Ontario Resource Centre for Climate Adaptation

Muskoka's Regional Climate Change Adaptation Implementation Plan

Town of Huntsville • Town of Gravenhurst • Town of Bracebridge Township of Muskoka Lakes • Township of Lake of Bays

January 2025



About this report

Climate change is having a noticeable impact on the District of Muskoka in Ontario, Canada, with rising temperatures and shifting weather patterns affecting the region's ecosystems and communities. Warmer winters are leading to reduced ice cover on lakes, which disrupts traditional winter activities like ice fishing and snowmobiling. The region is also experiencing more extreme weather events, including heavier rainfall, which increases the risk of flooding and erosion. These changes pose challenges to Muskoka's natural environment, local economy, and infrastructure, while also threatening the area's biodiversity and tourism industry, which relies on the region's natural beauty.

In response to these changes in climate, five of Muskoka's lower-tier municipalities including the Towns of Huntsville, Gravenhurst, and Bracebridge and the Townships of Muskoka Lakes and Lake of Bays joined in partnership to support of the development of a Regional Climate Change Adaptation Plan. The plan was completed in 2023 and included a list of proposed adaptation actions that were to be executed by each of the five Area Municipalities. The Regional Climate Change Adaptation Plan was developed in alignment with ICLEI Canada's Building Adaptive Resilient Communities (BARC) framework Milestones 1-3. ICLEI Canada is part of a global network working to achieve tangible sustainability results through cumulative local actions. They support local governments by providing them with the expertise, resources, and capacity needed to take climate action to building more sustainable, low-carbon, biodiverse, and climate-ready communities.

This Implementation Plan serves as an extension to the Regional Climate Change Adaptation Plan that was completed in 2023. This plan provides a roadmap for each of the five Area Municipalities on specifying the climate change adaptation actions that should be prioritized in the immediate, near, and distant futures to support adaptive capacity and resiliency to a changing climate.

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Executive Summary

In 2022, five of the District Municipality of Muskoka's (the District or DMM) lower-tier Area Municipalities (AMs) participated in the development of a Regional Climate Change Adaptation Plan (ReCAP). Participating Area Municipalities include the Towns of Huntsville, Bracebridge, and Gravenhurst, as well as the Townships of Muskoka Lakes and Lake of Bays. The ReCAP was developed with support and guidance from ICLEI Canada through a collaborative process involving District Municipal staff, Area Municipality staff, and community stakeholders. The ReCAP outlines the actions that each AM within the DMM plans to take to address the most urgent and threatening impacts of climate change. The ReCAP utilized ICLEI Canada's Building Adaptive Resilient Communities, five-milestone framework with the first three milestones comprising the development of the ReCAP.

In December 2023, the five AMs applied, as a cohort, for the Staff Capacity Program Grant offered through the Ontario Resource Centre for Climate Adaptation (ORCCA). The Staff Capacity Program supports adaptation efforts throughout Ontario by connecting participants with ORCCA staff to receive direct support. In January 2024, the joint application to the Staff Capacity Program was accepted by the ORCCA. The purpose of this Implementation Plan is to serve as an extension to the District's ReCAP with the continuation of the BARC milestone framework. The focus of this plan is to build from the adaptation strategies identified in the ReCAP and develop an implementation schedule to guide all AMs in the implementation planning process. The adaptation strategies from the ReCAP were grouped into two buckets. Bucket 1 included adaptation strategies that were recommended to be implemented across all AMs. The shared recommendations in bucket 1 include:

- 1. Implement consistent flood plain mapping policy in area municipal zoning by-law and official plans;
- Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme weather, temperatures, and flooding and plan for implementation of recommendations;
- 3. Ensure municipal policies encourage community food, water retention (rain garden, bioswales, etc.) and pollination gardens;
- 4. Identify opportunities to increase knowledge about climate change impacts in the community;
- Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) features and green infrastructure into new development and redevelopment projects; and
- 6. Coordinate municipal efforts to improve and expand warming and cooling interventions employed during extreme weather events.

The adaptation strategies from the ReCAP that were situated in bucket 2 were all the remaining strategies not listed in bucket 1. The adaptation strategies in bucket 2 are AM-specific meaning that each AM has their own set of adaptation strategies recommended for implementation.

An action prioritization assessment was conducted to provide prioritization scores to each of the recommended adaptation strategies in bucket 1 and 2 groupings. After the assessment was completed, the development of the implementation schedule was possible. The development of the implementation schedule for each AM is considered the final deliverable under Milestone 3 of ICLEI Canada's BARC framework. The next milestone under the BARC framework, Milestone 4, involves executing the implementation schedule. ORCCA staff provided a series of recommendations to support all AMs in the implementation of the proposed adaptation actions, which are identified below:

- 1. Ensure that Area Municipalities, the District, and community stakeholders have appropriate implementation tools to undertake adaptation actions;
- 2. Ensure that the District is encouraging the continuous collaboration amongst all the AMs to complete adaptation actions;
- 3. Ensure Area Municipalities and the District are up-to-date on funding streams available to support implementation efforts;
- 4. Ensure that all Area Municipalities have a designated climate change or environmental project coordinator to manage adaptation projects; and
- 5. Ensure that Area Municipalities and the District target action items that require minimal resources or capacity as a first order of business.

It is the responsibility of the District, AMs, and community stakeholders to work in collaboration amongst one another in the execution of the proposed adaptation strategies of this Implementation Plan.

Adaptation is crucial for Muskoka, as the region faces increasing risks from rising temperatures, shifting precipitation patterns, and more frequent extreme weather events. By implementing adaptive strategies within this plan, Muskoka can better protect its unique environment, local economy, and well-being of its communities. Proactively addressing these challenges will not only help preserve the region's natural beauty and tourism appeal but also build resilience for future generations, ensuring Muskoka remains a thriving and sustainable destination.

1.0: Introduction

1.1: Development of a Regional Climate Change Adaptation Plan

The development of the <u>Regional Climate Change Adaptation Plan</u> (ReCAP) was facilitated through the ICLEI Canada Advancing Adaptation project. Funded through a grant from the Ministry of the Environment, Conservation and Parks (MECP) under the Canada-Ontario Agreement (COA), Advancing Adaptation was a two-year initiative that engaged Ontario municipalities to build local capacity for climate change resilience and to advance efforts on adaptation. The ReCAP was supported by the District Municipality of Muskoka's Watershed and Environment Team to coordinate the development of a ReCAP for each of the five participating lower-tier Area Municipalities (AMs). Participating AMs include the Towns of Huntsville, Bracebridge, and Gravenhurst, and the Townships of Lake of Bays and Muskoka Lakes.

The ReCAP was developed using the guidance ICLEI Canada's Building Adaptive Resilient Communities (BARC) framework. BARC is a five milestone Planning framework for local governments aimed at preparing communities for the impacts of climate change. BARC is a comprehensive planning methodology that guides municipalities through areas of research and climate impact assessment methods, plan development, action-setting processes, implementation planning, and monitoring and review strategies (Figure 1).

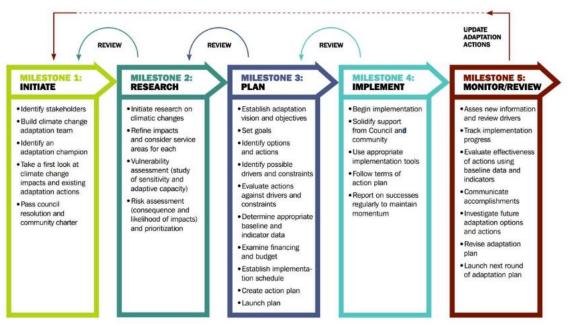


Figure 1: ICLEI Canada's Building Adaptive Resilient Communities Framework.

1.2: Intentions of the ReCAP and Community Scope

The objective of the ReCAP was to build upon existing actions taken by each of the AMs, which are outlined in Appendix A of the plan, which address climate change and allow the municipalities to identify opportunities for action that advance the community further towards the climate resilience of its social, economic, built, and natural systems. The development of the ReCAP took a broad approach and involved the community as well as municipal administration and was intended to support organizations, institutions, businesses, vulnerable populations, and individuals of all ages in a proactive manner to prepare for current and future climate-related risks and changes.

1.3: Implementation of BARC in the Development Process of ReCAP

The development of the ReCAP involved the implementation of three BARC milestones including initiate, research, and plan. The next subsections provide a high-level overview of these milestones and their respected results.

1.3.1: Milestone One - Initiate

The first milestone involved the identification of stakeholders to review and understand existing knowledge on how the regional climate is changing. It was followed by a brainstorming exercise used to identify potential climate change impacts. The District identified and invited a core group of community stakeholders to participate in the adaptation planning process as part of a climate change adaptation working group. These group members were part of the original community group who supported the generation of the District's New Leaf Climate Action Plan. The working group was crucial in providing specific knowledge and input, to ensure that the plan aligned with community needs.

1.3.2: Milestone Two - Research

The second milestone served to further develop the community's understanding of climate change impacts and the major service areas which were likely to feel those impacts. This milestone involved scoping the climate change impacts within the region, followed with the initiation of both a vulnerability and risk assessment.

1.3.2.1: Phase I - Impact Identification

Climate-related impact statements are the foundation of both the vulnerability and risk assessment processes. The first phase of milestone two involved the identification of impacts. These can be described as concise statements that outline locally relevant projected threats and their potential impact towards the built, natural, social, and economic systems across the region. The region, through an impact assessment workshop, compiled a list of nearly fifty potential impacts. After a thorough review and a series of discussions, the total impact statements were refined to thirty-seven.

1.3.2.2: Phase II – Vulnerability Assessment

A vulnerability assessment was conducted for each impact statement to identify the vulnerability level the community has to various potential impacts. The vulnerability assessment was carried out using an online survey and was completed by the working group. The results indicated a total of twenty-eight medium and high scoring impacts. These impacts were brought forward to the risk assessment process.

1.3.2.3: Phase III – Risk Assessment

The risk assessment process was used to further analyze and prioritize the risks that were most pertinent in a climate-adjusted future. The working group, through the risk assessment workshop, identified twelve impacts that were selected to be integrated into the planning phase of the ReCAP. The list of the twelve impact statements of highest priority is indicated in Table 1 below.

Table 1: List of the highest priority impact statements selected in the Risk Assessment workshop.

| # | Impact Statement |
|---|---|
| 1 | Increased frequency and intensity of precipitation events resulting in more flooding, leading to increased municipal infrastructure damage (i.e., buildings, roads, bridges, trees, streetlights, signs, etc.), associated costs, and other impacts. |
| 2 | Increase in hot days over 30°C, increase in water temperatures, increase in heatwaves and the frequency of violent summer storms/precipitation events, and changes in wind patterns (longer periods of calm) leading to an increased frequency of algal blooms (and elevated lake bacteria levels) resulting to a decline in drinking water quality and loss of recreational and tourism opportunities (beach closures, outdoor events, etc.). |
| 3 | Increase in annual average temperatures and increased frequency and intensity of precipitation events leading to shifting eco-regions for flora and fauna, resulting in an increase in human health and safety implications (i.e., change in infectious disease patterns: food-borne, water-borne, vector-borne, etc.) for the community (i.e., residents, businesses, etc.). |
| 4 | Increase in average winter temperatures leading to decreased ice safety on lakes and wetlands and less snow resulting in decreased winter recreation and tourism (i.e., shortened snowmobiling season, ice fishing, use of outdoor rinks, etc.). |
| 5 | Increase in the frequency/intensity of extreme weather events (e.g., ice storms, windstorms, tornadoes, snowstorms, etc.) / Increase in severe freezing rain events (especially in January) leading to increased likelihood for damage to electrical infrastructure resulting in more power outages (brownouts, blackouts, extreme cold) and service disruptions (business, flow of goods/services, etc.). |
| 6 | Increased average annual temperatures leading to less snow coverage and changes to habitat resulting in impacts to traditional land uses and harvest practices of Indigenous communities (i.e., loss of habitat for traditional First Nations food sources, horseshoe hare and stouts changing color in winter no longer match surroundings, many species shift north, plants and animals used to make medicines shift north, etc.). |

| - | |
|----|---|
| 7 | Increase in hot days over 30°C, extended heatwaves leading to unsafe outdoor working conditions and loss of productivity for construction, maintenance, landscaping, etc. |
| 8 | Increase in hot days over 30°C leading to increased waterfront and park use and deterioration of infrastructure (i.e., roads, bridges, etc.), requiring more maintenance and repair of assets, crowding, transportation systems, Municipal assets (parking area, trails, public beaches), etc. |
| 9 | Increased average temperatures leading to shifting eco-regions for flora and fauna and longer growing seasons resulting in increased survival and spread of invasive species (e.g., gypsy moths, emerald ash borer, etc.), wetlands drying up, more tree mortality, and decreased forest health (i.e., hemlock woolly algid, sugar maple shift north, beech bark disease spread to reduce food availability for wildlife). |
| 10 | Increase in precipitation leading to higher water flows resulting in increased erosion, which impacts both natural and built systems (road, bridges, aquatic health, riparian zones, etc.). Increase in hot days over 30°C leading to heatwaves resulting in health impacts to vulnerable populations and outdoor workers. |
| 11 | Increase in the frequency/intensity of extreme weather events (e.g. ice storms, windstorms, tornadoes, snowstorms, etc.) and increased frequency/intensity of precipitation events leading to unsafe/hazardous road and travel conditions and flooding of roads and bridges resulting in disruptions to all transportation (active and vehicular) including school buses, emergency services, public transit systems, and other essential services (i.e., food systems, medical care/hospitals, fire, police, paramedic, airports, etc.). |
| 12 | Increased water temperatures leading to disrupted/damaged aquatic species habitat and ecosystems, resulting in increased fish mortality, increased algal blooms, and changing breeding patterns (i.e., subsequent food web impacts). |

1.3.3: Milestone Three - Plan

The third milestone provides guidance on how to establish elements that are included in a climate change adaptation plan including a vision, setting adaptation goals and objectives, identification of adaptation options, and examination of possible constraints and drivers to various actions. The adaptation planning process was community-focused, convening a wide range of community stakeholders at multiple municipality-led workshops, allowing for a collaborative co-development of the ReCAP.

An action brainstorming workshop was held with the working group where a total of seventy-three potential actions and supporting actions were identified. After review and further discussions, the Project Team was able to refine the list to thirty-two.

2.0: Purpose of the Plan

The purpose of this plan is to serve as an extension to the District's ReCAP with the continuation of the BARC milestone framework. The ReCAP served as the foundational piece through the identification of adaptation strategies for the District. The focus of this

plan is to build from the adaptation strategies identified in the ReCAP and develop an implementation schedule.

3.0: Methodology

3.1: Application to the Staff Capacity Program

In December 2023, the Towns of Gravenhurst, Bracebridge and Huntsville and the Townships of Muskoka Lakes and Lake of Bays applied for the Staff Capacity Program Grant offered through the Ontario Resource Centre for Climate Adaptation (ORCCA). The Staff Capacity Program supports adaptation efforts throughout Ontario by connecting participants with ORCCA staff to receive direct support. The program enables participants to complete a climate adaptation project that would otherwise be unrealized due to insufficient capacity or expertise. In January 2024, the joint application to the Staff Capacity Program was accepted by the ORCCA.

3.2: Phase I: Background Research

The first phase of the prioritization process involved ORCCA staff conducting background research on the findings of the ReCAP including the list of identified and rated risks, the existing adaptation actions of the AMs, and list of final proposed actions.

3.3: Phase II: Prioritization of Proposed Adaptation Strategies

To generate an implementation schedule, the AMs would need to first prioritize the proposed adaptation actions indicated within the ReCAP. The AMs, in collaboration with ORCCA staff, conducted an action prioritization assessment which involved the utilization of an evaluation matrix that would allow the AMs to evaluate their proposed adaptation strategies to climate change (Figure 2). The matrix was adapted from Natural Resources Canada and the University of British Columbia's Canadian Communities' Guidebook for Adaptation to Climate Change report. The matrix includes a list of various criteria that provide information about the trade-offs between different adaptation strategies, the urgency of needed adaptation strategies, and the availability of resources, both financial and institutional for implementation.

The objective of the assessment was for the AMs to assign an overall action evaluation score to each proposed adaptation strategy indicated in the ReCAP. As indicated in Figure 2, the score card consists of eleven criteria with which the AMs would score from 1-3 based on their relevance. Each adaptation strategy would be assigned an evaluation score between 11-33. The assigned score in turn would indicate the priority level of the respected adaptation strategy as either "high", "medium", or "low" (Figure 3).

| Scoring Criteria | | Scoring Criteria 1 | | 3 |
|------------------|---|--|---|--|
| | Mitigation Co-benefits | Could result in increased GHG emissions | Not likely to affect GHG emissions | Could reduce GHG emissions |
| Sustainability | Equity | Benefits only to some people | Benefits to many people | Significant benefits to many people |
| | Implementation Cost | Cost is high relative to cost of inaction | Cost is moderate relative to cost of inaction | Cost is low relative to cost of inaction |
| Effectiveness | Robustness | Effective for a narrow range of plausible future scenarios | Effective across many plausible future scenarios | Effective across a wide range of plausible future scenarios |
| Risk and Urgency | | Impacts are likely to occur in the longer term | Impacts are likely in the near to mid term | Impacts are already occurring |
| Opportunity | Ancillary Benefits | Will contribute little to other community goals and programs | Will contribute somewhat to other community goals and programs | Will contribute significantly to other community goals and programs |
| Opportunity | No Regret | Will have little or no benefit if climate change impacts do not occur | Will have some benefits regardless of actual climate change impacts | Will result in significant benefits regardless of actual climate change impacts |
| | Public (or political) Acceptability | Could face some public or political opposition | Not likely to receive much public or political attention | Likely to receive public/political support |
| | Funding Sources | Additional funding sources are required but have not been identified | Additional funding sources may be required | Funding is available or not required |
| Implementation | Capacity (Information, Technical, Staff, Resources) | Current capacity is insufficient, and gaps cannot be easily addressed | Gaps exist in one or more areas but can likely be addressed | Current capacity is sufficient to implement the action |
| | Institutional | Implementation requires coordination with, or action by, other jurisdictions | Implementation may require external approval/coordination | Implementation is within stakeholder or City's control |

Figure 2: Matrix used as part of the adaptation action prioritization assessment.

| Priority Score Range | Priority Level Description | | Estimated Implementation Timeline |
|-------------------------|-----------------------------|---|---|
| 26 - 33 | Hight Priority ("Now") | Based on current circumstances, it is in the community's best interest to prioritize and implement the identified actions in the short-term. | <2 Years |
| 18 - 25 | Medium Priority ("Soon") | Based on current circumstances, it is in the community's best interest to prioritize and implement the identified action in the medium-term. | 2-5 Years |
| 11 - 17 | Low Priority ("Later") | Based on current circumstances, it is in the community's best interest to prioritize and implement the identified action in the long-term. | 5+ Years |

Figure 3: Scoring legend for the action prioritization matrix.

As indicated in Figure 3, an adaptation strategy assigned a higher overall evaluation score would represent a higher priority strategy and thus a shorter implementation timeline for completion. In contrast, an adaptation strategy assigned a lower overall evaluation score would represent a lower priority strategy and thus a longer implementation timeline for completion.

4.0: Results

4.1: Pre-Prioritization Grouping Exercise

Prior to conducting the action prioritization activity, it is important to note that the adaptation strategies identified in the ReCAP were grouped under two buckets. The first bucket represents those adaptation actions that were common across all AMs. The second bucket represents those adaptation actions that are not common rather Area Municipality-specific. Appendix B presents the adaptation strategies that are included in buckets 1 and 2 for this project.

4.2: Prioritization Exercise

Once all actions were grouped into their respective buckets, all AM representatives were required to complete the prioritization exercise. Action items situated within bucket 1 required AMs to work collaboratively to establish priority levels for each respective action whereas action items in bucket 2 required AMs to work independently on establishing priority levels for those actions. Appendix C presents the results of the prioritization exercise for buckets 1 and 2 groupings. Table 2 below presents a summary of the results of the action prioritization exercise for each Area Municipality under the bucket 2 grouping.

| | Average | F | | | |
|---------------------------|---------|-----|--------|------|------------------|
| Area Municipality | Score | Low | Medium | High | Total Actions |
| Town of Huntsville | 25.2 | 0 | 6 | 7 | 13 |
| Town of Gravenhurst | 26 | 0 | 9 | 10 | 19 |
| Town of Bracebridge | 25.3 | 0 | 12 | 11 | 23 |
| Township of Muskoka Lakes | 26.1 | 0 | 5 | 7 | 12 |
| Township of Lake of Bays | 22.8 | 0 | 4 | 0 | 4 |

Table 2: Results of the action prioritization activity for all five Area Municipalities

5.0: Implementation Schedules (Plans) for a Climate Resilient Muskoka

The following subsections of this section of the plan outlines the implementation schedule for the adaptation actions categorized within bucket 1. Adaptation actions situated within this category are actions that are common across all AMs and should be prioritized first for completion. When reviewing the implementation schedules for buckets 1 and 2 categories for each AM, it is important to note the following:

- 1. Although the shortlist adaptation actions are similar across all AMs in bucket 1, the associated immediate and supporting actions (projects) for each shortlist action are not.
 - Each AM has a specific roadmap that they are required to follow to address each shortlist adaptation action.
 - Across the plan there are some instances where collaboration across all AMs is required to fulfill adaptation actions and, in this case, AMs are encouraged to work collaboratively amongst one another to complete objectives and meet projected goals.
- 2. The level of progress across each shortlist adaptation action is not consistent across all AMs.
 - Each AM is encountering this implementation plan at a different pace whereby some AMs have already made progress towards the completion of shortlist adaptation actions while others may be starting anew.
 - In some cases, the shortlist adaptation actions identified within this plan may have either already been completed or in progress by an AM and, in this case, AMs are encouraged to provide support and guide one another to success.
 - It is also the responsibility of each AM to assess the progress made from other AMs and allocate areas of support as they see fit.

