

**How do States such as Minnesota Choose Which Environmental
Policies to Fund?**

An exploration into the Minnesota Decision-Making Process

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I will begin this project with my introduction. It is important to note that this is my starting point for my project with my initial thoughts and arguments, initial questions, and why I have chosen this topic.

Introduction

As individuals, we each have a responsibility to protect the environment and contribute to a sustainable future. However, this responsibility is not limited to individuals alone - it also extends to governments. States play a crucial role in funding and implementing environmental projects that can have a significant impact on the health of our planet.

One such project that I have found interesting is the implementation of wolves into the Colorado ecosystem. The discussion of reintroducing wolves into the wild has been a controversial topic for many years. As a native of Colorado, I closely followed the progression of the project, including the strong opinions of both sides, by reading news articles as they came out. As of very recently, the State granted permission to reintroduce wolves into the ecosystem. After this State-sponsored action, I began to question how the State came to a decision. I was curious and intrigued about the process that led the government to make this decision. I had no idea what the government took into consideration when assessing this issue and when it reached its conclusion. This project and the government's decision made me curious about other environmental policies that are proposed to the government.

At this stage, I am confused and uncertain why policies in some states get approved whereas in other states the same policy is rejected. For example, the state of California passed a law banning single-use plastic bags in grocery stores, retail outlets, and pharmacies in 2014. However, states like Massachusetts and New Mexico have no laws regarding the issue (NCSL, 2021). Many other states do not have laws on this topic as well, but Massachusetts and New Mexico are interesting to me as they are typically considered more liberal states and generally support democratic politicians. Democratic-leaning states are usually more inclined to support environmental regulations, which is why I am curious as to why neither one of these states has enacted a state-wide ban. This is something that I hope to discover during this project.

As I begin this research project, my initial understanding is shaped by the high-level information on the urgent environmental challenges we face as a society. However, the specifics of how states navigate this landscape of potential projects remain uncertain.

In terms of my plan for this exploration, I intend to attend and listen during a Minnesota legislative session that involves an environmental project being proposed and/or followed up with either approval or denial. I also hope to interview someone within the legislative system who has knowledge or influence in the decision-making process. By doing so, I hope to gain their perspective on what makes a policy fundable, and ultimately passable. I should also note that the only state that I plan to engage with politicians is Minnesota, which may limit the generalizability of my findings. I then intend on watching a documentary about the Flint water crisis to compare how Minnesota's political systems differ from the policies implemented in Michigan.

This is an important and complex issue and one that impacts many. As someone who cares deeply about the environment and the future of our planet, I am interested in

exploring this question further and understanding how states make these critical decisions.

My hypothesis, though preliminary, should serve as a guide for my research. I hypothesize that the selection of environmental projects for state funding has multiple components including political, economic, and social considerations. Political will, budgetary constraints, and social demand are likely influential factors, but the extent to which they impact the decision may vary. I believe that if I can recognize the intersection between environmental policies and the state's decision, I will be able to understand the environment's future estate.

Following my introduction, I was eager to determine engagements to enhance my findings and expand my knowledge of the topic. The first engagement that I attended was a "Legislative-Citizen Commission Session on Minnesota Resources (LCCMR)". This was a webinar open to the public on YouTube that allowed emerging projects to testify in front of a commission, intending to receive funding. In total, there were three proposals, one of which consisted of four different parts. In the end, the event was relevant to my findings.

Installment #1: Legislative Session

In an attempt to answer the question of how state legislators prioritize policies to fund, my first instinct was to be a first-hand witness of the process itself. I browsed the Minnesota State Legislation page, looking for a session that would be available to the public. On February 5, 2024, at 1:00 p.m., there was a remote hearing available on YouTube through the legislative-citizen commission. The hearing was hosted by Senator Fount Hawj, in which three emerging projects testified before the commission in hopes of receiving funding from the state.

There were three different proposals, one of which consisted of four separate parts. All six of these projects requested funding from the LCCMR Emerging Issues Account. The Emerging Issues Account is treated differently than other funding requests as these requests have already been appropriated. This means that the projects do not need to go back to legislation for approval, however, they still need 60% approval from the members that were present in the hearing and subsequent approval from the governor. The available money was in four different appropriations with different deadlines to spend. The staff could work directly with the applicants to ensure that the funds were awarded from the appropriation that best meets the needs of the specific project.

The first testimony came from a woman by the name of Shauna Gibson. Gibson requested a total of \$248,823 to fund exclusionary fencing on Minnesota's Highway 61, near Red Wing, to reduce turtle mortality. Gibson claimed that in the next 60 days, we are expected to see a lot more turtles on the roadside because spring is approaching, which kicks off their nesting and foraging season. Minnesota has nine native turtles, two of those being on the threatened species list: the Blanding's Turtle and the Wood Turtle. The Minnesota Department of Natural Resources (DNR) completed the Minnesota Wood Turtle conservation plan, which listed road mortality as a concern and suggested fencing as a mitigation strategy. One of Gibson's most persuasive facts suggested that

Wood Turtles have to reach the age of 20 before they can even begin to lay eggs. This means that Wood Turtles have to manage dodging traffic and other perils for a long time before they can reproduce. In May of 2023, the Minnesota biological survey looked at Hue County and found only two Wood Turtles. These were the first two recorded since 1999. Gibson is requesting the funds to install the fence to keep all turtles, especially the Wood Turtle, out of the roadway. The fence is approximately 3/4 of a mile in both directions. The fencing would span between two bridges so that turtles and other small animals who encounter the fence are redirected to safe passage.

