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RETHINKING WATER, PLACE & COMMUNITY

LAYERS

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from multiple perspectives within and beyond the academy.

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## Contact Us

*Open Rivers* | Institute for Advanced Study,  
University of Minnesota  
Northrop  
84 Church Street SE  
Minneapolis, MN 55455

Telephone: (612) 626-5054

Fax: (612) 625-8583

E-mail: [openrvrs@umn.edu](mailto:openrvrs@umn.edu)

Web Site: <http://openrivers.umn.edu>

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PRIMARY SOURCES

# THE RIVER AT OUR DOORSTEP: STUDENT PROJECTS TELL STORIES OF THE MISSISSIPPI RIVER

By Donal Couch, Nichole Jacquez, Hope Werstler, Caitlyn Barrett,  
Jenna Duncan, Rianna Knoll, and Aryana Becchetti

*The Mississippi River, by all accounts one of the great rivers of the world, flows through the middle of the campus of the University of Minnesota in Minneapolis. During fall semester, 2022, the University Honors Program continued a long-standing commitment to introducing students to the river at their doorstep by offering*

*an Honors Seminar called “Environmental Justice and Climate Futures: the Mississippi River Corridor.” I was privileged to lead the seminar.*

*The seminar’s final project, several examples of which are included below, asked students to*



*An aerial view of Northrop Mall, part of the University of Minnesota Twin Cities’ East Bank area. Image courtesy of Ben Franske.*

*“tell a river story.” Students were encouraged to step away from the standard college fare of writing a term paper, and to experiment with whatever form would best suit the story they had chosen. The topics offered were likewise very open-ended; students were invited to shape their chosen story from a subject we had touched on in class or, perhaps a topic that we did not discuss, but that nevertheless piqued their interest. In addition to the student projects, when we were preparing the projects for publication, we asked them for personal statements about their work, why they chose the topic and what they found gratifying about it; those statements are included here as well.*

*Students worked on their projects, either in small groups or individually, for a number of weeks, which allowed for a great deal of deliberation and reflection, refining both the subject and form of the various works. As a result, and as this collection shows, there is a great deal of variety. We have a draft Google web site, several walking tours, a proposal for an ArcGIS StoryMap,*

*and several audio/video presentations. Subjects are quite diverse also, ranging from the historic Black community in the nineteenth-century village of St. Anthony (now part of Minneapolis) to the now-gone Jewish community on St. Paul’s West Side Flats, to a number of projects addressing the region’s Indigenous heritage and continued presence. Some of the topics are more scientific, such as an examination of the river’s changing water quality.*

*The students and I hope you enjoy their work and find it rewarding, perhaps offering a glimpse into a previously unknown subject. The experience of the seminar offers what every veteran teacher knows: if you provide bright, motivated students with a provocative subject (like the Mississippi River) and give students ownership over how they approach the subject, wonderful work can emerge.*

*Pat Nunnally, Lecturer, University Honors Program*

## Donal Couch

When tasked with synthesizing the knowledge and learning I had gained throughout the course (HSEM 3205H Environmental Justice and Climate Futures: the Mississippi River Corridor) into a River Story, I was, at first, adrift. As a Chemical Engineering major, I found the curriculum to be quite the departure from what I was familiar with. Of the material we had covered in the course, one of the things I had found most fascinating were documents from the St. Anthony Falls Heritage Board on their interpretive visions of the west and east banks of the Falls. The more than 120 pages across two documents explored how the history and environment of this pivotal location could be tied with that of the people who have inhabited these lands. In addition to these documents, I was astonished by the foundational history of Eliza Winston and her

plight for abolition movements across the US. Eliza Winston was a slave from Tennessee whose owner eventually brought her with his family when they traveled to what was then St. Anthony, Minnesota (now northeastern Minneapolis) to visit the “healing” chalybeate springs. While there, with the help of local abolitionists, Eliza gained her freedom in a heated legal case. Prominent local attorney Francis R. E. Cornell won the case using only article 1, section 2 of the Minnesota State Constitution: “there shall be neither slavery nor involuntary servitude in the state.” Despite Minnesota’s abolitionist leanings, a large mob formed and struck the homes of known anti-slavery advocates. There is dispute of what happened to Eliza after she gained her freedom; some claim to have evidence that she left for Canada where she could live freely,

without being accosted, while others believe she returned to Tennessee.

