

## Urban Environmental Equity Field Report 3: The Estabrook Dam

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### Overview

This research brief is intended to provide history and context for the local politics surrounding Milwaukee's Estabrook Dam to better familiarize outreach coordinators with this controversial issue, and in turn foster more productive communications efforts in the Milwaukee River AOC.

**Background.** Wisconsin's Milwaukee River is a waterway in the process of transformation. Heavily industrialized in the past, the river is now the site of a number of local, state, and federally-supported environmental remediation projects. When discussing these environmental remediation projects with stakeholders in the Milwaukee River Area of Concern, many residents talked at length about the Estabrook Dam, a point of contention in the community that is frequently associated with ongoing waterway restoration efforts. While technically unrelated to EPA's sediment remediation project in the nearby Lincoln Park area, the dam has come to symbolize a philosophical divide in local opinion over the true purpose of the Milwaukee River: whether the waterway should be prioritized for its direct benefits to people, or for its larger ecosystem services.

**Approach.** Interviewees for this study were all residents of the Milwaukee Estuary AOC, and were recruited via online contact forms and snowball sampling through UIUC's Urban Environmental Equity Project. 35 individuals ranging from riparian property owners to members of local government to business and environmental NGOs participated in the semi-structured video interview process, the results of which were then transcribed and analyzed for qualitative content. 12 out of 35 participants brought up the dam in the course of their interviews, with several interviewees outlining their personal positions on the topic at length.

**Findings.** In their discussion of the dam, interviewees identified two groups of stakeholders who held conflicting opinions: those who advocated for the restoration of the Estabrook Dam, and those who supported its removal. The former tended to be riparian property owners and the latter tended to be further geographically removed from the situation and in governance positions. This divide illustrates a lack of shared vision regarding the river's true purpose and value, which in turn may impact whether different groups of citizens consider other ongoing river restoration efforts successful or worthwhile. A thorough understanding of this local controversy may help outreach coordinators more effectively answer questions and foster positive relationships when conscious of these community dynamics already at work.

## **Context**

The Estabrook Dam was originally constructed in 1937 as a flood control measure to regulate water levels in Lincoln Park. The structure consists of a gated section with debris catchers, a spillway, and an island that connects the gated and spillover sections. When its gates are closed, the dam creates a reservoir behind it that serves as a summer recreational area for riparian property owners and other local residents. In colder months, the gates are opened to draw down the water levels, prevent ice jams, and allow for fish migration (Riverkeeper, 2015).

In recent decades, the dam has fallen into disrepair, and in 2009, the Wisconsin Department of Natural Resources ordered the county to open the dam gates until the structure was fixed or abandoned. In May 2012, the dam was labeled a public nuisance by the Milwaukee County Circuit Court and ordered to be either repaired or entirely removed (Riverkeeper, 2015).

The cost of repairing the Estabrook Dam is estimated at \$2.5 million, in addition to operating and maintenance costs of \$160,000 per year. Removal of the dam is estimated to cost \$1.6 million dollars (Behm, 2015). However, these numbers are contested by groups on both sides of the issue: in particular, those in favor of keeping the dam argue that the price of removal does not factor in the decrease in riparian property value and the cost of shoreline restoration along that section of the river (Rumage, 2014).

At the time of this article's publication, the ultimate fate of the Estabrook Dam remains unknown. Lack of project funding and a lawsuit regarding the public safety hazards of the structure have provided additional obstacles to and further delayed the decision-making process, which was originally scheduled to be implemented by the end of 2014 (Behm, 2015). A compromise in the form of a boulder-based "rock ramp" has also been proposed, which supporters say would allow free passage for fish swimming upriver while retaining deep enough water levels for motorized watercraft behind the new structure (Rumage, 2014). At \$3.3 million, estimated costs of the rock ramp also fall between the dam removal and restoration options. The Wisconsin Department of Natural Resources has granted a two-year extension for the deliberation process, and a decision is expected to be implemented by December 31, 2016 (Behm, 2015).

## **Relevance to Outreach and Extension Projects**

While conducting a series of focus groups on Great Lakes Legacy Act (GLLA) sediment remediation projects in Milwaukee in early 2014, researchers from Indiana-Illinois Sea Grant and University of Wisconsin-Extension discovered that it was particularly difficult to discuss the restoration work on the Lincoln Creek area of the watershed without residents bringing up the Estabrook Dam. The team reported that prior to and throughout the focus groups, moderators asked that the dam be excluded from the conversation to help maintain a comfortable environment for discussion of other park-related subjects (McCoy et al, 2014).

