Olympia Urban Agriculture Analysis

FINAL DRAFT

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Executive Summary

Olympia is home to a diverse and rich local food system. This analysis aimed to locate and quantify agricultural resources in the city and determine the function of each resource in the local food system. These functions governed how the community relates to the food system, and included aspects such as locations where food could be grown (e.g. community gardens), where local food is produced (e.g. local farms and gardens), and where local food could be accessed (e.g. farm stands, direct sales, food bank distribution centers).

It also aimed to determine accessibility, measured in terms of a ≤0.5 mile walking distance, in light of each of these functions, as well as consider how these relate to socioeconomic factors relevant to racial equity and food justice. Potential opportunities for expansion of the local food system were also located.

Agricultural resources were located throughout most of the city and its UGA. However, some areas of limited access were located, particularly in areas with a higher percentage of BIPOC residents and a lower than average median household income. Areas in northeast Olympia in neighborhood subarea C are largely lacking in agricultural resources of any kind. This area is home to significant tracts of potential agricultural land – as identified in the Olympia Farmland Analysis – and represents an area for potential expansion of urban agriculture. Locations in Southwest Olympia in subareas H and southern portions of subarea J, are also lacking in agricultural resources of any kind. These areas also lack identified areas of potential agriculture; opportunities may exist for expanding agriculture at a smaller scale (<1 acre) in this area.

Community gardens, particularly those where shares are available to the public to grow their own food, represented the rarest type of agricultural resource considered. These are of particularly importance to those in high-density residential areas where opportunities to garden are limited due to the lack of land, or for those living in zones where agricultural use is prohibited.

Sidewalk access is relatively limited for most agricultural resources outside the downtown core, and is an issue for many community gardens, where sidewalk access was largely lacking.

Introduction

This analysis represents a continuation of the Olympia Farmland Analysis which aimed to quantify farmland located within Olympia and its UGA. That analysis was completed in December 2020, and culminated in a report to the city[1]. At the request of the Olympia Land Use and Environment Committee, this additional analysis was undertaken to build on this prior work and to help support the following action identified in the city's Comprehensive Plan:

> *PL25.3 Collaborate with community partners to ensure that everyone within Olympia is within biking or walking distance of a place to grow food[2].*

A prior analysis done for New Haven, Connecticut was used as a model[3].

[1] Olympia Farmland Analysis
[2] Comprehensive Plan: Land Use and Urban Design
[3] New Haven's Urban Agriculture

The Olympia Farmland Workgroup reconvened in August of 2021 to provide scope and guidance for the project, meeting through early 2022 to develop this report.

Methods

Agricultural Resources

The aim of this study was to identify the full range of agricultural resources present in Olympia, drawing on the methodology of the New Haven urban agriculture study.

This analysis expanded on that approach by also examining accessibility, measured in terms of a 0.5 mi. walking distance, to each agricultural resource and considering the function of each agricultural resource in the community. There are a diverse range of urban agriculture spaces in Olympia and many serve multiple functions in the community.

For example, access to local food is available from community gardens where the public can rent a share of land and grow their own food. However, many community gardens also grow and donate food for the Thurston County Food Bank. In this case, locally produced food is not distributed from the community garden but is instead directed to the Thurston County Food Bank for distribution. This approach allowed distinguishing between points of food production and food distribution, which often but do not always align.

By separating out agricultural resources by their distinct functions, we were able to provide a more comprehensive and nuanced approach to accessibility of agriculture in the community.

Data Collection

A unique approach was taken with this project for data collection. In the preceding Olympia Farmland Analysis, most data were provided from pre-existing datasets for agricultural land use. Aerial imagery was also reviewed to find actively cultivated farmland that had been missed in prior work, and to locate areas of *potential farmland* that could be cultivated.

This project was broader in its scope. Rather than attempting to calculate the total acreage of agricultural land in the city, this project focused on identifying the presence (and function) of agriculture at any scale, as well as other agriculture resources that relate to the local food system (e.g. points of local food distribution).

Drawing on the collective knowledge of workgroup was crucial in brainstorming a list of known agricultural urban resources. TCD staff and members of the South Sound Food System Network were also consulted for their knowledge of urban agriculture.

A number of existing directories of prior attempts to measure urban agriculture were also reviewed. Farm listings from the Community Farmland Trust's 2021 Fresh From the Farm Guide[4] was a key resource which displayed not only the location of local farms in Olympia and the surrounding area, but also valuable information about the functions (e.g. areas of local food production, areas of local food access via farm stands) these farms play in the local food system.

[4] Community Farmland Trust's 2021 Fresh From the Farm Guide

An active directory of community gardens[5] is maintained by Thurston County Public Health & Social Services, and was also consulted. Past publications, such as *Community Gardens of Thurston County*[6], were also reviewed for supplemental context.

Agricultural Resource Types

Agricultural Resources were classified into five categories, based on their functions in the community. Each classification is explained in turn below.

Agricultural Green Space

Agricultural Green Space is inclusive of any land where locally produced food is grown or raised. This is similar to the Olympia Farmland Analysis's definition of *active agriculture* and is an important marker of ongoing agricultural activity.

This category is key to all others, since all require the existence of agricultural green space for the production of locally grown food.

Local Food Access

Access to local food is inclusive of everywhere where locally food grown is distributed and can be accessed by the public. This includes community gardens where the wider public can grow their own food, farmstands, and other locations where direct sales are possible such as farmers markets. It also includes food bank food distribution sites where locally produced food produced food bank gardens is distributed. Due to the large number of stores and varying inventory, grocery stores were not considered for this category.

Community Gardens

Community Gardens were considered both broadly and narrowly. The broad definition included any garden in the community, regardless of whether it was accessible to the public or was specific to a particular community (e.g. retirement home, volunteer organization, or religious community). The ultimate destination of the food produced by the garden was not considered.

Community Gardens with rentable plots

For some residents, home gardening is not accessible at home and community gardens provide an opportunity for those to grow their own food. All community gardens which rented plots to the wider public were considered separately as a subset and a separate network analysis was run for these locations. Service areas for both types of community gardens are presented together.

Potential Agriculture

During the Olympia Farmland Analysis, areas of *Potential Agriculture* were marked out within the city. These represented areas of open space, located in Zoning categories that allowed for agricultural use, and that precluded any characteristics that would make them unsuitable for agricultural use (e.g. steep slopes, lack of topsoil).

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[5] Thurston County Community Gardens – Thurston Dept. of Public Health & Social Services

[6] Community Gardens in Thurston County: Assessment Report

Potential Agriculture was included as a fifth category to visualize how urban agriculture could potentially expand within the city and its UGA. Due to the challenges of delineating agricultural land, the Olympia Farmland Analysis limited areas of potential agriculture to any contiguous tract of land 1 acre or larger. Some of the urban agricultural resources considered in this work were significantly smaller than 1 acre in size. In areas where land classified as "Potential Agriculture" is absent, there still may be opportunities for expansion of urban agriculture at the smaller scale.

Alternatively, areas that were excluded from definition of potential agriculture in the Olympia Farmland Analysis – such as areas with stony ground, or steep slopes – could potentially be converted into agriculture land, such as through the importation of topsoil, construction of terraced raised beds, etc.

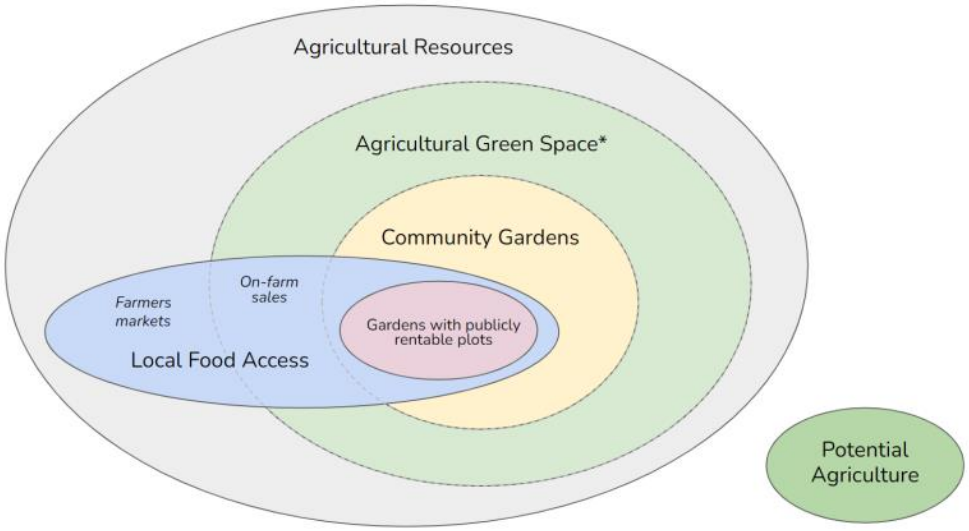


Figure 1. Venn diagram of relationship between agricultural resource types.

**Agricultural Green Space also includes all land classified as Existing Agriculture in the prior Olympia Farmland Analysis. This may include farmland that is part of local agriculture but does not represent a source of local food for the public (e.g. personal production, forage production).*

Figure 1 shows the relationship between each agricultural resource type as defined in this study. Most notably, local food access intersects with all other agricultural resource types except potential agriculture. Examples of each of these is provided above.

Walkability

The key purpose of this analysis was to examine accessibility of local agriculture. This was determined by calculating travel times to each of the aforementioned resources throughout the city of Olympia and its UGA. Walking times of ½ mile have been standard in other pedestrian analyses and were chosen by the working group to be the limit of accessibility in this analysis.

Two separate analyses were conducted to determine accessibility by calculating 'service networks', zones of accessibility around each resource that take into account travel distances along road networks.

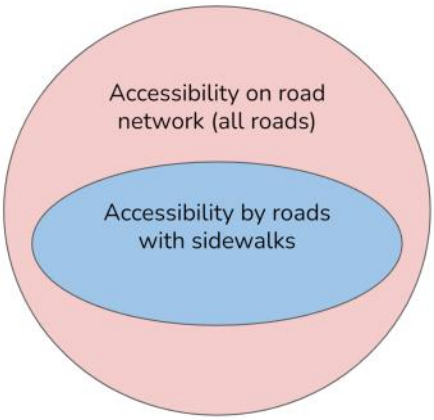


Figure 2. Relationship between two forms of accessibility considered in this analysis.

The first approach examined accessibility by determining travel distances along the standard road network. A second network analysis was conducted looking at travel distances only along roads with adjacent sidewalks. This second network analysis considered any break in the road network with sidewalks to be limiting; service areas ended where sidewalk coverage ended along roads.

Area of Interest

The area considered used in this analysis to locate agricultural resources was made slightly broader than the municipal boundaries, to capture peri-urban agriculture. This area was inclusive of Olympia city boundaries, the boundaries of Olympia's Urban Growth Area (UGA), and a ½ mile buffer around the current city boundary (Figure 2), where this zone was not already part of the UGA.

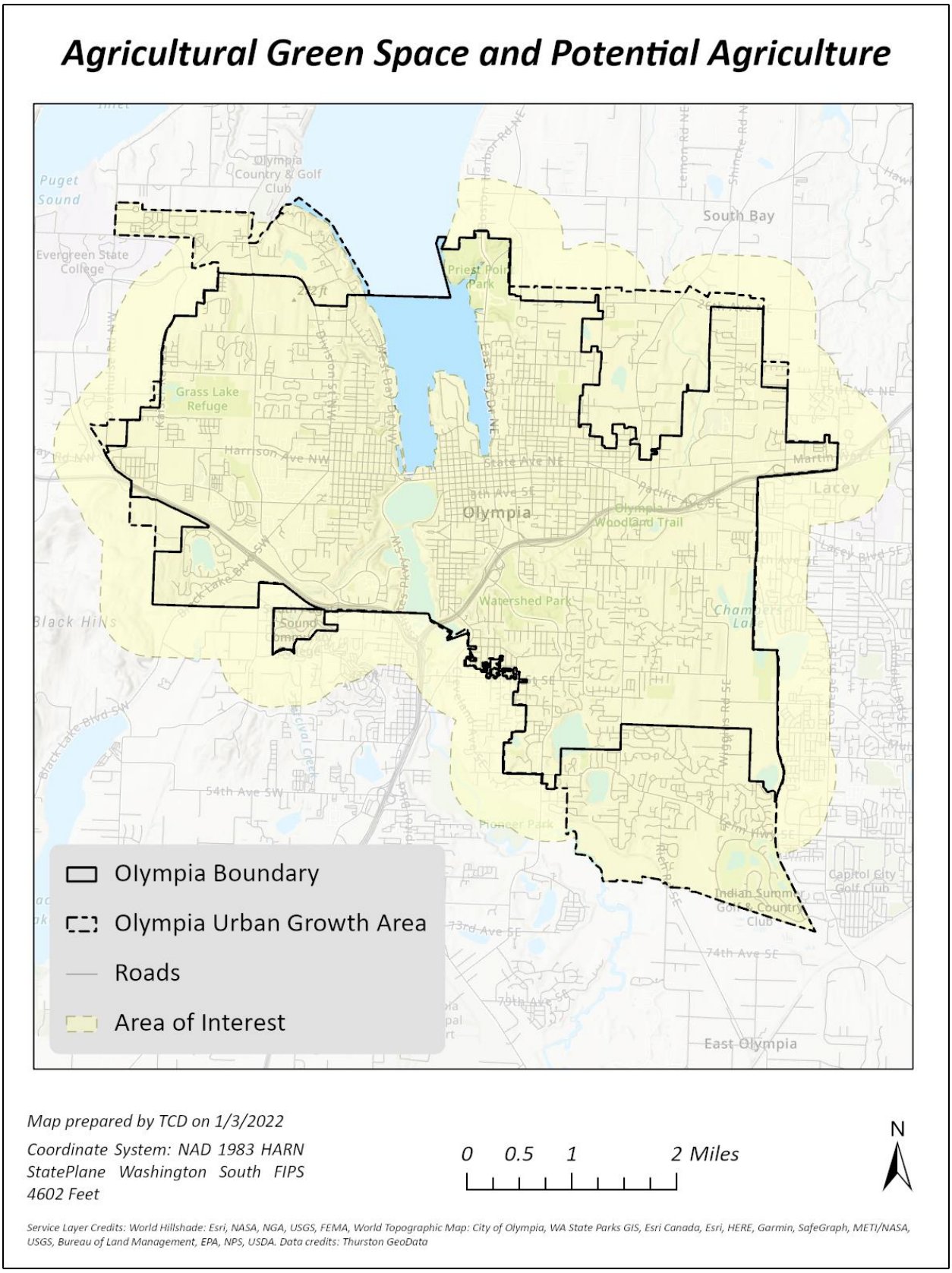


Figure 3. Area of interest for agricultural resources.

