top Total Stars</b>	Families	<b>Top Three Per Capita</b>	Leisure Space for Families Fishing Wildlife Habitat Walking, Jogging, Biking
<b>Most 5 Stars</b>	Bird Watching		
<b>Four Mile, Mud, and Walnut Creek</b>			
<b>Top Total Stars</b>	Protecting Drinking Water	<b>Top Three Per Capita</b>	Protecting Drinking Water Canoeing and Kayaking Wildlife Habitat
<b>Most 5 Stars</b>	Protecting Drinking Water		
<b>South Skunk, Not Adjacent and Outside Study Area</b>			
<b>Top Total Stars</b>	Protecting Drinking Water	<b>Top Three Per Capita</b>	Protecting Drinking Water Canoeing and Kayaking Wildlife Habitat
<b>Most 5 Stars</b>	Canoeing and Kayaking tied with Protecting Drinking Water		

## Recommendations

Through extensive public outreach about what central lowans prioritize when it comes to rivers and creeks, many themes arose. In addition, the outreach process highlighted important community planning challenges that should be addressed. Following the values of community members and learning from the outreach process has resulted in the following six recommendations.

First, increase diversity within outreach, programming and decision making processes. From different cultural experiences, desired uses, economic backgrounds, physical abilities, and skill levels, there is great diversity in central lowans. Some of the most enlightening information came when the voices of racial and ethnic minorities were heard within the surveys. Unfortunately, these voices are often missing from the planning and decision making table. A planning process and plan that includes the diversity within our community will be most successful in creating water trails that all residents in Greater Des Moines can enjoy.

Second, expand access to the waterways and greenways. If the water cannot be reached, it will not become a community asset. From wheel chair accessible ramps and paths to multi-lingual signage, increasing access is an opportunity to embrace diversity. Not all activities require the same types of access. Central lowans prioritized a wide variety of recreational experiences along the waterways, and the water trails plan should attempt to find space for many of them. Adding points of access is essential to the success of the water trails plan.

Third, conserve and enhance our natural corridors. A common idea shared in focus groups about what makes these waterways unique, was the feeling of wilderness close to home. Water quality, erosion, and natural habitat protection were concerns for many focus group and survey participants. When creating a water trails plan, there should be space for nature and experiences of serenity.

When thinking about expanding access as well as conservation, a tension can arise. While the recommendations will have some locations with competing priorities, there are over 150 miles of waterways within central Iowa. One strategy to address potential conflict is recognizing that all activities and recommendations do not need to be prioritized in every place and the points of least conflict are good options for initial water trail projects.

The fourth recommendation is to create safe and welcoming user experiences. Rivers and creeks are naturally volatile. Safety must be at the forefront. Any plan must incorporate emergency response, hazard mitigation and educating the public. Greater Des Moines residents speak multiple languages and have a wide range of skills and abilities. Safety must also recognize the diverse needs of the people who will access the water trails. Safety is the minimum, but positive and welcoming experiences for all central lowans should be the goal.

Fifth, we must connect community members to water. There were many participants who had a lot of experience along rivers and were very excited to be part of the planning process. At the same time there were many people who were disconnected from waterways. Giving people opportunities to experience and learn about central Iowa waterways has the potential to build additional allies. This

aligns with the experience of water trails planning in other parts of the state. In a water trails report, officials from the Iowa Department of Natural Resources assert, “Experiencing and getting to know a stream often fosters a sense of attachment to the stream as a familiar place. In this way, a new water trail can act as a springboard to motivate residents and landowners to care for and seek enhancements that benefit the stream” (Wagner & Hoogeveen, 2010, p. 13) The water trails planning process can draw residents towards the river. When people are connected, they become invested in carrying out the plan.

Finally, governments and private citizens must work together to maintain our waterways and the nearby amenities. With 150 miles worth of waterways, this plan will cross many governmental boundaries. In some areas, the facilities and programming developed through the water trails plan will require new services for cities and counties to take on. Ongoing maintenance across multiple jurisdictions must be sorted out. Sustainable funding will need to be identified. This also means that we must incorporate the water trails guiding principles and planning efforts into other regional growth and land use plans. The water trails plan must build collaboration, a decision making strategy and a commitment to the values identified within our public outreach and this report.

## **Conclusion**

Central Iowans are excited about the possibility of water trails. They want to be engaged in the planning process as it moves forward. Residents of Greater Des Moines see a lot of different possibilities within our waterways. When determining what projects get incorporated into future plans we must remember that there is great diversity within the interests, experiences and needs of our residents.

Despite a wide range of recreational priorities, there were common themes that emerged that can guide us in planning. Making space at the planning table and within water trails for all central Iowans is vital. Increasing access, prioritizing natural corridor management and conservation, coordinating key players, planning for safety, and continuing to engage the community will be important to a successful water trails plan. Remembering these guiding principles will help ensure that the plan being developed is in line with the vision of central Iowans.

If acted upon, the values of central Iowans outlined in this report have the potential to create healthier and more vibrant ecosystems and a community that appreciates our waterways as natural resources. In addition, more Iowans will have safe and fun experiences on and along the river. New opportunities for partnership, entrepreneurship and recreation will emerge. Following these recommendations will lead to a more symbiotic relationship with our rivers and creeks and improve the health and wellbeing of our community.

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## Appendix I: Online Survey Categories

Participants were given the prompt, “I want waterways in Greater Des Moines where...” and then given a total of 20 stars to allot within the following categories:

- I can safely paddle my canoe/kayak or row my boat
- I am safe from flooding
- Scenic beauty and wildlife habitat are protected along the rivers
- I can watch birds and other wildlife
- My kids and I can play by the water’s edge
- There are more areas for me to walk, jog or bike
- I can relax and enjoy the beauty of the river
- I can Tube down the river
- Families can spend time outside together
- I can learn more about history and celebrate my river-town roots
- I can fish along the river
- The source of our drinking water is protected
- I can run my motor boat

## Appendix II: Paper Based Survey in English

### What do you want from Des Moines water trails?

The purpose of this survey is to understand community priorities for waterways in Central Iowa. Participation is voluntary. Individual responses and demographic information will not be shared, but will be part of aggregate data released to the public. Returning this form indicates that you agree to participate in this survey. For further information, contact [watertrails@dmampo.org](mailto:watertrails@dmampo.org) or 515-334-0075.

Zip Code \_\_\_\_\_

Age \_\_\_\_\_

Race/Ethnicity \_\_\_\_\_

Gender \_\_\_\_\_

Email Address \_\_\_\_\_

What activities along the rivers do you prioritize? (Circle up to THREE)



Fishing



Bird watching



Canoeing and Kayaking



Learning about history



Boating



Camping



Tubing



Relaxing



Protecting wildlife habitat



Flood protection



Building leisure space for families



Playing near water's edge



Protecting drinking water



Living near and viewing the river



Walking, jogging and biking

What has surprised you in your experiences along the river?

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What is one improvement that could enhance your experience along the river?

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## Appendix III: Paper Based Survey in Spanish

### ¿Que mas le gustaría de los caminos de agua de Des Moines?

El propósito de esta encuesta es para conocer las prioridades de la comunidad para las vías de los rios en Iowa Central. La participación es voluntaria. Las respuestas individuales y la información demográfica no serán compartidos, pero serán parte de los datos agregados liberadas al público. Volviendo esta forma indica que usted se compromete a participar en esta encuesta. Para más información, ponga se en contacto con [watertrails@dmampo.org](mailto:watertrails@dmampo.org) o 515-334-0075.

Código Postal \_\_\_\_\_

Edad \_\_\_\_\_

Raza / Etnicidad \_\_\_\_\_

Género \_\_\_\_\_

Correo Electrónico \_\_\_\_\_

¿Qué actividades a lo largo del río es lo que priorizar? (usted puede escoger TRES)  
What activities along the rivers do you prioritize? (Circle up to THREE)



Fishing  
Pescando



Canoeing and Kayaking  
Canoa y Kayak



Boating  
Paseo en Barco



Tubing  
Pasando en tubo



Protecting wildlife habitat  
La protección de hábitat de vida silvestre



Building leisure space for families  
La construcción de espacio de ocio para familias



Protecting drinking water  
La protección de agua potable



Walking, jogging and biking  
Caminar, correr y andar en bicicleta



Bird watching



Ornitología  
Learning about history  
Aprender acerca de la historia



Camping  
Cámping



Relaxing  
Relajante



Flood protection  
Protección contra inundaciones



Playing near water's edge  
Jugando cerca de borde de las aguas



Living near and viewing the river  
Viviendo cerca y viendo el río

¿Que es algo que lo ha sorprendido en sus experiencias a lo largo del río?