Despite being from southeastern Minnesota, I had never been taught anything about this, nor had I ever heard of it outside of this course. For my project, I decided to merge these two aspects, focusing on the history of the early Black community of St. Anthony in what is now the Marcy-Holmes neighborhood of Minneapolis.

In my experience, and perhaps in dominant narratives, the early Black community of St. Anthony has been underrepresented in stories of Minnesota's history. As the home to the first free Black residents of the state, along with the

original location of Minnesota's first African Methodist Episcopal church (St. James AME Church, to which many other congregations trace their roots), the subject matter is important to Minnesota's history. Moreover, the abolitionist activism and antislavery efforts stemming from this community are an underlying component of how political beliefs and affiliations in the state became what they are today.

*See Donal's project [here](#).*

For this project, I created a planning document emulating comprehensive plans of city development commissions. I focused on overhauling the structure of interpretation in the area by



*Eliza Winston (1830–?) was an enslaved American from Mississippi who was freed from her owners while with them on vacation in Minnesota, a free state.*

providing content for a guided tour and signage, for example. The impetus for this was that when I was exploring the current content, I found only one sign on the Eliza Winston case, which was a landmark case for abolitionism, and nothing is said of other achievements of early Black Americans from Minneapolis.

The first Black graduate of the U of M law school, the first Black American elected to the Minnesota House of Representatives, the first Black American high school and college sports coach, the first Black American to play football in the Big Ten, among many other firsts, are overlooked. By creating an (admittedly basic) planning guide highlighting some of these influential people and histories, I hoped to demonstrate how there are exciting and important stories intrinsic to Minneapolis that are not currently being told and shared like they should be. The historical figures

we feature and the stories we tell about them are essential to representation of people from all backgrounds, and this project is meant to explore ways that can be done locally.

The class as a whole and this project especially were enlightening experiences for learning about my own blind spots in the history of the land around us. While I had a cursory understanding of the displacement of Native peoples and the history of minority and immigrant group populations in the state, through taking this Honors Seminar, I became educated on topics that I knew very little about previously. This has helped me develop a more nuanced understanding of events in current times and will continue to aid me going forward; it has opened my eyes to looking for hidden and underrepresented stories everywhere I go.

## Nichole Jacquez

*Walking along Pike Island Hiking Trail, I am filled with nostalgia. From my own childhood field trips, witnessing actors firing on a line, to viewing the rivers from those royal-esque walls, I recall feeling pride and triumph—like the fort’s existence was a feat of Minnesota power that I inextricably became a part of.*

*The nostalgia I have contradicts with what I now know about this area and Bdote in general. On the banks of this river, where flitting few fish ripple against the surface, a people call this their creation place, their place of origin. But just outside of the walls, hundreds of those same people died, broken like the treaties they were once promised. The path near the river is paved in concrete, packed with a paradox that summarizes the Indigenous experience.*

For my river seminar class, I visited Pike Island and wrote the above as my reflection.

The location for Fort Snelling is a popular field trip destination for young Twin Cities metro Minnesotans. You can ask most former local school children to reminisce about the lunch they had on the stone steps or their immersive experience with the play soldiers on the field, but a majority of those people could not explain to you the breadth of importance of this place. Sure, Pike Island was a momentous piece of land for European settlers; Fort Snelling helped cement Minnesota as an important place of trade. But it was only through this seminar that I learned that the Dakota—the Indigenous people occupying this land, and who have for thousands of years prior—were forcefully removed and killed in an area synonymous with their people’s beginning: Bdote. The dissonance between my reminiscing and my new knowledge was only amplified by the trail signs I read on the way. Indigenous presence was reduced to merely a tagline; they emphasized the power the fort gave the forming state instead. There was no reference to just how important and

sacred Bdote is or the people whose presence was essentially erased.

See Nichole’s project [here](#).

When it came time to “tell a river story,” our final project, I decided to revisit Pike Island’s trail signs; I wanted to create designs that supported and uplifted Dakota stories, while curated through an ever-changing digital landscape. Each sign I proposed had a differing amount of polish, but a unifying feature of all were QR codes, each unlocking a related audio from a Dakota perspective to accompany each hiker on their way to the next signpost.

This project helped me realize the importance of multiplicity. In my mockups, it became apparent to me that providing multiple ways of learning through an audiovisual format made history readily accessible to as many people as possible.