The criteria listed under the implementation schedule for each AM is addressed in Table 3 below as a reference when reviewing this section of the plan.

| Implementation Schedule Criteria | Description |
|-------------------------------------|---|
| Action ID | This highlights the shortlist adaptation action identification. |
| | This is the primary adaptation action that is to be completed by the Area Municipality. This action was identified and addressed as part of the development of the ReCAP. |
| Priority Score | This is the cumulative score that was established in the action prioritization exercise. Higher scores indicate a higher level of priority for completion by an AM under short-term timelines. |
| Priority Level | This is the level that was assigned based on the cumulative priority score identified during the action prioritization exercise. Higher scores indicate a higher level of priority for completion by an AM under short-term timelines. |
| Action Timeline | This represents the timeline with which the shortlist adaptation action should be completed by. Action timeline is associated with the priority score identified during the action prioritization exercise. |

Table 3: List of criteria and their respective descriptions included in the implementation schedule

| Implementation | Description |
|-------------------------|---|
| Schedule Criteria | Beschption |
| | Higher scores indicate a higher level of priority for completion by an AM under short-term timelines. |
| Target Completion | This is the year or year range for which the shortlist adaptation |
| Date | action is recommended to be completed by. |
| Projects | These are the tasks/assignments that each AM are to fulfill to complete each shortlist adaptation action. They consist of both immediate and supporting actions. Immediate actions: immediate next steps that need to be taken to implement the action. |
| | Supporting actions: activities to help support the implementation of the action, or steps that need to be taken before the action itself can be considered. |
| Lead Organization(s) | Department(s)/organization(s) that will lead implementation. |
| Progress/Current | Related programs, initiatives, or policies that are already underway or happening that speak to or are in alignment with the action. |
| Practices | Any cells populated with "NA" indicate that either the project has not started or there is no indicated progress from the AM. |
| Project Status | The status of the project; either in progress, ongoing, or pending |

The implementation plans for each AM addressing the shortlist adaptation actions situated within bucket 2 is presented in Appendix D. Another important note to consider is that in Section 5 of this report and Appendix D, action items highlighted in green indicate "quick win" projects/items that can be implemented by the Area Municipality.

5.1: Implementation Schedule for the Town of Huntsville

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status | |
|--------------|---|--|--|--|--|--|---|----------------|
| | Implement consistent flood | | | Research best practices and amend to tailor to Muskoka | Town of Huntsville Development Services Town of Huntsville Operations Town of Huntsville Corporate Services DMM Town of Huntsville Fire Department | DMM in the process of updating flood plain mapping | Pending | |
| 1 | plain mapping policy in area municipal zoning | policy in area 31 municipal zoning by-law and official | 31 (<mark>High</mark>) | <2 Years (2025- 2027) | Hold a meeting with all AMs and District planning Directors to determine how to achieve harmonization | DMM Area Municipalities | Discussions taking place involving floodplain LiDAR data plus current stormwater modelling to help update the policy. | In Progress |
| | | | | Review planning policy around flood mitigation for waterfront or other property owners (i.e., temporary berm) | DMMTown of HuntsvilleProvince | Huntsville hosted IWM Workshop in | In Progress | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|--|-------------------|
| | | | | | | November 2024 | |
| | | | | Review areas with single access points and review opportunities for redundant access to increase the resiliency of the single point. | Town of Huntsville Operations Town of Huntsville Fire Department | • NA | Pending |
| | | | | Review results of second phase of the floodplain mapping project to identify more at-risk communities. | Town of Huntsville Development Services Town of Huntsville Operations Town of Huntsville Corporate Services Town of Huntsville Fire Department | • NA | Pending |
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, | 30 (High) | | Research best practices on how to incorporate climate resilience into asset management. | Town of Huntsville Finance Department Town of Huntsville Corporate Services | Funding opportunities are reviewed as part of the asset renewal process. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|--|-------------------|
| | water/wastewater infrastructure etc.) to climate- related risks from extreme weather, temperatures, and flooding and plan for | | | Add a climate lens to asset management of municipal infrastructure to include provisions to increase resilience to climate threats. | Town of Huntsville Finance Department Town of Huntsville Corporate Services | Climate lens is currently required for all federal infrastructure funding for new and retrofit projects. | Pending |
| | implementation of recommendations | | | Review grants for assessing climate risk to buildings. | Town of Huntsville Finance Department Town of Huntsville Corporate Services | Only 80% of the funding is provided from GMF, capital budget would need to include remaining 20%. Currently there is budget for Building Condition Assessments or Building Condition Assessments are currently underway. | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|----------------------|--|-------------------|
| | | | | Use climate change resources (i.e., floodplain mapping, IDF curves, culvert sizing, etc.) in Asset Management and risk assessment processes for new and existing assessments. | • | The Asset Management Plan (AMP) for the Township recommends collecting and including data to incorporate the vulnerability of infrastructure to climate change in risk analysis; also required under O.Reg 588/17: Asset Management Planning for Municipal Infrastructure. | Pending |
| 3 | Ensure municipal policies encourage community food, | 30 (High) | <2 Years (2025- | Look to amend by-laws that allow pollinator gardens on boulevards/front lawns/street corners | | • NA | Pending |
| | water retention (rain garden, bioswales, etc.) | | 2027) | Investigate the District bringing back the partially subsidized rain | • DMM | The Environment and Climate | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|--|---|-------------------|
| | and pollination gardens. | | | barrel program to encourage water conservation. | | Change Committee recommended pilot projects to encourage water conservation and a rain barrel program for rainwater collection and reuse. Education around this project can communicate the importance of controlling runoff. | |
| | | | | Encourage homeowners and landlords to improve the resilience of residential buildings to climate- related risks through upgrades and/or retrofits. | Town of Huntsville Development Services* | • NA | Pending |
| | | | | Enact small changes to landscaping, placement of | Township of Huntsville Parks Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|--|-------------------|
| | | | | downspouts, rain gardens, and bioswales to reduce flooding. | | | |
| | | | | Shift from annual to perennial plants in all Town of Huntsville gardens. | Township of Huntsville Parks Department | • NA | Pending |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the | 29 (High) | <2 Years (2025- 2027) | Include climate change references in staff reports and work with DMM to do so. | Town of Huntsville Climate Change Project Coordinator Town of Huntsville Clerk Town of Huntsville Deputy Clerk | Other municipalities are not using climate lens section appropriately because there is no adequate direction for staff on how to use it. | Pending |
| | community. | | | Provide additional emergency management training and improve external communications to improve climate change awareness and education. | Town of Huntsville Fire Department* | • NA | Pending |
| | | | | Look to gather information pre- and post-communications on level of | Town of Huntsville Fire Department* | Emergency information/em | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|---|-------------------|
| | | | | knowledge around climate change risks and preparedness to help inform future communications and resources. | | ergency preparedness continues to be updated and available on the Town of Huntsville website and includes promotion of the use of the Voyant Alert! System. | |
| | | | | Explore opportunities to distribute free/subsidized emergency preparedness kits. | Township of Huntsville Fire Department | Not currently included in any high-level plan aside from the ReCAP. | Pending |
| | | | | Find new ways to communicate to short-term rental owners and seasonal residents beyond mail outs to property owners. | Town of Huntsville Communications Town of Huntsville Marketing | Encourage property owners to opt in to electronic communication s when they enroll in receiving their property tax bill | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|--|-------------------|
| | | | | | | by email when the new platform is rolled out. | |
| | | | | Coordinate consistent messaging across Muskoka by various actors (Area Municipalities, public health, involved organizations). | Simcoe Muskoka District Health Unit DMM Town of Huntsville Communications Town of Huntsville Marketing | • NA | Underway |
| 5 | Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) features and green infrastructure into new development | 27 (High) | <2 Years (2025- 2027) | Review legal hurdles to Green Development Standards. | • DMM | Money already taken from the Climate Change Reserve Fund for development in Bracebridge (100 Pine Street). | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|---|----------------------|---|-------------------|
| | and redevelopment projects. | | | | | DMM to undertake feasibility study as indicated in their update to Council on Integrated Watershed Management projects. | |
| | | | | District of Muskoka to conduct a feasibility study for the implementation of GDS across Muskoka as part of the Muskoka Community Energy and Emissions Reduction Plan (CEERP) | • DMM | Investigate if the District of Muskoka climate change reserve fund for climate change projects will help fund area municipality participation in feasibility study. | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|---|--|-------------------|
| | | | | Metrics (building, site plan, neighborhood) to be developed, these could be transferrable across Muskoka municipalities. | DMMArea Municipalities | Looking at how other municipalities have used scoring metric to incentivize more sustainable development projects. | Pending |
| | | | | The Ministry of Municipal Affairs and Housing released the 2024 Building Code which will come into effect on January 1, 2025. The new code moves towards harmonization with the National Construction Codes with some exceptions, notably that the code does not harmonize with national energy efficiency standards. | Town of Huntsville Chief Building Officer (CBO) | • Continue to monitor for the inclusion of green building standards in the Ontario Building Code. | Ongoing |
| | | | | Investigate how this is going to impact cost and future maintenance when AM takes over infrastructure. | Town of Huntsville Development Services Town of Huntsville Operations Town of Huntsville Corporate Services | Master Stormwater Management Model Reports are compiled using background | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|----------------------|---|-------------------|
| | | | | | | reviews of existing records and reports regarding the town's infrastructure, stormwater reports, sub- watershed studies, and development records. Asset inventories of known stormwater ponds, storm sewers, catch basins, and outfalls were also provided in digital form to assist in creation of the model. | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|---|-------------------|
| | | | | | | Model underway). | |
| | | | | Join training and capacity building programs (i.e., Building to Net-Zero Project Cohort, etc.) | Town of Huntsville Climate Change Project Coordinator | Reviewing capacity constraints around staffing without having to assign more side of the desk work. | Ongoing |
| | | | | Investigate municipal best practices from other municipalities. | Town of Huntsville Climate Change Project Coordinator Town of Huntsville Development Services | Reviewed Clean Air Partnership GDS 2024 Briefing Note. | Ongoing |
| 6 | Coordinate municipal efforts to improve and expand warming and cooling | 24 | 2-5 Years | Review which buildings have generators and explore options for additional stations, specifically options in Port Sydney, Utterson, and Aspdin Hall. | Town of Huntsville Building and Facilities Town of Huntsville Corporate Services | • NA | In Progress |
| 6 | interventions employed during extreme weather events. | (Medium) | · · | Review current guidelines and thresholds established for cooling/warming interventions. | Town of Huntsville Building and Facilities Town of Huntsville Corporate Services | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|---|------------------|-------------------|
| | | | | Assess the current communications strategy, communicate best practices with other AMs. | Town of Huntsville Communications Town of Huntsville Marketing DMM Simcoe Muskoka District Health Unit | • NA | Pending |
| | | | | Establish updated guidelines for when to enact these facilities. | Town of Huntsville Corporate Services DMM Simcoe Muskoka District Health Unit | • NA | Pending |
| | | | | Update communications process for notifying general population and vulnerable populations when and where to access the facilities. | Town of Huntsville Communications Town of Huntsville Marketing | • NA | Pending |
| | | | | Conduct a needs assessment for where the cooling/warming interventions are most required based on populations and geography and how to get people to these centres. | Simcoe Muskoka District Health Unit DMM Town of Huntsville Chief Building Officer (CBO) | • NA | Pending |
| | | | | Review buildings to determine which have adequate generators capacity. | Town of Huntsville Building and Facilities | • NA | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completi on Date) | Projects (Immediate and | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|---|------------------|-------------------|
| | | | | | Town of Huntsville Corporate Services | | |
| | | | | Ensure three (3) new fire stations to be built incorporate climate resiliency in their design. | Town of Huntsville Building and Facilities Town of Huntsville Corporate Services | • NA | Pending |

5.2: Implementation Schedule for the Town of Gravenhurst

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|---|-------------------|
| | Implement consistent flood plain mapping policy in area municipal zoning by-law and official plans. | 31 (High) | | Research best practices and work collaboratively to develop an approach that is suitable for each AM across Muskoka. | • DMM | District to lead as part of their Official Plan update this year/next year. | Pending |
| 1 | | | | Hold a meeting with all AMs and District planning Directors to determine how to achieve harmonization and create Muskoka- wide planning group to discuss policy harmonization. | Town of Gravenhurst Planning Division | District to lead as part of their Official Plan update this year/next year. | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|--|---|-------------------|
| | | | | Review planning policy around flood mitigation for waterfront or other property owners (i.e., temporary berms). | Town of Gravenhurst Planning Division | District to lead as part of their Official Plan update this year/next year. | Pending |
| | | | | Review areas with single access points and review opportunities for redundant access to increase the resiliency of the single point. | Town of Gravenhurst Planning Division Town of Gravenhurst Infrastructure Department | District to lead as part of their Official Plan update this year/next year. | Pending |
| | | | | Review results of second phase of the floodplain mapping project to identify more at-risk communities. | Town of Gravenhurst Planning Division Town of Gravenhurst Infrastructure Department | District to lead as part of their Official Plan update this year/next year. | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme weather, temperatures, and flooding and plan for implementation of recommendations. | icipal e (i.e., ads, vater e etc.) to ed risks from ther, s, and plan for on of | 1) <2 Years (2025- 2027) | Research best practices on how best to incorporate climate resilience into asset management and implement these actions. Recent Asset Compliance update has identified that Climate Change should be embedded into asset replacement decision making. | • Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Add a climate lens to asset management of municipal infrastructure to include provisions to increase resilience to climatic threats. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Finance Department | • NA | Pending |
| | | | | Investigate available grants for assessing climate risk to municipal buildings and infrastructure. | Town of Gravenhurst Finance Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|---|--|---|---|---|-------------------|
| | | | | Use climate change information resources (floodplain mapping, IDF curves, culvert sizing, etc.) in Asset Management and risk assessment processes for new and existing assessments. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Finance Department | • NA | Pending |
| 3 | Ensure municipal policies encourage community food, water retention (rain garden, bioswales, etc.) and pollination gardens. | burage community I, water retention (rain 30 (High) Ien, bioswales, etc.) | <2 Years | Look to amend applicable by-laws that allow for pollinator gardens on boulevards/front lawns/street corners, where feasible. | Town of Gravenhurst By- law Division | Ongoing work | Ongoing |
| | | | | Create list of current community garden initiatives in Gravenhurst – to | Town of Gravenhurst Recreation Department | To start in Summer 2024; Gravenhurst has 30 gardens at the Community Centre and 2 are | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|---|---|---|-------------------|
| | | | | identify areas that may be in need. | | • | perennial pollinator gardens. Gravenhurst doesn't have inventory of GAPs but could compile. Horticultural Society may have some too. | |
| | | | | Look at best practices for roadside mowing and the protection of monarch (and other sensitive species) habitat. Reduce roadside mowing where vehicular site lines are not impacted. | • Town of Gravenhurst Infrastructure Department | • | Ongoing | Ongoing |
| | | | | Encourage homeowners and landlords to improve the resilience of residential buildings to climate-related risks through upgrades and/or retrofits through providing | Town of Gravenhurst Building and Planning Departments | • | Ongoing | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| | | | | information at the pre- consultation stage and on the municipal website. | | | |
| | | | | Shift from annual to perennial and native plants in all Town of Gravenhurst gardens. | | • Ongoing | Ongoing |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the community. | 29 (High) | <2 Years (2025- 2027) | Create page on Town website dedicated to local and relevant climate change related information, include links to District page and Muskoka Watershed Council | Town of Gravenhurst Climate Change Project Coordinator Town of Gravenhurst | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|------------------|-------------------|
| | | | | information and reports. | Communications Department | | |
| | | | | Develop Climate Adaptation section of Staff reports to Council and articulate how the recommendations of the Staff report advance the goals and actions of this Plan. | Town of Gravenhurst Climate Change Project Coordinator | Ongoing | Ongoing |
| | | | | Explore opportunities for Area Municipalities to increase climate change awareness and education including through reviewing and improving external communications (i.e., dedicated page on municipal page, social media campaign, etc.). | Town of Gravenhurst Climate Change Project Coordinator Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Look to gather information pre- and post- communications on level of knowledge | Town of Gravenhurst Climate Change | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|------------------|-------------------|
| | | | | around climate change risks and preparedness to help inform future communications and resources. | Project Coordinator Town of Gravenhurst Communications Department | | |
| | | | | Meet with external organizations to understand communication best practices around climate change. Ensure messaging is tailored to different populations, is inclusive and covers all climatic impacts. | Town of Gravenhurst Climate Change Project Coordinator Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Explore opportunities to distribute free/subsidized emergency preparedness kits. | Town of Gravenhurst Fire Department Town of Gravenhurst Emergency Services | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|------------------|-------------------|
| | | | | Participate in the coordination of consistent messaging across Muskoka by various actors (Area Municipalities, public health, involved organizations). | Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Develop matrix for Town staff reports to report on how each activity outlined in the staff report addresses adaptation to climate change. | Town of Gravenhurst Climate Change Project Coordinator | Ongoing | Ongoing |
| | | | | Orientation / Training program for elected officials and appointed Subcommittee members. | DMM Town of Gravenhurst Climate Change Project Coordinator | • NA | Pending |
| | | | | Promote Voyant Alert app to all members of the community. | Town of Gravenhurst Climate Change | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-----------------------|--|--|--|---|--|------------------|-------------------|
| | | | | | Project Coordinator Town of Gravenhurst Communications Department | | |
| 5 pol the 5 LII | Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) features and green infrastructure into new | 27 (High) | <2 Years (2025- 2027) | Plan to develop and implement Engineering Design Standards Manual to provide LID standards (including Green Development Standards (GDS), as appropriate) for new development and redevelopment projects. | | • NA | Pending |
| | development and redevelopment projects. | | | Review design standards for site-level Stormwater Management Plans (SWMPs) and determine the uptake toward LID opportunities | Town of Gravenhurst Infrastructure Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|--|-------------------|
| | | | | Investigate including as a requirement for GDS in new development in Official Plan. | Town of Gravenhurst Planning Division | Official Plan review in 2026 | Pending |
| | | | | Investigate municipal best practices to ensure Standards are as consistent as possible/appropriate with other AMs in Muskoka. | Town of Gravenhurst Planning Division | Official Plan review in 2026 | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|--|-------------------|
| | | | | Review policies to ensure urban areas are intensified/densified (limit rural development/expansio n where possible). | Town of Gravenhurst Planning Division Town of Gravenhurst Infrastructure Department | • Official Plan review in 2026 | Pending |
| 6 | Coordinate municipal efforts to improve and expand warming and cooling interventions employed during extreme weather events. | 24 (Medium) | 2-5 Years (2027- 2030) | Conduct a needs assessment for where the cooling/warming interventions are most required based on populations and geography and how to get people to these centres. Ensure areas outside of urban core are being serviced – | Gravenhurst Emergency | • Fire Department involved from a fire code/capacity perspective. Perhaps in church basements etc., lower tier. More of a support role – they would staff it (about a year ago). | Ongoing |

| Actio ID | n Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-------------|----------------------------------|--|--|---|-------------------------|------------------|-------------------|
| | | | | vulnerable members of community live out of town. | | | |

