

3A Analytical Toolbox: District Suitability

Appendix A: What is a Suitability Analysis?

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Defining Terms

Suitability Analysis

Suitability analysis is a way of evaluating and comparing sites for a particular use or purpose. Suitability analyses typically seek to answer a question like, “*Where is the best location for ___?*” Examples include finding the best location for a new solar farm, community garden, or, in this case, a multifamily zoning district. The results of a suitability analysis are often displayed on a map that is used to highlight areas from high to low suitability.

Criteria

Criteria are the various physical, cultural, or economic factors that are important for determining suitability. They are the broader principles by which the sites are evaluated. Criteria seek to answer a question like, “*What qualities will our preferred location for this use possess?*”

Criteria are established at the beginning of the suitability analysis and are derived from many sources, including academic literature and planning documents. While most criteria are structured to evaluate sites across a spectrum of favorable to less favorable, some analyses will include criteria describing where the use should never be located, regardless of how many other positive characteristics are present. Sites possessing these qualities are referred to as *screened* or *excluded*.

Example: Community Garden

In a suitability analysis for siting a new community garden, criteria may include factors like: possessing necessary growing conditions; low existing access to fresh foods; and/or high accessibility to residential neighborhoods. Excluded or screened parcels may include sites where environmental hazards are present.

Indicators

Indicators are the different data layers that are selected to represent the chosen criteria. Indicators are the response to the question: *How will we know the location fulfills the established criteria?*

Indicators may be physical characteristics of the site – such as exceeding a certain size or having steep slopes – or other qualities – such as land value or presence within a historic district. Sites may also be evaluated according to their distance to features – such as proximity to parks or transit – or general qualities of the surrounding area.

Example: Community Garden

Building from the example above on a suitability analysis for siting a new community garden, the criteria “possessing necessary growing conditions” may include indicators like: proximity to water lines; minimal shade throughout the day; and high-quality soil.

