



# Environment and Natural Resources Trust Fund

## M.L. 2023 Approved Work Plan

### General Information

**ID Number:** 2023-240

**Staff Lead:** Corrie Layfield

**Date this document submitted to LCCMR:** May 26, 2023

**Project Title:** Economic Analysis Guide for Minnesota Climate Investments

**Project Budget:** \$54,000

### Project Manager Information

**Name:** David Bael

**Organization:** Minnesota Pollution Control Agency

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### Project Reporting

**Date Work Plan Approved by LCCMR:** June 22, 2023

**Reporting Schedule:** April 1 / October 1 of each year.

**Project Completion:** March 31, 2025

**Final Report Due Date:** May 15, 2025

### Legal Information

**Legal Citation:** M.L. 2023, Chp. 60, Art. 2, Sec. 2, Subd. 07f

**Appropriation Language:** \$54,000 the first year is from the trust fund to the commissioner of the Minnesota Pollution Control Agency to create a guide that will incorporate nation-wide best practices for considering costs, benefits, economics, and equity in Minnesota climate policy decisions.

**Appropriation End Date:** June 30, 2026

## Narrative

**Project Summary:** Develop an economic analysis guide of the best practices, tools, and methodologies to include climate economics, including the incorporation of costs and benefits, for use in Minnesota climate policy decisions

**Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.**

Minnesota is feeling the impacts of a changing climate today, including the release of raw sewage into water bodies, destroyed crops, increased wildfires, flooded homes, flooded roads, eroded farmland, damaged bridges, and overwhelmed stormwater infrastructure. These climate events have adverse economic impacts for all Minnesotans. Responding to and subsequently recovering and rebuilding from these events can provide future economic benefits when the investments include resiliency to future climate risks. Currently, Minnesota doesn't have a methodology or comprehensive understanding to analyze the economic impacts of policies to reduce climate emissions or building resiliency to climate change.

Investments to address climate change in Minnesota will have costs and benefits. Estimating and understanding the costs and benefits of climate opportunities will equip Minnesota decision makers with better information to implement effective policies and actions to achieve the state's climate goals. An Economic Analysis Guide for Minnesota's climate policies, that draws on the most current thinking in climate economics, will guide Minnesota agencies that work on policies affecting climate.

**What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.**

Project Manager David Bael, MPCA's lead environmental economist, has begun to convene state government experts in a Minnesota Interagency Climate Economic Analysts Working Group. The primary goal of this group is to develop an economic analysis guide for Minnesota climate projects. This effort will require expertise from outside of state government to create an effective guide for climate-related policy analysis in Minnesota. The project will enlist experts in climate economics and in facilitating diverse stakeholders to help develop the climate economic analysis methodology. The federal government's guide for regulatory analysis – Circular A-4, developed by the Office of Management and Budget – can serve as an example for Minnesota's development of an economic analysis guide for climate projects. The project will also use the outside expert to work with the existing interagency working group to channel and integrate the expertise already in Minnesota to develop this guide.

Economic analyses will consist of an assessment of all the likely costs and benefits to Minnesotans resulting from state climate actions. Furthermore, this guide will systematize the incorporation of equity analysis into economic analyses of Minnesota's climate work. Equity analyses will evaluate potential disproportionate impacts of climate actions across demographic groups and geographic regions.

**What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?**

Public and private funds will be invested in Minnesota to respond to a changing climate, both to reduce emissions and build resiliency across communities and landscapes. Ensuring these investments consider the economic costs and benefits will ensure efficient investments in protecting, conserving, preserving, and enhancing Minnesota's natural resources. The creation of an Economic Analysis Guide for Minnesota Climate Investments will equip Minnesota to efficiently and effectively direct actions and investments to advance climate action to protect Minnesota's natural resources.

## Project Location

**What is the best scale for describing where your work will take place?**

Statewide

**What is the best scale to describe the area impacted by your work?**

Statewide

**When will the work impact occur?**

In the Future

## Activities and Milestones

### Activity 1: Expand knowledge in climate economics and review other states' efforts to incorporate economic, cost-benefit and equity analysis in climate projects

**Activity Budget:** \$15,000

**Activity Description:**

Other states are further along than Minnesota in incorporating economic, cost-benefit, and equity analysis in decision making for climate policies and actions. For example, Maryland's Greenhouse Gas Reductions Act is a law that in addition to setting requirements for reductions in GHG emissions also requires analysis of jobs and other impacts on the economy for any climate action that may be undertaken by the state. Minnesota will learn from other states' efforts to incorporate economic and equity analysis into climate work. A thorough review of the work of other states will help Minnesota develop sound and effective processes and methodologies to bring economics, equity and cost-benefit analysis into Minnesota's climate work.