5.3: Implementation Schedule for the Town of Bracebridge

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead C | Organization(s) | Project Progress | Project Status | |
|--------------|--|--|--|--|--|---|---|-------------------|---------|
| | | | | Research best practices and amend to tailor to Muskoka. | Plan Deve | n of Bracebridge ning and elopment artment | • NA | Pending | |
| 1 | Implement consistent flood plain mapping policy in area municipal zoning by-law and official plans | 21 (Lizh) | <2 Years (2025- | Meet with AMs and District Planning staff to determine how to achieve harmonization. Investigate creating a Muskoka-wide planning group to discuss policy harmonization. | Plan Deve | n of Bracebridge ning and elopment artment | • NA | Pending | |
| 1 | | unicipal zoning 2 /-law and official | | zoning 2027) | Review planning policy around flood mitigation for waterfront or other properties subject to flooding (i.e., temporary berm). | Plan Deve | n of Bracebridge ning and elopment artment | • NA | Pending |
| | | | | Review areas with single access points and review opportunities for redundant access to increase the resiliency. | Plan Deve | n of Bracebridge ning and elopment artment | • NA | Pending | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|--|-------------------|
| | | | | Review results of second phase of the floodplain mapping project to identify more at-risk communities. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme weather, temperatures, and flooding and plan for implementation of recommendations. | 30 (High) | <2 Years (2025- 2027) | Bracebridge to undertake condition assessments and develop a Levels of Service (LoS) framework that incorporates Muskoka's climate threats. Staff will use this information to complete the Stage 3 Asset Management Plan, which is due by July 1, 2024, in accordance with Ontario Regulation 588/17. This will include lifecycle activities and risk models to guide staff in how assets are designed, maintained, and replaced. Municipalities to continuously improve their asset registry data using | Town of Bracebridge Finance Department Town of Bracebridge Finance | General Committee on September 4, 2024. e • Stormwater | In Progress |
| | | | | asset registry data using condition assessments that capture climate-related considerations, such as | Department Town of Bracebridge Public Works Department | management e infrastructure recently assessed. | Ongoing |

| Action ID | Shortlist Adaptation Action | (Driority) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|------------|--|---|--|---|-------------------|
| | | | | floodplain mapping and Intensity Duration Frequency (IDF) curves. | | | |
| | | | | Municipalities to explore opportunities to receive grant funding to support the cost of condition assessments for non-core infrastructure (buildings, vehicles, machinery, equipment, and land improvements). | Town of Bracebridge Finance Department | Monitoring funding opportunities. | Ongoing |
| | | | | Municipalities to develop a LoS framework that considers the exposure, vulnerability, and resilience of municipal infrastructure to climate threats. | Town of Bracebridge Finance Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|------------------|-------------------|
| | | | | Municipalities to incorporate their updated condition assessment data and LoS frameworks into their Asset Management Plans. | Town of Bracebridge Finance Department | • NA | Pending |
| 3 | Ensure municipal polices encourage community food, water retention (rain garden, bioswales, etc.) and pollination | 30 (<mark>High</mark>) | <2 Years (2025- 2027) | Review and recommend amendments to by-laws to allow pollinator gardens on boulevards/front lawns/street corners. | Town of Bracebridge Corporate Services Department Town of Bracebridge Planning and Development Department Town of Bracebridge Public Works Department | • NA | Pending |
| | and pollination gardens. | d pollination | | Encourage homeowners and landlords through communication, education and grant promotion to improve the resilience of | Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|------------------|-------------------|
| | | | | residential buildings to climate-related risks through upgrades and/or retrofits. | | | |
| | | | | Make changes to landscaping, placement of downspouts, rain gardens and bioswales to reduce flooding. Promote same on privately-owned property. | Town of Bracebridge Public Works Department Town of Bracebridge Recreation Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Shift from annual to perennial plants in all Town-owned gardens. | Town of Bracebridge Public Works Department Town of Bracebridge Recreation Department | | Pending |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the community. | 29 (High) | <2 Years (2025- 2027) | Explore opportunities for Area Municipalities to increase climate change awareness and education including through: • Reviewing and improving external communications. | Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|--|------------------|-------------------|
| | | | | Incorporating regular messaging that highlights climate change and steps the Town is taking to address them. Incorporating simple facts and tips people can implement at home. Look to gather information pre- and post- | | | |
| | | | | communications on level of knowledge around climate change risks and preparedness to help inform future communications and resources. | Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Utilize tools within social platforms to engage with followers to both gauge their knowledge on climate change and offer information to learn more. | Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | (Driority) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Le | ead Organization(s) | Project Progress | Project Status |
|--------------|---|------------|--|---|----|--|--|-------------------|
| | | | | Partner with external organizations to understand communication best practices around climate change. Ensure messaging is tailored to different populations, with an objective to be inclusive and cover all climatic impacts. | | Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Explore opportunities to distribute free/subsidized emergency preparedness kits. | • | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Coordinate consistent messaging across Muskoka by various actors (municipalities, public health, involved organizations). | • | Town of Bracebridge Communications Coordinator | • NA | Pending |
| 5 | Review or develop policies that encourage the incorporation of Low Impact | 27 (High) | <2 Years (2025- 2027) | Consideration and evaluation of an Engineering Design and Standards Manual to provide LID opportunities to | | Town of Bracebridge Planning and Development Department | Engineering design and standards manual was recently reviewed. | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|---|-------------------|
| | Development (LIDs) features and green | | | Developers/Design Engineers. | Town of Bracebridge Public Works Department | | |
| | infrastructure into new development and redevelopment projects. | | | Review design standards for Stormwater Management Plans (SWMP) and determine the uptake toward LID opportunities. | Town of Bracebridge Planning and Development Department Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Review policies to encourage urban areas to be intensified/densified (limit rural development/expansion, where possible). | Town of Bracebridge Planning and Development Department | Official Plan update is in progress | In Progress |
| | | | | If approved, implement Engineering Design and Standards Manual to provide LID opportunities to | Town of Bracebridge Planning and Development Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|------------------|-------------------|
| | | | | Developers/Design Engineers. | | | |
| | | | | Review current guidelines and thresholds established for cooling/warming interventions. | Town of Bracebridge Fire Department | • NA | Pending |
| 6 | Coordinate municipal efforts to improve and expand warming and cooling interventions | 24 (Medium) | 2-5 Years (2027- 2030) | Conduct a needs assessment for where cooling/warming interventions are most required based on population distribution and geography and how to get people to these centres (i.e., explore free bus passes/pickups). | Town of Bracebridge Fire Department | • NA | Pending |
| | employed during extreme weather events. | | / | Review identified and potential new facilities to determine which facilities have adequate generator capacity and air conditioning and add this information to the Evacuation Centres – Tab 4 in the Emergency Plan. (i.e., warming centre with no backup power). | Town of Bracebridge Fire Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|------------------|-------------------|
| | | | | Promote a neighborhood watch/check-in program and build a framework that can be discussed and implemented by neighborhood groups | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | | Pending |
| | | | | Expand access to outdoor water stations. | DMM Town of Bracebridge Public Works Department | • NA | Pending |

5.4: Implementation Schedule for the Township of Muskoka Lakes

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | | ead Organization(s) | | Project Progress | Project Status |
|--------------|--|--|--|---|---|--|---|---|-------------------|
| | | | | Research best practices and tailor to Muskoka. | • | Township of Muskoka Lakes Planning Department | • | Started; subject to process stipulated under the Planning Act, including public meeting(s). | In Progress |
| 1 | Implement consistent flood plain mapping policy in area municipal zoning by- law and official plans | 31 (High) | <2 Years (2025- 2027) | Review results of second phase of the floodplain mapping project to identify more at-risk parts of the community. | • | Township of Muskoka Lakes Planning Department | • | Started; subject to process stipulated under the Planning Act, including public meeting(s). | In Progress |
| | | | | Incorporate updated mapping into Comprehensive Zoning by-law. | • | Township of Muskoka Lakes Planning Department | • | Started; subject to process stipulated under the Planning Act, including public meeting(s). | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|------------------|-------------------|
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme weather, temperatures, and flooding and plan for implementation | 30 (High) | <2 Years (2025- 2027) | Research best practices on how to incorporate climate resilience into asset management. | Services | • NA | Pending |
| | of recommendations. | | | Explore mobile infrastructure – shared services to reduce duplication | Township of Muskoka Lakes Operational Services | • NA | Pending |
| 3 | Ensure municipal polices encourage community food, water retention (rain garden, bioswales, etc.) and pollination gardens. | 30 (High) | <2 Years (2025- 2027) | Investigate partnership opportunities. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Research and implement best practices to | Township of Muskoka Lakes | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|--|------------------|-------------------|
| | | | | increase community involvement in developing community food, water retention and pollination gardens. | Planning Department Township of Muskoka Lakes Communications Department | | |
| | | | | Continue to promote communications and awareness of opportunities through the Municipality. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes Communications Department | • NA | Pending |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the community. | 29 (<mark>High</mark>) | <2 Years (2025- 2027) | Review best practices from other AMs and DMM. | Township of Muskoka Lakes Communications Department | • NA | Pending |

| Actior ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------|--|--|---|--|------------------|-------------------|
| | | | | Explore opportunities to increase climate change awareness and education. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Encourage community members to check on family, friends, and neighbours during of extreme weather events. | Township of Muskoka Lakes Fire Department Township of Muskoka Lakes Emergency Services Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Partner with external organizations to understand communication best practices. | Township of Muskoka Lakes Communications Department | • NA | Pending |

| Action ID | ¹ Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|------------------|-------------------|
| | | | | Review best practices from other municipalities. | Township of Muskoka Lakes Operational Services | • NA | Pending |
| 5 | Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) | | <2 Years (2025- | Consider creating Green Development Standards (GDS) with resiliency measures. | Township of Muskoka Lakes Operational Services Township of Muskoka Lakes Development Services | • NA | Pending |
| 5 | features and green infrastructure into new development and redevelopment projects. | 27 (High) | 2025-2027) | Encourage homeowners and landlords to meet green development standards when undertaking development. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Investigate legal hurdles to require this through the site plan approval process. | Township of Muskoka Lakes Planning Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|------------------|-------------------|
| | | | | Advocate for changes to the Ontario Building Code. | Township of Muskoka Lakes Development Services | • NA | Pending |
| | Coordinate municipal efforts to improve and | | 2-5 Years | Review current guidelines and thresholds established for cooling/warming interventions. | Township of Muskoka Lakes Fire Department Township of Muskoka Lakes Emergency Services | • NA | Pending |
| 6 | expand warming and cooling interventions employed during extreme weather events. | 24 (Medium) | | Assess the current communications strategy, communicate best practices with other AMs. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Establish updated guidelines of when | Township of Muskoka Lakes Fire Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------|--|--|--|--|------------------|-------------------|
| | | | | to enact these facilities. | Township of Muskoka Lakes Emergency Services | | |
| | | | | Review buildings to determine which have adequate generator capacity. (i.e., warming centre with no backup power). | Township of Muskoka Lakes Operational Services | • NA | Pending |

5.5: Implementation Schedule for the Township of Lake of Bays

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|--|---|----------------|
| | | | | Research best practices and amend to tailor to Muskoka, and specifically the Township of Lake of Bays. | • DMM | District to lead as part of their Official Plan update. | Pending |
| 1 | Implement consistent flood plain mapping policy in area | 31 (<mark>High</mark>) | | Hold a meeting with all AMs and District planning Directors to determine how to achieve harmonization. | AMs DMM Township of Lake of Bays Planning Department | • NA | Pending |
| | municipal zoning by-law and official plans | | 2027) | Review planning policy around flood mitigation for waterfront or other property owners (i.e., temporary berm). | Township of Lake of Bays Planning Department | • The Township is in the process of an Official Plan review. | In Progress |
| | | | | Investigate creating a Muskoka-wide planning group to discuss policy harmonization in the future. | | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|--|----------------|
| | | | | Review results of second phase of the floodplain mapping project to identify more at-risk communities. | Township of Lake of Bays Planning Department Township of Lake of Bays Public Works Department DMM | • NA | Pending |
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme | 30 (<mark>Hig</mark> h) | <2 Years (2025- 2027) | Research best practices on how to incorporate climate resilience into asset management | Township of Lake of Bays Finance Department Township of Lake of Bays Parks & Facilities Department Township of Lake of Bays Public Works Department | • The Township has been making improvements where possible and as asset improvements are being done. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|--|----------------|
| | weather, temperatures, and flooding and plan for implementation of recommendations. | | | Add a climate lens to asset management of municipal infrastructure | Township of Lake of Bays Finance Department Township of Lake of Bays Parks & Facilities Department Township of Lake of Bays Public Works Department | The Township has been making improvements where possible and as asset improvements are being done. Asset Management Plan does keep climate change/the environment in mind, but is not the main focus. | Ongoing |
| 3 | Ensure municipal polices encourage community food, water retention (rain garden, bioswales, etc.) and pollination gardens. | 30 (<mark>High</mark>) | <2 Years (2025- 2027) | Encourage homeowners and landlords to improve the resilience of residential buildings to climate-related risks through upgrades and/or retrofits. | Township of Lake of Bays Planning Department Township of Lake of Bays Communications Department | Township launched Environmental Projects Grant program that can provide financial assistance to individuals and organizations that | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|----------------------|---|----------------|
| | | | | | | offer direct projects, events or services that enhance the quality of life for the Township of Lake of Bays residents. The program will offer support for a wide range of environmental projects with initiatives centered on native plant restoration and landscape conservation, educational programs on local flora and fauna, community gardening, pollinator friendly gardens, and green space development, as well as efforts dedicated to erosion control and | |

| Action ID | Shortlist Adaptation Action | (Driority) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--------------------------|--|--|---|---|----------------|
| | | | | | | sustainable water management. | |
| | | | | Make changes to landscaping, placement of downspouts, rain gardens and bioswales to reduce flooding. | • Township of Lake of Bays Parks & Facilities Department | Currently, the Township does not have any issues around flooding etc. at Municipal buildings which in turn means that options have not been looked at (i.e. most of the Township buildings do not have downspouts). | Pending |
| | | | | Shift from annual to perennial plants in all Township of Lake of Bays gardens. | Township of Lake of Bays Parks & Facilities Department | Redesign of Township gardens (around Municipal Office). | Ongoing |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the community. | 29 (<mark>High</mark>) | <2 Years (2025- 2027) | Conduct review of current practices and share current practices with other AMs. | Township of Lake of Bays Communications Department Collaboration with AMs/District required. | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|--|--|----------------|
| | | | | Investigate other ways to educate residents. | Township of Lake of Bays Communications Department Township of Lake of Bays Libraries (Both Dwight and Baysville locations) | • NA | Ongoing |
| | | | | Print/distribute/promote the District of Muskoka's Guide to Flood Prevention as an educational resource. | Township of Lake of Bays Communications Department DMM | • NA | Ongoing |
| | | | | Explore opportunities for Township to increase climate change awareness and education. | Township of Lake of Bays Communications Department Township of Lake of Bays Planning Department | • Township in the process of creating a climate change webpage with resources. | In Progress |

| Actior ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|--|------------------|----------------|
| | | | | Review and improve external communication approach – investigate potential social media blasts and work with communications team. | Township of Lake of Bays Communications Department | • NA | Ongoing |

| | variables (i.e. road | Township of Lake of Bays Communications Department | • Topics already included in communications plan and the plan is updated regularly. The Township plans on creating a Communication Strategy. | In Progress |
|--|----------------------|--|--|-------------|
|--|----------------------|--|--|-------------|

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|--|----------------|
| | | | | Township to partner with Business Improvement Area (BIA), RTO12, and chambers etc. to identify opportunities from extended summer season and take advantage without damage to ecosystems. | Township of Lake of Bays Economic Development Department Township of Lake of Bays Communications Department | • NA | Pending |
| 5 | Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) features and green infrastructure into new development and redevelopment projects. | 27 (High) | <2 Years (2025- 2027) | Encourage homeowners and landlords to improve the resilience of residential buildings to climate-related risks through upgrades and/or retrofits. | Township of Lake of Bays Communications Department Township of Lake of Bays Planning Department | Township launched Environmental Projects Grant program that can provide financial assistance to individuals and organizations that offer direct projects, events or services that enhance the quality of life for the Township of Lake of Bays residents. The program will offer support for a wide range of | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|--|--|--|----------------|
| | | | | | | environmental projects with initiatives centered on native plant restoration and landscape conservation, educational programs on local flora and fauna, community gardening, pollinator friendly gardens, and green space development, as well as efforts dedicated to erosion control and sustainable water management. | |
| | | | | Explore grant programs that provide funding to Township for these programs. | Township of Lake of Bays Planning Department | Township launched Environmental Projects Grant program that can provide financial assistance to individuals and | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|----------------------|--|----------------|
| | | | | | | organizations that offer direct projects, events or services that enhance the quality of life for the Township of Lake of Bays residents. The program will offer support for a wide range of environmental projects with initiatives centered on native plant restoration and landscape conservation, educational programs on local flora and fauna, community gardening, pollinator friendly gardens, and green space development, as well as efforts dedicated to | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|--|----------------|
| | | | | | | erosion control and sustainable water management. | |
| | | | | Potential opportunity for small grants to increase resiliency with Community Improvement Plans. | | The Township recently implemented a CIP, which includes loans or grants for new housing and Expansion and Diversification of Existing Businesses within the communities, whereby renewable energy projects such as solar panels, small scale wind turbines, or geothermal associated with the production of new housing units would be eligible. | In Progress |
| 6 | Coordinate municipal efforts to improve and expand warming | 24 (Medium) | 2-5 Years (2027- 2030) | Review current guidelines and thresholds established for cooling/warming | Township of Lake of Bays Fire Department/Emergency Management | Additional staff capacity may be | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|---|----------------|
| | and cooling interventions employed during | | | interventions, done by emergency management team. | Township of Lake of Bays Corporate Services Department | | |
| | extreme weather events. | | | Conduct a needs assessment for where cooling/warming interventions are most required based on populations and geography and how to get people to these centres. | DMM Simcoe Muskoka District Health Unit Township of Lake of Bays Fire Department/Emergency Management | Additional staff capacity and/or consultant may be required for this project. | Pending |
| | | | | Ensure areas outside of urban core are being serviced – vulnerable members of community live out of town. | District Health UnitTownship of Lake of | • NA | Pending |
| | | | | Establish updated guidelines of when to enact these facilities. | DMM Simcoe Muskoka District Health Unit Township of Lake of Bays Fire Department/Emergency Management | Currently follow SMDHU | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and <mark>Supporting</mark> Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--------------------------------|--|--|---|---|--|----------------|
| | | | | | Township of Lake of Bays Corporate Services Department | | |
| | | | | Work with other AMs to establish best practices and District-wide procedures. | | Currently follow SMDHU | Ongoing |
| | | | | Assess and update communication process for letting vulnerable populations know when and where to access the facilities. Establish communication plan for after-hours/extreme weather situations. | • DMM | Collaboration with District required | Pending |
| | | | | Review buildings to determine which have adequate generators capacity. (i.e., warming centre with no backup power). | Township of Lake of Bays Fire Department/Emergency Management Township of Lake of Bays Parks & Facilities Department | Currently underway | In Progress |

6.0: Recommendations

The development of an Implementation Schedule or (plan) for each of the five Area Municipalities is considered the final deliverable under Milestone 3 of ICLEI Canada's BARC Framework. At this stage in the adaptation process, all Area Municipalities are recommended to move onto Milestone 4 of the BARC Framework. In the fourth milestone, Area Municipalities will be working to ensure that they have the appropriate implementation tools as well as the approval and support of Council, municipal staff, and the community to enact this Implementation Plan. As each Area Municipality progresses through Milestone 4, it is important to monitor how new conditions within the community might affect the decisions taken in the previous three milestones. Maintaining the relevance and accuracy of information throughout this adaptation process is important as the information collected will continue to inform decisions in the future. It is also recommended that each Area Municipality ensure that actions identified in Milestone 3 remain appropriate for each impact, especially as local conditions may change. This section serves to provide a series of recommendations to Area Municipalities as they progress through the implementation phase of the BARC Framework. It is important to note that it is the responsibility of the District, AMs, and community stakeholders to work in collaboration amongst one another in the execution of the proposed adaptation strategies of this Implementation Plan.