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¿Cuál es una mejora que podría mejorar su experiencia a lo largo del río?

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## Appendix IV: Focus Group Calendar

Thursday, July 23<sup>rd</sup> 6-7pm Environmental Groups at the MPO Office

Wednesday, July 29<sup>th</sup> 6-7pm Paddlers at the MPO Office

Monday, August 3<sup>rd</sup> 3 pm Planners at the MPO Office

Wednesday, August 5<sup>th</sup> 8-9 am General at the MPO Office

Thursday, August 6<sup>th</sup> 8-9 am Communications Professionals at the MPO Office

Wednesday, August 12<sup>th</sup> 6-7 pm Core Families at the North Side Library

Thursday, August 13<sup>th</sup> 6-7pm Trail Users and Bikers at the MPO Office

Monday, August 17<sup>th</sup> 6:45-7:45 pm Rowing Club at the Rowing Club

Wednesday, August 19<sup>th</sup> 11-noon Parks and Recreation at DMACC South Ridge

Monday, August 24<sup>th</sup> 6-7 pm Business Owners at the MPO Office

Friday, August 28<sup>th</sup> 12-1 pm General at the MPO Office

Thursday, September 3<sup>rd</sup> 6-7 pm Anglers at Scheels Meeting Room

Wednesday, September 9<sup>th</sup> 7-8 pm Power Boaters at the Des Moines Power Boat Club

Friday, September 11<sup>th</sup> 8:30-9:30 am Engineers and Public Works at the MPO Office

Monday, September 21<sup>st</sup> 6-7 pm Landowners at the Waukee Library

Tuesday, September 29<sup>th</sup> 4:30-5:30 pm at Doanes Park in Pleasant Hill

Monday, October 12<sup>th</sup> 6:30-7:30 Emergency First Responders at the Polk City Fire Department

Tuesday, October 13<sup>th</sup> 7-8 pm Hunting and Gaming at the Des Moines Izaak Walton League

Wednesday, November 2<sup>nd</sup> 5-6 pm Tai Dam Community Leaders at the Tai Village

Monday, December 7<sup>th</sup> 12 pm Economic Development Practitioners at West Des Moines City Hall

Saturday, December 12<sup>th</sup> 10 am Latino Forum at Grandview University

Thursday, December 17<sup>th</sup> 6-7 pm Farmers and Landowners at the Iowa State Extensions Office

Wednesday, February 3<sup>rd</sup> 6-7 pm History Buffs and Historical Preservation at the MPO Office

## Appendix V: Focus Group and Outreach Contacts

Target Audience	Organization	Contacts
Anglers	Central Iowa Anglers	Shawn Hunderdosse
	Mid Iowa Bass Masters	Rocky Merryfield
Business Owners	Carlisle Chamber	Barbara Rasko
	Downtown Chamber	
	Pleasant Hill Chamber	Cathy Jensen
Economic Development Professionals	Greater Des Moines Partnership	Kim Fankhauser
	City of Urbandale	Curtis Brown
Emergency First Responders	Polk County Fire Chiefs Association and City of Clive	Rick Roe
Engineers and Public Works	MPO Engineering Subcommittee	Zack Young
Environmental Groups	Des Moines Audubon	Denny Thompson
	Iowa River Revival	Rosalyn Lehman
	Sierra Club/Iowa Audubon	Doug Harr
	Sierra Club/Des Moines Audubon	Jane Clark
	Sierra Club	Phyllis Goodman
Hunting and Gaming	Izaak Walton League	Kerry Peterson
	Izaak Walton League	Fred Bauman
	Izaak Walton League	Marc Shore
Landowners	Heartland Coop	Dave Coppess
	Heartland Coop	Jason Danner
	Heartland Coop	Paul MacKendrick
	Iowa Farm Bureau	Jeremy Coyle
	Iowa Farm Bureau	Rick Robinson
	Iowa Soybean Association	Amy Tlach
	Iowa State Extensions	Andrea Nelson
	Polk County Soil and Water Conservation District	Jennifer Welch
Latino Community Leaders	Latino Forum	Brenda Phongsavanh
	Latino Forum	Joebany Corvera
Paddlers	Central Iowa Paddlers	Carol Kersey
	Iowa White Water Coalition	Lyle Danielson
Parks and Recreation	Greater Des Moines Partnership, Parks and Recreation Subcommittee	Bethany Wilcoxon
Planners	MPO Planners Subcommittee	Teva Dawson
Power Boaters	Des Moines Rowing Club	Brenda Copley
Rowers	Des Moines Rowing Club	Julia Martinusen
	Des Moines Sail and Power Squadron	Kenneth Delaney
Tai Community Leaders	Tai Village Inc.	Siang Bacthi
Trail Users and Bikers	Des Moines Bike Collective	Jeremy Lewis

## Appendix VI: Focus Group Script

**Welcome:** “Thank you all for your willingness to participate in the MPO’s focus groups as part of our water trails planning process.”

**House Keeping:** “Before we formally begin and as other people arrive, we would like everyone to know what they are getting into and to complete our informed consent form. These focus groups are being completed in tandem with Iowa State University.” **Have everyone complete the informed consent form.**

“In addition, we would like to get some background information from participants via a short paper survey.” **Have everyone complete the paper survey**

**Purpose:** “The purpose of these focus groups is to gather community input and identify guiding principles to inform future water trails planning. The guiding principles will lead to the development of vision and goals. In addition, we hope that your input will help us catalogue opportunities and challenges along Central Iowa Water Ways. We need your input and want you to share your honest and open thoughts with us.”

**Ground Rules:** “We want you to do the talking and not us. We have prepared a series of questions that are meant to generate ideas and conversation. We would like everyone to participate. We may call on you if we haven’t heard from you in a while. There are no right or wrong answers. Everyone’s perspective is important. It is not necessary to reach a consensus as a focus group. What said here stays here. We will not be attaching names to your answers or quotes. We want people to feel comfortable sharing. We will be recording the focus group. We do this because we want to make sure we capture all the important points that are made. Again, no identifying information will be included in the final report.”

### **Focus Group Questions**

1. In the past, what has surprised you all in your experience along the river?
2. What things make our rivers and creeks unique or interesting?
3. Knowing that a water trails plan is going to be developed, what are three things you hope planners will keep in mind? **(Give participants each three sticky notes to write answers. Have them read their answers and place them on big paper for full group to see/hear.)**
4. What is an answer that somebody else gave that surprised or interested you?
5. Do you all have any concerns related to water trails development? If so, what?
6. Do you all know of any efforts, people or groups in the community that could align with water trails development? If yes, which ones?
7. Are there any specific amenities that we should be thinking about for **----insert user group----**?

## Appendix VII: Informed Consent

### INFORMED CONSENT DOCUMENT

**Title of Study: Greater Des Moines Water Trails and Dam Mitigation**

#### **Investigators:**

This form describes a research project. It has information to help you decide whether or not you wish to participate. Research studies include only people who choose to take part—your participation is completely voluntary. Please discuss any questions you have about the study or about this form with the project staff before deciding to participate. This study is sponsored by the Des Moines Area Metropolitan Planning Organization (MPO).

#### **Introduction**

The purpose of this study is to understand community priorities around waterways and dams in Central Iowa. You are being invited to participate in this study because you have been identified as a community member invested in Central Iowa waterways, whether that is for recreation or work.

#### **Description of Procedures**

If you agree to participate, you will be asked a series of questions along with five to ten other people who are also offering their perspectives.

- Questions will focus on developing Central Iowa waterways with a special focus on dam removal and dam mitigation. Questions will include your current river related activities, projects you would like to see completed related to rivers and waterways, and concerns you have.
- All responses receive equal consideration. There is no right or wrong answers and it is not a competition between focus group participants. You do not have to agree or disagree with any of the other participants.
- Your participation will last for approximately one hour.
- MPO staff and interns will take detailed notes of the focus group, which will then be compiled and included in a report to be delivered to the Iowa DNR and MPO Water Trails committee as they plan for projects related to waterways. Personally identifying information will not be attached to individual statements made.