For the proposal to be approved, 9 out of the 15 committee members needed to vote in favor of the funding. When it came time to vote, the proposal received 11 approvals and 4 denials. Those who did not vote in favor of the project claimed that the high fence seemed excessive to put up for the turtles, given that turtles don't have wings. There were also concerns about the logistics of the project and the contracts and bids to get the fence installed. In the end, the majority of the committee voted in favor of the project, providing the necessary funds to help protect the turtles and other small animals from traffic collisions.

The second proposal came from a man by the name of Jeff Forester. Forester requested a total of \$385,000 to fund a project to help eliminate the transmission of aquatic invasive species (AIS) from lake to lake. There are 850 registered watercraft in the state of Minnesota, and over 60% of them use more than one lake. 90% of boaters know the risk of transporting AIS and the necessary steps they need to take to clean, drain, and dry their boat fully; yet most still need to do what is required. The reason that they give is that they lack the equipment where and when they need it. With the funding, Forester proposed three key steps to help reduce the transmission of AIS: Adding 10 new watercraft cleaning stations to cover both three unprotected accesses and 7 potential discoveries over the next three years, expanding civic organizing efforts, and expanding civic leadership development for the sustainability of the project.

Exactly like the previous proposal, to be funded 9 out of the 15 people on the committee needed to approve. The project ended up receiving 14 approvals and 1 denial. The one person who didn't vote in favor of the project was hesitant about the previous successes of similar projects and the progress made on the lakes. Despite the dissent, all other members of the committee believed that this was an emergent issue that needed funding.

The third testimony came from the real estate manager of Dakota County, Al Singer, and the senior project and grant manager of Dakota County, Lisa West. Their proposal included four separate projects, all for varying amounts of money. Their first project was the request for the acquisition and restoration of the Wicklund property for \$270,000. The Wicklund property is 124 acres, plus a potential 5-7 acres that consists of 3,800 feet of the Chub Creek and mosaic plant communities with some rare and threatened species. The current owners of the property are in their mid-80s and have approached Dakota County to acquire a fee title to create a new county park conservation area.

The second project was the Community Development Agency Property. This property is 4.9 acres with the majority of it being cultivated land. The mission of this project was to create affordable housing for working families and seniors. The request from the committee was for \$105,000 to help with the acquisition of the land.

The third proposal was for the Benjamin property. This property is next to the Mississippi River and consists of 9 acres of woodland, 5 acres of restored grassland, and 19 acres of cultivated land. There was a request to secure land protection for this property because homes are being developed alongside the east boundary of the property. The 5 acres of agricultural land would be restored to prairie and would be converted into a natural area conservation easement. \$185,000 was requested from the committee to help with the acquisition costs.

The fourth and final proposal was for the Haskell Street Conservation property. The property is located in West St. Paul and is 0.5 acres of land with large bur oaks. This would be the first easement in West St. Paul, and hopefully trigger future open space protection. There are several undeveloped lots surrounding the property and the testifiers wanted to get the area protected as fast as possible. This property would also be a natural area conservation easement. The requested amount from the committee was \$104,000 to help with the acquisition of the property.

Two out of the four proposed projects prevailed. The two that received funding were the Benjamin Property and the Haskell Street Conservation Project on both an 11-4 vote. The four people who did not vote in favor of the two projects believed that these proposals did not meet the requirements for being an “emergent property”. The Community Development Agency Property did not prevail on a 9 yes to 6 no vote. To prevail, the project needed 11 out of the 15 votes. The reason it failed to get the necessary votes, was that again, the committee didn’t feel that this project met the requirements for being an emergent project that desperately needed the funds. Also, committee members denied the proposal for this project because it was a government-to-government purchase. Because of this, there is no urgency, and it can happen through the normal process and can be vetted in comparison to other projects that are more worthy of funding. The Wickland proposal did not even get voted on because there was anticipation that there would not be a sufficient number of votes to be approved within the committee. This is likely due to the same reason that the Community Development Agency Property did not prevail.

The firsthand engagement of observing the LCCMR emerging issues session provided great insight into how Minnesota prioritizes and funds environmental projects. Witnessing the testimonies of diverse proposals, ranging from wildlife conservation efforts to land acquisition projects, illuminated the complexity of the concerns addressed by the committee. Of the proposals presented in this session, projects aimed at protecting threatened turtle species and preventing the spread of aquatic invasive species were approved for funding. The land acquisition projects were more controversial, with some being rejected due to concerns about whether they truly qualified as emerging issues.

This demonstrated that when resources are limited, Minnesota targets funding toward issues that are perceived as the most pressing environmental problems that the State is facing. The proposals that received funding—turtle conservation and preventing the spread of aquatic invasive species—were perceived by the committee as urgent problems needing immediate solutions. Less consensus was reached regarding the land acquisition projects, with some committee members questioning if the projects needed immediate funding. This selective approval of projects shows that when resources are scarce, Minnesota aims to direct funds toward environmental problems seen as in the most dire need of intervention.