I. Ensure that Area Municipalities, the District, and community stakeholders have appropriate implementation tools to undertake adaptation actions

Identification of the appropriate tools for implementation will help drive the implementation process. Tools such as training, pilots, internal/external communication, marketing, and other resources will be used at various times throughout this stage of the adaptation process and represent the way in which the adaptation team will reach out to the responsible staff and wider community as identified in Milestone 3. More detail on these various implementation tools is provided in Table 4 below.

| Implementation Tool | Description | Examples |
|------------------------|--|--|
| Training | Training of staff, elected officials, and key community stakeholders. Workshops may also be required to offer staff to understanding specific technologies or methodologies adopted by various departments. | New standards or codes of practice Benefits of a given adaptation action New technologies (i.e., engineered materials or machinery) that may be used in infrastructure replacement |

Table 4: Various implementation tools to consider guiding the implementation phase of adaptation planning

| | Workshops and other training exercises will both add to a community's skill set and contribute to the successful implementation of the adaptation plan. | Rationales behind policy changes and/or amendments to departmental strategic plans. |
|---------------------------|--|--|
| Piloting | Is a way to implement adaptation actions through small scale initiatives. Pilots can help municipalities assess the strengths and weaknesses of specific adaptation actions, as well as associated costs and whether it produces both desired and measurable results. | Designing a home efficiency retrofit program to a specific neighbourhood within the community. Replacing aging infrastructure on a particular municipal building. Procurement of an electric vehicle. |
| Internal Communication | Communication of information across project team and internal stakeholders (i.e., municipal staff and departments). Communication of information to Council and the public through: Regular updates Annual reports Internal memos and informal meetings Coupling internal communication activities with more rigorous training exercises can be an effective way to ensure that staff and Council are well apprised of not only the actions that are taking place, but also the reasons and motivation behind adaptation actions. | Emergency service updates and preparedness plans. Changes to Council priorities and objectives. Changes to by-laws, zoning requirements, and codes. New plans or guides. New land-use regulations. |
| External Communication | Communicating, more generally, on the impacts of climate change and the risks associated with those impacts to the wider community. | Increasing public awareness and education about the public health implications of climate change and the need for emergency preparedness. |

| | Important to include public input, involvement, and engagement as well as developing partnerships with other communities throughout implementation process. | |
|--------------------|---|---|
| Marketing | Marketing is a helpful tool through which communication with wider audiences can be carried out. Ensuring municipality is communicating accomplishments and successes but also inform about adaptation efforts and provide opportunities for public participation. | Awareness raising campaigns/events. Tips for home adaptation activities. Incentives for participation in community-led programs. Guides, brochures, and pamphlets on climate change threats and risks. Public challenges and contests relating to climate change adaptation and preparedness. |
| Other Resources | Looking at planning guides or other documentation from external municipalities who may have already implemented a similar adaptation action. Local government action mechanisms. Looking at planning guides or other documentation at the provincial/federal level as well as not-for-profits (i.e., ICLEI Canada). | Plans Annual Reports Collaboration Memos and webinars Training courses |

II. Ensure that the District is encouraging the continuous collaboration amongst all the AMs to complete adaptation actions

As mentioned previously in this implementation plan, it is evident that there are many commonalities in adaptation actions across many Area Municipalities. As such, it is recommended that all Area Municipalities work closely together when completing the suggested adaptation actions. Within these common adaptation actions, not all Area Municipalities are at the same point of completion. It is recommended that all Area Municipalities communicate their progress, successes, weaknesses on various adaptation actions and offer support where required. It is also recommended that all Area Municipalities work in collaboration with the District of Muskoka on adaptation efforts to ensure outputs are consistent across all Area Municipalities.

III. Ensure Area Municipalities and the District are up to date on funding streams available to support implementation efforts

The actions outlined in the plan vary in terms of cost, timeline, and level of priority. Many of the actions require little to no funding and can be completed within existing budgets. Many of the actions are also already being addressed by community groups and stakeholders. For these projects, those groups will be leveraged as a great resource to further the community's resiliency to climate changes. Developing partnerships and gaining support from community groups and stakeholders will be a key step in furthering the implementation of the outlined initiatives. Funding sources are constantly sought after to further advance climate action throughout Muskoka. Many grants and funding programs will be investigated as outlined in the action plans and, if applicable grants are available, the AMs and DMM should prioritize acquiring that funding to further climate resiliency. Moving forward, the goal is to incorporate the budget for many of the climate actions into each annual municipal budget.

IV. Ensure that all Area Municipalities have a designated climate change or environmental project coordinator to manage adaptation projects

The adaptation actions within this Implementation Plan are extensive and require a great deal of coordination and management to ensure that the projects are completed effectively and within the suggested timelines. To ensure this, it is imperative that all Area Municipalities have designated staff to implement and overlook the adaptation actions within this plan.

In 2024, a proposal to hire a shared climate change project coordinator between the Township of Lake of Bays and the Town of Huntsville was approved by their respective Councils. It is recommended that a business case be developed and submitted for the hire of a second climate change project coordinator to manage adaptation projects across the Towns of Bracebridge and Gravenhurst and the Township of Muskoka Lakes.

V. Ensure that Area Municipalities and the District target action items that require minimal resources or capacity as a first order of business

As a first order of business, it is recommended that all Area Municipalities identify and execute those adaptation action items considered as "quick wins". Quick wins refer to tasks, strategies, or actions that can be implemented quickly and yield noticeable results or benefits in a short amount of time. They include action items that can be relatively easy to achieve within minimal efforts or resources. Implementing those "quick win" action items could help create immediate momentum in building the conversation around climate change efforts within the District of Muskoka. Within each Implementation Schedule, provided in section 5 and Appendix D of this plan, rows highlighted in light green are adaptation action items considered as "quick win" action items

that can be completed by Area Municipalities under the bucket 1 and 2 Implementation Schedules.

| | Area Municipalities | | | | |
|---|---------------------|-------------|-------------|------------------|-----------------|
| Adaptation Action | Huntsville | Gravenhurst | Bracebridge | Muskoka Lakes | Lake of Bays |
| Shift from annual to perennial and native plants in all Municipal gardens. | х | х | х | | х |
| Explore opportunities to distribute free/subsidized emergency preparedness kits | х | х | х | | |
| Hold a meeting with all AMs and District planning Directors to determine how to achieve flood plain policy harmonization. | х | х | х | x | x |
| Promote Voyant Alert System | | х | Х | Х | |
| Review and recommend amendments to by-laws to allow pollinator gardens on boulevards/front lawns/street corners | | х | х | | |
| Review current guidelines and thresholds established for cooling/warming interventions. | х | х | х | х | x |
| Explore opportunities to increase climate change awareness and education | х | х | х | х | х |
| Explore and investigate grant programs and how they may apply to adaptation actions. | х | х | х | х | х |
| Investigate a communications strategy for a rain barrel program | Х | х | х | Х | х |
| Identify quick wins (library or municipal buildings, adding boosters and free internet) | Х | х | х | Х | Х |

Table 5: Examples of "quick win" adaptation action items to be completed by AreaMunicipalities under bucket 1 and 2 Implementation Schedules

| Assess availability of free internet access | Х | Х | Х | | Х |
|---|---|---|---|---|---|
| Create educational material for residents on proper salt application | | | х | Х | |
| Continue to promote communications on the Friends of the Muskoka Watershed Residential wood ash recycling program | | | Х | х | |
| Review lessons learned from the District rain barrel program | Х | Х | х | Х | Х |

7.0: Conclusion

Muskoka's climate is changing and as a result, the Muskoka of tomorrow will be drastically different than the Muskoka of the past. Through ICLEI Canada's Advancing Adaptation project, the development of the District's first implementation-ready climate change adaptation (ReCAP) plan was completed in 2023. The development of this plan was guided through ICLEI Canada's BARC five milestone framework. The ReCAP identified a series of implementation-ready adaptation actions that were meant to build upon the existing actions taken by each of the Area Municipalities. This Implementation Plan serves as an extension to the findings of the ReCAP and provide an implementation roadmap to be followed by all Area Municipalities to ensure that all adaptation actions are completed effectively and on schedule. The key to success for many of the adaptation actions identified within this plan is communication and collaboration, and in working through this adaptation planning process with a District wide lens, the lines of communication have been opened. This plan shall serve as a living document that will be utilized as an implementation plan and, when needed, it will be reviewed and modified so as to continue being a useful implementation plan.

Adaptation is crucial for Muskoka, as the region faces increasing risks from rising temperatures, shifting precipitation patterns, and more frequent extreme weather events. By implementing adaptive strategies, such as enhancing infrastructure, protecting natural habitats, and ensuring sustainable water management, Muskoka can better protect its unique environment, local economy, and the well-being of its communities. Proactively addressing these challenges will not only help preserve the region's natural beauty and tourism appeal but also build resilience for future generations, ensuring Muskoka remains a thriving and sustainable destination.

Appendix A: List of Existing Adaptation Actions from Each Area Municipality

| Area Municipality | Actions Taken |
|-------------------|--|
| Area Municipality | Actions TakenDeclared a climate emergency in 2021 which sparked conversation throughout the Town about integrating climate change mitigation and adaptation into the municipal plans.Town adopted an Official Plan which includes policies to guide growth and incorporate climate resiliency as a lens through which to review all developments.Incorporating climate adaptation into the 2019-2023 Strategic Plan in the themes of protecting the natural environment, incorporating sustainability principles into planning and development policies and processes, as well as in capital improvements by ensuring infrastructure is built with a sustainability and climate change lens.All capital infrastructure work that the Town approves moving forward is reviewed with the recognition of changing and increasing significant weather events.Solar panels installation on several Town buildings.Partnership with electricity providers to incorporate electric vehicle charging stations at municipal facilities.Replacement of all streetlights with LED bulbs.Replacement of manual light switches with motion sensors in most public spaces.Protected Natural Environment and Lively, Healthy, and Safe Communities are both pillars of the updated Strategic Plan. The plan also emphasizes taking action on climate change is a shared responsibility between the Town of Huntsville and Township of Lake of Bays.Huntsville / Lake of Bays Fire Department to examine funding and grant opportunities that allow them to deploy locally on the ground in a flooding event with tools such as with tiger dams (made up of custom-made water-filled tubes and acts as a flood barrier).Huntsville and Lake of Bays hosted a watershed workshop in fall 2024 where 60 municipal leaders from thi |

| Area Municipality | Actions Taken |
|------------------------|---|
| | potentially open up natural floodplains to give water a place to go. |
| | Declared a climate emergency in 2021, which led to the focus on the environment in many more aspects of the Town's operations, activities, and projects. |
| | Included an Environmental Stewardship theme in the Town's Strategic Plan. |
| Town of Bracebridge | Establishment of an Urban Tree Management Plan which aims to utilize arboricultural best practices and adequate maintenance procedures to ensure the perpetuation and enhancement of the Town's urban forest, as well as ensuring public safety in the downtown core and parks. |
| | Made a request to the Government of Ontario for an Interim Cap on Gas Plant and Greenhouse Gas Pollution (Motion 21-GC- 022). |
| | Undertakes continuous improvement in all aspects of its operations with environmental stewardship. |
| | Completed a Master Storm Sewer Report (Urban Centre). |
| | Inclusion of climate change impact scenarios in the Town's Road Needs Study. |
| | Conducted an Urban Tree Assessment, which included an inventory of tree health and the urban canopy for monitoring, assessment, and succession planning. |
| | Commitment to map invasive species across the municipality to monitor and hopefully slow their spread. |
| | Installation of electric vehicle charging stations at the Muskoka Wharf (2022/2023). |
| | Utilizing less salt with more targeted application in winter road maintenance plans. |
| Town of | Piloting and monitoring the effectiveness of treated salt opposed to conventional rock salt for winter control. |
| Gravenhurst | Implementation of bikes for in-town By-law Patrol instead of motorized vehicles. |
| | Replaced almost 1000 municipal streetlights with LED technology. |
| | Converted the dock lighting at the Muskoka Wharf to use solar technology. |
| | Highway 11 Gateway Signage lighting converted to solar technology. |
| | Ongoing LED light conversions at Municipal facilities including the installation of motion detectors. |
| | All Capital infrastructure improvements include focus on building more resilient infrastructure to adapt to climate change. |
| | Green procurement initiatives embedded in the Town's Purchasing By-law. |

| Area Municipality | Actions Taken |
|-------------------|--|
| | Installation of Solar Panels on the roof of the Centennial Centre. |
| | Commenced conversion of fleet stock to hybrid vehicles. |
| | Declared a climate emergency in 2021. |
| | Continue to assess changes to Updated Septic Inspection |
| | Program. |
| | Continue to assess changes to Updated Tree Conservation By- |
| | law. |
| | Promote Friends of the Muskoka Watershed residential wood |
| | ash recycling program. |
| | Continue to review municipal processes to find ways to better |
| Township of | optimize salt use. |
| Muskoka Lakes | Ensure municipal policies encourage use of municipal lands for |
| | community food, water retention, and pollinator gardens. |
| | Review Municipal Emergency Response Plan. |
| | Replaced all streetlamps with LED light bulbs. |
| | Dark Sky By-law under review |
| | Adopted the Updated Official Plan to protect the environment |
| | and water quality. |
| | Adopted the Official Plan amendment to protect the environment |
| | and character of Minett. |
| | LED lighting retrofit at the Township office, Dwight arena, and |
| | Community Hub. |
| | Construction of Public Works garages with enhanced energy |
| | specifications, LED lighting, and high-efficiency HVAC units. |
| | Municipal office expansion was constructed using energy- |
| | efficient construction and HVAC. |
| | Most furnaces and AC-units are upgraded to more energy- |
| | efficient options. |
| | Arena lighting downsized from 72 to 36 fixtures. |
| | Heat reclamation system installation in arena. |
| | Installation of timers for hot water heaters in four (4) Seniors |
| Township of Lake | Centre's and Firehalls. |
| of Bays | Programmable thermostats installation in Township office, |
| | Dwight arena, and Community Hub. |
| | Addition of 3 hybrid vehicles. One in Public Works, one in By- |
| | law, and one in Parks and Facilities. |
| | Installation of electric vehicle charging stations. |
| | Updating Township Official Plan to include active transportation |
| | policies. |
| | Encouragement of infill, intensification, and brownfield |
| | development. |
| | Sustainability checklists and guidelines. |
| | Community revitalization through financial incentives and grants |
| | to enhance economic activity in communities. |

| Area Municipality | Actions Taken |
|-------------------|--|
| | Introduction of Land Use Planning Tools (i.e., Official Plan) |
| | Drafted the Development Permit By-law to regulate removal of |
| | vegetation and alteration in Waterfront designated properties. |
| | Now Community Planning Permit System in effect that applies |
| | Township-wide. |
| | Development and implementation of the Green Development |
| | Standards. |
| | Township Official Plan and Community Planning Permit By-law |
| | include verbiage regarding protecting vegetation and wetlands. |
| | Introduction to the Development Permit System (now |
| | Community Planning Permit System). |
| | Encouragement of tree plantings, protection and enhancement |
| | of the environment and use of native plant species in plantings. |
| | Huntsville and Lake of Bays hosted a watershed workshop in fall |
| | 2024 where 60 municipal leaders from thirteen (13) upper and |
| | lower tier municipalities in and around the Muskoka watershed |
| | to decide if they wanted to collaborate on issues like flooding. |

Appendix B: List of Bucket 1 and 2 Adaptation Actions

Bucket 1 Adaptation Actions List (All Area Municipalities)

| # | Adaptation Actions |
|---|---|
| 1 | Implement consistent flood plain mapping policy in area municipal zoning by-law and official plans. |
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme weather, temperatures, and flooding and plan for implementation of recommendations. |
| 3 | Ensure municipal policies encourage community food, water retention (rain garden, bioswales, etc.) and pollination gardens. |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the community. |
| 5 | Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) features and green infrastructure into new development and redevelopment projects. |
| 6 | Coordinate municipal efforts to improve and expand warming and cooling interventions employed during extreme weather events. |

Bucket 2 Adaptation Actions List (Town of Huntsville)

| # | Adaptation Actions |
|---|---|
| 1 | Review, update, and expand internal/external policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. |
| 2 | Continue to review funding opportunities and grants that allow the Huntsville Lake-of-Bays Fire Department to act proactively in preparing for and engaging the community on emergency preparedness (i.e., ice safety, FireSmart home and property, basement flooding, etc.) |
| 3 | Work with partners like the Simcoe Muskoka District Health Unit (SMDHU) and Muskoka Watershed Council (MWC) to improve communication regarding beach/lake closure due to blue-green algae, extreme heat events, vector-borne diseases, impacts of wildfire smoke, etc. |
| 4 | Secure funding to setup a property assessed clean energy (PACE) program to increase home efficiency and resiliency. |
| 5 | Review Urban Stormwater Management Plan (SMP) feasibility studies. |
| 6 | Continue to monitor rural/urban tree cutting and vegetation removal and review policies for tree canopy requirements on town-owned lands. |
| 7 | Support vision for Integrated Watershed Management (IWM) Plan and Integrated Watershed Management governance body. |
| 8 | Continue to work with utility providers (i.e., Enbridge, Hydro One, Lakeland) to encourage the adoption of cost-effective and innovative technology that supports both decarbonization and resilience. |

| 9 | Review results of District study on a Septic Inspection By-law and determine next collaborative steps once completed. |
|----|--|
| 10 | Review active transportation and public transit policies to ensure users can access services and infrastructure during inclement weather (i.e., bus shelters, GPS and software, route closure notifications, etc.) |
| 11 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible. |
| 12 | Work with the District of Muskoka to implement both structural and non- structural mitigation measures to reduce the impacts of flooding. |
| 13 | Collaborate with community-based agencies supporting vulnerable populations to improve response to extreme weather events and disasters. |

Bucket 2 Adaptation Actions List (Town of Gravenhurst)

| # | Adaptation Actions |
|----|---|
| 1 | Encourage community members to check on family, friends, and neighbors |
| | during extreme weather events (i.e., heat, cold, ice/windstorms, flooding, etc.) |
| 2 | Compare best practices with communicating watershed advisory statements and |
| | improve process where required. |
| | Work with Simcoe Muskoka District Health Unit (SMDHU) to improve |
| 3 | communication regarding beach/lake closures with respect to blue-green algae |
| | or other health-related closures. |
| 4 | Monitor urban/rural tree removal by-law and tree-cutting by-law to ensure |
| 4 | adequate from a climate change lens. |
| 5 | Review possibility of establishing a public transit system where feasible. |
| 6 | Create an educational program for residents to protect their assets from floods. |
| 7 | Work with power providers to ensure new electrical infrastructure us resilient, |
| 1 | where possible. |
| 8 | Create educational material (i.e., rack card, seminar, etc.) for commercial |
| 0 | businesses to better understand climate change risks, adaptation, mitigation. |
| 9 | Explore grant opportunities for home efficiency and resiliency. |
| | Area Municipalities to explore the addition of educational signage for reduction |
| 10 | of spread of invasive species (including around waterways and boat |
| | transportation). |
| 11 | Review results of District septic study to determine next collaborative steps. |
| 10 | Review and improve response and support for vulnerable populations during |
| 12 | extreme weather events/flooding. |
| 10 | Area Municipalities to partner with the District to explore structural mitigation |
| 13 | options to prevent flooding. |
| 14 | Explore a rain barrel program for Muskoka residents. |
| 45 | Investigate ways that the District and Area Municipalities can collaborate to track |
| 15 | weather events and associated damage. |
| 10 | Explore requiring drainage and grading plans for all new development (urban |
| 16 | and rural), where possible. |

| 17 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. |
|----|--|
| 18 | Review public transit policies and ensure that people can access the service during inclement weather (i.e., shelter, online apps with up-to-date schedule, plow snowbanks). |

Bucket 2 Adaptation Actions List (Town of Bracebridge)

| # | Adaptation Actions |
|----|--|
| 1 | Conduct a review of Municipal processes to find ways to better optimize salt use to balance ecosystem health and community safety. |
| 2 | Encourage community members to check on family, friends, and neighbors during extreme weather events (i.e., heat, cold, ice/windstorms, flooding, etc.) |
| 3 | Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the forest to increase forest resilience to drought and insect damage. |
| 4 | Work with Simcoe Muskoka District Health Unit (SMDHU) to improve communication regarding beach/lake closures with respect to blue-green algae or other health-related closures. |
| 5 | Work with power providers to ensure new electrical infrastructure is resilient, where possible. |
| 6 | Review public transit policies and ensure that people can access the service during inclement weather (i.e., shelter, online apps with up-to-date schedule, plow snowbanks). |
| 7 | Monitor urban/rural tree removal by-law and tree-cutting by-law to ensure adequate from a climate change lens. |
| 8 | Explore grant opportunities for home efficiency and resiliency. |
| 9 | Area Municipalities to explore the addition of educational signage for reduction of spread of invasive species (including around waterways and boat transportation). |
| 10 | Create an educational program for residents to protect their assets from floods. |
| 11 | Compare best practices with communicating watershed advisory statements and improve process where required. |
| 12 | Create educational material (i.e., rack card, seminar, etc.) for commercial businesses to better understand climate change risks, adaptation, mitigation. |
| 13 | Explore a rain barrel program for Muskoka residents. |
| 14 | Review and improve response and support for vulnerable populations during extreme weather events/flooding. |
| 15 | Develop a formal plan to stockpile/identify quick sources of sandbags and materials during emergencies. |
| 16 | Implement a "safe ice" campaign/alternative solutions for businesses. |
| 17 | Review results of District septic study to determine next collaborative steps. |
| 18 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. |

| 19 | Area Municipalities to partner with the District to explore structural mitigation options to prevent flooding. |
|----|---|
| 20 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible. |
| 21 | Investigate ways that the District and Area Municipalities can collaborate to track weather events and associated damage. |
| 22 | Review, update, and expand internal policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. |
| 23 | Explore opportunities to work with local First Nations to improve adaptive capacity. |

