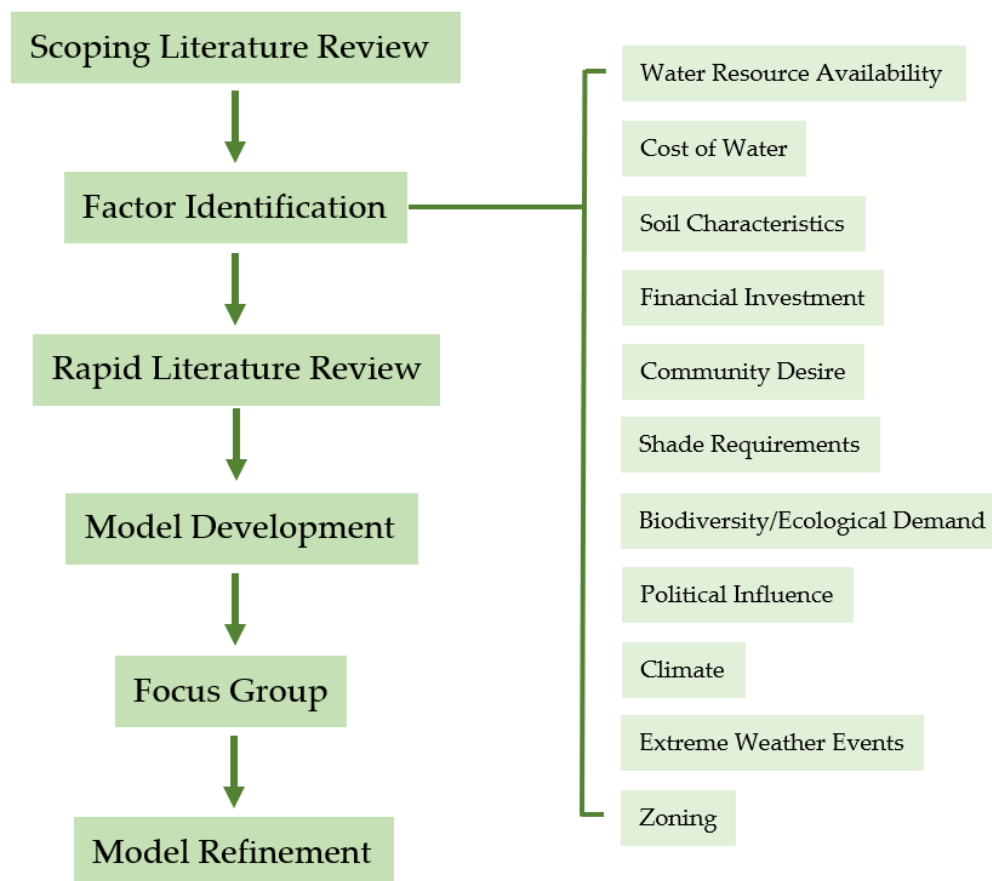


## Method for Scoping and Rapid Review

The schematic flow diagram shown in figure below (Figure 1) illustrates the chronology and sequence of the mixed-methods data collection.

**Figure S1.**Sequence of data collection methods.



### Scoping Literature Review

Informed by the underpinning research of Parker and others [1], a scoping review of literature regarding urban tree canopy was initiated in February 2019. The process for the scoping literature review followed the methodology of the Preferred Reporting Items for Systematic Reviews (PRISMA) guidelines [2]. During February 2019, over 15,000 databases were searched using the Proquest Summons search tool [3] to identify articles relevant to this topic published since the year 2000. The search terms used are listed in Table 1.

Following the PRISMA method [2,4], 764 articles were identified. Duplicate articles were removed ( $n=47$ ). The remaining articles ( $n=717$ ) were screened via the abstract to determine their suitability for further reading. This process resulted in 82 key articles.

**Table S1.** Search terms used to identify papers included in the literature review.

Search Terms
"public green infrastructure"
"green infrastructure"
"tree canopy"
"urban tree canopy cover"
"urban trees"
"urban greenery"
"tree investment"
"green infrastructure investment"
"tree canopy carrying capacity"
"carrying capacity"

The content analysis of this scoping systematic research revealed a number of consistent factors which were then further interrogated via the rapid literature review approach (see Section 3.1).

#### *Rapid Literature Review*

The rapid literature review targeted further pertinent peer-reviewed literature in order to scrutinise, qualify, and quantify each factor identified in the scoping review as being relevant to urban tree canopy cover. This rapid review was undertaken in May 2019 and was responsible for obtaining information to support an explicit definition of each factor, as well as set proposed ordinal criteria for each factor. The proposed criteria resulting from this data collection and analysis is displayed in Table 3 within section 4.1.

#### **References:**

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2. Moher, D.; Liberati, A.; Tetzlaff, J.; Altman, D.G. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLOS Medicine* **2009**, *6*, 1-6, <https://doi.org/10.1371/journal.pmed.1000100>.
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4. Pickering, C.M.; Byrne, J. The benefits of publishing systematic quantitative literature reviews for PhD. candidates and other early career researchers. *High Educ. Res. Dev.* **2013**, *33*, 534–548. <https://doi.org/10.1080/07294360.2013.841651>