My various disciplines in environmental science, humanities, and art enabled me to create signs that I believe are more engaging and intuitive than the current signs on the trail today. I found multiplicity in my sources, too; if non-indigenous Americans take history lessons solely from a white colonist perspective, we lose American history. Centering an Indigenous perspective allows for a broader and more realistic understanding of the United States’ inception and expansion, and fosters more empathy and understanding through all the people who interpret those stories. My proposed trail signs are one way to do that. Multiplicities exist within ourselves, the gifts and skills of others, and the stories they have—if we are just willing to listen. This is key to chipping away at the paradoxes that exist not only at Pike Island, but across the entire United States, and that’s a lesson that will resonate with me in all my future endeavors.

**Bdote**  
*A Place of Creation*

**W**hat is your creation story? For the dakota, the creation story starts here, at Bdote.

Bdote, generally, means “Where two waters come together”. This term can refer to a plethora of different waters meeting, but the most important of Bdote to the Dakota is the confluence of the Minnesota and Mississippi Rivers.

In Dakota stories, it is said that seven tribes came from the seven stars of Orion’s constellation belt; they then descended onto the confluence of the Mississippi and Minnesota rivers. The first breath of each newborn comes off the confluence. As such, this broad area has a long history and sacred significance.

In fact, the Dakota’s history branches back to before any settlers came. Over 10 thousand years! Pike Island is known as Wita Tanka, and the place we currently know as Minnesota is Mni Sota Makoce – Land Where the Waters Reflect the Skies.



Over the years, many have found this confluence area, like the artist that painted the image above. The most famous of which is Zebulon Pike, which is where the name Pike Island came from.

Pike is known for scouting the land for Fort Snelling, but the details surrounding his interaction with the Dakota living here are shrouded in lies: Only two out of seven Dakota elders were present for the negotiations, and the process was hindered by a language barrier. He had promised a trading post, but that promise was never fulfilled — Fort Snelling was built instead.

Listen while you walk and complete the puzzle here:



*This poster excerpt from the project talks about Bdote and its role as the place of creation to the Dakota.*

# Fort Snelling

## Trade and Dissonance

*"A really important counter story to [Fort Snelling] and the westward expansion is what about where we're standing. What about this sacred place, this sacred place to the Dakota. What is our connection to the land and how is that important?"*

**Ramona Stately**



**F**ort Snelling was originally built in 1825, 20 years after Zebulon Pike first scouted out the area and made disreputable negotiations with the Dakota there. The fort was originally named Fort St. Anthony, but its namesake changed in honor of Colonel Josiah Snelling, who watched over a majority of the six year construction process. The Fort's main goals were to keep the British from going further west, as well as keeping them away from the fur trade that was immensely profitable in the 1800s.

### Shady Business

The process of obtaining this land is skeptical at best. Because the president of the United States had not given Pike authority for an expedition, he had no authority to even negotiate with the Indigenous land. Additionally, the acreage at Bdote ("Place where two waters meet", approximately where Fort Snelling is) was priced at a mere two thousand dollars, although Pike estimated its value at 100 times more than that. Throughout price negotiations, no Dakota were present. Fort Snelling's history is legally and technically illegal, but the United States carried through its construction. As a place of creation to the Dakota people, Fort Snelling was a transgression and invasion of sacredness - and unfortunately, just one of many against the Dakota.



### Buffalo Soldiers

Fort Snelling found great success during Antebellum, otherwise known as the time period prior to the Civil War. But in the two decades following the end of the Civil War in 1865, the fort still continued to expand in use. From 1882 to 1888, the fort was headed by a segregated African American unit. This was the Twenty-Fifth United States Infantry Regiment, but alongside the three other segregated units, you would find better luck if you asked for the "Buffalo Soldiers".

Unfortunately, the time prior to World War I was a period in which Fort Snelling aided with the expulsion of Indigenous peoples in the western United States. During World War I, segregation within the armed forces continued. The violence shown towards indigenous peoples throughout the United States has in some forms still persisted to today.

Listen while you walk and complete the puzzle here:



*This poster excerpt from the project talks about the dissonant role of Fort Snelling in the history of the area.*

## Hope Werstler

From 1882 to 1963, St. Paul, Minnesota's West Side Flats was home to a tight knit, Jewish immigrant community. Although stricken with poverty and frequently destroyed by flooding from the Mississippi River, this neighborhood carries stories of cultural preservation, faith, and overcoming the hardships that came with life in the New World. Although physical evidence of this neighborhood has been wiped from the banks of the Mississippi, storytelling has the ability to preserve the memory of the now dispersed Jewish community that once called the area home.

