



1400 Queen Ave SE • Suite 201 • Albany, OR 97322  
(541) 967-8720 • FAX (541) 967-6123

---

## MEMORANDUM

**DATE:** April 11, 2023

**TO:** Jason Yaich, City of Corvallis  
Rian Amiton, City of Corvallis  
Anne Catlin, City of Albany  
Ron Irish, City of Albany  
Chris Workman, City of Philomath

**FROM:** Justin Peterson, Community and Economic Development Planner  
Nick Meltzer, Transportation Manager  
Mary Bach-Jackson, GIS Analyst

**RE:** **Climate Friendly Area Anti-Displacement Methodology - Vulnerability Index**

---

This memorandum contains a description of the methodology OCWCOG staff developed to create a vulnerability index for the Albany Area and Corvallis Area MPO regions. In addition to creating a tool to be used for new and ongoing projects, these maps are provided to the cities of Albany, Corvallis and Philomath for use in the statewide Climate Friendly Area Anti-Displacement process. An overview of the rulemaking is provided below, along with more details on why and how the methodology was developed.

## BACKGROUND

The Oregon Department of Land Conservation and Development (DLCD) established new rules related to land use and transportation planning in 2022, in line with an Executive Order from former Governor Kate Brown to reduce greenhouse gas emissions and address climate change. As part of that process, certain cities must designate “Climate Friendly Areas,” and then review any potential negative implications of establishing new land uses. Specifically, this is referred to as the “Anti-Displacement Analysis.” From the rules:

Cities and urbanized county areas within these metropolitan areas (outside of the Portland metropolitan area) with a population of more than 5,000 and within an urban growth boundary (UGB) are required to designate Climate-Friendly Areas (CFAs) of a certain size. These jurisdictions are first required to submit a study of potential CFAs. Parts of this study require inclusion of plans to achieve fair and equitable housing outcomes within climate-friendly areas. OAR 660-012-0315(4)(f):

*Plans for achieving fair and equitable housing outcomes within climate-friendly areas, as identified in OAR 660-008-0050(4)(a)-(f). Analysis of OAR 660-008-0050(4)(f) shall include analysis of spatial and other data to determine if the rezoning of potential climate-friendly areas would be likely to displace residents who are members of state and federal protected classes.*

*The local government shall also identify actions that may be employed to mitigate or avoid potential displacement.*

Step 1 is the Spatial Analysis and Step 2 is the Planning Analysis of the Anti-Displacement Study. COG is responsible for the Spatial Analysis. The Anti-Displacement Spatial Analysis is described in Task 3.1 of the scope of work:

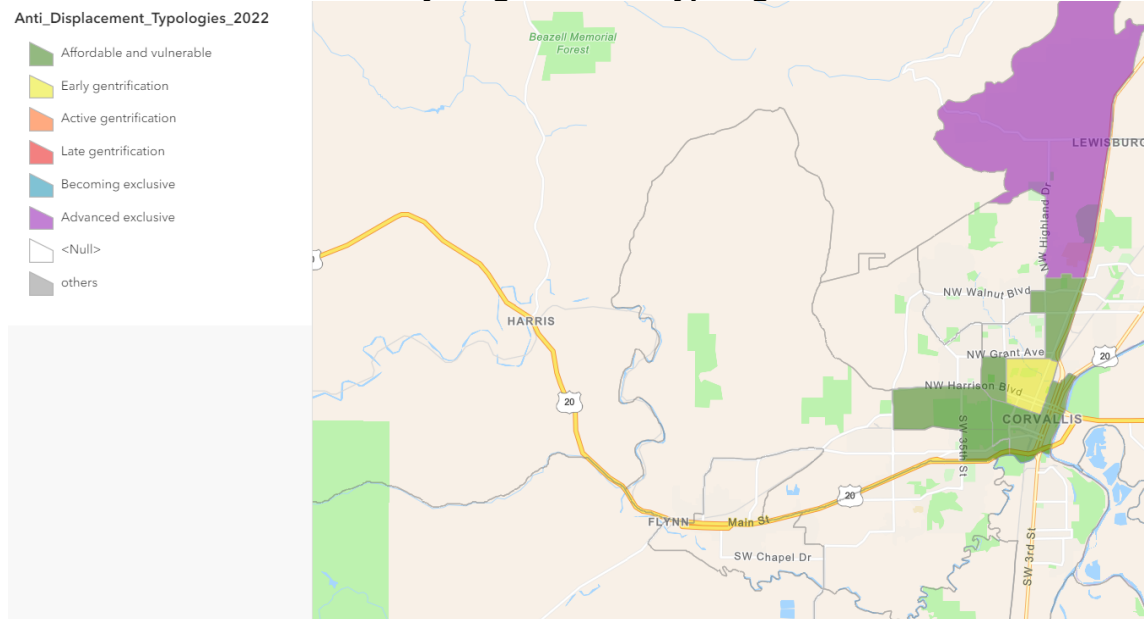
*The purpose of this task is to identify if CFA designation within any of the studied areas would have a significant potential to displace members of state and federal protected classes. COG shall use the Anti-Displacement Map layer to inform the selection of CFA zones and report on findings of candidate CFA zones for Project Management Team and Public Workshop materials.*

