

Whitby Climate Emergency Response Plan

Phase 1: Resilience

Appendix B:
Engagement Summary

Executive Summary

BACKGROUND

The Town of Whitby is developing a Whitby Climate Emergency Response Plan to prepare the Town and the community for the impacts of climate change. The Plan will include programs, policies, and projects to reduce and increase Whitby's resilience to climate risks, such as hotter temperatures, flooding, and extreme storms, from now until 2070.

This plan was created with input from key interested and affected groups, including, but not limited to, industry, municipal and regional staff, conservation authorities, residents, and nonprofits. This report summarizes their feedback.

PURPOSE OF ENGAGEMENT

Engagement is any process that involves the public in problem solving or decision-making and uses input from key internal and external interested or affected groups. Engagement was guided by the project engagement plan, which aimed to ensure that interested and affected groups were given opportunities to inform and provide feedback to create the best Whitby Climate Emergency Response Plan possible and support its implementation. The Plan included the use of ISeeChange (ISC), an online climate engagement platform that enables community members to share their experiences of climate and social vulnerability through photos and narratives.

ENGAGEMENT BY THE NUMBERS

100 participants in workshops and live events;

92 community members signed up for ISeeChange;

131 posts made on ISeeChange;

63 posts on ISeeChange described temperature anomalies, or unusual cold or warm weather;

152 community members participated in the survey.

TOPLINE RESULTS

Results obtained through engagement with community members include:

1. On ISeeChange, community members shared that they are already experiencing the impacts of climate change, including extreme wind speeds, tree damage, flooding, and temperature fluctuations, among other climate risks.
2. Education and strengthening community networks are key to implementing Whitby's Climate Emergency Response Plan and increasing community resilience, particularly for older or isolated community members and those in multi-storey buildings.
3. Survey respondents trust grassroots organizations the most to support them and their community in addressing the impacts of climate change.
4. Prioritizing collaboration and building continuous communication between the Town and organizations across sectors would be a major step to support the Whitby Climate

Emergency Response Plan and streamline emergency response and preparedness within Whitby.

5. Engagement support should be expanded to improve engagement outcomes, particularly for equity-denied groups in the Town.
6. Seventy-one percent of survey respondents shared they would participate in programs and services that would increase their preparedness for climate risks (i.e. flooding, heatwaves) that could affect their household, home, or property.

Project Background

DECISION STATEMENT AND OBJECTIVES

Engagement objectives outline the purpose (not the technique) of the Plan, defining what is successful and meaningful and clearly stating the level of influence participants have based on the International Association for Public Participation (IAP2) framework (Appendix A). Engagement methods (techniques) such as workshops, committees, and surveys are tactical and are linked with these objectives to show how the techniques achieve the objectives.

The Engagement Plan Objectives for this project were:

Objective 1: To inform diverse residents about the creation of the plan using regular communications channels and frequent invitations to participate.

Objective 2: To involve residents in documenting their preferred adaptation actions, their local climate change concerns, and their decision-making criteria for the plan.

Objective 3: To involve the Whitby Stakeholder Engagement Group and Technical Advisory Group (Appendix 4) and document their preferred adaptation actions, their local climate change concerns, and their decision-making criteria for the plan.

Objective 4: To inform residents and affected communities about how their feedback and participation shaped the plan.

ENGAGEMENT TIMELINE

Table 1 presents a modified view of the engagement timeline. For a full timeline, see Appendix B.

Table 1. Engagement phases and techniques timetable.

DURATION	ACTIVITY
Engagement Phase 1: Pre-Engagement Interviews + Engagement Design	
October 2021 – November 2021	Pre-Engagement Interviews and Summary Report Engagement Plan Design Whitby Climate Emergency Response Plan (WCERP) engagement materials, that can be shared online (e.g. social media, Town’s website), and content for the WCERP webpage
Engagement Phase 2: Active Engagement Period	
August 2021 – April 2022	ISeeChange Platform Engagement
February 2022 – June 2022	Technical Advisory Group Workshops 1 & 2 Stakeholder Engagement Group Workshops 1 & 2 Public Workshops 1 & 2 Community Survey

DURATION	ACTIVITY
Phase 3: Final Report + Presentation	
June 2022- August 2022	Final review of reports and results with select groups of stakeholders, including <ul style="list-style-type: none"> • Town and Regional Planning Departments • Town and Regional Engineering Departments • Developers and Home Builders Associations
September 2022	Draft Presentation to Council and Whitby Sustainability Advisory Committee

ENGAGEMENT METHODS (TECHNIQUES)

To meet the Engagement Plan Objectives, SSG brought together groups of interested parties, held workshops, conducted a community survey, and worked with the ISeeChange platform.

ISeeChange (ISC)

To meet Objective Two of the Engagement Plan, SSG partnered with ISeeChange, an online climate engagement platform that enables Whitby community members to share their everyday experiences of climate and social vulnerability through photos and narratives. Community members were invited to sign up on the platform to participate and share their experiences. In order to encourage Whitby community members to post on the platform, the Town and ISeeChange set up an iPad giveaway.

The experiences shared on the platform help SGG and the Town of Whitby to better understand community members' perspectives on the effects of climate change.

Interested Parties and Groups

Technical Advisory Group (TAG)

The Technical Advisory Group included, but was not limited to, representatives of the Town of Whitby's internal departments, the Region of Durham's internal departments, conservation authorities, developers, utilities, educational institutions, researchers, health authorities, and transit organizations. Representatives from these groups attended two stakeholder workshops.

During the first TAG workshop, SSG introduced the project's progress, modelling methodology that led to the preliminary results on heat risk, overland flooding, and coastal and riverine flooding in Whitby. In collaboration with community facilitators, SSG hosted an engagement activity during which stakeholders brainstormed actions to address the climate risks presented during the workshop using the online engagement tools Miro and Mentimeter.

During the second workshop, which included the Stakeholder Engagement Group (SEG), SSG presented the updated preliminarily modelled results on risks and potential impacts. Since actions from the first TAG, SEG, and public workshops were integrated throughout the project, this workshop focused on getting feedback on the most common brainstormed actions to implement and determining potential funders and partners through the use of Miro, Mentimeter, and Typeform. In both workshops, participant feedback on the workshop was gathered through an evaluation survey.

Three TAG workshops were initially planned, but due to project timeline constraints, the number of workshops was reduced to two. All workshops were held virtually.

Stakeholder Engagement Group (SEG)

The Stakeholder Engagement Group, a further expansion of the TAG, included, but was not limited to, representatives from non-profit organizations, advocacy groups, and community organizations. During the SEG workshop, SSG presented modified preliminary results on climate risks and used Miro and Mentimeter to facilitate brainstorming and feedback engagement activities similar to those used in the TAG workshops. In the second workshop, which brought together representatives from both the TAG and the SEG, SSG presented the updated preliminarily modelled results on risks and potential impacts. Since actions from the first TAG, SEG, and public workshops were integrated throughout the project, this workshop focused on getting feedback on the most popular actions to implement and determining potential funders and partners using Miro, Mentimeter, and Typeform. In both workshops, participant feedback on the workshop was gathered through an evaluation survey.

Three SEG workshops were initially planned, but due to project timeline constraints, the number of workshops was reduced to two. All workshops were held virtually.

Public Workshops

Public workshops involve the broader Whitby community, defined as not only those who reside in Whitby but also those who work, own a business, or attend school in Whitby. In the first workshop, SSG presented the project's purpose and progress, timeline, and preliminary modelled climate risk results. During the first workshop, SSG used Miro and Mentimeter to facilitate an engagement activity that focused on gathering actions to respond to the presented climate risks. In the second workshop, SSG presented the updated preliminarily modelled results and facilitated an engagement activity using Mentimeter. This engagement activity focused on gathering information and feedback on the community's emergency preparedness, awareness of community emergency supports, and potential partnerships needed by the community to improve preparedness. In both workshops, participant feedback on the workshop was gathered through an evaluation survey.

Community Survey

In place of a third public workshop, SSG conducted a community survey to further involve the broader Whitby community in shaping Plan development by identifying preferred adaptation actions and increasing emergency preparedness awareness. Results of the Community Survey can be found in Appendix C.

COMMUNICATIONS APPROACHES

Online communication methods were the primary tools used to grow awareness of the project. Channels included the Town's official social media, the Town's Connect Whitby webpage, and the Town newsletter. For the community survey, Town staff led outreach tables at local grocery stores.

Communication of the project on the Town's official social media channels and the Connect Whitby webpage was coordinated by the Town's internal communications department. The Connect Whitby webpage provided details about the project, ISeeChange, the community survey, upcoming public engagement events, and key project dates, as well as Town staff contact information. To increase participation for the community survey and to grow awareness about the project, Town staff organized outreach tables at local grocery stores for a week.

The Town advertised ISeeChange through its communications and advertising (print and digital) channels. The advertisements included instructions on how to sign up for the app

and information about the benefits of participation. Engagement limitations included COVID restrictions that hindered in-person recruitment and events. Mailers and printed materials were not distributed. ISeeChange in-app notifications during real-time weather events and dedicated community engagement hours were not included in the ISeeChange service package.

FIRST NATIONS (RIGHTS HOLDERS)

Indigenous engagement in Canada is governed by the 'duty to consult' as ruled by the Supreme Court of Canada. Indigenous Peoples are rights holders and not stakeholders. Governments have a duty to engage in meaningful consultation whenever there is reason to believe that its policies or actions, directly or indirectly, may infringe upon actual or claimed Indigenous interests, rights, or title. SSG recognizes that the creation of the Climate Change Adaptation Plan falls under this duty.