*See Hope's project in this [video](#).*

I have spent my entire life hearing stories about my own Jewish family. I remember sitting on the couch next to my Grammy, listening to her tell my sister and me story after story while sifting through photo albums as big as encyclopedias. Every photo is a memory that would've been lost without her, and for me these stories were portals into my own Jewish community. They taught me about my family, and in turn helped me learn about who I am as a Jewish individual. The lost Jewish community of the West Side Flats in St. Paul is an important subject because it is a community without a storyteller like my Grammy, but that doesn't mean their stories are not worth telling.

This project was my final assignment for an Honors Seminar at the University of Minnesota called "Environmental Justice and Climate Futures: the Mississippi River Corridor." The course focused on the Mississippi River and its effect on the biological and socio-cultural systems of the past and today. The course put a strong emphasis on communities and how they viewed and utilized the river, with the final project asking students to choose one of these communities and tell its story. When choosing the format for this project, I wanted to choose something engaging, something I would want to learn from. In my

mind, an interactive story map is like a "choose your own adventure" approach to looking at documents. It allows for user exploration and can make it easier to locate the exact information needed for a project. And with maps, photos, and videos, a story map is a multimedia learning experience, which can deepen a student's understanding and interest in the subject.

This assignment taught me that without documentation, stories are lost in time. And the stories of ethnic groups around the world deserve to be told because those communities still exist today; they just might look a little different.



*The Beth David Synagogue was a small Orthodox congregation founded in 1917 by 15 Jewish, immigrant men. Image via University of Minnesota Libraries, Nathan and Theresa Berman Upper Midwest Jewish Archives.*

When Jews first came to America, like many other immigrant groups, they found that living in an almost exclusively Jewish community was a way to preserve their culture, cuisine, and native language. Without these communities, Old World traditions would've been quickly forgotten as members assimilated into their new surroundings and way of life. But nowadays, the majority of Jews live outside of Jewish communities, maintaining their cultural and religious connections through extracurricular activities, online groups, and story time with their Grammy. This story map has the potential to become one of these tools that keep stories alive in the minds of a strong, yet dispersed community.



*Map of St. Paul in 1916 showing the area around the West Side Flats.*

## Caitlyn Barrett

In the University of Minnesota Twin Cities Honors Seminar course titled “Environmental Justice and Climate Futures: the Mississippi River Corridor,” the goal was to understand the history of the Mississippi River, such as its importance to the Dakota and Indigenous people as well as the colonization of the river and surrounding land that led to the development of the Twin Cities (Minneapolis—St. Paul area of Minnesota). The University of Minnesota Twin Cities (UMTC) campus is considered the flagship campus to the broader University of Minnesota (UMN) system, which involves four other campuses. To end the semester, we were assigned a project to tell a “river story.” The goal of the project was to understand the river and its significance to the people and ecological systems around us. I wanted to pursue a story that focused on the strained relationship between UMTC and Indigenous people. UMTC has made increasing attempts to mediate this relationship by using land acknowledgements and a tuition program offering Native students full tuition coverage at any UMN campus. However, there is substantial debate over the minimal effort involved in land acknowledgements, the inaccessibility of the tuition program, and how use of the Mississippi River does not accommodate Indigenous perspectives on land and water. Incoming students at UMTC should be aware of institutional efforts to resolve this conflict, as well as Native and Indigenous perspectives of these efforts.

To tell the story of the relationship between UMTC and local Indigenous people, I chose the format of a mock half-semester course that is asynchronous and available almost fully online. One reason I chose this format for this project was that it could lead to something actionable. With some adjustments, such as consultation from American Indian Studies faculty on campus and local Indigenous leaders, a course like this could be implemented on campus. Incoming

students are already required to go through certain modules that educate them on sexual assault and substance abuse, so the asynchronous module format is not unfamiliar to them. Second, I chose an asynchronous course model because this would allow for higher enrollment without excessive emotional labor on Native/Indigenous faculty and communities. Implementing an educational course like this would be a small step for UMTC administrators to demonstrate they are dedicated to accommodating Native and Indigenous perspectives by being vulnerable about their shortcomings to students.