In the Olympia Farmland Analysis, a much higher concentration of agricultural land was found within the UGA compared to areas within the city limits. Only considering urban agricultural resources located within the city boundaries would result in underestimating access to residents living at the edge of the city. These residents might actually be located near agriculturally rich locations in the UGA.

Because walkability was considered as up to 0.5 miles from an urban agricultural resource, areas within 0.5 miles of the city boundary were also considered. In many cases this area was within the UGA, but not the case in areas where the city boundary directly bordered unincorporated Thurston County.

Socioeconomic Factors

The Olympia Farmland Work Group's key recommendation from its final report this was to center racial justice in local agriculture and to assist disadvantaged farmers with access to urban and peri-urban agricultural land and resources. To assist in this goal, the work group chose a number of datasets relating to socioeconomic factors to consider alongside availability of agriculture resources.

Table 1. List of socioeconomic factors considered in this analysis.

Factor	Source	Notes
BIPOC	2020 US Census, P2 dataset	Derived from categories in P2 dataset
Zoning	Thurston Geodata	Only Olympia-specific zoning categories were considered.
Median Household Income	2019 American Community Survey (ACS) Data, B19013 dataset* 2010 Census Tract shapefile (TIGER/Lines)	
Percent Disability	2019 American Community Survey (ACS) Data, S1810 dataset* 2010 Census Tract shapefile (TIGER/Lines)	
Percent Enrollment in Reduced and Free Lunch Programs (Elementary Schools)	Olympia SD elementary school web pages, Tumwater SD elementary school web pages	Available for 2020-2021 school year for Olympia SD schools; 2017-2018 for Tumwater SD schools. North Thurston SD school service areas overlap with Olympia city boundaries, but available data is lacking.

*American Community Survey (ACS) Data for 2020 was not released due to impacts of the COVID-19 pandemic. 5-year estimates from the 2019 ACS data were instead used.

Analysis

Data analysis was conducted in ArcGIS Pro 2.9.0. Similar to the Olympia Farmland Analysis, analysis was structured in the form of models in ModelBuilder (Figures 4 and 5). This allows for easy repetition of the analysis with updated data in the future and potential expansion of this analysis.

Network Analyst was used to develop service areas for agricultural resources.

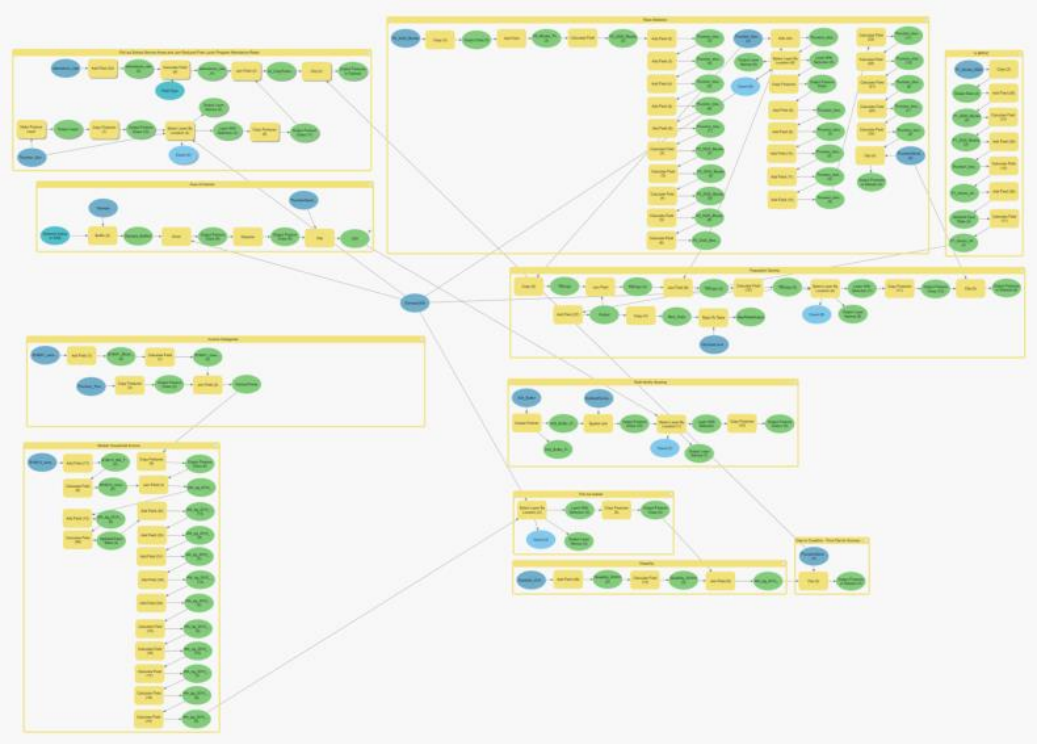


Figure 4. Screenshot of main ArcGIS Pro model used to analyze socioeconomic factor data.

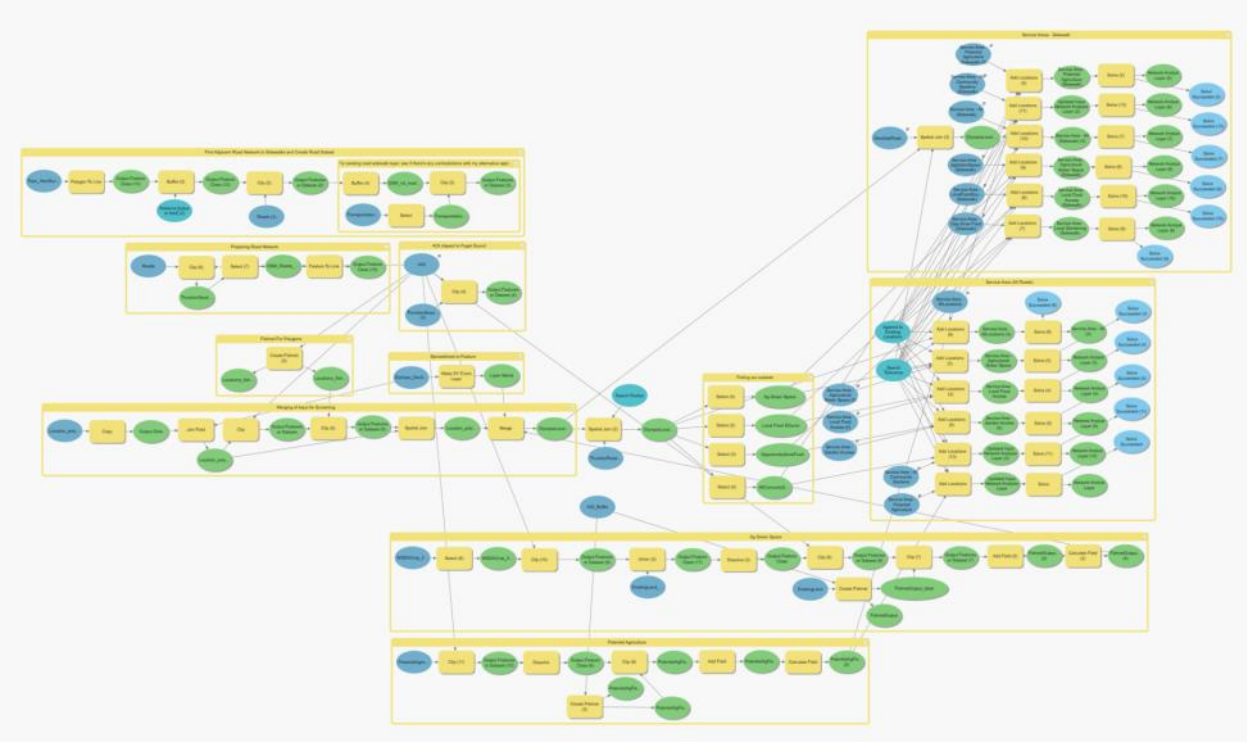


Figure 5. Screenshot of main ArcGIS Pro model used to calculate service areas for agricultural resources.

Results & Discussion

Due to the large numbers of factors considered in this analysis (5 types of agricultural resources, 5 socioeconomic factors, and 2 forms of accessibility), the results provided a large number of combinations of factors.

To provide a focused review, only particularly relevant combinations of agricultural resources and socioeconomic or noteworthy results were included and discussed here.

For a fuller review of the data in this analysis, it is recommended that an interactive web map be constructed and referred to. In this format, layers of interest can be turned on or off as needed. This lacks the limitations of static maps that we were limited to providing in this report and can provide a more comprehensive view of the results.

Agricultural Green Space

Agricultural green space was fairly well distributed throughout the city limits, with the exception of two main areas in the northeast of Olympia roughly corresponding with neighborhood subarea C and in areas in subarea H and the southern edge of subarea J in west Olympia.

Some small gaps exist around the city edges as well, namely locations along east Budd Bay in subarea A and areas around Watershed park in the Eastside neighborhood in subarea F. Accessability via sidewalk was most complete in locations in the downtown areas, as well as the denser locations of west Olympia, but were relatively limited along the city's periphery.

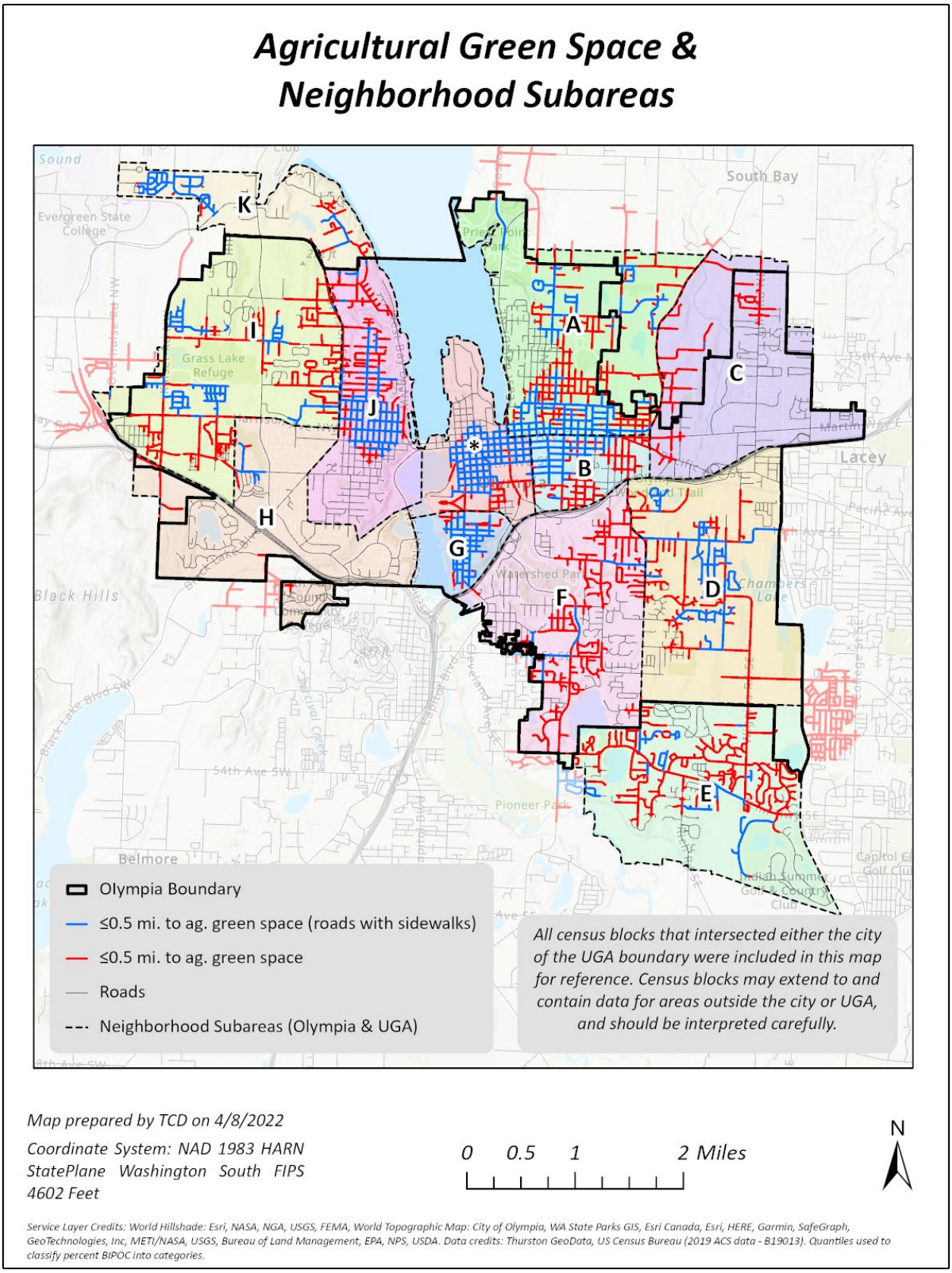


Figure 6. Accessibility to agricultural green space across neighborhood subareas.

