

THE IMPACTS OF CONSERVATION LAND ON PROPERTY TAXES AND MUNICIPAL BUDGETS IN MAINE

May 29, 2024

Project Origin and Overview

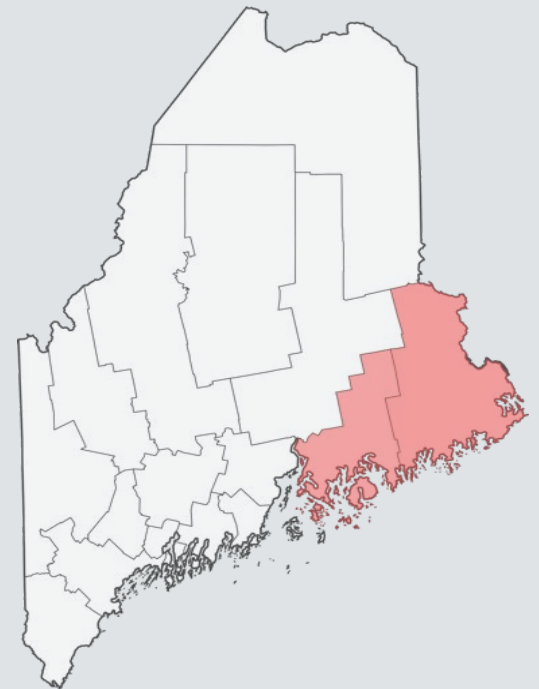


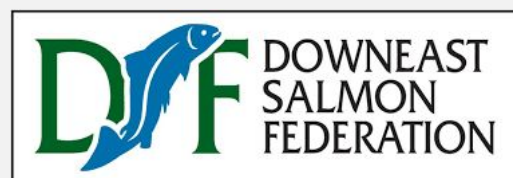
Downeast Conservation Network's mission is to:

Connect conservation, research, education, and people in Downeast Maine

Previous work has included:

- a study of the economic benefits of conservation lands in the region
- Past five years raised over \$400,000 for regional projects
- Focus on convening partners



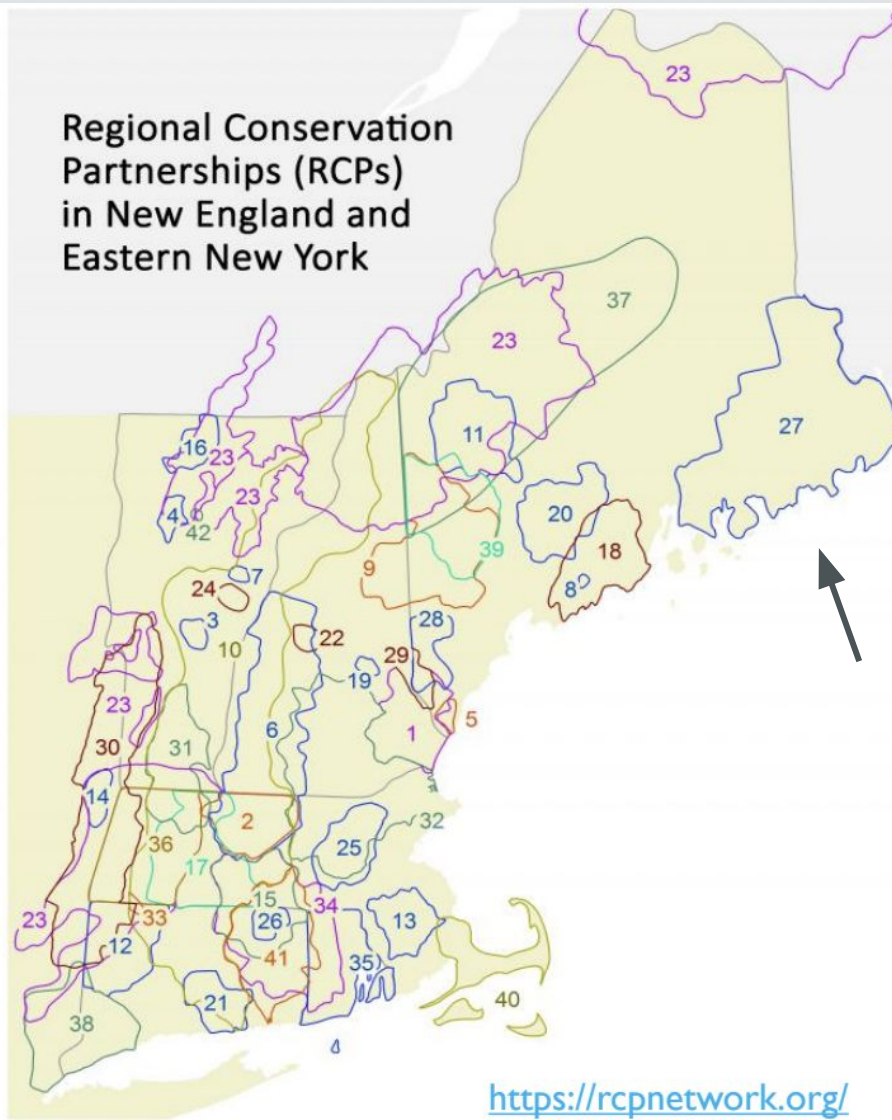


Who is Downeast Conservation Network?