Bucket 2 Adaptation Actions List (Township of Muskoka Lakes)

| # | Adaptation Actions |
|----|---|
| 1 | Conduct a review of Municipal processes to find ways to better optimize salt use to balance ecosystem health and community safety. |
| 2 | Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the forest to increase forest resilience to drought and insect damage. |
| 3 | Compare best practices with communicating watershed advisory statements and improve process where required. |
| 4 | Explore grant opportunities for home efficiency and resiliency. |
| 5 | Create educational material (i.e., rack card, seminar, etc.) for commercial businesses to better understand climate change risks, adaptation, mitigation. |
| 6 | Area Municipalities to explore the addition of educational signage for reduction of spread of invasive species (including around waterways and boat transportation). |
| 7 | Work with Simcoe Muskoka District Health Unit (SMDHU) to improve communication regarding beach/lake closures with respect to blue-green algae or other health-related closures. |
| 8 | Explore a rain barrel program for Muskoka residents. |
| 9 | Review and improve response and support for vulnerable populations during extreme weather events/flooding. |
| 10 | Continue partnership with Muskoka Conservancy to protect significant conservation lands. |
| 11 | Review, update, and expand internal/external policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. |
| 12 | Continue to assess changes to Updated Tree Conservation By-law. |

| # | Adaptation Actions |
|---|--|
| 1 | Work with power providers to ensure new electrical infrastructure is resilient, where possible. |
| 2 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. |
| 3 | Area Municipalities to partner with the District to explore structural mitigation options to prevent flooding. |
| 4 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible. |

Appendix C: Prioritization Exercise Results

A: Mitigation Co-Benefits B: Equity C: Implementation Cost D: Robustness E: Urgency F: Ancillary Benefits G: No Regrets H: Public (or Political) Acceptability I: Funding Sources J: Capacity K: Institutional

| # | Adaptation Actions | А | В | С | D | Е | F | G | Н | I | J | К | Total Score | Priority Level |
|---|--|---|---|---|---|---|---|---|---|---|---|---|----------------|-------------------|
| 1 | Implement consistent flood plain mapping policy in area municipal zoning by-law and official plans. | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 3 | 3 | 27 | High |
| 2 | Assess the resilience of existing Municipal infrastructure (i.e., buildings, roads, water/wastewater infrastructure etc.) to climate-related risks from extreme weather, temperatures, and flooding and plan for implementation of recommendations. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 30 | High |
| 3 | Ensure municipal policies encourage community food, water retention (rain garden, bioswales, etc.) and pollination gardens. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 29 | High |
| 4 | Identify opportunities to increase knowledge about climate change impacts in the community. | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 1 | 3 | 2 | 24 | Medium |
| 5 | Review or develop policies that encourage the incorporation of Low Impact Development (LIDs) features and green infrastructure into new development and redevelopment projects. | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 30 | High |
| 6 | Coordinate municipal efforts to improve and expand warming and cooling interventions employed during extreme weather events. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 31 | High |

Bucket 1 Adaptation Actions List (All Area Municipalities)

| # | Adaptation Actions | А | В | С | D | Е | F | G | Н | I | J | К | Total Score | Priority Level |
|---|--|---|---|---|---|---|---|---|---|---|---|---|----------------|-------------------|
| 1 | Review, update, and expand internal/external policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 29 | High |
| 2 | Continue to review funding opportunities and grants that allow the Huntsville Lake-of-Bays Fire Department to act proactively in preparing for and engaging the community on emergency preparedness (i.e., ice safety, FireSmart home and property, basement flooding, etc.) | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 28 | High |
| 3 | Work with partners like the Simcoe Muskoka District Health Unit (SMDHU) and Muskoka Watershed Council (MWC) to improve communication regarding beach/lake closure due to blue- green algae, extreme heat events, vector-borne diseases, impacts of wildfire smoke, etc. | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 28 | High |
| 4 | Secure funding to setup a property assessed clean energy (PACE) program to increase home efficiency and resiliency. | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 27 | High |

| 5 | Review Urban Stormwater Management Plan (SMP) feasibility studies. | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 26 | High |
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 6 | Continue to monitor rural/urban tree cutting and vegetation removal and review policies for tree canopy requirements on town-owned lands. | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 26 | High |
| 7 | Support vision for Integrated Watershed Management (IWM) Plan and Integrated Watershed Management governance body. | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 26 | High |
| 8 | Continue to work with utility providers (i.e., Enbridge, Hydro One, Lakeland) to encourage the adoption of cost-effective and innovative technology that supports both decarbonization and resilience. | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 25 | Medium |
| 9 | Review results of District study on a Septic Inspection By-law and determine next collaborative steps once completed. | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 1 | 24 | Medium |
| 10 | Review active transportation and public transit policies to ensure users can access services and infrastructure during inclement weather (i.e., bus shelters, GPS and software, route closure notifications, etc.) | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 24 | Medium |
| 11 | Explore requiring drainage and grading plans for all new | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 23 | Medium |

| | development (urban and rural), where possible. | | | | | | | | | | | | | |
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 12 | Work with the District of Muskoka to implement both structural and non-structural mitigation measures to reduce the impacts of flooding. | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 1 | 1 | 1 | 1 | 22 | Medium |
| 13 | Collaborate with community-based agencies supporting vulnerable populations to improve response to extreme weather events and disasters. | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 19 | Medium |

Bucket 2 Adaptation Actions List (Town of Gravenhurst)

| # | Adaptation Actions | А | В | С | D | Е | F | G | Н | I | J | К | Total Score | Priority Level |
|---|--|---|---|---|---|---|---|---|---|---|---|---|----------------|-------------------|
| 1 | Encourage community members to check on family, friends, and neighbors during extreme weather events (i.e., heat, cold, ice/windstorms, flooding, etc.) | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 31 | High |
| 2 | Compare best practices with communicating watershed advisory statements and improve process where required. | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 30 | High |
| 3 | Work with Simcoe Muskoka District Health Unit (SMDHU) to improve communication regarding beach/lake closures with respect to blue-green algae or other health-related closures. | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 28 | High |

| 4 | Monitor urban/rural tree removal by-law and tree-cutting by-law to ensure adequate from a climate change lens. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 28 | High |
|----|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 5 | Review possibility of establishing a public transit system where feasible. | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 25 | Medium |
| 6 | Create an educational program for residents to protect their assets from floods. | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 27 | High |
| 7 | Work with power providers to ensure new electrical infrastructure us resilient, where possible. | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 27 | High |
| 8 | Create educational material (i.e., rack card, seminar, etc.) for commercial businesses to better understand climate change risks, adaptation, mitigation. | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 2 | 27 | High |
| 9 | Explore grant opportunities for home efficiency and resiliency. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 27 | High |
| 10 | Area Municipalities to explore the addition of educational signage for reduction of spread of invasive species (including around waterways and boat transportation). | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 26 | High |
| 11 | Review results of District septic study to determine next collaborative steps. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 24 | Medium |
| 12 | Review and improve response and support for vulnerable populations during extreme weather events/flooding. | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 24 | Medium |

| 13 | Area Municipalities to partner with the District to explore structural mitigation options to prevent flooding. | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 1 | 2 | 24 | Medium |
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 14 | Explore a rain barrel program for Muskoka residents. | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 1 | 1 | 3 | 24 | Medium |
| 15 | Investigate ways that the District and Area Municipalities can collaborate to track weather events and associated damage. | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 24 | Medium |
| 16 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible. | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 22 | Medium |
| 17 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 1 | 22 | Medium |
| 18 | Review public transit policies and ensure that people can access the service during inclement weather (i.e., shelter, online apps with up- to-date schedule, plow snowbanks). | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 28 | High |
| 19 | Review possibility of establishing a public transit system where feasible. | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 25 | Medium |

Bucket 2 Adaptation Actions List (Town of Bracebridge)

| # | Adaptation Actions | А | В | С | D | Е | F | G | Н | I | J | К | Total Score | Priority Level |
|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|-------------------|
| 1 | Conduct a review of Municipal processes to find ways to better optimize salt use to balance ecosystem health and community safety. | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 28 | High |
| 2 | Encourage community members to check on family, friends, and neighbors during extreme weather events (i.e., heat, cold, ice/windstorms, flooding, etc.) | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 32 | High |
| 3 | Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the forest to increase forest resilience to drought and insect damage. | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 30 | High |
| 4 | Work with Simcoe Muskoka District Health Unit (SMDHU) to improve communication regarding beach/lake closures with respect to blue-green algae or other health-related closures. | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 30 | High |
| 5 | Work with power providers to ensure new electrical infrastructure is resilient, where possible. | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 1 | 28 | High |

| 6 | Review public transit policies and ensure that people can access the service during inclement weather (i.e., shelter, online apps with up- to-date schedule, plow snowbanks). | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 1 | 2 | 3 | 28 | High |
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 7 | Monitor urban/rural tree removal by-law and tree-cutting by-law to ensure adequate from a climate change lens. | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 27 | High |
| 8 | Explore grant opportunities for home efficiency and resiliency. | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 26 | High |
| 9 | Area Municipalities to explore the addition of educational signage for reduction of spread of invasive species (including around waterways and boat transportation). | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 26 | High |
| 10 | Create an educational program for residents to protect their assets from floods. | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 26 | High |
| 11 | Compare best practices with communicating watershed advisory statements and improve process where required. | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 1 | 3 | 26 | High |
| 12 | Create educational material (i.e., rack card, seminar, etc.) for commercial businesses to better understand climate change risks, adaptation, mitigation. | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 25 | Medium |
| 13 | Explore a rain barrel program for Muskoka residents. | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 1 | 1 | 3 | 24 | Medium |

| 14 | Review and improve response and support for vulnerable populations during extreme weather events/flooding. | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 1 | 1 | 23 | Medium |
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 15 | Develop a formal plan to stockpile/identify quick sources of sandbags and materials during emergencies. | 1 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 23 | Medium |
| 16 | Implement a "safe ice" campaign/alternative solutions for businesses. | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 2 | 22 | Medium |
| 17 | Review results of District septic study to determine next collaborative steps. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 22 | Medium |
| 18 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 1 | 22 | Medium |
| 19 | Area Municipalities to partner with the District to explore structural mitigation options to prevent flooding. | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 22 | Medium |
| 20 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible. | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 21 | Medium |
| 21 | Investigate ways that the District and Area Municipalities can collaborate to track weather events and associated damage. | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 21 | Medium |

| 22 | Review, update, and expand internal policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 24 | Medium |
|----|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 23 | Explore opportunities to work with local First Nations to improve adaptive capacity. | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 25 | Medium |

Bucket 2 Adaptation Actions List (Township of Muskoka Lakes)

| # | Adaptation Actions | А | В | С | D | Е | F | G | Н | I | J | К | Total Score | Priority Level |
|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|-------------------|
| 1 | Conduct a review of Municipal processes to find ways to better optimize salt use to balance ecosystem health and community safety. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 33 | High |
| 2 | Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the forest to increase forest resilience to drought and insect damage. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 32 | High |
| 3 | Compare best practices with communicating watershed advisory statements and improve process where required. | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 28 | High |
| 4 | Explore grant opportunities for home efficiency and resiliency. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 28 | High |

| 5 | Create educational material (i.e., rack card, seminar, etc.) for commercial businesses to better understand climate change risks, adaptation, mitigation. | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 27 | High |
|----|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| 6 | Area Municipalities to explore the addition of educational signage for reduction of spread of invasive species (including around waterways and boat transportation). | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 27 | High |
| 7 | Work with Simcoe Muskoka District Health Unit (SMDHU) to improve communication regarding beach/lake closures with respect to blue-green algae or other health- related closures. | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 25 | Medium |
| 8 | Explore a rain barrel program for Muskoka residents. | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 3 | 23 | Medium |
| 9 | Review and improve response and support for vulnerable populations during extreme weather events/flooding. | 2 | 2 | 3 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 1 | 22 | Medium |
| 10 | Continue partnership with Muskoka Conservancy to protect significant conservation lands. | 3 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 22 | Medium |
| 11 | Review, update, and expand internal/external policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 3 | 1 | 1 | 1 | 20 | Medium |

| 12 | Continue to assess changes to Updated Tree Conservation By-law. | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 28 | High |
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|------|
|----|--|---|---|---|---|---|---|---|---|---|---|---|----|------|

Bucket 2 Adaptation Actions List (Township of Lake of Bays)

| # | Adaptation Actions | A | В | С | D | Е | F | G | Н | I | J | К | Total Score | Priority Level |
|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|-------------------|
| 1 | Work with power providers to ensure new electrical infrastructure is resilient, where possible. | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 25 | Medium |
| 2 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 23 | Medium |
| 3 | Area Municipalities to partner with the District to explore structural mitigation options to prevent flooding. | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 2 | 22 | Medium |
| 4 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible. | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 1 | 21 | Medium |

Appendix D: Implementation Schedules for Bucket 2 Action Items for Area Municipalities

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|--|-------------------|
| 1 | Review, update, and expand internal/external policies and plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. | 29 (High) | <2 Years (2025- 2027) | Ensure updated floodplain mapping is used for the next review of the emergency plan and review existing emergency plans to ensure evacuation routes are not on flood plains. Review more at-risk areas of the community and areas with single access points (e.g., Vernon Shores/South Shore Causeway) and look for opportunities to increase resiliency and redundancy. | • Town of Huntsville Emergency Control Group (senior staff that meet for emergency management)* | Consider a long-term planning exercise to look at where and what kinds of development should occur in Huntsville's low-lying areas (e.g., EMO building, an essential emergency service, within a known "flood" risk zone). | Pending |