Though SSG does not facilitate the government-to-government consultation process, we support the process by:

1. Ensuring that the project team, Whitby staff, and SSG consultants are familiar with the individual policies/guidelines of each Nation or Indigenous group;
2. Following the individual guidelines for consultation (where they exist) with each Nation or group in order to set up a discussion with the appropriate participants;
3. Reaching out to Nations or groups that do not have consultation policies or guidelines in order to find out who best to invite to a discussion with the Town; and
4. Hosting meetings to answer the following question: "How would the Nation/group/community(ies) like to be engaged in the creation of the Whitby Climate Emergency Response Plan?"
 - a. A variety of engagement options can be offered and discussed.
 - b. Based on the response, consultation can be planned accordingly.

SSG can be present, if appropriate, or provide information packages for these meetings to present up-to-date information on the status of the project and the results of engagement efforts to date.

SSG supported a meeting between the Town of Whitby Project Team and the Mississaugas of Scugog Island First Nation Consulting Team on March 7, 2022.

What We Heard (Workshops Results Summary)

WHO WE HEARD FROM

Engagement sessions took place virtually from February 2022 to June 2022 to gather input on the development of Whitby's Climate Change Adaptation Plan. During this time, five engagement sessions were held (one TAG, one SEG, one combined TAG and SEG, and two public) with over 100 participants across all engagement sessions.

In addition to these engagement sessions, a community survey was performed from April 2022 to May 2022 to further involve the broader Whitby community and gather input on preferred adaptation actions and emergency preparedness. A total of 152 survey submissions were received. An analysis of the survey can be found in Appendix C.

WHAT WE HEARD

During the engagement process, we heard comments and views on a variety of topics related to climate change adaptation in the context of Whitby and the Durham Region.

The views and comments can be categorized into the following themes:

1. Education and stronger community networks: Support education for community members to improve preparedness and response to climate risks, particularly flooding. In addition, strengthen community networks to aid resilience;
2. Leveraging funding: Leverage funding programs and explore different funding sources to support climate action implementation;
3. Integrating equity throughout and working alongside vulnerable communities: Integrate equity into implementation of climate actions to ensure that inequity is not further exacerbated by climate change;
4. Increasing cooperation across sectors: Increase collaboration and prioritize continuous communication with organizations across sectors to support emergency preparedness and climate adaptation throughout the Town; and
5. Increasing green Infrastructure: Increase the use of green infrastructure and provide and protect green spaces to address the impacts of climate change.

Education and Building Stronger Community Networks

Through the engagement sessions we learned the importance of enhancing community emergency preparedness and response using education programs and community network building. Other popular ideas included developing a vulnerable persons registry and a neighbour check-in program and finding other ways to strengthen community networks and resilience.

Leveraging Funding

Funding and costs were a common barrier and/or cause for concern to the implementation of climate adaptation measures. Leveraging funding programs, and exploring different funding sources ranging from the private sector to the government were highlighted as possibilities.

Integrating Equity Throughout and Working Alongside Vulnerable Communities

Integrating equity into the implementation of climate actions is essential to ensure that equity-denied and vulnerable communities are not left out. Also, working closely with various vulnerable groups at every stage is key to enhancing understanding of how community residents use or access community services, particularly during an emergency.

For example, we heard that when developing programs, it is important to meaningfully engage with basement renters and vulnerable communities who may be more at risk of experiencing damage from overland and coastal flooding.

Increase Cooperation Across Sectors

We heard that prioritizing collaboration and building continuous communication between the Town and organizations across sectors would be a major step to support the Whitby Climate Emergency Response Plan and streamline emergency response and preparedness within Whitby. Such organizations include, but are not limited to, utilities, Town departments and facilities, regional departments, non-profit organizations, and educational institutions.

Green Infrastructure

Throughout the engagement sessions, participants discussed the need for more green infrastructure, including, but not limited to, increasing the tree canopy in high-risk areas, utilizing permeable pavement, protecting green spaces, and harvesting rainwater. In addition, we heard about protecting green spaces in relation to reducing prospective development on floodplains.

RECOMMENDATIONS AND NEXT STEPS

Address social stressors and strengthen networks to ensure successful implementation of the Climate Change Action Plan.

Social stressors such as inequity, lack of social cohesion, low sense of belonging, and poor collaborative integrated networks and cooperative partnerships can weaken Whitby's resilience and hinder the successful implementation of Whitby's Climate Emergency Response Plan. Focusing on strengthening networks and alignment to break down barriers across different sectors and groups in Whitby (i.e. communities, organizations, utilities, private businesses, non-profits, etc.) will help Whitby thrive in the future.

Expand engagement supports, particularly those for equity-denied groups, to improve engagement outcomes.

Many community members face barriers, such as lack of resources, child care, time, and accessibility, that impact their participation in Town decision-making processes. These barriers can result in feelings of exclusion and can produce distrust towards Town decisions. Engaging communities by identifying these barriers to meaningful engagement (particularly those faced by equity-denied groups) and exploring different ways to bring engagement to the community versus having community members attend Town meetings will increase inclusion. The Town will benefit from including different perspectives when implementing community-level adaptation actions.

EVALUATION RESULTS

At the end of each engagement session, an evaluation survey link was shared with participants. Using the platform Typeform, participants were asked to answer the following questions using a scale from 1– 4 (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree).

1. I better understand the Whitby Climate Emergency Response Plan process.
2. I feel that this session was well facilitated.
3. There was enough information presented for me to participate effectively.
4. I felt I had an adequate opportunity to participate during the session.
5. Is there anything else you think we should know?

Thirty-eight evaluation surveys were submitted, and the average survey score was 3.4.

Feedback around facilitation methods and tools from the first round of engagement sessions was applied to the second round, which resulted in higher ratings.

ISeeChange

As previously mentioned, the ISeeChange platform supports the second community engagement objective to involve the community in documenting their preferred adaptation actions. From August 10, 2021 to April 21, 2022,¹ the ISeeChange platform and SaaS software were used to engage residents to share climate impact stories and data.

Community members were invited to sign up on the platform to begin a dialogue about their experiences in order to:

- Better understand community members' current experiences and perspectives on climate impacts;
- Map and validate climate impacts to modelled data; and
- Assess additional context related to climate risks the Town of Whitby should consider in adaptation and mitigation planning going forward.

WHO PARTICIPATED

Ninety-two community members² signed up for ISeeChange and submitted 131 posts.

Since the majority of the engagement and outreach performed on the platform occurred during the winter and into early spring, the most frequent climate risks documented by Whitby community members were extreme wind speeds (tagged Skies and Air), tree losses (tagged Plants and Trees), and significant temperature fluctuations (Table 2). Extreme heat and drought posts are underrepresented, likely due to the engagement period.

Table 2. The weather conditions tagged in posts.

WEATHER CONDITION	NUMBER OF TIMES TAGGED IN A POST
Cold, Snow, and Ice	68
Skies and Air	52
Plants and Trees	43
Rain and Flooding	40
Season Change	26
Land and Soil	20
Oceans and Freshwater	19
Heat	17
Animals and Insects	11
Drought	4

Major weather events, including the record-breaking snow storm on January 17, 2022, which dropped up to 55 cm of snow in a 24-hour period, resulted in community members reporting 36.8 cm within those 24 hours. The derecho event on May 21, 2022 resulted in power losses and extensive tree losses in the Town of Whitby. The derecho hit after the engagement period for the Climate Adaptation Planning process.

¹This report was prepared prior to the Derecho wind storm that impacted Ontario on May 21, 2022. An update to the Executive Summary and total post counts include those impacts, however the engagement and posts analysis sections do not include them.

²Community members are defined by those who live or are connected to Whitby (i.e. work, go to school, do business or shop in Whitby).

RESULTS

During the engagement period, Whitby community members shared and commented on the climate risks they experienced. Overall, the data submitted from Whitby community members suggest more pervasive and persistent climate risks related to increased wind storms, tree canopy, “weather whiplash”, and longer growing seasons, which suggests longer-term risks to homes and energy infrastructure. Wind, drought, and wildfire risks, all historically low in frequency for the region, appear to be compounding as the forested ecosystems surrounding Whitby experience multivariate stressors alongside warming.

Community member experiences and comments can be categorized into the following themes:

1. Significant risks from trees and wind.
2. Temperature anomalies and longer growing seasons.
3. Compound flooding risks.
4. Extreme snow accumulation.

While flooding and urban heat events represent the most expensive and fatal climate risks, respectively, to suburban communities like the Town of Whitby, these other year-over-year persistent risks warrant serious consideration with respect to compounding climate vulnerability, long-term costs, and planning. If access to nature and forests is the primary driver for living in the town, these risks present significant threats to the community’s value proposition. Should green infrastructure and public greening efforts become preferred tools for managing flood and heat risks, it will be critical to assess which tree and plant species will be best suited for future warming scenarios in the region.

Significant Risks From Trees and Wind

One-fifth of posts tagged “Plants and Trees” mentioned fallen trees from wind, ground saturation, or pests as a top concern. For example, one resident shared that they had to cut down two healthy 40-year-old trees because winds were posing a risk to their home and neighbouring houses. Additionally, several posts documented trees infected by Emerald Ash Borer, which increases trees’ vulnerability during wind or ice storms.

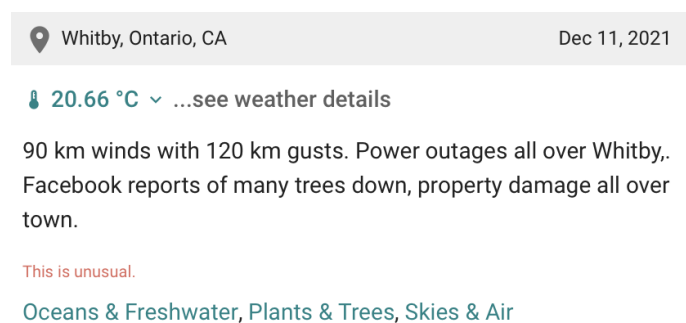


Figure 1. ISeeChange post documenting wind storms in December 2021.