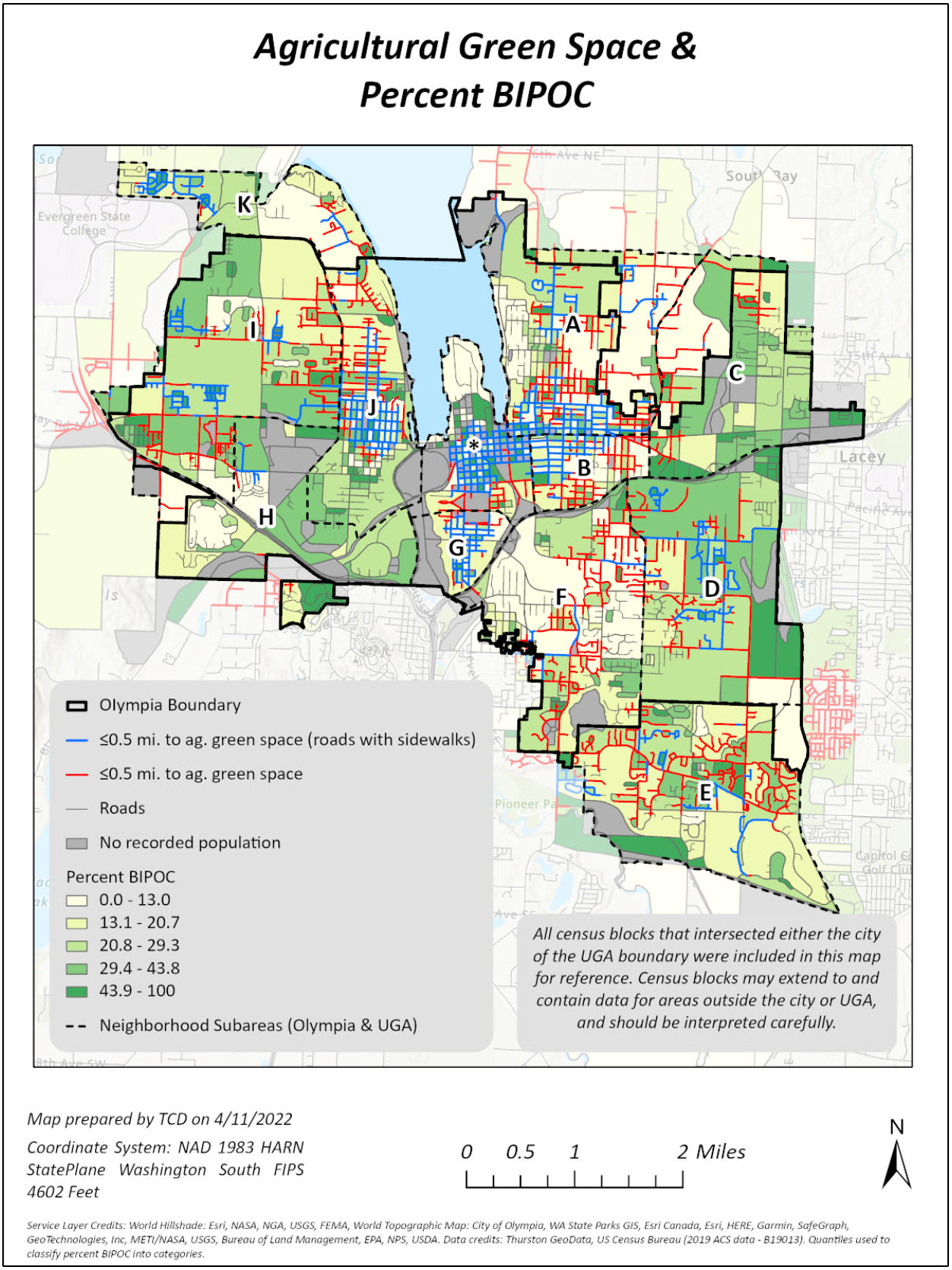
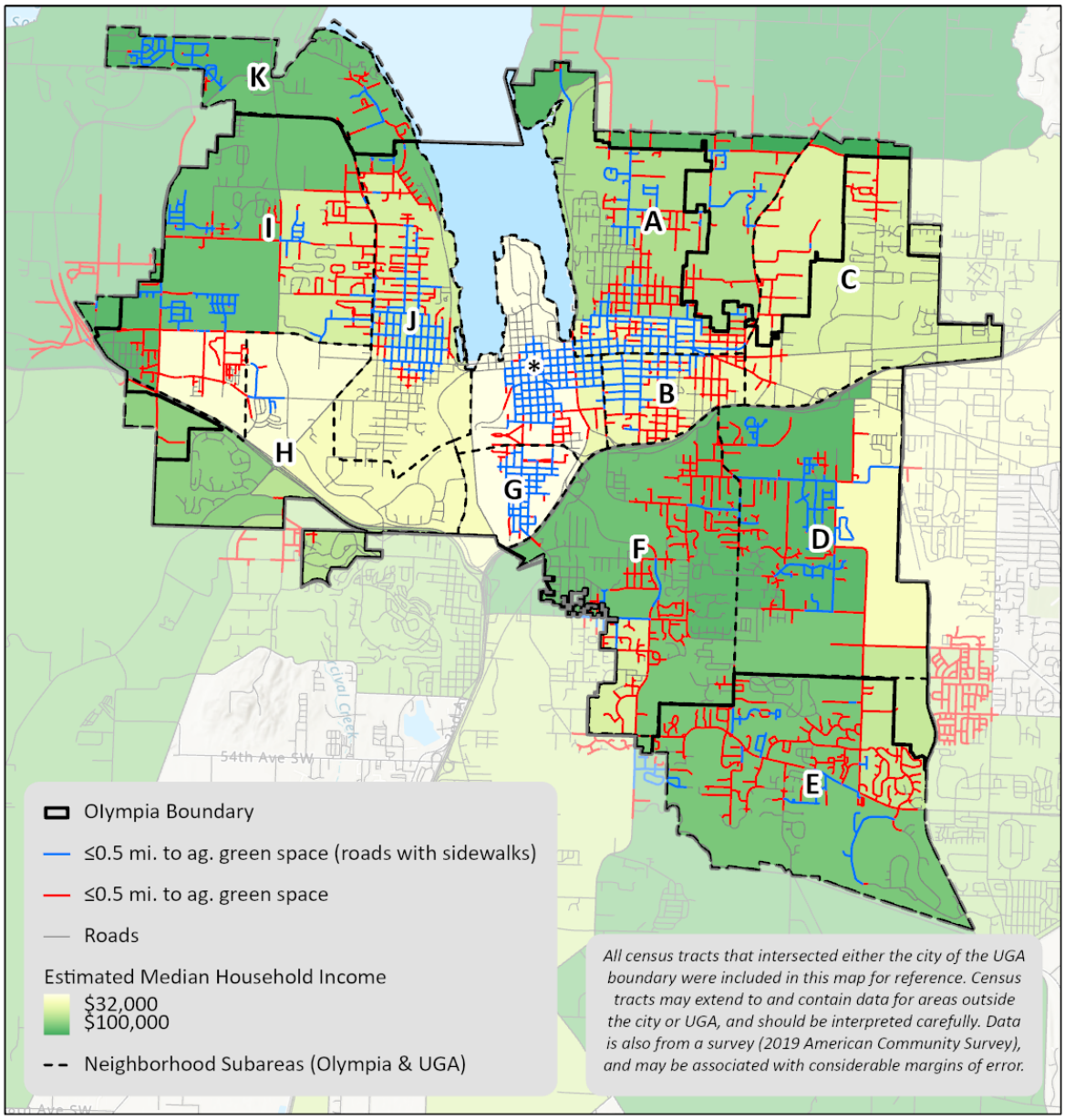


Figure 7. Accessibility to agriculture green space and percentage of BIPOC residents by census block.

Locations where agricultural green space was inaccessible included areas with relatively higher percentage of BIPOC populations. These are particularly notable in the aforementioned locations in subarea C and in locations in subarea H and the southern edge of subarea J in west Olympia.

Agricultural Green Space & Median Household Income



Map prepared by TCD on 4/11/2022

Coordinate System: NAD 1983 HARN StatePlane Washington South FIPS 4602 Feet

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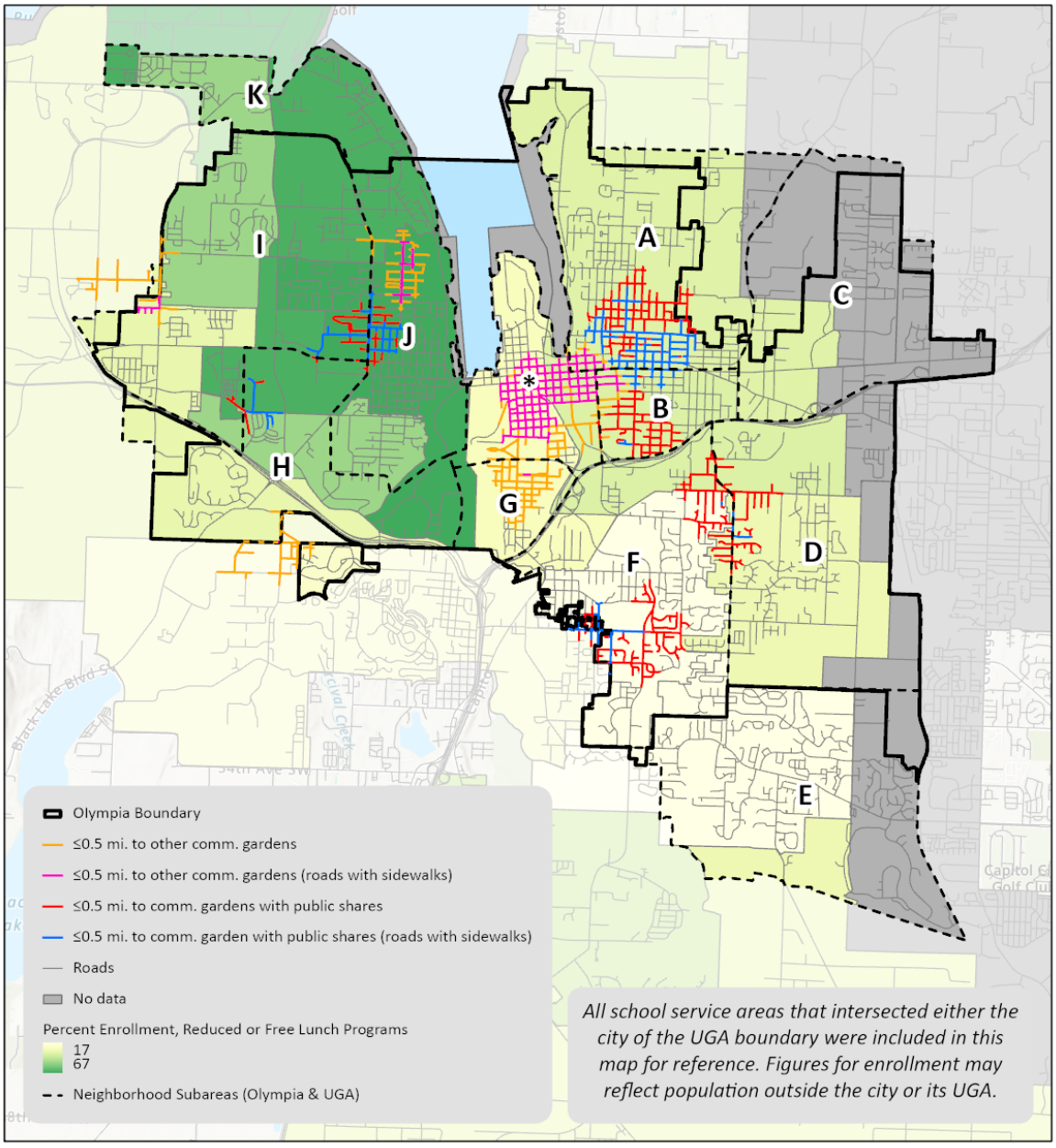
Service Layer Credits: World Hillshade: Esri, NASA, NGA, USGS, FEMA, World Topographic Map: City of Olympia, WA State Parks GIS, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA. Data credits: Thurston GeoData, US Census Bureau (2019 ACS data - B19013)

Figure 8. Accessibility to agricultural green space and estimated median household income by census tract.

When viewed in terms of median household income, the lowest areas in the city were located directly in downtown, as well as in south of Harrison Ave and north of Black Lake Blvd in West Olympia. These areas did show some accessibilty to agricultural green space, including by roads with sidewalks.

As was seen in the prior map, locations in subareas C, D, H, and J both showed lower than average median household income, along with a relative lack of accessability to any agricultural green space (Figure 8).

Community Gardens & Enrollment in Reduced or Free Lunch Programs



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Service Layer Credits: World Topographic Map: City of Olympia, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, World Hillshade: Esri, NASA, NGA, USGS, FEMA. Data credits: Thurston GeoData, Olympia SD and Tumwater SD school performance reports.

Figure 9. Accessibility to agricultural green space and enrollment in reduced or free lunch programs by elementary school service areas.