- range of collaborators, advisors, & partners
- formal & informal relationships
- led by coordinator & steering committee



Regional Conservation Partnerships (RCPs) in New England and Eastern New York



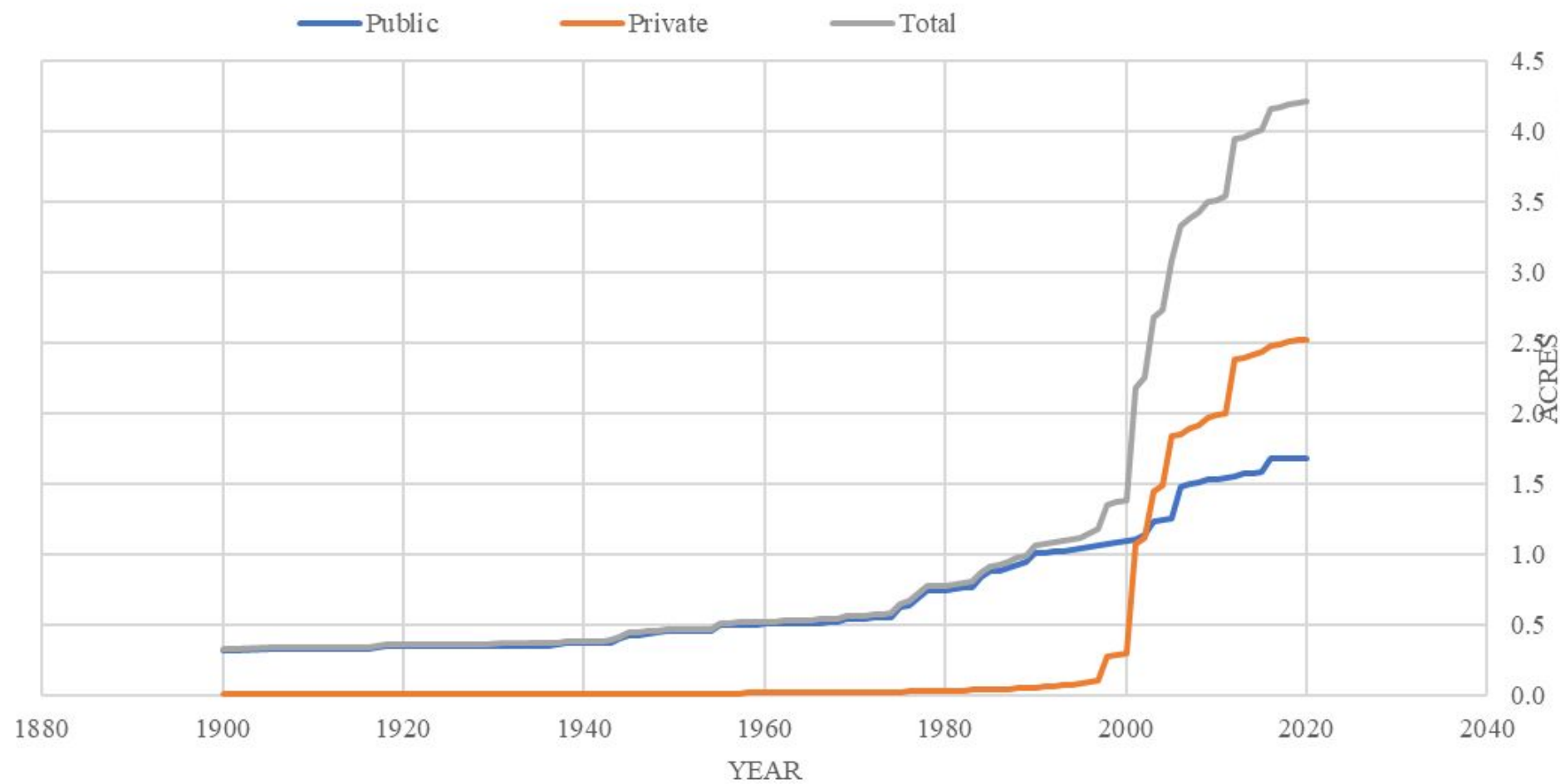
- 1 - Great Bay Resource Protection Partnership
- 2 - North Quabbin Regional Landscape Partnership
- 3 - Chateaugay No Town Conservation Project
- 4 - Chittenden County Uplands Conservation Project
- 5 - Mt. Agamenticus to the Sea Conservation Initiative
- 6 - Quabbin to Cardigan Partnership
- 7 - Orange County Headwaters Project
- 8 - River-Link
- 9 - Upland Headwaters Alliance
- 10 - Friends of the Silvio O. Conte National Fish and Wildlife Refuge
- 11 - High Peaks Initiative
- 12 - Litchfield Hills Greenprint Collaborative
- 13 - Resilient Taunton Watershed Network
- 14 - Rensselaer Plateau Working Forest Initiative
- 15 - Mass-Conn Sustainable Forest Partnership
- 16 - Cold Hollow to Canada Forest Link Project
- 17 - Forever Farmland Initiative
- 18 - 12 Rivers Conservation Initiative
- 19 - Belknap Range Conservation Coalition
- 20 - Kennebec Woodland Partnership
- 21 - Lower CT River and Coastal Region Land Trust Exchange
- 22 - Newfound Land Conservation Partnership
- 23 - Staying Connected Initiative
- 24 - Taylor Valley Conservation Project
- 25 - West Suburban Conservation Council
- 26 - Quiet Corner Initiative
- 27 - Downeast Conservation Network
- 28 - Forest Works!
- 29 - Salmon Falls Watershed Collaborative
- 30 - Berkshire-Taconic Regional Conservation Partnership
- 31 - MA-VT Woodlands Partnership
- 32 - Merrimack Conservation Partnership
- 33 - Sandy Brook Conservation Corridor
- 34 - Southern New England Heritage Forest Partnership
- 35 - Rhode Island Woodland Partnership
- 36 - Berkshire Wildlife Linkage Partnership
- 37 - Maine Mountain Collaborative
- 38 - Hudson to Housatonic Regional Conservation Partnership
- 39 - Maine West
- 40 - Massachusetts Coastal Pine Barrens Partnership
- 41 - Thames River Basin Partnership
- 42 - Shutesville Hill Wildlife Corridor Project

Listed in order of establishment in the RCP Network

Project Origin and Overview

- Over the last twenty years, conservation land has grown from 5% of the state's land area to more than 20% (Irland 2018).
- 30x30 Goals have brought up questions about where there is the most potential for additional conservation
- In recent years, more attention has been given to municipal impacts of conservation due to budget pressures and increasing burden on taxpayers.
- Downeast Conservation Network partners have been concerned about equity and how conservation lands may impact different types of municipalities differently

TOTAL MAINE CONSERVATION LAND (1900-2020)



An Overview of Conservation in Maine

- Of the 4 million + acres of protected land in the state, 56% is held by NGOs, 43% by state and federal entities, and 1% by municipalities (Maine Land Trust Network 2019).
- Easements make up more than half of protected land.
- 80% of protected land is in the Unincorporated Townships “UT” which have no local, incorporated municipal government (Maine Revenue Service 2023).