#### **Risks or Discomforts**

To the best of our knowledge, there are no apparent risks related to participation in this focus group. If you have any concerns that arise, please remember that participation is voluntary and there are no consequences if you withdraw.

#### **Benefits**

If you decide to participate in this study, there may be no direct benefit to you. It is hoped that the information gained in this study will benefit the Greater Des Moines community. Information will be used in future planning decisions for projects related to waterway management, dam removal and mitigation.

### **Costs and Compensation**

You will not have any costs from participating in this study, nor will you be compensated for participating in this study.

### **Alternatives to Participation**

If participation in the stakeholder focus group is not desired, there are other opportunities for participation. Consider taking our online survey, found at [watertrails.designmysdm.com](http://watertrails.designmysdm.com). In addition, MPO staff can make a paper survey available upon request. Either email [watertrails@dmampo.org](mailto:watertrails@dmampo.org) or call 515-334-0075 and a copy of the survey will be sent to you.

### **Participant Rights**

Participating in this study is completely voluntary. You may choose not to take part in the study or to stop participating at any time, for any reason, without penalty or negative consequences. If you have any questions *about the rights of research subjects or research-related injury*, please contact the IRB Administrator, (515) 294-4566, [IRB@iastate.edu](mailto:IRB@iastate.edu), or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

### **Confidentiality**

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies, the Metropolitan Planning Organization, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy study records for quality assurance and data analysis. The following measures will be taken to ensure confidentiality where possible: Minimal demographic and identifying information will be retained. Only age, gender, race/ethnicity, and income level will be gathered. Only aggregate information will be made public.

### **Questions**

You are encouraged to ask questions at any time during this study. For further information *about the study*, contact Tess and Teva at [watertrails@dmampo.org](mailto:watertrails@dmampo.org) or call 515-334-0075.

### **Consent and Authorization Provisions**

Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document, and that your questions have been satisfactorily answered. You will receive a copy of the written informed consent prior to your participation in the study. Providing demographic information is optional.

Participant's Name (printed) \_\_\_\_\_

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

## Appendix VIII: Public Events 2015-2016

### ***Hudson Bay Bound***

Date: May 28, 2015 7:00 p.m.

Location: Botanical Center

Speaker: Natalie Warren

Description: Paddling the 2,250 miles from Minneapolis to Hudson Bay in 2011, Natalie Warren and Ann Raiho were the first women to accomplish the historic route featured in *Canoeing With the Cree*. Join Natalie as she speaks about her trip and the lessons she learned while on the river. Event co-sponsored with Central Iowa Paddlers. No registration required.

### ***Your Community from a Paddler's Perspective***

Date: May 29, 2015 7:30 a.m.

Location: Botanical Center

Speaker: Natalie Warren

Description: As an avid paddler, Natalie Warren will focus this talk on how integration of recreation and the economy can impact the health of our rivers and our community. Come and learn more about how nurturing water ways can spur community development. Natalie is founder of the Wild River Academy and national speaker on the relationships between rivers, paddling and communities. Event co-sponsored with Department of Natural Resources. No registration required.

### ***Paddling the Des Moines River***

Date: May 29, 2015 1:00 p.m.

Location: Launch at the Sycamore Access off NW 66<sup>th</sup> in Johnston

Description: Join Natalie Warren for a six mile paddling trip from the Sycamore Access to Prospect Park. The trip will take between two and three hours depending on water levels. Wear clothes and shoes that can get wet and dirty, bring sun screen and a water bottle. If you wish to bring personal items such as wallet, cell phone, camera and keys, a dry bag is recommended. While this is considered a safe route, being on the river always poses some risk. Life jackets are required. While all are welcome, this is a fairly long paddle on stretch of river with some motor boat traffic. We recommend that new paddlers come with an experienced paddler and share a canoe. Trip co-sponsored with Department of Natural Resources and Des Moines Parks and Recreation.

### ***Launch: Art at Water Works Park***

Date: May 30, 2015 1:00 pm

Location: Water Works Park near the pedestrian bridge

Description: The public is invited to the unveiling of a temporary, interactive public art piece being installed on the Raccoon River by artist Mary Mattingly. The art installation invites people to reconnect with the rivers of Greater Des Moines – and kicks off the planning process by the Iowa Department of Natural Resources and the Des Moines Area Metropolitan Planning Organization to develop a plan for improving the water trails throughout the Greater Des Moines region. Interested in trying your hand at paddling? The Des Moines Parks and Recreation Department will offer float trips starting at the pedestrian bridge at 11 a.m., 12 p.m., 2 p.m. and 3 p.m. and each last approximately 30 minutes. The event will be keynoted at 1 pm with remarks from artist Mary Mattingly and DNR Director Chuck Gipp. The public art is funded by the Greater Des Moines Public Art Foundation and the Iowa Arts Council. This event is co-sponsored with Department of Natural Resources and Des Moines Parks and Recreation. No registration required.

***Juneteenth: Neighbor's Day Booth***

Date: Saturday, June 20, 2015

Location: Evelyn K. Davis Park at 1400 Forest Ave, Des Moines

Description: Interactive booth

***80/35 Music Festival Booth and Mural***

Date: Friday, July 10 and Saturday, July 11, 2015

Location: Western Gateway, Des Moines

Description: Interactive booth and mural

***Paddling History Tour of Des Moines River***

Date: Thursday, July 23, 2015 from 6:00 – 8:00 pm

Location: Launch at Prospect Park located Prospect Rd between MLK Parkway and Hickman Rd

Trip Leader and Speaker: John Wenck, DNR

Description: The Des Moines River loses a bit of its natural beauty as it passes through the city, but what it loses in natural beauty it gains in history and culture. The city grew up along the banks of the river. Her residents depended on the river for sustenance and recreation, yet at the same time the river was a barrier to be bridged or forded. Listen to the stories of how past residents of the city were connected to this important resource over the past 150 years.

After meeting at the launch site and shuttling cars to Birdland, we will float down to the Curt Systma & Ellen King Huntoon House to enjoy refreshments and a tour of the century old Victorian house they lovingly restored to its original Victorian grandeur. There is a white sand beach below this house where we can park our paddlecraft and climb the steep stairs to this beautiful Victorian home. Dress for the weather, consider protection from the sun, and rain gear if appropriate. If you wish to bring personal items such as wallet, cell phone, camera and keys, a dry bag is recommended. While this is considered a safe route, being on the river always poses some risk. Life jackets are required. We recommend that new paddlers come with a more experienced paddler and share a canoe. Event co-sponsored with the Department of Natural Resources.

***Pontoon History Tour of Des Moines River***

Date: Thursday, July 30, 2015 from 6:00 – 8:00 pm

Location: Launch at Prospect Park located Prospect Rd between MLK Parkway and Hickman Rd

Trip Leader and Speaker: John Wenck, DNR

Description: The Des Moines River loses a bit of its natural beauty as it passes through the city, but what it loses in natural beauty it gains in history and culture. The city grew up along the banks of the river. Her residents depended on the river for sustenance and recreation, yet at the same time the river was a barrier to be bridged or forded. Listen to the stories of how past residents of the city were connected to this important resource over the past 150 years.

After meeting at the launch site at Prospect Park we will motor down to the Curt Systma & Ellen King Huntoon House to enjoy refreshments and a tour of the century old Victorian house they lovingly restored to its original Victorian grandeur. There is a white sand beach below this house where we will disembark and climb the steep stairs to this beautiful Victorian home. Dress for the weather, consider protection from the sun, and rain gear if appropriate. Event co-sponsored with the Department of Natural Resources.

***What Lies Beneath Central Iowa Rivers: A Fish Sampling Event***

Date: September 23, 2015 from 4:30-6

Location: Riverwalk Hub

Presenters: Andy Otting, Ben Dodd, and Jennifer Kurth

Description: Have you ever wondered what is swimming in Iowa rivers? Join us as Department of Natural Resource staff show several species of live fish freshly captured out of the Des Moines river. Staff will talk about how we as humans impact their life cycle. Jennifer Kurth will discuss the life history of our native mussels. Enjoy close up river views while sampling a free fish appetizer prepared by Chef Michael LaValle and Trellis Catering. Educational program to start at 5.