Enrollment in reduced or free lunch programs is a less precise dataset, since figures were reported by school service areas. These cover fairly large areas, and in some cases, can also include areas located outside of school boundaries. However, where school service areas are located either mostly or entirely within the city boundary, this metric can provide valuable insights into food need, a measure that was lacking from other data sources, such as Census data.

Enrollment in West Olympia was notably higher than in other locations in the city but West Olympia was also the location of fairly comprehensive coverage by agricultural green space (Figure 9).

Unfortunately, data for locations in the very eastern portions of Olympia was unavailable from North Thurston SD; these school service areas also included significant portions of Lacey, making it difficult to make valid determinations about the portion of these school service areas within the Olympia city boundary.

Local Food Access

Locations where local food was accessible were somewhat more limited across the city and were most represented within the city core. Despite the higher concentrations of agricultural land at the edge of the city, only a handful of locations at the city's edge were within walking distance to local food resources that also provided on-farm direct sales that were considered in this work.

These particular locations were mostly located along the north side of the city in subarea A, where a number of local blueberry farms were located just across the city boundary, and a few locations in the southeastern portion of the city and UGA in subareas F, D, and E (Figure 10). Notably, locations in subareas D and E with local food access were associated with some of the larger remaining tracts of active farmland in the area of interest.

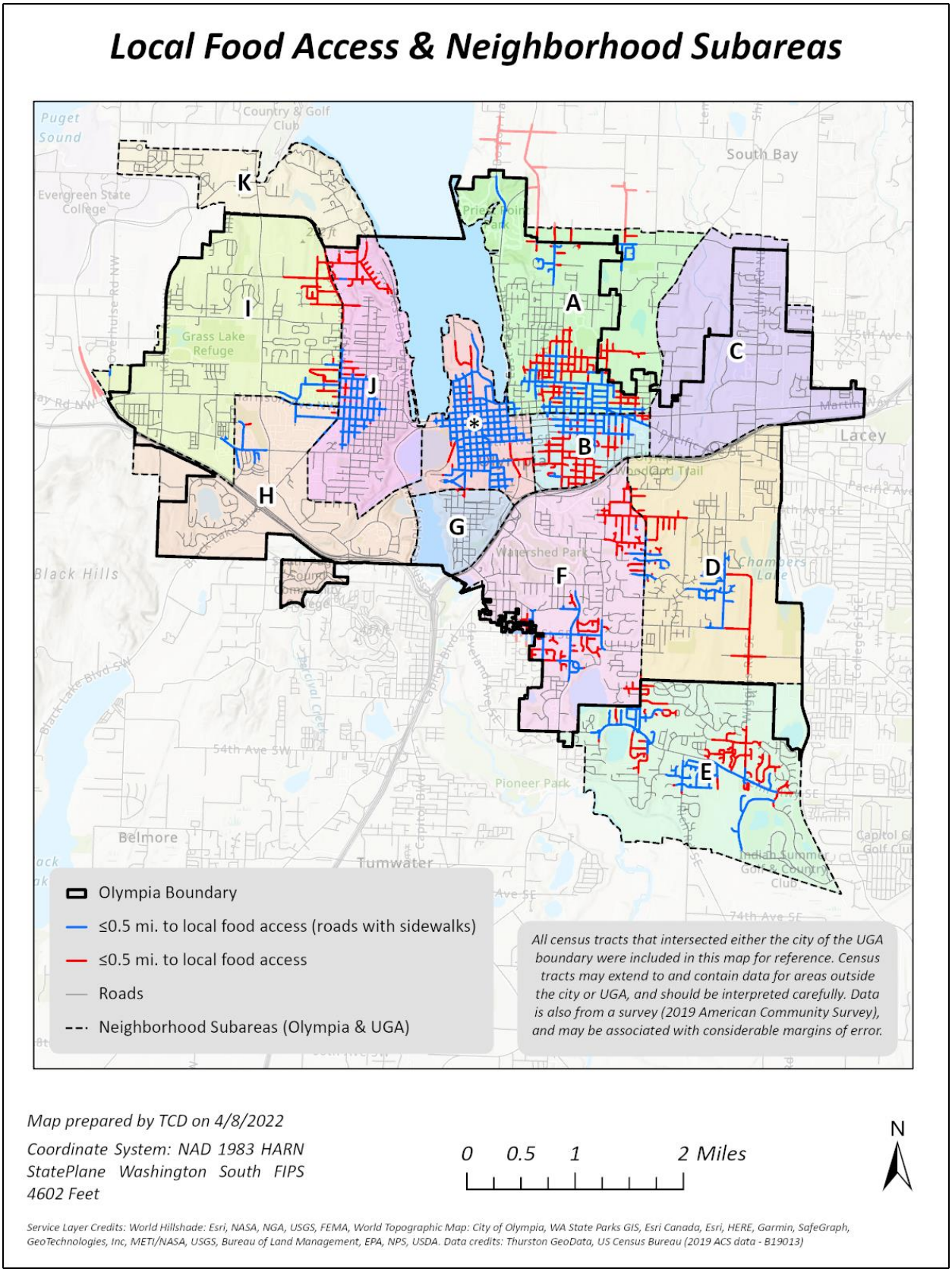


Figure 10. Accessibility of local food across neighborhood subareas.

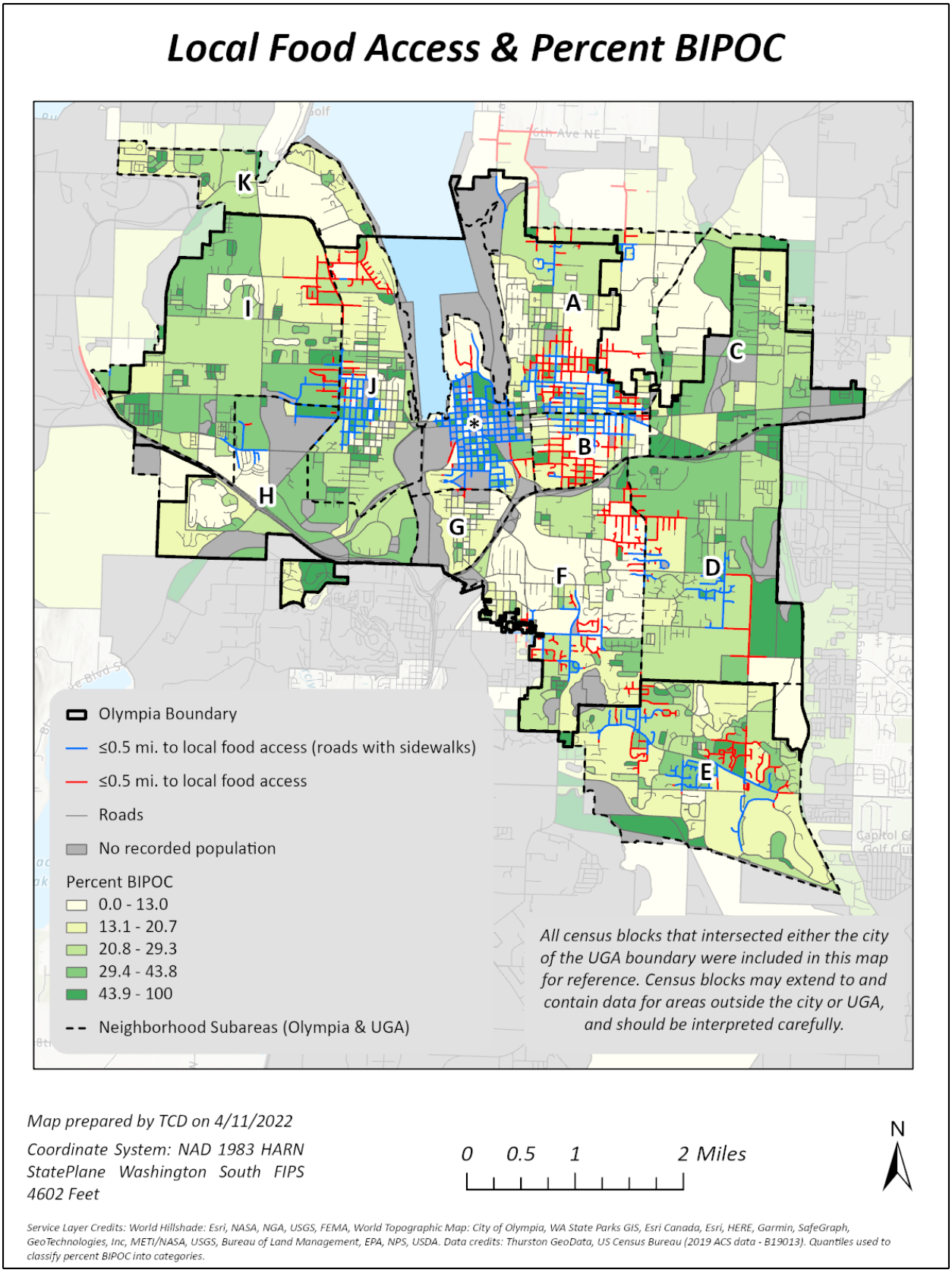


Figure 11. Accessibility of local food and percentage of BIPOC residents by census block.

Areas with accessible local food sources were largely concentrated in the core of the downtown, and directly adjacent subareas. Outside of these zones, some opportunities were located in the northwest and southeast of the city. These areas contained census blocks that had variable percentages of percent BIPOC individuals.

However, many areas in the city's periphery lacked access to local food and contained areas with high reported percentages of BIPOC individuals. Particularly noteworthy is subarea C, which lacked any access to local food, but which had one of the higher reported percentages of BIPOC individuals.

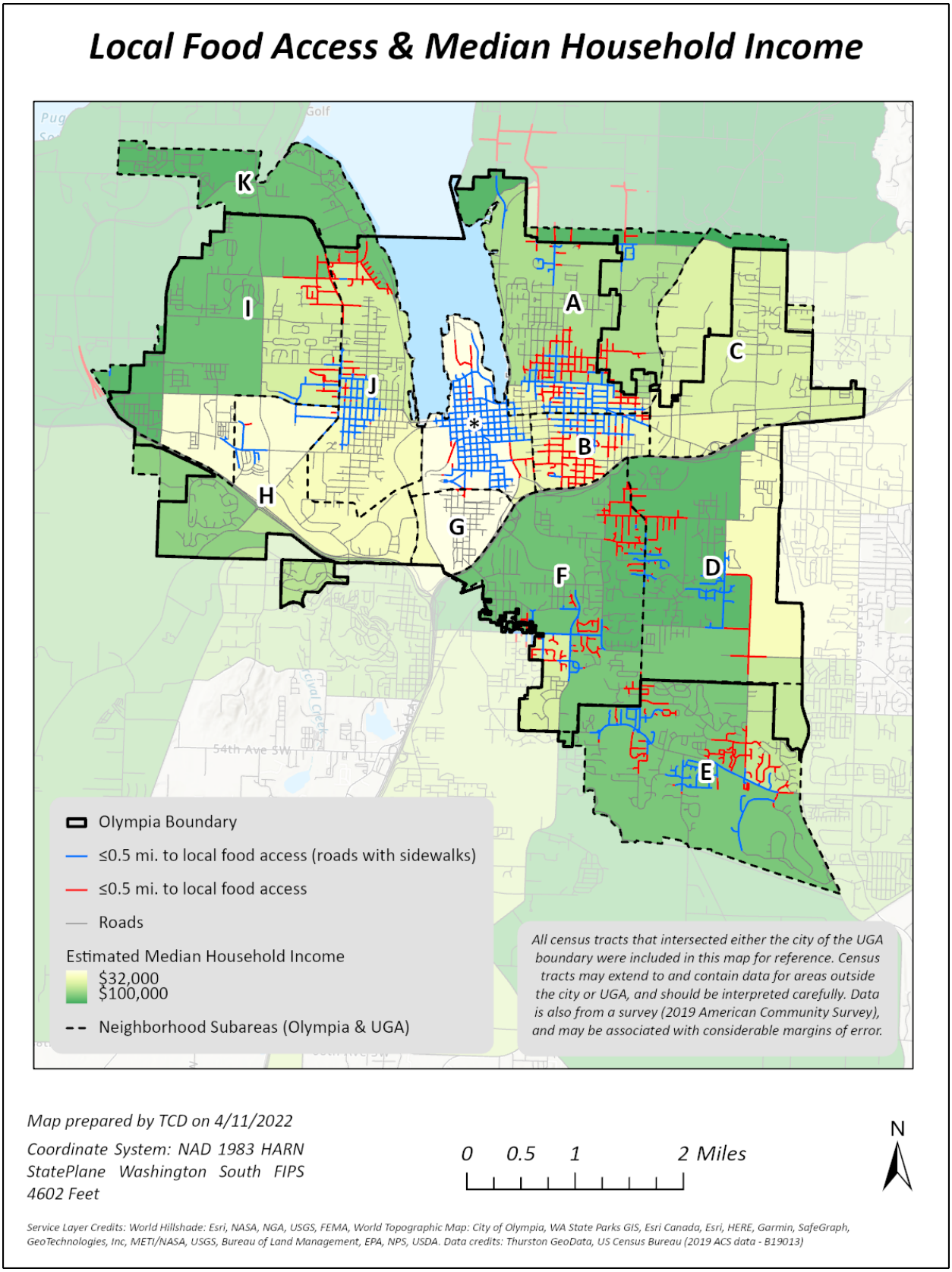


Figure 12. Accessibility of local food and estimated household income by census tract.

When local food access was considered in terms of median household income, a somewhat mixed picture resulted. Areas in the downtown subarea, West Olympia, and Eastside neighborhoods had lower than average median household incomes but the best accessibility, followed by areas south of I-5 which had moderate accessibility to local food but higher median household incomes.