Project Origin and Overview

- Study of Conserved Lands Owned by Nonprofit Organizations (February 2018)
 - Case studies for Cumberland, York, Alna, Lubec
- Maine Land Conservation Task Force report (Feb 2019)
 - Recommendations for focus on human and economic dimensions of conservation

Barriers to conservation in rural areas - Western, Mid-Coast, Downeast all have faced challenges with working with rural communities and support for conservation

Project Origin and Overview: Municipal Budgets

- In Maine, more half of total municipal revenues come from real estate taxes (Maine Municipal Association 2019)
 - Maine's property tax burden is the fourth highest in the country
- The second largest source of municipal revenue is state funding for k-12 education, at 19%
 - Nearly 50% of expenditures are dedicated to education
- Period of decreased state revenue sharing
 - Although revenue sharing makes up less than 2% of revenue, marginal changes are meaningful

Project Origin and Overview

Municipal Budgets and Conservation Working Group

Diverse group of stakeholders:

- Maine Coast Heritage Trust
- University of Maine
- University of Maine at Machias
- DACF, Land Use Planning Commission
- Washington County Council of Governments
- Downeast Conservation Network
- Maine Sea Grant
- Maine Municipal Association
- Town of Cutler
- City of Eastport
- Town of Whiting
- Town of Lubec
- Town of Sullivan
- Town of Milbridge
- Town of Cherryfield

Co-created with Working Group

- Working closely with stakeholders through the research process has provided the opportunity to co-create the study design and ensure direction and approaches remain relevant to the beneficiaries of the research.

downeastconservationnetwork.org/municipal-budgets-and-conservation/

Purpose of Study and Overview

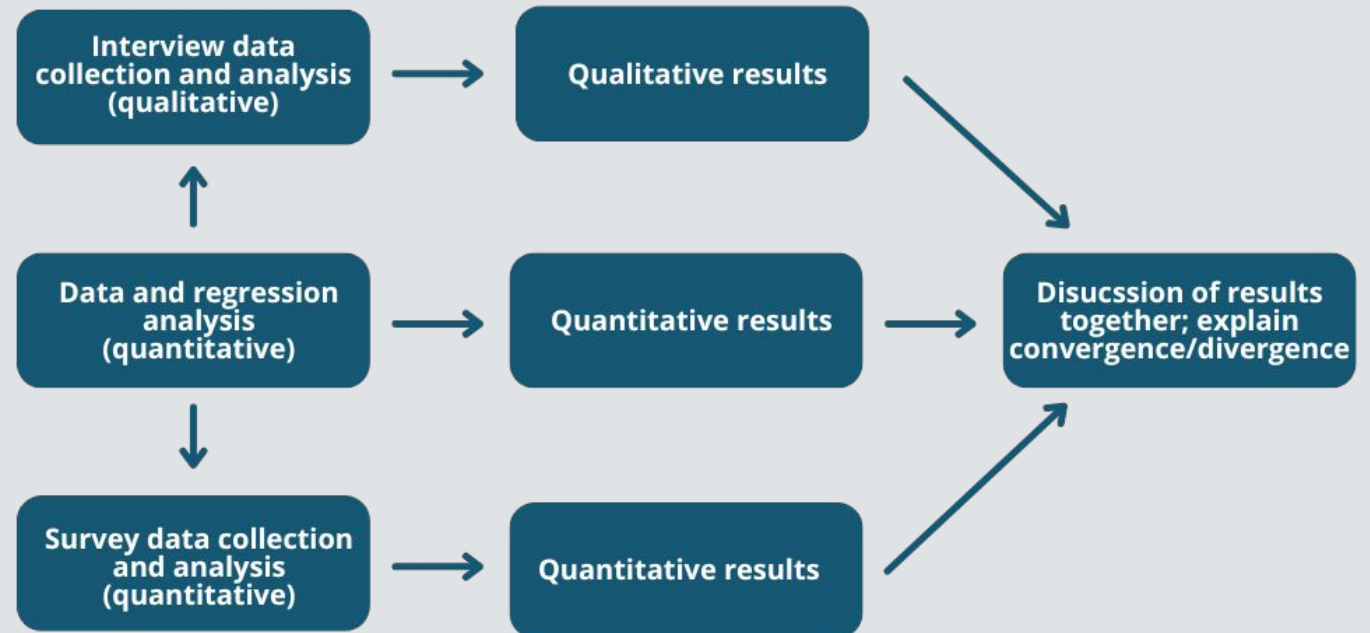
We seek to understand the impact of conservation land on property taxes using empirical and qualitative methods:

- Method 1 will focus on data analysis and an empirical approach
- Methods 2 & 3 will focus on the human dimensions of conservation and municipal challenges

Our Study: Mixed Methods Approach

1. Statistical Analysis:
Impact of conserved
land on town mill
rates
2. Statewide General
Perception Survey
3. Key Stakeholder
Interviews

