Appendix 1

Race to Zero - Action List

(at least one to be undertaken)

Create a more inclusive society

- Collect information on the needs of frontline communities (including children, workers in transitioning industries, women, refugees, etc) with respect to climate planning and/or implementation.
- Collect spatial or disaggregated data to inform the design and/or monitor the implementation of climate actions.
- Demonstrate how actions contribute to delivering social and economic benefits, to reducing inequality and to driving a just transition for workers, through carrying out a wider benefits or equity assessments for at least 2 priority city-wide transformative climate actions.
- Take action to develop 15- or 30-minute neighbourhoods (also known as complete neighbourhoods) all throughout the city, where residents are able to meet most of their needs within a short walk or bicycle ride from their homes.

Create Green and Healthy Streets

- Pilot test and procure, with partners as necessary, zero emissions buses by 2025.*
- Expand and improve walking, cycling and integrated transit access and identify potential areas for future zero emission zones by 2025.*
- Procure, with our partners, only zero emission buses from 2025.
- Implement pilot measures that restrict internal combustion engines in parts of the city by 2025 and ensure that a major area of our city is zero emission by 2030.

	Reduce Air Pollution and Ensure Clean Air - Establish baseline levels and set ambitious reduction targets for air pollutants that meet or exceed national commitments. These targets will put us on a path towards meeting World Health Organisation Air Quality Guidelines for particulate matter, nitrogen dioxide, ozone, and sulphur dioxide. - Develop plan by 2025 to achieve pollution reductions from major sources of pollution within city/under city control and implementing at least one new substantive policy and programme to reduce pollution from top source. - Before 2025, implement new substantive policies and programmes to address the top causes of air pollution emissions within our city and under our control by 2025. ***Develop Zero Carbon Buildings*** - Develop a roadmap to achieve net zero carbon new buildings from 2030.* - Implement pilot efficiency programmes and incentives for building energy efficiency with tools in place that facilitate data access and data analysis (benchmarking) of building energy use by 2025. - Develop a roadmap to achieve net zero carbon municipal buildings by 2030 and policy approval by 2025 to deliver a commitment to own, occupy and develop net zero carbon municipal assets by 2030. - Enact regulations and/or planning policy to ensure NEW buildings operate at net zero carbon by 2030. - Benchmark building energy use in existing buildings and implementing citywide efficiency programmes with an approved roadmap to achieve all net zero carbon buildings by 2050. - Enact regulations and/or planning policy to ensure ALL buildings operate at net zero carbon by 2050, with a roadmap and interim emissions goals in place in 2025. ***Move towards resilient and sustainable energy systems*** - Develop a roadmap to achieve 100% clean renewable electricity by 2030 and expand this to 100% renewable energy by 2050. - Lead by example with municipal renewable energy projects maximising the potential of municipal assets for onsite generation with the aim to cover municipal electricity demand by 100% renewables by 2025. - Make sure your policies follow the rule of “energy-efficiency” first so take all actions to increase the efficiency of end-use sectors.

	- Develop financial support programs to incentivize deployment of building-scale renewables and mandate the use of renewables through building codes, while engaging residents and other stakeholders in the process. - Incentivize large scale clean energy generation by using your purchasing power and support community energy projects. - Promote the use of clean energy sources for heating and cooling buildings. ***Advance towards Zero Waste*** - Progressively phase out organics disposal to landfill and incinerators, i.e. at least 25% by 2025. - Ensure all operating and closed landfills have landfill gas capture and at least flaring (ideally local landfill gas utilization for power generation) by 2025. - Ensure all waste generated in the city is being collected and residual waste is disposed of adequately in at least an engineered sanitary landfill. - Reduce the municipal solid waste generation per capita achieving at least 8% reduction in 2025, with actions like restricting single use materials, and volume based collection fees/incentives like “Pay as you throw”, enroute to 15% reduction by 2030. - Reduce the amount of municipal solid waste disposed to landfill and incineration by at least 50% compared to 2015 by 2030; and increase the diversion rate away from landfill and incineration to at least 70% by 2030, with actions like scaling up citywide collection with 3-stream segregate waste collection including food/recyclables/residual by 2025 ***Create Sustainable Food Systems*** - Pilot school feeding programs that align to locally relevant Planetary Health Diet by 2025. - Implement policies/incentives/taxes/bans that halt or prevent the nutrition transition by 2025. - Regulate or activate programs for food businesses to minimize food related carbon emissions. - Expand access for all citizens to affordable, plant-based food by 2025. - Create a food council/board with local stakeholders by 2025. - Align our food procurement (eg school feeding programs) to planetary health diet by 2030, with at least 50% of procurement expenditure aligned to the planetary health diet by 2025. - Reduce food loss and waste by 50% from a 2015 baseline by 2030, achieving at least a 25% reduction in food loss and waste by 2025. - Support an overall increase of healthy plant-based food consumption in our cities by shifting away from unsustainable, unhealthy diets by 2030.

