Yarmouth County REMO

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CRPP Funding Application Update: District of Argyle #0621

A Climate Risk Assessment and Prioritized Adaptation Plan

Project summary:

The project will be delivered in the Municipality of the District of Argyle, located in southern Nova Scotia. Our Acadian municipality of just over 7000 people lies on the south-western edge of Nova Scotia and must adapt to the increasing intensity of hurricanes and other severe weather. Floods and forest fires also regularly threaten our community. This project will vastly improve our ability to plan for a resilient future while managing for a safe and prosperous today. The full breadth of the collaboration elements will take place within the provinces of Nova Scotia and Newfoundland & Labrador.

There is no capital funding required for this project; the municipality will only contribute in-kind. We will retain full control of all municipal data and will have no service dependencies created through the work. In total, the project duration is anticipated to be eighteen months, with some flexibility in case of emergencies.

Nova Scotia and Newfoundland & Labrador will be severely affected by climate change: rising sea levels of up to two metres by 2150, increased frequency and severity of hurricanes, more intense wildfires and riverine floods, and changes in the seasonal distribution of severe weather. With the objective to enable the management of our municipal risk against such a complex and dynamic challenge, this project will deliver data-driven, visual climate risk management tools that allow our community to see the risk as it is now, to see how climate change will affect our risk profile, and importantly, to discern our best, most equitable options for building a climate-resilient future. Through our fourteen collaboration partner municipalities, our project will enhance climate resilience beyond our borders. By sharing our climate risk assessment results and climate risk reduction activities with our collaboration partners, we will create an exceptional benefit that will build social equity, secure our economy, protect our infrastructure, and save lives.

The project will meaningfully engage the full breadth of our municipality, including our equity-deserving groups, the private sector, and various other groups that represent community interests. Our project fully aligns with Canada's National Adaptation Strategy and the Local Leadership for Climate Adaptation Program; it will create a data-driven, risk-informed climate change adaptation plan that outlines

immediate priorities and enables transparency and accountability for climate adaptation decisions across government. Near-term targets generated by project-supplied, community-based resilience data will ensure defensible, objective, immediate actions that leverage a whole-of-society effort with measurable results.

To understand risk and drive adaptation, our community must have actionable information gained from objective, validated, representative data. Moreover, that information must be intuitively accessible and visually sensible so that not only local leadership but all residents can understand climate adaptation options and make choices based on facts instead of opinions. Our project will deliver (1) municipality-wide all-hazards mapping, (2) social vulnerability mapping, including equity-deserving groups, (3) physical vulnerability mapping, including critical infrastructure and cultural heritage, (4) information aggregation into a comprehensive climate risk assessment, and (5) prioritized climate adaptation planning, including integration into our existing municipal service models. Through this project, we will use the visual risk tools within the Resilience Engine to reflect the data-derived classifications of our municipality's physical, social, environmental, and economic conditions. This will enable us to create a trusted picture of risk across our land base. The project has been specifically designed such that there will be no dependency, financial or otherwise, created with respect to the future use of the Resilience Engine. Moreover, our municipality will retain full ownership of our data, and a copy of all data contributing to the climate risk assessment will be a distinct project deliverable.

Importantly, and unlike other climate risk assessments, this project will provide us with more than just a snapshot of risk on a given day. Upon project completion, we will be able to make climate-resilience comparisons within our own purview, seek climate-adaptation solutions from our close analogue partners within our municipal collaboration group, and provide transparent, data-driven decisions for capital risk reduction investments that build equity through enhanced community climate resilience. We will be able to adjust our risk components to create risk scenarios based on current events and changing hazard exposures due to climate change. We will be able to examine risk scenarios based on the full implementation of our municipal master plan, changing demographics, or new developments. Our project will enable the consistent, objective use of our community's resilience data while ensuring we remain in full control of our information. Community-enabled partners in government, equity-deserving groups, industry, and non-profit organizations will also be positioned to manage appropriately and invest strategically immediately following the project and into the future.

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