Wind storms presented additional threats to power lines and homes. Wind storm events were documented on ISeeChange on three occasions: December 11, 2021 (Figure 1); Jan 5, 2021; and March 31, 2022. Speeds ranged from 70 to 90 km/hr during these events. The December 2021 storm resulted in power losses for 100,000 residents across Quebec and Ontario.

Temperature Anomalies and Longer Growing Seasons

A total of 63 posts described temperature anomalies or unusual cold and warm events in addition to significant temperature variations occurring in Whitby within the same week. Temperature variations (particularly in the winter, leading to freeze-thaw) pose significant threats to infrastructure (e.g. roads and transit), agriculture (early spring freezes), and local tree canopies. As previously mentioned, damage to trees emerged as a significant concern to Whitby residents with seven posts documenting downed and damaged trees.

Rapid ground thaw can also contribute to erosion and subsidence, as noted by one Whitby community member:

“The banks along the lake shore at the foot of Brock Street are dissolving as the ground thaws. The cliffs have always been there, and there are signs that erosion has happened over the years. But running water is not something I have seen before, and when I stepped close to the bottom of it, my foot sank about six inches. Definitely more than usual.”

Another Whitby community member documented foul-smelling algae on the Whitby lakefront during warm spells for the last two summers:

“Rotting algae covering the west end of Iroquois Beach during heat waves this summer. Evident in the water even with wave action. Very foul-smelling. This has been happening for the past two summers during hot spells.”

Winter and spring posts detailing first signals to the growing season or first insect appearances often coincided with daily lows or highs being unusually high compared to the last 30 years.



Figure 2. ISC post documenting sighting of a caterpillar in February 2022.

Monitoring vector-borne diseases such as Lyme disease and West Nile Virus will become more important as ticks and mosquitoes increase their range and growing seasons start earlier and last longer. For example, documentation of dead birds in the community could represent early signals of vector-borne diseases such as West Nile Virus, especially in drier years.

Compounding Flooding Risks

In total, 40 posts tagged “Rain and Flooding” were shared, including four related to creeks and concerns regarding runoff; eight noting unusually high rain totals and severe storms; and eight mentioning street flooding. Impacts documented included school closure.

Of the eight posts that documented street flooding, one matched and validated SSG flood models because the remaining seven were outside of the model’s scope. This suggests that additional observations through the ISC platform would have helped further validate the adaptation model.



Figure 3. ISC post documenting flooding.

It is notable that the only major urban flooding event documented on ISeeChange by residents, occurred in Brooklin on July 23, 2008. This 100-year flash flood event inundated streets and some houses in north Whitby.

Extreme Snow Accumulation

The record-breaking snowstorm on January 17, 2022, allowed for real-time contributions to ISeeChange and allowed us to collect data about the community’s readiness for and resilience to high-snow-total events. From this event, 12 posts mentioned increased irregularity and increased severity of winter storm events. Relatedly, four posts discussed the prioritization of sidewalk clearing for major bus and pedestrian transit routes and around large apartment complexes where community members may rely more heavily on walking as their main form of transportation. In addition, community members also mentioned the neighbourly support they experienced from their community during this storm event, describing sharing tools (e.g. snowblowers) and providing assistance to residents unable to clear their driveway. Conversely, community members in multi-storey buildings (i.e. apartments, condos) reported missing neighbour-to-neighbour support during this event and described feeling more frustrated by their dependence on municipal services.

RECOMMENDATIONS FROM ENGAGEMENT

Significant risks from trees and wind

- A.** Track urban tree inventory, bioclimatic data per tree species, and pest severity to model future climate impacts and tree mortality.
- B.** Invest in municipal vegetation management (i.e. tree thinning, replanting, and recycling, to protect homes and infrastructure. Methods for managing or recycling wood infested by pests like Emerald Ash Borer are worth considering to minimize carbon emissions from tree losses.
- C.** Invest in increasing urban tree diversity to help mitigate climate impacts in the long-term. Picking the right diversity of trees to mitigate heat impacts and wind events will be important for municipal reforestation and green infrastructure efforts.
- D.** Assess benefit costs of burying power transmission lines. If wind storms continue, power lines pose a significant risk for both power outages and wildfires with weakened tree canopies.
- E.** Develop, coordinate, and prepare a year-round emergency response to windstorms, including structural damage, blackouts, and water restrictions from power loss.

Temperature anomalies and longer growing seasons

- A.** Work with local arborists to mitigate impacts of rapid freeze–thaw cycles on trees. Tree-thinning programs will decrease the risk of wildfire and wind damage to roofs.
- B.** Continue public health campaigns to inform community members about how to prevent tick- and mosquito-borne illnesses, especially in the late spring and late summer months when risks are higher.
- C.** Establish emergency plans for and provide public education about water shortages and evacuation protocols.
- D.** Assess municipal restrictions on fertilizers and methods to reduce phosphorus loads.

Compounding flooding risks

- A.** Areas in north Whitby are vulnerable to soil saturation and may benefit from the installation of sensors in larger creeks and watersheds to help monitor flooding as well as drought conditions.
- B.** Ground saturation is a precondition for flash flooding and should be monitored closely during particularly wet seasons.

Communication and neighbour networks

- A.** Formalize neighbour-to-neighbour networks to ensure residents have support during extreme weather events. This is especially critical and life-saving for older or isolated community members and for those living in multi-storey buildings.
- B.** Assess snow-plowing prioritization plans and carefully consider residents' need to utilize sidewalks for safe transit. This is especially relevant in new apartment communities and for children walking to school.

- C. Increase real-time communication to residents about where snow-clearing crews are working and more clearly articulate priorities during emergencies.

Survey

As identified in the Engagement Plan, the community survey supports the second community engagement objective to involve the community in documenting their preferred adaptation actions, their local climate change concerns, and their decision-making criteria for the plan. In addition, the survey provides a snapshot of the community's emergency preparedness awareness.

The online survey asked community members to respond to multiple choice and ranking questions related to climate information and resources, emergency preparedness, climate adaptation action programs, and retrofits. The survey was analyzed using both qualitative and quantitative methods to develop a thematic analysis.

SURVEY RESULTS

Who Participated

152 community members participated in the survey.

Participants were asked five key identifier questions to verify participation from a variety of residents and target participation from underrepresented communities. The identifiers included: first three digits of postal code, age range, gender, household income, racial/ethnic identity, home ownership, education level, and self-identification in groups. Unbeknownst to SSG, the demographic question addressing participants' racial and ethnic identity was changed by the Town after the survey was finalized and uploaded online.

Age and Gender

Age ranges with the highest participation rates were 65 to 74 years old, 35 to 44 years old, and 55 to 64 years old. These groups made up 25%, 17%, and 13% of the participants, respectively. Women had the highest gender participation rates with 67% of participants identifying as women, 29% identifying as men, 3% preferring not to identify, and less than 1% identifying as non-binary.

Income

Thirty-eight percent of participants chose not to disclose their household income. Of those who did disclose, 11% had an income of \$200,000 or greater, while 3% had an income of \$25,000 or less. The percentage of participants from households with incomes between \$25,001 and \$199,999 was similarly distributed across the income ranges.

Racial/Ethnicities and Self-Identified Identities

Collecting demographic data in our surveys is a way to provide a snapshot of community disparities and of who is (or is not) participating in these conversations to develop a better plan. Disaggregated data can give us a deeper understanding of the factors and the systems that shape and influence the outcomes of climate actions.

It is important to recognize the varying types of discrimination and prejudice racialized or BIPOC individuals experience, the erasure caused through the use of umbrella terms, diversities within racial and ethnic communities, and the complexities around ethnicity and race. SSG presented

a more exhaustive list in an attempt to address the nuances of the plethora of experiences of BIPOC communities and to reinforce the fact that not all BIPOC have the same experiences, particularly when it comes to systemic oppression. The Town of Whitby chose not to include a voluntary in-depth demographic analysis. SSG recommends that future surveys include additional demographic information related to race, ethnicity, and self-identification.

Based on the race/ethnicity options presented on the survey by the Town:

- Indigenous (First Nation, Metis, Inuit) responses were not identified because it was no longer an option to select.
- Only 2% of participants identified as South Asian (i.e. East Indian, Pakistani, Sri Lankan), Black, Chinese, Filipino, or Japanese. Of this 2%, 50% of participants identified as being South Asian.

For self-identified identities, most participants (51%) chose not to disclose if they self-identify with additional identities. Of those who did self-identify, 10% of participants identified as a person with a disability, 7% identified as a newcomer or a recent immigrant within the past five years, and 6% identified as a caregiver of a person with a disability.

Home Ownership

Of participants who disclosed their home ownership status, the majority owned their home (81%), while a small percentage rented (9%).³

Employment and Education

Employment groups with the highest participation rates were retirees and those employed full-time (30+ hours a week). These groups made up 43% and 33% of the participants, respectively.

University-educated and college-educated individuals had the highest participation rates. Thirty-seven percent of participants had completed a graduate degree as their highest level of education, 24% had completed an undergraduate degree, and 13% had completed a college degree.

Climate Change Information and Resources

Climate Change Knowledge and Information Sources

The majority of participants (71%) felt that they had enough information about the impacts of climate change in Whitby. Of this 71%, 38% would like more information on climate change impacts. The remaining 29% of participants felt that they did not have enough information about climate change impacts. The main sources used to learn about climate change were the website or the social media of regional, provincial, or national news sources (68%), national television news (60%), and the website or social media of local Whitby or Durham Region news (42%).