D-1: Implementation Schedule for the Town of Huntsville

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(| s) Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|--|-------------------|
| | | | | Updated or real-time wildfire risk mapping from Ministry of Natural Resources and Forestry for the wildland urban interface (WUI) through the District of Muskoka. | Town of Huntsville Corporate an Information Services* Town of Huntsville Planning and Development Services* Town of Huntsville Fire Department DMM GIS* | mapping is fed into the Town of Huntsville GIS Mapping and updated frequently. The 2019 OP Appendix 1 Wildland Fire Hazard Risk Mapping is only available as a static document within the | Ongoing |
| | | | | Ensuring availability of information regarding services that are accessible (or inaccessible) during extreme weather events. | Town of Huntsville Marketing and Communicati | | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|--|-------------------|
| | | | | Investigate ways the District and Area Municipalities can collaborate to track weather events and associated damage. | Member municipalities DMM | This should already be done through Municipal Disaster Recovery Assistance (MDRA) claims and insurance. | Ongoing |
| 2 | Continue to review funding opportunities and grants that allow the Huntsville Lake- of-Bays Fire Department to act proactively in preparing for and engaging the community on emergency preparedness (e.g. ice safety, | 28 (<mark>High</mark>) | <2 Years (2025- 2027) | Forward relevant grant and funding information to the fire department that help build climate- resilient communities (e.g. Wawanesa's Community Wildfire Prevention Grants, Intact's Municipal Climate Resilience Grants, Firehouse Subs Public Safety Foundation Grant). | Town of Huntsville Project Coordinator* Town of Huntsville Economic Development* Town of Huntsville Fire Department* | • The Fire department continues to host information sessions and presentation on topics like FireSmart communities and participants in emergency preparedness week. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|---|-------------------|
| | FireSmart home and property, basement flooding, etc.). | | | Implement a "safe ice" in a changing climate campaign. Currently the Huntsville/Lake of Bays Fire Department urges residents and visitors to be particularly vigilant around ice on bodies of water and moving water and the OPP reminds the public no ice is safe ice. | Town of Huntsville Marketing and Communications* Town of Huntsville Fire Department* | Incorporate Federation of Cottage Association messaging "Our changing climate is changing ice coverage, which has impacts for lake health, and for personal safety. Read onward for information about safety, using bubblers, and the science around ice." Also, link to The Lifesaving Society encourages you to be ice smart. | Pending |
| 3 | Work with partners like the Simcoe Muskoka District Health Unit (SMDHU) and Muskoka | 28 (<mark>High</mark>) | <2 Years (2025- | Communicate climate-related impacts on physical and mental health. | Simcoe Muskoka District Health Unit* Town of Huntsville Marketing and Communications* | Blue-green algae public notices and advisories are posted on the news and notices section of the website. | Ongoing |
| | Watershed Council (MWC) to improve communication regarding beach/lake | atershed2027)Ensure the of heat streetouncil (MWC)of heat streetimprovecommunicationommunicationworkers in community | Ensure the dangers of heat stress are communicated to workers in the community as heat events increase in | Simcoe Muskoka District Health Unit* | • The Town had a heat plan in place before the stand- alone heat stress regulation under the Occupational Health and Safety Act was enacted. | Ongoing | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|--|--|-------------------|
| | closure due to blue-green algae, extreme | | | intensity, speed of onset, extent, and duration. | | | |
| | algae, extreme heat events, vector borne diseases, impacts of wildfire smoke, etc. | vents, borne es, s of | | Map out seasonal communication in addition to general communication and should be plain language that is easily understood. Use existing tools to measure the reach and impact of communications and adjust and refine frequency, content and delivery based on results. | Town of Huntsville Marketing and Communications* | Seasonal communication (e.g., mosquito and ticks, air quality and wildfire smoke, etc.) should be mapped out and pushed out across different communication vehicles. | Pending |
| | | | | Communicate the threats posed by invasive species to the health of the watershed and promote the reduction of their spread (e.g., clean, drain, dry). | Town of Huntsville Operations (Parks and Cemeteries, Roads)* Town of Huntsville Marketing and Communications* | In 2018, the Town passed a Motion GC124-18 - Roadside Management of Invasive and Noxious Vegetation to support the District of Muskoka's strategy and Official Plan policies promote the use of native species, however, more can be done to | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|--|-------------------|
| | | | | | | educate the public (e.g. shifting from annuals to native perennials, signage, Invading Invasive on the website). | |
| 4 | Secure funding to setup up a property assessed clean energy (PACE) program to | 27 (High) | <2 Years (2025- 2027) | Communication and engagement strategy in place to launch the program. | Town of Huntsville Corporate and Community Strategy* | • Upon receipt of the agreement from the Federation of Canadian Municipalities, staff will draft a bylaw authorizing the execution of the Green Municipal Fund Community Efficiency Financing Loan and Grant Agreement and forward to Council for consideration. | Pending |
| | increase home efficiency and resiliency. | | | Third party to implement the program look at a possible retrofit concierge service. | Town of Huntsville Development Services* Town of Huntsville Finance Department* | Enviro-centre to provide energy efficiency consulting. | Pending |
| 5 | Review Urban Stormwater | 26 (High) | | Development Charges (DCs) to | Town of Huntsville | Draft Development Charges Background | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|---|-------------------|
| | Management Plan (SMP) feasibility studies. | | | include stormwater drainage and control. | Development Services* | Study to be in line with current legislation, Bill 23 (Build More Homes Faster Act) and new legislation, Bill 185 (Cutting Red Tape to Build More Homes Act, 2024). | |
| | | | <2 Years (2025- 2027) | Complete storm water system study. | Town of Huntsville Operations* Town of Huntsville GIS* Town of Huntsville Development Services* | All 5 phases on the main section have been completed. | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|--|-------------------|
| | | | | OP policies promote LID and good SWM practices. | Town of Huntsville Development Services* Town of Huntsville Planning Department* Town of Huntsville Operations* | Public parking lots left to be done. Now working on capital plans to deal with issues in the system. SWMP required for all new industrial/commercial/multi- residential development. Setback required from municipal intake sites. | In Progress |
| 6 | Continue to monitor rural/urban tree cutting and vegetation removal and review policies for tree canopy requirements on town-owned lands. | 26 (High) | <2 Years (2025- 2027) | Wider awareness of By-Laws that prohibit or regulate the removal of vegetation and the cutting of trees on public and private property (the Municipal Act, Section 135 (1) subject to subsection (4) and without limiting sections 9, 10, and 11, a local municipality may | Town of Huntsville By- law* Town of Huntsville Development Services* Town of Huntsville Planning Department* Town of Huntsville Marketing and Communications* | Town of Huntsville By-Law #2002-18 regulates the destruction of trees on municipal lands and the Community Planning Permit By-law (CPP) regulates the removal and of vegetation and cutting of trees on private property and contains study requirements and a list of conditions of approval or provisional approval which are reviewed through planning approvals. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|---|---|---|--|-------------------|
| | | | | prohibit or regulate the destruction or injuring of trees.). | | | | |
| | | | | Investigate the creation of an urban tree inventory that can be used to inform the development of the updated Parks Master Plan. | • | Town of Huntsville Parks and Cemeteries* | Look at the feasibility of a tree inventory and preservation plan and a plan for the identification, protection, maintenance and enhancement of existing trees and other vegetation, including the restoration or replacement of vegetation when removed on parklands. | Pending |
| | | | | Examine funding opportunities to expand, manage and protect the tree canopy. | • | Town of Huntsville Parks and Cemeteries* Town of Huntsville Development Services* | Reviewing FCM Green Municipal Fund (GMF) new Growing Canada's Community Canopies tree planting funding. | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|--|-------------------|
| 7 | Support vision for Integrated Watershed Management (IWM) Plan and Integrated Watershed Management governance body. | 26 (High) | <2 Years (2025- 2027) | Communicate the impacts of salt use on infrastructure and the environment and look at the feasibility of implementing a salt management plan as part of winter operations (As a result of the Road Salt Working Committee the District of Muskoka Council approved a \$50,000 expenditure towards the municipality's salt management plan and contractor education program called Smart About Salt). | Muskoka Watershed Council* Friends of the Muskoka Watershed* | • Webpage updated to include "Why It's Time to go on a Low (Road) Salt Diet". Municipal vehicles to be outfitted with GPS that will have the capability to measure the volume of sand/salt placed on town roads, particularly in ecologically sensitive areas. Staff and Councill also take part in Ontario Good Roads Association Conference annually. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|--|---|-------------------|
| | | | | Look at Bracebridge's direct liquid application (DLA) as one of their treatment methods to reduce ice accumulation and Gravenhurst's pre- treated salt within their sand stockpiles as possible pilot projects. | • | Town of Huntsville Operations (Roads)* | Piloting a salt reduction project was one of the priority actions from the Environment and Climate Change Committee (Salt Management: Curbing Road Salt Use in Huntsville). | Pending |
| | | | | Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the forest to increase forest resilience to drought and insect damage. | • | Friends of the Muskoka Watershed* | Friends of Muskoka Watershed collect household wood ash at the Rosewarne Transfer Station yearly. | Ongoing |
| | | | | Participate in Integrated Watershed Management activities (e.g., Watershed Report | • | Town of Huntsville Climate Change Project Coordinator* | Huntsville continues to send delegations to Muskoka Watershed Council (MWC) events and invites District staff to provide IWM updates to | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|---|-------------------|
| | | | | Card, invited presentation to Council, etc.) | Town of Huntsville Planning Department* Town of Huntsville Development Services* Town of Huntsville Operations* | Council (e.g., Huntsville Mayor, Councillor and members of senior leadership and staff attended IWM Conference organized by MWC that was held February 9, 2024, in Bracebridge). | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|---|-------------------|
| | | | | Support initiatives that could mitigate climate-related impacts on tourism and be funded through the Municipal Accommodation Tax (MAT) program. The MAT is intended to support the tourism industry, as well as programs and services that visitors take advantage of when visiting (e.g., roads, transit, culture, parks, natural areas and recreation). | Town of Huntsville Council* Town of Huntsville Chief Administrative Officer* Town of Huntsville Economic Development* Town of Huntsville Corporate and Community Strategy* | • Huntsville currently has a Municipal Accommodation Tax (MAT) program to fund tourism-related infrastructure and initiatives. The other half is collected by the town's non-profit tourism corporation (Huntsville Council voted in favor of setting aside \$15,000 for the MWC as part of the 2024 budget discussions). | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|--|--|-------------------|
| 8 | Continue to work with utility providers (e.g. Enbridge, Hydro One, Lakeland) to encourage the adoption of | 25 (Medium) | 2-5 Years (2027- | Take part in Regional Electricity Planning - Parry Sound/Muskoka to advocate for more policies and infrastructure that is resilient to extreme weather events and temperature (e.g., tree branch cutting, underground services, etc.) to reduce power outages. | • | Lakeland Solutions* IESO* Hydro One* Town of Huntsville Climate Change Coordinator* | • Participate in IESO engagements initiatives to offer input for consideration on the development of an Integrated Regional Resource Plan (IRRP). | Ongoing |
| | cost-effective and innovative technology that supports both decarbonization and resilience. | | 2030) | Review how power outages are communicated (e.g., outage maps, information posted on the website, etc.). - Lakeland - Hydro One | • | Simcoe Muskoka District Health Unit* Town of Huntsville Marketing and Communications* | Include a utilities and power outages section on the website with power outage safety tips. | Pending |
| | | | | Advocate for regulatory improvements in the distributed energy | • | Lakeland Solutions* Town of Huntsville | Updates provided by Lakeland Solutions (Huntsville is a shareholder) on distributed | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|---|-------------------|
| | | | | resource (DER) space to facilitate the implementation of projects by the Local Distribution Company (LDC) as there is not currently the right mechanisms for utilities to embrace DER's and be within the regulatory frameworks as LDC's are regulated by the Distribution Code and regulated by the Ontario Energy Board (OEB). | Operation & Development Services* | energy resource (DER) projects in the community (e.g., EV charging infrastructure and solar and battery integration). | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|--|---|-------------------|
| | | | | Determine how proposed IESO Long-Term procurement and the Long-Term Request for Proposals (LT2 RFP) might impact the community (e.g., battery storage projects, ground mounted solar, etc.) and anticipate IESO Future Clean Electricity Fund to launch in 2024. | • | Town of Huntsville Development Services* Town of Huntsville Planning Department | • Implement a new protocol, similar to the former Green Energy Protocols to deal with the generation or storage of energy. | Pending |
| 9 | Review results of District study on a Septic Inspection By- Law and determine next | 24 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Area Municipalities Chief Building Officers (CBOs) to work with District to standardize/enhance septic approach and reinspection across | • | Town of Huntsville Building Department* Town of Huntsville | Currently, all installers of new septic systems must be licensed by the Province and the Building Code requires all septic beds to be a minimum of 30 meters from | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|--|---|-------------------|
| | collaborative steps once completed. | | | Muskoka. Septic system construction is regulated under the Ontario Building Code, but maintenance, including pumping and inspection, is a homeowner responsibility. Some regions have mandatory septic inspections by the municipality, and some have grants to help property owners conduct necessary repairs and upgrades. | • | Planning Department* Town of Huntsville Development Services* DMM* | watercourses. A new municipal septic policy will be released soon that requires reinspection when a property sells and not every year unless there is an issue. | |
| 10 | Review active transportation and public transit policies to ensure users can access services and infrastructure during | 24 (Medium) | 2-5 Years (2027- 2030) | Procure technology and software to allow riders to monitor the bus's progress by utilizing the Real-Time Map to receive updates on route status, current bus location, | • | Town of Huntsville Operations Department* Campbell Bus Lines* DMM* | In 2020, the Town was successful in accessing approximately \$269,000 in funding through the Investing in Canada Infrastructure Plan (ICIP), Public Transit Infrastructure Stream (PTIS) which expires on | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|---|-------------------|
| | inclement weather (e.g. bus shelters, GPS and software, route closure notifications, etc.) | | | and estimated arrival times. Look at future procurement policy for zero-emission medium- and heavy- duty vehicle (ZEMHDV). | | March 31, 2029. This funding was originally for the procurement of 2 buses and has not been allocated within the capital budget. There is the option to submit changes to what the funding would be reallocated to. | |
| 11 | Explore requiring drainage and grading plans for all new development (urban and | 23 (Medium) | 2-5 Years (2027- 2030) | Review how this could be incorporated into the site plan agreements. | Town of Huntsville Development Services* Town of Huntsville Planning Department* Town of Huntsville Operations Department | • Draft Development Charges Background Study to be in line with current legislation, Bill 23 (Build More Homes Faster Act) and new legislation, Bill 185 (Cutting Red Tape to Build More Homes Act, 2024). | In Progress |
| | rural), where possible. | | | Develop formal policies related to backwater valve systems regarding SMP as part of Development Standards Review. | Town of Huntsville Development Services* | Draft Development Charges Background Study to be in line with current legislation, Bill 23 (Build More Homes Faster Act) and new legislation, Bill 185 (Cutting Red Tape | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|---|-------------------|
| | | | | | | to Build More Homes Act, 2024). | |
| | | | | Consideration of a Tree Protection Plan be submitted with storm water management, grading, and servicing plans as a condition of draft plan of subdivision and condominium, site plan, or consent approval. | Town of Huntsville Development Services* Town of Huntsville Planning Department* | • NA | In Progress |
| 12 | Work with the District of Muskoka to implement both structural and non-structural mitigation measures to reduce the imposts of | 22 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Promote the District's flood plain mapping and Integrated Watershed Management (IMW) Structural Flood Mitigation Project. | Town of Huntsville GIS* Town of Huntsville Planning Department* Town of Huntsville Development Services* | Link on the website to flood plain mapping and real-time water levels for Muskoka available through the Muskoka GeoHub, Muskoka's online web mapping portal and the District continues to update Council on its Integrated Watershed Management Projects. | Ongoing |
| | impacts of flooding. | | | Promote education from the District about flood plain | Town of Huntsville GIS* | Cross channel promotion of DMM flood plain mapping and flooding | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|---|---|-------------------|
| | | | | mapping and flood preparedness in the region. | • | Town of Huntsville Marketing and Communications* | preparedness and Ministry of Natural Resources and Forestry issued flood warnings. | |
| | | | | Look at other flood mitigation efforts beyond hard scraping to clear excess gravel, sediment, and debris to increase the river's flow, such as berm. Ensure scraping occurring within the town limits and is being carefully controlled to limit any impacts on surrounding land and vegetation. | • | DMM* Town of Huntsville Operations* | • Swing bridge pillar removal, naturalizing some of the shoreline, berm (part permanent, part removable) or wetland put in place along John Street have all been raised as flood mitigation options. | Ongoing |
| 13 | Collaborate with community- based agencies supporting | 19 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Explore opportunities to make the internet more affordable and accessible to address digital | • | Town of Huntsville Public Library* | • Map out hot spots and free internet access in the community (e.g., Town Hall, Library, Canada Summit Centre, etc.). | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|---|--|-------------------|
| | vulnerable populations to improve response to extreme | | | equity and continue to support the continued expansion of broadband services. | | | | |
| | weather events and disasters. | | | Investigate how vulnerable groups are being checked on before, during and after extreme weather events and disasters and encourage them to visit public spaces to access resources. | • | Simcoe Muskoka District Health Unit* Community Stakeholders Community Living, YMCA, etc.)* | Communicate public buildings and spaces available for cooling during extreme heat or warming during extreme cold. | Ongoing |
| | | | | Determine how crowdfunding is being used in the community after an extreme weather event or climate- related disaster. | • | Emergency Control Group | • Examine how to elevate legitimate donation-based crowdfunding campaigns after an emergency or disaster. | Pending |
| | | | | Direct individuals to trusted partners in the community depending on their specific needs (e.g., unhoused, food | • | Town of Huntsville By- law* Town of Huntsville Building* | Look at having a list of trusted community partners and organizations (e.g., Community living, Muskoka Seniors, etc.) that can accept volunteers and | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|-------------------------|--|-------------------|
| | | | | insecure, Indigenous, older adults, disabled, children and youth, etc.). | | provide assistance in the event of an emergency. | |

Items under Lead Organizations with an asterisk (*) indicate that these roles are subject to change based on resource availability, staff capacity, and priority.

D-2: Implementation Schedule for the Town of Gravenhurst

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status | |
|--------------|------------------------------------|---|--|--|---|---|-------------------|---------|
| | extreme weather events | J. J | | | Conduct desktop research on what other/neighboring communities have done. | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | Ongoing | Ongoing |
| 1 | | check on family, friends, and neighbors during of extreme weather events (i.e., heat, cold, | | Conduct gap analysis to show which parts of Gravenhurst are not within a lake/community centre association. | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | • NA | Pending | |
| | ice/windstorms, flooding, etc.) | | | Encourage the development of a pilot neighborhood check-in program in one community and build a framework that can be discussed and implemented by other neighborhood groups. | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | • NA | Pending | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|---|---|------------------|-------------------|
| | | | | Identify existing informal/formal check-ins that might be happening to identify what works and any lessons learned. | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Identify methods to build social networks between communities (e.g., community events like a street BBQ, sharing questions to discuss around CC and impacts). | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Explore partnerships with local service providers to roll out program. | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|------------------|-------------------|
| | | | | Create community champions program for checking on neighbours during extreme weather events. | Town of Gravenhurst Emergency Services Town of Gravenhurst Communications Department | • NA | Pending |
| | Monitor urban/rural tree removal by-law | | | Conduct BMP research and consult with By-law Services staff regarding updates, implementation, and efficiency. | Town of Gravenhurst By- Law Services | Ongoing | Ongoing |
| 2 | and tree-cutting by-law to ensure adoquate from | 28 (High) | <2 Years (2025- 2027) | Update by-laws as required. | Town of Gravenhurst By- Law Services | Ongoing | Ongoing |
| | adequate from a climate change lens. | | | Create a communication plan to ensure community is aware of changes. | Town of Gravenhurst Communications Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|--|-------------------|
| | | | | Continue work on updating tree canopy inventory, and work to increase canopy. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Parks Department | • Ongoing | Ongoing |
| | | | | Review policies for canopy requirements on town owned lands (considering geography and landscape). | Town of Gravenhurst Parks Department | Ongoing | Ongoing |
| | | | | Review Planning Act for greenspace/parkland requirements for new development (i.e., not just accept cash-in-lieu and/or increase cash requirements). | Town of Gravenhurst Planning Department | • To be completed as part of Parks Plan in 2025. | Pending |
| | | | | Review reporting and enforcement mechanisms to ensure trees/greenspace is protected, and Area Municipalities to share best practices and | Town of Gravenhurst Planning Department Town of Gravenhurst Infrastructure Department | Ongoing | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| | | | | successes/lessons learned. | | | |
| | | | | Send direct mail to all property owners within floodplains to advise of importance of preparing for a flood. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Emergency Services | • NA | Pending |
| 3 | Create an educational program for residents to protect their assets from floods. | 27 (<mark>High</mark>) | <2 Years (2025- 2027) | Expand education program to include 'Here is what you have to do before, during and after a flood' – health tips, waste disposal, well water, septic, preparing shoreline, removing loose equipment, chairs, etc., planting native shoreline vegetation to reduce erosion'. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Emergency Services | • Ongoing | Ongoing |
| | | | | Review the District's and other AM's emergency plans for alignment and sharing best practices. | Town of Gravenhurst Infrastructure Department | Ongoing | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|---|---|------------------|-------------------|
| | | | | | Town of Gravenhurst Emergency Services | | |
| | | | | Enhance education material around most common/anticipated emergencies that could be encountered in Gravenhurst. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Emergency Services | Ongoing | Ongoing |
| | | | | Keep promoting Voyant Alert as well to ensure up to date emergency information can be sent to appropriate geographical location within the municipality, those in the flood prone areas. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Emergency Services | Ongoing | Ongoing |
| | | | | Use information from "Living in Cottage Country" handbook produced by Muskoka Watershed Council to addresses flood preparedness. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst | Ongoing | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status | | |
|--------------|--|--|--|--|---|--|---|------|---------|
| | | | | | Emergency Services | | | | |
| | | | | Actively investigate the development of (or the ability to join an existing) joint utility working group with local energy distribution companies | Town of Gravenhurst Infrastructure Department | • NA | Pending | | |
| | Work with | | | Seek best practices and next steps from Bracebridge and other AMs. | Town of Gravenhurst Infrastructure Department | • NA | Pending | | |
| 4 | power providers to ensure new electrical infrastructure is resilient, where possible | 27 (High) | 27 (High) | 27 (<mark>High</mark>) | <2 Years (2025- 2027) | Advocate to Lakeland Power, Hydro One, Lexicon etc. to ensure energy infrastructure is adequately protected and resilient to extreme weather events and temperature (including underground services, etc.). | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Review the current communications process during power outages. | Town of Gravenhurst Communications Department | • NA | Pending | | |
| | | | | Investigate acquisition of data around power | Town of Gravenhurst | • NA | Pending | | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| | | | | outages/challenges/failures – Seek support from Bracebridge. | Infrastructure Department | | |
| | | | | Investigate planning process and policy around underground servicing in new developments – investigate best practices from other AMs. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Gravenhurst to look at forming a Utility Working Group for regular communications and meeting with power providers (Bracebridge has a committee). | • Town of Gravenhurst Infrastructure Department | • NA | Pending |
| 5 | Create educational material (i.e., rack card, seminar, etc.) | 27 (High) | <2 Years (2025- 2027) | Review current strategies/plans – if it incorporates that messaging through a climate change lens. | Town of Gravenhurst Economic Development Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|------------------|-------------------|
| | for commercial businesses to better understand climate change risks, | | | Research if a similar program already exists in another municipality, communicate best practices, and share information. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | adaptation, mitigation. | | | Coordinate with Business Improvement Area (BIA), RTO12, and Gravenhurst Chamber of Commerce etc. to identify opportunities from extended summer season and take advantage without damage to ecosystems. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Support BIA/ Chamber sustainability initiatives, where appropriate. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Encourage local agritourism with the longer growing season. | Town of Gravenhurst Economic Development Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|------------------|-------------------|
| | | | | Look for opportunities to incentivise businesses for best in practice climate resiliency measures. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Work with local business on continuity plans, including funding/insurance to ensure seamless operation during events. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Once implemented, use Municipal Accommodation Taxes funding to assist businesses on their journey to sustainable tourism offerings and help businesses consider climate as part of their operating plans. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| 6 | Explore grant opportunities for home efficiency and resiliency. | 27 (High) | <2 Years (2025- 2027) | Compile list of external grant opportunities and provide links on the Town website. | Town of Gravenhurst Building Department Town of Gravenhurst Planning Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|------------------|-------------------|
| | | | | Review current Town grant opportunities to assess suitability of including home efficiency and resiliency as an eligibility requirement. | Town of Gravenhurst Building Department Town of Gravenhurst Planning Department | • NA | Pending |
| | | | | Encourage homeowners and landlords to improve the resilience of residential buildings to climate-related risks through upgrades and/or retrofits. | Town of Gravenhurst Building Department Town of Gravenhurst Planning Department | • NA | Pending |
| | | | | Explore grant programs that provide funding to municipalities for these programs. | Town of Gravenhurst Building Department Town of Gravenhurst Planning Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|--|------------------|-------------------|
| | | | | Share best practices with other AMs and investigate their best practices. | Town of Gravenhurst Building Department Town of Gravenhurst Planning Department | • NA | Pending |
| | Area Municipalities | | | Continue to work with University of Toronto on evaluating and identifying Invasive Species sites. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | to explore the addition of educational signage for reduction of | tion of cational age for | | Communicate with the Federation of Ontario Cottagers' Associations (FOCA) to get signs. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| 7 | spread of invasive species (including around | 26 (High) | <2 Years (2025- 2027) | Communicate with Public Works staff to locate areas of invasive species – locations of signage (enhance signage in these areas). | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | waterways and boat transportation) | | | Seek ways to support Muskoka Watershed Council efforts on hiring seasonal employee. | Town of Gravenhurst Infrastructure Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|--|-------------------|
| | | | | Continue to develop and deliver educational program on reporting/identifying invasive species. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Explore grant opportunities and seek funding to support education. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| 8 | Review possibility of establishing a public transit system where feasible. | 25 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Implement recommendations of Rural Transit Needs Study. | DMM Town of Gravenhurst Development Services | Gravenhurst is part of Phase one of the District's on Demand Transit Program - it will roll out Sept 2024 and run until March 2025. We will then take next steps towards the development of a fixed route system downtown. | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|---|---|--|-------------------|
| | | | | Identify best practices used elsewhere for similarly sized communities. | DMM Town of Gravenhurst Development Services | Gravenhurst is part of Phase one of the District's on Demand Transit Program - it will roll out Sept 2024 and run until March 2025. We will then take next steps towards the development of a fixed route system downtown. | In Progress |
| | | | | Ensure all users of any potential transportation network are considered (i.e., users of all ages, differently abled individuals, motorists, pedestrians, cyclists, etc.). | DMM Town of Gravenhurst Development Services | Gravenhurst is part of Phase one of the District's on Demand Transit Program - it will roll out Sept 2024 and run until March 2025. We will then take next steps towards | In Progress |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|--|-------------------|
| | | | | | | the development of a fixed route system downtown. | |
| | | | | Consider climate lens in Rural Transit Needs Study service (i.e., make climate- resilient/mitigative choices – e.g., electric vehicles, where possible). | DMM Town of Gravenhurst Development Services | Gravenhurst is part of Phase one of the District's on Demand Transit Program - it will roll out Sept 2024 and run until March 2025. We will then take next steps towards the development of a fixed route system downtown. | In Progress |
| 9 | Review results of District septic study to determine next collaborative steps | 24 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | District to share the District Septic Study with Area Municipal staff and schedule a meeting to determine next collaborative steps. | Town of Gravenhurst Development Services | Gravenhurst met with District in 2024 to discuss the study outcomes. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|--|-------------------|
| | | | | Area Municipalities to work with District to standardize/enhance reinspection program across Muskoka. | Town of Gravenhurst Development Services | • Gravenhurst met with District in 2024 to discuss the study outcomes. | Ongoing |
| | | | | Compare best practises between AMs to look for improvements. | Town of Gravenhurst Development Services | Gravenhurst met with District in 2024 to discuss the study outcomes. | Ongoing |
| | | | | Organize a meeting with the Chief Building Officers (CBOs) and District on the results of the study and to share best practises. | Town of Gravenhurst Development Services | Gravenhurst met with District in 2024 to discuss the study outcomes. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|--|--|-------------------|
| 10 | Review and improve response and support for vulnerable populations during extreme weather events/flooding. | 24 (Medium) | 2-5 Years (2027- 2030) | Conduct review of current practices around communications. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Communications Department | Town of Gravenhurst has community partnerships in place (including for vulnerable populations) - but don't have a plan developed yet for how to get the vulnerable populations to the services. Department is reviewing SOPs for the whole department in 2024 and will include this level of review in that exercise. | Ongoing |
| | | | | Share current practices with other AMs. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst | Town of Gravenhurst has community partnerships in place (including for vulnerable | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|--|-------------------|
| | | | | | Communications Department | populations) - but don't have a plan developed yet for how to get the vulnerable populations to the services. Department is reviewing SOPs for the whole department in 2024 and will include this level of review in that exercise. | |
| | | | | Partner with external organizations to determine how and what additional support can be provided to vulnerable populations during /after extreme weather events. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Reach out to neighboring/other communities to connect and explore on methods | Town of Gravenhurst Infrastructure Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|------------------|-------------------|
| | | | | they utilize to address climate impacts. | Town of Gravenhurst Communications Department | | |
| | | | | Increase communications to create to improve awareness of the resources that exist to support vulnerable populations using different methods and tailor communications based on event. | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Communications Department | • NA | Pending |
| | | | | Conduct a needs assessment to identify the various vulnerable populations that exist, what the specific populations need, what they have access to and what improvements need to be made. (partner with SMDHU on this). | Town of Gravenhurst Infrastructure Department Town of Gravenhurst Communications Department | • NA | Pending |
| 11 | Area Municipalities to partner with the District to explore | 24 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Support District as needed in the Integrated Watershed Management (IWM) Structural Flood Mitigation Project. | • Town of Gravenhurst Infrastructure Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| | structural mitigation options to prevent flooding. | | | When the project is complete: Review the results to determine relevance and next steps. Consider partnering on implementation, as appropriate | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Assess and prioritize the project list at a high level (not Area Municipalities specific) – look at through the IWM lens. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Review lessons learned from District program. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| 12 | Explore a rain barrel program for Muskoka residents. | 24 (Medium) | 2-5 Years (2027- 2030) | Investigate cost/budgeting requirements to develop a program in Gravenhurst, including a communication plan. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Investigate subsidies or partnerships with companies that make rain barrels. | Town of Gravenhurst Infrastructure Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|---|--|---|---|---|-------------------|
| | | | | Review how it can be implemented for parks or community gardens (including schools, libraries) and recreational programs. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | | | | Create education program on how to use your rain barrel at home. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| | Investigate ways that the District and Area | | | Research best practices from other AMs. | Town of Gravenhurst Emergency Services | Voyant Alert! System | Ongoing |
| | | ys that the trict and ea nicipalities 24 n collaborate (Medium) rack 22-5 Years (2027- 2030) | 0.5 Vo.em | Investigate 511 system to determine if it meets the community's needs in Gravenhurst. | Town of Gravenhurst Emergency Services | Voyant Alert! System replaced 511 system. | Ongoing |
| 13 | Municipalities can collaborate to track weather events | | (2027- | Investigate the current data tracking system and determine what data is available. | Town of Gravenhurst Emergency Services | • NA | Pending |
| | and associated damage. | | | Create system to track resources spent on repairs, access prevented, and areas impacted due to extreme weather events and flooding. Use this | Town of Gravenhurst Emergency Services | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status | |
|---|---|---|--|--|--|---|-------------------|---------|
| | | | | information to make claims or apply for grants in the future. | | | | |
| | | | | Use tracked data to support communications plan (yearly flooding or extreme weather events data can support a communications plan for alerts and messaging). | Town of Gravenhurst Emergency Services | Town staff are starting to pull together Communications Plan. | In Progress | |
| | Evaloro | | | Review internal policies and best practices. Share any best practices with other AMs. | Town of Gravenhurst Infrastructure Department | Part of Official Plan review in 2026. | Pending | |
| 14 | Explore requiring drainage and grading plans 14 for all new | equiring Irainage and Irading plans 22 | ans ₂₂ 2-5 Years | - | Develop formal policies related to backwater valve systems re SMP as part of Development Standards review. | Town of Gravenhurst Infrastructure Department | • NA | Pending |
| (urban and rural), where possible | urban and ural), where | | Review how this could be incorporated into the site plan agreements or other planning policies. | Town of Gravenhurst Infrastructure Department | Part of Official Plan review in 2026. | Pending | | |
| | | | | Include requirement for drainage and grading plan in the Official Plan, where | • Town of Gravenhurst | Part of Official Plan review in 2026. | Pending | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|---|--|---|---|------------------|-------------------|
| | | | | appropriate and require Engineer grading certifications. | Planning Department Town of Gravenhurst Infrastructure Department | | |
| | | | | Assess availability of free internet access within Gravenhurst. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| 15 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. | portunities to ake the ernet more 22 ordable and (Medium) 2 cessible for nerable | 2-5 Years | Look for quick wins (library or Municipal buildings adding boosters and free internet). | Town of Gravenhurst Economic Development Department | • NA | Pending |
| 15 | | |) (2027- 2030) | Investigate ways to make internet more accessible to vulnerable populations. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Explore options to provide free internet in a Library or other AM buildings (Wi-Fi booster and no password requirements). | Town of Gravenhurst Economic Development Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|------------------|-------------------|
| | | | | Continue to support the District broadband initiative. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Identify local internet "hot spots" – what businesses are already offering free internet near their vicinity/in their establishments and communicate this list to vulnerable populations. | Town of Gravenhurst Economic Development Department | • NA | Pending |
| | | | | Council to advocate for resources/funding to provide further access to the internet in upper levels of government. | Town of Gravenhurst Economic Development Department | • NA | Pending |