Divest from Fossil Fuels and Invest in a Sustainable Future

- Advocate for fossil-free and sustainable finance by other investors and all levels of government, including by promoting the importance of strong, long-term climate policies and demanding greater transparency.
- Call on our pension funds to divest from fossil fuel companies and increase financial investments in climate solutions to help promote decent jobs and a just and green economy.
- Take all possible steps to divest our city assets from fossil fuel companies and increase our financial investments in climate solutions to help promote decent jobs and a just and green economy.

Move towards Resilient and Sustainable Construction Systems

- Develop a roadmap with local stakeholders to halve embodied emissions in all infrastructure projects by 2030, including new build and major retrofits, and achieve zero emission construction sites by 2030.
- Make sure your policies and actions follow the rule of “existing assets” first to optimize, repurpose and retrofit existing buildings and infrastructure before building new ones.
- Lead by example by specifying low carbon materials and zero emission construction machinery in municipal procurement.
- Reward resource efficient and circular design, use of low carbon materials, and low to zero waste construction sites for all new projects and major retrofit in municipal procurement, planning permissions, policies and processes and building codes.
- Stimulate data transparency and accountability by asking for/requiring Life Cycle Assessments (LCAs) in planning permissions and embedding them into planning policies, processes and building codes.
- Approve net zero emission (operational and embodied) flagship project(s) by 2025 and advocate for regional, national government and/or intergovernmental action on sources outside city control.
- Assess the impact that the choice of materials and construction design will have on your city’s overall resilience to climate impacts (i.e. increasing urban heat island, impermeable surface increasing the risk of flooding, etc.).

Appendix 2

Race to Resilience – Action List (at least one to be undertaken)

Buildings

- Develop a resilience strategy for buildings to ensure they can withstand the impacts of climate hazards ex. preparing buildings for large storm impacts
- Create a publicly accessible inventory of public assets and infrastructure, including hospitals, schools, and university buildings, their condition, exposure to hazards, and maintenance history
- Update construction standards for infrastructure and building, accounting for local hazards and criticality, and enforcement mechanisms in place
- Develop pre-approved contracts for emergency interventions (ex. debris removal) or reconstruction (ex. road repairs) approved, with enhanced standards
- Restrict development in areas that are at risk of climate impacts (ex. Areas at high risk of flooding, forest fires, etc.)
- Initiate consultation processes with communities living in informal settlements in hazardous areas, such as flood plains, in order to begin urban upgrading or co-planned resettlement processes

Digitalization

- Advance digital inclusion to ensure the vulnerable population has proper access to digital infrastructure, connectivity, and knowledge to participate in the digital world*
- Amplify work from home opportunities and universalize the adequate conditions for workers to undertake labor using digital tools
- Strengthen digital commerce with a particular focus on onboarding small and medium businesses and entrepreneurs to build a strong and inclusive local economy
- Promote digital public services, open government practices, and secure data management policies to increase transparency and citizen participation

Energy

- Invest in and plan for resilience of the energy grid and renewable energy assets to ensure continuity of services to the community, including the most vulnerable, all critical urban infrastructure and public assets*

	- Invest in decentralized renewable energy sources to enhance access to clean sustainable energy, address energy security, and reduce energy poverty while improving climate resilience - Provide 100% of my community with access to affordable, reliable, sustainable, and modern renewable and clean energy ***Food Systems*** - Expand access for all citizens to affordable, nutritious plant-based food by 2025 - Create a food council/board with local stakeholders by 2025 - Align all food procurement (e.g. school feeding programs) to planetary health diet by 2030, with at least 50% of procurement expenditure aligned to the planetary health diet by 2025 - Reduce food loss and waste by 50% from a 2015 baseline by 2030, achieving at least a 25% reduction in food loss and waste by 2025 - Support an overall increase of healthy plant-based food consumption in our cities by shifting away from unsustainable, unhealthy diets by 2030 - Identify and eliminate food deserts (urban areas in which it is difficult to buy affordable or good-quality foods) within the community - Generate supportive policies for local traders and informal traders - Create enabling environments for local and regional small-scale and agroecological producers and traders (including informal traders) to access market share, through financial incentives and market access programmes ***Governance and Community Engagement*** - Establish new and inclusive approaches to governance that embrace a balance between economic and well-being values, co-designing the vision and the choices for a comprehensive strategy that integrates climate, social and health objectives* - Include social equity quotas in governance processes, to ensure that people of all genders, races, ethnicities, abilities and classes are represented equitably in community and political life, and that their needs can be assured - Establish & improve mechanisms for community based organisations and community members to contribute to city-scale resilience plans and actions from the beginning to the end of processes* - Develop financing and governance mechanisms to improve basin level water resilience - Devolve governance and fiscal responsibility to allow for local entities to drive impactful water resilience interventions