The Portland State University (PSU) Anti-Displacement Toolkit defines neighborhood typologies by census tract and provides housing production strategies (Exhibits 1 and 2). Use of this tool involves overlaying the Neighborhood Typologies with candidate CFAs to identify areas that have displacement risk. However, in Corvallis, Albany, and Philomath most census tracts are left “unassigned” by this methodology and provide no context for many of the candidate CFAs. There are similar difficulties in using the tool in Albany where two census tracts are defined as “affordable and vulnerable”. This area overlaps with candidate Sites A and B and. All other candidate CFAs in Albany are “unassigned”.

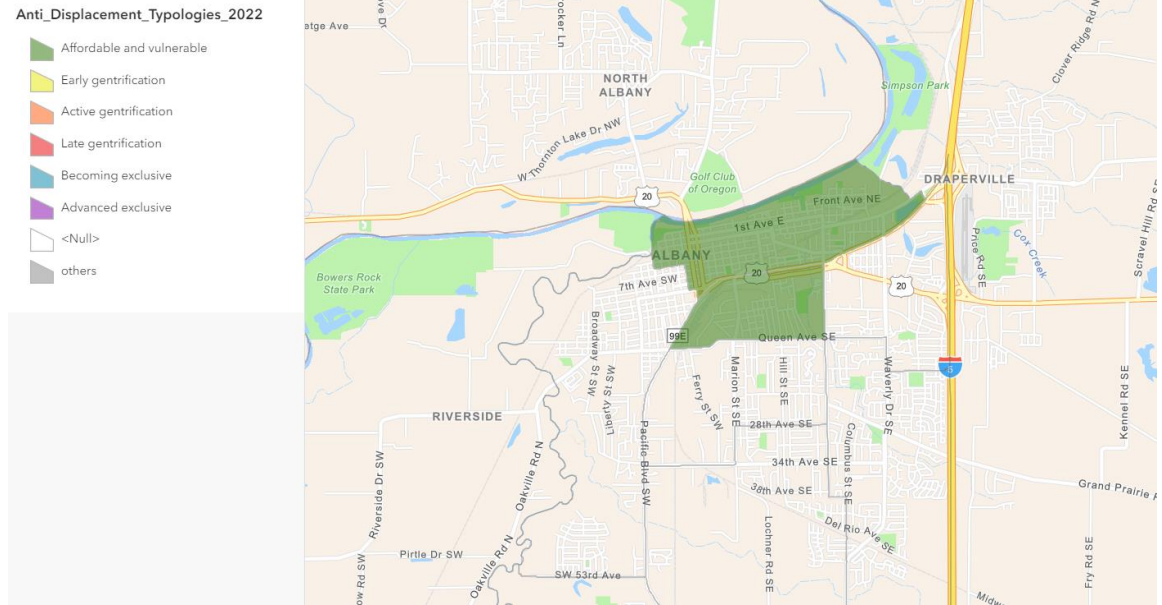
This analysis uses the methodology developed by PSU and the associated Neighborhood Typology maps. The typology map is described in the DLCDC “Implementation Guidance OAR 660-012-0315 CFA Anti-Displacement Analysis”.

[CFA Anti-Displacement Map \(arcgis.com\)](https://arcgis.com)