***Low Head Dams: Sleek Design, Secret Danger***

Date: November 10, 2015 from 5:30-7 pm

Location: Jasper Winery, 2400 George Flagg Parkway, Des Moines, IA 50321

Presenter: Nate Hooegeveen, Director of River Programs, Iowa Department of Natural Resources

Description: Low-head dams provide smooth, scenic waterways fit for a photo op, but their seamless designs and short drop-offs can be deceptively dangerous for boaters and swimmers. Iowa Department of Natural Resources' Nate Hooegeveen will give a presentation on ways of mitigating dams to make them safe while still scenic, accommodating to fish passage and maintaining access for fishing. Dam mitigation is being explored as part of the development of a water trails and greenways master plan for the Greater Des Moines region. Join us as we explore the balance between engineering efficient waterways and keeping the public safe from danger.

***History Series: Des Moines River Roots (Part 1)***

Date: 2 pm January 9th

Location: Hoyt Sherman Place, 1501 Woodland Ave, Des Moines, IA 50314

Description: The Des Moines and Raccoon Rivers were critical in the founding of Des Moines. Did you know that their significance to people predates Fort Des Moines? Did you know that the rivers played an important role as Native Americans migrated west? Join two local historians as they share about critical points in the river history of Des Moines. Bill Wittaker will present his talk, *"The Archaeology of Des Moines' Raccoon Point."* Kathy Gourley will speak on the *"Meskwaki and Sauk Migrations to Kansas in the mid-1840s."*

***History Series: Des Moines River Roots (Part 2)***

Date: 2 pm January 16th

Location: Hoyt Sherman Place, 1501 Woodland Ave, Des Moines, IA 50314

Description: Have you ever wondered what life was like in Des Moines over a hundred years ago? Rivers have been fundamental in shaping development and recreation in our communities. Join two local historians as they share about Des Moines' river history and a resident made famous by his passion for the water. John Zeller will speak on *'Fishing Money from the River: Historic Uses and Misuses of the Des Moines River'*. John Wenck will present *'Tacitus Hussey: Des Moines Pioneer and River Man'*.

## Appendix IX: Zip Codes by Waterway

Des Moines River		Raccoon River	Beaver Creek		South Skunk River	North and Middle Rivers	Walnut, Four Mile, and Mud Creeks	
50023	50516	50003	50039	50613	50010	50002	50007	51645
50036	50520	50038	50063	50627	50035	50047	50009	51649
50047	50530	50061	50107	50660	50046	50048	50021	51652
50109	50532	50261	50109	50665	50054	50070	50035	52544
50118	50536	50263	50111	52064	50073	50070	50060	52574
50119	50541	50265	50126	52070	50075	50072	50063	52581
50131	50548	50266	50131	52134	50130	50125	50073	52583
50138	50557	50309	50212	52155	50143	50160	50111	52590
50143	50562	50312	50217		50161	50164	50244	
50156	50569	50315	50220		50169	50211	50263	
50170	50581	50321	50276		50170	50229	50265	
50212	50582		50310		50207	50240	50312	
50219	50597		50322		50219	50250	50317	
50223	51334		50434		50232	50250	50321	
50225	51342		50436		50248	50261	50323	
50226	51365		50446		50271	50273	50324	
50237	52501		50450		52561	50273	50325	
50249	52530		50455		52563	50320	50327	
50252	52548		50461		52576	50849	50511	
50256	52551		50466		52577		50519	
50276	52553		50516		52585		50560	
50309	52554		50527		52586		51532	
50310	52560		50536		52591		51533	
50313	52565		50548				51535	
50314	52577		50562				51566	
50315	52588		50581				51577	
50316	52619		50591				51601	
50317	52620		50601				51638	
50320	52626		50604				51639	
50327	52632							
50501								

## Appendix X: Amenities and Improvement Ideas

The following responses came from the paper survey prompt, “What amenities or improvements would enhance your experience along the river?” Additional responses came from the focus group prompt, “Are there any specific amenities that we should be thinking about for ----insert user group----?” This list captures the responses received; however it is not necessarily exhaustive.

All of the responses were compiled into one list. This process was meant to capture the diversity of ideas rather than poll for the popularity of an idea. Because of this intent, duplicate answers were removed. Some answers that seemed related to others, but still distinct were kept on the list.

### Expand access to the waterways and greenways

#### *Increase number of public access points*

- Downtown access to the river
- Offer a variety of paddling trip lengths
- More connectivity along the waterway. On the Des Moines specifically, access from Saylorville Lake to Lake Red Rock by water.
- More access points on both rivers and creeks
- Lower docks at Prospect Park
- Access for pedestrians
- Parks, benches, scenic overlooks and wading friendly places where you are able to get close to the water but remain on land
- Dedicated kayak and canoe launches
- Remove that "art" from the take out in water works park. Paddlers need that eddy for safe exit from the Raccoon.
- Tai Dam area access to the river
- Additional space for power boating. This could include the ability to powerboat on the Raccoon or downtown
- Parking at or near the river
- Safe place for children to play in or near the water. Make it more accessible to families
- Make it easier to walk to the river from our neighborhood
- Access on a bus route
- Make it easier for families with no transportation or money to enjoy the river. Shuttles?
- Trails that lead to the water
- Universal access
- Making it more accessible to seniors and people with mobility concerns
- Fishing access
- Have amenities at access points – not a random ramp. Have lights, trash cans, bathrooms, parking, fish cleaning station, green area with a picnic table for other non-anglers, places for anglers to pull up along shore to sit and relax
- Create opportunities to interact with the waterways
- Using it to commute to work or live on

### *Interconnect water trails and bike trails*

- Connecting biking and paddling integration through shared access and interpretive signage
- Fix bike trails/running trails (too bumpy)
- Build additional bike trails
- More trails for hunting and not so many bike trails
- More wooded trails
- Bicycle stations near accesses so you could park your car and ride up to the start.

### *Maintain consistent water levels in certain areas*

- Constant water level to aid power boating and rowing
- Raise the level of Center Street Dam so the new level is as it would be if the flashboards are on. There is beautiful rowing north of Prospect but only able to do this when flashboards are on. It would be great to be able to row north of Prospect more frequently.
- Dredge the Des Moines River to fix pool depth
- Dredge Birdland out--it's severely silted in. Along with Saylorville where the Des Moines River and Big Creek meet it is severely silted
- Access to downtown with a powerboat

## **Conserve and enhance our natural corridors**

### *Improve water quality*

- Improve water quality and run off
- Make it safe to eat fish from the river
- Recycle water from WRA

### *Address trash removal*

- Clean up and reduce the amount of trash. Make trash cans accessible.
- Clean up shore lines

### *Naturally restore and stabilize waterways*

- Work with upstream landowners to install practice that will slow the flow of water, soil, and nutrients downstream
- More natural erosion control measures versus concrete and rock
- Prioritize wetlands. For example, Beaver Creek needs to keep pulsing through wetlands

### *Improve and protect wildlife habitat and wild areas*

- More natural and protected wild areas
- Protect key habitat areas like oxbows
- More native buffers
- More trees
- More blue herons please. Also otters.
- Increased fish habitat and more fish. More stocked trout in Water Works Park.
- Hummingbirds and butterflies

- Some areas should not have people in or around the rivers

### *Address flooding and flood plains*

- Flood protection
- Avoid development in the flood plain

### *Address the dams*

- Removal of the low-head dams. More connectivity along the waterway. On the Des Moines specifically, access from Saylorville Lake to Lake Red Rock by water.
- For Des Moines River specifically, safer ways to avoid portage around dams would encourage more usage of the segment of the Des Moines river that runs through downtown
- Put sloping river rock below Center Street Dam so it is safe to go over
- Replace Center Street Dam with a lock
- Raise the level of Center Street Dam so the new level is as it would be if the flashboards are on. There is beautiful rowing north of Prospect but only able to do this when flashboards are on. It would be great to be able to row north of Prospect more frequently.
- Look at the example of Iowa City and the dam modification that helps with the sedimentation moving but keeps the pool depth