Areas with little to no accessibility included areas of both low and high median household incomes. For example, contrast subarea K, which had a relatively higher level of median household income, with area C and G (Figure 12).

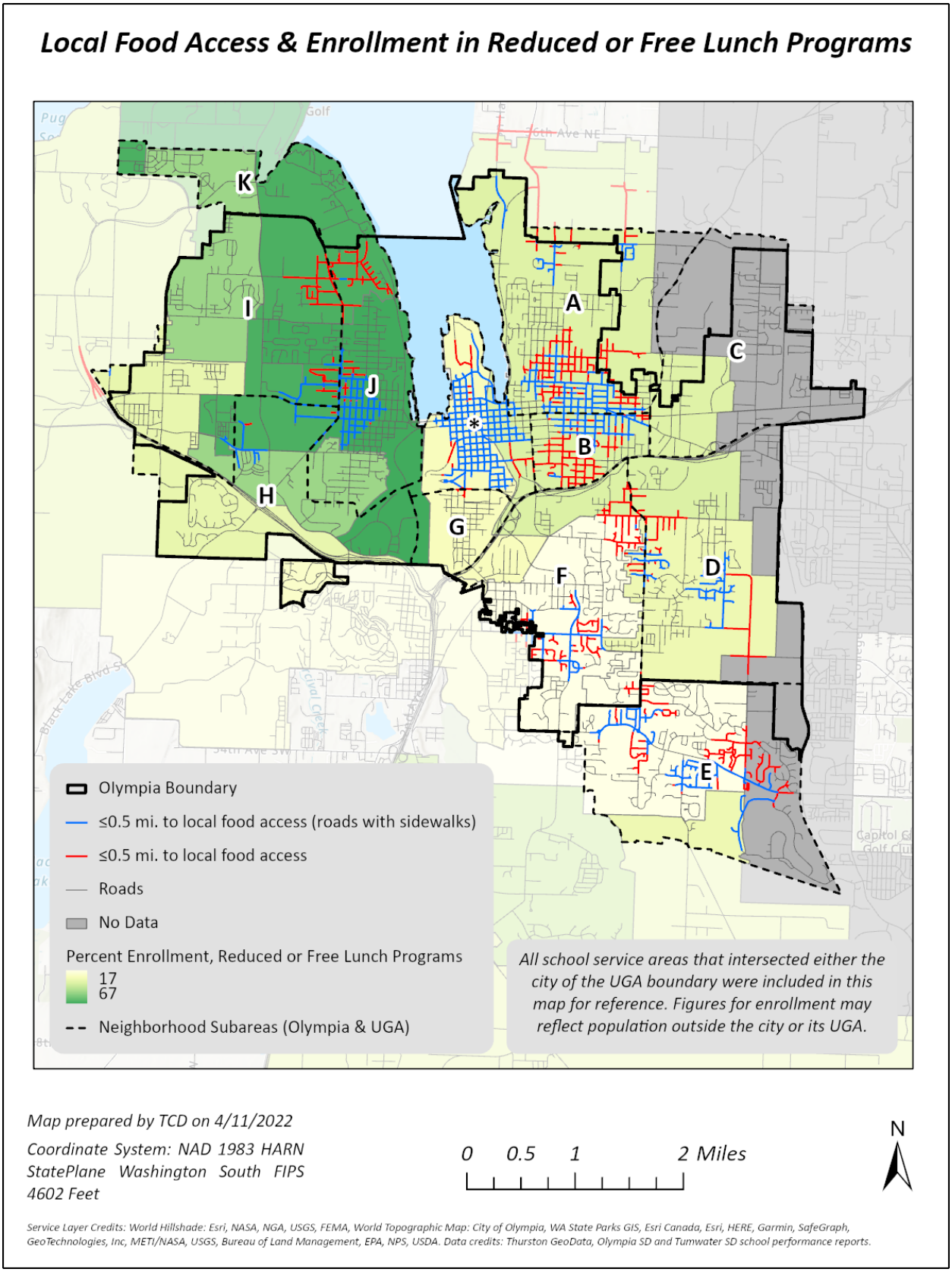


Figure 13. Accessibility of local food and enrollment in reduced or free lunch program by elementary school service area.

Locations with gaps in local food access had a range of values in terms of enrollment in reduced or free lunch programs. At least for the portions of school service areas located within city boundaries, nearly all school service areas had at least some accessibility to local food. The two exceptions were the school service areas for McLane Elementary School and Hansen Elementary School in West Olympia.

School service areas on the east side of Olympia bordering Lacey also lacked local food access resources; unfortunately, data was lacking for these areas, and if present, would be confounded by the significant portion of these school service areas located outside the city boundaries.

Community Gardens

Community gardens were one of the more relatively uncommon agricultural resources across the city. Compared to other agricultural resources considered here, community gardens were sometimes some of the smallest in size. In our data collection, these locations were often some of the easiest to find information about and appeared to have high levels of engagement from the community, despite their often smaller sizes.

For many community gardens across the city, accessibility via roads with sidewalks was relatively limited. In some cases, surrounding roads with sidewalks were present, but small gaps in the road network provided connectivity barriers.

Taking the Olympia Community Garden as an example (Figure 14) in subarea B, small gaps in the sidewalk network along Central St. SE limited accessibility to locations to the north for those who require sidewalks for accessibility.

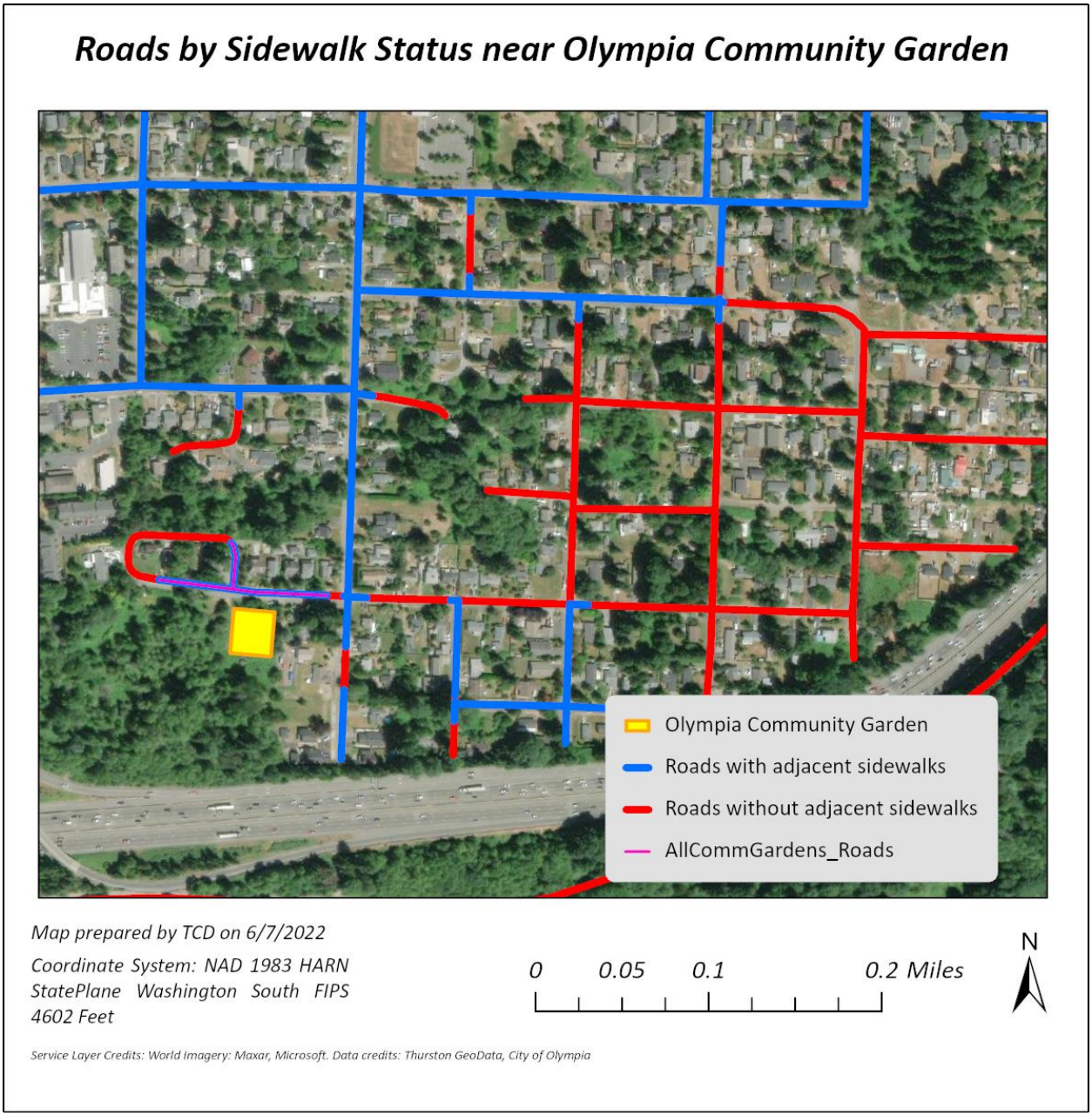


Figure 14. Roads by sidewalk status around the Olympia Community Garden.

Completion of a contiguous sidewalk network could help to improve accessibility to existing community gardens, as would prioritizing sidewalk installation around community gardens with little to no existing sidewalk network.

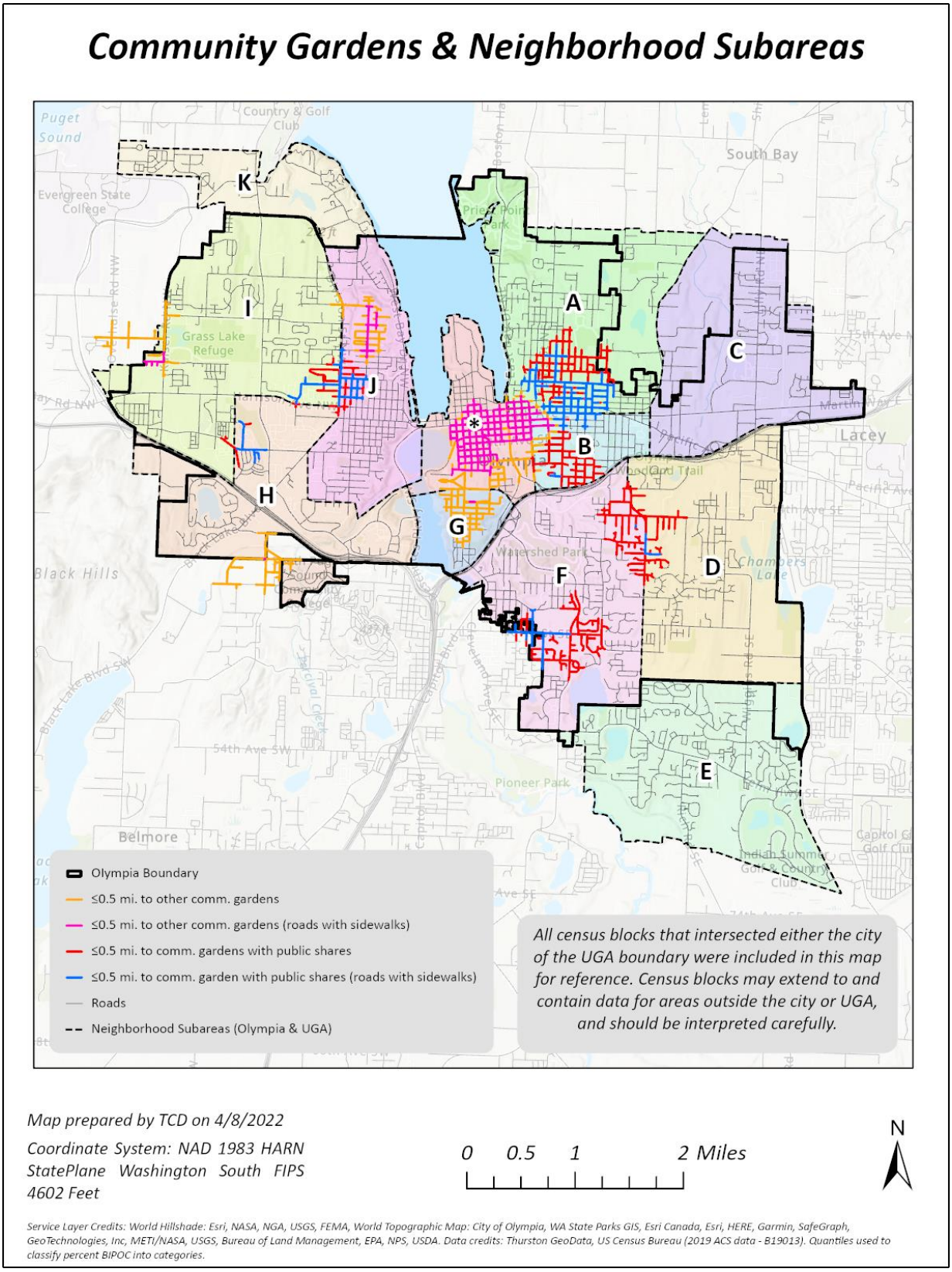


Figure 15. Accessibility of community gardens across neighborhood subreas.

Across the city, community gardens, where public shares were offered, were mostly densely represented in the downtown core in subareas B, A, G, and the downtown subarea (*), and less well represented in more peripheral subareas (Figure 15).