### Exhibit 1: Corvallis and Albany Neighborhood Typologies

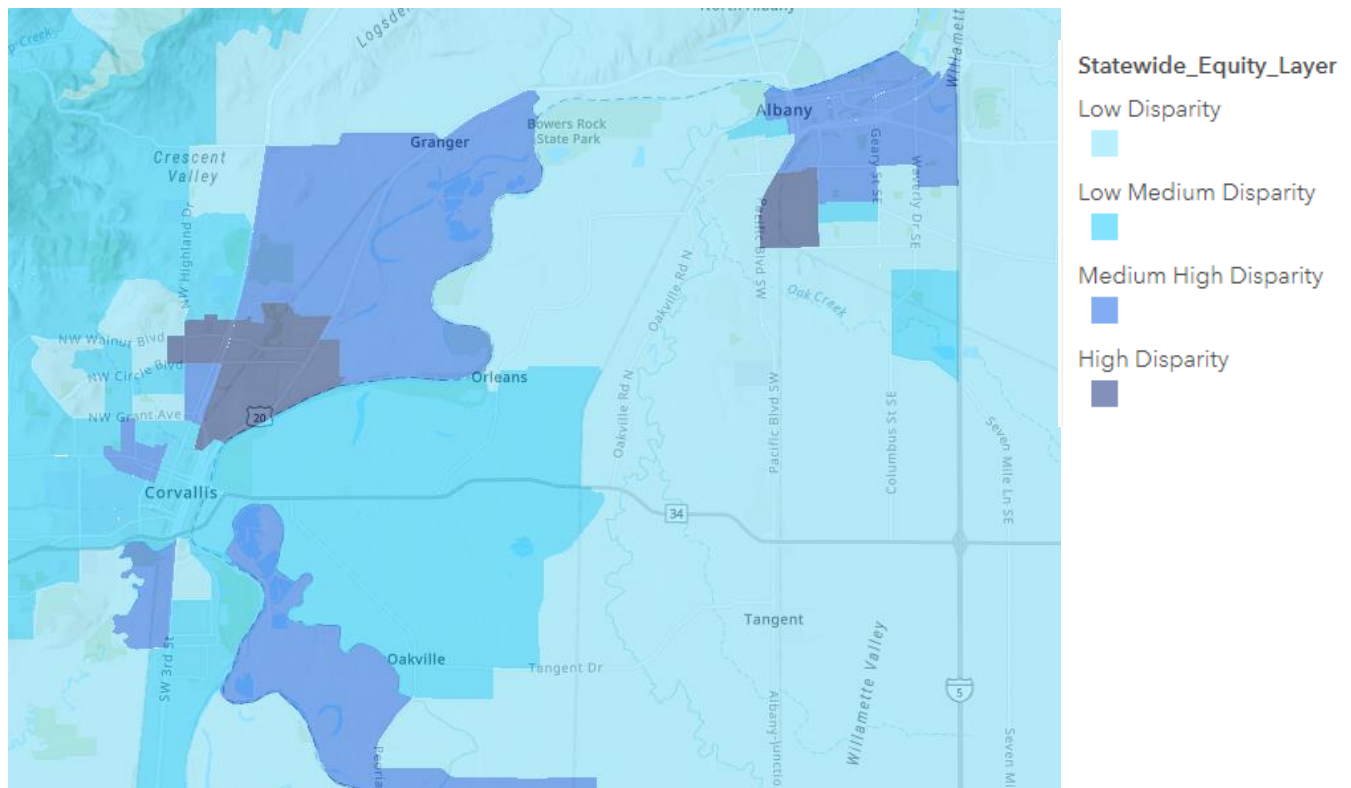


## Exhibit 2: Albany Neighborhood Typologies



Another tool recommended by DLCD to help ensure that CFA sites did not have significant potential to displace existing inhabitants was the [ODOT Social Equity/ Disparity Map](#). Unfortunately, there was insufficient information on methodology to allow us to utilize this information to determine the impact of the CFA sites.

## Exhibit 3: ODOT Social Equity/Disparity Map



After reviewing both of these tools and finding they would not meet our needs either due to a lack of granularity (PSU's tool) or methodology details (ODOT's tool), we decided to use Metropolitan Planning Organization (MPO) funds to develop vulnerability maps of the Albany Area MPO and Corvallis Area MPO regions. Creating local vulnerability maps would also allow us to take advantage of the smaller block group area geometries available for the data and provide more granularity. As an example of this, Census Tracts represent between 1,200 and 8,000 people, with an optimum size of 4,000 people. While Block Groups represent between 600 and 3,000 people and are sub-boundaries within Census Tracts. At a small urban scale such as Albany and Corvallis, block groups present a more detailed analysis compared with census tracts.

The purpose of the spatial analysis is to give cities information needed to complete the Planning Analysis and create a final anti-displacement report.

## VULNERABILITY MAPS METHODOLOGY

OCWCOG conducted the vulnerability index; in addition, to the PSU and ODOT tools. The methodology determines: where the city's most socioeconomically vulnerable populations are currently located. In part this analysis answers the question, "Who is most likely to be displaced if housing market conditions were to further appreciate in price or stay the same?". Future development is expected within CFAs and potential displacement of existing residents must be evaluated and mitigated. The local government is tasked with identifying actions that may be employed to mitigate or avoid potential displacement.