## **Work together to maintain what we have**

### *Figure out management of projects and upkeep*

- Address potential activity conflicts and liability with landowners. Post signs like DNR hunting signs
- Depending on the proposal, some public safety and public works departments may need new and additional equipment to support the ongoing management

### *Connect to other initiatives and economic development*

- Allow start-ups along river including bait sellers and food vendors. It would be great to have a taco truck or a bait truck near the water. Additional ideas: people selling art, cafes, restaurants and concessions
- Encourage and outfitter or lending library. This may mean assisting new outfitters in addressing liability issues. Lawsuit protections is critical. What is insurance going to cost? Business owners take a great risk renting to people.
- Make this an economic empowerment opportunity for residence
- Economic studies – look at Charles City
- Water taxis and river transportation

## **Create safe and welcoming experiences**

### *Address the dams (only included those related to safety)*

- Remove the dams downtown and other dams
- For Des Moines River specifically, safer ways to avoid portage around dams would encourage more usage of the segment of the Des Moines river that runs through downtown
- Put sloping river rock below Center Street Dam so it is safe to go over

- Replace Center Street Dam with a lock

### *Management of hazards*

- Removal of selected dangerous log/tree snags from the river

### *Increase Safety and Safety education*

- Return Des Moines police river patrol presence or someone who could call the police if something happen, such as guard or security person.
- Better emergency access in downtown Des Moines needs improvement. That goes all the way up the Des Moines. Access is very limited for rescue. Sycamore to Prospect is a long ways. They have had to hike through the woods.
- Protect boaters and rowers from falling debris. This can be done by restoring fencing along bridges that cross the Des Moines above Center Street Dam.
- Solar lights or other lights for night near some sections of river with foot traffic
- Get rid of homeless camp
- Safety enforcement – motorized boats don't give canoes and kayaks the space
- Safety education about things like pfd's and how to classes for new users

### *Wayfinding and signage*

- Signage to identify how areas or locations are used and traffic pattern and key events. Example: paddle boarders during regatta. Examples of the markers from the regatta are pvc pipe that mark the down and upstream routes.
- Reliable wayfinding, mapping and information resources
- Shared signage: Connecting biking and paddling integration through shared access and interpretive signage
- No wake signs
- Multilingual signs
- Biking trails have 911 marker points. Have something similar for water trails
- A pocket sized and water friendly water trails map—like the Des Moines Bike Collective puts out. You could include some historical elements within the map.
- Increased and accessible public information answering the question: is it dangerous?
- Better technology about event activities
- Plaques regarding history
- Make the rules about fishing easier to understand. Explanations in multiple languages.

### **Connect communities to water**

#### *Build upon citizen's personal and the city's river history*

- Kiosks with historical information. There could be an online component. In the kiosk you could say "Did you know... learn more online" and link to a website.
- Historical markers with information about historically significant places.
- Art and sculpture that connects the rivers and history.

- Historical tours or outings with an expert. Even a bus tour could be neat.
- Themes historical events. Is there a way to include beer? Ye Olde Pub Ride?
- Geocaching at a historical site. The cache could have historical information about the area.
- Could we involve the media in having historical river stories? Maybe one where they share a part of a historical story and ask a question. Which bridge had a dog famously help rebuild it? Then have people write in answers and then reveal the answers in a later article. It could start a buzz.
- More public talks
- A river history app or collaboration with the Iowa Department of Cultural Affairs in their app

### *Improve wayfinding and signage*

- Signage to identify how areas or locations are used
- Reliable wayfinding, mapping and information resources
- Multilingual signs
- More plaques regarding history
- Educational materials about what is nearby, what animals and plants can be found
- Better technology about event activities
- Make the rules about fishing easier to understand. Explanations in multiple languages.
- Signage talking about traffic pattern and key events. Example: paddle boarders during regatta. Examples of the markers from the regatta are pvc pipe that mark the down and upstream routes.
- Look at Ledges State Park – Lost Lake Trail has new signs that have photos of all of the common birds that you’ll see on that trail
- Kiosks with historical information. They are a little more protected. There could be an online component. In the kiosk you could say “Did you know... learn more online” and link to a website.
- Historical markers with information about historically significant places.

### *Marketing*

- Foster respect for rivers by users
- Water Works has received angry feedback. People were worried that we are ruining landscape. We are actually restoring. Make sure there is clear and credible outreach/plan education
- Promote the attractions that already are here. Make it easy to find out about them.
- Could we involve the media in having historical river stories? Maybe one where they share a part of a historical story and ask a question. Which bridge had a dog famously help rebuild it? Then have people write in answers and then reveal the answers in a later article. It could start a buzz.
- Talk about it as a riverine network and how connected all the creeks and streams are. People are disregarding all the river sources they know, so if we can get neighborhoods on board things might change.
- An awareness campaign to get people down to the river or to know these stories.

### *Build programming and amenities*

#### Events

- Paddle version of RAGBRAI
- Highlight iconic bridges with good events
- Festivals related to the river
- More public talks
- One of the most moving things I have ever been to is the Heart of the Beast puppet theatre in Quincy talking about the Mississippi. A performance like that would be great.
- A historical 'poker ride.' History is often spread out. You could have an event where people go place to place, learn about history or are given clues. Maybe it could be done once or twice a year? Maybe part of the mayor's ride?
- Fireworks are beautiful over the river
- Young professionals events at the water
- Moon float below the dams
- An organized dam to dam tube float
- Organized paddling adventures
- Historical tours with an expert. Even a bus tour could be neat. Similar comment: Historical tour. Is there a way to include beer? Ye Olde Pub Ride?
- Something like the laser show projected on the dam on the Columbia in WA.
- Current events need to expand to waterways

### Programing and Services

- Senior friendly trips
- Programing for kids
- Offer multilingual and culturally relevant classes and programming at low cost
- Have affordable programing
- Group exercise program, for example a walking group for safety
- Things to do in the winter
- More things to do like boats, horses and carriages
- Workshops and classes to teach local youth how to plant native vegetation, lay sidewalks and trails, install benches and artwork
- Yoga
- Karate
- Tai Chi
- Guided meditation
- Activities during low flow as well as ideal flow
- Concierges in high use areas such as downtown DSM
- Opportunities to experience history. When I was a scout master, I took kids to look at the 1993 washouts with a park ranger. It was great.
- Geocaching at a historical site. The cache could have historical information about the area.
- Make the marina gas station more accessible. It closes down early in the year and has set hours. It could be self-serve, pay at the pump
- Opportunities to try new things like paddle boarding, fly fishing, ice fishing, etc.
- Outfitters
- Fishing gear library or other equipment library with little to no cost
- Someone to help new users go to the river

### Facilities or Structures

- White water course, rapids and riffles
- Diverse artwork
- Public parks and seating overlooking the river
- Additional resting areas along river (benches, etc)
- More paddle in/paddle out campgrounds along rivers or tent camping along the rivers
- Taller 6th Avenue Bridge to allow Jon Anderson White to come back to Des Moines River
- Wall along Scott Street Dam side walk to block wind while fishing
- Space for people-watching
- Places where you can sit and fish
- Fish cleaning stations
- Access to drinking water or drinking fountains near the rivers
- Bathrooms
- Water available to powerboat club boathouse
- Playgrounds
- Cleared out beach area or places for swimming
- Build steps down to beach access near Tai Village
- Tea house and museum at Tai Village that is accessible from the river
- Areas to gather in groups such as a shelter near the water
- Open theatre
- Tennis courts
- Soccer field
- Volleyball courts
- Bridges
- Flowers, gardens, and bright colors
- Additional access: boat, canoe, rowing, fishing
- Low or gradual slope banks near shallow water for families and dogs to wade into the water
- More trails for hunting and not so many bike trails
- More wooded trails
- Parking and signs near known eagle and osprey nests
- Bird feeding stations
- Birding checklists
- Bird viewing stations and platform (recommended: Saylorville and Jester Park)
- Amenities for birds
- Make pond by Riverview Lagoon
- Downtown hotel with dock so boaters and paddlers can stay or guests can easily view the water
- Rowers are looking for smooth water and a curve so if the water is rough you go beyond the curve and it will be smoother to practice
- Peaceful and quiet spaces

