In 2018, Canada's federal government legalized recreational cannabis, and an increase in cannabis production facilities appearing in Canadian communities warrants research on how to include cannabis production in land use planning policy. The province of Ontario has experienced a proliferation of cannabis production facilities more than any other province or territory, and this report focused on what actions the provincial government could take to assist municipal governments in planning for cannabis production. This research utilized a mixed-methods qualitative approach which included data from literature, municipal documents and key informants as well as provincial level data to depict the current state of land use planning with respect to cannabis production in Ontario. The overall objectives of this report were to identify challenges faced by Ontario municipalities in planning for cannabis production, and to provide recommendations for Ontario's provincial government to help address municipal-level challenges.

This research employed the use of four qualitative research methods: a case study, literature review, semi-structured interviews and document analysis. The data that the research methods produced was analyzed and synthesized, which revealed seven overarching themes representing challenges and opportunities municipalities in Ontario experience in planning for cannabis production. Once the themes were identified, options for the provincial government to implement were outlined to address each of the seven overarching themes. The themes and their corresponding recommendations are as follows:

Theme 1: Normal Farm Practices

- Recommendation: *OMAFRA provides a clear position that cannabis production is an agricultural crop.*
- Alternative Option: *OMAFRA provides a clear position that cannabis production is not an agricultural crop.*
- Alternative Option: *Do not provide any position on cannabis as an agricultural crop.*

Theme 2: Types of Producers

- Recommendation: *The provincial government takes on an advocacy role to the federal government for municipalities.*

Theme 3: Comparing Cannabis Production to Other Land Uses

- Recommendation: *Look to the Minimum Distance Separation document for the development of separation distance guidelines*.
- Alternative Option: *Look to the D-Series Guidelines for the development of separation distance guidelines or update Guidelines to include cannabis production facilities.*

Theme 4: Difficulty Striking a Balance

- Recommendation: *Take on some responsibility for enforcement.*

Theme 5: Unique Legislative Context

- Recommendation: *Provide municipal planners with workshops or training opportunities that navigate the complexities of the legislation.*

Theme 6: Lack of Research and Best Practices

- Recommendation: *Leverage and support research being conducted at academic institutions.*
- Recommendation: *Ministry of Agriculture, Food and Rural Affairs, or Ministry of Environment, Conservation and Parks produce research.*

Theme 7: Public and Producer Input

- Recommendation: *Incentivize a collaborative effort for mitigating cannabis-related impacts through local-level cannabis working groups.*

The scope of this research was limited to a high-level analysis of cannabis production as a land use for completion of a Master's level report. Therefore, topics for future research should focus on evaluating future recorded impacts of cannabis production facilities, definitions of on-farm diversification, and value-adding and value-retaining activities as they relate to cannabis, how cannabis fits into greenbelt policies and plans, and industrial hemp and cross-pollination issues.