Convergent Parallel Design

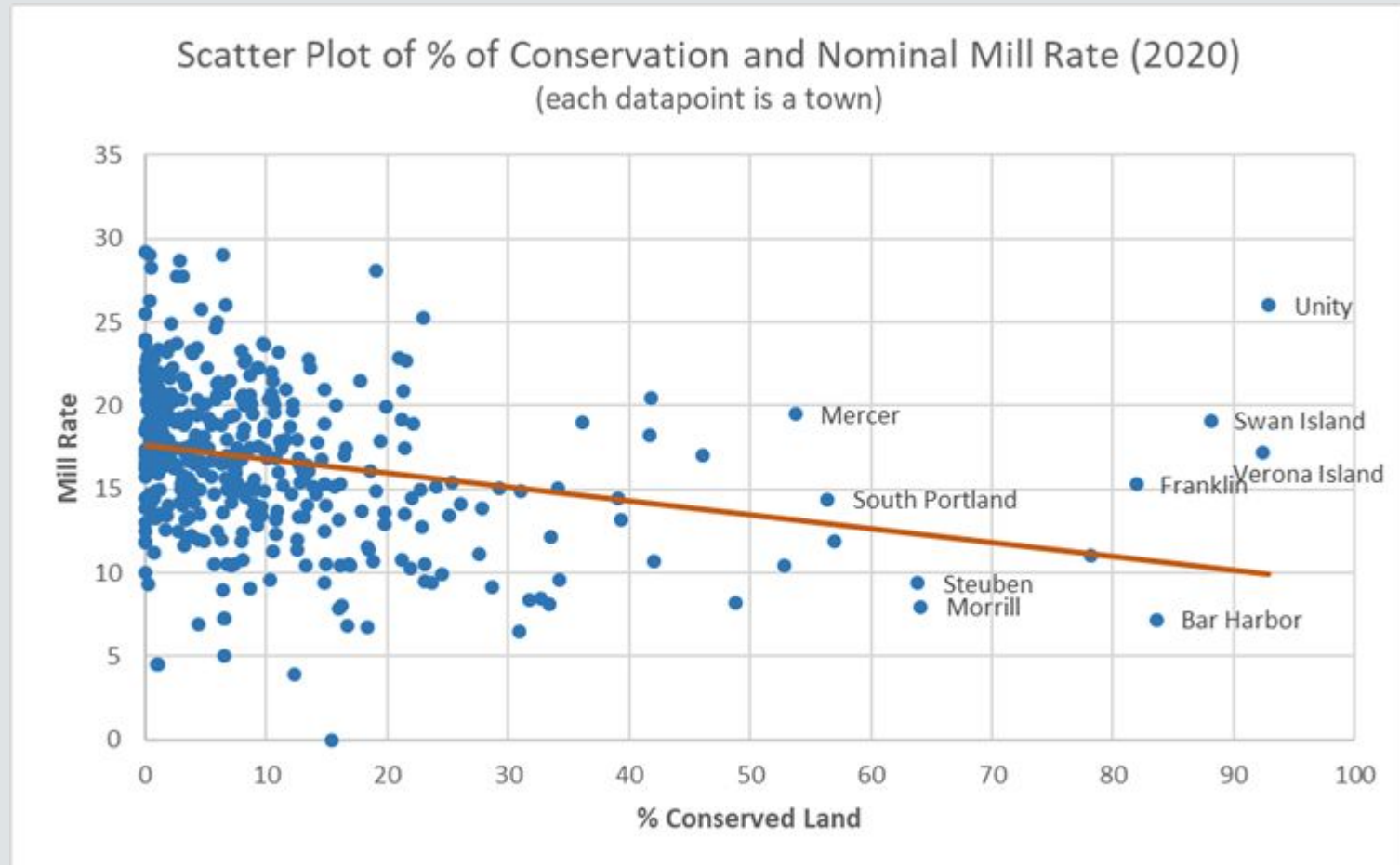


METHOD 1: QUANTITATIVE REGRESSION ANALYSIS

- Regression analysis on municipal level data from 2001-2022
- Models:
 - Average effects across Maine
 - Heterogenous specifications for varying town and land use characteristics.
- Lagged the conservation variable 3 years to account for time it takes a town to adjust to changes in tax revenues (Kalinin et al 2023)

Conserved Land v. Mill Rate: A Simple Correlation

- Helpful to see, but cannot determine causal relationship



Variables and Data Sources

Dependent variable

Primary independent variable

Economic and
demographic controls

*only used in heterogeneous models

Variable	Source
Equalized Mill Rate	ME Rev. Service (annual, 1990-2019)
Percentage of Conserved Land	ME DACF (annual, 1800-2020)
% Vacation Homes	US Census (1990, 2000, 2010, prorated between available years)
Unemployment Rate	ME Dept. of Labor LAUS (annual, 1990-2021)
Median Household Income (1,000s)	US Census, decennial and ACS (1990, 2000, 2010, 2008, 2013, 2018, prorated between available years)
Population (1,000s)	US Census, decennial and ACS (1990, 2000, 2010, 2008, 2013, 2018, prorated between available years)
State Valuation (10,000s)	ME Revenue Service (annual, 1990-2020)
Revenue Sharing (1,000s)	ME State Treasurer (annual, 1990-2021)
Percentage of Exempt Real Estate Value	ME Revenue Service (annual, 1990-2020)
Percentage of Real Estate Held in Current Use Value	ME Revenue Service (annual, 1990-2020)
Tourism Region*	Maine Department of Economic and Community Development (fixed)