The State also considers the price of the project and whether the cost seems fair. The state takes into account the price tag and cost-effectiveness of environmental projects and whether the solution is narrowly tailored to remedy the problem. During the turtle conservation proposal discussion, some committee members voiced concerns that the high fencing seemed excessive given that turtles don't fly. The land acquisition proposals were also scrutinized through a cost lens—the Community Development Agency proposal failed to secure the votes needed in part because members felt that the government-to-government purchase could happen through normal channels rather than emergency funding. Across the proposals, it was evident that the state evaluates whether the funding amount requested is sufficient with the project scope and urgency. Even if a project has merit, Minnesota considers fiscal responsibility and if the cost is justified before approving limited governmental funds.

While the committee members likely have some level of environmental knowledge, it's unclear if they possess the necessary knowledge and expertise to objectively assess the long-term impacts. There is a risk that committee member's votes were influenced by political considerations, such as making sure that funding was distributed across different regions of the state. Furthermore, the deliberation process itself raises questions about the transparency of the decision-making process. The voting outcomes and discussions suggest that the committee's decisions were guided more so by subjective opinions rather than a systematic approach of objective criteria. For example, the rejection of land acquisition projects were approved or denied based on whether they were perceived as "emergent" enough.

Moving forward, it would be beneficial for the state to establish a more transparent decision-making framework. This could involve assembling a diverse panel of experts with demonstrated expertise in environmental impact assessment. By addressing these concerns, Minnesota can better ensure that limited resources are allocated toward initiatives with greatest potential for maintaining a sustainable environment. Attending this public LCCMR session offered a transparent look into how environmental projects rise to the top of the State's agenda.

Following my attendance at the legislative session, I understood a couple of factors that Minnesota takes into consideration when making decisions about environmental policies. However, I still needed to add another layer considering that the legislative session was niche and only focused on emerging issues. I wanted to hear about the process firsthand from someone who deals with these decisions every day. This is why I reached out to and interviewed the Minnesota Pollution Control Agency (MPCA) commissioner, Katrina Kessler.

Installment: Interview with State Legislature

Wanting to further explore and understand how Minnesota decides which environmental policies to fund, I set up an interview with the current commissioner of the Minnesota Pollution Control Agency (MPCA), Katrina Kessler. Throughout the

interview, we discussed current issues that Minnesota is facing, the process by which their respective solutions were approved and funded, and upcoming issues that Minnesota still needs to tackle.

To start the interview, I asked Commissioner Kessler a few introductory questions to get warmed up. After the brief introduction, we dove right into a couple of decisions that Commissioner Kessler has been a part of, that Minnesota decided to fund. One of the most impactful decisions that Commissioner Kessler has been a part of was the protection from the per- and polyfluoroalkyl substances (“PFAS”). PFAS are widely used, long-lasting chemicals that break down very slowly over time. Because of their widespread use, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and the environment. The PFAS Blueprint was brought to the attention of legislators by the citizens of Minnesota who voiced their concerns. Minnesota is one of the places where PFAS was generated and because of this, Minnesota has the responsibility to understand the risks of PFAS and to mitigate them. The Minnesota Pollution Control Agency has done a lot to understand where PFAS are coming from and understand the impact they have on fish, drinking water, and the environment. The work that the Agency has done helped position the State to accelerate the work around PFAS. The PFAS Blueprint calls for action in 10 discrete areas, including one that requires manufacturers to have a permit to emit PFAS. When the 2023 legislative session commenced, there was a large budget surplus that allowed Minnesota to implement a state-wide ban on non-essential PFAS use.

Another environmental act that Commissioner Kessler was involved with was the passing of the creation of a subcabinet around climate change, recognizing the importance of Minnesotans working to combat climate change. The subcabinet developed the climate action framework for the state of Minnesota. The framework calls for action across six areas: national working lands, the built environment (human-made architecture), energy, transportation, jobs, and health equity. This was created from the input of thousands of Minnesotans and called for measurable action. The framework set the State up to be ready to receive a lot of money in the 2023 legislative session for climate work. As a result, one of the outcomes of the 2023 legislative session related to climate was almost a billion dollars in investment by the State.

According to Commissioner Kessler, both the PFAS Blueprint and the climate action framework received funding from the State in the 2023 legislative session because there was a previously publicly vetted plan for climate change solutions. This allowed the Agency and the Legislature to go forth with the funding because they already had the pre-made design, and the only thing that they needed was the funding. Since there was a surplus of funds, taking advantage of the money and approving the policies made the most sense. This type of work is being called for at the federal level where other advocacy groups are requesting the management of PFAS and climate change. These are two issues that need to be addressed and change is being demanded by the general public. With the PFAS Blueprint specifically, Commissioner Kessler claims that the factors that aided in its funding included the fact that they already had pre-made plans and that they had people lined up to develop the plans. On the climate side, the climate action framework was publicly launched, they created engagement groups with thousands of people to back the plan’s implementation, there was a lot of work done by the international panel on climate change, and they had availability

through the inflation reduction dollars. In addition to these factors, Minnesota's devastating wildfires last summer and the erratic winter in Minnesota this year factored into the Legislature's funding decision.