The responses of these focus group participants suggested that it was often "difficult for a person to separate their attitudes toward different projects in the same location that involve similar government agencies, so frustrations with the dam may have influenced expressed

opinions toward the GLLA project” (McCoy et al, 2014). Because of the dam’s proximity to the remediation sites on the Milwaukee River and the multiple levels of governance involved with each project, the Sea Grant research team found that residents’ opinions on the dam could impact their attitudes towards work on the river in general -- as well as towards their fellow community members. Indeed, the subject was considered so divisive that focus group members predicted it would act as a stumbling block in the creation of a Friends of Lincoln Park community group, stating that “the dam would have to be deliberately withheld as a topic for a Friends group to be successful” (McCoy et al, 2014).

Researchers from the University of Illinois Urbana-Champaign’s Urban Environmental Equity Project found similar levels of disagreement while interviewing residents about environmental restoration and community change in the greater Milwaukee area. While the dam was not directly related to the EPA-funded river remediation work that inspired the UEE team’s original interview questions, its social and environmental impacts fell within the scope of the project’s focus how citizens conceptualized and valued their urban waterways (Table 1).

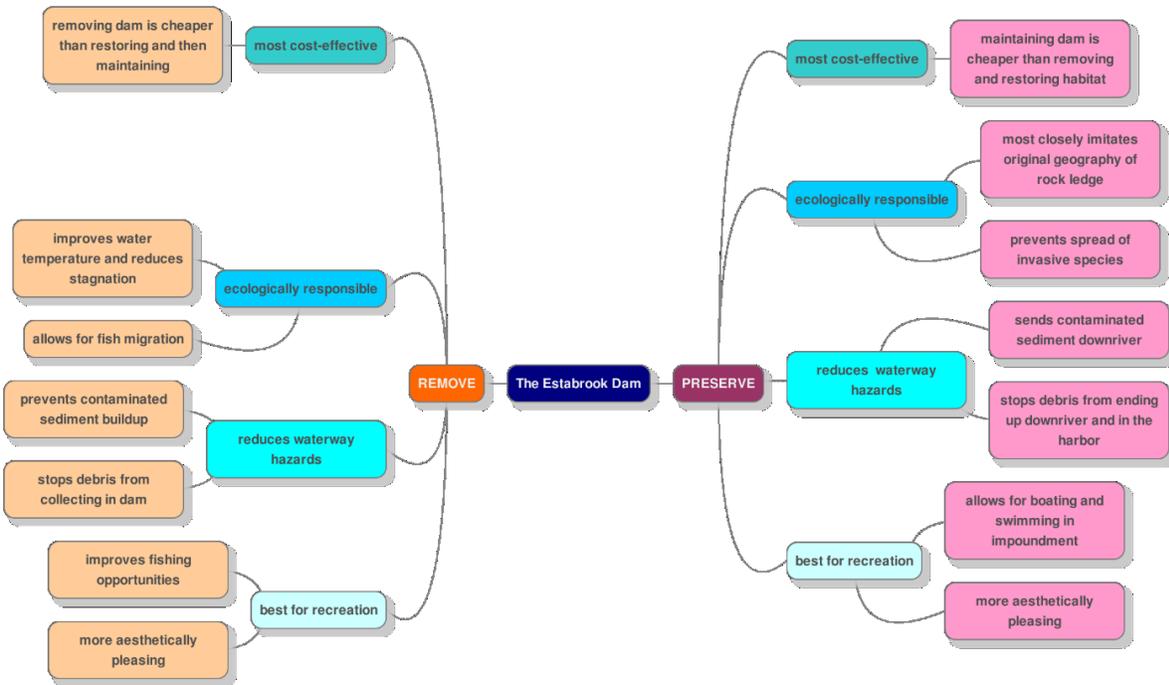
**Table 1.**

List of interviewees focusing on the Dam.

<b>Interviewee</b>	<b>Affiliation</b>	<b>Position on Dam</b>	<b>Riparian Property Owner</b>	<b>Environmental Background</b>
1	community leader	remove	N	Y
2	community leader	neutral	N	Y
3	environmental NGO	remove	N	Y
4	environmental NGO	remove	N	Y
10	community leader	neutral	Y	Y
11	local government	remove	N	N
19	community member	keep	Y	N
20	community member	neutral	N	N
24	environmental NGO	remove	N	Y
26	environmental NGO	neutral	N	Y
28	community leader	keep	Y	N
29	community member	keep	Y	N

### **Stakeholder Views**

While 4 of the 12 interviewees expressed ambivalence or neutrality regarding the issue of the dam, each identified it as a point of conflict in the community whether or not they were personally invested. The other 8 interviewees advocated explicitly for the dam to be restored or removed over the course of their interviews, with both sides claiming that their preferred option would not only be more cost-effective but more beneficial to human users and/or environmental health (Table 1). We outline removal and preservation arguments below (Fig. 1).



**Figure 1.** Mental models representing arguments for and against removing the Estabrook Dam. Interviews indicate that the same four environmental themes (shaded in blue) belie both arguments to remove the dam (shaded orange) and arguments to preserve it (shaded in purple).