*See Caitlyn’s project [here](#).*

After completing the course project, there were several takeaways I had from the challenges of pursuing this project. First, it was quite difficult to find information on the relationship between UMTC and local Native/Indigenous people. Most sources and information focus on the impact of all five campuses or the Morris campus, which used to be an American Indian boarding school. Second, there are significant limitations of the course modality and audience. The course is mainly informative, with little direction on how students can use this knowledge to advance this social cause. In its current state, it simply makes students aware of the relationship rather than giving students an outlet for action. However, awareness is a good first step for students to hopefully become more involved in University relations. Third, referring to the problem itself rather than my project, the complexities of this relationship do not have a simple solution. In a search for a solution, the TRUTH project created a report enumerating suggestions that University leadership can take to repair the damage done to Indigenous communities.<sup>[1]</sup> The researchers on this project recommend a multitude of actions that must be implemented, as the effects from Native/Indigenous displacement continue to harm Native/Indigenous communities and

benefit University officials. Although my project has some limitations, if it was implemented, it would be a way for UMTC officials to acknowledge the harm that has been done to Native/Indigenous communities by the University.



#### AMIN 100:

This half-semester course is designed to give you introductory information to the variety of topics and issues that are present between the University of Minnesota system and Native/Indigenous people. This course will provide assignments in a variety of modalities to allow you to reflect on the ideas in this course. This course is intended for freshmen at the University of Minnesota Twin Cities Campus.

[Week 1 - History of University Land](#)

[Week 2 - Land Acknowledgements](#)

[Week 3 - University Native American Promise Tuition](#)

[Week 4 - Native American Presence in Staff and Faculty](#)

[Week 5 - UMN Repatriation of Cultural Collections](#)

[Week 6 - Native Organizations on Campus](#)

① [Week 7 - Wrap Up](#)

*Screenshot of the mock syllabus website by Caitlyn Barrett.*

## Jenna Duncan

While there are stories in every place the Mississippi ebbs and flows, I chose the Bruce Vento Nature Sanctuary to be the focus of my project: a walking tour proposal. This location initially piqued my interest because it is a site of deindustrialization and ecological restoration, which is a unique narrative in this otherwise heavily industrialized area of St. Paul. Although the present landscape contains scars and remnants from the past, they do not tell the full story. This narrative begins with Wakan Tipi, a cave sacred to Dakota people, which is located within the present nature sanctuary. As railroads and industries expanded in the late 1800s, this space was desecrated and eventually became a dumping ground filled with toxic waste. However, after immense community efforts, the Bruce

Vento Nature Sanctuary was created with the goal of connecting people to Dakota traditions and serving as a wildlife refuge. After researching for this project, I've come to appreciate that there is much more nuance than what meets the eye. This landscape has experienced extensive man-made alteration and is anything but "natural," despite it presently serving as a nature sanctuary.

*See Jenna's project [here](#).*

Fundamentally, this story is about shifting values and whose voices are heard. It is important for a variety of reasons, but especially because the erasure of Dakota culture and voices to further industrial development is central to the narrative. After I wrote this project in the fall of



*Wakan Tipi, a cave sacred to Dakota people, is located within the present Bruce Vento Nature Sanctuary. Image courtesy of Wakan Tipi Awanyankapi.*

2022, the Lower Phalen Creek Project, which is an organization that played a pivotal role in restoring this space, has been renamed Wakan Tipi Awanyankapi. This Dakota name, which translates to “those who take care of Wakan Tipi,” demonstrates the importance of this space to Dakota people and is indicative of reclaiming visibility. I hope this project highlights how actions taken in the past continue to have real ramifications today for Dakota people. Additionally, the ecological restoration of the Bruce Vento Nature Sanctuary was largely accomplished by community efforts, the importance of which has not received due recognition.

Since location is central to the story, it felt natural to develop a walking tour proposal at the Bruce

Vento Nature Sanctuary to convey this narrative. Being immersed in a space is essential to gain a more complete understanding of the events that transpired there and how the past has influenced the present. Additionally, it facilitates the establishment of meaningful connections between people, nature, and traditions, which all intersect in this space. Furthermore, having a tour guide share this story would help participants engage with this narrative in a memorable way that encourages them to share this story with other people they know. It is critical to remember that although this narrative began in the past, this story is ongoing, and it is up to future generations to decide how it will continue.