D-3: Implementation Schedule for the Town of Bracebridge

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status | |
|---|--|---|--|---|--|---|-------------------|---------|
| 1 review of Municip process find way better of salt use balance ecosyst health a commu | Conduct a review of Municipal processes to find ways to better optimize | eview of lunicipal rocesses to nd ways to etter optimize alt use to alance cosystem ealth and ommunity | | | Share best practices with other AMs. | Town of Bracebridge Public Works Department Town of Bracebridge Finance Department | • NA | Pending |
| | | | <2 Years | Advocate to the Province for Joint and Several Liability reform. | Town of Bracebridge Finance Department | • NA | Pending | |
| | salt use to balance ecosystem health and community safety. | | 2027) | Complete updated Salt Management Plan for 2024, to be included in the 2024 Municipal Budget and Business Plan. | Town of Bracebridge Public Works Department | Plan is completed, next step is to update/improve the existing plan. | In Progress | |
| | | | | Ensure all residents and visitors know the impacts of road salt to ecosystems through an educational program on best practices. | Town of Bracebridge Public Works Department Town of Bracebridge | • NA | Pending | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|------------------|-------------------|
| | | | | | Communications Coordinator | | |
| | | | | Create educational material for residents on proper salt application. | Town of Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Investigate District and Gravenhurst process for pre- treated application, in conjunction with the Town of Bracebridge information, insights and previous experiences. | Town of Bracebridge Public Works Department DMM | • NA | Pending |
| | | | | Ensure equipment tracks amount of salt applied by location (done on trucks – tracks when salter is running and where). All users of salt for maintenance purposes are required to track usage over 500 tonnes annually, in accordance with Regulation. | Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Partner with Muskoka Watershed Council or other | Town of Bracebridge | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|------------------|-------------------|
| | | | | organizations to map out sensitive or high chloride areas. | Public Works Department • DMM | | |
| | | | | Investigate ways to reduce salt use while not reducing levels of service – safety and liability are to be fully considered in any changes. | Town of Bracebridge Public Works Department | • NA | Pending |
| 2 | Encourage community members to check on family, friends, and neighbors during of extreme | 32 (High) | <2 Years (2025- 2027) | Conduct desktop research on what other/neighbouring communities have done. | Town of Bracebridge Fire Department | • NA | Pending |
| | weather events (i.e., heat, cold, ice/windstorms, flooding, etc.) | | | Develop a comprehensive communications plan that will relay important information throughout the year about being prepared, specifically around challenging seasons. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|---|---|------------------|-------------------|
| | | | | Share ongoing social media content. | Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Benchmark what other municipalities are doing in terms of community preparedness/neighbourhood check-in initiatives and review local feasibility. | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Review the option of implementing a neighbourhood pilot project based on the program review (above), incorporating community champions to help engage with residents. | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Identify existing informal/formal check-in processes that are currently in place to identify what works and any lessons learned. | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Explore partnerships with local service providers to roll out a program. | Town of Bracebridge Fire Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|------------------|-------------------|
| | | | | Identify options to build social networks between communities (i.e., community events, town halls, Q&A, etc.) to discuss climate change impacts in the community. | Town of Bracebridge Fire Department | • NA | Pending |
| | Quatinus to | | | Continue support as is and include in operations. | Town of Bracebridge Public Works Department | • NA | Pending |
| 3 | Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the | 30 (High) | <2 Years (2025- 2027) | Support and continue to research the ASH Muskoka program to increase forest health. Continue to promote communications around the ASH program. | Town of Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | program to the forest to increase forest resilience to drought and insect damage. | | | Investigate partnership opportunities for application of ash on municipal parks, trails, and other property to increase tree strength and resiliency to invasive species, drought, blow down, etc. | Town of Bracebridge Public Works Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|------------------|-------------------|
| | | | | Schedule a meeting with SMDHU, Area Municipal and District staff to confirm communications procedures and consider enhancements. | Town f Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | Work with Simcoe Muskoka District Health Unit to | | | Review the SMDHU communication process. | Town of Bracebridge Public Works Department | • NA | Pending |
| 4 | improve communication regarding beach/lake closures with respect to blue- green algae or other health | 30 (High) | <2 Years (2025- 2027) | Continue proactive messaging that makes the community aware of potential issues and drives them to SMDHU for details. | Town of Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | related closures. | | | Share all SMDHU posts and information in a timely manner for increased reach and awareness. | Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| | | | | Bracebridge to share recent success and best practice advocacy. | Town of Bracebridge CAO | • NA | Pending |
| | Work with power providers | | | Establish communications steps between provider and affected municipality. | Town of Bracebridge CAO Town of Bracebridge Communications Coordinator | • NA | Pending |
| 5 | to ensure new electrical infrastructure is resilient, where possible | 28 (High) | <2 Years (2025- 2027) | Bracebridge and District to advocate with Lakeland Power, Hydro One, Lexicon, etc. to ensure energy infrastructure is adequately protected and resilient to extreme weather events and temperature (including underground services, etc.) | Town of Bracebridge CAO DMM | • NA | Pending |
| | | | | Review the current communications process during power outages. | Town of Bracebridge CAO Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|------------------|-------------------|
| | | | | Investigate planning process and policy around underground servicing in new developments - investigate and share best practices with other AMs. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Share best practices around utility working group committee. | Town of Bracebridge CAO | • NA | Pending |
| | Review public | icies re that n e | | Review ridership for target riders and action "On Demand" rollout. | Town of Bracebridge Public Works Department | • NA | Pending |
| | transit policies and ensure that people can access the service during | | <2 Years | Review ridership metrics and action Revised Routing - 30- minute double routing. | Town of Bracebridge Public Works Department | • NA | Pending |
| 6 | inclement weather (i.e., shelter, online apps with up-to- | 28 (High) | (2025- 2027) | Identify best practices used elsewhere for similarly sized communities. | Town of Bracebridge Public Works Department | • NA | Pending |
| | date schedule, plow snowbanks). | | | Ensure all users of transportation network are considered (i.e., users of all ages, differently abled individuals, motorists, pedestrians, cyclists, etc.). | Town of Bracebridge Public Works Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
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| | | | | Consider expanding public transit access into areas that are not serviced. 2020 Transit Review contemplates the implementation of an "On Demand" component to the service. | Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Consider climate lens when looking to expand frequency of service (i.e., make climate- resilient/mitigative choices – e.g., electric vehicles, where possible). | Town of Bracebridge Public Works Department | • NA | Pending |
| | Monitor urban/rural tree removal by-law | | <2 Years | Consultations with enforcement staff regarding implementation and efficiency. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| 7 | and tree-cutting by-law to ensure adequate from a climate change lens. | 27 (High) | (2025- 2027) | Research best practices, obtain community input | Town of Bracebridge Planning and Development Department Town of Bracebridge | • NA | Pending |

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|--------------|-----------------------------------|--|--|--|---|------------------|-------------------|
| | | | | | Communications Coordinator | | |
| | | | | Update by-laws, as required. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Create a communication plan to ensure community is aware of changes. | Town of Bracebridge Planning and Development Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Update and implement Bracebridge's Urban Tree Management Plan. | Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Review policies for tree canopy requirements on Town lands (considering geography and landscape). | Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Review the greenspace/parkland requirements for new development (i.e., not just | Town of Bracebridge Planning and | • NA | Pending |

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|--------------|---|--|--|---|---|------------------|-------------------|
| | | | | accept cash-in-lieu and/or increase cash requirements). | Development Department Town of Bracebridge Public Works Department | | |
| | | | | Review reporting and enforcement mechanisms to ensure trees/greenspace are/is protected, and Area Municipalities to share best practices and successes/lessons learned. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| 8 | Explore grant opportunities for home efficiency | 26 (High) | <2 Years (2025- 2027) | Encourage homeowners and landlords to improve the resilience of residential buildings to climate-related risks through upgrades and/or retrofits. | Town of Bracebridge Communications Coordinator | • NA | Pending |
| | and resiliency. | | | Explore grant programs that provide funding to municipalities for these programs. | Town of Bracebridge CAO | • NA | Pending |

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|--------------|---|--|--|--|---|------------------|-------------------|
| | | | | Share findings with other AMs and investigate their practices. | • Town of Bracebridge CAO | • NA | Pending |
| | Area Municipalities to explore the addition of | | | Communicate with the Federation of Ontario Cottagers' Associations (FOCA) to get signage and promotional material. | Town of Bracebridge Public Works Department | • NA | Pending |
| 9 | educational signage for reduction of spread of invasive species (including around | 26 (High) | <2 Years (2025- 2027) | Communicate with Public Works staff to locate areas of invasive species – enhance signage in these areas. | Town of Bracebridge Public Works Department | • NA | Pending |
| | waterways and | | | Seek ways to support Muskoka Watershed Council | Town of Bracebridge | • NA | Pending |

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|--------------|-----------------------------------|--|--|--|---|------------------|-------------------|
| | boat transportation) | | | efforts on hiring seasonal employee(s). | Communications Coordinator | | |
| | | | | District to distribute tick signage to lower-tier municipalities for education of residents and visitors. | Town of Bracebridge Public Works Department DMM | • NA | Pending |
| | | | | Continue to develop and deliver educational programming on reporting/identifying invasive species. | Town of Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Explore grant opportunities and seek funding. | Town of Bracebridge Public Works Department Town of Bracebridge Finance Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status | |
|--------------|--|--|--|--|---|--|-------------------|---------|
| 10 | Create an educational program for residents to protect their assets from floods. | | | | Continue to print/distribute/promote the existing guide to flood prevention and recovery that was developed by the District. | Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | 26 (High) | <2 Years (2025- 2027) | Investigate other ways to educate residents. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending | |
| | | | | Send direct mail to all property owners within floodplains to advise of importance of preparing for a flood. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending | |

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|--------------|-----------------------------------|--|--|---|---|------------------|-------------------|
| | | | | Communications plan: • Review and improve website content pertaining to emergency preparedness. • Include more information on the importance of 72-hour kits, tips to create one, what's included, etc. 46 • Online learning tool for residents to go through to improve emergency preparedness. • Develop a detailed communications plan on extreme weather and emergency preparedness. • Messaging to be shared on an ongoing basis. • Important points to include Emergency service access, 72-hour kits, do's/don'ts, landscaping. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|---|------------------|-------------------|
| watershed | | | | Review best practices, including efforts recently undertaken by Huntsville, around websites and communications planning. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | practices with communicating | 26 (High) | <2 Years | Encourage and promote use of Voyant Alert system through Town communications. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | 1 advisory statements and improve process where required. 26 (High | 20 (rign) | (2025- 2027) | Review current Municipal communication strategy for communicating this information and communicate current practices with all AMs. Based on review, update/improve the Bracebridge communications strategy for watershed advisories and flooding. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Determine triggers to put out information – alert, advisory, warning, etc. | Town of Bracebridge Fire Department | • NA | Pending |

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| | | | | | Town of Bracebridge Communications Coordinator | | |
| | | | | Incorporate important watershed messaging into social content calendars to improve overall awareness and education. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | Create educational material (i.e., | | | Review current strategies/plans – determine if they incorporate messaging through an eco-sustainable lens. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| 12 | rack card, seminar, etc.) for commercial businesses to better understand | 25 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Research if a similar program already exists in another municipality, communicate best practices, and share information. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | climate change risks, adaptation, mitigation. | | | Partner with Business Improvement Area (BIA), RTO12, and Chambers of Commerce, etc. to identify opportunities from extended summer season and take | Town of Bracebridge Planning and Development Department | • NA | Pending |

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|--------------|-----------------------------------|--|--|--|---|------------------|-------------------|
| | | | | advantage without damage to ecosystems. | | | |
| | | | | Work with BIAs and Chambers on sustainability initiatives. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Encourage local agri-tourism with the longer growing season. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Look for opportunities to incentivise businesses for best-in-practice climate resiliency measures. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Work with local business on continuity plans, including funding/insurance to ensure seamless operation during events. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Review marketing and communication campaigns to ensure an even distribution for recommendations of tourist visits and if possible, identify if areas are over sold. | Town of Bracebridge Planning and Development Department | • NA | Pending |

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| | | | | Municipal Accommodation Taxes funding to look at sustainable tourism and help businesses consider climate change as part of their operating plans. | Town of Bracebridge Planning and Development Department Town of Bracebridge Finance Department | • NA | Pending |
| | | | | Review lessons learned from the Town's previous, as well as the District and other AMs' rain barrel programs. | Town of Bracebridge Public Works Department | • NA | Pending |
| | Explore a rain barrel program for Muskoka residents. | barrel program 24 (2027- for Muskoka (Medium) 2030) | | Investigate cost/budgeting requirements to implement a rain barrel program. | Town of Bracebridge Public Works Department | • NA | Pending |
| 13 b | | | 2-5 Years (2027- 2030) | Investigate a communications strategy for a rain barrel program. | Town of Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Development of a program, then | Town of Bracebridge | • NA | Pending |

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|--------------|---------------------------------------|--|--|--|---|------------------|-------------------|
| | | | | communications/education about the program. | Public Works Department Town of Bracebridge Communications Coordinator | | |
| | | | | Investigate subsidies or partnerships with companies that make rain barrels. | Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Review how it can be implemented for parks or community gardens, including schools, libraries and recreational facilities. | Town of Bracebridge Public Works Department Town of Bracebridge Leadership Team | • NA | Pending |
| | | | | Create an education program on how to make your own rain barrel at home. | Town of Bracebridge Public Works Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| 14 | Review and improve response and | 23 (Medium) | 2-5 Years (2027- 2030) | Review current practices in the Emergency Plan and identify gaps. | Town of Bracebridge Fire Department | • NA | Pending |

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|--------------|---|--|--|--|---|------------------|-------------------|
| | support for vulnerable populations | | | Share current practices with other Muskoka municipalities. | Town of Bracebridge Fire Department | • NA | Pending |
| | during extreme weather events/flooding. | | | Partner with external organizations (NGOs), including agreements for services, to determine how and what additional support can be provided to vulnerable populations during and after extreme weather events. | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Reach out to neighboring/other communities to connect and explore methods utilized to mitigate climate impacts on vulnerable populations. | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Increase communications to improve awareness of the resources that exist to support vulnerable populations using a variety of methods and tailor communications based on the event. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |

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| | | | | Conduct a needs assessment to identify the various vulnerable populations that exist, what the specific populations need, what they have access to and what improvements need to be made (partner with SMDHU). Speak to identified populations directly. | Town of Bracebridge Fire Department | • NA | Pending |
| | Development | | | Consult with other area municipalities to learn their practice. | Town of Bracebridge Fire Department Town of Bracebridge Public Works | • NA | Pending |
| 15 | Develop a formal plan to stockpile/identify quick sources of sandbags and materials during emergencies. | 23 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Establish a relationship with a provider and investigate a retainer for quick access in the event of urgent need. | Town of Bracebridge Fire Department Town of Bracebridge Public Works | • NA | Pending |
| | eniergencies. | | | Determine if other supporting equipment is required – portable pumps, sandbagging machines. | Town of Bracebridge Fire Department Town of Bracebridge Public Works | • NA | Pending |

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| | | | | Solidify agreements with outside agencies/businesses, solidify possible filling locations, other supports/materials required. | Town of Bracebridge Fire Department Town of Bracebridge Public Works | • NA | Pending |
| | | | | Review practices for effective filling of sandbags. | Town of Bracebridge Fire Department Town of Bracebridge Public Works | • NA | Pending |
| | | | | Determine plan for sandbag cleanup/disposal after an event. | Town of Bracebridge Fire Department Town of Bracebridge Public Works | • NA | Pending |
| 16 | Implement a "safe ice" campaign or alternative solutions for | 22 (Medium) | 2-5 Years (2027- 2030) | Understand existing Fire Department practices, research municipal best practices and inquire about other fire department practices. | Town of Bracebridge Fire Department | • NA | Pending |
| | businesses. | | | Drive the 2080 estimates in external and internal communications. | Town of Bracebridge Fire Department | • NA | Pending |