## Uncategorized

- Create natural visual barriers between water ways and developments
- Options outside of the downtown area. Rural to urban options
- Make it feel like there is an attraction or destination, something to draw people to come and experience
- More ways for the everyday people in the community to be involved and employed
- Better public attitudes toward water quality and cooperation among river users



## Appendix XI: Guiding Principles

Principle	Sub-themes
Expand access to the waterways and greenways	<ul style="list-style-type: none"> <li>• Increase number of public access points</li> <li>• Interconnect water trails and bike trails</li> <li>• Maintain consistent water levels in certain areas</li> <li>• Embrace diversity               <ul style="list-style-type: none"> <li>○ Family friendly</li> <li>○ Physical ability</li> <li>○ Economic ability</li> <li>○ Racial, ethnic and cultural diversity</li> </ul> </li> </ul>
Conserve and enhance our natural corridors	<ul style="list-style-type: none"> <li>• Improve water quality</li> <li>• Remove trash and plan for disposal</li> <li>• Naturally restore and stabilize waterways</li> <li>• Improve and protect wildlife habitat and wild areas</li> <li>• Address flooding and flood plains</li> <li>• Address the dams and build connectivity for animals and plants</li> </ul>
Work together to maintain what we have	<ul style="list-style-type: none"> <li>• Figure out management of projects and upkeep               <ul style="list-style-type: none"> <li>○ Address liability concerns</li> </ul> </li> <li>• Secure sustainable funding</li> <li>• Connect to other initiatives and economic development</li> </ul>
Create safe and welcoming experiences	<ul style="list-style-type: none"> <li>• Address the dams</li> <li>• Manage hazards</li> <li>• Embrace the diverse users and abilities</li> <li>• Increase wayfinding and signage</li> <li>• Provide safety education</li> </ul>
Connect communities to water	<ul style="list-style-type: none"> <li>• Build programming and amenities               <ul style="list-style-type: none"> <li>○ Safety education</li> <li>○ Events</li> <li>○ Classes</li> <li>○ Rentals</li> <li>○ Education about fishing and boating laws</li> </ul> </li> <li>• Embrace diversity               <ul style="list-style-type: none"> <li>○ Family friendly</li> <li>○ Physical ability</li> <li>○ Economic ability</li> <li>○ Racial, ethnic and cultural diversity</li> </ul> </li> <li>• Improve wayfinding and signage</li> <li>• Build upon citizen’s personal and the city’s river history               <ul style="list-style-type: none"> <li>○ Increase marketing and information about our waterways</li> </ul> </li> </ul>

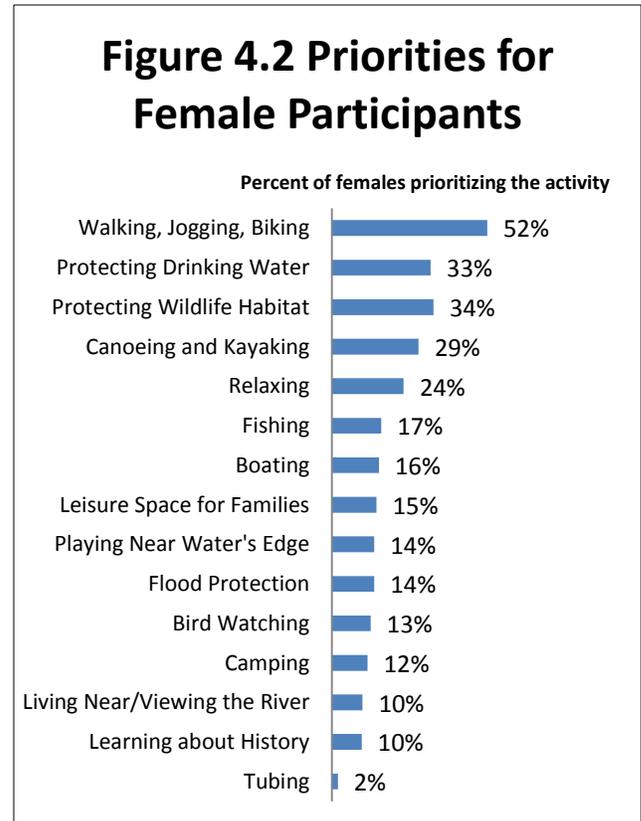
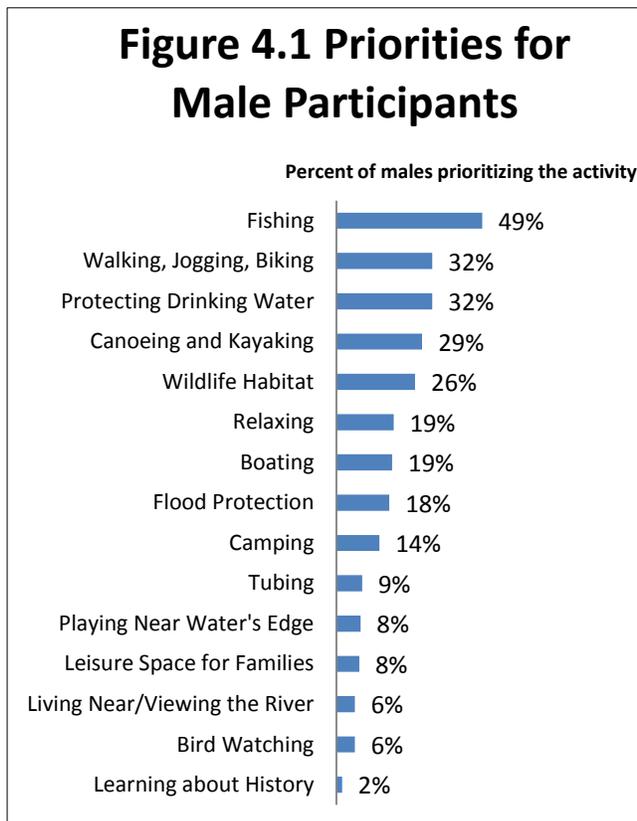
## Appendix XII: Focus Group Coding Guide

Theme	Sub-themes	Coding guide
Expand access to the waterways and greenways	Increase number of public access points	Docks, canoe access, fishing access, parks, and other points of interaction with the rivers
	Interconnect water trails and bike trails	Biking, trail system, greenways
	Maintain consistent water levels in certain areas	Consistent water height for boaters, warnings for release of Saylorville, Army Corps Saylorville water level management, volatility, flashboards
	Plan for and embrace diversity <ul style="list-style-type: none"> <li>• Family friendly</li> <li>• Physical ability</li> <li>• Economic ability</li> <li>• Racial, ethnic and cultural diversity</li> </ul>	Family friendly and age diversity, accessible for diverse physical abilities, useable by multiple recreational interest and user groups, multi-cultural or multiple languages, financial abilities
Conserve and enhance our natural corridors	Improve water quality	Water quality, pollution, run off, silt, muddy water, chocolate milk, clean up, nitrates
	Address trash removal	Garbage, trash, litter, clean up
	Naturally restore and stabilize waterways	Stream bank stabilization, channel issues, natural channel management, bank cuts, riprap, silt, bank erosion
	Improve and protect wildlife habitat and wild areas	Connectivity, wildlife, habitat, nature, protection, set-backs, names of animals, wilderness, wild, preservation, restoration, environment
	Address flooding and flood plains	Flooding, flood plains, storm water runoff, set-backs, hydrology, watershed areas
	Address the dams	Connectivity, fish migration, natural flow, natural fluctuation
Work together to maintain what we have	Figure out management of projects and upkeep <ul style="list-style-type: none"> <li>• Address liability concerns</li> </ul>	References to management, construction, decision making, safety/rescue and upkeep. Liability, trespassing, property damage, property ownership. Whose job is it?
	Secure sustainable funding	Iowa Water and Land Legacy, government and agency budgets, state funding, grants, private business dollars
	Connect to other initiatives and economic	Plans, projects, events, campaigns, business interests