Average (Statewide) Results

Average effect of a 1% change in Maine's conserved land area

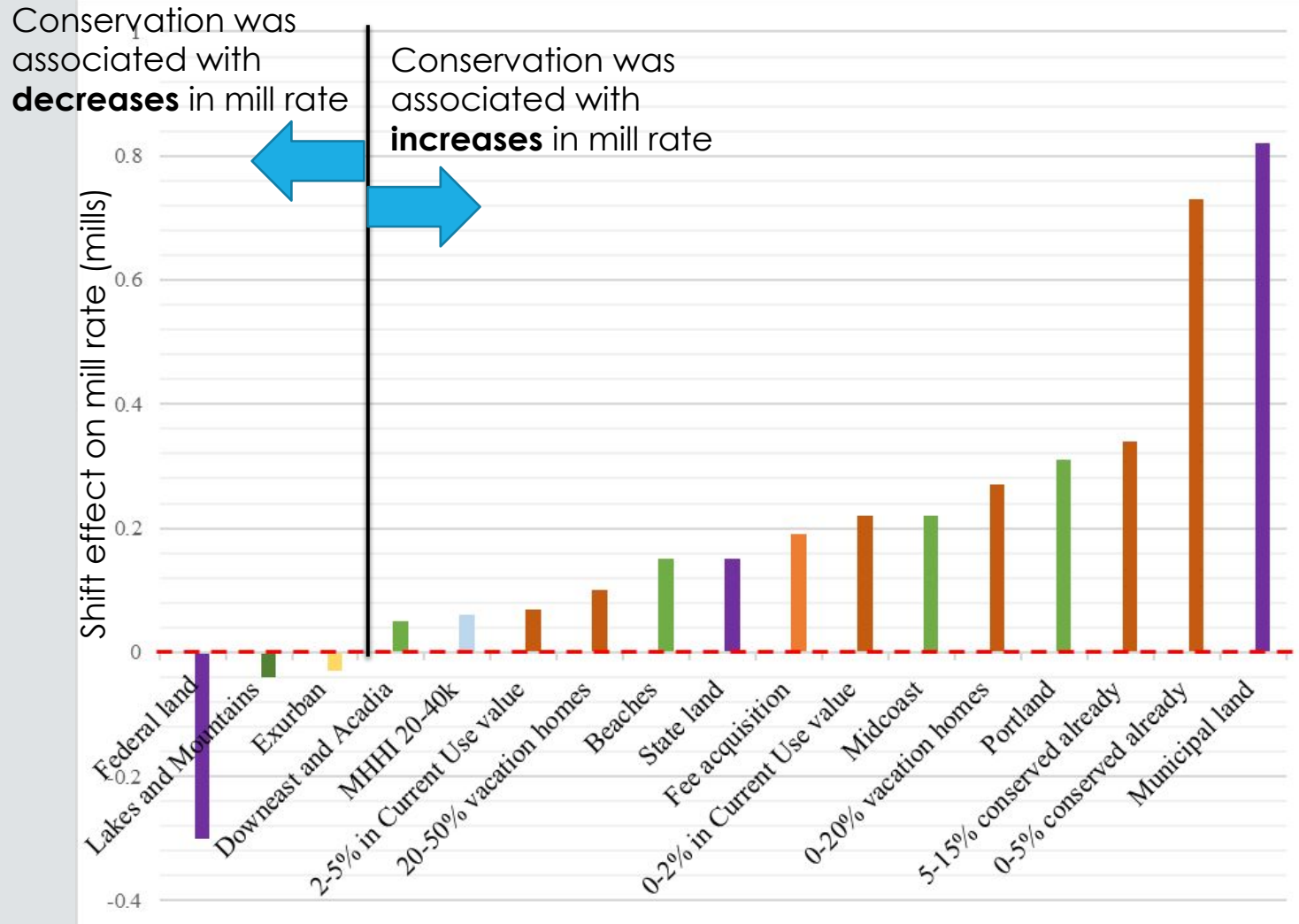
	1-year lag	3-year lag	6-year lag
% Change in Equalized Mill Rate	0.011***	0.020***	0.009*
\$ Increase in Avg. Tax Bill	\$0.52	\$0.95	\$0.43
% Change in Nominal Mill Rate	-0.00	0.007 .	0.017***
\$ Increase in Avg. Tax Bill	\$0.00	\$0.33	\$0.81

Statistical significance: *** $p < 0.01$; ** $p < 0.01$; * $p < 0.05$, . $p < 0.1$

Average % change in conservation is 6.36% per year □ \$6.04 annually on average tax bill.

[^]Assuming a \$300,000 home value and mean mill rate of 15.87.

Heterogenous Results



Statistically significant results only

Why are We Seeing These Differences?



Mill rates

Amenity (enhancement value) effect:

- **exurban towns**
- towns with many **vacation homes**
- **lakes and mountains** region towns.
 - Lower tax rate can accommodate same budget if tax base increases.



Mill rates

- **Municipally owned** – no PILOTs
- **Federally owned** – largest and most consistent level of PILOTs

METHOD 2: QUANTITATIVE SURVEY AND SEMI STRUCTURED INTERVIEWS

Goal: Understand the human dimensions of conservation as it pertains to property taxes and community and collect real-world solutions to share.

Online data collection February - March 2023

Stratified random sample targets:

- 600 Maine residents 18+ years old
- 1/3 of responses to be from each region of north, central, and southern Maine
- 1/3 bachelor's degree or higher
- 7% respondents non-white