While there is already expertise in climate economics within Minnesota state government, there are nonetheless outside opportunities to become better informed in climate economics. There may be opportunities for the project manager and/or the Minnesota Interagency Climate Economic Analysts Working Group to attend conferences, trainings and workshops to augment understanding of key issues that would be included in an Economic Analysis Guide for Minnesota Climate Investments. Potential candidates include the CESifo's Conference on Energy and Climate Economics and the Conference of the Association of Environmental and Resource Economics.

**Activity Milestones:**

Description	Approximate Completion Date
Select expert to help Minnesota with review of other states' climate economic analysis work	December 31, 2023
Meet with Minnesota Climate Economic Analysis working group to discuss known work in other states	January 31, 2024
Complete review of states' efforts to incorporate economics, equity, and cost-benefit analysis into climate work	March 31, 2024
Expand knowledge of climate economics by attending trainings and workshops	June 30, 2024

### Activity 2: Facilitate review of draft Economic Analysis Guide for Minnesota Climate Investments from state agencies and other stakeholders

**Activity Budget:** \$14,000

**Activity Description:**

The MPCA plays a lead role in directing the state's response to climate change. However, many other state agencies conduct climate-related work. Additionally, the climate decisions made by the MPCA and other state agencies affect numerous other stakeholders outside of state government. Therefore, it is essential that other stakeholders, both within and outside of Minnesota state government, have the opportunity to contribute to the development of an Economic Analysis Guide for Minnesota Climate Investments. Stakeholder engagement will be a vital element of this process. The MPCA has previously worked with the Minnesota Management and Budget's Management Analysis and Development (MAD) consultants to facilitate stakeholder meetings and allow stakeholders to have meaningful engagement in decisions made by the agency. The project will enlist MAD, or another consultant, to engage early and often with stakeholders as we develop an Economic Analysis Guide for Minnesota Climate Investments.

**Activity Milestones:**

Description	Approximate Completion Date
Select facilitation expert to assist with stakeholder engagement	December 31, 2023
Meeting(s) with Minnesota state government stakeholders to provide input into draft economic analysis guide	September 30, 2024
Meeting(s) with all stakeholders to provide input into draft economic analysis guide	September 30, 2024

### Activity 3: Finalize writing of the Economic Analysis Guide for Minnesota Climate Investments and present final product in person and in writing

**Activity Budget:** \$25,000

**Activity Description:**

Much of the content of the Economic Analysis Guide for Minnesota Climate Investments will arise out of the work and expertise of project manager David Bael, other MPCA experts, and members of the Interagency Climate Economics Analysis Working Group. However, to craft all this expertise into an effective economic analysis guide, that also incorporates input and feedback from other stakeholders, we will enlist outside assistance. Ideally this consultant will have expertise in climate economics as well as in developing a document suitable to guide policy analysis and state-level decision making.

This activity will also include some travel and publication costs. The travel will be for the project manager and/or members of the Interagency Climate Economics Analysis Working Group to travel to conferences and meetings to present on the final product of this work. For this guide to have maximum impact on climate work being done across the fifteen Minnesota agencies, departments, and boards that comprise the Climate Change Subcabinet, we will offer trainings and workshops to Minnesota state government agencies that will use this guide in their climate-related work. We will also seek out opportunities to publish the results of this work in a peer-reviewed journal.

**Activity Milestones:**

Description	Approximate Completion Date
Select expert to help Minnesota with finalizing Economic Analysis Guide for Minnesota Climate Investments	December 31, 2023
Review draft(s) of guide and provide input and direction to interagency working group	September 30, 2024
Work with interagency group to finalize the Regulatory Analysis Guide for Minnesota Climate	November 30, 2024
Submit a paper reporting the results of this work to peer-reviewed journal	December 31, 2024
Provide training/workshops on the use of methodologies developed in the guide once it's completed	March 31, 2025
Present final product at conferences and meetings	March 31, 2025

## Dissemination

**Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.**

There is already an interagency group of climate economic analysts that can use an Economic Analysis Guide for Minnesota Climate Investments in their work and can share this resource with colleagues and coworkers in each of their agencies. Moreover, this project has dissemination of its deliverable (the Economic Analysis Guide) built into it. We have requested funding for the project manager and/or members of the Interagency Climate Economics Analysis Working Group to travel to conferences and meetings to present on the final product of this work. Additionally, we will offer training and workshops to the Minnesota Climate Change Subcabinet and Minnesota state government agencies that will use the methodologies developed in this guide in their climate-related work. We also plan to submit a paper reporting the results of this work in a peer-reviewed journal.

In this project's main deliverable (the Economic Analysis Guide), as well as all other products and communications for this project, we will acknowledge the Environment and Natural Resources Trust Fund through the use of the trust fund logo and attribution language. We will follow the ENRTF Acknowledgment Guidelines for all project print and electronic media, publications, signage, and other communications.