*A restored wetland located in the Bruce Vento Nature Sanctuary, also known as Wakan Tipi. The adjacent rail yard and downtown St. Paul can be seen through the tree line. Image courtesy of Jenna Duncan.*

## Rianna Knoll

I am a Mortuary Science major at the University of Minnesota and as someone studying death, I have become attuned to the practices that go unrepresented. Indian Mounds Park is a popular Minnesota public site known for its magnificent view of the Mississippi. More importantly, it is a sacred cemetery for Dakota people that has been reduced from around fifty to six marked burial mounds, each containing the cherished remains of multiple ancestors. It is my mission to venerate the deceased and their resting place. So, when I was granted the opportunity in my Environmental Justice and Climate Futures course to research any topic regarding the Mississippi River, I instantaneously drew my attention to the significance of the remaining land and practices once performed at Indian Mounds Park. I believe bringing forth this knowledge makes the Dakota ancestors and their successors feel more real to Minnesotans facing a disconnect with the surrounding culture.

However, this disconnect is widespread as the “church and casket” funeral has become reinforced in all of Western culture through generations of tradition. The land that Americans inhabit once belonged to groups of people with very different burial traditions. The Dakota used the mounds, river, and artifacts they buried with the deceased to ensure a proper ascension into the peaceful afterlife and bring together their community of the living. It is important to recognize that these practices encompass similar

elements as contemporary Christian funerals: gathering and laying to rest.

To educate my community to this similarity, I proposed a walking tour to highlight the locations of the removed graves that symbolize such analogous practices. I used ArcGIS to create the project, as it allowed me to divide my tour into the history that would be shared with the tourists and the tour plan I had conceived. This allows readers to digest the heavy topic before picturing my proposition. In addition, ArcGIS is a mapping tool, so if there was a chance for my walking tour to become a reality, this would be an excellent way to map the tour spots and visualize the large ground that could be covered.

*See Rianna’s project in this [storymap](#), or download the storymap [here](#).*

After completing my project on Indian Mounds Cemetery, my biggest takeaway was how easy it can be to encourage a respect for death. By educating myself and my class, I have been given the opportunity to enlighten a greater audience. Death is seen as a taboo subject, but normalizing conversations about it will help us learn from the past and make changes to be better in the future. All considered, I want to teach readers that death may be commemorated with differing burial practices, but it is a sacred and unifying phenomenon among all us humans. I hope this project can help prevent mindsets of judgment that enable the mass desecration of consecrated spaces.

## Aryana Becchetti

For my final project in the “Environmental Justice and Climate Futures on the Mississippi River” class, I decided to take advantage of the opportunity to further educate myself and my classmates about the history of contamination on the Mississippi River in the Twin Cities. By talking about the water quality of the river, we can bring more awareness to the importance of conservation. Also for students like myself who are not from Minnesota, learning about where we live can give us more appreciation for our community. In turn, the reader becomes more engaged in their community and protecting the environment.

See Aryana’s project [here](#).

The Mississippi River has an enormous effect on the quality of life for the people and ecosystems

in the Twin Cities area. The importance of water quality should not be underestimated. Around the early 1900s, when the quality was particularly bad, it caused a typhoid fever outbreak and the loss of many aquatic species, and the riverfront became a health hazard for the residents nearby. Water is the center of life, so we must care for it and treat it right to avoid recreating these conditions.

The format of my project is a slideshow presentation that includes a timeline of human involvement with the river, an analysis of the timeline, and a section on why water quality on the Mississippi River is important. The timeline starts in 1810 and goes on until 1990. This period goes from the beginning of settler use of the river, up to when some of the major water protection laws and restoration acts were put in place. When



*The front page of the slideshow shows Minneapolis over the Stone Arch Bridge. Image courtesy of Aryana Becchetti.*

viewers see how much we have affected the river in a relatively short amount of time, it helps the audience understand the severity of the topic. The analysis section is broken down by half centuries starting in 1817 and goes into further detail about the water quality on the Mississippi. This organizes the impacts of particular human behaviors and highlights the related major changes in water quality. Finally, the “Why this is important” section provides the reader with further explanation of the severity of this topic, and how it affects everyone, including the reader.