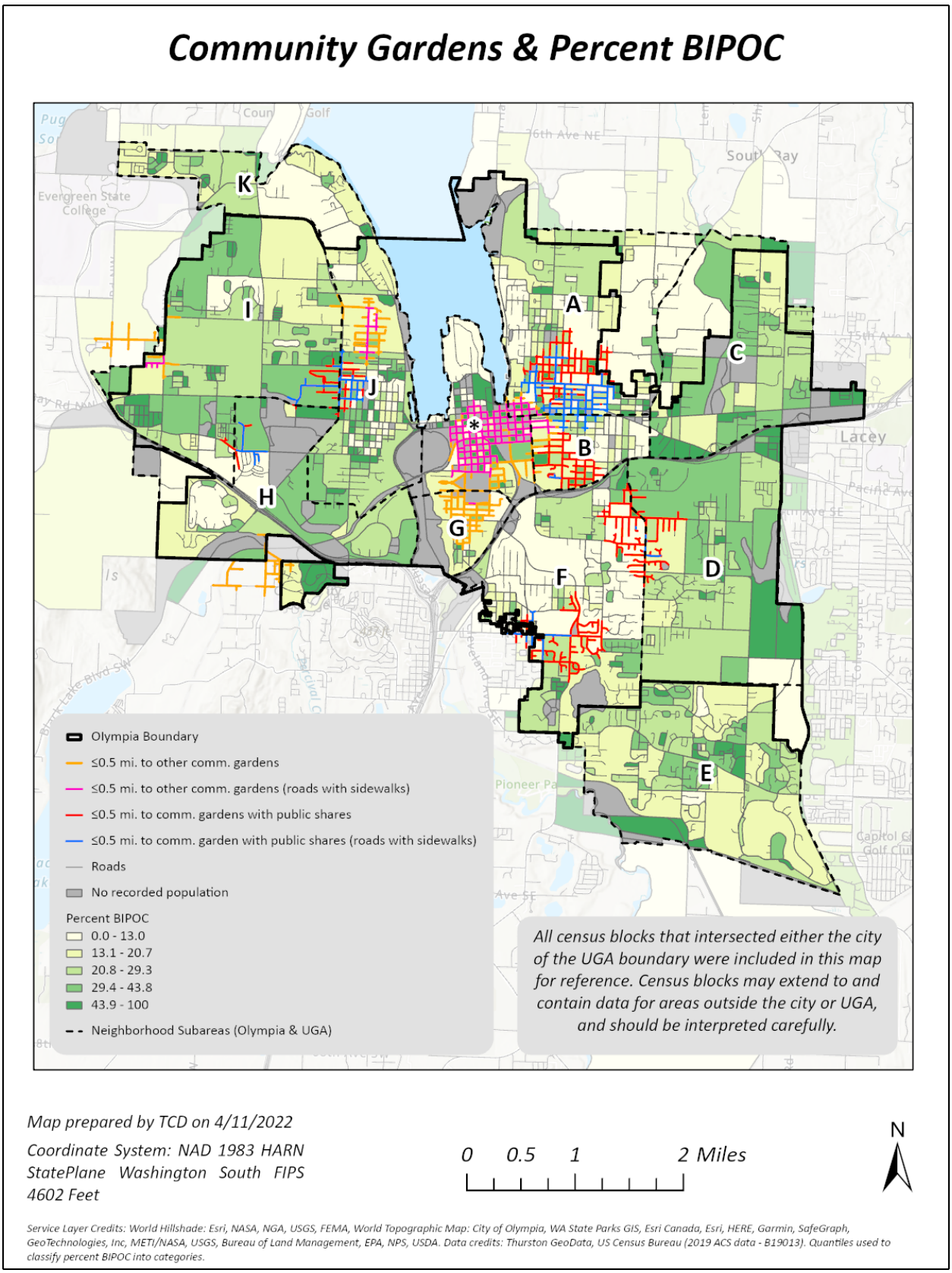


Figure 16. Accessibility of community gardens and percentage of BIPOC residents by census block.

In terms of percentage of BIPOC residents, significant portions of the city with relatively greater BIPOC populations were excluded from community garden access, particularly in the western, southwestern, and eastern portions of the city (Figure 16).

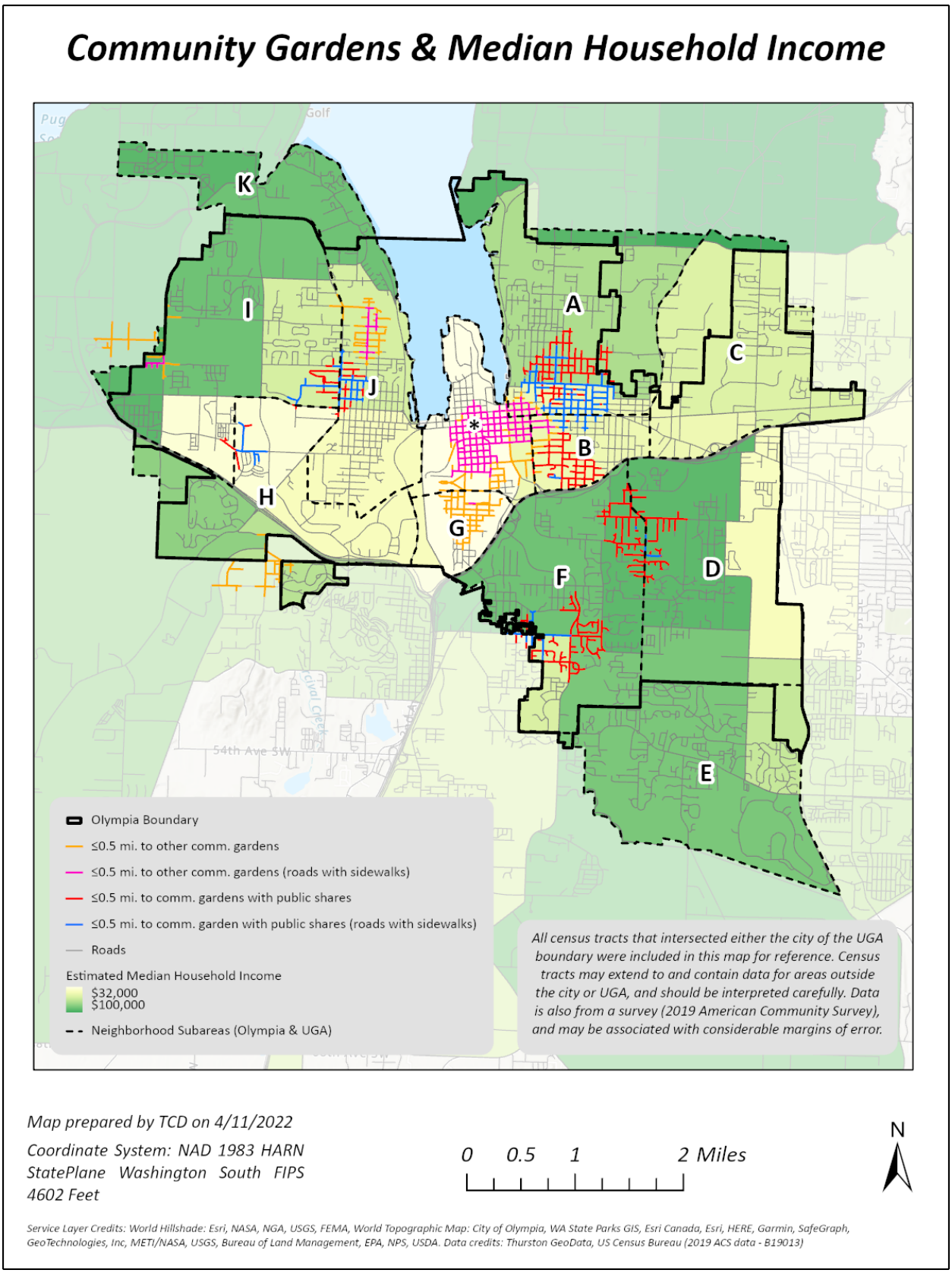
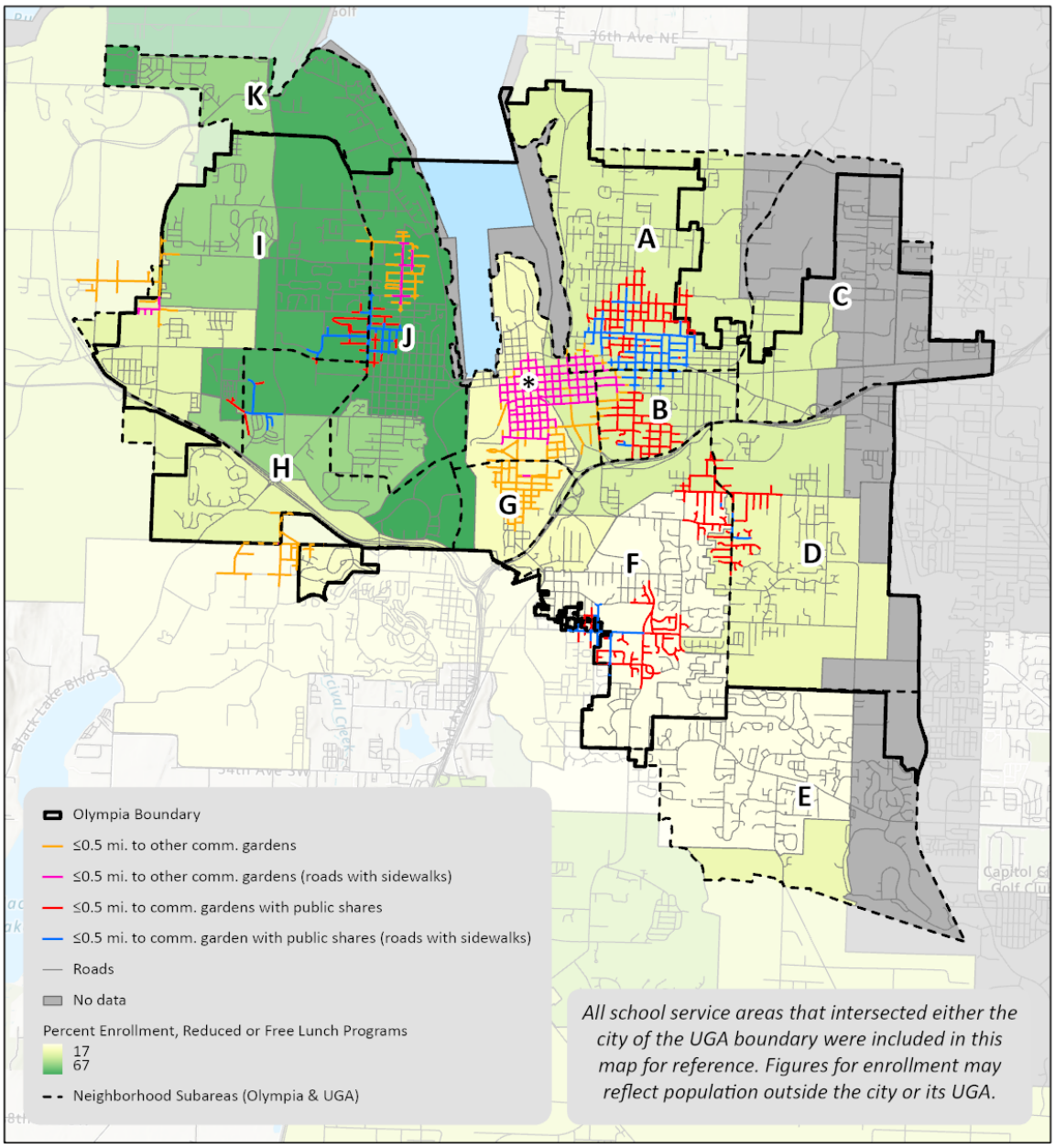


Figure 17. Accessibility of community gardens and estimated household income by census tract.

Similar to local food access, the picture in relation to median household income is complicated. Both areas with lower and higher median household income had good to average accessibility to community gardens. However, underserved areas included areas with both above and below average median household income.

Community Gardens & Enrollment in Reduced or Free Lunch Programs



Map prepared by TCD on 4/11/2022

Coordinate System: NAD 1983 HARN StatePlane Washington South FIPS 4602 Feet

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Service Layer Credits: World Hillshade: Esri, NASA, NGA, USGS, FEMA, World Topographic Map: City of Olympia, WA State Parks GIS, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA. Data credits: Thurston GeoData, Olympia SD and Tumwater SD school performance reports.

Figure 18. Accessibility of community gardens and enrollment in reduced or free lunch programs by elementary school service areas.

Within Olympia city boundaries, community garden access was relatively lacking for much of the school service areas in West Olympia, which had a relatively higher enrollment in reduced or free lunch programs. Other peripheral areas of the city also had no accessible community gardens. Likewise, community garden access is also lacking for school service areas in the east of the city, for which data was lacking.