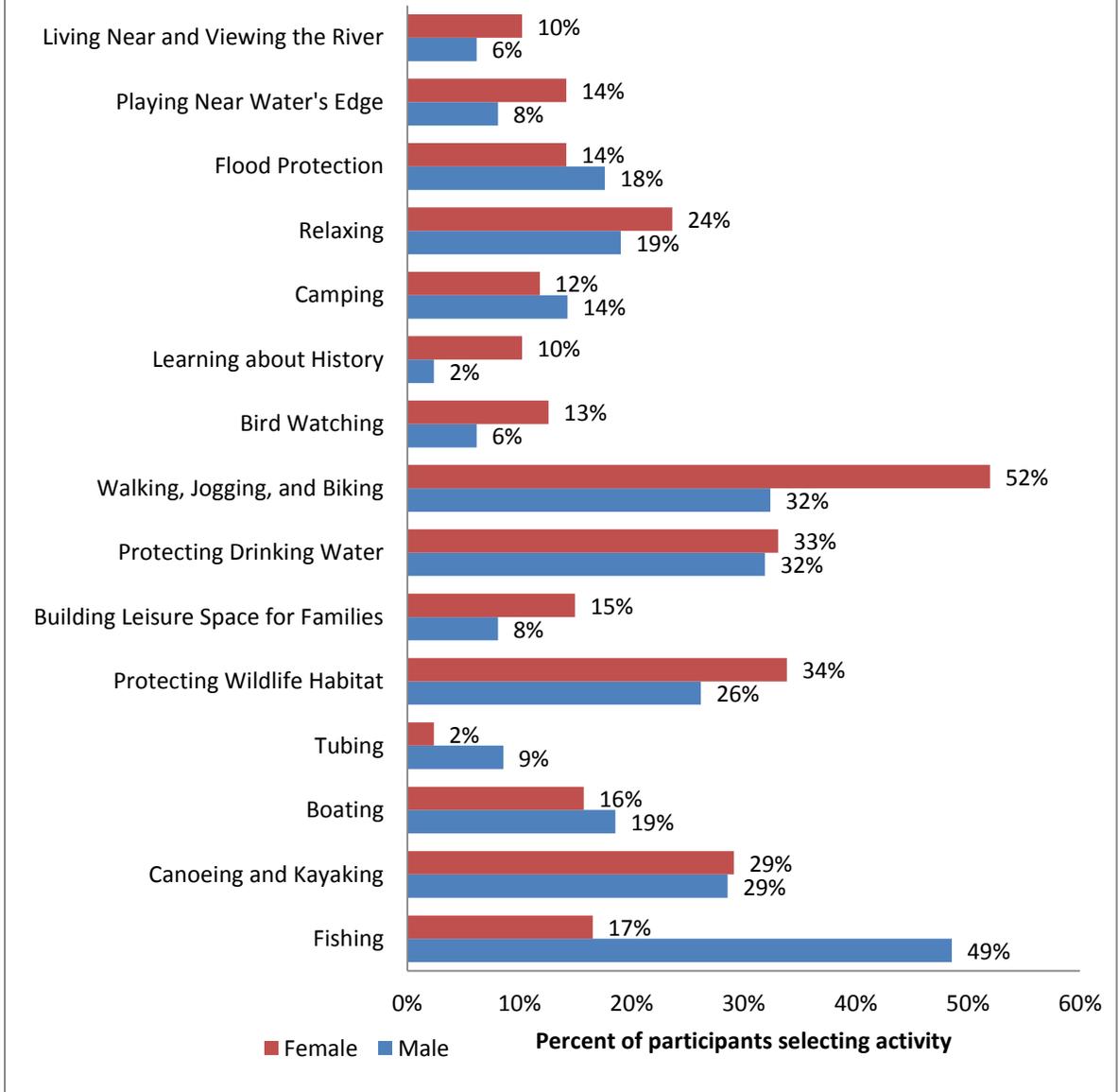
	development	
Create safe and welcoming experiences	Address the dams	Deaths, safe paddling, age of structures
	Plan for diverse users and abilities	Shared space as a risk, conflicts between users, variety of skill levels, variety of users, pfd's
	Management of hazards	Log jams, snags, debris
	Safety education	Safety education, pfd's, new skills courses
	Wayfinding and signage	Wayfinding, signage, apps, maps, website and other information with safety information
Connect communities to water	Build upon citizen's personal as well as the city's river history	Citizen and group history along river, history with parents or children along the waterways, city history
	Wayfinding and signage	Wayfinding, signage, apps, maps, website and other information to increase usership
	Plan for and embrace diversity <ul style="list-style-type: none"> <li>○ Family friendly</li> <li>○ Physical ability</li> <li>○ Economic ability</li> <li>○ Racial, ethnic and cultural diversity</li> </ul>	Variety of recreational opportunities, variety in skill level and recreational interests
	Marketing	Publicity, access to information, stories about the water, narrative, social media, talking points
	Programming: Safety education, Events, Classes, Rentals	References to programming including but not limited to safety education, events, classes, rentals

## Appendix XIII: Priorities by Sex

Figure 4.1 and Figure 4.2 show the overall frequency of selection of water trail activities within paper survey by sex. Figure 4.3 provides a side by side comparison of the rate of selection of water trail activities by sex within paper survey participants. The prompt was, “What activities along the river do you prioritize? Circle up to three.”



**Figure 4.3 Priorities by Sex**



The online survey also provided interesting insight. Figure 4.4 shows the total number of stars, the number of five stars designated and the percent of females designating any stars to each activity. Figure 4.5 provides similar data for male participants.