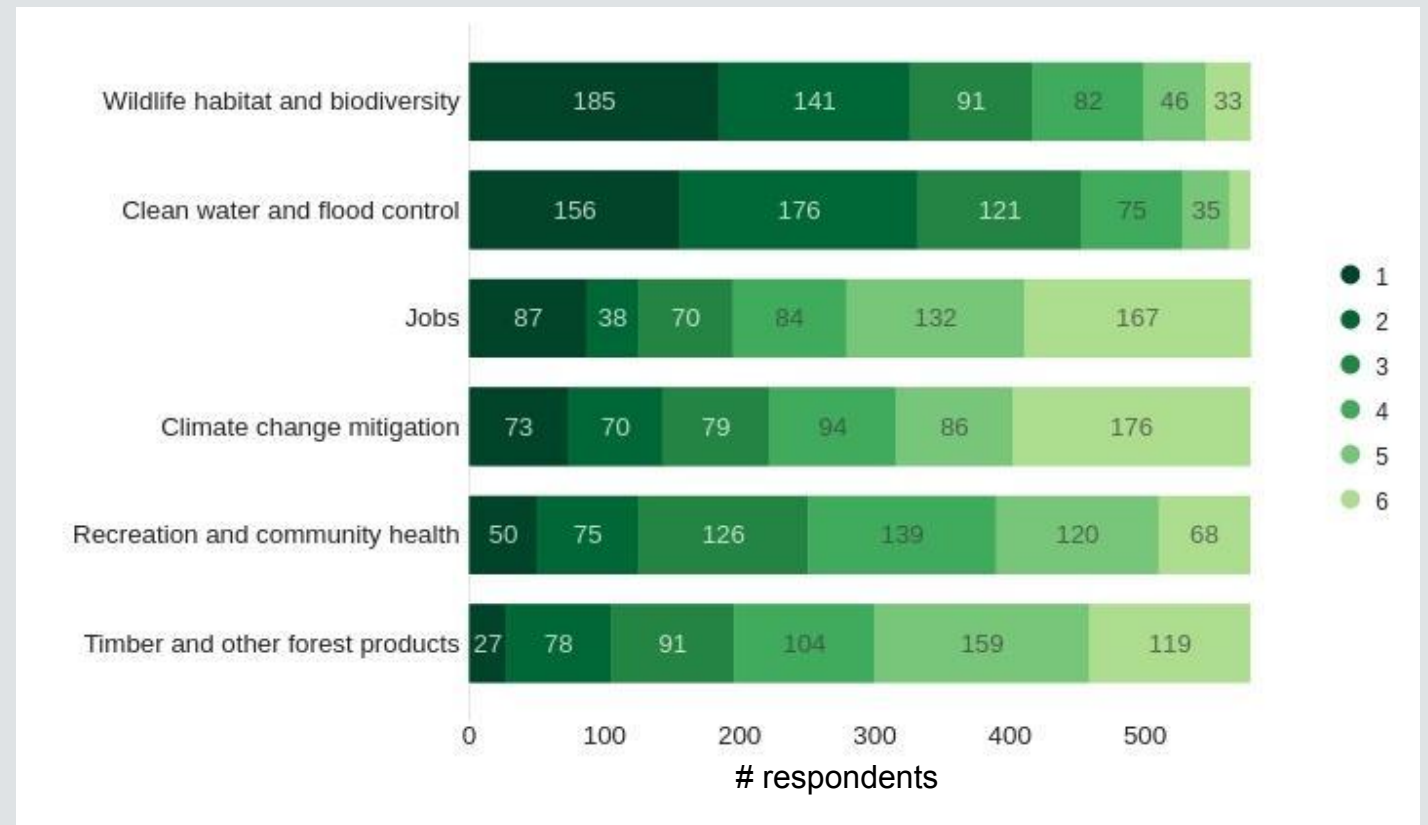
Question blocks:

- Conservation land use and perceptions
- Municipal challenges, budget, property tax perceptions
- Demographics

Survey Results – Impressions of Conservation

- **40% agree or strongly agree:**
I support expansion of conservation in my community
- **70% agree or strongly agree:**
Conservation improves the ecological and human health of their communities

Conservation Land Value Rankings (1 = highest, 6 = lowest)



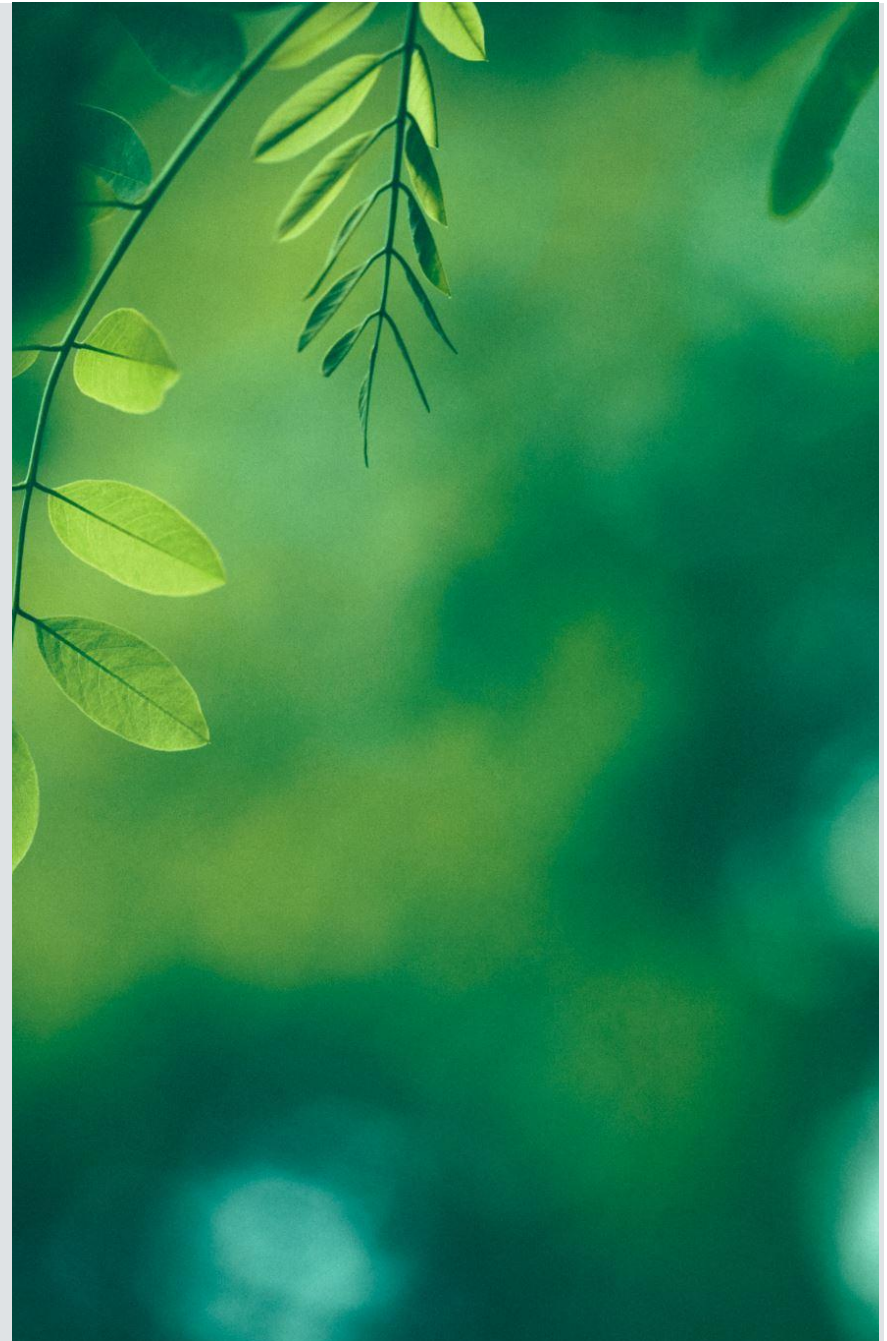
Economic Development and Tax Perceptions