Before starting this project, I knew that a large body of water located within a major city (like the Mississippi) most likely had a record of contamination. However, I underestimated just how much settler behaviors have affected the river. As stated in the timeline, in 1817, the water was described as “entirely colorless and free from everything that would render it impure, either to the sight or taste.”<sup>[2]</sup> By 1907, the water

was declared unsafe for humans or livestock to touch, let alone drink. After just 90 years of human involvement, the river changed forever. However, some of the important work of the ensuing 110 years, from 1907 to 2016 (the most recent State of the River report) shows that a great deal has been accomplished to make the river cleaner than perhaps any time since urban industrial settlement in the mid-1800s. Some of the major accomplishments that helped restore the river to a cleaner and healthier state include the establishment of the Minnesota Pollution Control Agency, the Metropolitan Waste Control Commission, and the Federal Clean Water Act.

Although significant damage was done to the river in a relatively short period, a great deal can be done to restore the environment in a similar amount of time. This gives me a sense of hope that we can learn from our mistakes, and often we can restore our environment to a healthy state again. Although the river may never

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## Why is this important?



Learning about the history of pollution and the eventual restoration of the Mississippi River is crucial so we can ensure nothing like this happens again. Educating the public on the importance of river conservation is how we can continue to protect the river for future generations. Along with that, keeping the public interested and connected to the river means more people are willing to help preserve it. Studies show that having a strong connection to a place makes people more enticed to protect it. Telling stories about the history of the river can help shed light on the horrible history of contamination and ensure that the river is protected for future generations.

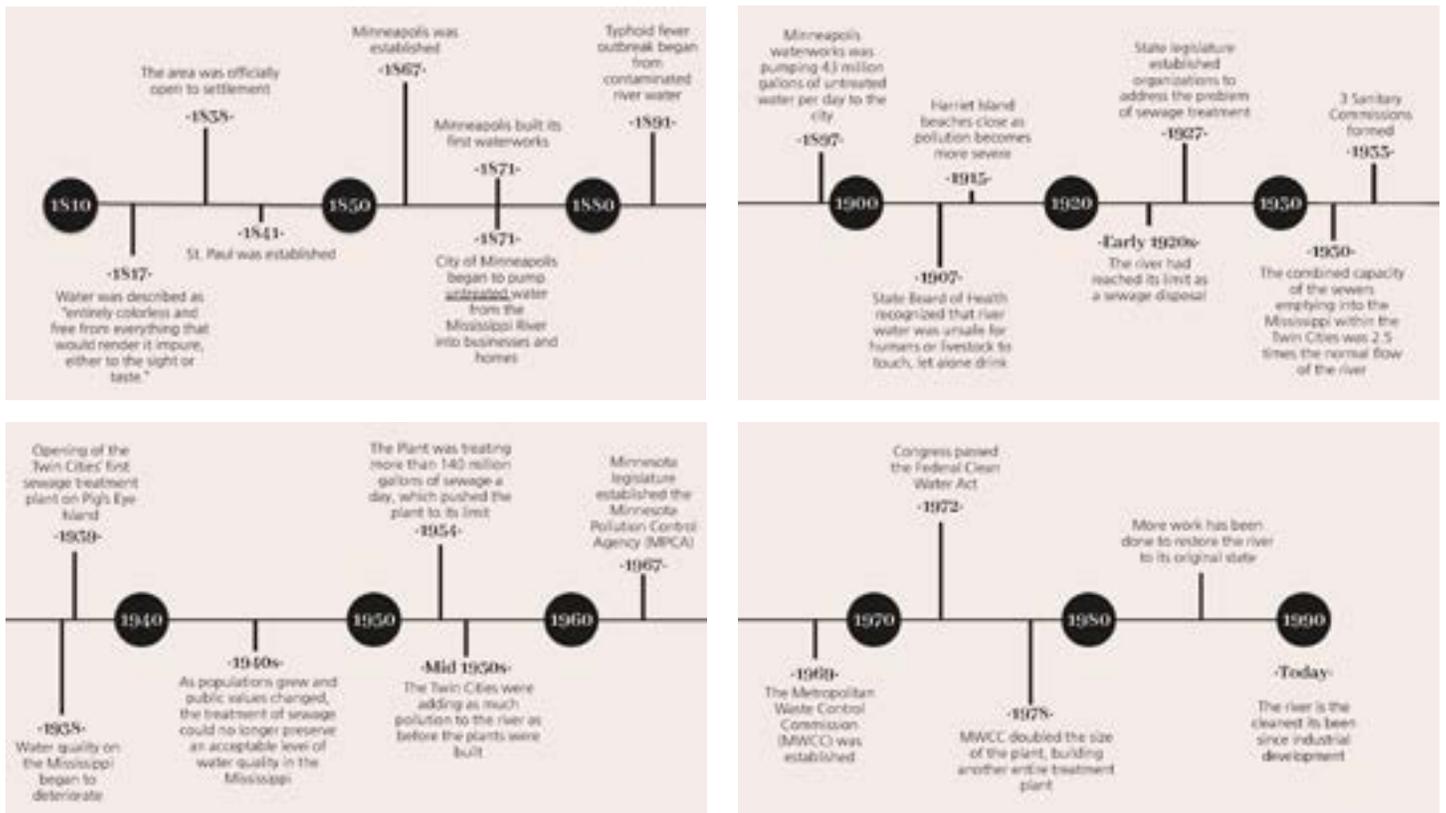
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*Learning about the history of pollution and the eventual restoration of the Mississippi River is crucial so we can ensure nothing like this happens again. Image courtesy of Aryana Becchetti.*