Potential Agriculture

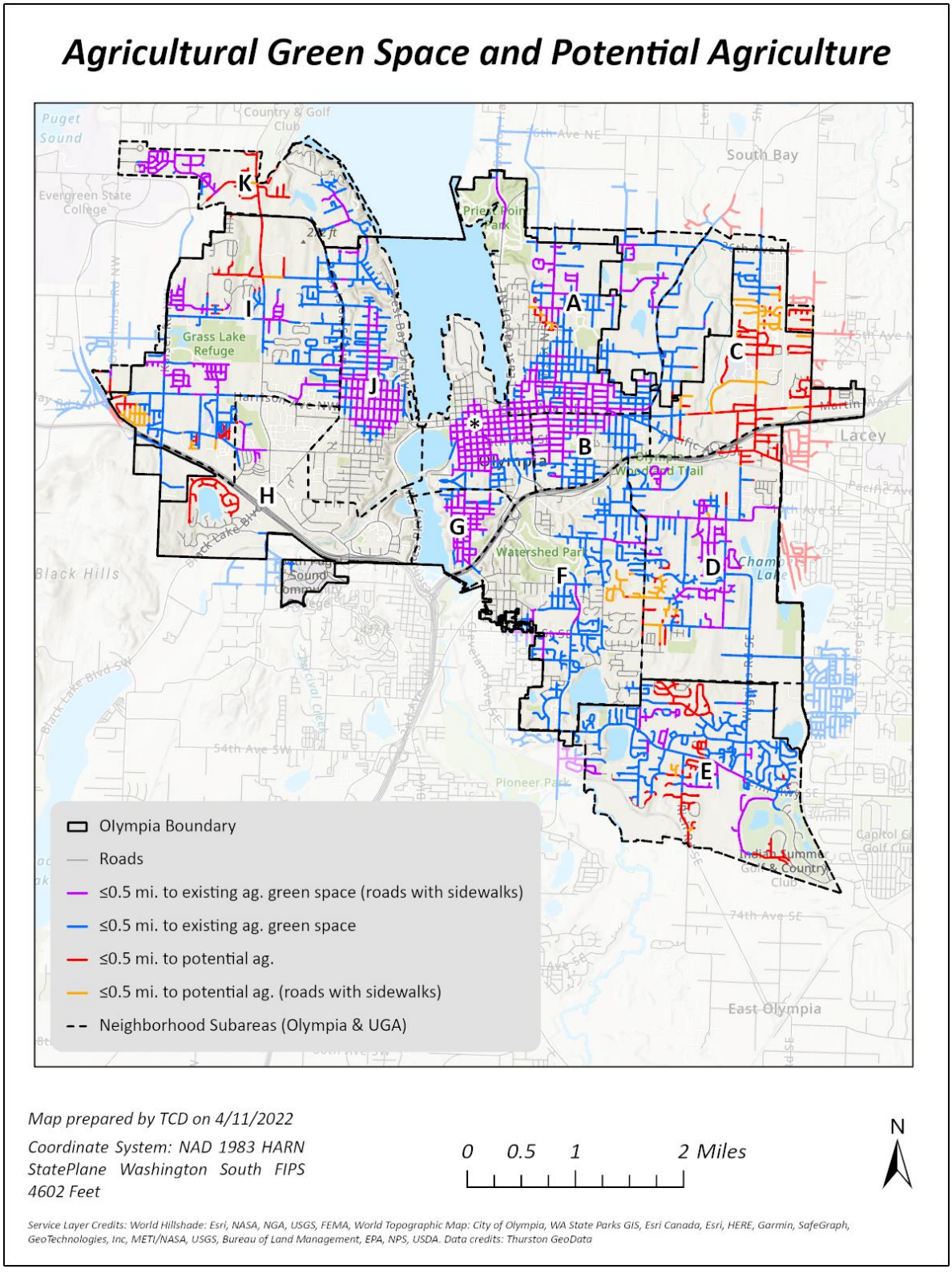

Figure 19. Accessibility of existing agricultural green space superimposed over service areas for potential agricultural zones, showing areas for potential expansion of local agriculture.

Agricultural green space has the potential to grow within the city and its UGA. Potential agricultural land, which was delineated in the Olympia Farmland Analysis, located contiguous areas of open space equal or greater than 1 acre in size.

In Figure 19, the service areas of potential agriculture was overlaid by the existing access layers for agricultural green space. This shows areas where agricultural green space access could expand in the city.

The greatest potential exists in areas identified as already poor in accessibility to agricultural resources in the northeast of the city in subarea C. Nearly all roads within this area of the city are located within 0.5 miles of an identified area of potential agriculture. This area was also identified as having a higher percentage of BIPOC residents and a lower estimated median household income compared to the rest of the city.

Smaller areas of potential expansion also exist around the city boundary in west Olympia in subareas H and I, in the southeast of the city and its UGA in subareas F and D. The area with least potential is in the southwest of the city in areas of subarea H and J where no potential agriculture was identified. However, there may be potential for developing resources at a smaller scale than what was considered for potential agriculture (≥1 acre).

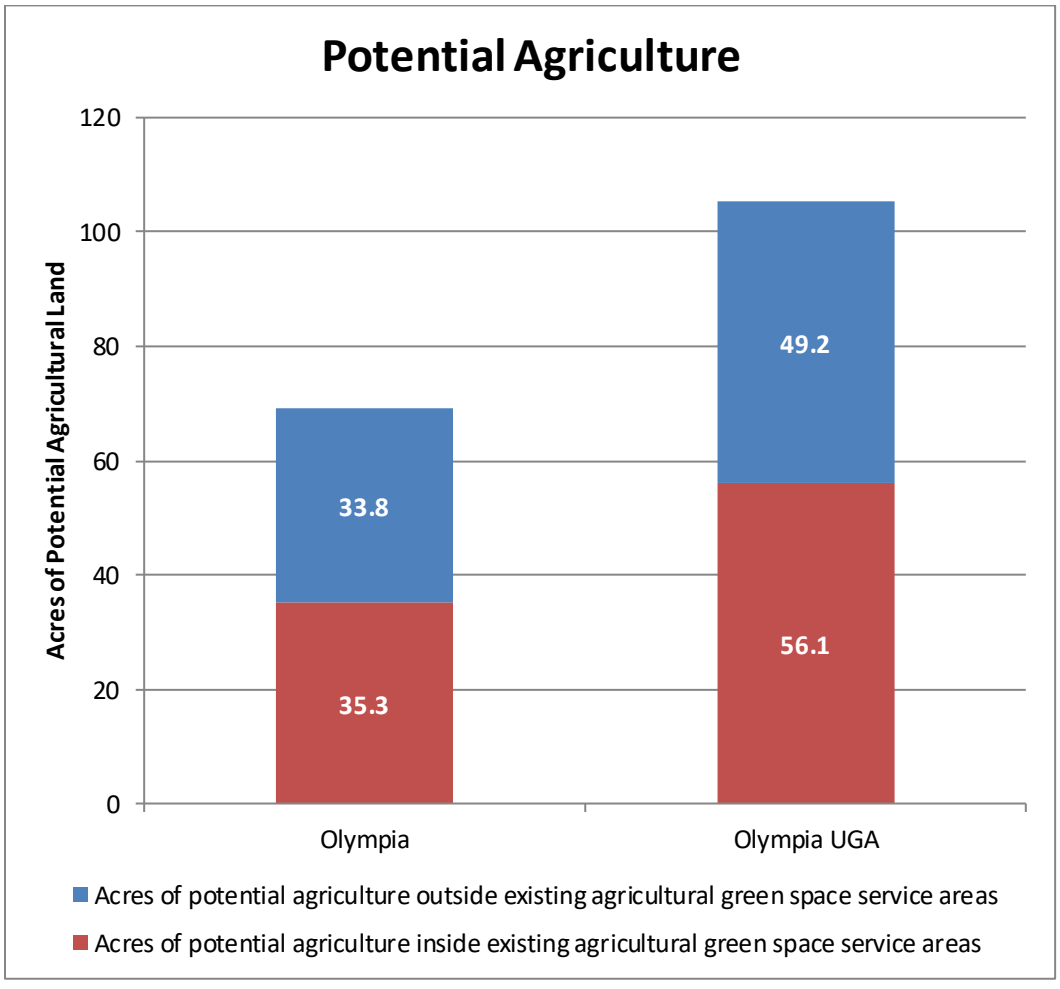

Figure 20. Acreage of potential acreage inside and outside service areas of already existing agricultural green space areas. Areas in blue represent acreage available for growth of local agriculture in unserved locations in the city.

The total amount of potential agricultural land in Olympia and its UGA was split, depending on if they were already located in areas that had accessibility to agricultural green space (areas already under cultivation), or were outside this zone and represented an opportunity for expansion of agriculture in the city and its UGA.

Within both Olympia and its UGA, slightly less than half of total potential agricultural land – as identified in the Olympia Farmland Analysis – lay outside the service zones for existing agriculture green space.

All Agricultural Resources

In order to determine overall availability of local food and agriculture to city residents, all agricultural resources considered in this analysis were considered together. The result was very similar to the maps for agricultural green space; it only differed where it included locations where local food was accessible but not grown, such as farmers markets or off-farm farm stands.

Two additional factors were considered in light of the collective pool of agricultural resources, namely residential zoning categories and the percent of population with a disability. Residential zoning categories helps show the relative density of population that agricultural resources are serving, as well as the relative concentration of population in underserved areas. A number of zoning categories, namely RM 24 (Residential Multifamily – 24 Units per Acre), RMH (Residential Multifamily – High Rise), RMU (Residential Mixed Use), and UR (Urban Residential), only allow certain agricultural uses subject to certain conditions, as specified in chapter 18.04 of the Olympia Municipal Code. These particular zones are grouped and colored similarly in Figure 21.

Population with a disability is particularly important in light of accessibility as it relates to sidewalks. Roads with sidewalks are limited in particular areas, and expanding access could significantly boost accessibility in these areas.

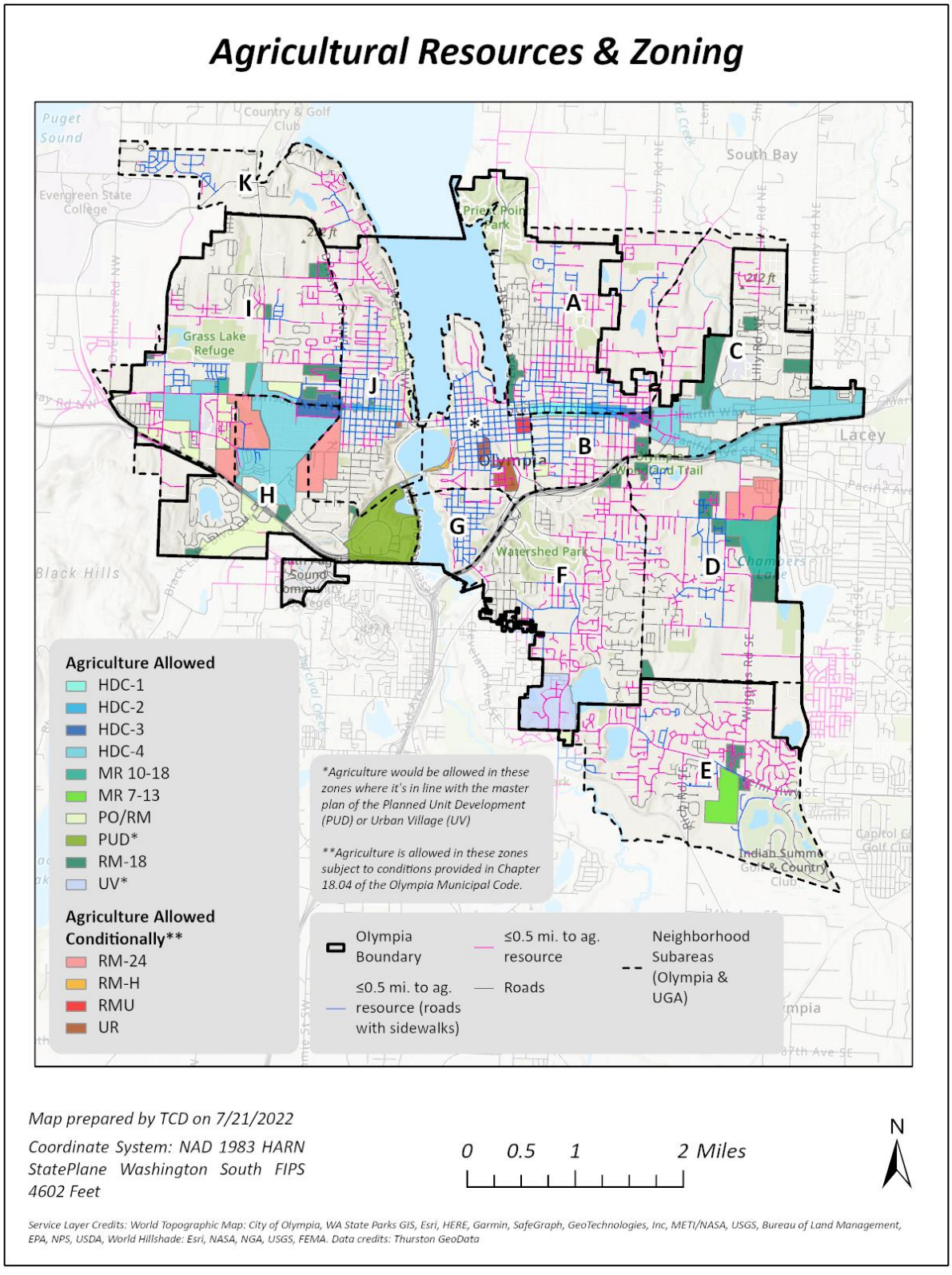

Figure 21. Accessibility of all identified agricultural resources in context of zoning categories.

Agricultural resources coincided with HDC (High Density Corridor) zones running east-west just east of downtown and along Harrison Rd. However, some areas of HDC zoning, particularly areas of HDC-4 zoning in Southwest Olympia in subareas H and areas in the east of the city in subarea C were lacking any agricultural resources. Agriculture is allowed within these zones, but is unlikely due to high density nature of these corridors. This makes preservation of urban agricultural land and expansion of agricultural resources in the surrounding areas particularly important for such areas in terms of access to urban agriculture.