- 70% **disagreed or were neutral** that conservation hinders economic productivity in their communities
- 69% **disagree or were neutral** that conservation constrains development
- 59% **supported** real estate development in their communities
- 47% **agree** town is experiencing budget challenges
- 53% **agree** their property taxes are too high
- 58% **agree** state should provide more support alleviate town property tax pressures



Survey Summary

- Support for conservation in Maine was shown through the survey, as well as concern about municipal challenges.
- Large percentage of respondents felt that their property taxes were too high.
- Some differences in responses between some demographics / groups, but not many



Method 3: Key Stakeholder Interviews

Goal: To collect professional insights from interviewees around conservation conflicts, municipal challenges, learn from their experiences, and provide recommendations

Target areas w/socioeconomic and geographical diversity:

- York Co., Washington Co., N. Maine, and W. Maine

Conservation group & municipal employees recruited and interviews via convenience & snowball sampling

Key Perspectives

1. Community Impacts of Conservation

- Immediate **loss of tax revenue** (unless continued to be held in Tree Growth)
- Long-term **opportunity cost** because protected land can no longer be developed
- Long term community **benefits may outweigh the cost**, but this is not possible to quantify
- **Amenity effect** of conservation can increase neighboring property values
- Conservation and easements provide clarity around a land parcel's use in perpetuity providing **stability to local economy**
- As **access to private land** continues to decrease, conservation is filling that need
- Conservation groups shifting to a more **holistic, whole-community approach**.

2. Open Space Planning

- Towns with **small tax base** more negatively affected by conservation.
- Towns with **rapid, poorly planned development experience** have greater conservation needs
- **Smart growth strategies** should be implemented, particularly in areas facing increasing development, to best protect broad community values / needs.

Key Perspectives

3. PILOTs

- Conservation groups **should not make PILOTs**, especially if are small.
- Instead, **articulate conservation benefits** and making sure the community can benefit from it.
- Challenging to start making PILOTs if not built into the budget from the beginning.
- Conservation groups should make PILOTs
- **Minimal conversation** between towns and conservation groups on PILOTs.

4. Tree Growth

- Program **not fairly administered**, and the state should better reimburse towns for it.
- It **can be abused**; some landowners use it to retain large parcels.
- **High value land**, such as parcels bordering the ocean or lakes, should not be allowed because the reimbursement does not come close to the lost revenue.
- **Program should not be amended** because so many landowners are enrolled in it. The costs associated with changing it would be large.
- The **Open Space Program should be updated**, including creation of new categories to better incentivize landowners.

Recommendations for Collaboration

1. Spend time together socially outside of a structured, task-oriented setting
2. Acknowledge power asymmetries and take steps to make sure every party feels heard
3. Define a project to collaborate on and specify roles and timelines
4. Establish a shared mission
5. Have PILOT conversations early

