Preface

The importance of green spaces in building community health and resilience cannot be overstated in a period characterized by fast urbanization and environmental challenges. To deal with the complex socio-economic and ecological issues that cities face, alternative strategies are needed to promote better urban park planning and management.

This report represents the extensive research and development undertaken as part of my Master of Technology degree, aimed at addressing these pressing challenges. This project was based on using geoinformatics and advanced spatial analysis techniques aimed at automating vulnerability assessment in urban park planning processes. It was not only about identifying highly vulnerable areas but also developing practical tools and methodologies for decision makers to proactively address community health and resilience.

Underpinning this is the Healthy Parks Plan, a ground-breaking initiative that aims at ensuring all residents have equal access to parks and other green spaces. This work is deeply embedded in HPP's principles, aiming at aligning with its goals as well as contributing to its central mission of enhancing healthier sustainable communities.

The development of a Spatial Decision Support System in the form of an ArcGIS Pro tool is central to the methodology which shows it's potential in urban park planning. The tool, created with Arcpy, represents the result of technical skill, innovative thinking, and a strong commitment to solving a problem.

The Spatial Decision Support System allows for informed choices in urban park planning. This approach not only speeds up vulnerability assessment processes, but also helps the decision-makers to make educated decisions. This initiative achieves the aims of the Healthy Parks Plan and creates healthier, more resilient communities for future generations.