Perception and Trust on Addressing Climate Change

Community and grassroots organizations (56%), non-profits (44%), and the Federal Government (30%) were the most selected entities perceived to be doing their part in addressing the consequences of climate change. Participants who selected “other” were prompted to complete an open-ended response for which 1% of participants listed conservation authorities as doing their part to address climate change consequences.

The Federal Government (93%), Provincial Government (83%), and Municipal Government (76%)

³Of the remaining 10% of respondents, 9% preferred not to disclose their home ownership status, and 1% declined to reply to the question.

were most often selected as being most responsible for addressing the consequences of climate change. Participants who selected “other” (6%) were prompted to complete an open-ended response. The common themes of these responses were collective action and individual buy-in to actions.

The organizations most trusted by participants to support them and their community in addressing the impacts of climate change were community and grassroots organizations (69%), non-profits (55%), and the Municipal Government (50%). Private industry (17%) was the least trusted, while 4% of participants did not trust any organization.

Emergency Preparedness

A small percentage of participants considered themselves extremely well prepared (3%) or well prepared (18%) for a weather-related emergency such as flooding or extreme heat or cold. Additionally, 43% of participants considered themselves somewhat prepared, 25% did not consider themselves that well prepared, 9% stated they are not at all prepared, and 1% admitted to not knowing whether they are prepared.

In times of weather-related emergencies, most participants turn to family (74%), friends (55%), or the Municipal Government (35%) for help. A large majority of participants (79%) have a support network within Whitby (i.e. neighbours, friends, family) that would help them in a weather-related emergency.

Emergency services (68%), the Municipal Government (55%), and family and friends (49%) were the most-trusted sources listed by participants to help them prepare for a weather-related emergency. Utilities, the Federal Government, the Provincial Government, and online sources (i.e. social media, websites, news) were all tied at 35% , while the private sector (6%) and non-profits (6%) were the least-trusted sources of help.

The majority of respondents receive information on how to prepare for weather-related emergencies from online sources (i.e. social media, websites) (55%), emergency services (46%), the Municipal Government (41%), and from friends and family (40%).

The supports selected most by participants to better prepare them for the impacts to their building or property caused by weather-related emergencies were:

- 71%: A program to help homeowners and renters take action to address climate risks (e.g. flooding) and make their homes more resilient and better prepared for emergencies;
- 63%: Increased communication about flood zones and flood mapping;
- 54%: Access to an emergency community network; and
- 51%: Partial or full financial support for retrofits (the total cost of a climate action renovation to reduce climate risk is covered by another party such as a utility, government, or non-profit).

Program Participation Supports

Seventy-one percent of participants would participate in programs and services that would increase their preparedness for the impacts of climate risks (i.e. flooding, heatwaves) on their household, home, or property. Of this 71%, 28% stated they are not prepared to pay more for these services or programs, 29% stated they are not able to pay more for these services or programs, 14% stated they are prepared to pay more for these services and programs, and 22% stated they require more information to make a decision.

Town of Whitby Perceived Preparedness

Most participants think that the Town of Whitby is somewhat prepared (33%) or do not know if the Town is prepared (33%) for weather-related emergencies. Seventeen percent think that the Town is not well prepared, while 4% think that the Town is not at all prepared.

Participants ranked the following as the top priorities the Town should focus on to prepare for the impacts of climate change:

1. Integrate a climate change adaptation lens into future development and land-use planning.
2. Develop critical infrastructure (i.e. hospitals, commercial facilities, utilities, etc.) outside high-flood-risk zones.
3. Align city governance, resources, and policies related to climate and earthquake mitigation, adaptation, and risk reduction.

Programs and Techniques

This part of the survey focused on programs and techniques that are used in municipalities to address climate change. An explanation was provided for each program and technique to provide more context.

Low-Impact Development

Based on the provided information, 77% of participants support the use of low-impact development (LIDs), while 21% require more information about LIDs to decide.

Integrating Natural Elements for Climate Action

Based on the information provided, the following natural elements were supported:

97% support planting more trees, particularly in vulnerable and marginalized communities, to provide shade and reduce water run-off;

83% support wetland protection and revitalization; and

64% support implementing a green roof policy for non-residential buildings, similar to the policy in Toronto.

Participants who selected “other” (5%) were prompted to provide an open-ended response. The common themes of these responses related to protecting existing green spaces, the use of permeable pavement, and future development in Whitby.

Sustainable Neighbourhood Action Programs (SNAPs)

Based on the information provided about SNAPs, 71% of participants support the Town participating in a SNAP, while 27% require more information to make a decision.

Retrofitting Existing Buildings for Mitigation and Adaptation

The survey provided information about retrofitting buildings in order to help participants respond to the questions.

The top residential and business energy-efficiency improvements of interest were installing more efficient windows and/or doors to prevent the loss of heated and cooled air (53%) and increasing building insulation to prevent the loss of heated and cooled air (51%).

In order to make these energy-efficiency improvements to their home or business, participants identified partial support (a proportion of the cost of the upgrades is covered by another party such as a utility, government, or non-profit) (47%) and a list of recommended professionals and contractors (40%) as the top supports needed.

Participants are willing to allocate or accept a rent increase up to 25% (23%) or less than 10% (22%) to receive energy-efficiency upgrades to their home. Thirty-five percent of participants are prepared to pay more to rent, purchase, or lease a building that discloses its energy-efficient upgrades. Another 19% are more likely to rent, purchase, or lease a building that discloses its energy-efficient upgrades but are not prepared to pay more for that building.

NEXT STEPS

The feedback from the survey will help the Town understand the community's priorities and needs, enabling it to develop a Whitby Climate Emergency Response Plan that can be implemented successfully across the community. Additionally, the feedback will help influence Whitby's implementation and adaptation plans that will be sent to Council in September 2022.

FINAL ENGAGEMENT SESSIONS

A series of additional conversations were arranged in July and August 2022 to discuss specific concerns and a request for more information from groups both internally and externally to the Town of Whitby. These conversations occurred with the Town and Regional Planning Departments, the Town and Regional Engineering Departments, and with land developers and home builders associations within Whitby. These conversations offered a place to review comments on the methodology and recommendations of the Whitby Climate Emergency Response Plan, and lay the groundwork for further participation in the implementation of the Plan.

Appendix A: IAP2 Public Participation Spectrum



IAP2 Spectrum of Public Participation



	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example techniques	<ul style="list-style-type: none"> ▪ Fact sheets ▪ Web sites ▪ Open houses 	<ul style="list-style-type: none"> ▪ Public comment ▪ Focus groups ▪ Surveys ▪ Public meetings 	<ul style="list-style-type: none"> ▪ Workshops ▪ Deliberative polling 	<ul style="list-style-type: none"> ▪ Citizen advisory committees ▪ Consensus-building ▪ Participatory decision-making 	<ul style="list-style-type: none"> ▪ Citizen juries ▪ Ballots ▪ Delegated decision

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Appendix B: Engagement Plan

The document below is the engagement plan developed for this project, used to identify the timing, purpose, and relevant parties for engagement activities throughout the development of the Plan. This document was prepared after the completion of pre-engagement interviews, and was used to guide the engagement process throughout the project.

The Intent of this Document

The intent of this Engagement Plan is to outline the purpose, desired outcomes, approach, and roles and responsibilities of the engagement portion of Whitby's Climate Emergency Response Plan, a component of the Climate Change Master Plan (CCMP).

Background

CONTEXT

The Town of Whitby is developing a Whitby Climate Emergency Response Plan to prepare the Town and the community for the impacts of climate change. The scope of this project includes a qualitative and spatial Risk and Vulnerability Assessment; a technical study of economic, social and environmental hazards; a Climate Change Adaptation Strategy; and a Climate Change Adaptation Implementation and Action Plan. The project will include an engagement process for municipal staff, stakeholders, and the public that informs the Risk and Vulnerability Assessment, which in turn will inform three technical studies on Social Risks, Environmental Risks and Economic Risks.

These three studies will inform the WCERP, which will include a Climate Change Resiliency Framework, long-term and intermediate targets and objectives, priority themes, adaptation actions for the Town and other stakeholders, and an evaluation framework which will be used to prioritize the actions. Finally, the Plan will inform the creation of an Adaptation Action and Implementation Plan, which will describe the prioritized actions and implementation considerations including responsibilities, costs and funding sources, partnerships, indicators of success, and a timeline. An engagement report will also be included. All deliverables will integrate the Town's brand and meet Ontario's accessibility guidelines (AODA).

The Town of Whitby wants to ensure an adaptable and resilient future for everyone. A key component of achieving this goal is to deliver the best possible climate adaptation plan for the Town. This will require accurate data about the town's infrastructure and standards for the technical modelling, in addition to understanding the local extent of the town – its cultures, socio-economic characteristics, physical environment and equity issues.

To achieve this, decisions will need to be made on which actions the Town of Whitby will take to adapt and reduce potential risk and vulnerability to climate change, on what timeline, and how those actions should be implemented. The WCERP will provide recommended actions to support these decisions, based on modelling and engagement input.

SUPPORTING STRATEGIC DOCUMENTATION

Strategic documents, planning initiatives, and climate modelling for The Town of Whitby, as well as the Region of Durham and other nearby municipalities, have been compiled and reviewed

to develop a plan and modelling method for the WCERP. Drawing examples, principles and approaches from these documents will increase the WCERP's alignment with these other plans, and help to integrate all of these different but related initiatives. This in turn will improve the chances of success for all of them.

WHAT IS BEING DECIDED AND WHO DECIDES?