Commissioner Kessler touched on the biggest arguments against both policies. She stated that with the PFAS Blueprint, arguments from industry arose that there is not enough research and that there are certain things that should be left to the "free market". Certain manufacturers also claim that their products are of higher societal value than what the Agency is trying to impose, like those involved in the aerospace industry. In response, the Agency has said that the law passed doesn't say that you can't make those certain products, but what you have to do is demonstrate that the use of PFAS is essential. On the climate change front, fewer people are claiming that you should spend less money on the climate action framework. However, there still are people saying that it should be left to the "free market".

We finished the interview by addressing the question of whether there are any environmental policies on which Minnesota has not yet taken action. Commissioner Kessler said that there is still a lot of work to do around environmental justice. The environmental legal structures that exist, like the Clean Air Act and the Clean Water Act, were all written over 50 years ago. They did not envision things like consideration of environmental justice, tribal sovereignty, and climate change when they were developed. According to Commissioner Kessler, as we have implemented those laws, we have done a lot of what those laws were initially intended to do. With that being said, there are disproportionate impacts on communities, primarily minority communities. The existing systems don't offer many avenues to change that. We have to work hard to change the laws to be more intentional with how we spend our dollars.

After my interview with Ms. Kessler, I came to the conclusion that two factors greatly improve a policy's chances of getting approved and receiving funding: having a detailed, pre-made policy framework and showing substantial public support. The PFAS Blueprint and climate action framework both had comprehensive plans drafted before being presented to the legislature with stakeholder input. Thousands of Minnesota residents also voiced their opinions on the policies through engagement groups. When legislators had a budget surplus in 2023, it then made logical sense to fund the PFAS Blueprint and climate action framework given the legwork and preparations already being done.

In addition to these two factors, alignment with national priorities and advocacy groups can sway legislators. The PFAS and climate policies mirrored federal efforts and recommendations from engagement groups. This broader context helped justify Minnesota's actions. Industry arguments that these regulations should be left to the "free market" are considered, but can be overcome through grassroots advocacy.

While the formal policy process was illuminating, one of my key informal observations from meeting Commissioner Kessler was her clear passion for addressing climate change issues. Her animated discussion of environmental justice in particular revealed how motivated she is to tackle systemic inequities, despite outdated legal frameworks. I was impressed by her commitment to doing more than simply following the letter of decades-old laws.

Minnesota is currently dealing with several environmental issues that make the funding and implementation of policies crucial. One major concern is the presence of PFAS substances in the state's drinking water. Additionally, the effects of climate

change, like the past summer's wildfires and the current erratic winter, are posing risks to communities, infrastructure, and natural resources. Given the urgency of these environmental challenges, having thorough policy frameworks like the PFAS Blueprint and the climate action plan that are rooted in public input is paramount. The detailed planning and widespread support of these structures position these policies well for legislators to approve for funding when available.

Gaps in current environmental policies, like disproportionate impacts on minority communities, are starting to be recognized as well. However, legal structures make it difficult to address issues like environmental justice. Work remains to reform and revise existing laws written decades ago that do not account for modern priorities.

Through a process facilitated by the MPCA, Minnesota decides which environmental policies to fund based on public engagement, funding availability, and pre-made plans that help streamline approval and alignment with broader efforts. Overcoming industry opposition and recognizing where current policies fall short are also part of the calculation. A collaborative approach helps ensure funding for policies addressing the most pressing needs.

Looking forward, I feel I have a solid grasp on how Minnesota vets, crafts, and moves environmental policies through the legislative process thanks to this interview. However, I am also motivated to further explore Commissioner Kessler and other environmentally motivated politicians' thoughts on reforming laws to better account for environmental justice.

After my first and second engagement activities, I felt that I had a good grasp of what Minnesota looks at when determining which environmental policies to fund. I was able to conclude that Minnesota emphasizes protecting its water. What I was still curious about was how Minnesota compares to other states when it comes to choosing which environmental policies to fund. This is why I studied a documentary about the water crisis in Flint, Michigan. This documentary provided me with an understanding of how another state chose to allocate its resources in response to a public health emergency.

Installment #3: Film Analysis

While Minnesota has made protecting its abundant water supply a priority through well debated policies and funding decisions, my viewpoint was further shaped by comparing a case where a state failed to protect its water system. Minnesota's priorities, on the one hand, of proactive water protection, is evidenced by the near-unanimous agreement to fund the cleaning stations contained in the legislative session that I attended and the PFAS blueprint that Commissioner Kessler heavily discussed. Michigan's water policy, in comparison, proved far less effective as evidenced by a documentary I reviewed that explored the water crisis in Flint, Michigan.



Pictured is Flint resident with a bottle of tap water

The documentary, *Flint*, starring Alec Baldwin, and produced by Anthony Baxter, delves into the events leading up to the water crisis, which included the city's decision to switch its water source to the Flint River. The documentary begins by providing background information on the city of Flint, a once-thriving industrial city that fell into an economic decline. The decision to switch water supplies was viewed as a cost-saving measure by the local government. The decision was made without proper corrosion control measures in place, which led to the contamination of the aging pipes into the city's water supply. City officials knew that this was the case but still decided to go forth with the switch of water supply.