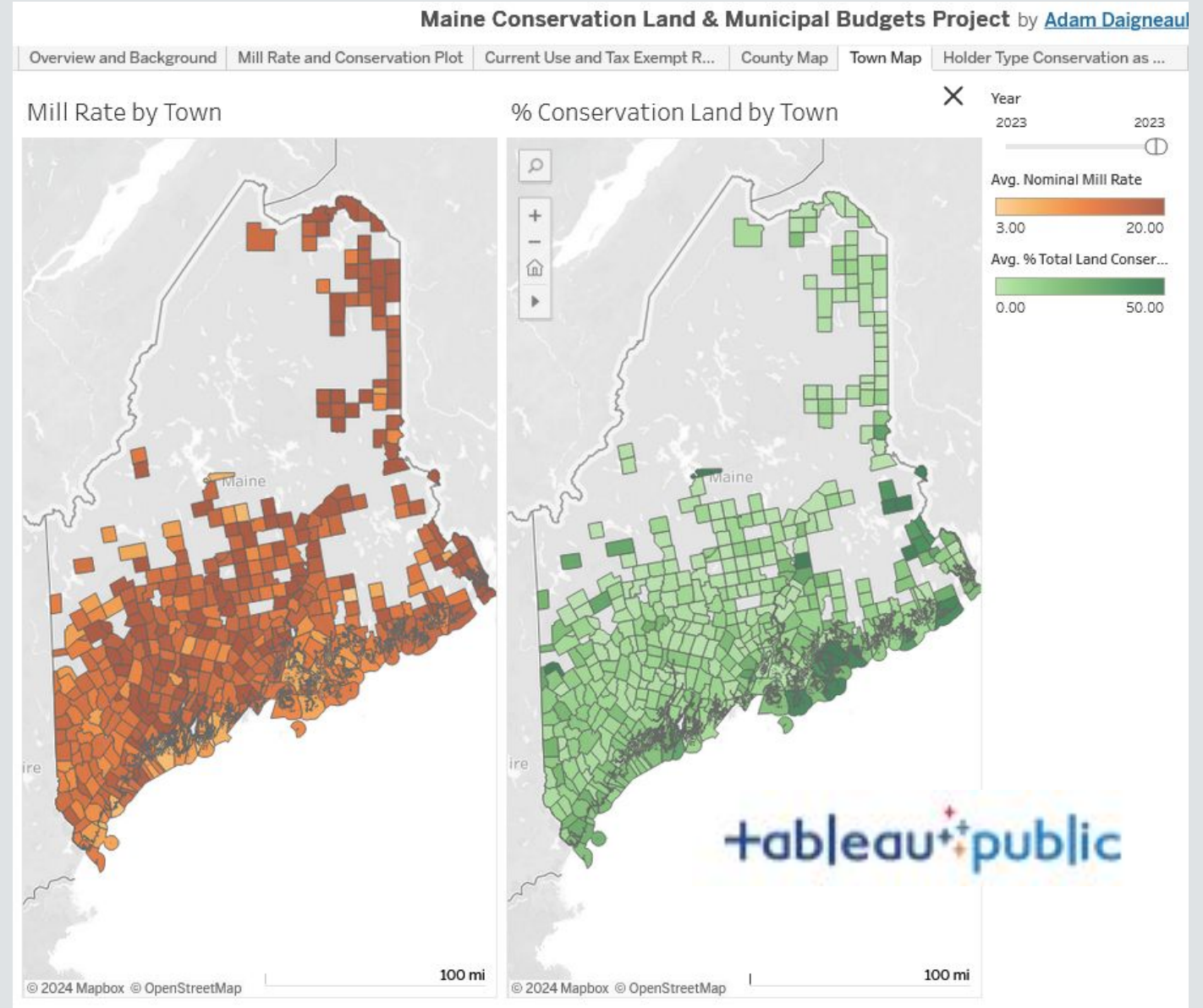
Key Study Conclusions

- On average, ME's conservation land has small impact on mill rates and tax bills...
- But, specific impacts range widely across towns and conservation types
- There is statewide support for conservation
- Residents concerned about municipal budgets and property taxes
- Diverse opinions about how to 'handle' the issue(s)
- The current environment is set up well for collaboration between conservation groups and municipal governments

Online Data Dashboard

Town and County Level Data (2001-2023):

- Mill Rate
- Property Valuation
- Conservation Land
- Conservation Type
- Current Use Land
- Tax Exempt Property



<https://public.tableau.com/app/profile/adam.daigneault/viz/MaineConservationLandMunicipalBudgetsProject/OverviewandBackground>

Abby Bennett's MS Thesis

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ELECTRONIC THESES AND DISSERTATIONS

The Impact of Conservation Land on Property Taxes and Municipal Budgets in Maine: a Mixed-methods Study

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[Abigail Bennett](#), *University of Maine*

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Date of Award

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Degree Name

Master of Science (MS)

Department

Ecology and Environmental Sciences

Advisor

Adam Daigneault

Second Committee Member

Jonathan Malacarne

Third Committee Member

Tora Johnson

Additional Committee Members

This study is an interdisciplinary project done in collaboration with the Municipal Budget and Conservation Working group, a group of stakeholders that formed in 2018 to study conservation and town budgets. We use mixed methods to explore the impacts of conservation and municipal budgets in Maine. We use regression analysis on 21 years of panel data to identify causal relationships between conservation and mill rates, controlling for economic and town budget factors. We found statistically significant but small effects on average, with a 1% increase in conserved acres in a town associated with average tax bill increases of \$1 or less. More meaningful findings were revealed when we looked at the relationship across different regions, conservation types, and towns with certain economic characteristics. To address the human dimensions of the issue, we designed, distributed, and analyzed

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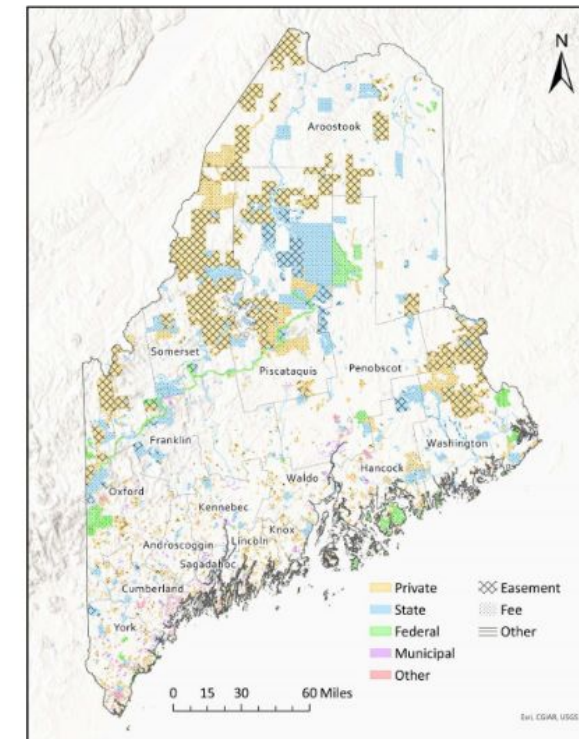
How does land conservation impact mill rates and town budgets in Maine? A mixed methods study

This project was co-created by the University of Maine School of Forest Resources and the [Municipal Budgets and Conservation Working Group](#), a diverse group of conservation professionals, municipal leadership, selectboard members, town managers, and others who want to understand the impacts of conservation on their communities.

Overview and Background

Conserved land in Maine has increased significantly over the last thirty years. Conservation in Maine has increased from 5% of the state's land area in the 1980s to more than 20% today (Maine Conservation Task Force 2019) including in the Unincorporated Townships (Figure 1). In organized towns, conservation makes up 10-11% of land area. This varies significantly by county (Figure 2).

Figure 1: Land conservation in Maine (Maine GeoLibrary Data Catalog).





Thank you!