



Landowner Perceptions of the US Army Corps of Engineers in Riverfront Management

Emma Heienickle, School of Natural Resources, University of Missouri, Columbia, MO, USA



ABSTRACT

Large river systems that exhibit natural flood cycles depend upon collaborative and integrated water resources management. Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act give management authority of navigable waterways of the US to the US Army Corps of Engineers (USACE/Corps). References to the Corps-River Stakeholder relationships were examined using 2018 interview data from the Yellowstone River Cultural Inventory (YRCI). The YRCI’s purpose was to document the descriptions, hopes, and concerns of and for the diverse places and communities along the Yellowstone River. Findings show landowners, agriculturalists, and recreationists voice a strong appreciation for the river and care for its continued use. The USACE can improve communication and collaborative potential by listening to residents’ voiced concerns about long-term management. This new understanding will guide the Corps into better managing the river and preparing for future floods and natural disasters.

BACKGROUND & OBJECTIVE

The Yellowstone River, in the arid American West, starts in the mountains above Yellowstone National Park and flows north through Montana and into North Dakota to its confluence with the Missouri River (Fig. 1). The close-knit predominantly rural communities along the river have a great passion for this shared resource, drawing irrigation water for ranchland and row crops and world-class fly-fishing that draws tourists. The Yellowstone River is the longest undammed river in the US. Flooding and bank management are some of the key issues that affect daily life. Riverbank management includes directing natural hydrologic functions as well as protecting the land alongside the river from erosion (Fig. 2).

In order to protect the river and prevent river users from harming the resource, communication between the Corps and citizens is essential. Thus, riverfront landowners’ and river users’ perceptions of federal management agencies warrant exploration to balance the needs of diverse river users and the long-term integrity of this shared resource. This essay highlights the common perceptions of the US Army Corps of Engineers expressed by riverfront community members through selections of interviews from the YRCI (Gilbertz et al. 2007; Hall et al. 2012).



Figure 1: A map of the United State’s major riverways that influence Missouri water quality.



Figure 2: Impacts of erosion from annual flooding. Hysham, MT

MATERIALS & METHODS

The Yellowstone River Culture Inventory examines the social and ecological effects of bank stabilization practices (Fig. 4). This project enables the Corps to discover the expectations and hopes of the public. This project used the 2018 interview data to examine the most recent discussions among residents about working with the Corps.

The 2018 field season interviewed 109 riverfront residents, recreationists, agriculturalists, and civic leaders, along 550 river miles in MT and ND. Early analysis evidenced a recurring theme of “working with the Corps;” the conversations revolved around disappointments and concerns. These quotes were further analyzed to identify five sub-themes relevant to citizen’s perception of the Corps.



Figure 3: The large width of the powerful Yellowstone River.

RESULTS

YRCI interviewees frequently commented on the Corps’ timing of approving bank stabilization permit applications. Riverfront landowners, trying to protect their lands from erosion, noted extensive waiting periods that heightened anxiety. Many participants expressed annoyance and frustration with the lack of progress and communication from the Corps. Before permitting, landowners could perform bank stabilization immediately and the best way they saw fit.

Living alongside the river for generations, many participants explained they have lived on their land long before permitting was required by the Clean Water Act, administered by the Corps. Although 84% of the riverbank is privately owned, the Yellowstone River – like all flowing water bodies – is shared by the country. The new ruling changed a do-it-yourself approach to stabilization (Fig. 4), hampering the ability of landowners to protect their farms and homes. Tensions exist between what the government has deemed as right and what the people want to do.

Participants shared opinions about the high expenses for proper materials, specific type of boulder, engineering fees, and the permitting required by the Corps. This large amount of money to complete the bank stabilization was unexpected for many. These proper materials are uniform across the US and have been deemed necessary to maintain the river’s natural hydrological functions and to protect against flooding.

Many residents appreciate the work and changes the Corps has put in place for the Yellowstone River. The Clean Water Act interrupted a lot of landowner’s efforts to protect their land, but for the recreationists who use the river, these changes have been positive. The Corps is the face of the river permits and projects. If the projects do not work, people can easily blame the Corps.

Yet, participants question the Corps’ credibility in approving the permits that will affect the riverbank and the overall health of trout fishery and flow of the river. The Corps are not biologists; thus they are mandated to coordinate with other state and federal organizations (EPA) to administer Section 404 of the Clean Water Act.

CONCLUSION

The Corps oversees all the work on the Yellowstone River as stated in the Clean Water Act and the River and Harbors Act. These acts will be foundational in stabilizing the Yellowstone River, assisting the agricultural and recreational communities, and preparing for future floods. Although this managerial process may be seen as strenuous or expensive as expressed by the laypersons interviewed through the YRCI data, it is vital for the healthy functioning of the Yellowstone River.

The Clean Water Act is relatively new and changing how people manage a river is a difficult task. Although the US Army Corps of Engineers is often the blame of the many struggles of this new regulation, they are not the cause of the struggles. In any river system, all water projects impact the flow of the river, as well as the aquatic and land animals and plants that depend on the river.

Funding the YRCI, the USACE acknowledges that it would greatly benefit from the knowledge of residents, recreationists, civic leaders, and agriculturalists, so moving forward they know why people may be hesitant or resilient against their help. The more the Corps understands, the better they can serve the people, can prepare for future disasters, and help guide the success of the CWA. It is impossible for one person to accomplish the work of a team. Through the Corps’ leadership, the Yellowstone River will continue to be cherished for its recreation and agricultural purposes and will continue to be the center of their town and flow so future generations can enjoy Yellowstone's beauty.



Figure 4: Residents using boulders as bank stabilization to minimize risk of erosion.

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Emma Heienickle, enh9cw@mail.missouri.edu