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| | | | | | Town of Bracebridge Communications Coordinator | | |
| | | | | Explore partnerships with other agencies (i.e., OPP, first responders). | Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Work with Partner organizations to create 'Safe Ice Use' campaign(s). | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Educate on how to get out of the water when out on the ice. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |

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|--------------|--|--|--|---|---|------------------|-------------------|
| | | | | Provide education for businesses, residents, and seasonal residents and visitors. Share ice thickness measuring practices. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | District to circulate the septic study to approval authorities (i.e., Area Municipalities), then schedule a meeting to determine next collaborative steps. | • DMM | • NA | Pending |
| 17 | Review results of District septic study to determine next collaborative steps | 22 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Area Municipalities to work with District to explore additional standardization and enhancement for sewage system maintenance and inspection programs in the Area Municipalities across Muskoka. | Town of Bracebridge Planning and Development Department DMM | • NA | Pending |
| | | | | District of Muskoka to confirm approaches to mandatory hook-up requirements to reduce or eliminate septic systems in | • DMM | • NA | Pending |

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|--------------|--|--|--|---|--|------------------|-------------------|
| | | | | urban areas across Muskoka. | | | |
| | | | | Compare the Bracebridge Sewage System Maintenance Inspection Program and Policy with the best practices of other Area Municipalities to look for improvements. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | | | | Organize a meeting with the Directors of Planning and Development (where applicable) along with Chief Building Officials (CBOs) and District on the results of the District study and to share best practises. | Town of Bracebridge Planning and Development Department DMM | • NA | Pending |
| 18 | Explore opportunities to make the internet more | 22 | 2-5 Years (2027- | Assess availability of free internet access within Bracebridge. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| 10 | affordable and accessible for vulnerable populations. | (Medium) | 2030) | Identify quick wins (library or municipal buildings, adding boosters and free internet). | Town of Bracebridge Corporate Services Department | • NA | Pending |

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| | | | | | Town of Bracebridge Recreation Department Town of Bracebridge Library | | |
| | | | | Look for ways to make the internet more accessible to vulnerable populations. | Town of Bracebridge Fire Department Town of Bracebridge CAO | • NA | Pending |
| | | | | Explore options to provide free internet in a library or other municipal buildings (Wi-Fi booster and no password requirements). | Town of Bracebridge Corporate Services Department Town of Bracebridge Recreation Department Town of Bracebridge Library | • NA | Pending |
| | | | | Continue to support the District broadband strategy and related initiatives. | Town of Bracebridge Planning and | • NA | Pending |

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|--------------|---|--|--|---|--|------------------|-------------------|
| | | | | | DevelopmentDepartmentDMM | | |
| | | | | Identify local internet "hot spots" – what businesses are already offering free internet near their vicinity/in their establishments and communicate this list to vulnerable populations. | Town of Bracebridge Planning and Development Department DMM | • NA | Pending |
| | | | | Advocate to upper levels of government for resources/funding to provide further access to the internet. | Town of Bracebridge CAO | • NA | Pending |
| | Area Municipalities to partner with the District to | | | Support District, as needed, in the Integrated Watershed Management (IWM) Structural Flood Mitigation Project. | Town of Bracebridge Public Works Department DMM | • NA | Pending |
| 19 | explore structural mitigation options to prevent flooding. | 22 (Medium) | 2-5 Years (2027- 2030) | When the project is complete: Review the results to determine relevance and next steps. Consider a partnership for when the project is done. | Town of Bracebridge Public Works Department DMM | • NA | Pending |

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| | | | | Assess and prioritize the project list at a regional level (not Area Municipalities specific) - review through the IWM lens. | Town of Bracebridge Public Works Department DMM | • NA | Pending |
| | Explore requiring drainage and grading plans 21 | 21 | 2-5 Years | Review internal policies and best practices. Determine minimum criteria where it would apply. Share any best practices with other Muskoka municipalities. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| 20 | for all new development (urban and rural), where possible | (Medium) | (2027- 2030) | Develop formal policies related to backwater valve systems in SWMP as part of Development Standards review. | Town of Bracebridge Planning and Development Department | • NA | Pending |

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|--------------|---|--|--|---|--|------------------|-------------------|
| | | | | Review how this could be implemented in the absence of site plan control, now limited through Bill 23, into applicable site plan agreements or other development regulations. | Town of Bracebridge Planning and Development Department | • NA | Pending |
| | Investigate ways that the District and Area | | 2-5 Years | Research best practices from other Municipalities. | Town of Bracebridge Fire Department Town of Bracebridge Public Works Department | • NA | Pending |
| 21 | Municipalities can collaborate to track weather events and associated | 21 (<mark>Medium</mark>) | (2027- 2030) | Investigate 511 system to determine if it is right for Bracebridge. | Town of Bracebridge Public Works Department | • NA | Pending |
| | damage. | | | Investigate the current data tracking system and determine what data is available and what needs to be collected. | Town of Bracebridge Fire Department Town of Bracebridge | • NA | Pending |

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|--------------|-----------------------------------|--|--|---|--|------------------|-------------------|
| | | | | | Public Works Department | | |
| | | | | Review current practices around 511 in Muskoka and assess what is working and what is not ideal. | Town of Bracebridge Fire Department Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Create system to track dollars spent on repairs, access prevented, and areas impacted due to extreme weather events and flooding. Use this information to make claims or apply for grants in the future. | Town of Bracebridge Finance Department Town of Bracebridge Public Works Department Town of Bracebridge Fire Department | • NA | Pending |
| | | | | Use tracked data to support communications planning (yearly flooding or extreme weather events data can support communications for alerts and messaging). | Town of Bracebridge Fire Department Town of Bracebridge Public Works Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|------------------|-------------------|
| | | | | | Town of Bracebridge Communications Coordinator | | |
| | | | | Assess staff capacity to update the 511 regularly. Investigate the current practice in Huntsville. A solid process must be in place before decommissioning the existing one. Determine communications and outreach support to ensure uptake. | Town of Bracebridge Public Works Department | • NA | Pending |
| | | | | Expand tracking procedures to capture flooding and extreme weather events. | Town of Bracebridge Fire Department Town of Bracebridge Public Works Department | • NA | Pending |
| 22 | Review, update, and expand internal/external policies and plans to ensure appropriate notification of | 20 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Reviewing current practices and share best practices with others. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|---|------------------|-------------------|
| | extreme weather events, road closures, power outages, etc. | | | Consult with others (e.g., Simcoe Muskoka District Health Unit and departments across Muskoka's municipalities, and others) who have the expertise to create new or updated policies and messages. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| | | | | Ensuring availability of information regarding services that are accessible (or inaccessible) during extreme weather events. | Town of Bracebridge Fire Department Town of Bracebridge Communications Coordinator | • NA | Pending |
| 23 | Explore opportunities to work with local First Nations to improve | 20 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Through direct outreach to the Muskoka and Area Indigenous Leadership Table, the Town can familiarize itself with ongoing projects to establish potential for alignment, efficiency and leverage opportunities. | Town of Bracebridge CAO | • NA | Pending |
| | adaptive capacity. | | , | Establish a trusting, reciprocal and collaborative relationship with appropriate staff at Moose Deer Point and Wahta and other First | Town of Bracebridge CAO | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|------------------|-------------------|
| | | | | Nations and Metis organizations that serve their populations to determine interest and availability. | | | |
| | | | | When available, review results of flood plain mapping that the District is providing to First Nations. | Town of Bracebridge Planning and Development Department DMM | • NA | Pending |
| | | | | When available, review results of Integrated Watershed Management Structural Mitigation project. | Town of Bracebridge Public Works Department DMM | • NA | Pending |
| | | | | Maintain awareness and continuous open communication with Moose Deer Point and Wahta to continuously integrate knowledge and information. | Town of Bracebridge CAO | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--|---|---|--|--|---|---|-------------------|
| Conduct a review of Municipal processes to find ways to better optimize | review of Municipal processes to find ways to better optimize | onduct a view of unicipal ocesses to d ways to tter optimize | Review best practices from other AMs. | Township of Muskoka Lakes Operational Services | Township road salt use is nil to limited. | Pending | |
| | | | | Review application and volume of municipal salt use. | Township of Muskoka Lakes Operational Services | Township road salt use is nil to limited. | In Progress |
| 1 | salt use to balance ecosystem health and community safety. | 33 (High) | (2025- 2027) | Create educational material for residents on proper salt application. | Township of Muskoka Lakes Operational Services Township of Muskoka Lakes Communications Department | Township road salt use is nil to limited. | Pending |

D-4: Implementation Schedule for the Township of Muskoka Lakes

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|------------------|-------------------|
| 2 | 2 Continue to support and expand the Friends of the Muskoka Watershed residential wood ash recycling program to the forest to increase forest | 32 (High) <2 Years (2025- 2027) | Investigate potential support for program. | Township of Muskoka Lakes Developmental Services Township of Muskoka Lakes Environmental Sustainability | • NA | Pending | |
| 2 | | | · · · | Continue to promote communications. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| | resilience to drought and insect damage. | | | Investigate partnership opportunities for application of Ash on Municipal parks and property to increase tree strength and resiliency to invasive species, drought, blow down, etc. | Township of Muskoka Lakes Operational Services | • NA | Pending |
| 3 | Continue to assess changes to Updated Tree Conservation By-Law | 28 (High) | <2 Years (2025- 2027) | Continue to monitor effectiveness of recent by-law update and consider expanding its application within Urban centres/communities. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|--|------------------|-------------------|
| | | | | | By-Law Enforcement | | |
| | | | | Create a communication plan to ensure community awareness. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes By-Law Enforcement Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Research and implement best practices to conserve and increase vegetation retention including urban tree canopies. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes By-Law Enforcement | • NA | Pending |
| | | | | Continue to ensure vegetation retention for all development and follow Official Plan greenspace/parkland | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|---|--|------------------|-------------------|
| | | | | requirements for new development. | By-Law Enforcement | | |
| | | | | Review reporting and enforcement mechanisms to ensure trees are protected and site alteration minimized. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes By-Law Enforcement | • NA | Pending |
| 4 | Compare best practices with communicating watershed advisory statements and improve process where | 28 (<mark>High</mark>) | <2 Years (2025- 2027) | Explore and implement best practices from other AMs. | Township of Muskoka Lakes Developmental Services Township of Muskoka Lakes Environmental Sustainability Township of Muskoka Lakes Operational Services | • NA | Pending |
| | required. | | | Review current Municipal communication strategy for communicating this information. | Township of Muskoka Lakes Communications Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|------------------------|-------------------|
| | | | | Investigate the use of Voyant Alert. | Township of Muskoka Lakes Operational Services | • NA | Pending |
| | | | | Implement Community Improvement Plan Incentive Programs. | Township of Muskoka Lakes Economic Development | Currently underway | In Progress |
| | Explore grant | plore grant | | Encourage homeowners and landlords to improve the resilience of residential buildings to climate-related risks through upgrades and/or retrofits. | Township of Muskoka Lakes Development Services | • NA | Pending |
| 5 | opportunities for home efficiency and resiliency. | 28 (High) | <2 Years (2025- 2027) | Explore grant programs for potential opportunities to increase resiliency through Community Improvement Plan. | Township of Muskoka Lakes Planning Department Township of Muskoka Lakes Economic Development Township of Muskoka Lakes Development Services | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|------------------|-------------------|
| | | | | Advocate for changes to the Ontario Building Code. | Township of Muskoka Lakes Development Services | • NA | Pending |
| | better understand climate change risks, | | <2 Years | Review best practices from other AMs. | Township of Muskoka Lakes Communications Department Township of Muskoka Lakes Economic Development | • NA | Pending |
| 6 | | businesses to better27 (High) 2027)(2025- 2027)understand climate change | | Partner with Chamber of Commerce to identify opportunities to extend summer season without damage to ecosystems. | Township of Muskoka Lakes Economic Development | • NA | Pending |
| | adaptation, mitigation. | | | Look for opportunities to incentivise businesses for best in practice climate resiliency measures. | Township of Muskoka Lakes Economic Development | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|------------------|-------------------|
| | | | | Work with local business on continuity plans, including funding/insurance to ensure seamless operation during climatic events. | Township of Muskoka Lakes Economic Development | • NA | Pending |
| | Area Municipalities to explore the addition of educational signage for | | | Communicate with the Federation of Ontario Cottagers' Associations (FOCA) on existing signage best practices. | Township of Muskoka Lakes Development Services Township of Muskoka Lakes Environmental Sustainability | • NA | Pending |
| 7 | reduction of spread of invasive species (including around waterways and boat | 27 (High) | <2 Years (2025- 2027) | Continue to develop and deliver educational program on reporting/identifying invasive species. | Township of Muskoka Lakes Development Services Township of Muskoka Lakes Environmental Sustainability | • NA | Pending |
| | transportation) | | | Explore grant opportunities. | Township of Muskoka Lakes Development Services | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|--|--|------------------|-------------------|
| | | | | | Town of Muskoka Lakes Environmental Sustainability | | |
| | Work with Simcoe Muskoka District Health Unit to improve | | | Schedule a meeting with Simcoe Muskoka District Health Unit, Area Municipal and District staff to discuss collaboration on this subject. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| 8 | communication regarding beach/lake closures with respect to blue- green algae or other health related closures. | 25 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Review the Simcoe Muskoka District Health Unit (SMDHU) communication process. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| 9 | Explore a rain barrel program for Muskoka residents. | 23 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Review lessons learned from the District program. | Township of Muskoka Lakes Development Services Township of Muskoka Lakes Environmental Sustainability | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|-----------------------------------|--|--|--|---|------------------|-------------------|
| | | | | | Township of Muskoka Lakes Communications Department | | |
| | | | | Communications/education on this type of program. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Investigate subsidies or partnerships with companies that make rain barrels. | Township of Muskoka Lakes Development Services Township of Muskoka Lakes Environmental Sustainability Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Review implementation for parks or community gardens (including schools, libraries)/recreational programs. | Township of Muskoka Lakes Development Services Township of Muskoka Lakes Environmental Sustainability | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|--|--|--|--|---|------------------|-------------------|
| | | | | | Township of Muskoka Lakes Operational Services | | |
| | | | | Conduct review of current practices around communications. | Township of Muskoka Communications Department | • NA | Pending |
| | Review and improve response and support for vulnerable populations during extreme weather events/flooding. | improve response and support for vulnerable populations during extreme weather | | Share current practices with other AMs. | Township of Muskoka Lakes Fire Department | • NA | Pending |
| 10 | | | ` | Partner with external organizations to determine how and what additional support can be provided to vulnerable populations during /after extreme weather events. | Township of Muskoka Lakes Fire Department Township of Muskoka Lakes Emergency Services | • NA | Pending |
| | | | | Increase communications to improve awareness of the resources that exist to support vulnerable populations using different methods. | Township of Muskoka Lakes Communications Department | • NA | Pending |
| | | | | Partner with SMDHU to conduct a needs assessment to identify the various | Township of Muskoka Lakes Fire Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|--------------|---|--|--|---|---|------------------|-------------------|
| | | | | vulnerable populations that exist, what the specific populations need, what they have access to and what improvements need to be made. | Township of Muskoka Lakes Emergency Services | | |
| 11 | Continue partnership with Muskoka Conservancy to protect significant conservation lands. | 22 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Provide link to Muskoka Conservancy website and promotional materials when land being divided. | Township of Muskoka Lakes Planning Department | • NA | Pending |
| | Review, update, and expand internal/external policies and | | | Reviewing current practices within Voyant Alert. | Township of Muskoka Lakes Operational Services | • NA | Pending |
| 12 | plans to ensure appropriate notification of extreme weather events, road closures, power outages, etc. | 20 (Medium) | 2-5 Years (2027- 2030) | Share and adopt best practices from other AMs. | Township of Muskoka Lakes Operational Services Township of Muskoka Lakes Communications Department | • NA | Pending |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-----------|--|---|--|---|--|--|-------------------|
| 1 | Work with power providers to ensure new electrical infrastructure is resilient, where possible | ork with ower oviders to isure new ectrical frastructure resilient, here | | Establish communications steps with provider. | Township of Lake of Bay Communications Department Township of Lake of Bays Parks and Facilities | • NA | Pending |
| | | | | Seek best practices and next steps from Bracebridge. | Township of Lake of Bays Parks and Facilities | • NA | Pending |
| | | | 2-5 Years (2027- 2030) | LOB and District to advocate with Lakeland Power, Hydro One, Lexicon etc. to ensure energy infrastructure is adequately protected and resilient to extreme weather events and temperature (including underground services, etc.). | DMM Township of Lake of Bays Public Works/Emergency Management Township of Lake of Bays Parks and Facilities | • NA | Pending |
| | | | | Review the Township of Lake of Bays communications process during power outages. | Township of Lake of Bays Communications Department | Staff direct residents and visitors to Hydro One | Ongoing |

D-5: Implementation Schedule for the Township of Lake of Bays

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-----------|--|--|--|--|---|--|-------------------|
| | | | | | Township of Lake of Bays Fire Department/Emergency Management | Outage information. | |
| 2 | Explore opportunities to make the internet more affordable and accessible for vulnerable populations. | opportunities o make the nternet more affordable 23 and (Medium) accessible or vulnerable | 2-5 Years (2027- 2030) | Assess availability of free internet access within the municipality. | Township of Lake of Bays Economic Development Township of Lake of Bays IT Department | • NA | Pending |
| | | | | Look for ways to make internet more accessible to vulnerable populations. | Township of Lake of Bays Economic Development | • NA | Pending |
| | | | | Communicate with other AMs to learn and establish best practices. | Area Municipalities Township of Lake of Bays Economic Development | • NA | Pending |
| | | | | Area Municipalities to continue to support the District broadband initiative. | Area MunicipalitiesDMM | • NA | Pending |
| | | | | Identify local internet "hot spots" – what businesses are already offering free internet near their vicinity/in their | Township of Lake of Bays Economic Development Township of Lake of Bays Communications Department | Both library branches are internet "hotspots" and offer fibre 24/7 | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-----------|-----------------------------------|--|--|---|---|---|-------------------|
| | | | | establishments and communicate this list to vulnerable populations. | Township of Lake of Bays Libraries | outside of their buildings and inside during open hours. | |
| | | | | Councillors to advocate for resources/funding to provide further access to the internet in upper levels of government. | Township of Lake of Bays Economic Development Township of Lake of Bays CAO Township of Lake of Bays Councillors | • NA | Pending |
| | | | | Municipalities to continue to look for options to provide free internet in existing municipal buildings. | Township of Lake of Bays IT Department Township of Lake of Bays Libraries | • The Municipality already offers free internet in the Township's libraries. | Ongoing |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-----------|--|--|---|--|---|--|-------------------|
| 3 | Area Municipalities to partner with the District to explore structural mitigation options to prevent flooding. | nicipalities artner the rict to lore ctural gation ons to vent | (2027- | Support District as needed in the Integrated Watershed Management (IWM) Structural Flood Mitigation Project | Township of Lake of Bays Public Works/Emergency Management DMM | Township will review and participate accordingly once the report is complete. | Pending |
| | | | | When the project is complete: Review the results to determine relevance and next steps and if any projects are of interest to LOB. Consider a partnership for when the project is done | Township of Lake of Bays Public Works/Emergency Management DMM | Township will review and participate accordingly once the report is complete. | Pending |
| | | | Assess and prioritize the project list at the high level through the IWM lens. What creates biggest difference or helps most people throughout the watershed? | Township of Lake of Bays Public Works/Emergency Management DMM | Township will review and participate accordingly once the report is complete. | Pending | |

| Action ID | Shortlist Adaptation Action | Priority Score (Priority Level) | Action Timeline (Target Completion Date) | Projects (Immediate and Supporting Actions) | Lead Organization(s) | Project Progress | Project Status |
|-----------|--|--|--|---|--|---------------------|-------------------|
| 4 | Explore requiring drainage and grading plans for all new development (urban and rural), where possible | 21 (<mark>Medium</mark>) | 2-5 Years (2027- 2030) | Review internal policies and best practices. Share any best practices with other AMs and see what their best practices are. | Township of Lake of Bays Planning Department Collaboration with AMs and/or District required. | • NA | Pending |

*Rows highlighted in light green indicate "quick wins" that can be completed by respected Area Municipalities

Acknowledgements

The development of this Implementation Plan was completed in collaboration between the Ontario Resource Centre for Climate Adaptation (ORCCA) and the five Area Municipalities of the District of Muskoka including Towns of Huntsville, Gravenhurst, and Bracebridge and the Townships of Muskoka Lakes and Lake of Bays.