**Preservation.** Residents who support the restoration of the Estabrook Dam emphasize the unique recreational opportunities provided by the changing water levels over the course of the year. The summer impoundment offers opportunities for motorized and non-motorized boating, kayaking, fishing, and other water-based activities that take advantage of the reservoir’s 9-foot depth (Interviewee 10). Supporters of the dam say that the structure best replicates the original shape of the riverbed, which included a rock ledge at the dam’s current location, and that fish and wildlife in the area are minimally impacted by its presence (Interviewee 29). While only 3 of the 12 interviewees who brought up the dam were unquestionably in favor of keeping it, these individuals were especially passionate in their dialogue and spoke at length about its benefits. In particular, riparian homeowners expressed concern that the loss of recreational opportunities will also be accompanied by diminished property value, negative visual aesthetics, and a sense of cultural loss after decades of the impoundment’s presence (Interviewee 19). These riverside residents form the core of the Milwaukee River Preservation Association, an organization dedicated to the restoration of the Estabrook Dam.

*“...let’s save the dam to save a lot of money for all of the county taxpayers, not just the folks that live on the river such as I do.... Let’s save it, because it has a reason for being there.” (Interviewee 29)*

**Removal.** Those who advocate for the removal of the Estabrook Dam state that the structure negatively impacts water quality in the Milwaukee River by raising water temperatures, preventing fish migration, and causing sediment buildup, all of which are detrimental to aquatic life in the area (Interviewee 1). Removal of the dam, they argue, would naturalize the flow of the river, improve oxygen content and biodiversity, and eliminate the possibility of structural failure during a flood event (Interviewee 24). Five of the 12 interviewees were outright advocates for the dam’s removal, including representatives from Milwaukee Riverkeeper and Milwaukee city officials. The Riverkeeper organization is a particularly vocal opponent of the dam and has publicly called for its removal on a number of platforms, a viewpoint shared by the County Parks Director and County Executive, according to Interviewee 3.

*“Then I think the next thing will be the dam in the Milwaukee River that needs to get resolved...very few people are benefiting from what is really a detriment for the rest of us. ...Whereas if it is taken out, which is a lower cost option, the river can function as a natural river. I am very much in favor of the dam coming out.” (Interviewee 24)*

### **Future Outreach Implications**

Although many of the environmental organizations engaged in restoration projects on other parts of the Milwaukee River are not involved with decision-making surrounding the fate of the Estabrook Dam, recognizing the conflict it generates may help outreach coordinators more successfully address residents’ questions and concerns regarding the Milwaukee River as a whole. Scientific literature on the impacts of other small dam removal or restoration projects can provide communicators with technical information to pass along to worried residents: Johnson and Graber (2002), for instance, addressed riparian homeowners’ concerns that their property would lose value once a dam was removed by providing counterexamples of stable values over the course of a decade. In the event that the Estabrook Dam is removed, however, it would not be unexpected for outreach coordinators to encounter nostalgia and residual hostility within the surrounding community (Born et al, 1998). These lingering emotions may impact resident’s perceptions of and expressed satisfaction with other environmental projects occurring along the waterway in the future, and the uncertainty and frustration surrounding the issue is worth taking into account while planning communication efforts in the present.

**The Community Voice Method.** Cumming and Norwood’s Community Voice Method (2012) may provide a particularly useful approach to addressing conflict over the dam. The UEE Project is largely informed by the methodology of this technique, which involves the composition of a video documentary focusing on residents sharing opinions in their own words, combined with quantitative data about the topic in question. By preceding public meetings with participatory research, the Community Voice Method seeks to “promote inclusive civic dialog; provide meeting participants with accessible, trustworthy information; and help build ongoing community capacity to address local land use issues” (Cumming and Norwood, 2012). A CVM-

inspired documentary video is already in production regarding the Estabrook Dam, and UEE Project researchers hope to inspire more constructive dialogue around the topic at public viewings in the future.

While the Estabrook Dam remains a contentious issue in ongoing discussions of Milwaukee's waterways and residents' relationships to them, potential for constructive conversation to inform decision-making does exist and will be vital to Outreach coordinators would do well to approach the subject of the Estabrook Dam with sensitivity and care in order to facilitate positive relationships with, and between, stakeholder groups. Much more than an issue of economics and local governance, the Estabrook Dam is a small-scale display of differences in environmental value sets within the Lincoln Park community and greater Milwaukee as a whole.

### **Acknowledgments**

We gratefully acknowledge funding from Illinois-Indiana Sea Grant, grant no. NA14OAR4170095 "Mapping Social Vulnerability in EPA-designated Areas of Concern" and the University of Illinois Urbana-Champaign Graduate College Focal Point Initiative "Urban Environmental Equity". The opinions and findings presented here as well as any omissions are those of the authors alone.

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