Through interviews with residents and community leaders, *Flint focuses on* the human toll of the crisis. The viewer is exposed to the health effects suffered by the residents, especially children, who were exposed to lead-contaminated water. The systemic issues are also highlighted to the viewer as there is a disproportionate impact of the crisis on Flint's predominantly African American and low-income population. The film captures the frustrations of the residents who felt betrayed by the authorities responsible for ensuring their safety.

Flint scrutinizes the response of the government officials at all levels, exposing failures in transparency. The documentary sheds light on how government officials initially dismissed residents' concern for their safety and downplayed the severity of the crisis, which ultimately exacerbated the situation.

When comparing the regulatory responses surrounding Flint's water crisis to the findings that I have drawn about Minnesota's laws regarding water, Minnesota appears to have a more robust and proactive regulatory framework in place to safeguard its water resources. There are a few key differences in Minnesota's regulations that have prevented them from experiencing a crisis like the one seen in Flint. The first relates to monitoring and response. In Flint, there was a failure to properly monitor the water source switch and respond to early signs of contamination. In Minnesota, there is an emphasis on closely monitoring the water quality, which is seen through the legislative decisions to implement cleaning stations as well as the protection from PFAS blueprint.

The cleaning stations' main purpose is to prevent the spread of invasive aquatic species that can be transported on boats between different bodies of water. These systems are an important preventative measure that Minnesota utilizes to stop the spread of a potential harm to their water resources. The PFAS blueprint specifically targets monitoring polyfluoroalkyl substances—an emergent contaminant issue. Both of these together, provide a proactive approach to detecting and addressing water quality issues early on before they become a crisis, like the one seen in Flint.

However, while Minnesota has been proactive in many ways, I have to be realistic that the record is not flawless. In particular, over the past decade there was a big fight over approvals for a copper-nickel mine near the Boundary Waters Canoe Area Wilderness. This highlighted how corporate interest can clash with environmental protection even in relatively green states like Minnesota. The mine proposal sparked major protests from indigenous groups and environmentalists concerned about potential pollution risks to this wilderness area.

Another key difference relates to government transparency. Minnesota has been forthright in communicating with its residents about emergent issues such as PFAS and its Climate Change plan. The majority of the blueprints in Minnesota are developed in conjunction with residents' input on what needs to be done. The Flint documentary highlighted how government officials in Flint, Michigan initially dismissed resident concerns. Even after fervent resident advocacy for a switch in water supply, government officials dismissed their requests.

Another key difference between Minnesota and Flint is Minnesota's willingness to dedicate funding to protect its water resources. Per the Minnesota Pollution Control Agency, the Minnesota Legislature appropriated \$318.396 million from the Clean Water Fund to water resource activities for the years 2024-2025. In Michigan's case, the Clean Water Fund allocated more than \$177 million to improve water infrastructure. Minnesota's larger allocation suggests a higher prioritization and commitment to proactively guard its water resources. Of course, no state is perfect when it comes to water regulations, but Minnesota appears to have learned from disasters like Flint about the paramount importance of funding water quality programs as preventative measures. The contrast suggests that Minnesota is taking a more diligent approach focused on identifying potential water crises before they occur and impact residents.

While the Flint Water crisis documentary helped highlight the necessity of Minnesota's regulatory attentiveness to water related issues, I am still curious as to how Minnesota compares to other states in funding water policies and environmental regulations in general. In the next section, I hope to compare the amount of money each state has allocated to environmental policies and also water-specific policies. This will allow me to better understand how much of a priority Minnesota places on maintaining and protecting its water resources.

Following my exploration of the Flint Water Crisis, I felt that I had a good understanding of why Minnesota has prevented a public health crisis like the one in Flint, Michigan. Minnesota's proactive approach, coupled with adequate funding, helps the State maintain and conserve its water resources. What I was still curious about was how Minnesota stacked up nationally, in terms of how much they invest into their natural resources, relative to their total amount of revenue. This is why I

created a data visualization chart that helps compare each state's percent of total revenue that goes into natural resources. In the end, the results allowed me to have a better perspective as to how Minnesota ranks nationally.