## Long-Term Implementation and Funding

**Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?**

An Economic Analysis Guide for Minnesota Climate Investments will serve to help guide Minnesota climate decisions well into the future. Agencies from the Minnesota Climate Change Subcabinet support this project and have indicated that such a guide will be useful in helping it make more effective and more equitable climate decisions. Once this guide has been developed, there will not be a need for additional work or funding.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
							<b>Sub Total</b>	-
<b>Contracts and Services</b>								
TBD	Professional or Technical Service Contract	Climate economics expertise to help with review of the work of other states efforts to incorporate economics, equity and cost-benefit analysis into climate work and help Minnesota with the writing of the final Economic Analysis Guide for Minnesota Climate Investments.				-		\$32,000
TBD	Professional or Technical Service Contract	Facilitation expertise to help with meetings to engage with stakeholders from within and outside of Minnesota state government to provide input into the development of an Economic Analysis Guide for Minnesota Climate Investments.				-		\$14,000
							<b>Sub Total</b>	<b>\$46,000</b>
<b>Equipment, Tools, and Supplies</b>								
							<b>Sub Total</b>	-
<b>Capital Expenditures</b>								
							<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
	Conference Registration	Provide trainings/workshops on use of final product	Equip practitioners within Minnesota state government who work on climate issues to use the methodologies					\$2,000

	Miles/ Meals/ Lodging		included in the Economic Analysis Guide for Minnesota Climate Investments					
							<b>Sub Total</b>	<b>\$2,000</b>
<b>Travel Outside Minnesota</b>								
	Conference Registration Miles/ Meals/ Lodging	Travel to conferences, trainings or workshops to expand knowledge in climate economics.	Expand and augment the knowledge of the project manager and members of the Interagency Climate Economic Analysts Working Group in climate economics issues that are relevant to the Economic Analysis Guide for Minnesota Climate Investments.	X				\$3,000
	Conference Registration Miles/ Meals/ Lodging	Present final work from this project in conferences and meetings	The travel will be for the project manager and/or members of the Interagency Climate Economics Analysis Working Group to travel to conferences and meetings to present on the final product of this work.	X				\$2,000
							<b>Sub Total</b>	<b>\$5,000</b>
<b>Printing and Publication</b>								
	Publication	Submit manuscript documenting the results of this work to a peer-reviewed journal	This is potentially groundbreaking work that could provide a roadmap to other states and climate leaders. We are thus adding a small publication cost to publish this work in a peer-reviewed journal.					\$1,000
							<b>Sub Total</b>	<b>\$1,000</b>
<b>Other Expenses</b>								
							<b>Sub Total</b>	-
							<b>Grand Total</b>	<b>\$54,000</b>



## Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
<b>Travel Outside Minnesota</b>	Conference Registration Miles/Meals/Lodging	Travel to conferences, trainings or workshops to expand knowledge in climate economics.	Tapping into and understanding the most up-to-date research and applications of climate economics will be integral to the production of an Economic Analysis guide for MN. This will require learning from subject matter experts at national conferences and workshops, which will require travel outside of MN.
<b>Travel Outside Minnesota</b>	Conference Registration Miles/Meals/Lodging	Present final work from this project in conferences and meetings	We hope to widely share what we have learned and developed in MN around incorporating economic analysis into climate work. This will require travel to national conferences (outside of MN) to present this work.

## Non ENRTF Funds

Category	Specific Source	Use	Status	\$ Amount
<b>State</b>				
Cash	MPCA and other MN state agencies	The Project Manager and other personnel from the Interagency Climate Economic Analysts Working Group that will work on this project are all Minnesota state employees. Thus, the time and expertise they devote to this project, estimated at \$50,000, will be subsumed in their salaries, and thus there are no personnel costs that will need to be borne by the ENRTF to support this project.	Secured	\$50,000
			<b>State Sub Total</b>	<b>\$50,000</b>
<b>Non-State</b>				
			<b>Non State Sub Total</b>	-
			<b>Funds Total</b>	<b>\$50,000</b>

## Attachments

### Required Attachments

#### *Visual Component*

File: [7d0cabde-9fc.pdf](#)

#### *Alternate Text for Visual Component*

The attached presents a few images relevant to this project: a visual representation of Minnesota's Climate Action Framework, an image highlighting climate change impacts in Minnesota, and the structure of the Minnesota Climate Change Subcabinet, which is led by the MPCA and includes 15 other state agencies, departments, and boards....

### Optional Attachments

#### *Support Letter, Photos, Media, Other*

Title	File
David Bael Background Check Certification Form	<a href="#">b60a11eb-fa6.pdf</a>

## Difference between Proposal and Work Plan

### *Describe changes from Proposal to Work Plan Stage*

Various sections of the work plan have been edited in early October 2022 and again in late November 2022 to respond to LCCMR staff comments and calls for revisions.

## Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

**Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?**

N/A

**Do you agree travel expenses must follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?**

Yes, I agree to the Commissioner's Plan.

**Does your project have potential for royalties, copyrights, patents, or sale of products and assets?**

No

**Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?**

N/A

**Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?**

N/A

**Does your project include original, hypothesis-driven research?**

No

**Does the organization have a fiscal agent for this project?**

No