	- Designate a city official/advisor to coordinate and undertake resilience projects and to engage with urban stakeholders, for example a Chief Resilience Officer* ***Nature Based Solutions*** - Commit a tree-planting or creation of green space target by 2025 that supports local biodiversity and is resilient to anticipated climate change* - Plan for the sustainable management, protection and restoration of coastal areas and ecosystems such as mangroves, seagrasses, flats, tidal marshes - Dedicate 30-40% of the total built-up city surface to green and permeable spaces which favour protecting and restoring biodiverse and climate resilient ecosystems - Convert 40-60% of the urban parking space to green and permeable spaces - Ensure that 70% of the population has free access to a fit for purpose green and blue space within 15 minutes- equitably prioritized to maximize the accessibility and connectivity to nature for the most vulnerable - Protect soil resources by limiting soil sealing and ensuring that soil characteristics are considered in decisions concerning allocation and use of land - Invest in and plan for protecting, restoring, and sustainably managing inner, nearby, and faraway forests* - Increase investment in nature-based solutions and smart low carbon technologies to address water risks i.e. pollution, flooding, drought, leakage etc ***Risk and Vulnerability Planning*** - Integrate local, gender-sensitive and indigenous knowledge and community-based mapping initiatives in all climate risk analysis to ensure validation and prioritization is informed by impacted communities especially the most vulnerable - Install early hazard warning systems and emergency management systems (including the identification of the percentage of the population that has access to the systems) - Identify, monitor, and plan accordingly to anticipate acute shocks and to adapt for addressing chronic stresses* ***Social Equity*** - Ensure social justice is taken into account when developing climate & resilience strategies, actions and policies in the city, including considerations of social equity in public services delivery, affordability and access*

	- Empower leaders amongst marginalised groups and communities to take a lead in disaster scenarios in order to effectively voice the needs of these groups, and to have access to the right platforms in order to do so - Create strategies to ensure children, the elderly and people with disabilities are accounted for in disaster scenarios, so as to not be disproportionately affected - Promote gender and/or racial sensitivity training for all civil servants engaged in the development and implementation of resilience strategies, including city officials, civil defence, health care workers, teachers and police officers, promoting values of care, empathy and respect - Raise awareness about the vulnerability of poor communities and the need for solidarity actions between communities and districts - Create counselling and emotional wellness programs as well as job-finding and entrepreneurship centres to support local communities as well as climate refugees/migrants to combat trauma and disempowerment. Improving social resilience and social cohesion increases peoples' ability to endure and manage in times of crisis - Provide more funding and capacity for gender-based violence hotlines and counselling services, particularly during the response and recovery phases which further expose already vulnerable populations as seen during the lockdowns in response to the COVID-19 pandemic ***Urban Rural Links*** - Consider proximity and complementary between urban and rural areas in regional strategies, for example natural services, food supply, and cultural activities - Cooperation programs between municipalities to financially compensate or share duties and benefits of natural resources and their management, for example waste disposal, water basin management, wastewater treatment, etc - Keep the proportionality and land use ratio between rural/natural & urban areas in the administrative division, boundaries and plans to relate nature to all areas and all scale (incl neighbourhood) - Adopt education programs or trainings to mainstream the concept of the right to nature and behavioural shift to consider nature as a common good that is respected - Design urban policies and create enabling environments to ensure the immediate agricultural hinterlands have sustainable access to market share, for example in the form of local market spaces and building relationships with retail

	Waste - Collect all waste generated in the city and ensure residual waste is disposed of adequately in an engineered sanitary landfill, which considers and minimizes impact to surface and groundwater sources - Provide 100% of my community with access to resilient secure, sustainable and safely managed sanitation services - Invest in circular economy assessments to repurpose and reduce waste and generate new business opportunities ***Water*** - Ensure all wastewater is treated (including combined sewage overflows) - Develop a roadmap to measure and reduce water consumption and leakages, and eliminate pollution - Aim to achieve collective water security and alignment with national or basin-level water goals by working together with other cities, companies, community associations and water users operating in your watershed to mitigate water-related conflicts linked to water use and pollution - Monitor and publish future water availability risks and scenarios related to population growth and other risk drivers - Provide 100% of the community with access to resilient secure, sustainable, and affordable water - Implement policies that will increase water and sanitation connections, affordability, and reliability of basic services for the most economically and socially vulnerable - Scale comprehensive upgrading efforts for the water-insecure urban poor communities facing climate risk to ensure resilience of infrastructure investments - Diversify water sources to account for future climate risks and increase investment in water resource conservation and water demand management - Shift urban planning to account for hydrologically linked regions sustaining natural water flows and sources - Develop an urban green infrastructure plan which maps key water retention zones and aquifers in order to preserve key water sources from urban development and pollution