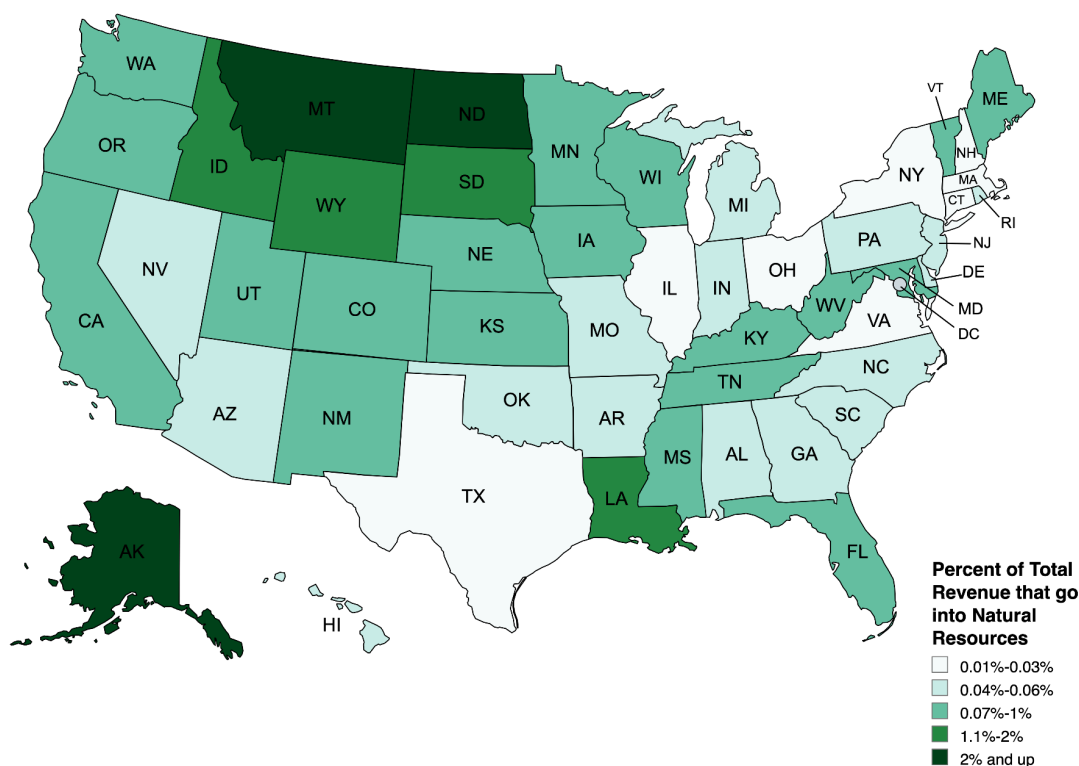
Installment #4: Data Visualization

From my previous engagement activities, it was apparent that Minnesota places an emphasis on preserving its abundant supply of water. What I was still not too sure about was if Minnesota is an outlier when it comes to investing in natural resources. In order to determine this, I looked at each state's total revenue and the revenue that went into natural resources. From there, I took the percentage of total revenue that goes into each state's natural capital. I felt that this was the best way to draw a conclusion as it would be evident if Minnesota truly prioritizes their environmental policies compared to the rest of the United States.

The first set of data that I used is from the *United States Census Bureau*, which gathered each state's total revenue from the year 2021. Minnesota's total revenue in 2021 was \$96,616,293, which was the 15th highest across the entire United States. In comparison, the highest amount amongst all 50 states was California with over \$658 million in total revenue, well over six times as much as Minnesota's total revenue. The next highest state was New York with roughly \$330 million, more than three times as much as Minnesota's revenue.

The second set of data that I used also is from the Census Bureau, which gathered how much each state invested in natural resources during 2021. In this dataset, Minnesota invested \$688,612 in natural resources. This ranked as the 6th highest amongst all states. After collecting both sets of data, I calculated the percentage of each state's total revenue that was allocated towards their natural resources. Calculating the percentage, relative to each state's total revenue, allowed me to be able to compare more fairly the state's data. This way, bigger states with more funds weren't the ones that dominated the statistics. The figure below incorporates the data that I collected. I chose to create a visual representation that included a map of the United States because of the ease of comparability between Minnesota and the rest of the States.

Figure 1: Percentage of Total Revenue that goes into Natural Resources per State



Created with mapchart.net

Source: United States Census Bureau. “2021 State & Local Government Finance Historical Datasets and Tables.” *Census Bureau*, 7 September 2023, [US Census Bureau](#). Accessed 3 April 2024.

From my last engagement activity, I explored the Flint water crisis. From what can be seen in Figure 1, Minnesota spends a larger percentage of their total revenue on their natural resources than Michigan does. This can also be used as evidence as to why Minnesota has prevented a public health crisis like the one Flint experienced. Allocating more funding towards managing natural resources like water infrastructure and environmental protection likely helped Minnesota avoid similar contamination issues.

However, as seen in Figure 1, Minnesota is right in the middle of the pack when it comes to the percent that they invest in natural resources. The states which invest a larger percentage of their total revenue towards their natural resources are all states that have a much lower population than Minnesota, except for Louisiana (Tikkanen). States with smaller populations are often more rural and have economies that are heavily reliant on natural resources, whereas states like Minnesota, that are more urbanized, have more diversified economic bases in manufacturing, technology, and services.

With that being said, it is important to not look past the fact that overall, Minnesota invests the 6th most amount of money towards their natural resources across

the entire United States. The five states ahead of Minnesota are California, Florida, Louisiana, Texas, and Washington. What makes Minnesota's position as the 6th highest spender on natural resources noteworthy is the fact that the state does not rank among the very top in total revenue (14th highest), unlike some of the other high spending states like California, Texas, and Florida. This can suggest that Minnesota has intentionally prioritized allocating a significant portion of their funds towards protecting and managing its natural resources, even without the substantial revenue bases of the nation's most populous states. Minnesota ranks only in the middle of the pack for their percentage of total revenue that goes into their natural resources because they do spend a decent amount of money in general.