### **Socioeconomic Vulnerability Methodology (Vulnerability Index)**

Our analysis looked at eight data sets (indicators) associated with socioeconomic vulnerability by block group. People with one or more disabilities data was at the census tract level due to data availability. Data from the 2015-2019 American Community Survey, 5-year estimates was used.

- Low Income Population (Population below federal poverty line) – Table ID: B17021
- Non-white Population – Table ID: B02001
- Seniors above 65 - Table ID: B01001
- People with one or more Disabilities – Table ID: B18101 (By Census Tract)
- Limited English Proficiency (LEP) Population – Table ID: C16002
- Households with children present – Table ID: B11012
- People 25 years and older who have an educational attainment of less than a High School Diploma – Table ID: B15003
- Renter Households – Table ID: B25003 Tenure (Renter occupied total/ total = %)

**How was the Vulnerability Map made?** Two maps were created: Albany used the AAMPO region, and Philomath/Corvallis used the CAMPO region. The AAMPO region has 41 block groups, and the CAMPO region has 55 block groups. The vulnerability map combines information from all eight indicators listed above. The result of this analysis is the identification of block groups with higher and lower concentrations of people in vulnerable groups. Block groups with higher vulnerability levels would indicate places where it is most likely that not only current, but where future housing cost burdening and possible displacement are more likely to occur.

For each indicator, the data was classified into 5 classes using equal intervals. Equal interval is best applied to familiar data ranges, such as percentages and temperature. This method emphasizes the amount of an attribute value relative to other values. Each block group was then assigned a score of 1-

5 for each indicator, with 5 representing the most vulnerable. The final vulnerability index was calculated by adding all of the indicator scores together. Each of the eight indicators used in the vulnerability maps are equally weighted. The lowest score possible for a single block group is eight (the block group being assigned a value of 1 for all eight indicators), the highest possible score for a block group is 40 (the block group assigned a value of 5 for all eight indicators). The higher a block group's score the greater the vulnerability. Block groups were then categorized as Very High (most vulnerable), High, Average, Low, and Very low (least vulnerable) utilizing 5 quantiles. The quantile method divides classes so that the total number of features in each class is approximately the same. The darkest shade of blue on the map indicates areas that have the highest levels of inequity in the population, that is, they have higher percentages of vulnerable populations (See attachment 2 for additional technical details).

### **Why these indicators?**

Vulnerability can mean many things to planning professionals, depending on their area of expertise and program of work. In this context, we understand vulnerability to mean the risk of existing inhabitants being displaced from their home (renters and/or homeowners) due to rising land and property tax costs as a direct result of pressure from new or impending development. These issues can further be exacerbated across neighborhood; where affordable grocery and convenience stores once stood are replaced with boutique shops and high-end food stores—forcing existing inhabitants to travel out of their neighborhood to purchase goods.

In this sense, we used indicators of what we perceive as those who would be most impacted by displacement or have historically been most impacted by displacement. In addition to people of color, this would include those with fixed incomes (older adults and often people with disabilities), those who would negatively be affected by housing instability (families with children, people with low wage jobs), and those with limited means to re-locate (renters, people with limited English proficiency). Many of these indicators overlap with federally protected classes.

This likely does not capture all vulnerable communities, and we intentionally chose not to weight any particular indicator more than others. While some indicators may represent a “more” vulnerable population to displacement, the goal of this exercise was to identify highly vulnerable areas within a city, as compared to other parts of the city.

### **Implications and Next Steps for Candidate Climate Friendly Areas**

The PSU and ODOT methodology can be used with the public and fall within the anti-displacement rules of DLCD. The vulnerability index is an additional tool that cities in the region may utilize. The purpose of the vulnerability index is to identify socioeconomically vulnerable areas across the entire city. This data will then be overlaid with the candidate areas, and areas with high risk can be evaluated in detail by the cities. The mapping analysis utilizes block group boundaries as the best available data. The block group, CFA, and neighborhood boundaries do not always align, and the maps should be supplemented with on the ground outreach and review of existing lands uses. In addition, to the social equity mapping 3J consulting has been conducting interviews, focus groups and other direct outreach with underserved populations. The existing land use analysis will determine the existing uses within the candidate areas. A candidate area with existing commercial development indicates a low risk of displacing residents. The mapping analysis, existing land use analysis, and underserved outreach efforts should be used by each city to inform the anti-displacement planning analysis.

### **Attachments:**

1. Vulnerability Index Maps
2. Technical Methods Memo