By December 2022, the Town of Whitby's council will approve an updated WCERP, designed to achieve the Town's aim to reduce climate risk and vulnerability while also reflecting the knowledge and perspectives of the community.

Engagement Strategy

The Engagement Strategy is the framework that will ensure key internal and external interested or affected parties are given opportunities to inform and provide feedback to create the best WCERP possible, and to establish a community that will support the implementation of the plan through to its completion.

This plan will include the use of the ISeeChange, an online climate engagement platform that will enable residents and other affected parties to share their experiences of climate and social vulnerability, through photos and narratives. This will contribute to an ongoing record of the climate, weather, and infrastructure they experience that does not artificially hide today's effects of climate change and aging infrastructure.

GIVENS

Givens are facts that are outside the scope of engagement, which means they are not negotiable. The givens for this engagement will include the following:

Climate change is real and primarily driven by human activity.

The Town of Whitby will set climate adaptation targets and develop a Whitby Climate Emergency Response Plan for adoption by December 2022.

GUIDING PRINCIPLES

The following principles should guide the design and execution of all engagement activities:

Engagement meeting formats will be guided by interested or affected parties' preference.

While in-person engagement opportunities are preferred, the challenges of COVID-19 direct us to online engagement for the near future. Online engagement opportunities will be as interactive as possible and in-person opportunities will be planned should physical distancing measures be modified during the active engagement period.

Engagement conversations will be values-based.

The Project Team will communicate values and educate interested or affected parties about complexity before and during the active engagement period, in order to raise the general level of understanding around climate adaptation planning.

The Project Team will involve key interested or affected parties in information collection to demonstrate process integrity and build credibility for recommendations.

Communication of background information and engagement opportunities (times, dates,

online venues) will happen in a reasonable time prior to engagement.

Interested or affected parties will have opportunities to provide input.

Concerns and aspirations will be discussed in order to formulate options for consideration.

Decision-making will be consensus-based. In the event that a consensus is not possible, the decision-maker will consider the advice received during the engagements to the extent possible in making the required decisions.

Engagement Objectives

Engagement objectives are strategic. They outline the purpose (not the technique) of the plan, defining what is successful and meaningful, while being clear about the level of influence participants have. Engagement techniques (e.g. workshops, committees, surveys, etc.) are tactical; they appear in the next section and are linked with these objectives to show how the techniques achieve the objectives.

Outcomes are changes in state (e.g. the development of a relationship) and outputs are tangible (e.g. a list or a request). The combination of these with the engagement techniques ensure achievement of the objectives.

Objective 1: To inform diverse residents about the creation of the plan through regular communications channels and frequent invites to participate.

- Outcome: a diverse segment of residents of Whitby will understand how to engage with the plan creation and be motivated to participate.
- Outcome: a series of pre-engagement interviews with key interested and affected parties to ask how residents should be engaged for the plan.
- Output: a list of residents who wish to participate in the plan and their contact information (ongoing intake for the project's duration).
- Output: Sharing information through the Town's communications channels and advertising (print and digital) about ISeeChange (ISC), how to sign up to use the app, and the benefits of participation.
- Output: Sharing about ISC on social media with calls to action for the plan.

Objective 2: To involve residents in documenting their preferred adaptation actions, their local climate change concerns, and decision-making criteria for the plan.

- Outcome: members of the public provide their input, are familiar with the plan's necessity and are enthusiastic about their involvement.
- Output: documented advice and preferred criteria for the selection of adaptation actions for the plan.
- Output: Mailers sent to the general public with a call to action that asks people the concerns and aspirations they have, related to actions identified from modeling (to share via ISC for inclusion in plan).
- Output: Identify a list of, and engage with, popular community FB groups in Whitby to inform them about the plan and invite them to participate.
- Output: Research and engage via Connect Whitby and Bang The Table or like platforms in

Whitby to inform them about the plan and invite them to participate.

Objective 3: To involve the Sustainability Advisory Committee and Committee of Whole (COW) documenting their preferred adaptation actions, their local climate change concerns, and decision-making criteria for the plan.

- Outcome: SAC and COW members are champions of the plan and encourage members of their networks to participate.
- Output: documented advice and preferred criteria for the selection of adaptation actions for the plan.

Objective 4: To inform residents and affected communities how their feedback and participation shaped the plan.

- Outcome: residents and affected communities understand how their feedback shaped the plan and find the process acceptable.
- Output: “What we Heard” updates provided at key points of the project.
- Output: ISeeChange “What we Heard” report

First Nations (Rights holders)

Indigenous engagement in Canada is governed by the ‘duty to consult’ as ruled by the Supreme Court of Canada. Indigenous Peoples are rights holders and not stakeholders. Governments have a duty to engage in meaningful consultation whenever there is reason to believe that its policies or actions, directly or indirectly, may infringe upon actual or claimed Indigenous interests, rights, or title. SSG recognizes that the creation of the CCAP falls under this duty.

For this plan, we must:

1. Ensure that the project team (Town of Whitby staff and SSG consultants) are familiar with the individual policies/guidelines of each Nation or Indigenous group;
2. Follow the individual guidelines for consultation (where they exist) with each Nation or group in order to set up a discussion with the appropriate participants;
3. Reach out to Nations or groups that don’t have consultation policies or guidelines in order to find out who best to invite to a discussion with the Town; in order to
4. Have meetings to answer the following question: “How would the Nation/group like to be engaged in the creation of the Town of Whitby’s Climate Emergency Response Plan?”
 - a. A variety of engagement options can be offered and discussed.
5. Based on the response, plan consultation accordingly.
6. SSG can be present, if appropriate, or provide information packages for these meetings, to present up to date information on the status of the project and the results of engagement efforts to date.

ALDERVILLE FIRST NATION

The Alderville First Nation should be engaged on the basis of a nation-to-nation relationship. The key contact for engagement is Dave Simpson, Consultation Coordination, Alderville First Nation,

consultation@alderville.ca. Once representatives from the Town of Whitby have been able to meet with the Alderville First Nation to decide on how they would like to be engaged, SSG can work with Whitby and the Nation to plan appropriate events.

MISSISSAUGAS OF SCUGOG ISLAND FIRST NATION

The Mississaugas of Scugog Island First Nation should be engaged on the basis of a nation-to-nation relationship. The key contact for engagement is Michael Thoms, Community Consultation Specialist, Mississaugas of Scugog Island First Nation Phone: 905-985-3337 ext. 229.

Once representatives from the Town of Whitby have been able to meet with the Alderville First Nation and the Mississaugas of Scugog Island First Nation to decide on how they would like to be engaged, SSG can work with Whitby and the Nation to plan accordingly.

Interested Parties

Interviewees from the pre-engagement interviews suggested the plan incorporate interested or affected parties that can be grouped into four categories: government/public organizations, businesses and economic organizations, non-profit and community groups, and the community. Multiple interviewees recommended the inclusion of people with diverse backgrounds. The following includes a list of suggested interested or affected parties.

Government/Public Organizations

- Town of Whitby
- Community Services Department
- Economic Development Department
- Fire and Emergency Services Department
- Regional Municipality of Durham
- Ontario Tech University
- Durham College
- First Peoples Indigenous Centre
- W. Galen Weston Centre for Food (DC Whitby Campus)
- Trent University (Oshawa Campus)
- Town of Whitby
- Whitby Senior Centre
- Whitby Public Library
- Conservation Authorities
- Heber Downs Conservation
- Lynde Shores Conservation
- Abilities Centre
- School Boards

- Durham District School Board
- Durham Catholic School Board
- Parent and community committees and organizations
- Health Care and Emergency Responders
- Ontario Shores for Mental Health Services
- Durham Regional Police Services
- Whitby Professional Fire Fighters Association
- Region of Durham Paramedic Services
- Lakeridge Health
- Utilities
- Lexicon
- Enridge

Community Members/Groups

- Town of Whitby Advisory Committees
- Whitby Sustainability Advisory Committee
- Whitby Diversity and Inclusion Advisory Committee
- Whitby Youth Council
- Whitby Accessibility Committee
- Durham Region Committees
- Durham Region Transit Advisory Committee
- Durham Agricultural Advisory Committee
- Durham Environmental Advisory Committee
- Durham Region Anti-Racism Taskforce
- Durham Region Community Safety and Well-Being Plan Steering Committee
- Durham Advisory Committee on Homelessness
- Durham Region Roundtable on Climate Change
- Climate Justice Durham Region
- Durham Integrated Growers
- Durham Food Policy Council
- Bawaajigewin Aboriginal Community Circle
- Women's Multicultural Resource Counselling Centre (WMRCC)
- Indigenous Aware
- Salvation Army

- Faith groups
- Victim Services
- Denise House
- Carion Fenn Foundation
- Canadian Mental Health Association Durham (CMHA)
- Kujenga Wellness Centre
- PFLAG Durham
- QTBIPOC Durham
- Welcome Centre Immigration Centre
- YWCA Durham

Businesses and Economic Organizations

- Whitby BIA
- Whitby Chamber of Commerce
- Durham Business Alliance
- Tourism Durham
- Invest Durham
- Durham Sustain Ability (DSA)
- Business Advisory Centre Durham

In addition to providing broad feedback opportunities to the public, the Town of Whitby will engage interested or affected parties through two groups: the Whitby Sustainability Advisory Committee, consisting of community interested or affected parties chosen by the Town, and the Committee of the Whole, consisting of key department leaders.

Communications

Comprehensive communications and education efforts are critical to the engagement's overall success. interested or affected parties will need to see that sustained efforts are necessary in order to implement the low-carbon transition over the long-term. Working with the Town of Whitby's communications staff and the project team, we will communicate the following key messages through the channels outlined below, targeting the specific audiences listed.