My investigation into Minnesota's approach to preserving its water resources and its investment in natural resources has provided valuable insights. While Minnesota's proactive approach and substantial funding have helped it maintain its water quality and avert health crises like the one experienced in Flint, it was essential to contextualize Minnesota nationally. Through data visualization and analysis, it became evident that Minnesota's investment in natural resources aligns with its economic profile and population size, positioning it in the middle of the pack. This suggests that Minnesota has been able to effectively allocate its environmental funds towards maintaining and improving its water resources, despite not being one of the top overall spenders. Due to Minnesota's success in maintaining their abundant water supply, factors beyond just monetary investment likely play a crucial role in determining drinking water quality. This includes things such as specific water policies, infrastructure age, population characteristics, and the local environment. Nonetheless, Minnesota's performance underscores the importance of adopting a prudent and proactive approach to water management that aligns with the state's budgetary constraints.

To round out my engagement activities, I examined two articles focusing on why some states invest more into environmental policies than others and how the federal government contributes to each state's funding. The first article that I looked at was written by Mary Graham. Mary Graham is the co director of the Transparency Policy Project at Harvard's Kennedy School of Governance and president of the Governance Institute in Washington, D.C. The second article that I examined was written by Steve Cohen. Steve Cohen is the Senior Vice Dean of Columbia's School of Professional Studies and a Professor in the Practice of Public Affairs at Columbia University's School of International and Public Affairs.

Installment #5: Academic Literature Review

Two expert perspectives shed light on the evolving dynamics between federal and state roles in environmental governance. Mary Graham's article argues that the historical fear of a "race to the bottom" among states weakening environmental regulations to attract businesses is now outdated. Instead, states are motivated by a "race to the bottom line" focusing on promoting economic growth through strong environmental policies that enhance quality of life. In contrast, Steve Cohen's article

emphasizes the continued importance of the federal EPA in providing resources and coordination, especially for states with limited means. Both views highlight the role of federal guidance and state autonomy in establishing environmental policies tailored to local needs and priorities.

In her article, *Environmental Protection & the States: “Race to the Bottom” or “Race to the Bottom Line”?*, Mary Graham examines the idea of a “race to the bottom” among states in environmental regulations, where states weaken environmental protections to attract businesses. This approach was commonly implemented in the 1970’s, when major federal environmental laws were passed.

Graham argues that this view is outdated given that businesses rarely primarily base location decisions on the strength of state environmental programs. Environmental compliance costs are no longer as costly for businesses and are often dwarfed by factors like labor, real estate, and transportation. She also discussed that studies have found no correlation between businesses moving to locations that have relaxed regulations on environmental policies. Graham opines that state policies have changed since the 1970’s, with environmental issues being integrated into state-level policy making. Around 70% of environmental laws now have little to do with federal mandates as state and local governments are the ones primarily responsible for enforcing federal environmental laws. Graham also discusses the idea that public attitudes have shifted in that voters are now more willing to pay for environmental protection measures that provide economic benefits like attracting skilled workers or supporting industries like tourism.

The argument that Graham makes is that there is now a “race to the bottom line” where states are looking to improve economic growth and tax revenues, rather than weakening environmental rules. The poorer states, however, may face challenges in funding environmental programs, as federal funding becomes scarcer.

Graham’s argument aligns with Minnesota’s proactive approach of preserving its water supply, likely viewing strong environmental policies as an asset for economic development. Graham notes that states are now more focused on economic growth and tax revenues rather than solely competing to relax regulations. This likely suggests that Minnesota views strong water policies as an advantage for quality of life because of the attention and recognition that they give on conserving its water supply, rather than a hindrance.

Furthermore, Graham highlights the important role of public attitudes toward shaping environmental initiatives. She observes that voters have become more willing to pay for environmental policies that provide tangible economic benefits. This shift in public sentiment likely enables Minnesota to garner support for its water preservation efforts, as residents recognize the importance of preserving their water resources. Graham also points out the increasing autonomy of state and local governments in environmental policymaking and enforcement. The fact that around 70% of environmental laws now have little to do with federal mandates, indicates that Minnesota has significant control over its water resource policies. This gives Minnesota the power to tailor its approach to its specific needs and priorities, rather than being beholden to a uniform federal framework.

Graham also cautions that poorer states may face challenges in funding environmental programs as federal support becomes limited. Minnesota must take this into consideration and grapple with it as it evaluates how to efficiently finance its water protection initiatives, given that it is not as rich of a state as one like California.

Minnesota may choose to fund protection programs that aim to conserve its water supply in sacrifice of other environmental protection programs.

In contrast to Mary Graham's piece, Steve Cohen's article, *The State and Local Role in Protecting America's Environment*, discusses the role and importance of the federal Environmental Protection Agency (EPA) in the United States, compared to the role played by state and local governments.