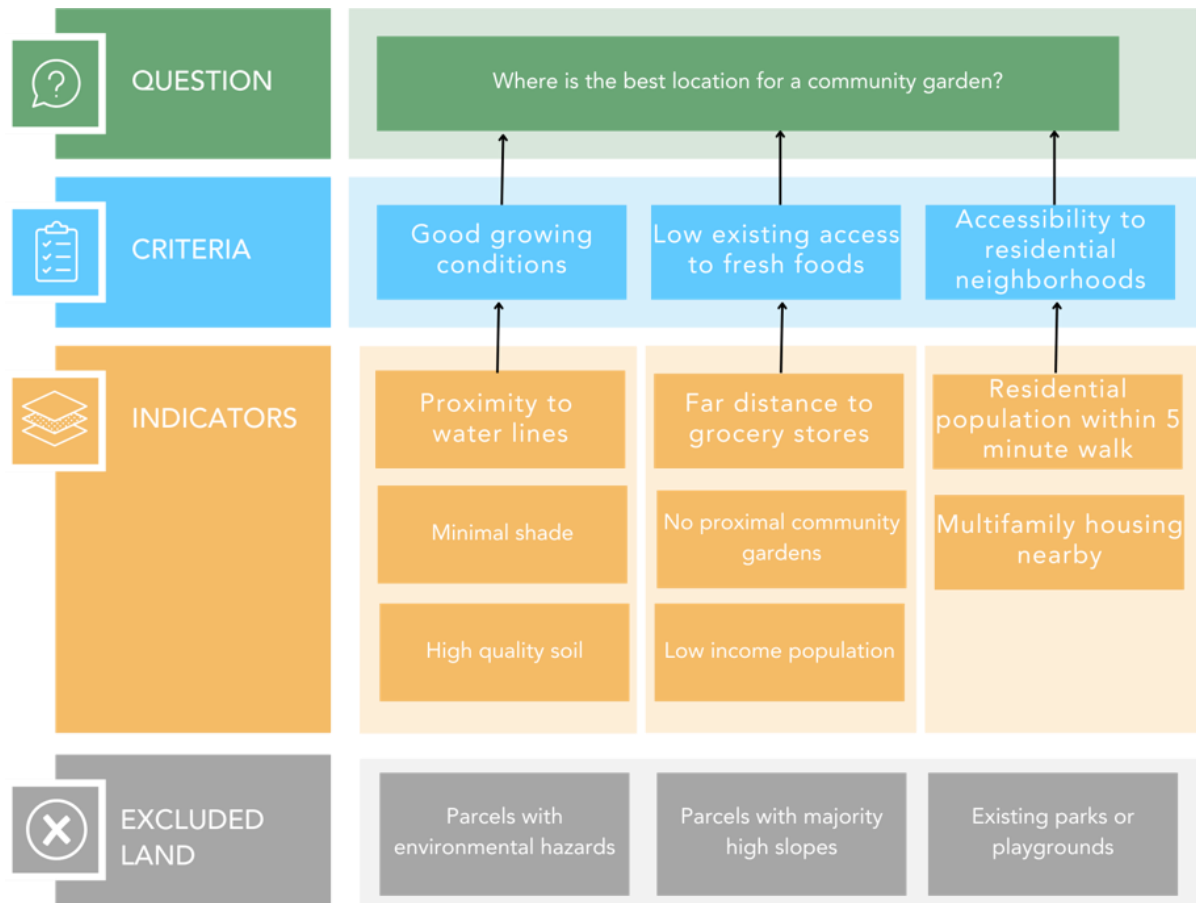
Weighting

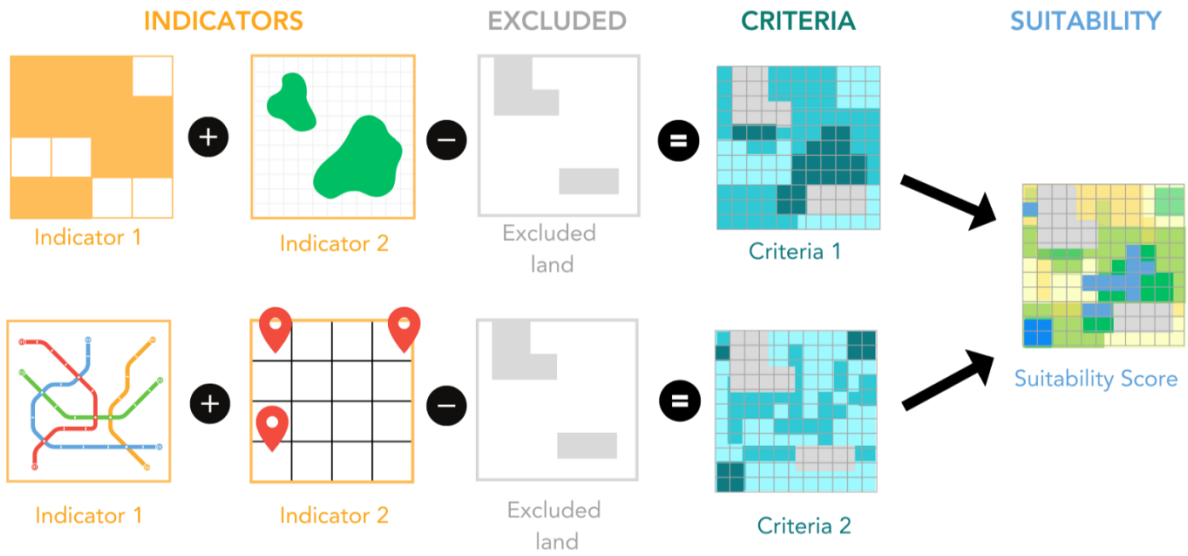
The relative importance of criteria and their supporting indicators is established through weighting. Equal weighting across all criteria and all indicators means every data layer in the analysis is equally important; higher weights assigned to certain criteria or indicators means these parameters are more important to identifying preferred sites than others.

Example: Community Garden

In our community garden example, we may weigh the indicators of shade and proximity to water higher than we would weigh soil quality. We can bring in better soil, but we can't easily take away shade or bring in water.

Visualizing the Suitability Analysis





Example: Housing Production Plan Site Suitability Analysis, Accessibility Category