KEY MESSAGES

The following key messages have been developed for the project, which have been informed by the pre-engagement interview process:

- The Town of Whitby is committed to creating a climate-friendly future by partnering with the community.
- The WCERP is essential to the Town of Whitby's sustainable and vibrant future, and the Town is committed to creating a meaningful and feasible plan.

Engagement Phases and Techniques Timetable

The timeline of engagement was integrated with the project's modelling activities. Between the stages of modelling, engagement input was gathered and included with the modelled results.

PHASE 1: PRE-ENGAGEMENT INTERVIEWS + ENGAGEMENT DESIGN

Project initiation: August - October 2021

ACTIVITY	SSG	WHITBY	OBJECTIVES	TIMEFRAME
Pre-Engagement Interviews and Summary Report	Conduct interviews of individuals identified by Town staff (30-minute to 1-hour phone or video call. Analyze interviews.	Identify participants and invite them.	1	Completed.
Engagement Plan design	Draft Engagement Plan.	Refine and approve	All	January

ACTIVITY	SSG	WHITBY	OBJECTIVES	TIMEFRAME
WCERP engagement materials, including a dedicated project logo, promotional materials that can be shared online (e.g. social media, Town’s website), and content for the WCERP webpage. process.	Prepare communications materials for the WCERP engagement process.	Provide support and guidance.	1, 2, 3	Ongoing

PHASE 2: ACTIVE ENGAGEMENT PERIOD

February – June 2022

ACTIVITY	IAP2 SPECTRUM LEVEL	SSG	WHITBY	ISC	OBJECTIVES	TIMEFRAME
Public communications updates	Inform. Promise to the public: we will keep you informed on the plan’s progress and opportunities for you to become involved.	Develop key messages in partnership with Whitby staff. Assist in developing regular project updates for distribution through Whitby communications channels. Provide key calls to action from modeling output for inclusion in mailer and other materials.	Edit draft key messages. Create invites for engagement events. Create an email newsletter list. Assist with distribution of engagement information/updates on multiple platforms, including a variety of social media, and local organizations and groups. Coordinate distribution of mailers	Design mailer Identification of community FB groups to participate in. Research Whitby’s participation in NextDoor and identify ways to engage. Preparation of press release or editorial with calls to action.	1	Throughout project
ISeeChange Platform Engagement	Involve. Promise to the public: we will incorporate your preferences and feedback to the extent possible, and seek advice in formulating alternatives.	Provide key calls to action from modeling output for inclusion in mailer and other materials.	Identify and communicate with key stakeholders (see list above) about use of ISC to gather input and feedback about the plan. Include information about use of ISC in all key communications about plan engagement.	Create custom landing web page for Town of Whitby with calls to action presentation. Create client group for Town of Whity staff to receive notifications and access data. Create social media and graphic assets for Town of Whitby to invite residents to participate. Make video of or offer virtual trainings to those groups identified by Town of Whitby. When provided, send updates to Whitby ISC participants about plan progress and invite participation.		

ACTIVITY	IAP2 SPECTRUM LEVEL	SSG	WHITBY	ISC	OBJECTIVES	TIMEFRAME
Public Engagement Workshops for Risk and Vulnerabilities 2 workshops: Intro to process Climate risks and hazards Adaptation measures	Involve. Promise to the public: we will incorporate your preferences and feedback to the extent possible, and seek advice in formulating alternatives.	Prepare an energy and emissions planning 101 presentation. Prepare an overview of the project process and milestones. Provide digital framework/exercise tools.	Recruit committee members. Coordinate meeting timing and hosting. Review presentation materials prior to the workshop. Respond to questions about the Town's role, jurisdiction.	Invite stakeholders to directly engage on the platform and ask for their input on increasing participation. Present latest findings from the platform (as applicable).	2	
Session 1: Whitby Stakeholder Group	Involve. Promise to the public: we will incorporate your preferences and feedback to the extent possible, and seek advice in formulating alternatives.	Prepare a climate adaptation planning 101 presentation. Prepare an overview of the project process and milestones. Provide digital framework/exercise tools.	Recruit committee members. Coordinate meeting timing and hosting. Provide presentation background material on the WCERP, indicating how it fits with other Town plans/strategies. Review presentation materials prior to the workshop. Respond to questions about the Town's role, jurisdiction.	Invite committee to directly engage on the platform and ask for their input on increasing participation. Present latest findings from the platform (as applicable).	2	
Session 2: Technical Stakeholder Group	Involve. Promise to the public: we will incorporate your preferences and feedback to the extent possible, and seek advice in formulating alternatives.	Prepare a climate adaptation planning 101 presentation. Prepare an overview of the project process and milestones. Provide digital framework/exercise tools.	Recruit committee members. Coordinate meeting timing and hosting. Provide presentation background material on the WCERP, indicating how it fits with other Town plans/strategies. Review presentation materials prior to the workshop. Respond to questions about the Town's role, jurisdiction.	Invite committee to directly engage on the platform and ask for their input on increasing participation. Present latest findings from the platform (as applicable).	3	

ACTIVITY	IAP2 SPECTRUM LEVEL	SSG	WHITBY	ISC	OBJECTIVES	TIMEFRAME
Community Survey:	Consult. Promise to the public: we will seek your advice on the variety of options presented.	Annotated agenda for the Town Hall. Analyze and report on feedback.	Review draft survey. Community promotion. Logistical support.	Invite residents to continue conversation on the platform and ask for their input on increasing participation. Present latest findings from the platform.	2	
Session 2: Stakeholder Engagement Group	Involve. Promise to the public: we will incorporate your preferences and feedback to the extent possible, and seek advice in formulating alternatives.	Lead the workshop, finalize ideas, ask questions, and determine the target. Key information about climate risks and hazards now, and into the future will be presented Provide digital framework/ exercise tools.	Review presentation materials prior to the workshop. Coordinate meeting timing and hosting.	Invite committee to directly engage on the platform and ask for their input on increasing participation. Present latest findings from the platform (as applicable).	2	
Meeting 2: Technical Advisory Group	Involve. Promise to the public: we will incorporate your preferences and feedback to the extent possible, and seek advice in formulating alternatives.	Lead the workshop, finalize ideas, ask questions, and determine the target. Key adaptation actions will be discussed Provide digital framework/ exercise tools.	Review presentation materials prior to the workshop. Coordinate meeting timing and hosting.	Invite committee to directly engage on the platform and ask for their input on increasing participation. Present latest findings from the platform (as applicable).	3	

PHASE 3: FINAL REPORT + PRESENTATION

September 2022

ACTIVITY	SSG	WHITBY	ISC	OBJECTIVES	TIMEFRAME
Draft Presentation to Council. Update council on work done for the WCERP and how public feedback shaped it.	Draft presentation. Deliver presentation to Council and answer questions.	Edit presentation. Co-deliver presentation.	Organization of posts for use in final plan as it relates to specific data or modeling results Editorial story summary report	4	

Appendix 3: Community Survey

Note: This was the original survey before edits by the Town of Whitby.

Engagement Objectives

- To involve the community in shaping the development of actions for the Whitby Climate Emergency Response Plan and to understand how to engage community members in the implementation of the plan.
- This survey provides an opportunity for community members to provide feedback, voice their concerns, and provide the Town of Whitby with insights on how they want to participate in climate adaptation.
- Outcome: To involve residents in documenting their preferred adaptation actions, their local climate change concerns, and decision-making criteria for the plan.
- Output: documented advice and preferred criteria for the selection of adaptation actions for the plan.

Engagement Technique (to help achieve the objective)

- Survey
- Goal: ~300 responses.

Primary Audience

- Interested and affected parties community-wide
- Residents (full and part-time) including students and people employed within the community

Survey Preamble

Welcome to the Town of Whitby Survey!

The Town of Whitby declared a climate change an emergency in 2019 in recognition of the ongoing and future consequences of a changing climate on our community and the broader global community. Now, we are taking action.

We are developing a community-based Whitby Climate Emergency Response Plan to address climate change adaptation and mitigation in two parts — Whitby Climate Emergency Response Plan and Climate Change Mitigation Plan (“Mitigation Plan”). Both plans will be complete in 2022.

We want your help in fine-tuning the proposed actions and supports to reduce Whitby’s risk to climate change and lower our greenhouse gas emissions.

What to expect

This guided feedback form is organized in the following sections:

1. An introduction to the challenge in front of us (some of this information may already be familiar to you, so please skip through the pages with content you already know)
2. This survey will focus on proposed Climate Change Adaptation actions we’ve heard so far, and your thoughts on them
3. A bit about you so we understand who is providing feedback and who we haven’t heard from

Estimated time: 15 – 25 minutes

How your input will help shape the Plans

Your feedback from this survey and public feedback from our workshops and advisory councils will help us fine-tune the Whitby Climate Emergency Response Plan so it will have the greatest chance to be successful.

The Whitby Climate Emergency Response Plan and its proposed actions will go to the Town of Whitby Council for decision in June 2022.

Ready to begin? Let’s go!

Section One: Introduction

What is Climate Change?

Climate Change is long-term changes in global and regional climate patterns over the entire Earth that are the result of burning fossil fuels (i.e. gasoline, coal, and oil) which release greenhouse gasses (i.e. carbon dioxide, methane), also known as GHGs in the atmosphere. These greenhouse gasses trap heat from the sun and cause Earth’s temperatures to rise.

Climate change impacts include rising temperatures and changes in precipitation (e.g., rain/snow), as well as effects from Earth’s warming, such as:

- Rising sea levels
- Heavy rainfall

- Drought and heat
- Wind events
- Extreme cold snaps
- Changes in flower and plant blooming times

Not everyone is equally affected by the impacts of climate change, and those who are already vulnerable tend to be disproportionately impacted.