According to Professor Cohen, while the EPA sets high-level policies, conducts research, and oversees state programs, it is the state and local governments that handle the day-to-day work of environmental protection. State funding for environmental programs has generally been greater than federal funding, although the levels can vary significantly across the country. State agencies, cities, and counties are the ones responsible for things like waste disposal, pollution control, and the provision of clean water and sewer systems - not the federal EPA. The costs of delivering these services can be substantial, but the benefits to public health and quality of life are clear, Cohen opines

The EPA has faced attacks from right-wing ideologies who portray environmental regulation as the enemy of free enterprise. According to Cohen, this is a misguided narrative, as economic growth and environmental protection often go hand-in-hand, with technological advancements allowing both to thrive. The institutions needed to safeguard the environment in the 1970's and 1980's are no longer necessary to the federal government.

While some states have the resources to provide strong environmental governance, many others struggle. For these states, the federal EPA plays a crucial role in providing oversight, technical expertise, and coordination. This is very important as the United States has become increasingly more crowded and its waste streams have become more and more of a problem. The political pressure for environmental protection increases as the health risks become more apparent.

Professor Cohen stresses that effective environmental protection in the 21st century requires a collaborative effort between federal, state, and local governments. The federal EPA must work hand-in-hand with state and local partners. Attacking the EPA's role and capacity only undermines our ability to tackle the environmental issues that we see in society today. A strong federal presence, as well as state and local action, is essential for ensuring a cleaner future.

The collaborative dynamic of the federal and state governments in environmental protection is relevant for a state like Minnesota who has an abundant supply of water. Commissioner Kessler, who I previously interviewed, touched heavily on the funding that Minnesota received from the federal government to aid their plans to combat water and climate pollution. A large portion of the funding also comes from the state and local levels which was apparent to me from the legislative session that I attended that was choosing where to allocate state funds.

Minnesota has a robust state-level environmental agency, like the Minnesota Pollution Control Agency, which focuses on managing its water resources. The state government, rather than the federal EPA, bears primary responsibility for issues like waste disposal, water quality, and pollution control. This allows Minnesota to craft policies and programs that directly address the wants of its residents and unique infrastructure, such as the PFAS blueprint.

At the same time, the article emphasizes the role of collaborative efforts between federal, state, and local governments when it comes to environmental protection programs. Minnesota's approach is a balance of drawing on its own resources and authority while also working closely with the EPA to leverage federal expertise and oversight. This can be seen in my engagement activities through the funds allocated to Minnesota from the Inflation Act and all the local blueprints designed to manage the pollution concerns faced in Minnesota. The pressure to protect Minnesota's abundant water supply, from the citizens' input, and the health risks that come with failing to do so, further incentivizes the state to invest in water conservation programs.

Both perspectives from Mary Graham and Steve Cohen have broadened my understanding of the dynamic interplay between federal and state roles in environmental policy governance. Graham's argument that states are now motivated by a "race to the bottom line" for economic growth, rather than a "race to the bottom" in worsening regulations, aligns with Minnesota's proactive approach to water conservation. However, Cohen's emphasis on the continued importance of federal EPA oversight reminds me that even a relatively well-funded state like Minnesota cannot tackle environmental issues alone. The collaborative efforts between federal, state, and local governments are crucial for tackling complex environmental challenges.

Conclusion

Through in-depth engagement activities, interviews, documentary analysis, and research into funding data, I have gained insight into the process in which states like Minnesota determine which environmental policies to prioritize and fund. My initial hypothesis stated that political will, budgetary constraints, and public input were likely influential factors in the selection process. While these are all factors in the decision-making process, my finding revealed a more nuanced exchange of forces shaping environmental policy at the state level.

A key takeaway from my research is the importance of having comprehensive, well-developed policy frameworks backed by public input and stakeholder engagement. The PFAS Blueprint and Climate Action Framework in Minnesota accumulated support and funding because they were thoroughly researched plans that reflected the resident's main priorities.

While Minnesota dedicates significant amounts of funding to protect its natural resources, its percentage of total revenue allocated to natural resources lags behind less populated states that heavily rely on extractive industries. However, Minnesota's performance demonstrates an intentional commitment to environmental conservation aligned with urban economic base.

Ultimately, my research revealed that effective environmental governance requires a collaborative effort spanning federal, state, and local oversight. As states like Minnesota deal with emerging issues like PFAS contamination and climate change impacts, policy making must remain adaptive and respond to the evolving public needs.

This research project has been an eye-opening experience, deepening my understanding of the complex combination of factors influencing the decisions made at

the state level. I commenced with a relatively basic hypothesis and through varied engagement activities and research methods, a more complex picture emerged.

Throughout this process, my research methods evolved from purely subjective engagement activities to more empirical research that was data-driven. This progressive layering of qualitative and quantitative insights facilitated a more holistic approach to understanding how states choose to allocate funds when it comes to natural resources. While I cannot claim to have unraveled every strand within the scope of this project, I have developed a deeper appreciation for the complexities involved in the decision-making process. My findings underscore the importance for fusing science, policy, economics, and community engagement, to address continually evolving environmental challenges.

As I reflect on this unique experience, I am reminded that environmental administration is a continuous political cycle. A sustainable government necessitates the commitment to prioritizing long-term ecological conservation over short-term expenditures. It is my hope that the lessons and findings from this project will inform a more collaborative and socially conscious approach to environmental policymaking that helps preserve our resources for generations to come.

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