be completely free from the damage caused by human impact, the water quality is the healthiest it's been in over a century.

This project allowed me to learn more about the area I live in and made me more passionate about advocating for it. Having a strong connection to where we live and understanding its past makes people more committed to protecting it. By creating this presentation, I hope to offer people more insight into water conservation in the Twin

Cities and why it's important to care for our land. When the river became unsafe, everyone was affected by it, and the community had to work together to restore it. One of the biggest things that I took away from this project was that when we collectively work together to make our environment better, we can achieve a lot. I hope that by showing others the history of water quality on the Mississippi River, we can accomplish more together as a community and continue working towards making our home a better place.



Timeline of human involvement with the Mississippi River in the Twin Cities area from 1810 to present day. Images courtesy of Aryana Becchetti.

## Footnotes

[1] The TRUTH Project, 2023, *Oshkigin Noojimo'we, Nagi Waŋ Petu Uŋ Ihduwas'ake He Oyate Kiŋ Zaniwiçaye Kte (Renewing Systems Landscapes through Indigenous Traditional Management Practices)*, <https://sites.google.com/view/truthproject/research/report>.

[2] "River of History." *National Park Service*, U.S. Department of the Interior, [www.nps.gov/miss/learn/historyculture/river-of-history-chapter-3.htm](http://www.nps.gov/miss/learn/historyculture/river-of-history-chapter-3.htm).

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## About the Authors

After graduating from the University of Minnesota in May 2023, Donal Couch moved to Ann Arbor, Michigan to start his Ph.D. in chemical engineering at the University of Michigan. His research focuses on biomass conversion to platform chemicals by engineering synthetic microbial communities.

Nichole Jacquez is an undergraduate student studying Environmental Sciences, Policy, and Management at the University of Minnesota. Outside of her botanical forays, she enjoys tennis, playing farming simulators, and crocheting.

Hope Werstler is a senior at the University of Minnesota Twin Cities with a dual degree in Environmental Sciences, Policy and Management and French Studies. She has always enjoyed exploring the connections between communities and their natural environment. She hopes that you will enjoy learning about the once prominent Jewish community that called the St. Paul West Side Flats home, a topic that is close to her heart as a Jewish American.

Caitlyn Barrett is a graduate student at the University of Minnesota in the Department of Political Science. Her graduate research focuses on American politics and political psychology.

Jenna Duncan is a second year undergraduate student at the University of Minnesota in the University Honors Program. She is majoring in Environmental Sciences, Policy, and Management on the Conservation and Resource Management track and minoring in German. Outside of the classroom, she is involved in ecological research in the Snell-Rood lab, and she has interests in pollinator conservation, urban pollutants, and environmental justice.

Rianna Knoll is a University of Minnesota Medical School student working towards her B.S. in Mortuary Science. She is also part of the University's Honors program and is the Fall 2023 associate editor for their psychology journal, *Sentience*. After college, Rianna plans to become a licensed funeral director and embalmer.

Aryana Becchetti is a junior at the University of Minnesota studying Political Science. Her goal is to become a lawyer and work in environmental law. In her free time, she enjoys hiking, fishing, and crocheting.