In 2016, the United Nations Framework Convention on Climate Change's (UNFCCC) Paris Agreement was enacted to limit warming of Earth to 1.5 degrees Celsius (globally we are already at about 1.2 degrees warmer than the pre-industrial period, making climate action urgent). Canada is a signatory to the Paris Agreement.

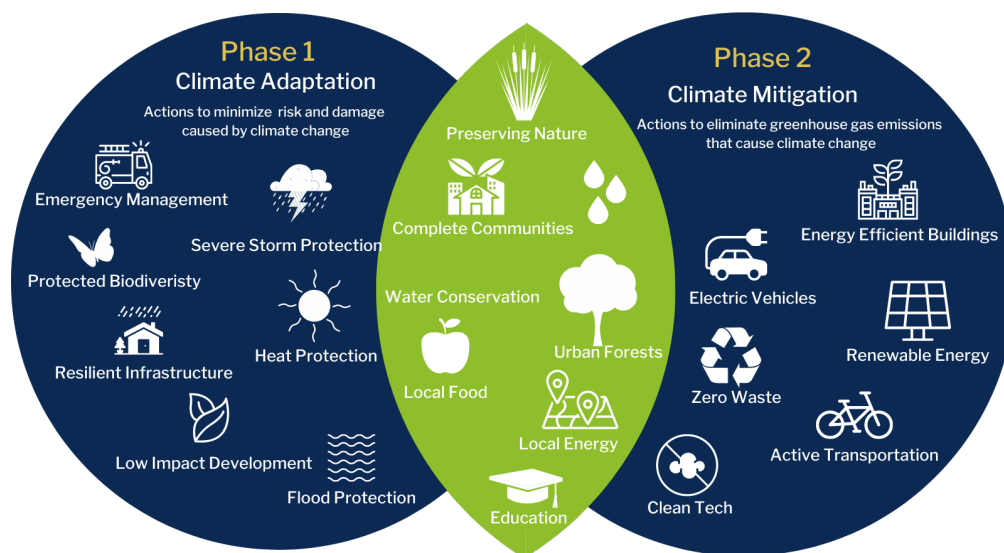
What is climate change mitigation and climate change adaptation? How are they different?

Climate Change Adaptation = to adapt to climate change impacts (i.e., hotter temperatures, flooding or extreme weather events) and take advantage of new opportunities.

Whitby's Adaptation Plan aims to reduce our communities' vulnerability to climate change impacts like hotter days, flooding, and extreme storms from now until 2050. It will also include a 10-year implementation plan.

Climate Change Mitigation = to reduce or eliminate greenhouse gas emissions (gasses in the earth's atmosphere that trap heat) that cause climate change.

Whitby's Mitigation Plan aims to cut Whitby's greenhouse gas emissions by 2050 and align with Durham Region's Community Energy Plan.



Why is 1.5 C so important?

To avoid the worst impacts of climate change such as wildfires, droughts, floods and species extinction, we must work together to keep the global average temperatures from rising above 1.5 C above pre-industrial levels.

Cities and Towns around the world, like Whitby, are creating (or have adopted) climate change master plans in order to reduce the impacts of climate change (adaptation) and slow down or halt

rising greenhouse gas emissions (mitigation), created by human activity, that are responsible for climate change.

Section Two: Review and Feedback

Information and Resources

Decreasing energy and GHGs in the community requires that decision-makers and all stakeholders, including residents, businesses, and local non-profits continue to learn and share information about climate change and best practices to decrease greenhouse gas emissions.

To ensure effective communication of information and resources, we would like to know how you want to learn about climate change and the Town Whitby Whitby Climate Emergency Response Plan.

1. Do you feel you have enough information about the impacts of climate change in Whitby?

a. Yes, I have enough information

b. Yes, but I would like more information

c. No, I don't have enough information

2. How do you currently learn about climate change? [CHECKBOXES]

• Websites/social media – regional, state, or national news sources

• Websites/social media - local Whitby and Durham Region news

• Social media – family, friends, other

• Newspaper (local) – print copy, online

• Newspaper (national) – print copy, online

• Television news – local

• Television news - national

• From family and friends

• I do not tend to stay informed on climate change

• Other: (Provide the ability to enter another answer here.)

3. Which of these organizations/entities do you think is doing their part to address the consequences of climate change? [CHECKBOXES]

a. Community and grassroots organizations

b. Non-profits

c. Municipal government

d. Provincial government

e. Federal government

f. Private industry

- g.** None of the above
- h.** Other: (Provide the ability to enter another answer here.)
- 4.** Who do you think should be responsible for addressing the consequences of climate change? [CHECKBOXES]
 - a.** Community and grassroot organizations
 - b.** Non-profits
 - c.** Municipal government
 - d.** Provincial government
 - e.** Federal government
 - f.** Private industry
 - g.** None of the above
 - h.** Other: (Provide the ability to enter another answer here.)
- 5.** Who would you trust to support you and other communities to address the impacts of climate change? [CHECKBOXES]
 - a.** Community and grassroot organizations
 - b.** Non-profits
 - c.** Municipal government
 - d.** Provincial government
 - e.** Federal government
 - f.** Private industry
 - g.** None of the above
 - h.** Other: (Provide the ability to enter another answer here.)

Preparedness

- 6.** Do you consider yourself well prepared for a weather-related emergency (i.e., flooding, extreme heat, extreme cold)?
 - a.** Extremely well prepared
 - b.** Well prepared
 - c.** Somewhat prepared
 - d.** Not that well-prepared
 - e.** Not at all prepared
 - f.** Don't know
- 7.** In times of a weather-related emergency, who do you turn to for help? [CHECKBOXES]
 - a.** Family

- b.** Friends
 - c.** Community organizations
 - d.** Municipal government
 - e.** Other: (Provide the ability to enter another answer here.)
- 8.** Who do you trust to help you prepare for a weather-related emergency?
- a.** Community and grassroots organizations
 - b.** Non-profits
 - c.** Municipal government
 - d.** Provincial government
 - e.** Federal government
 - f.** Private industry
 - g.** Utilities
 - h.** Emergency Services
 - i.** From friends and family
 - j.** Online (social media, websites)
 - k.** None of the above
 - l.** Other: (Provide the ability to enter another answer here.)
- 9.** Where do you get information on how to prepare for weather-related emergencies?
- a.** Community and grassroots organizations
 - b.** Non-profits
 - c.** Municipal government
 - d.** Provincial government
 - e.** Federal government
 - f.** Private industry
 - g.** Utilities
 - h.** Emergency Services
 - i.** Online (social media, websites)
 - j.** From friends and family
 - k.** None of the above
 - l.** Other: (Provide the ability to enter another answer here.)
- 10.** Do you have a support network of nearby (within Whitby) neighbours, friends or family members that would support you in a weather-related emergency?
- a.** Yes

b. No

11. What support(s) would you need to consider to better prepare for weather-related emergencies to your building or property? Please select all that apply. [CHECKBOXES]

- A program to help homeowners and renters take action to address climate risk (i.e., flooding), make their homes more resilient and be better prepared for emergencies
- An education toolkit about climate risks and how to prepare for them for businesses, renters etc.
- Increased communication about flood zones and flood mapping
- Partial or full financial support for retrofits (the total cost of a climate action renovation to reduce climate risk is covered by another party such as a utility, government, or non-profit)
- Financing support (support to finance the upfront cost, to be paid off over time by the beneficiary)
- Access to an emergency community network
- A list of emergency shelters and cooling centres in Whitby
- No additional support is required
- Other: (Provide the ability to enter another answer here.)

12. How prepared do you think the Town of Whitby is to deal with weather-related emergencies?

- a.** Extremely well-prepared
- b.** Extremely well prepared
- c.** Well prepared
- d.** Somewhat prepared
- e.** Not that well-prepared
- f.** Not at all prepared
- g.** Don't know

13. What do you think the Town of Whitby needs to focus on to prepare for the impacts of climate change? Rank the following:

- a.** Support organizations and community to help neighbourhoods prepare for, respond to, and recover from small to large-scale weather-related emergencies
- b.** Cultivate and strengthen community connections, social and cultural services, and assets
- c.** Integrate climate change adaptation lens into future development and land-use planning
- d.** Align city governance, resources and policy related to climate and earthquake mitigation, adaptation, and risk reduction
- e.** Improve communication between the municipality and the community and access local and regional agencies and utilities
- f.** Build critical infrastructure (i.e., hospitals, commercial facilities, utilities etc.) outside high

flood risk zones

- g.** Install solar panels in parking lots to create renewable energy and provide shade
- h.** Allocate funding and support to low-income areas to help address disparities deepened by flooding
- i.** Other

Programs + Techniques

Low Impact Development (LID) are techniques used to address problems related to stormwater runoff by mimicking natural processes like infiltration, evaporation, and absorption of excess water. They can provide ecological, social, and economic benefits like protecting water quality and natural habitats. Examples of LIDs are rain gardens, permeable pavement and roads and rainwater harvesting (i.e., rain barrels).

Though LIDs require an up-front investment, it can save money from damages later in the future.

- 14.** Based on the information above, would you support the Town increasing the use and implementation of LIDs in Whitby?
- a.** Yes
 - b.** No
 - c.** I need more information to decide

Integrating natural elements (i.e. trees, wetland habitats, green spaces) in the environment can help to protect against flooding, reduce storm surge, support biodiversity and reduce the heat island effect.