**Figure 4.4 Priorities of Female Participants in Online Survey**

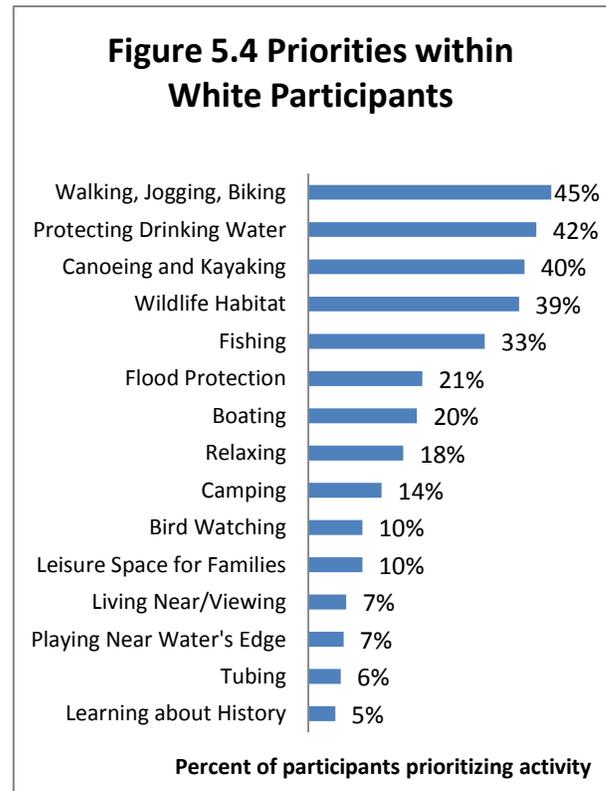
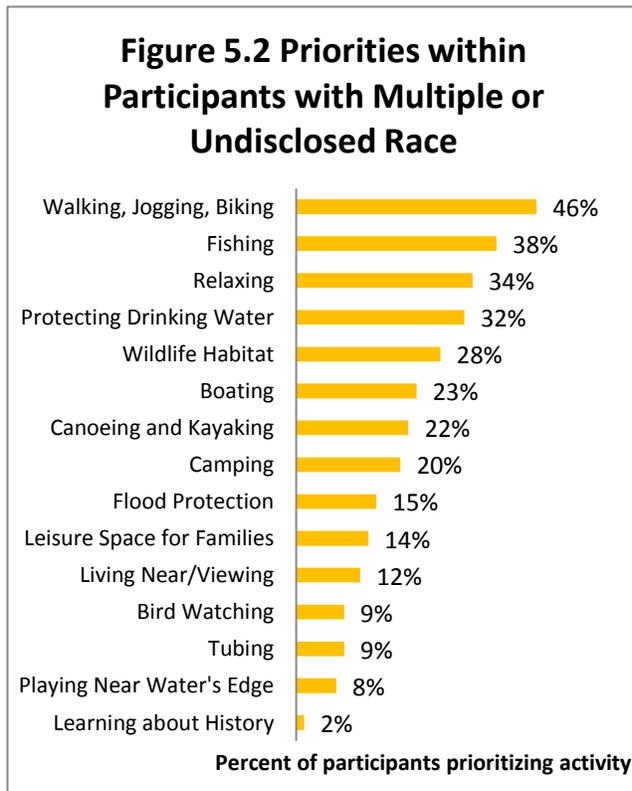
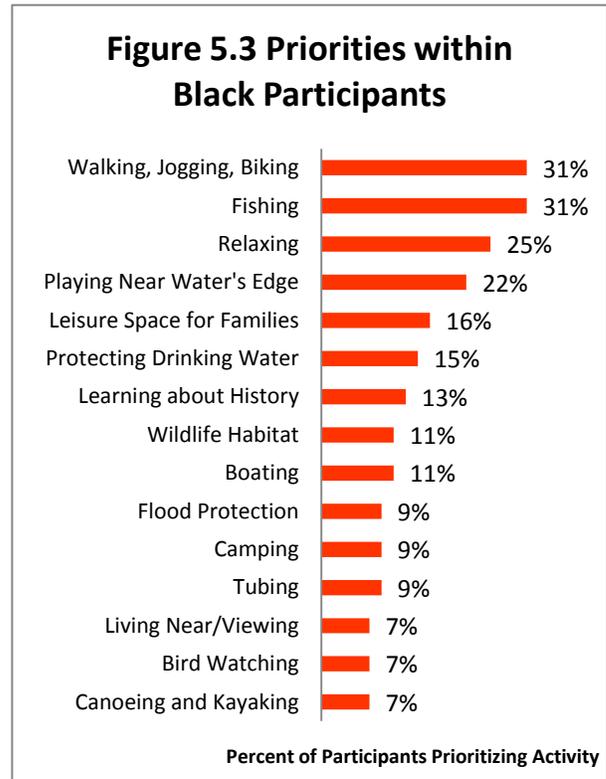
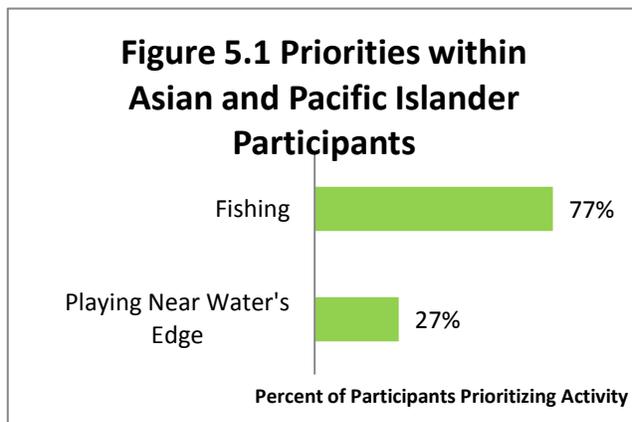
	Fishing	Kayaking and Canoeing	Boating	Tubing	Wildlife Habitat	Leisure Space for Families	Protecting Drinking Water	Walk, Jog, Bike	Birdwatching	History
Total stars	73	256	57	83	302	161	337	199	176	48
Number of 5 Stars	6	18	9	3	26	5	31	9	13	0
Percent of People Designating Any Stars	23%	68%	14%	26%	79%	56%	80%	61%	54%	24%

**Figure 4.5 Priorities of Male Participants in Online Survey**

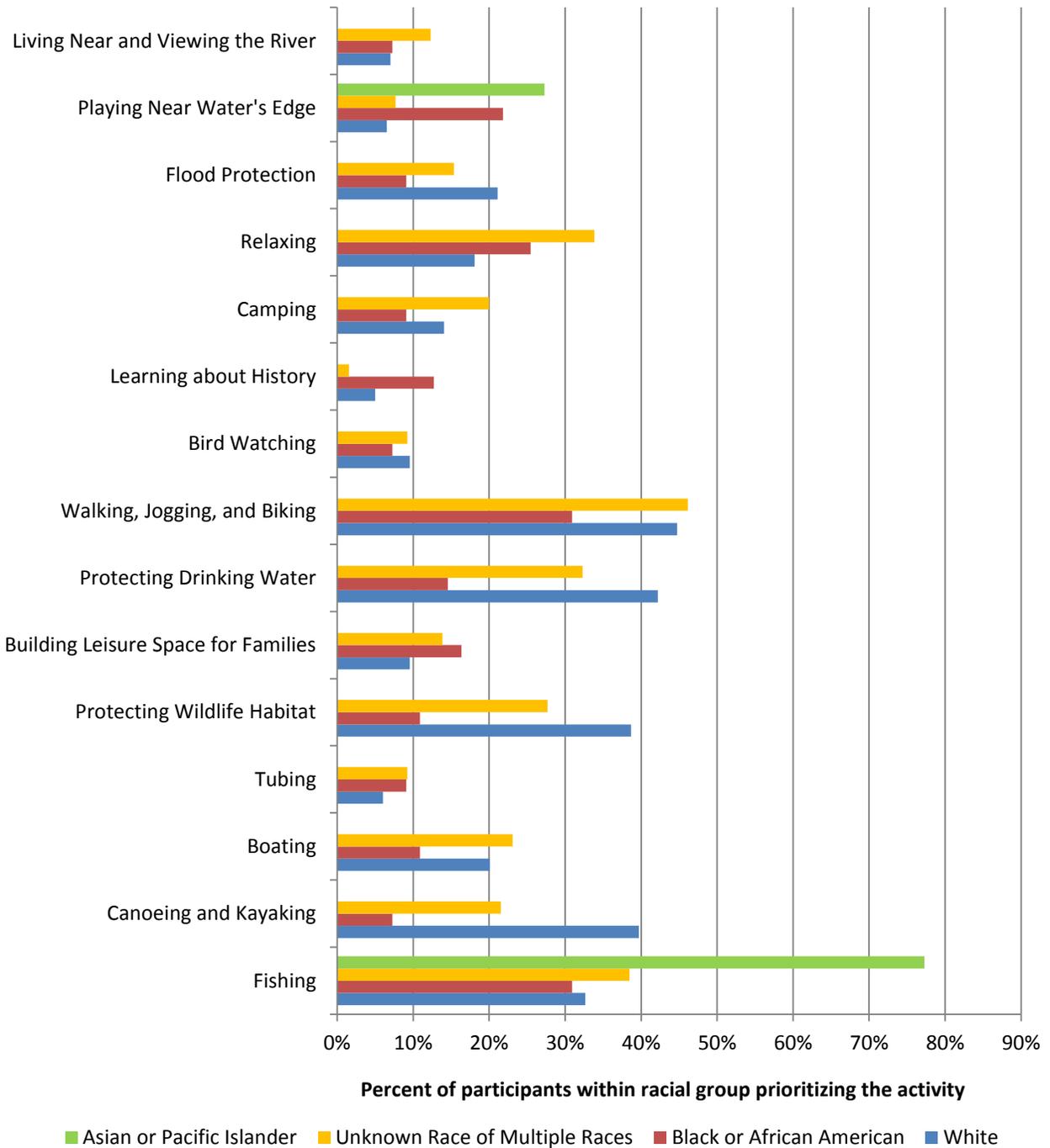
	Fishing	Kayaking and Canoeing	Boating	Tubing	Wildlife Habitat	Leisure Space for Families	Protecting Drinking Water	Walk, Jog, Bike	Birdwatching	History
Total stars	213	486	199	170	375	283	499	308	144	96
Number of 5 Stars	14	38	28	6	15	13	42	17	2	3
Percent of People Designating Any Stars	41%	73%	29%	36%	66%	52%	75%	54%	35%	26%

## Appendix XIV: Priorities by Race

The figures 5.1, 5.2, 5.3, and 5.4 in this section show the frequency in which participants selected the different water trails activities within the paper survey. The prompt was, "What activities along the river do you prioritize? Circle up to three." Figure 5.5 combines the rate of selection of all the racial groups so they can be seen side by side.



**Figure 5.5 Priorities within racial groups**



## Appendix XV: Priorities by Ethnicity

Figure 6.1 shows the percent of Latino or Hispanic participants who selected each activity. Figure 6.2 shows the percent of Non-Latino or Hispanic participants who selected each activity. While walking, jogging and biking was the most common selection, it had a significantly higher percent of Latino or Hispanic participants select it as a priority compared to Non-Latinos.

