

Evaluating Public Land for Local Food Production

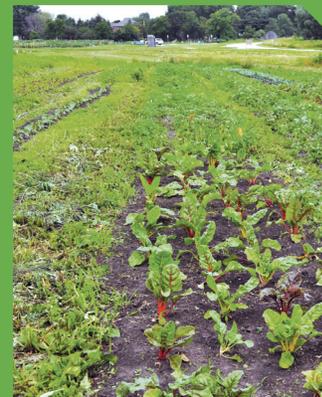


Across the Chicago region, there is increasing demand for fresh, locally grown food, which brings the additional benefits of a higher quality-of-life and greater economic potential. Barriers to developing and strengthening local food systems remain and need to be addressed. For example, growing the local production of food to meet demand requires more training, infrastructure, and access to affordable and right-sized land for farmers.

To address the need for a greater supply of locally grown food, public entities are examining the prioritization of some publicly owned land for local food production, either as a long-term or an interim land use. Such an arrangement can generate revenue, as well as increase community access to fresh produce and other products.

This brochure describes a number of criteria that public entities should consider when identifying land suitable for conversion to local food production. The criteria are general enough to be adapted to any county, municipality, or other public entity interested in supporting food production. The criteria span issues related to land use, physical and environmental characteristics, and the availability of infrastructure.

At some stage in the evaluation process, potential sites should be screened to determine whether there is political support for conversion to local food production. Planning, community development, and land preservation staff are likely to find these criteria useful, though it is intended to be usable by the general public as well.



Growing greens at Primrose Farm in St. Charles, Illinois. Source: Kane County, 2014.

Site Characteristics

OWNERSHIP: Public land may be administratively owned, tax-exempt, or held by other public entities such as forest preserves or park districts. Parcel and tax status data that identifies ownership is typically available through the county assessor.

COVER TYPE: The amount of site impervious surface indicates the extent to which the site is ready to be farmed, as well as the potential cost of making the site ready. A formerly developed site requires a significant level of preparation, which may make food production infeasible. It is preferable that the majority of the site be covered by soil or grass in order for easy adaptation to food production. Cover type data may be available through Geographic Information Systems (GIS) data, though aerial photographs (or on-line resources such as Bing or Google Maps) can also offer a simple assessment.

LAND SIZE: Food operations can typically start on sites of at least one acre, with many between 2-20 acres. In municipalities where suitable land is less available, a site could be as small as a quarter acre for "urban agriculture." Parcel size is typically available from county assessor data.

SOLAR EXPOSURE: A minimum of eight hours of sunlight per day is generally accepted as a minimum for food production, the length of which could be affected by shade of trees or adjacent structures. Aerial photos and site visits can be used to assess the level of solar exposure.

Infrastructure

EXISTING USEFUL STRUCTURES AND RESOURCES: Sites that have been used for farming may have existing structures that could be useful for food production. Season-extending facilities (like a hoop house) help lengthen the growing season in colder climates. Outbuilding structures (like a barn or shed) provide space for storage, refrigeration, or processing. In addition, the presence of electricity on-site is needed for many food operations.

AVAILABLE PARKING: Parking is important for food producers who employ farm workers or want to operate roadside farm stands or community supported agriculture (CSA) programs, where customers pick up food on-site. Parking areas also provide an area to erect a tent or farm stand for local food sales.

POTENTIAL FOR ACCESSORY STRUCTURES: If they do not currently exist on-site, the farm operator may want to build structures such as a greenhouse for season-extending activities. This assessment should consider allowable uses under zoning codes and ordinances for accessory structures or other needs. Some information about infrastructure can be accessed via visual assessment, but other information may require local knowledge.





Farmers' market patrons buying produce in Kane County, Illinois. Source: Kane County, 2014.

Soil Quality

SOIL PRODUCTIVITY: Two soil categories are considered best for growing food. Prime Farmland has the best combination of physical and chemical characteristics for producing food and other crops, and Important Farmland may have a production yield as high as Prime Farmland if conditions are favorable. These types of soils have high productivity rates, with the ideal levels of organic matter, stable aggregates, pH balance, and other chemicals. Soil data is available (often in GIS format) from the Illinois Soil Survey produced by the Natural Resources Conservation Service.

CONTAMINATION: Contaminants on-site or nearby could impede a site's suitability for growing food for human consumption. A site with substantial levels of contaminants is not immediately disqualified, since the land owner could pursue corrective actions (like soil remediation), but contaminated sites should be de-prioritized if cleaner sites exist. State and national datasets on contamination—like the Leaking Underground Storage Tank database and the U.S. Environmental Protection Agency's Toxic Release Inventory—can be useful for this criterion.

SLOPE: A site's slope can affect water runoff and soil erosion, which can hinder the productivity of the food operation as well as cause flooding and water pollution problems due to rainwater runoff. Different types of food operations can be more forgiving of steeper slopes (e.g., animal pastures) than others (e.g., row crops). Topographic data, such as two-foot contours, may be available through county records; otherwise, a site visit and visual assessment may be required.

Food Systems Context

MARKETING POTENTIAL: A site's capacity for marketing influences the potential viability of a food operation's business. Visibility and roadside signage are key factors in marketing a farm to potential customers. Assessments of marketing potential should investigate local sign and parking regulations to support roadside sales.

COMMUNITY POTENTIAL: A local food operation can be strengthened by proximity to other food system activities and operations. For instance, nearby food production operations can share infrastructure, equipment, and expertise, which can increase a farm's efficiency. Likewise, proximity to consumers can provide ready and accessible sales outlets.

Natural Resources

ACCESS AND COST OF WATER: On-site or nearby access to a water supply—such as an existing well, surface water source, or municipal water supply—is necessary for food production. Proximity is critical when considering local food operations due to the high volume of water needed and the high cost of moving water if the source is distant from the farm site. The distance to a water supply should be the measure used if comparing sites. Water access data may be available via county data or the state geologic survey records of well locations; otherwise, local public works or planning departments may need to be consulted. The cost of providing water access where none exists should be considered, as it can be expensive or infeasible. Assessments should examine not only the cost of installing or extending water access (frequently measured as a per foot cost), but also the amount and per unit cost of water if it is being provided from a municipal or private water utility. Local governments should have information about required permits (if any), the cost of extending and using water supplies, and estimates for dropping a new well.

PROXIMITY TO SENSITIVE NATURAL RESOURCES: A site's proximity to sensitive natural areas needs to be considered, since advancing local food production is not a desirable tradeoff for negatively impacting natural areas. An appropriately managed food operation (e.g. with minimal use of chemical pesticides and proper soil management practices) can contribute to natural resource goals by restoring soil fertility and microorganisms, supporting insect species needed for crop fertilization, and serving as a buffer zone between natural areas and other more intense uses. In the Chicago region, data is available through the Green Infrastructure Vision (GIV), which identifies important natural resources.

RESTORATION PLANS: Any relevant short- and long-term restoration plans should be consulted when determining a site's suitability for converting to food production. A site with a long term or no restoration plan is preferable to a site planned for five- or ten-year habitat restoration. Local food production using proper management activities is increasingly recognized as an interim and complementary land use to natural resource management.



Chicago Metropolitan Agency for Planning



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