- 15.** Based on the information above, what type of natural elements would you support the Town on increasing the use of?
- a.** Wetland protection and revitalization
 - b.** Plant more trees, particularly in vulnerable and marginalized communities to provide shade and reduce water run-off
 - c.** Similar to Toronto, implement a green roof policy for non-residential buildings

Sustainable Neighbourhood Action Programs (SNAPs) aim to work closely with residents and businesses to implement unique tailored environmental and renewal initiatives at the neighbourhood level. SNAPs focus on addressing municipal priorities and neighbourhood interests including but not limited to community cohesion, health and well-being, community retrofits, active transportation, and improvement of green spaces.

Six SNAPs are currently happening throughout Toronto and the Greater Toronto Area, including in Brampton, Caledon, and Richmond Hill

- 16.** Based on the information above, would you support the Town to participate in a SNAP?
- a.** Yes
 - b.** No

c. I need more information to decide

17. Would you participate in programs and services that allow you to be better prepared for climate risks (i.e., flooding, heatwaves) for your household, home or property? [CHOOSE ONE/RADIO]

- Yes, but I am not prepared to pay more for these services or programs
- Yes, but I am not able to pay more for these services or programs
- Yes, and I am prepared to pay more for these services or programs
- No, I am not interested
- I need more information to decide

Retrofitting Existing Buildings for Mitigation & Adaptation

Greenhouse gas (GHGs) emissions in buildings result from heating and cooling spaces, lighting, and electricity to run appliances and equipment.

Retrofitting is upgrading your building (i.e., home, business, office etc.) to reduce its energy consumption through, replacing appliances, renovations or repair activities.

The retrofits you undertake can reduce your building's operational costs – particularly if it is older – as well as help attract tenants and gain a market edge.

Retrofitting buildings have benefits for both climate change mitigation and adaptation. For mitigation, as soon as the energy-efficient upgrades are complete, less energy is used and therefore resulting in fewer emissions and overall energy-use in the community. For adaptation, it can result in reducing residents' risks to heatwaves and extreme cold and provide accessibility and fire system upgrades.

18. Which of the following energy efficiency improvements are you interested in making to your home or business? Please select all that apply. [CHECKBOXES]

- Increasing the insulation in the building to prevent the loss of heated and cooled air.
- Installing more efficient windows and/or doors to prevent the loss of heated and cooled air.
- Installing low-flow showers, faucets, and toilets to reduce the amount of water that requires treatment; energy used to treat the water; and wastewater that emits methane, a greenhouse gas.
- Replacing older appliances with more efficient options.
- I have already completed all these improvements.
- I am not interested in making any of these improvements. [Triggers an optional follow-up to say why]
- Other: (Provide the ability to enter another answer here.)

19.

20. What support would you need to make the above changes? Please select all that apply.

[CHECKBOXES]

- Education about the changes and how well they may work in Whitby.
- Education about the benefits to my household.
- Partial financial support (a proportion of the cost of the upgrades is covered by another party such as a utility, government, or non-profit)
- Full financial support (the total cost of the upgrades is covered by another party such as a utility, government, or non-profit)
- Financing support (support to finance the upfront cost, to be paid off over time by the beneficiary)
- Information on how to make these changes myself.
- A list of recommended professionals and contractors.
- The agreement of a landlord or building owner.
- No additional support is required.
- Other: (Provide the ability to enter another answer here.)

21. In many jurisdictions, households are provided with financial incentives to complete energy efficiency upgrades in buildings. Often these incentives do not cover the entire cost of the upgrades. This means the homeowner pays at least a proportion of the upgrade costs, and for renters, costs may be reflected in rent increases.

Based on this knowledge, how much of your annual household maintenance budget would you be willing to allocate to energy efficiency upgrades? Or, as a renter, how much of a rent increase are you willing to accept if energy efficiency upgrades are completed?

- None
- <10%
- Up to 25%
- Up to 50%
- Up to 75%
- Up to 100%
- I do not have an annual household maintenance budget.
- I am not able to budget for a rent increase.
- Unsure
- Other: (Provide the ability to enter another answer here.)

22. If all else is equal, are you more likely to purchase, rent, or lease a building that discloses energy efficiency upgrades? [RADIO/CHOOSE ONE]

- Yes, but I am not prepared to pay more for the building, rent, or lease

- Yes, but I am not able to pay more for the building, rent, or lease
- Yes, and I am prepared to pay more than I would to purchase, rent, or lease
- No
- I am not considering purchasing, renting, or leasing a building in the next five years
- Unsure
- Other: (Provide the ability to enter another answer here)

Section Three: About You

Gathering demographic information helps us to understand if we are reaching a variety of community members. These questions help us to understand broad trends in answers based on demographic data.

Your responses help us identify opportunities, barriers, and constraints that may impact potential actions for certain residents. If you do not wish to disclose information, you have the option to choose 'prefer not to disclose' for these questions.

Do you live in Whitby? (Select all that apply): [Checkboxes]

- Yes [trigger postal code question]
- No
- No, but I would like to
- No, but I travel to Whitby regularly for work or school
- No, but I travel to Whitby for most shopping and services
- Prefer not to disclose

Please provide the 3 characteristics of your postal code:

[short answer box]

The gender I identify with: (select all that apply): [Checkboxes]

- Woman
- Man
- Non-binary
- Prefer to self-describe: [provide text box]
- Prefer not to disclose

Age group: [Radio/Choose one]

- <17
- 18-24
- 25-34
- 35-44

- 45-54
- 55-64
- 65-74
- 75-84
- 85+
- Prefer not to disclose

Please indicate which race(s)/ethnicity(ies) do you most closely identify with⁵?

- Asian - Caribbean (e.g., Indo-Caribbean, Caribbean-Chinese etc.)
- Asian - Central Asian (i.e., Kyrgyzstan, Uzbekistan etc.)
- Asian - East Asian (e.g., China, Japan, Korean etc.)
- Asian - Southeast Asian (e.g., Philippines, Thailand, Vietnam etc.)
- Asian - South Asian (e.g., India, Pakistan, Bangladesh etc.)
- Black - African (e.g., East African, Southern African, Central African, Western African)
- Black - African Diaspora (e.g., Afro-Canadian, Afro-Caribbean, Afro-Latin, African-American, Black British etc.)
- Indigenous - First Nation
- Indigenous - Inuit
- Indigenous - Métis
- Latin American
- Middle Eastern or North African
- Pacific Islander
- Multiracial or Multiethnic
- Other or prefer to self-describe: [provide text box]
- Prefer not to disclose

Please indicate if you self-identify with any of the groups below. Please select all that apply.
[Select all that apply]

- A person with a disability
- A newcomer or recent immigrant (been in Canada within in the past 5 years)
- An international student
- A member of the 2SLGBTQ+ community
- A person who is a migrant worker

⁵Note: This was the original demographic question submitted and uploaded to Whitby's online survey platform before it was later changed without SSG noticed.

- A person experiencing poverty
- A person experiencing homelessness
- Other or prefer to self-describe: [provide text box]
- Prefer not to disclose

Highest level of education completed: [Radio/Choose one]

- No high school diploma
- High school diploma or GED
- Some college
- Undergraduate degree
- Graduate degree
- College, trade, or other diploma
- Other: [provide text box]

Gross annual family/household income: [Radio/Choose one]

- Less than \$25,000
- \$25,000-\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000-\$124,999
- \$125,000-\$149,999
- \$150,000-\$199,999
- \$200,000 or more
- Prefer not to disclose

What is your employment status? [Radio/Choose one]

- Employed, full-time
- Employed, part-time
- Self-employed
- Unemployed, looking for work
- Unemployed, not looking for work
- Homemaker, full-time
- Student
- Retired
- Other: [provide text box]
- Prefer not to disclose

Do you own or rent your home? [Radio/Choose one]

- Own
- Rent
- Other: [provide text box]
- Prefer not to disclose

Thank you.

Thank you for providing your valuable time and insights. The Town of Whitby Whitby Climate Emergency Response Plan consultants, SSG, will collect all responses and provide a report back to the public and Council. Responses will be considered in finalizing the Whitby Climate Emergency Response Plan.

Appendix 4: Invited interested parties to Whitby Stakeholder Engagement Group or Technical Advisory Group

Invited Organizations

The following organizations were invited to participate in the SEG.

- Abilities Centre
- Alzheimer's Society
- Bawaajigewin Aboriginal Community Circle
- Bell Telecommunications
- BILD
- Blue Dot Whitby
- Boys & Girls Clubs
- Brooklin Landowners
- CAREA Community Health Centre
- Canadian Centre for Climate Services
- Central Lake Ontario Conservation Authority (CLOCA)
- Climate Justice Durham
- Climate Risk Institute
- Clean Air Partnership
- Community Care Durham
- Community Development Council Durham
- Community Innovation Lab
- Congress of Black Women
- CP Rail
- Ducks Unlimited
- Durham Center for Food
- Durham Black Network
- Durham Farm Fresh

- Durham Food Policy Council
- Durham Home Builders Association
- Durham Region Departments
- Emergency Management
- Sustainability
- Roads
- Social Services
- Health
- Planning
- Police
- Transit
- Works
- Durham District School Board
- Durham Catholic School Board
- Elexicon
- FCM
- Feed the Need Durham
- Girls Inc.
- Green Infrastructure Coalition
- Government of Ontario
- Ministry of Environment
- Ministry of Transportation
- Intact Climate Center (University of Waterloo)
- LEAF
- Malone Given Parsons Ltd.
- Mattamy Homes
- Metrolinx
- Ontario Biodiversity Council
- Ontario Shores
- Ontario Tech
- Rogers
- Station Art Gallery
- Toronto and Region Conservation Authority (TRCA)

- Town of Whitby (i.e. Staff, Senior Management, Councillors)
- Whitby and Brooklin Legions
- Windreach Farm
- WOCDL - Women of Colour Durham Collective