Areas of multifamily housing, particular areas zoned as RM-18 (Residential Multifamily – 18 units per acre) in subarea C, and an area along East Bay Drive in subarea A, were also outside a 0.5 mi. walkable distance from agricultural resources and represent another opportunity for expansion of agricultural resources.

The largest zoned area without access to any agricultural resources is the Evergreen Park Planned Use District (PUD). Agricultural use in such zones areas depends on the allowed uses under the PUD's Master Plan.

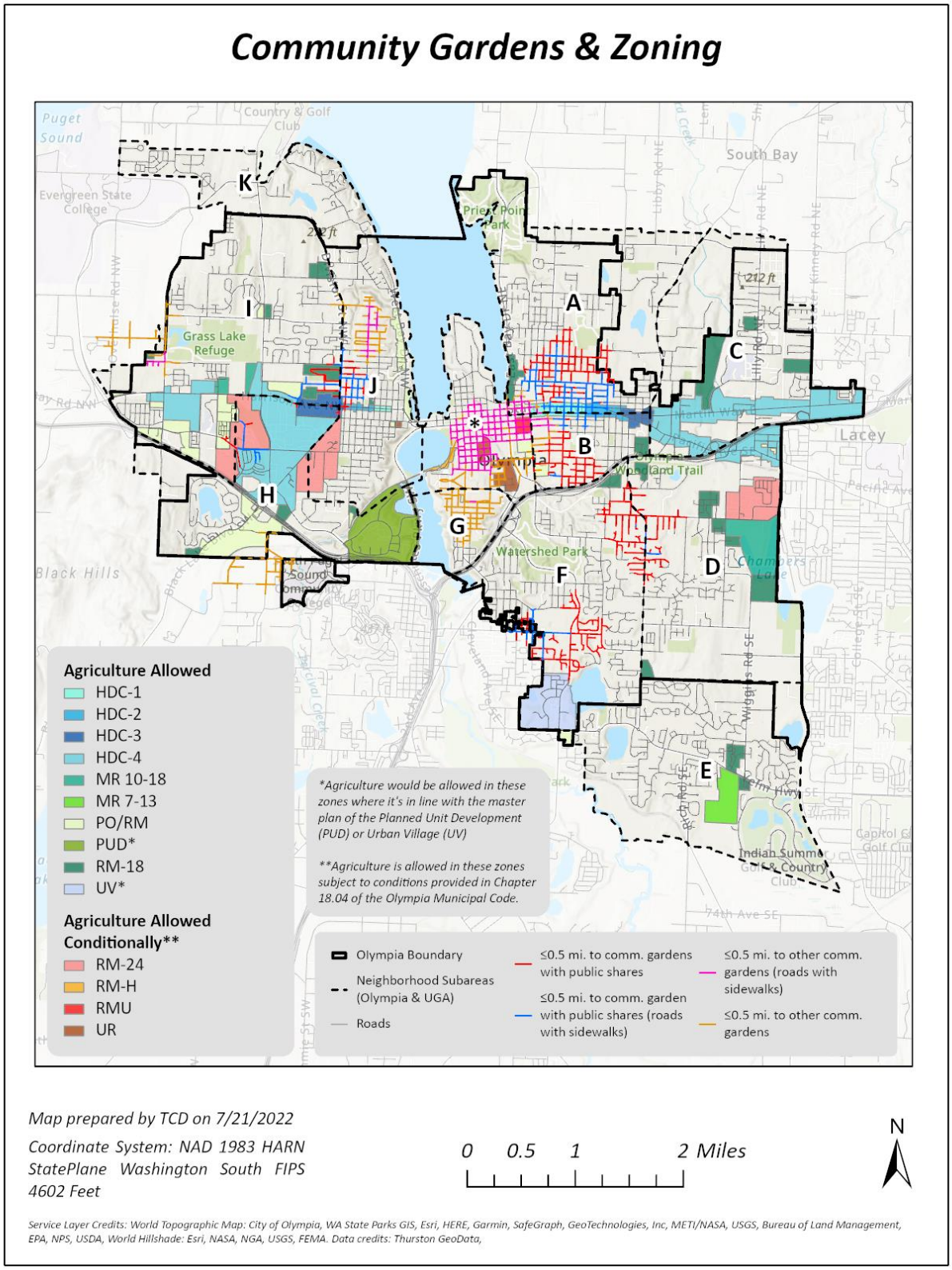

Figure 22. Accessibility of community gardens in context of zoning categories.

Community garden access is particularly important aspect to consider for those who are in zones where agriculture is limited to conditional uses (RM-24, RM-H, RMU, and UR) or in zones where agriculture is allowed, but where the high density nature of development means that urban agriculture is more likely to be found in adjacent areas.

Due to the lower number of community gardens compared to other agricultural resources, this means that many residents – particularly those at the periphery of the city - lack access to this particular option of growing their own food.

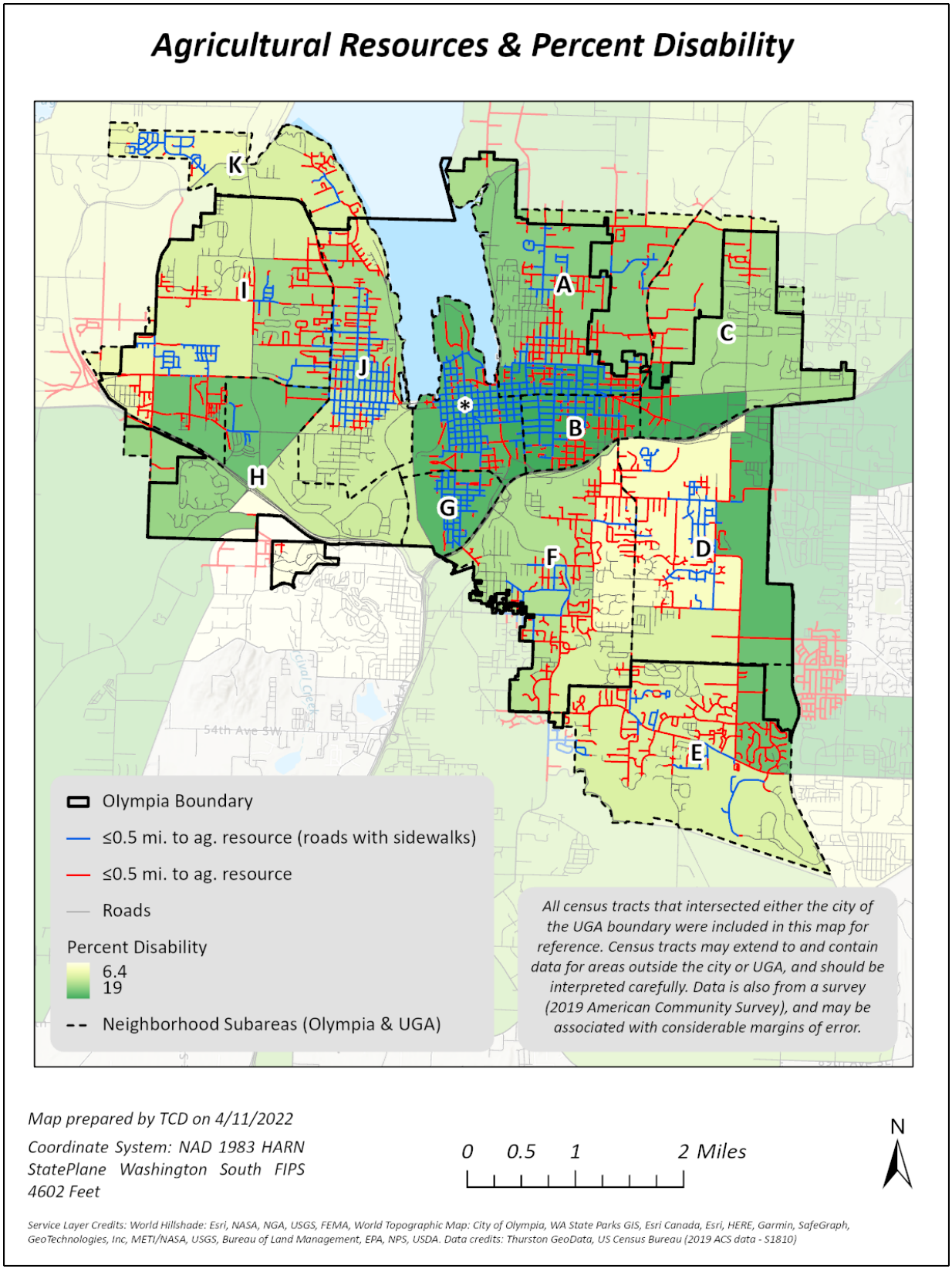

Figure 23. Accessibility of all identified agricultural resources and percent disability by census tract.

The percentage of the population with a disability was also considered, particularly in context of sidewalk availability. Census tracts with the highest percentage of disabled population were more likely to be within 0.5 mile proximity to agricultural resources, when considering only roads with sidewalks, particularly in the city's downtown and in subareas G, B, and southern portions of A. Census tracts in the east of the city in subareas C and D also had higher percentages of disabled population, but limited sidewalk access (Figure 23).

However, not all sidewalks are ADA accessible, and proximity does not necessarily equate with accessibility. For a more comprehensive view of overall accessibility, future work could focus on integrating data from the ADA Transition Plan into this analysis and reviewing accessibility along roads with ADA-complaint sidewalks.

An additional caveat is that the measure considered here – percentage disability – may not directly correlate with a need for ADA-accessible sidewalks. Mobility may look different for different types of disabilities.

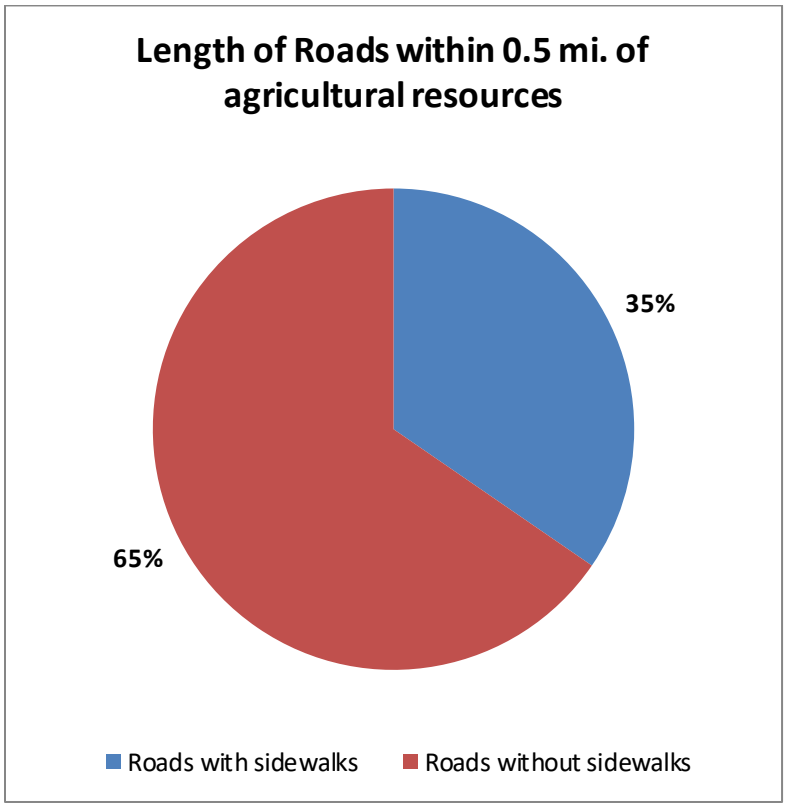

Figure 24. Length of roads in service areas around agricultural resources, by service area type. Service areas for roads with sidewalks only extend as far as roads have adjacent sidewalks.

Overall, approximately 35%, or slightly over a third of all roads within 0.5 mi. of an agricultural resource have sidewalks (Figure 24).

In some situations, short stretches of road without sidewalk separate resources from extensive population areas, as well as existing networks of roads with sidewalks. The Olympia Community Garden, discussed earlier in the report, is one example of this.

Limitations

Change in function

Local agriculture is dynamic and for some of the identified sites in this analysis, some were in a state of transition. For example, some locations fulfilled multiple functions in the community (e.g. a farm producing local food with on-farm sales, also allowing for direct local food access), while other locations were transitioning out of agriculture.

This analysis represents a snapshot in time for late 2021/early 2022. It is likely that over time, the function of these agricultural resources will change. An area of cultivated ground may shift in function over time, but those functions are contingent on that area's continued existence as open agricultural space, which represents the most fundamental category of agricultural resource considered in this analysis.

Areas of future investigation

Some locations where local food is available, such as CSA pick-up spots, home gardens, or local free food produce boxes, were beyond the scope of this analysis. These were either subject to rapid change and/or would require additional work, potentially with surveying residents during the growing season.

Other aspects of the local food system were considered by the workgroup. Due to a lack of data, they were not included in this work, but could also form the basis of future investigation.

- Availability and presence of home gardening
- Presence of free produce boxes
- Consideration of the overall volume of produce generated
- Gardening and agricultural skills of the population
- Health indicators

Conclusion

This analysis helps establish accessibility of the local food system for Olympia and its UGA, and considers it from many angles. A large number of datasets were generated, providing comparisons between accessibility to multiple aspects of the local food system in light of multiple socioeconomic factors.

A number of key findings were presented here, particularly areas underserved by any agricultural resource, the potential for expansion in those areas, and the need for sidewalk accessibility to many existing resources.

The analysis here could be expanded on, both to other areas, or expanded in scope to consider additional factors related to equity and food justice. Additionally, additional work can be conducted examining areas of potential agriculture in underserved areas, and how the local food system could grow in these areas.

Acknowledgments

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